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Career, capitals and consumption:

an analysis of the impacts of narrowly-defined occupational

membership on household consumption,

from a human capital and occupational field perspective.

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Thesis is submitted in partial fulfilment of

the requirements for the degree of

Doctor of Philosophy

March 2019

Abstract

This thesis explores the relationship between distinctive, narrowly-defined, occupational groups and their consumption priorities, in relation to goods that represent strategic investments to underpin capitals. Prior interdisciplinary scholarly work envisions individuals' – and, by extension, households' - consumption behaviour as being dependent upon their location in the social space characterized by distribution of capital forms (economic, social, and different types of cultural, capital) and career trajectories. Hypothesizing that households associated with distinctive combinations of capitals differ in their consumption strategies in predictable ways, this relationship is explored via models of household expenditure (in relation to goods that are instrumental for displaying and augmenting individual's capitals, in line with the pressures of social forces and norms in their work environment). Extending this exploration to cross-national comparisons, the thesis further investigates whether distinctive household expenditure patterns are evident in different European national settings.

This analysis employs an interdisciplinary perspective and the first chapter explores the complementarities and conceptual parallels of two major theorists - the prominent economist and Nobel prize winner, Gary Becker (1930-2014), and one of the most influential sociologists of the twentieth century, Pierre Bourdieu (1930-2002). The work of these scholars with respect to capital forms and their association with consumption behaviours is particularly well-embedded in their disciplines. This literature review chapter suggests an approach for clustering individuals of professional-managerial classes to improve within-class homogeneity, in explorations of practices and consumption behaviour.

The empirical exploration consists of the three parts. Chapter 2 explores consumption behaviours of several managerial/professional groups to test whether distinctive patterns of "visible" consumption and its components – presentational, socialization-related and informational goods - can be identified, consistent with capital combinations required for membership of, and advancement within, particular occupational fields. Britain's *Living Costs and Food survey* (2009-2016) is used to test whether occupations with similar combinations of capital forms (economic, social, and cultural) are significant determinants of differences in visible consumption for the six "narrow" occupational groups used in this study: higher- and lower- private sector management; public sector management; business professionals; technical professionals; and educational professionals. As the major method,

the paper employs pairwise comparison of occupational effects within the single seemingly unrelated regression model for the four expenditure aggregates.

Treating personal savings as a commodity, Chapter 3 suggests that social pressures associated with an individual's occupation matter for their savings as a part of the strategy for maintaining material interests. It argues that the interpretative power in the analysis of the determinants of personal savings could be improved with the addition of "occupational" variables, defined narrowly, as a beneficial way of augmenting within-group homogeneity and accounting for variation in social influences. The analysis of data from the *Understanding Society* survey (2009-2015) explores saving behaviour among these clusters using the cross-sectional and random-effects panel logistic regression models, for the propensity to save, and the random-effects panel Tobit model for levels of monthly savings among individuals in different occupational groups.

Expecting a footprint of the institutional setting on economic behaviour of individuals, Chapter 4 explores the consumption priorities for wealth-signalling, presentational, socialization-related and informational goods, in three national contexts (UK, France and Hungary) using their national household budget surveys. The dimensions in the theory of comparative capitalism are hypothesized to impact the patterns of consumption behaviour of the same occupational groups across the national contexts. The paper explores the between-occupational differences and also investigates the residual correlations from seemingly unrelated regression models to learn about the cross-national differences in the underlying motivations guiding individuals' choices.

The thesis makes contributions to the sociology of consumption, highlighting the value of narrowly-defined occupation for quantitative analysis of consumption-related behaviours. Acknowledging the role of occupation as a collectivity with the shared culture of consumption, the study illustrates the predictability of preferences in demand for some commodities, informed by prior sociological and anthropological insights. Viewing priorities in consumption strategies as a distinctive characteristic of each professional class, the thesis contributes to knowledge of occupational identities, both nationally and internationally. The observed underlying differences in the "use-value" of commodity aggregates revealed by the study suggest cross-national differences in motivations prevailing in occupational groups. The theoretical rationale and empirical findings of the thesis support the importance of interdisciplinary dialogue.

Acknowledgements

I owe a deep debt of gratitude to my supervisor – Professor Peter Scott, whose knowledge, wisdom, and keen scientific intuition have been illuminating my thoughts and shaping my vision throughout my Ph.D. programme. Although being a busy academic himself, Peter has been generous with time. He supported my initiatives with profound advice and, importantly, a good deal of optimism. He always believed in me and in success of this thesis. I am very thankful for his kind support, attentive guidance and encouragement. I am also grateful to Peter for helping me edit the thesis. Being supervised by Peter was a great privilege that I have been blessed with.

I am thankful to the members of the examination committee – Prof. James T Walker and Prof. Andrew Newell for their valuable comments and recommendations, which helped me make the thesis stronger.

At the early stages of the thesis I received comments, advice and support from many members of the Department of International Business and Strategy. I am particularly thankful to Prof. Mark Casson, Prof. Davide Castellani, Dr. Peder Greve and Prof. Peter Miskell for their advice and insightful discussions at different stages of my project. I thank Research and Enterprise department of the UoR and Prof. Davide Castellani for their help in obtaining access to the data. I am grateful to Prof. Rajneesh Narula for kindly letting me use his office to ensure safe virtual environment and data security. I thank Dr. Sarah Jewell at the Department of Economics for the valuable econometrics module – for her gentle and solid introduction into analytical techniques and the software that I used in my research.

I am grateful for the University of Reading, Henley Business School and the Department of International Business and Strategy in particular for providing the scholarship, funding for conferences and workshops and a variety of learning activities that allowed me do my research and be always surrounded by a vibrant community of experienced academics, enthusiastic emerging scholars and ambitious Ph.D. students. I thank scholars at the conferences and workshops that I attended – both those highly supportive of my work and those, whose critical comments made me double my efforts and rigour.

A special thanks to my husband, my mother and my mother-in-law for all the sacrifices that they have made on my behalf, for their support and encouragement throughout my work on the thesis. I am thankful to my children for cheering me up, being patient with me and understanding my devotion to this thesis.

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Chapter 1. Capitals and consumption. Introduction to the interdisciplinary debate

This thesis explores the relationships between the career orientations of individuals and consumption orientations, especially in regard to visible expenditure. It draws on the theoretical perspective, which suggests that career orientations produce distinctive combinations of capitals, while elements of visible consumption augment those capitals and signal competitive success in the career field.

Traditional analysis of consumption and saving behaviour in the positivist tradition devotes insufficient attention to narrowly-defined occupational membership. This hinders exploration of dispositions, lifestyles, preferences and priorities, characteristic for members of particular occupational fields. Such knowledge, however, may have important implications. First, insights about the distinctive consumption patterns of narrow occupational groups, defined by capitals, would re-emphasize the value of occupation as a salient determinant of consumption priorities and an important classifier in modelling consumption and savings behaviour. This is valuable, given inter-class penetration of tastes and consequent growing obsolescence of class from the perspective of consumption behaviour. Therefore, capitals pertinent to more specific occupational fields may explain and predict some regularities in consumption-related behaviour. Secondly, the findings of research that uses positivist approaches to dispositions of narrowly-defined occupational groups would activate interest in the mechanisms underlying these dispositions, that would be beneficial for motivating further research on occupational networks. Thirdly, identifying and using quantifiable measures of dispositions across occupational groups would facilitate inter-temporary and cross-national comparisons within career fields.

Consumption has long been considered as not a primarily economic event, but rather as embedded in social context. Theorists suggest that the strength of motives for consuming, and also motives for saving, varies according to habits formed by a number of subjective and social incentives (Becker and Murphy, 2000; Bögenhold et al., 2016; Bourdieu, 2010; Keynes, 1936; Veblen, 1899). They view emulation as a root for ownership and emphasize the competitive motive in consumption-related behaviour in the context of fields and strategic consumer orientation to maintain material interests and social comfort. According to this view, observing consumption behaviour patterns and preferences may characterize lifestyles, identities and underlying motivations of individuals and households, tell stories about social

groups and signify cross-national cultural differences. Synthesis of interdisciplinary theoretical propositions, thus, allows empirical explorations of consumption patterns to reveal relative priorities in preferences as characteristics of career fields.

This thesis principally draws on the parallel conceptualizations of two theorists – Gary Becker, a Nobel Prize-winning American economist renowned for his extensive work in family economics, and Pierre Bourdieu, one of the most influential twentieth century sociologists. The Bourdieusian notion of habitus and the theory of practice on one side and Becker's view of strategic investments in types of personal and household consumption along with the impact of capitals on the other side, offer the perspectives to explore the following research question:

> *"How do consumption strategies differ within and between the nations across the groups of individuals signified by differences in combinations of human capital elements?"*

1.1. A large underexplored terrain - How come?

Long-term consumer behaviour and individuals' strategic consumption in different social contexts remains an undeservingly neglected interdisciplinary area. From its roots in a "universal social science", economics and sociology matured as separate scientific fields with their own epistemological traditions (Bögenhold et al., 2016). The rift between disciplines is to blame for so many questions in long-term consumption behaviour being left unattended, and substantial interdisciplinary areas remaining under-examined and under-theorized (De Vries, 2008). The positivist approach to consumption traditionally views it as a function of external factors and previous attempts to account for social interaction in modelling were considered as a sign of heterodoxy. Scholars in non-economic social sciences approach consumption from the behavioural perspective, exploring the broad range of consumer characteristics, motives, attitudes and contexts. Some scholars argue that consumption is not primarily driven by economic and social influences; rather, it is "a cultural phenomenon" in the society whose agents assign their own meanings to goods. De Vries (2008) shows that even during the Industrial Revolution, which seems to be a prime example of technology-driven demand, it was still family-level decisions, a general strategy of a household, and interaction between households that drove the demand.

Despite the differences in epistemological stances of economics and sociology and consequent disagreement in approaches, there are undeniable parallels in how some economists and sociologists view different capital forms, or human capital elements (economic, social, cultural forms of capital), as individual resources which determine individuals' economic behaviour. While an extensive body of literature theorizes practices and lifestyles of individuals from different occupational fields, the sociological and anthropological findings are rarely embedded in powerful analytical frameworks (Becker, 1996).

There were attempts to bridge economics and the other social sciences in response to economists' insufficient effort to unpack the demand side of consumption. Traditionally, as posited by Adam Smith, the consumer was viewed as a rational utility-maximizer that acts within the limited budget constraint and the interaction between individuals was largely neglected. Later, the Marxist view of consumption as being driven by external forces, predominantly by the needs of capitalist producers, was challenged by studies that highlighted the importance of social interaction and individuals' choices, independent of supply-side pressures (Duesenberry, 1949; Leibenstein, 1950). The numerous attempts to introduce social and psychological aspects to better understand consumption patterns throughout the twentieth century were mainly rejected by mainstream economists, since, as pointed out by Buckley and Casson (2011), economists tend to "emphasize rigour at the expense of realism; they abstract from the factors they find most difficult to analyse".

The issues of consumer preferences as potential drivers of consumer demand were traditionally leased out to the other social science disciplines, despite the risk that they might remain understudied outside of the economics discipline. Becker, the major contributor to the economics of the family, argues that consumer preferences are undeservingly omitted from modelling:

> with a few exceptions, economists and political scientists typically pay little attention to the structure of preferences, while sociologists and anthropologists do not embed their analyses of social forces and culture in a powerful analytical framework" (Becker,1996: 3).

Researchers in consumer behaviour often approach consumption from the interpretivist position and emphasize the importance of understanding consumer needs and motives, which is often deployed in business studies as guidance for product development and marketing

activities to increase product demand. However, these studies are typically more focused on short-term consumer behaviour, striving to utilize their knowledge for the purpose of adjusting their market supply activities to match consumer needs and impulses. As a result, "between those who set consumption aside as too difficult to model and those who regard it as too self-evident to warrant further scrutiny … a large terrain has been left under-examined and under-theorized" (De Vries, 2008: ix). This apparently fulfils the "prophesy" of Houthakker (1961), that not taking the responsibility of including the content of consumer preferences into economists' competence puts them in danger of not being studied at all. At that time these aspects of consumer preferences seemed to belong to psychologists' research agenda and Houthakker (1961:734) argued that psychologists may not look at consumer preferences from the same perspective as economists, because "the whole concept of preference as used by economists may be hard to fit into the psychologist's framework."

Many sociologists viewed consumption as a cultural phenomenon, in a society whose agents assign their own meanings to goods (Douglas and Isherwood, 1979) or resulting from the reproduction of taste guided by class membership, and its traditions and norms (Bourdieu, 2010). On the other hand, the instrumental value of goods, i.e. the value of commodities as investments defined by individuals' capitals (Becker and Murphy, 2000; Sawyer, 1978), becomes more and more neglected. One reason for omitting the instrumental value of goods is the view that rational choice theory has exhausted itself.

A large stream of economic literature represents individuals as rational planners who use goods and their combinations as elements of a coherent consumer strategy. Gary Becker (1996:139) emphasizes the "forward-looking behaviour" of individuals. In his theory of the allocation of time (Becker, 1965) households are viewed as producers of goods-intensive and time-intensive commodities, with their ratio within a household varying depending on both economic conditions and household priorities. His work on human capital (Becker, 1993[1964]) shows investments in commodities, like education and medical care, as investments in the long-term well-being. In A Treatise on the Family Becker (1991) points out that investments in children's human capital define not only children's own well-being, but also connections and the reputation of the family. Budget allocation to a specific consumption category, thus, is demonstrated as a strategic step undertaken by a family.

Economic studies that expand on Veblen's concept of emulation and incorporate Hirsch's (1977) idea of positional goods into econometric modelling (e.g. Bagwell and Bernheim,

1996; Corneo and Jeanne, 1997; Frank, 1985; Heffetz, 2011; Hopkins and Kornienko to name a few), demonstrate how consumers take decisions on allocating their budget to visible (positional) and non-visible (non-positional) goods in order to realize their long-term objectives and refer to the wealthy in pursuit of status recognition. Friedman's (1957) study demonstrates how consumers' approach to savings is based on long-term considerations. The common feature of these studies is that they depict individuals as utility-maximizing strategists who make decisions about allocating their budgets to categories of goods with different functions and meanings that represent specific areas of concern in life-long planning. In the light of Becker's "new household economics", De Vries (2008: 26) calls to focus on the household as a unit of analysis rather than on the individual as an autonomous decision maker. De Vries (2008: 189) represents consumer aspirations as a cluster, "a complex of consumption goals" that constitutes "a larger household strategy." Consumer strategies are, thus, implemented through decisions on expenditure allocation across the dimensions, like necessities, precautionary goods, goods to support one's status (positional) or investments in human capital. The difference consumption strategies are defined by the emphasis they put on a certain dimension.

With the growing affluence of nations, some scholars refer to consumer behaviour as increasingly driven by impulses, irrationality and even lack of prudence (Offer, 1996). This makes the view of the consumer as a rational utility-maximizer seemed outdated. As pointed out by De Vries (2008: 20-21), the term "utility", that initially implied consumer satisfaction derived from the objective quality of goods and, thus, their usefulness, was extrapolated to include much more than functional features, since consumers were treating goods as the sources of varied characteristics (Lancaster, 1966). He concludes that "what continues to be called utility is simply what consumers show they prefer by their actions." However, instead of admitting that the traditional view of consumer demand (as driven by utility-maximization) grows obsolete yielding to unpredictable consumer choice, he offers viewing the realized consumer choice as a subject to decomposition into the dimensions outlined by the scholars who explore the overlapping areas of social sciences. One of these scholars is Tibor Scitovsky (1992[1976]) who brought important findings from psychology into the consumption field of economic theory and suggested the dichotomy of "goods for comfort" and "goods for pleasure". Despite consumer motivations being currently regarded as unknown and unknowable, De Vries (2008:21) argues that "there are a few things that can be observed

about utility as a dynamic process that remove it, at least partially, from its black box and shed light on the historical evolution of consumer demand".

The conventional approach to consumption is criticized for its abstract positivism. Miller (1987: 143) blames traditional economic approaches for relying on unrealistic assumptions that oversimplify the actual relationships between people and goods and reduces it to "insufficient symbolic equations with price", failing to account for social interaction and product symbolism. Bourdieu accuses economists for having a readiness to accept abstract models and neglecting the characteristics and real uses of goods. He claims that "objects… are not independent of the interest and tastes of those who perceive them… [because] … the possibilities and impossibilities [an object] offers… are only revealed in the world of social use" (Bourdieu, 2010: 94). Bourdieu outlines the two major important aspects rarely accounted for in economics – a class of an individual defined by capitals and the subjective value and social meaning of objects for individuals who belong to the class.

There is striking closeness and complementarity of ideas when we examine the seminal work in heterodox economics and sociology, which despite their mutually disparate terms, discuss the same phenomenon in consumer behaviour. On one side, there is the Beckerian view of the economics of the family, which in their utility-maximization pursuit rationally allocate their resources to reach certain goals, including strategic investments into goods that carry long-term benefits (e.g. Bagwell and Bernheim, 1996; Frank, 1985). On the other side, there is a parallel line of thought in sociology. Bourdieu illustrates how the conditionings of existence determined by individuals' membership in a culturally-defined social class (or using its narrower sense, an occupational group) define consumer taste and to certain extent determine consumption patterns of individuals. The social pressure of class membership makes them conform, by buying into the lifestyle of their peer-group. This is also noted by Schor in The Overspent American (1997) - in modern American society, where conspicuous consumption of the wealthiest seems outdated, conspicuous behaviour originates from the comparisons with a "reference group" that an individual wants to be identified with and whose lifestyle they are willing to adopt. The study of Vance Packard (1959) also illustrates how occupations follow a ranking order - they fall into different status groups and the individuals aspiring for membership in a particular peer-group make effort not to be given away by their behaviour or lifestyle.

The conceptualizations of Becker (1996) and Bourdieu (2010) are one of the brightest examples of the disparate approaches to an area with high potential for interdisciplinary convergence. Both thinkers approached the furthest limits of their disciplinary areas, but the gap still represents a rich field of discoveries once conceptually covered. Both Becker and Bourdieu view various individual capital forms to be either definitive for perceived utility of commodities or characteristic of lifestyle and consumption-related behaviour. This, in turn, leads to explorations of consumption-related behaviour of groups, as suggested or undertaken by both theorists. Observations about utility in the economic exploratory tradition are hindered by two major obstacles – defining groups of individuals who possess within-group similarity and clusters of commodities that have within-cluster similarity of utility or use-value (Brown and Deaton, 1972). Solving the problem of aggregations urges crossing the boundaries of disciplines in social sciences.

There are significant intersections in research interests pursued by Gary Becker and Pierre Bourdieu. Similar phenomena of reality, however, were conceptualized within the domains of disciplines that follow different research traditions. Becker's work, grounded in the tradition of the "exact" laws conditioning both functioning the economy at macro-level and individual's behaviour at micro-level, the perspective of an individual as a rational utility-maximizer, exogenous preferences and positivist exploratory methods, is typically viewed as radically different from the sociological tradition. Bourdieu's rich account of social processes, the analysis of how conventions and conditions of existence shape individual's preferences and the reproduction of taste was developed in the interpretivist tradition and the theory of practice has found wide support in sociological research (Lamont, 1992; Savage et al., 1992; Warde, 1997). Since the times of Hume, Keynes, and Veblen when economic sociology and economics were a "universal social science" (Bögenhold et al., 2017), the scientific fields radically separated and both Becker and Bourdieu, while being constrained by the disciplinary traditions of their time and recognising the difficulties, were seeking to re-unite the fields (Becker, 1996; Bourdieu, 2011; Sen, 1990). Despite strong disparities, there are substantial conceptual overlaps that suggest that at certain points reconciliation may allow continuing theory-motivated, theory-guided and methodologically sound exploratory work in the interdisciplinary space.

1.2. Problem of aggregations: issues and possibilities

Aggregations over individuals and over commodities and the underlying principles of aggregations are an aspect that may allow the systematic comparative analysis of groups and exploration of the relationship between individuals' resources, or capitals, and their consumption of commodities with specific use-value. Economic analysis of consumption behaviour and expenditure patterns can be hindered by two major obstacles – deriving groups of individuals possessing a high degree of uniformity and aggregation of commodities based on the type of "use-value" (Brown and Deaton, 1972). Economic thought in the general theory of commodity aggregation accounts for the ideas of utility trees and the separability of preferences (Brown and Deaton, 1972; Deaton and Muelbauer, 1980) and there are recent studies that group expenditure by use-value, for example, by its ability to signal wealth (Charles et al., 2009; Heffetz, 2011).

In relation to aggregations of commodities, attempts to develop a general theory of aggregation were undertaken by Gorman in the 1950s, who discussed utility trees, and in the work of Leontief and Sono (Brown and Deaton, 1972: 1165) suggesting that goods that interact closely may be grouped for the purposes of econometric analysis with further practical implications. Deaton and Muellbauer (1980) also emphasize the viability of a more liberal approach to commodity aggregation for modelling. Namely, they argue that despite the postulates of the composite commodity theorem discussed in the field in 1930s, which proclaims that a group of commodities can be treated as a single good if their prices move in parallel; in the open economy it is unlikely to identify such groups of commodities. Moreover, this makes the commonly accepted groupings of commodities, like food expenditure, unjustified (Deaton and Muellbauer, 1980). Instead they invite us to look into the "natural structuring of commodities" (Deaton and Muellbauer, 1980: 122) from the perspective of "utility trees" and the separability of preferences. Using their idea of two-stage budgeting, where at the first stage consumer allocates expenditure across the broad commodity groups, like food, shelter and entertainment, and at the second stage each category dissipates into more specific groups (food - into dairy products, cereals etc.; shelter - into housing, fuel etc.), they are able to show that inconsistent behaviour of a single commodity within the group would not affect the relative behaviour of the broad category, as long as all "substitutes or complements are always kept in the same group" (Deaton and Muellbauer, 1980: 124). This allows a certain degree of flexibility when aggregating commodities. However, such approaches require including all the substitutes into the same group of commodities. In

modern economic research some aggregates of expenditure, like expenditure on visible commodities (e.g. Charles et al., 2009; Hicks and Hicks, 2015), enjoy particular attention and their instrumental value is well-emphasized. The strategic importance of status-signalling expenditure as a part of a broader consumption strategy is discussed later, along with the other dimensions of consumption strategies.

While aggregation of commodities is feasible and can be undertaken by "informal intuitive principles" taking into account the prior work on the separability concept, aggregation of individuals that involves accounting for many characteristics (some of which are not easily observable) is more problematic. Brown and Deaton (1972) outline the possibility of deriving "aggregate models based on plausible aggregation of individual behaviour". However, their concern was over the lack of the theoretical underpinnings for such aggregations. Firstly, they point out that aggregation of individuals requires a high degree of uniformity within each cluster of consumers and unless this is satisfied, "the theorist becomes entirely the servant of the econometrician" (Brown and Deaton, 1972: 1168). Aggregation of individuals has been undertaken across various characteristics – age groups, gender, social class, and consequently these aggregations successfully enter consumption analysis as observable household characteristics – family size, age, income, socio-economic class and others. As noted by Deaton and Muelbauer (1980: 191) any other characteristic can be included if it is observable. In relation to aggregation of individuals with respect to their position in the social space – there are, however, some unsolved interdisciplinary issues.   With respect to the benefits of specificity when comparing occupation versus the broad social class, Prais and Houthakker (1955: 160) noted that "… [while] the separate effects of social class on consumption are negligible this is not so for the effects of occupation." Moreover, they note that "these separate effects will only be significant when the items are particularized; the broader the classification the smaller will be the differences to be noted."

The search for meaningful occupational groupings on the basis of employment relations, to undertake a further economic analysis of consumption, leads to the world of sociology. As noted by Wright (2015), "whether the big classes are themselves defined as aggregations of occupations … they remain analytical abstractions … rather than categories that are formally institutionalized in the protocols of organizations and the everyday practices and understanding of real people." Thus, conventional schemas of social stratification are not likely to provide groups of individuals with lifestyle similarities. Moreover, the occupational effects, when equated with the effects of socio-economic class, are likely to be undistinctive.

Weeden and Grusky (2005) have shown that more specific occupational groups, or "micro-classes", better explain individual-level behaviours, life chances, lifestyles and tastes, than the "big classes", as homogeneity of experiences and other conditions is related with homogeneity of such outcomes. Thus, micro-classes are expected to have larger explanatory power in modelling for a range of outcomes in individual behaviour (Wright, 2015: 113-118).

Narrowly defined classes are beneficial for consumption analysis as they carry more context and structural effects whose omission should be avoided (Sawyer, 1978). Prais and Houthakker (1955: 160) point out this limitation and also suggest the solution to the potential problem arising from inclusion of occupation in the model. Namely, they warn against possible endogeneity of occupation. However, "if a sufficient range of variation can be obtained, and this may mean taking broad occupational groupings, it should be possible to overcome this."

The importance of broad groupings of individuals was also appreciated by Gary Becker (1996: 156), who in his book <u>Accounting for Tastes</u>, suggested approaching individual's economic behaviour using less observable characteristics: accounting for "determinants of opportunities, equilibrium in market and nonmarket situations, and laws, norms, and traditions to obtain results concerning the behaviour of groups." He purported the importance of social and cultural forces for consumption behaviour, exemplifying how the demand for some goods contributes to personal distinction (Becker, 1996:47) and introduced such less observable and measurable individual's characteristic as social capital (treating it as an element of human capital) into the utility function (Becker and Murphy, 2000). Becker argued for the need to account for different types of human capital (personal and social) in relation to preferences and noted that while individual behaviour and choice is unpredictable, this is not so for the probabilities of behavioural patterns of groups. He deplored the lack of attention paid to the structure of preferences and highlighted the need to incorporate sociologist and anthropologist insights into powerful analytical frameworks as consumer choice for commodities and leisure activities is defined by social interaction. Thus, assuming consumption of some groups of commodities to be instrumental for production of system-level behaviour (Sawyer, 1978), the effect of occupation in consumption modelling ought to be viewed as the effect of a cluster of individuals possessing similar combinations of human capital elements and similar employment conditions.

The functionality of lifestyle and personal investment in different kinds of individual resources to meet expectations of the structure was emphasized by Sawyer (1978), who in his critical review of Becker's early work pointed out the omission of structural effects (job complexity, autonomy, bureaucratization and other employment characteristics) in Becker's human capital theory (1993[1964]) and suggested that benefits related to job status imply a lifestyle that requires additional investments of time and "other economic inputs to be realized". Thus, Becker's (1996) view of human capital types offers a chance to consider occupational groups with higher levels of within-group uniformity which, as noted by Brown and Deaton (1972), is vital for the viability of consumption analysis.

Scholars note obsolescence of social class as a concept, interpenetration of consumption patterns across socio-economic classes and more attention paid to occupation rather than social class in the modern non-economic social sciences. Insufficient attempts to introduce meaningful aggregates of individuals based on socio-economic position, together with social forces, norms and traditions of their working environment, poses risk that a turn from big social classes to narrow occupational groups may remain unnoticed in consumption studies undertaken in the positivist tradition.

To summarize, the problems of aggregations across individuals and across commodities leads the thesis to explore the discussions of decomposition of utility function and prior attempts to meaningfully group commodities (Section 1.4). It highlights the attempts to meaningfully group individuals on the basis of capital forms with particular attention paid to the frameworks of Gary Becker (1996; Becker and Murphy, 2000) and Pierre Bourdieu (2010) in the further sections of the chapter.

1.3. Becker and Bourdieu: Parallels and interdisciplinary tensions

Both the perspectives of Bourdieu (2010) and Becker (1996; Becker and Murphy, 2000) outline the importance of individuals' capital compositions for consumption behaviour. The rationale for combining their approaches lies in the high value of Bourdieu's theorized guidance to grouping individuals by capital types, using the notions of 'habitus' and 'field' on one side and the methodological soundness, focus on households, and strategic orientation of Becker's approach on the other side. Despite similarities in their scientific inquiries into individuals' economic behaviour, there are still striking differences in the approaches of

Becker and Bourdieu, stemming from differences in epistemology and traditions of their disciplines, that often hinder interdisciplinary cross-fertilization of ideas. While the classic economic hypothesis proposed in "De Gustibus non est Disputandum" (Stigler and Becker, 1977) claims the similarity of preferences among individuals, its authors welcome other disciplines to explain the variance. The disparities between Becker's and Bourdieu's perspectives arise, as summarized by Christoforou and Laine (2012), from the position of mainstream economics on exogeneity of preferences, as opposed to endogenous preferences purported by sociologists, and the limitations of the theory of rational choice.

Both the conceptualizations of Becker (1996) and Bourdieu (2010) suggest possibilities for the comparative analysis of consumption behaviour among groups defined by capitals. As noted by Becker (1996: 156): "…the economic approach to behaviour … uses theory at the micro level as a powerful tool to derive implications at the group or macro level. Rational individual choice is combined with assumptions about technologies and other determinants of opportunities, equilibrium in market and nonmarket situations, and laws, norms, and traditions to obtain results concerning the behaviour of groups." On the other hand, in relation to behaviour of groups, Bourdieusian "habitus" "follows aggregation rules… has statistical validity … can have a standard deviation" (Laine, 2014: 87). In the light of substantial work on groups defined by employment relations (Bourdieu, 2010; Lamont, 1992; Savage, 1992 and others) and the association between these groups and distinctive patterns of consumption-related behaviour, habitus that represents a unifying principle has earned its validity as a unit of analysis. Becker (1996: 3) invited sociologists and anthropologists to "embed their analyses of social forces and culture in a powerful analytical framework", as economists and political scientists systematically neglect the structure of preferences and the determinant role of social forces. Systematic work on unifying principles underlying modern habitus suggests its strong predictive power in relation to preferences and inspires the search for alternative classifications for the purposes of viable theoretically-guided comparative analysis of preferences.

1.3.1. Becker. Capitals and household strategies

In line with the economic tradition, Becker's proposition suggests that, in their economic behaviour, individuals act rationally to strategically maximize utility. He, however, admitted the effect of social forces on consumption-related behaviour exploring "how changes in social

environment affect choices and behaviour by changing the utilities of goods" (Becker and Murphy, 2000: 8). Similarly to Bourdieu, Becker related individuals' capitals to consumption behaviour. Assuming congruence of economic behaviour and unity of consumption goals within a household, as purported by Becker's "new household economics" (1965), consumer aspirations represent clusters of consumption goals that constitute a "larger household strategy" (De Vries, 2008: 189) where decision-making relies on knowledge, experience and the other types of capital possessed by individuals within the household. Consumption of commodity clusters, or bundles of goods, is indicative of priorities in household consumption strategies and individuals' social or professional roles fashion lifestyles that involve prioritization of goods with certain characteristics.

In the economic discipline the approach of Gary Becker (1996) is particularly beneficial for the analysis of consumption across classes as it similarly accounts for different elements of human capital, purports the importance of social and cultural forces for individuals' market behaviour and, importantly, allows applying powerful analytical techniques. While Becker's earlier (1964) notion of human capital mostly comprised education and training, his close collaboration with Coleman (1990) affected his augmentation of the human capital notion. Becker's later work (1996; Becker and Murphy, 2000) influenced by the ideas of Veblen (1899) and Coleman (1990), extended his notion of human capital into the total stock of personal and social capitals, where personal capital included past consumption and characteristics that affect current and future utilities (i.e. including income-related characteristics and the characteristics related to education and skills) and social capital was defined by nonmarket relations with peers (Becker, 1996). Coleman "pioneered the integration of social forces and rational choice" (Becker and Murphy, 2000) and introduced the idea of individual resources – physical capital (material resources), human capital (skills and knowledge) and social capital (relations among individuals) – and their complementarity and argued that the combinations of resources are instrumental for production of "system-level behaviour" (Coleman, 1990:305). Becker and Murphy (2000: 12), although admitting heterogeneity of individuals, draw on the importance of analysing aggregates of "choices by members of the same social group… [on] formation of their social capital".

When stressing the importance of social capital, Becker (1996: 163) relies on previous discussion of "demonstration" effects on savings and consumption in the work of Leibenstein (1950) and Veblen (1965[1899]), who viewed emulation as the major underlying motive for ownership. His later work (Becker and Murphy, 2000) introduces social capital into the utility

function, highlighting the relation between social interaction and individual choices, discussing how changes in social environment affect individuals' behaviour and choice and demonstrating the complementarity of social capital and the demand for particular goods. Becker and Murphy (2000) discuss the interplay between social forces and individual behaviour to complementarity between status – as a form of social capital and part of individual resources – and consumption as being instrumental for individuals' social roles.

This conceptual turn has addressed an earlier critique faced by Becker. The functionality of lifestyle and personal investment in different kinds of individual resources to meet expectations of structure was emphasized by Sawyer (1978). In his critical review of Becker's early work, Sawyer (1978) pointed out the omission of structural effects (job complexity, autonomy, bureaucratization and other employment characteristics) in the human capital theory (Becker, 1964). Sawyer (1978) further suggested that benefits related to job status imply a lifestyle that requires additional investments of time and "other economic inputs to be realized". Sawyer (1978) discussed education and status as forms of capital, which also possess mutual substitutability and pointed out that an agent's social role implies possession of resources compatible with and required by the structure. This is also in line with Durkheim's (1982: 51) view of organization as a form of compulsion where collectively shared "ways of thinking, acting and feeling" possess "the compelling and coercive power". System-level expectations, in turn, motivate individuals' investments in resources which are not limited to education.

In Accounting for Tastes Becker (1996: 47) notes the importance of social environment for consumption behaviour, exemplifying how the demand for some goods (fashion in his particular example) contributes to personal distinction. Individuals maximize the utility function of their distinction, which is subject to a budget constraint, but also depends on income and the exogenously given social environment. Consumption-related behaviour in some aspects can, thus, be viewed from the perspective of its utility and as serving to fit the norms of social environment that, in turn, is defined by the predominant individual resources, or capital forms, distributed and valued in that environment.

Becker's attempts to introduce more social aspects into economics generated accusations of "economic imperialism" from sociologists (Fine, 2001) and distrust from some scientists in his own field (Arrow, 1990). Becker's understanding of social capital in the utility model encompasses broader "social influences", a wide complex of social interactions and

behaviours. In particular, Becker and Murphy (2000) discuss how changes in social environment affect choices by changing the utilities of goods and propose the following model:

$$U=U(x,y;S),$$

where x and y are different commodities and S is "social influences on utility through stocks of social capital". Becker acknowledged the high importance of social capital to utility, as it determines the allocation of resources and is "strongly complimentary with the demand for particular goods" (Becker and Murphy, 2000: 22).

The Beckerian notion of social capital generated opposition due to its exaggerated breadth and, as noted by Fine, in Becker's work "social capital becomes a catch-all for anything that improves life but that has not already been covered by …[other] elements of personal capital" (Fine, 2001: 41). However, such breadth also means close interrelation between micro-concepts included in what is referred by Becker as "social influences" – so the structural effects, status, inter-subjective interactions etc. even though introduced in the exogenous model in the light of complications related to their measurability, as noted by (Coleman, 1990: 305), remain unseparated among themselves. To some extent this is an attempt to address the concerns of the sociological perspective when the effects of individual resources are modelled using the economic approach.

Becker has been blamed for insufficient rigour to embrace the sociological theory. As pointed out by Elster (1990: 238), there is much to learn from sociology and it is important "not just steal the problems of sociology and incorporate them into ... [economic]... domain". Bourdieu (2011) had foreseen such problems with scholarly attempts to integrate knowledge developed in disciplines that matured separately in their exploratory traditions: "…reunified social science, capable of constructing models that cannot easily be assigned to either of the two disciplines alone, will undoubtedly find it very hard to win acceptance, for both political reasons and reasons relating to the specific logic of scientific words." Despite the critique, Becker's intellectual efforts were appreciated by scientists who support bringing down the epistemological wall separating sociology and economics for the sake of tackling real-life problems which cannot be solved within a single discipline. Even acknowledging the limited predictive and explanatory power of analytical tools used by Becker, his efforts in unifying the analysis in social sciences was a subject of admiration of such influential sociologists as Amartya Sen (1990).

1.3.2. Bourdieu's theory of practice: habitus, field and taste.

The work of Bourdieu (2010[1984]) approaches the phenomenon of differences in budget allocation from the perspective of culturally-defined social classes. Taste, as an attribute of class, leads to the formation of consumption patterns characteristic to habitus (that can also be viewed as occupational groups) as acquisition and possession of certain goods symbolize the enhancement of an individual's symbolic capital and is a necessary prerequisite of membership in a habitus. Bourdieu provides a schematic representation of capital forms related to occupational groups (habituses) which stand at the centre of his interpretation of class (Bourdieu, 1979: 128-129).

Central to the Bourdieusian framework is the notion of habitus, or a socio-occupational class, as a "practice-unifying and practice generating principle … the internalized form of class condition and of conditionings it entails" (Bourdieu, 2010: 95). Habitus is definitive for an individual's social trajectory, but it also defines as routine choices as the decision-making in food, clothes, sports, music preferences which was also evidenced in the works of the proponents of Bourdieusian concept (Savage et al., 1992; Warde, 1997). The Bourdieusian framework (2010; 2011; Bourdieu and Wacquant, 1992), however, is not an attempt to disclose the "black box" of habit formation among the members of habitus, neither it is an attempt to reveal the mechanisms behind the underlying logic of practice or whether dispositions are formulated consciously or unconsciously. Rather than focusing on drivers of formation of habits or dispositions of individuals, Bourdieu's interest is in the laws that motivate "structures reproduce themselves by producing agents endowed with the system of predispositions" (Bögenhold et al., 2016). Rational or irrational, conscious or unconscious, the dispositions of individuals as members of a habitus are "taken for granted" and defined by the overarching influence of structure.

Following Bourdieu (2010), socio-occupational class can be defined as a combination of individuals' cultural, social and economic capital. Economic capital reflects material possessions in the form of inherited or earned wealth. The size of social capital is defined by the breadth of access to social connections and possession of durable networks. Cultural, or "informational", capital (Bourdieu and Wacquant, 1992: 119) includes, but is not limited to, educational qualifications. Symbolic capital is the form of capital that the other forms take "once they have been recognised and ordained as consecrated, legitimate forms of culture" (Taylor, 2016: 39).

In one of its guises, the Bourdieusian habitus represents an aggregation of professions with similar combinations of individual's economic, social and cultural capital that holding its position within the structure of social space, or "field", experiences certain opportunities and expectations from the system, including nonmarket relations. Such position in the field further leads to distinctive practices, lifestyles and preferences in different domains of consumption (Bourdieu, 2010; Bourdieu and Wacquant, 1992). Cultural capital (including "informational" capital, institutionalized education and training and a range of competences) is field-specific and, depending on the occupational domain, develops as different species, e.g. commercial (mastery in marketing and after-sales services), technological, scientific or financial (mastery of financial resources) (Bourdieu, 2011). These types of cultural capital are possessed by organizations as strategic market assets acquired through human resource management processes. However, originally these also are embodied in, and continuously develop, within individuals' association with their organizational field.

"Field" is the structure of social space where the types of human capital and values are distributed. It is also "a network, or a configuration, of objective relations between positions [which are] objectively defined, in their existence and in the determinations they impose upon their occupants, agents or institutions" (Bourdieu and Wacquant, 1992: 97). In other words, fields attract individuals with different levels of social and cultural capital and different combinations of cultural capital types - effectively they attract individuals of specific occupations, as capitals are "underpinnings… of fields – where volume and trajectory of agents' holdings of particular capitals is central to the dynamics of fields" (Savage et al., 2005). Fields motivate development of individual's social capital and/or the species of cultural capital (skills, qualifications) and set expectations about the level and type of individuals' capitals vital to maintaining their position and progress in their employment field (Savage et al., 2005).

Bourdieu (2010) links the differences in working settings to motivations underlying consumption habits, for example, discussing lifestyles of "more ascetic" office workers as opposed to "stylish" commercial employees (Bourdieu, 2010). The Bourdieusian approach suggests common points with Keynes (1936) who noted that that the strength of motives to saving and motives to consuming varies according to habits formed by a number of subjective and social incentives.

Positing taste as a class attribute where class is viewed as a socio-cultural collectivity sharing similar combinations of capitals and lifestyles, the Bourdieusian framework (2010) allows defining consumption preferences of broader occupational classes, such as educational professionals, industrialists, civil servants, clerks in different working environments and manual workers. Bourdieu (2010) explores lifestyles of distinctive occupational groups, exemplifying their consumption preferences, interests, tastes and other characteristics and also shows how they correspond to expenditure patterns. For example, he shows that expenditure related to culture, or "informational capital", is relatively higher with teachers, while presentation expenditures, including clothes and hairdressing, are more pronounced with professionals (see Table 1 below).

Table 1.1. Yearly spending by teachers, professionals and industrial and commercial employers, 1972.

Type of spending	Teachers (higher and secondary)		Professionals		Industrial and commercial employers	
	Francs	% of total	Francs	% of total	Francs	% of total
Food [a]	9,969	24.4	13,956	24.4	16,578	37.4
Presentation [b]	4,912	12	12,680	22.2	5,616	12.7
Culture [c]	1,753	4.3	1,298	2.3	574	1.3

Source: Reproduced from Bourdieu (2010:181).

a. Includes restaurant or canteen meals.

b. Clothes, shoes, repairs and cleaning, toiletries, hairdressing, domestic servants.

c. Books, newspapers and magazines, stationery, records, sport, toys, music, entertainments.

In other words, the Bourdieusian approach places an agent with its combination of capital forms into the organizational context imbued with field-specific social forces and nonmarket relations that are, in turn, associated with certain lifestyles, budget allocation and spending patterns of individuals. Such an approach to occupation allows more attention paid to structural effects traditionally discounted by mainstream economics (Sawyer, 1978), such as social conditioning, interactional closure and interest formation that to certain extent define occupation-specific lifestyles and attitudes (Weeden and Grusky, 2005; Wright, 2015). For example, viewing the "field" as an industry sector, its structural effects, like job uncertainty

and promotional opportunities, implies differences in social trajectories related to occupational positions which, in turn, affect individuals' consumption strategy.

1.3.3. *Conceptual similarities and disparities*

Both Becker's and Bourdieu's approaches to human capital forms allow considering occupational groups as classes with higher levels of within-group uniformity which, as noted by Brown and Deaton (1972), is vital for the viability of consumption analysis. However, there are principal differences in the visions of the two theorists about bridging knowledge that belongs to the agenda of the two separate disciplines.

Despite the strong opposition in relation to the rational choice theory (RCT) that traditionally guides economic thought, the strategic behaviour of individuals as such was not denied by Bourdieu. Bourdieu (2011: 77), in relation to his "field" theory, notes that it opposes "the atomistic, mechanistic vision that … reduces agents to interchangeable material points, whose preferences, inscribed in an exogenous utility function … determine actions mechanistically". Bourdieu expresses distrust in unrealistic depictions of agents as isolated utility-maximizing decision-makers constantly undertaking their cost-benefit analysis. Similar critiques of atomism were also expressed by some other sociologists (e.g. Fine, 2001: 45). However, the RCT does not seem to be the major stumbling stone for the interdisciplinary disagreement – as noted by Laine (2014: 78), Bourdieu, widely accepted in the sociological discipline, throughout his work constantly refers to "conscious and calculating evaluation of possible outcomes" and "individual decision-making… consciously oriented towards profit maximization". Also, as noted by Savage et al. (2005), "for Bourdieu, agents are conditioned in their strategic behaviour by their location in the competitive, game-playing character of the field." As noted by Christoforou and Laine (2012: 4-5), individuals tend to assign some meaning to their actions – be it rational or irrational – and while sociologists analyse what people consciously know, master, and are able to communicate in relation to their action, economists in their models attempt to capture and predict the actual behaviour of individuals, whether undertaken consciously or unconsciously, often assuming agent rationality. In both cases human behaviour – whether economic or general and to a certain extent the process of habit formation - remains a black box. The Bourdieusian habitus is not an attempt to open the black box and emphasize either consciousness or rationality of agents' behaviour.

In other words, there are differences in the reasoning for consumption-related behaviour between the two conceptualizations - RCT versus habits (whether realized as conscious or unconscious dispositions). Prior work in behavioural economics in the modern economic tradition has shown that rationality may not always be the major driver of consumption and both rational and irrational or even unconscious behaviour may guide individuals' consumption. In this respect, Bourdieu's and Becker's reasoning are complementary. The strategic behaviour, as noted above, is not denied by Bourdieu, especially upon his development of the theory of fields (Bourdieu and Wacquant, 1992).

Moreover, strategic consumption-related behaviour is not denied by modern sociological thought when the social trajectory related to occupational position may carry implications for consumption strategy. Erik Olin Wright, who considers the micro-concepts of class interests and practices, the pursuit of which implies strategic choices, notes that "by virtue of their location within class relations, … individuals have available different strategies for securing and improving their material interests" (Wright, 2006:64). This view, combined with the micro-concept of class consciousness, implies the existence of a social trajectory accompanied by certain patterns of practice. It is, therefore, appropriate to reconcile both views as consumption patterns may not only reflect social position, but also may reflect investments in securing agent's position in the field.

Bourdieu's (2010[1984]) conceptualisation, despite its vagueness, comes close to offering a solution for the problem of aggregations (discussed earlier in Section 1.2). Aiming to address the social meaning of goods directly in the context of their use and their value "in the eyes of the beholder", Bourdieu (2010: 94) purported to "establish the objectivity of object". In other words, the meaning and use-value of goods should account for the interest and taste of classes of individuals perceiving them, for the reason that "the relationship that is established between… the economic and social conditions … and the distinctive features of lifestyles only become intelligible when habitus is constructed [so that] it makes it possible to account for… classifiable practices/products and classifiable judgements", so that practices constitute a system of distinctive signs (Bourdieu, 2010: 166). The undeniable parallels are notable between Bourdieu's view of interaction between capital and tastes on one side and Becker's (1996; Becker and Murphy, 2000) suggestion to incorporate both personal (economic capital, education, training and skills) and social capital into utility function of goods on the other side.

Another principal disagreement between the two approaches concerns differences in the appropriated paradigms. As summarized by Eloire (2012: 176), social capital is "situated at the intersection of the two paradigms – relational and interactionist", where "interactionist paradigm focuses on visible, palpable interactions and manifests in meetings or concrete exchanges within the physical space" and represents social network made of inter-subjective relations. On the other hand, the relational paradigm considers "objective relations which structure the field" (Eloire, 2012: 175). Becker's understanding of social capital was close to Coleman's (1990) whose work is characterized by a predominantly interactionist paradigm, where social capital resides outside of individuals and is formed within a social system which is characterized by three components: "the effects of properties of actors who are within the system; the actions of actors who are within the system; and the combination or interaction of those actions, bridging about the systemic behaviour" (Coleman. 1990: 27).

Bourdieu's conceptualization that pursues its major interest in reproduction of social structure emphasizes the relational paradigm, where social capital is highly dependent on the other forms of economic and non-economic capital. Thus, Bourdieu's conceptualization, while embracing the view of capitals embodied in an agent placed in a socio-economic space and associated with their dispositions, offers a wider acknowledgement of forces, contexts and their mutual relationships, rather than one-way, cause-effect exogenous influence of capitals on the structure of individuals' preferences. Firstly, there is larger appreciation of how employment relations are associated with individuals' capitals - empirical analysis aggregates professions signified by similar combinations of capital forms as also having similar preferences. However, Bourdieu also emphasizes the reason of taste reproduction – one's family background may define both profession and taste. In other words, for Coleman social capital does not reside within an individual, but is "embodied in the relations among persons" (Coleman, 1990: 304) and its efficiency is defined by network closure (Eloire, 2012: 174). On the other hand, Bourdieu views social capital as an individual's asset that can be accessed through interpersonal ties or stem from one's background. These paradigms (where social capital resides) to some extent define the epistemological difference of both approaches.

1.3.4. Differences in epistemology and methods

The approaches of the two thinkers are signified by disparities in epistemological stances and the choice of methods stemming from the traditions of their disciplines. One of the key points

of interdisciplinary disagreement stems from the position of mainstream economics on the exogeneity of preferences as opposed to endogenous preferences purported by sociologists, and Bourdieu in particular (Christoforou and Laine, 2014); this disagreement underlies differences in the choice of analytical techniques.

Bourdieu purported endogeneity of preferences which is also reflected in his choice of the technique – his work suggests high level of interrelatedness of the micro-concepts that he is using – "habitus", "field" along with practices and lifestyles - and therefore, Bourdieu admits that he makes:

> extensive use of correspondence analysis, in preference to multivariate regression for instance, it is because correspondence analysis is a relational technique of data analysis whose philosophy corresponds exactly to what, in my view, the reality of the social world is. It is a technique which "thinks" in terms of relation, as I try to do precisely with the notion of field".   (Bourdieu, 1992:96 as cited by Grenfell and Lebaron, 2014: 29).

Multiple correspondence analysis is further promoted in the field to continue the tradition of building the theory of practice based on empirical findings (Grenfell and Lebaron, 2014). This multidimensional scaling technique has, however, some limitations. The broad purpose of correspondence analysis is to summarise the associations between a set of categorical variables in a small number of dimensions to reflect the underlying structures in the data. Continuous data, such as age or income, are treated as ordinal. For example, age-variable becomes ordinal as age groups with intervals defined on the original age scale are ordered and treated as categories; the assigned values (e.g. 1 to 7 or 1 to 5) are often used as default values in calculations (Greenacre, 2007: 50), when precision may be sacrificed for clearer visual expression.

The method essentially aims at producing a low-dimensional graphical summary by plotting scores on a scatter type plot or map to allow a visual inspection of the data structure. Thus, in Bourdieu's work (2010: 122-123) the similarity of the spatial positions among the subjects on the perceptual map reflects the similarity of their evaluation of the object, with regard to the dimension of the perceptual map. However, as a limitation of the technique, the diversity of characteristics of "judging" subjects (individuals or their groups) and their relevance for evaluation of the object may not be accounted for in sufficient detail. The common approach is to develop maps for the cluster's "average respondent", to obtain an "average" evaluation,

or a single solution, for the group (Hair et al., 1998: 530), when the group is defined by age, income or another essentially continuous characteristic. Unlike regression, correspondence analysis does not treat one variable as outcome (Greenacre, 2007).

Bourdieu opposed positivist methods of analysis in general and his choice of correspondence analysis as the most appropriate technique was an attempt to emphasize the interlinkages between independent variables that, in his view, make positivist methods inappropriate for the task, but as pointed out by Longhurst and Savage (1996: 285):

> although it is true that the method Bourdieu used in *Distinction*, correspondence analysis, is a sophisticated multivariate technique which allows the interlinkages between independent variables rather than their independent effects to be examined, it is still based around the need to look for correlations between dependent variables (types of consumption practice) and clusters of independent variables (occupational positions, gender, age groups etc.) and then measuring the association between them.

Despite Bourdieu's sole preference for correspondence analysis in explorations of preferences predominant in occupational groups, the comments of Longhurst and Savage (1996) suggest suitability of modern econometric methods for the task at hand. They also point out at the need to justify occupational aggregates as salient differentiators noting that "occupational class differences can often be detected, but the decision to measure differences and variation in terms of occupation does not in itself demonstrate the real salience of such factors" (Longhurst and Savage, 1996: 283). They expect some variation in consumption of occupational groups, emphasize that it is crucial "not just to note that variation exists, but to bring out the relational character of such variation" and the significance of between-occupational differences (Longhurst and Savage, 1996: 288). This again stresses the importance of the relative homogeneity of occupational clusters in consumption analysis to become salient differentiating factors on one hand and, secondly, suggests particular benefits of techniques based on probability calculus. Mapping of social class to practices, thus, needs to partial out the effects of other important observable characteristics.

Multivariate regression is the traditional econometric method that may also capture differences in consumption across groups. However, the between-habitus differences are of particular interest in explorations of consumption preferences, as Bourdieu's notion of habitus encompasses individuals with similar combinations of individual resources, conditions of existence and follows aggregation rules. Thus, while Bourdieu acknowledges that "though it

is impossible for all (or even two) members of the same class to have had the same experience, in the same order, it is certain that each member of the same class is more likely than any member of another class to have been confronted to the situations most frequent for the members of the class" (Bourdieu, 1980: 59-60 as cited in Laine, 2014: 87).

To summarize, the between-disciplinary differences in epistemological stances and underlying assumptions locate the approaches of the two thinkers worlds apart. However, despite the disparities between Becker and Bourdieu, their conceptualizations can be viewed as complementary parts of scientific knowledge. The point of reconciliation lies in the rationale of exploring groups of individuals where an individual is signified by a combination of capitals and is located in the environment that appropriates particular behavioural norms and traditions which, in turn, affect individual's lifestyle and consumption behaviour. Exploratory analysis aligned with such approach will benefit from wider utilization of econometric methods and accounting for strategic behaviour of individuals and households to secure and augment their position in the social space.

There are differences in the views about habit formations between the thinkers. At face value the principal discrepancy lies in the rational choice theory appropriated by mainstream economics. Social sciences tend to systematically ignore the theoretical interactions between adjacent disciplinary fields; RCT is typically viewed as a stumbling stone and the act of formation and reasoning of individual action constitute the major point of disagreement. Setting the process of formation of habits aside – whether choice is strategic, rational and "for purpose" or unconscious replication of behavioural patterns inspired by family background, upbringing and/or habitus – both concepts agree to that agent's capitals and environment where these capitals are distributed (socio-economic space) define economic and social behaviour. To this end, the focus on similarities rather than disparities of the conceptualizations, combining the essential elements in the visions of the two prominent thinkers and capturing economic behaviour of agents in particular socio-economic spaces may lay grounds for systematic explorations of patterns and stimulate further conceptual questions on the path towards an integrated interdisciplinary theory.

Becker's proposition to study consumption behaviour of groups is viable when there is relatively high within-group homogeneity. Extensive work of Bourdieu on "constellations" in the social universe that proposed the approach for grouping occupations with common features of capitals and practices, to certain extent, represents a solution for increasing the

within-cluster uniformity. Complemented by numerous followers of the theory of practice, a substantial literature is developed to observe characteristic features in practices and consumption-related motivations of members who belong to different occupational fields (e.g. Lamont, 1992; Savage et al., 1992). This work suggests the need for more explicit account for norms, values and cultural differences between narrowly-defined socio-occupational formations. It is viable, therefore, to undertake studies of behaviour of groups each of which can be treated as a distinctive habitus. Such groups can be viewed as units of analysis and enter consumption analysis on the same basis as the notion of socio-economic class. Narrowly defined occupational classes, however, may possess higher explanatory power in the analysis of consumption preferences and are more likely to possess higher within-group homogeneity than traditional socio-economic classes.

1.4. Decomposition of utility, aggregation of commodities, and dimensions of consumer strategy

The exploration of consumer demand has primarily been the domain of economic studies, where in the pursuit of the theory of aggregations attempts were made in grouping commodities on the basis the types of needs they satisfy (as discussed in Section 1.2.). Renowned scholarly work in mainstream economics and the interdisciplinary enquiry made important contributions in relation to grouping commodities for a meaningful analysis of consumption, emphasizing that the role of commodities extends beyond satisfaction of basic individuals' needs, but rather can be the one of vehicles for social interaction (Duesenberry, 1949; Leibenstein, 1950; Scitovsky, 1977). The idea of grouping commodities by use-value aligned with the strategic economic action of the forward-looking agent allows viewing commodity aggregates as being the dimensions of consumer strategy that serve different purposes, including maintaining agents' social position.

Lancaster's new theory of demand (1971) suggested that consumers derive utility not from goods as they are, but from the specific characteristics that they possess. Consumers, thus, seek the set of characteristics in products that secures the maximum level of utility. These characteristics reflect not only the ability of products to satisfy physical or aesthetic needs, or, in other words, their utilitarian value. Rather, these may cover what is referred by Leibenstein (1950), the proponent of non-additivity concept of demand in economics, as "the potential non-functional utilities inherent in many commodities". Leibenstein (1950) inferred the

communicative value of goods when he claimed that consumers' subjective utility of a product is affected by the quantities consumed by their peers and their desire to "keep up with the Joneses". He relied on the concept of conspicuous consumption introduced by Veblen in 1899 who illustrated social interaction by means of consumption. Also, Becker in Accounting for Tastes criticized the persistent economic assumption that preferences are defined by basic biological needs and insists that they rather are highly dependent on cultural influences and social interaction (Becker, 1996:3). Taylor and Houthakker's study (2010) of consumer demand in the US supports Becker's point in a sense that there is more than the basic product functionality in goods that constitutes the utility function. Taylor and Houthakker (2010: 106) undertook Principal Components Analysis for broad consumption categories to suggest the "separability of consumers' underlying utility functions (assuming that such in fact exist)" and one of the conclusive recommendations was to approach the utility function in economics as carrying "underlying motivating substrates".

The idea of decomposition of utility, despite its conceptual vagueness, carries important implications for the methodology of household budget analysis and there are studies which illustrate the possibilities of its operationalization. The argument of Scitovsky (1976) in The Joyless Economy brought the findings from psychology into economics and has added pressure on viewing utility simply as an aggregate of functional value of purchases. Scitovsky outlined the analogy between his classification of goods into goods for comfort and goods for pleasure and the product classification into defensive and creative products as proposed by the influential economist, Sir Ralph Hawtrey (1879-1975). Admitting the complexity of strict distinction between the two types, roughly, goods for comfort, or defensive products, are aimed at preventing or remedy pains, distresses or satisfy physical need, while goods for pleasure are "intended to supply some positive gratification or satisfaction" (1976: 108-109). De Vries (2008) further aggregates the ideas from various scholars, including Lancaster (1971) and Scitovsky (1977), and represents goods and their combinations as elements of consumer strategy.

Jan de Vries (2008: 22-25) advocates and extrapolates Lancaster's argument on product characteristics, highlighting the ways of its operationalization. De Vries starts with a critique of the notion of utility for being "metaphysical and empirically unobservable concept" and "a misleading term" in general, arguing that utility is a measure of usefulness of an object, a measure of "the intensity of desire", and finally equates the notion of utility with "realized consumer choice". He draws on previous scholarly work to illustrate what are the products

characteristics that individuals are searching for in the pursuit of their consumption strategies. Treating the notion of utility as a summation of numerous realized choices that in their aggregation have the highest subjective value for an individual, he discusses the decomposition of utility as representing the simulacrum of a pyramid of goods and product categories providing the satisfaction of different needs (De Vries, 2008: 21). Importantly, he illustrates the classification of goods into goods for personal comfort and goods for social comfort, i.e. goods that help sustain respectability.

Goods for personal comfort are not only the "defensive" goods as proposed by Sir Hawtrey, rather, their other dimension is goods for pleasure and stimulation, as they satisfy consumer's hedonism and the search for novelty (Bianchi, 1998; De Vries, 2008; Scitovsky, 1976). Goods for social comfort, which are the vehicles for sending social signals, constitute another important part of consumption strategy for those striving for respectability. Such goods are given substantial attention in recent literature on conspicuous consumption (Bagwell and Bernheim, 1996; Charles et al., 2009; Frank, 2004; Heffetz, 2011; Hicks and Hicks, 2014; Hopkins and Kornienko, 2004 and others). From the perspective of a pyramid whose elements represent commodity aggregates that possess characteristics serving different types of utility, precautionary expenditure represents another dimension of consumption strategy that may satisfy the need for security on one hand and help maintain social comfort over time on the other hand (the motivations behind saving behaviour as a part of strategy are further discussed in Chapter 3).

The idea of utility decomposition also finds resonance in the work of scholars in consumer behaviour who suggest that in seeking for new products, consumers may be driven by not only by utilitarian features of products, but their social meaning, pleasurable feelings they secure (hedonic motive) or their intellect-stimulating effect (cognitive function) (Roerich, 2004; Vandecasteele and Geuens, 2010).

Utility, therefore, decomposes into essential and non-essential goods with further decomposition into categories that serve for varied dimensions of consumer strategy. Consumer strategies are, thus, implemented through decisions on expenditure allocation across the dimensions, like necessities, precautionary goods, goods to support one's status, goods for pleasure or agents' investments in long-term goals. Without claiming the exhaustiveness of the list and admitting the limited breadth of the literature review, the next

sections address some major writings on broad aggregates of commodities that, following the logic of De Vries, can be viewed as different dimensions of consumption strategy.

1.4.1. Pursuing social comfort:Emulation and distinction

The influential work of Veblen (1936[1899]) has illustrated that consumer preferences are determined socially – individuals emulate those who are higher in the social hierarchy. The representatives of higher classes are ready to pay higher prices for scarce commodities, in which case the price enhances the utility of goods (Leibenstein, 1950) to signal their status and the "elite" is ready to bear extra costs "to discourage imitation" (Bagwell and Bernheim, 1996).

The substantial efforts to incorporate a wider range of factors into economic analysis, in particular to acknowledge the effect of consumption behaviour of the social group on an individual's consumer choice, were undertaken by Duesenberry (1949). In the middle of the twentieth century Duesenberry initiated the introduction of Veblen's ideas into mainstream economic theory, arguing that "there are societies in which prestige is gained by the acquisition of some sort of good that is completely useless in fulfilling any need whatsoever…[but]… may be vital to the acquisition of prestige or maintenance of self-esteem" (Duesenberry 1949: 29). Duesenberry's argument posed a controversy for the demand additivity concept that was one of the cornerstones for neoclassical economics at the time. Duesenberry challenged the "individualistic and atomized model" (Douglas and Isherwood, 1979: 44) prevailing within contemporary mainstream economic thought, arguing that it is not only income and price that affect the levels of expenditure. This can be seen as a point when goods as status symbols were introduced in economic modelling. After the appreciation of social effect on consumption pointed out by Veblen (1899), the concept of demand non-additivity has evolved, which led social scientists to classify the utility types. One such classification belongs to Leibenstein (1950), who classified demand into functional and non-functional. Within the non-functional utility type he accounted for irrational choice and the role of social interaction which imposed three kinds of external effects driving consumer motivations – bandwagon effect implying an individual's striving "to conform with the people they wish to be associated with" (1950); the snob effect as a type of consumer behaviour aiming at disparaging from everyone else's consumption pattern by preferring a

differing commodity type, and the Veblen effect, where the price paid for a commodity serves the main distinguisher of an individual among the others.

Nowadays, it is common for social scientists to acknowledge the social meaning of goods and to view material possessions as the "means of communication" (McCracken, 1990), the symbols that allow people to make statements about themselves (Dittmar, 1992) and define their relations with peers (Solomon, 1983). This makes material possessions, and positional goods in particular, the effective vehicles of emulation strategy. It is more widely acknowledged that consumer demand is mediated by social position and demonstrative effects, i.e. the individuals' levels of expenditure can increase due to their observations of others' expenditures on "superior" goods (Mason, 2000). The non-economic tradition in social sciences, however, favours the idea of emulation of consumption behaviour characteristic to one's peer group, rather than emulation of the rich. Under the influence of macro social processes discussed below, with class melt-away and growing affluence across the social strata in developed countries, came acknowledgement that "pacesetters may come not only from the top" (Trigg, 2001) and the considerations over who are the emitters and recipients of status signals triggered the shift from the top-down model (as depicted by Veblen's and also, later, by Simmel's trickle-down theory of 1904) to the peer-group concept along with the development of new approaches to social stratification. Douglas and Isherwood (1979) noted that consumption patterns are the means of social interaction and may reflect the person's belonging to a class or peer-group, religion, or social position, rather than an individual's taste. Also, Bourdieu's Distinction (2010) exemplified how tastes reflected in the preferences for specific bundles of goods may distinguish individuals and signal class membership.

Consumption of positional goods (Hirsch, 1977), or goods that signal status, is considered to have strategic importance for individuals in their utility-maximization pursuit (Hopkins and Kornienko, 2004). Scarcity and limited access are considered the major characteristics of positional goods that signal status (Hirsch, 1977). Relative status consumption contributes to individuals' position in the social hierarchy which is "instrumental to the realization of numerous legitimate human objectives", e.g. it secures access to non-market goods, such as successful marriage (Frank, 1985). It also affects others' beliefs about the individuals' income sending signals about their well-being (Bagwell and Bernheim, 1996; Corneo and Jeanne (1997). Striving to distinguish themselves as a member of a certain peer-group, an individual emulates the behaviour, lifestyle and consumption patterns of the peer-group using positional

goods which in turn demonstrates bandwagon effects (Corneo and Jeanne, 1997). Thus, the consumer strategy of emulation/distinction takes the form of self-identification with or apart from a certain peer-group through the use of positional, or "visible" goods. The acknowledgement of social interaction using positional goods in economics led to modelling the utility function of two goods – visible (v) and nonvisible (w), as, for example, is defined in the research of Heffetz (2011):

$$f(v,w) = \beta_v \, ln(v) + \beta_w \, ln(w)$$

where utility function f(v, w) reaches its maximum under the budget constraint y: v+w=y.

Similarly, other models related to goods, which possess status-enhancing characteristics (e.g. Charles et al., 2009), assume the allocation of an individual's income between positional and non-positional goods, although there is need to account for individual's ranking in the population or the agent's status (Frank, 1985; Hopkins and Kornienko, 2004). Moreover, Kamakura and Du (2012) emphasize the need to step out of the orthodox economic paradigm and account for consumers' reference group as they explore changes in visible and non-visible product elasticities due to economic expansion and contraction and rely on Heffetz' visibility-index. They specifically note the potential usefulness of the Bourdieusian framework in explaining the positional effect. Indeed, a peer-group (or a habitus) may be more receptive to agents' attempts to distinguish themselves that involves goods which are not necessary in scarce supply, but rather signal possession of other, non-economic, forms of capital.

1.4.2. Savings as a dimension of consumption strategy

The early postulates of economic theory posited that high income groups save a higher proportion of income than lower income-earners leading to the macroeconomic assumption that aggregate savings ratio will increase with income. The study of Duesenberry (1949) questioned this assumption although still admitting that saving depends on the absolute level of income, yet relating the propensity to save to the percentile position of an individual in their population. He introduced the relative income hypothesis, suggesting that consumer expenditures in higher income groups are affected by social considerations (Duesenberry, 1949) and, consequently, savings in his study were considered as a residual category, or "as feasible non-consumption after the cultural pressures have been satisfied", that some scholars

view as an obvious limitation of his approach (Douglas and Isherwood, 1979: 47). The response to the limitations of Duesenberry's approach came from Milton Friedman who proposed a permanent income theory separating the notions of permanent and transitory income components and depicted consumer as a strategist whose consumption is determined "by longer-range income considerations" (Friedman, 1957: 221). He treated savings not as a residual category, but as if people have a consumption programme for life. This was a turning point in the acknowledgement that consumers have strategies - "the consumer, instead of choosing with no regard to past or future, is credited with an overall objective for his whole life span" (Douglas and Isherwood, 1979:49). Friedman's theory also suggested that consumers are forward-looking and consume their permanent income; however, when their income changes, they are affected by inertia still being reluctant to temporarily change their consumption habits.

While savings are still often viewed as a flip-side of consumption (Luguilde et al., 2017), i.e. a residual category, recent studies address emulation of the peer-group's lifestyle as an important driver of saving behaviour (Starr, 2013). Douglas and Isherwood (1979) point out that the social judgement and cultural norms may determine the ratio of consumption to income. Moreover, cultural effects on saving behaviour have been discussed by Duesenberry (1949: 40) who noted that people from lower-income groups have strong desire for current consumption only being held back by the psychological costs of dissaving and its immorality due to dominant cultural norms in the society. On the other hand, rather than treating savings as a non-visible, and thereby, non-positional good, Harbaugh argues that over-saving could be an attempt to avoid "falling behind the Joneses" in the future (1996). Saving behaviour, thus, needs to be considered as a part of a broader consumption strategy that accounts for agents' relevant peer-group and its socio-cultural context that may affect their saving behaviour.

To summarize, prior scholarly work helps envision utility as a simulacrum of a pyramid, where the cumulative embodiment of different possible useful characteristics of goods is disaggregated into a range of partially overlapping dichotomies: essentials versus non-essentials, serving long-term purposes or short-term impulses, for comfort and for pleasure, visible and non-visible. The blurredness of the boundaries between such dichotomies increases the exposure to critique of such classifications, and hinders exploration of

consumption patterns and the consumer motives that underlie preferences in relation to these classes of goods. The importance of peer-groups for agents' consumption and the interdisciplinary contributions of Becker and Bourdieu, discussed in Section 1.3, however, allow suggesting that the perceived utility of consumption clusters depends on consumer's capital - knowledge, experience, social capital and consumption capital (Becker, 1996; De Vries, 2008). The consumption analysis of commodity aggregates which reflect the dimensions of consumption strategy may help explore the behaviour of groups and also observe social processes in national environments.

1.5.   Consumption and class

1.5.1.   The role of class in consumption studies

Class introduces a significant difference in the emphasis that individuals put on a certain dimension of utility, causing major distortions to consumer strategies. The previous section has illustrated the varied dimensions to which consumers allocate their budgets pursuing different motives. However, the propensity to follow these motives may vary by capital forms possessed by individuals, often captured by class. The clear distinction between the middle-class and the working class was traditionally observed in earlier studies of consumption behaviour. Modern econometric models consider categories of socio-economic class, which, however, may be signified by substantial heterogeneity, because such classes may not possess much commonality in the culture of consumption. This aspect posits the major difference between the traditional classification, mainly reliant on the income-based view of social stratification and Bourdieu's understanding of class as a culturally-defined collectivity. Social categorization was developed for the purpose of capturing inequalities and it still remains the primary use of social stratification. Such categorization was also incorporated in consumption models to explain variance.

Economic studies traditionally acknowledged the strong "vertical" class distinction. As pointed out by Prais and Houthakker (1955), the middle-class is characterized by behaviour imposed by the traditional routines of living and habits of their class. In line with Friedman's permanent income hypothesis (1957), middle-class consumers even at points of temporary declines in their income are still expected to adhere to their habits, while with the working-

class "the excess income is ... spent as quickly as possible in some non-habit-forming direction" (Prais and Houthakker, 1955: 156). Also, as noted by Offer, the classes with lower economic resources are relatively more prone to irrational choice, lack of prudence and self-restraint, because well-off consumers have better access to commitment devices and, thus, possess more long-term oriented habits – "prudence is essentially a bourgeois attitude" (Offer, 2008: 52).

The "vertical" distinction, which emphasizes the working-class versus the middle-class dichotomy, was more pronounced with the rigid social stratification and here the examples of Britain and the US are of particular interest. Working-classes were seen as a different world, which was also noted by David Hall (2015: 6) who analysed the Mass Observation study carried on in late 1930s: "Until the outbreak of war in 1939, British society had a rigid class structure, with the educated upper and middle classes tending to take for granted their own superiority over the working classes". The rigidity of social stratification led to the between-class "lack of communication, with dialects and accents that were class-based and mutually incomprehensible. People were expected to conform to the values and conventions of their own social class" (Hall, 2015: 4-5). As noted by Scott (2014: 371) "in Victorian Britain, sharp distinctions were drawn between working-class and other households, not only on account of their lower and more irregular incomes, but their entire way of life". Similarly, the study of Lynds ("Middletown") in Muncie, Indiana during the 1920s and 1930s depict working classes as a habitus with distinct patterns of behaviour and consumption. Most people stayed within their social grouping for life. It was only towards the 1960s when the working classes were becoming assimilated into the middle class (Scott, 2014), when they could "break away from the stultifying background of … [their] parents with their limited horizons and become part of a seemingly "classless" group…" (Hall, 2015: 7). Wider access to education and the ability to mix with people of different backgrounds was broadening the horizons of the post-war generation and had a substantial effect on consumer strategies.

The breakdown of class boundaries, growing affluence and globalization processes were all called to level out the inter-class differences in consumption patterns, making the "vertical" class distinction and, thus, the rationale of the consumption pattern analysis according to its traditional class-based dichotomy, less relevant. The inter-class penetration of tastes and high affordability of lush expenditures due to increased purchasing power across classes (Galbraith, 1958) on one hand and the growing importance of lifestyle as a mark of social

group membership (Trigg, 2001) on the other hand diminished the role of income in consumption.

1.5.2. *Limitations of traditional class schemas in application to consumption studies*

Traditionally occupational effects in the analysis of economic behaviour are captured using the major divisions of schemas for social stratification that represent socio-economic class, which suggest a certain level of within-class homogeneity. Traditional schemas, however, often rely on the primacy of more tangible and measureable individual resources and may overlook the importance of social capital and its interaction with other individual resources.

The early perspective on the social divide was introduced by Karl Marx, inspired by observation of his contemporary highly polarized society with capital-owners opposing the proletariat, with such opposition being a basis for constant conflict. Over time, with growing affluence, the idea of polarization was gradually dissipating, yielding to the concept of class fragmentation which was at the heart of Weber's theory. According to Weber's view, the divide between propertied and propertyless could be further extended into what each grouping had to offer to the market (Bradley, 1996: 53).

The post-war Western world is less static in its class divisions. The improved chances of social mobility allow more vivid class fluidity, as noted in the work of Erikson and Goldthorpe (1993). The concept lying in the centre of the modern socio-occupational classification and discussed in A Constant Flux (Erikson and Goldthorpe, 1993) is believed to be inspired by Weber's theory. It introduces the nature of relationships between an individual and the market as a basis for construction of the classification scale. In other words, in addition to the traditional economic capital basis, the type of labour contract is introduced as a major factor accounting for between-occupational difference. There is a principal divide between the middle and the working class, with the middle-class further split into "service class" and an intermediate class while the working class is divided by skill levels. The idea of intellectuals as a new class controlling the production and distribution of "cultural" (informational) capital was profoundly expressed in Gouldner's work <u>The Future of Intellectuals and the Rise of the New Class</u> (1979). Gouldner posited that "intellectuals and intelligentsia are natural allies" (as cited in Esping-Andersen, 1993: 12). They get higher income due to the "cultures they possess", so managers, administrators and professionals were allocated to the same class, as also reflected in the British NS-SEC schema (1993: 37-39).

However, Esping-Andersen and his colleagues argue that "the autonomy of a professional is qualitatively different" (Esping-Andersen, 1993: 12) from that of a manager which creates a predisposition for a different occupational identity.

Goldthorpe posited a combination of capitals at the core of socio-economic classification. Goldthorpe's (1987) theory of resources draws on Lockwood's study in an attempt to account for both market and work situations and outlines categories that in broad terms are suggested to possess similarity in sources and levels of income. These include the extent of security, opportunities for economic advancement, and the levels of authority and control "in the light of available evidence" (Goldthorpe, 1987: 40-43). Lockwood (1989) who based his study on Max Weber's distinction between an individual's market situation (material rewards related to socio-occupational position) and work situation (symbolic rewards gained from occupational status) claimed economic and work positions as the determinants of class consciousness, thus emphasizing the importance of both economic and symbolic elements in understanding of the concept of class. Interested in the patterns of relative class mobility, Goldthorpe (1987) acknowledged the importance of what he called individual "relative advantages" – economic (capital, income, availability of credit etc.), social (involvement in social networks as channels of information and influence) and cultural resources. To understand the patterns of social fluidity he also accounted for system-level aspects – the relative desirability of different class positions and the relative barriers to enter certain positions (Goldthorpe, 1987: 99).

In 1994 the Economic and Social Research Council, in collaboration with the Office for National Statistics (ONS) started a review and eventually replaced the Social Class (Registrar General) and SEG (Socio-economic groups) previously used in surveys with the new National Statistics Socio-economic classification (NS-SEC) which was developed from Goldthorpe's schema. The researcher's guide by Rose and Pevalin (2003 as cited by ONS, 2010, volume 3) explains NS-SEC classification and shows its wide applicability in research, which is not limited to the studies of social inequality (ONS, 2010, volume 3). NS-SEC was then rebased on standard Occupational classification 2010 (ONS, 2010). Acknowledging the immense value and wide implications of the schema, which facilitated analytical work in economic and social research, the developers admit that the conceptual basis, "does not remove all barriers to explaining what socio-economic differences mean – employment is not the only determinant of life chances and not everything can be explained by what the classification directly measures" (ONS, 2010: 3).

The classification, however, has been criticized by the proponents of the cultural approach, for neglecting the importance of cultural and social resources as explanatory aspects for between-class distinctions in practices. Devine (1998) argues the insufficiency of Goldthorpe's "minimalist definition of class in terms of employment relations rather than collectivities of people who share identities and practices", which also "ignores the role of norms and values in shaping action" (Devine, 1998). Also, the study of Savage et al. (1992) puts in doubt the commonality of work and market position of occupations within the service class and in terms of individual resources. As also later admitted by Chan and Goldthorpe (2007), NS-SEC classes "are not intended to capture 'real' sociocultural groupings in the sense of collectivities recognized by and subjectively meaningful to their members, and with well-defined social boundaries as created… by processes of selection, socialization, or closure".

The concept of class and its application to empirical studies is a subject to never-ending debate. While acknowledging the necessity to account for the rich conceptual space in class analysis, quantitative empirical studies use socio-economic classification as a shortcut and important distinctions remain omitted. In addition to macro-concepts of class analysis, like class structure and class formation, Wright (2006: 62-64) distinguishes the importance of micro-level concepts – class location, class consciousness, class interests and practices. Class location is also referred to as class situation which is individual's place within class relations, specifically in property and market relations (Scott, 1994). Class interests represent individual strategies for maintaining and augmenting material interests. The latter microconcept is also closely related to class practices which are the activities undertaken in line with class interests. Class consciousness is the set of individual beliefs about class structure, relations and interests. While in some empirical studies the use of economic class which suggests the similarity of the position within the occupational system is sufficient for capturing the effects of interest, in other cases when the nature of study relates to symbolism of work situation, the micro-level concepts, like class interests or class preferences, gain more importance. Thus, for consumption studies, where class interest and practices are of key interest, the limitations of application of traditional schemas become more crucial. Some scholars, thus, propose developing alternative classifications (Atkinson, 2009).

1.5.3. Bourdieu's approach to class

According to Bourdieu (1979), class can be defined as a combination of individuals' cultural, social and economic capital. Moreover, taste is a class attribute. Bourdieu's concept of social stratification extends much beyond the traditional notion of class, defined predominantly by the economic potential of an individual. Rather, along with economic position, Bourdieu enriches the set of criteria defining an individual's standing with the other types of assets which guide their behaviours, lifelong trajectories and, thus, consumption preferences. In a sense, if the Marxian approach suggests mostly vertical class opposition of propertied and propertyless and the neo-Weberian perspective envisaged in Erikson and Goldthorpe's work (1993) extends the classification horizontally, then Bourdieu's more culturally-sensitive conceptualization of occupational standing represents an attempt to stretch Weberian-based stratification across the horizontal axis even further, pointing at other dimensions, defined by Bourdieu (2011) as the "types of capital".

Bourdieu sacrifices the rigour of systematic social stratification in favour of embracing a wider diversity of social relations and classifying human practices (Oesch, 2016). Rather than drawing strict boundaries between classes, as it is implemented in more conventional approaches, Bourdieu "envisions classes to be set in a continuous social space" (Oesch, 2016: 14). The introduction of varied capital types into class is an attempt "to bridge the relations between the economic and symbolic" (Oesch, 2016: 14). By introducing less observable dimensions when considering class as a concept, Bourdieu is approaching the culturalist view which posits that class is about "identifications, perceptions and feelings" (Medhurst, 2000 as cited by Taylor, 2016: 10).

While Goldthorpe's (1987) rigorous work in grouping occupational categories combines occupations mainly comparable by income and conditions of employment, the Bourdieusian approach, despite its "conceptual fuzziness" (Oesch, 2016: 19), offers valuable insights into the essence of class, as imbued with values and practices that makes the conceptualization an alternative to traditional social class schemas in the context of consumption studies. Bourdieusian demarcation of class in relation to "cultured" and "moneyed" fractions of the middle class has become an influential and highly inspiring approach. Individuals' position in the social space, according to Bourdieu, is not only defined by the volume of capital (as suggested by traditional schemas), but by the other two axes – the composition of capital and the social trajectory, with the latter representing "class interests" (Oesch, 2015: 18-19) and are associated with inherent lifestyles.

The elegant culturally-sensitive framework of Bourdieu inspired further academic research in sociology. However, its application in consumption studies remains very limited. One reason is that Bourdieu never attempted to analyse classes systematically. Therefore, his framework is open to critique for some "degree of slippage and uncertainty" (Savage et al., 2005). Some scholars suggest that such an approach may lead to extremely narrow sets of distinctive lifestyles (Stewart, 2016: 61). The proponents of Bourdieu (Lamont, 1992; Savage et al., 1992 to name a few), however, attempted the operationalization of the framework, outlining distinctive broad occupational groups characterized by differences in habitus, field, social forces and cultural and economic characteristics that also can be associated with differences in underlying consumption motivations. Studies on occupational identity in the sociology of work and employment and academic research on career fields that rely on Bourdieu's framework, discussed in the further sections, continue outlining between-occupational distinctions.

1.5.4. *Role of narrowly-defined occupation in underlying consumer motivations*

The elements of social identity characteristic for particular occupations, including motivations, lifestyles and attitudes of its members, have been widely explored. Scholars discuss dispositions, consumption-related motivations, pressures experienced by members of occupational groups and their habits that suggest potential for revealing distinctive shifts in their structures of preferences. Some scholars attempted to operationalize the Bourdieusian framework, seeking for some systematization of occupational aggregates. Also, there are objective factors that directly affect some dimensions of consumption strategy and need to be accounted for when defining narrow occupational groups.

Despite some conceptual vagueness of Bourdieu's framework, some scholars devoted their research to finding distinctive broad occupational groupings. As Lamont (1992: 151) examined the features of distinctively different habituses within the upper-middle class in the US and France, she distinguished between the private and the public, or non-profit, sectors and between employees in profit-oriented industries and social and cultural specialists as, with the latter group, "their work requires that they maintain a certain independence from commercialism." Lamont also brought in different levels of materialism, inspired by the sector, or "field", and outlined four distinctive categories of occupations whose motivations, drivers and even political views differ by the level of dependency on profit-making:

1) salaried cultural and social specialists working for the public or non-profit sectors, mostly driven by humanitarian goals and to lesser extent by profit-making (university professors, museum curators, higher-autonomy civil servants);

2) the hybrid category of salaried cultural and social specialists working for private sectors, as the profit-making sector imposes materialistic values, but profession itself – humanitarian values (clinical psychologists in private sector, self-employed dentists);

3) salaried for-profit workers in private sector (accountants, bankers, insurance executives);

4) self-employed for-profit professionals (self-employed lawyers, architects, financial advisors).

The study found "excessive materialism and lack of concern for cultural issues" among "business types" (Lamont, 1992: 156) and a higher aesthetic predisposition and non-materialistic motivations among social and cultural workers noting their specific "attitudinal patterns, such as opposition to capitalism, the business class" (Lamont, 1992: 157) and higher orientation to humanitarian values.

Güveli et al. (2006: 602) agree that "social-cultural occupations, like teachers, social workers, psychologists and artists, require specialist knowledge and .., skills [that] are relatively more humanistic and value-laden and occupations requiring these knowledge and skills are not instrumental for economic goals". Savage et al. (1992), notes asceticism of public sector and hedonism of private sector middle-class professionals (2010). The similar striking difference was reflected in Bourdieu's Distinction (2010[1984]), which emphasized the ascetic aristocracy of teachers and pubic-sector executives:

> who are systematically oriented towards the least expensive and most austere leisure activities and towards serious and even somewhat severe cultural practices …[as] opposed to the luxury tastes of the members of the professions … [who] realize the dispositions towards indulgence … which are encouraged by the requirements of occupations presupposing a large accumulation of symbolic capital (Bourdieu, 2010: 283).

Symbolic capital here is the legitimate demand for recognition, deference and obedience based on an individual's possession of different forms of capitals most valued in their field (Lee and Dunlap, 2014). Differences in hedonic inclinations were also illustrated by

Bourdieu, for example, in relation to consumption of durables - "teachers and senior executives seem to give priority to a washing machine and a dishwasher, for the professionals and industrial or commercial employers priority seems to go rather to a TV set and a car" (Bourdieu, 2010: 187). This shows distinctive patterns of substitution between ascetic versus more hedonistic classes in relation to what was broadly referred by Bowden and Offer (1994) as time-saving and time-using appliances.

As a limitation of Bourdieu's framework (2010[1984]), there is a disproportionate focus on upper classes and petty bourgeoisie and their inherent desire to preserve their privileged position over generations, while insufficient attention is given to the working classes (Vester, 2005). Vester (2005: 70) emphasizes the need to account for "the emancipatory potential and dynamics of the skilled working classes" and their growing cultural capital, pointing out the trend towards reducing the differences in consumption patterns between classes. Such dynamism, further mitigating the traditional Marxists' class polarity, is justified by historical socio-economic trends that signify interpenetration of consumption patterns. For example, Scott (2014: 375), illustrating the situation in Britain (and also pointing out at its resemblance to other Western societies), notes that "interwar trends for working-class households to adopt aspirational lifestyles intensified over the post-war decades", as in the conditions of economic security workers were willing to accommodate better standards of domestic comfort and contribute to the improvement of social mobility chances for their children.

Prior work also notes some important between-occupational differences in values and motivations relevant to consumption among the intermediate and the working classes. Abercrombie and Warde (2000) find that even within the category of intermediate white-collar workers, where one finds both clerks and sales assistants, these two groups have different working settings. Typical clerical occupations (civil service, local authorities, banks, insurance companies) are distinctively different from routine white-collar work, which occurs outside of office: in shops (sales assistants) or in restaurants where "they face circumstances quite different from the ones experienced by "black-coated workers". Clerks' lifestyles shaped by what are often referred to as transitory positions on their way up the social ladder (Abercrombie and Warde, 2000; Packard, 1959) also differ from the "blue-collar aristocracy". Packard (1959) hints that the underlying motivations of these groups which may also affect consumptions patterns are different –

both groups are success-minded, but in a different way. The blue-collared elite are at the top of their ladder and so don't worry too much about trying to upgrade themselves socially by their choice of status symbols. The white-collared people do worry, and do strive. They feel that they haven't arrived, and wonder if they ever will…. Both the blue- and white-collar members, then, are of roughly equal prestige although their ways of life differ. (Packard, 1959: 42).

The difference between the groups is also noted in the Bourdieusian analysis, which shows that, as opposed to skilled manual workers, clerks in general spend less on food both in absolute and relative terms and more on health and beauty care, clothing and cultural and leisure activities (Bourdieu, 2010: 176).

Studies in management and in the sociology of work and employment show that occupational fields are characterized by a predominance of specific types of knowledge or, in Bourdieu's (2011) words, the "species" of cultural capital. Displaying and augmenting different forms of capital is likely to involve investments into commodities that may signal those capitals. It is the nature of skills and the type of special knowledge that characterizes the field of profession. Skills in their unity represent resources that can be translated into social and economic rewards (Larson, 1977) on one hand and constitute the vehicle of social closure on the other hand (Macdonald, 1995). While social capital constitutes the essential capability of business professionals, e.g. "in auditing, conduct rather than knowledge tend to be what characterizes professionalism" (Anderson-Gough et al., 2002) and socialization is highly emphasized in management consulting (e.g. Pascale, 1985), it is technical knowledge that dominates some other professional fields, like IT or engineering.

The specificity of skills, however, may be more pronounced at the lower end of the professional ladder. The dynamics of technical fields shows that while technical skills are essential, the non-technical skills, like communication, negotiation, managing stakeholder expectations, are highly desirable (Gallagher et al., 2010), suggesting that higher economic rewards in technical professions are associated with augmentation of social capital, networking and socialization and the related skills. In other words, both sets of skills - IT skills and business skills – contribute to competitiveness of IT-professionals (Agarwal and Ferratt, 2002; Gallagher et al., 2010). Similar dynamics are observed among sales and marketing professionals. While relational skills, networking and customer insight are essential in their field, successful advancement (e.g. to key account management) suggests

strategic understanding of their organization and some technical expertise – cognitive skills gain in importance as they enable finding innovative solutions for the firm's clients (Marcos-Cuevas et al, 2014) as selling becomes more sophisticated and solutions-oriented (Fogel et al., 2012). Each field, thus, possesses its dynamics, implying the importance of development of competences and capabilities vital for further advancement which, to certain extent, require adjustment of lifestyle and consumption behaviour.

Another important factor that suggests heterogeneity within the professional-managerial (or "service") class is the nature of work. Despite professionals and managers both entering the big "service class", managers experience qualitatively different autonomy (Esping-Andersen, 1993) and are subject to influence by different kind of social pressures. The inherent scarcity of leadership positions makes these roles desirable for their autonomy and the deference paid to these positions. Professionals may, therefore, enjoy less intensive struggles on the social ladder, having their positions secured by the highly specific professional knowledge and the skills they possess. They still enjoy autonomy, but less leadership responsibility, therefore, their motivation for the demonstration of symbolic capital in the guise of material gains is likely to be less pronounced.

No less important are the opportunities for mobility in an occupational field that are associated with tension and social struggles and, thus, may leave a footprint on emulation strategy and capital-signalling investments of their members. Promotional opportunities may substantially vary by sector (Legatt, 1980).

Table 1.2. Access to selected professions by parental NS-SEC class.

Parental class	Professions, %	Intermediate, %	Working Class, %
Doctors	73	21	6
Law	62	25	13
Management consultants	59	26	15
Academics	58	28	14
Scientists	52	36	12
CEOs	52	36	12
Teachers	49	33	18
Accountants and related	48	36	17
Finance managers	47	37	16
IT	45	36	19
Public sector	41	36	23
Engineers	41	39	21
Social workers and welfare professionals	38	36	26

Source: Friedman et al. (2017).

Consumption patterns vary by socio-economic class, as discussed above, and taking into account that the backgrounds of representatives of different occupational fields can be signified by substantial differences, so can their consumption-related dispositions. According to Friedman et al. (2017), certain professional groups - doctors, lawyers, academics, scientists, top managers and business consultants – are characterized by intergenerational succession which is less common for public sector professions where only 41% have a professional parent (Table 3). The former are more likely to be subjects to early socialization into professions and possess distinctively different lifestyles and ways of signalling capitals.

To conclude, consumption studies traditionally appreciate between-class differences. However, abstract big classes, originally designed to capture income inequalities, mask important differences in consumption behaviour of narrowly-defined occupational groups. What underlies class is a combination of economic, social and cultural capitals, or resources (Bourdieu, 2010; Goldthorpe, 1987). Specific occupational groups are more likely to explain individual-level behaviours, distinctive aspects of lifestyles, dispositions and the structures of preferences, than "big classes", and, thus, are expected to have a larger explanatory power in models of consumption-related behaviour (Weeden and Grusky, 2005; Wright, 2015).

1.6. Approach to methodology

The methodological approach to exploration of between-occupational differences in consumption patterns related to capital-signalling follows the tradition of economic analysis in consumption, namely, models of expenditure for commodity aggregates are built and occupational effects are estimated. However, admitting the obstacles traditionally faced in consumption analysis, there is a need to address the problems of deriving groups of individuals who possess a relatively high degree of uniformity and the aggregates of commodities based on the type of "use-value" (as discussed in Section 1.2 above).

Aggregating individuals in the empirical sections of the thesis involves considering groups of agents that, according to prior literature, have similar combinations of capital forms, similar conditions that stem from employment relations and, thus, are expected to possess some commonality in lifestyles and dispositions. When addressing aggregation of commodities, models can be built for commodity aggregates that represent the dimensions of consumption strategy and/or groups of commodities instrumental for visible display of different forms of

individuals' capitals. Multivariate regressions that account for occupational effects and partial out the effects of the other relevant characteristics can be built and the pairwise differences between narrowly-defined occupational groups can be estimated.

Household members may belong to different occupational groups and bring varying patterns to the consumption strategy of the household, which adds to the statistical "noise" of the results in relation to the effect of habitus and to some extent hinders clarity of patterns associated with particular occupational fields. Large occupational subsamples partially address this limitation. The critical perspective suggests that such methodological approaches (also used by Becker in family economics) would assume "there being an authoritarian head of the family, whose values are shared by everybody in the family, and where things get distributed according to those values" (Sen, 1990: 259). Still, relating household consumption to socioeconomic status traditionally only accounts for the socio-economic status associated solely with the occupation of the head of household (e.g. Kamakura and Mazzon, 2013). While variation in the total stock of capitals for all household members (caused by the fact that non-HRPs may possess considerably different combinations of capital) reduces the within-group homogeneity, with the large sizes of occupational subsamples the constant element for each household in the occupational groups (HRP's occupation) will still reveal the between-group differences (if these exist) across the occupational groups. In other words, as suggested by Prais and Houthakker (1955: 160) , while admitting the difficulty in analysing the occupational effects on consumption that stem from the fact that these are associated with income, region and other characteristics (we may also add capital composition of other household members to the set of such characteristics), if sufficient range of variation is obtained by the use of broad occupational groupings (larger occupational subsamples), this difficulty can be overcome. Moreover, the phenomenon of assortative mating allow envision the family as an enterprise with aspirations and a joint household consumption strategy and suggests the similarity of forms and types of capitals shared by household members.

1.6.1. *Addressing the problem of aggregation of individuals*

Traditionally, occupational effects are captured using the major divisions of classic schemas for social stratification, which represent a set of socio-economic classes used as dummy-variables in consumption models. This suggests a certain level of within-group homogeneity.

Classes mainly emphasize the economic element of individual resources, while the importance of the other forms of capitals as distinctive features within the fractions of the same socio-economic class are generally overlooked (Savage et al., 2005). In other words, the link between "positions and dispositions" (Bourdieu, 2010), so important for consumption analysis, remains unaccounted for. As a result, between-occupational differences in the distribution of capital forms and the specific system-level effects remain uncaptured by the models. This leads to insufficient homogeneity of occupational clusters and does not allow observing important between-occupational differences in consumption-related behaviour.

Acknowledging the limited separability of human capital elements and also the limited "measurability" of social capital (Coleman, 1990), models of realized consumer choice still distinguish between the separate effects of income and formal education, but the rest of human capital (social influences stemming from the structural effects of the field, individuals' cultural capital in its embodied state, or dominant types of cultural capital in one's occupational field) remains absorbed by occupational effects. In the multivariate regression occupational variables, thus capture the effects of the occupational class except for the elements already accounted for in the regression. Inseparability of characteristics motivated Becker (Becker and Murphy, 2000) to employ social capital as a "catch-all" concept that included a variety of social forces (Fine, 2000). Similarly, Bourdieu (2010) notes the inseparability of characteristics related to occupation:

> constructing… classes as homogenous as possible with respect to the fundamental determinants of the material conditions of existence and the conditionings they impose … one consciously takes into account the network of secondary characteristics which are more or less unconsciously manipulated whenever the classes are defined in terms of a single criterion, even one as pertinent as occupation (Bourdieu, 2010: 100).

Thus, the precision of occupational effects in consumption models and their explanatory power benefit from attempts to increase within-group homogeneity that involves accounting for relevant secondary characteristics. Becker (1993) criticized economists for their failure to incorporate "a much richer class of attitudes, preferences, and calculations" that constitute motivations underlying individual choice into the models of consumption. Thus, the effect of occupation imbued with relevant capitals- and consumption-related characteristics represents attempts to incorporate sociologist and anthropologist insights into econometric models of consumption.

The literature that relates "positions with dispositions" allows identifying occupational groups with distinctive lifestyles and associated consumption patterns (Becker, 1996; Bourdieu, 2010; Savage et al., 1992; Sawyer, 1978; Warde, 1997; Weeden and Grusky, 2005). Occupation and work environment play an important role in shaping preferences. The choice of career and the positions associated with its social trajectory to a certain extent guide agents' views of necessities and define perceptions of utility of different goods. Business consultants, software developers and academics are likely to prioritize their spending differently as an expensive office suit, a social drink with a colleague, or a series of literary works may carry different instrumental value for them. Consumption preferences, thus, may act as quantifiable measures of between-group cultural difference.

Classes in the Bourdieusian (2010) framework are set in the continuum of social space. Particular occupational groupings are expected to represent "gravity centres" for certain capital forms, while in other occupational clusters these patterns may be less distinctive. The constructive critique of some scholars, who argue that "the linking of occupation with certain lifestyle preferences is rather deductive" (Stewart, 2016: 61) and blame the approach for leading to extremely narrow sets of distinctive lifestyles, suggests that, given modern class fluidity and the general class melt-away effect (Abercrombie and Warde, 2000), there is not much space for defining multiple "core" occupational groups with clearly defined boundaries, distinctive behaviours and consumption patterns. Therefore, the effects of socio-occupational classes can only be expected to be observed with the most distinctive occupational groups whose difference in capital forms is well-justified by prior research.

The technical implementation of consumption pattern analysis using multivariate regression needs to account for the inherent limitations of the theoretical framework, namely, a lack of systematized Bourdieusian-like classification (Oesch, 2015), and strive for bias reduction. Using large sample sizes allows disentangling the effects of occupation from the other related individual characteristics (Prais and Houthakker, 1955: 160). However, larger sizes of occupational subsamples call for broader occupational groupings that still possess relatively high within-group homogeneity in relation to capital forms and system-level influences to suggest some similarity of lifestyles and experiences (as also outlined in the idea of micro-classes by Weeden and Grusky, 2005) and, thus, similar cultures of consumption. Therefore, the occupational dummy-variables may represent broader aggregates of occupations justified by prior literature.

Understanding of the conditions of existence and the resulting underlying motivations of specific occupational groups immensely helps interpretation in economic analysis of consumption of commodity aggregates, when bundles of goods symbolize particular types of "use-value" (as suggested by Bourdieu's analysis of expenditure aggregates discussed in Section 1.3.2). The study of Scott and Walker (2015) is an illustrative example of how differences in consumption patterns between the specific occupational groups can be successfully explored when the instrumentality, or "use-value" of commodity aggregates is taken into consideration. Their exploration of a specific class fraction, namely, the lowest-income subclass of clerks in Edwardian Britain, along with its inherent motivations and lifestyle considered within the rich context of external conditions, is coherently associated with a particular patterns of household budget allocation. Being driven by the desire to distinguish themselves from manual workers and express belonging to their aspired "habitus", they sacrifice essential consumption categories, like food and fuel, due to high spending on presentational goods "as a signalling device" to demonstrate that symbolic capital related to their occupation is principally different from that of manual workers. The value of identifying narrow occupational groups with their specific contexts for consumption analysis is also observed, for example, in the study of Fuchs-Schündeln and Schündeln (2005). Their study distinguishes a group of civil servants as a group of risk-averse individuals who self-select themselves to civil service occupations characterized by low labour income risk. Using such narrowly-defined group as a dummy-variable in modelling allows observing the significant occupational effect on saving behaviour.

1.6.2. Modelling consumption of commodity aggregates

While aggregation of individuals in relation to consumption behaviour can be addressed employing the Bourdieusian framework and insights from prior sociologist and anthropologist studies, there is also a need to address the aggregation of commodities by use-value, as discussed in Section 1.2. and 1.4.

Traditionally, the demand for a commodity is viewed a function of income and price. Thus, modelling a single commodity, the demand function in its general form can be expressed as:

$$q_i = f_i\left(\frac{p_i}{\pi}, \frac{\mu}{\pi}, t\right) \qquad (1.1)$$

where q_i – quanity of commodity i, p_i – its price, π- price index for all commodities and μ - total income/total expenditure, t- time.

A practical form of equation (1.1) is expressed in equation (1.2) which is noted by Brown and Deaton (1972) as the most popular form of the Engel curve:

$$log\ q_i = a_i + b_i t + \ e_i\ log(\frac{\mu}{\pi}) + e_{ii}\ log\left(\frac{p_i}{\pi}\right) \tag{1.2}$$

where a_i, b_i, e_i, e_{ii} are constants, q_i is the quantity of the i-th commodity per unit of population, p_i is the price of the commodity, μ- total expenditure or total income per unit of population, π – price index of all prices and t is time. If prices are assumed constant, the equation is reduced to the quantity being a function of consumer's income. For the assumption of constant prices to hold, as specified by Brown and Deaton (1972), budget data needs to satisfy two requirements – it has to be collected "over shortest practical period of time and from a sufficiently small region for geographical differences in price to be negligible" (Brown and Deaton, 1972: 1172). This is rare in practice, therefore, a special mechanism can be used in order to address these two requirements. Tackling the potential price differentials due to geographical dispersion of cross-sections which in turn requires accounting for regional differences, the model needs to control for the geographical area (regional dummies). Also, as noted by Taylor and Houthakker (2010: 120), for the absence of price variables, regional dummy variables pick up differences in regional price levels.

Cross-sectional data of annual surveys is taken within a year, which is a relatively short period of time when price changes are not likely to be substantial in stable economies (compared to change in prices in time-series data over decades). The study of Taylor and Houthakker (2010, Chapter 6) that explored elasticities of broad expenditure categories using the US budget surveys over a relatively short period (1996-1999) has shown that, despite the statistical and numerical significance of price indices, there is "virtually zero impact on estimates of total expenditure elasticities of a presence or absence of price in the estimating equations". From this they conclude that, "the total-expenditure elasticities that are estimated for expenditure categories for which price information is not available should be free of omitted-variable bias" (Taylor and Houthakker, 2010: 126). Also, controlling for the year of the survey, i.e. including year-dummies into the model, is expected to bear the variance which is due to changes in the price index, therefore, meeting the assumption of constant prices. This consideration allows combining several annual surveys over adjacent years.

The potential subject to critique here is changing consumer tastes and preferences over time. However, in the short-run tastes and preferences are not expected to change. Taylor and Houthakker (2010: 396) note the "stability of underlying tastes and preferences" which was reflected in very small variation in the elasticities of expenditure categories, quarter to quarter across the three years of their analysis.

Thus, while formally quantity is a function of income and price:

$$q = f(x, p) \tag{1.3}$$

where x is total income and, p is price, still if prices are held constant (which approximates the case of cross-sectional data collected over a relatively short period of time and provided that controls for geographic differentials are included), omitting price from Engel curves would not affect precision of the models. In fact, demand can be considered as a function of consumer's income conditional on a set of prices which are held constant (Brown and Deaton, 1972):

$$q = f(x \mid p_1, \ldots p_n) \tag{1.4}$$

Since expenditure on an i-th commodity, v_i, is the product of quantity and price, the alternative form of Eq. (1.3) (Taylor and Houthakker, 2010: 110) can be expressed as

$$v_i = f(x_i, p) \tag{1.5}$$

Exploring the Engel curves as a relationship that shows how expenditure on a commodity changes with the income level of the household, economic studies   also integrate household composition effects into the equation, consider occupational effects and the other relevant characteristics of the household (Deaton, 1997; Deaton and Muellbauer, 1980; Prais and Houthakker, 1955). Thus, demand, expressed as expenditure on a commodity is also a function of individual household characteristics X_i:

$$v_i = \beta_1 + \beta_2 \, (Permanent \ Income)_i + \Theta \, X_i + Year_i + Region_i + \eta_i \tag{1.6}$$

where *Year$_i$* and *Region$_i$* are the controls for price differentials necessary to meet the assumption of constant prices.

There has been extensive work in economics defining the best functional form of demand equations. Prais and Houthakker (1955) contributed significantly to this area as they

experimented and tested the goodness of fit for five alternative forms of the equation - double-logarithmic, log-inverse, semi-log, linear and hyperbolic - and found that the most adequate result is secured by the semi-logarithmic form. They particularly acknowledged the usefulness of double-log form (Prais and Houthakker, 1955: 95-97). The double-log form, which is also noted by Brown and Deaton (1972: 1155) as the most popular form of the Engel curve, was also used by Charles et al. (2009) for modelling conspicuous consumption.

The above discussion only considered a single commodity. However, in a similar way, theoretically-justified bundles of goods, that carry similar characteristics, can be modelled as an aggregate group of commodities (Brown and Deaton, 1972; Deaton and Muelbauer, 1980; Prais and Houthakker, 1955; Taylor and Houthakker, 2010). Modelling expenditure for groups of commodities has always been quite problematic, because the ideal circumstance - where a commodity is narrowly defined and the information about what price each household paid for that commodity is at hand – is rarely the case. Consumption categories in budget surveys can include a vast variety of items, thus, as noted by Taylor and Houthakker (2010: 109), the economic analysis of elasticities has to accept that "notions that the price elasticities obtained are the clean, pristine ones of theory have to be put to the side." Moreover, in this case considering quantity on the left hand side of the equation is not sensible –"with nonhomogeneous goods … not only does price become ambiguous, but so too does the concept of quantity" (Taylor and Houthakker, 2010: 109).

A limitation in the analysis of narrow commodity groups is the assumption about additivity of preferences, i.e. there is an assumption that the marginal utility of each commodity is independent of the quantities of other purchased commodities within that group. Such assumption is only plausible for broad categories of goods (Brown and Deaton, 1972: 1153). Therefore, the analysis of narrow commodity groups that assumes additivity of preferences can only be considered an approximation, which assumes that changes in the prices of substitutes or shifts in tastes of the target population do not inhibit or boost the demand for the other commodities in those groups.

The between-occupational differences in investments into a commodity aggregate can be captured by estimating Engel curves (Eq. 1.7) for each occupational group separately:

$$Expenditure = \beta_1 + \beta_2 Income + \Phi X + u \qquad\qquad (1.7)$$

where, accounting for relevant individual characteristics X, cross-model differences in elasticity coefficients β_2 and intercepts β_1 (individual group effect) are compared between occupations. The magnitudes of effects in the different subsamples can be compared qualitatively (Gelman and Stern, 2006) to observe the important shifts in consumption behaviour of groups.

In the models for two different occupations (Eq. 1.8), when the marginal increase β_2 is assumed to be the same, the focus of estimation shifts to the difference between intercepts $\delta = \beta_1' - \beta_1$ (Eq. 1.9). When β_2 cannot be assumed to be the same, multiplicative effects (interaction terms between *Income* and the group dummy) can be estimated.

$$Expenditure = \beta_1 + \beta_2 Income + \Phi X + u \qquad (1.8)$$

$$Expenditure = \beta_1' + \beta_2 Income + \Phi X + u$$

A single model (Eq. 1.9) has two advantages: it is a simpler way of testing whether the effect of the qualitative factor is significant; also, a single model provides more efficient estimates (Dougherty, 2011).

$$Expenditure = \beta_1 + \delta + \beta_2 Income + \Phi X + u \qquad (1.9)$$

Having multiple occupations to compare, model (Eq. 1.9) becomes:

$$Expenditure = \beta_1 + \delta_1 Occ1 + \delta_2 Occ2 + \ldots + \delta_{N-1} Occ\,(N-1) + \beta_2 Income + \Phi X + u \qquad (1.10)$$

where $\delta_1, \delta_2, \ldots, \delta_{N-1}$ are coefficients representing extra expenditure associated with an occupational group compared to the reference occupation Occ N (omitted category). Pairwise differences between occupational effects and their statistical significance can be estimated when occupational groups are treated as reference groups interchangeably (Dougherty, 2011).

A similar methodological approach was undertaken in the study of conspicuous consumption and race by Charles et al. (2009), where the items of visible consumption are grouped (the components of visible spending are clothing and shoes, clothing services, jewellery and watches, toilet articles and preparations, barbershops, beauty parlours and expenditure categories related to personal vehicles) and different racial groups represent consumer aggregations expected to consume differently. In line with prior studies (e.g. Prais and Houthakker, 1955; Savage et al., 1992), the occupational class of the household is defined by the occupation of the head of household.

To conclude, taking into account that the key reason for introduction of occupational and educational indicators into consumption and saving models is, "to exploit variation in the environments of different agents and … [allow] different subgroups of the population to have different preferences" (Gourinchas and Parker, 2002), it is important to reduce the heterogeneity of an occupational cluster in the statistical analysis. Capturing the effect of socio-occupational classes generated using the Bourdieusian principle in consumption behaviour, thus, represents a theoretically-justified and a methodologically sound approach expected to facilitate interpretation of model results and identify differences between the narrowly-defined occupational groups. Prior economic studies identify Engel curves as a way of exploring consumption behaviour, discuss their most appropriate forms and suggest ways of exploring consumption behaviour of groups in relation to commodity aggregates. These insights are used to develop the methodology for the empirical exploratory work of the thesis.

1.7. Perspectives on cross-national differences in consumption

Cross-national comparative studies in consumption are rare (Trentmann, 2017) and some particularly relevant societal factors for consumption analysis, like social norms, social stratification, and social status, remain understudied (Douglas et al, 1993). Intersocietal differences in consumption and savings have been of long-term interest for scholars. However, issues related to interdisciplinarity and comparability of operating categories hinder research.

As early as the 1940s, Duesenberry (1949) pointed out the existence of intersocietal differences in demonstration effects exposed by individuals, which would affect consumption behaviour. However, while measures of consumption of positional goods were successfully developed ("Visibility" index by Heffetz, 2011) and applied in several national contexts of the Western world (e.g. Friehe and Mechtel, 2014; Hicks and Hicks, 2015), individuals derive different types of use-value from the same commodities in different countries (Sen, 1983) and scholars noted limited cross-national applicability of the "visibility"-index as a basis for commodity aggregation (Khamis et al., 2012). On the other hand, rather than pursuing the search for regularities between countries using the traditional models of demand for broad consumption categories, some scholar suggest approaching consumption analysis from the perspective of underlying motivating substrates and they also expect cross-national differences in the motivations underlying consumption patterns (Taylor and Houthakker,

2010). Also, no doubt, the role of societal norms should not be neglected (for example, scholars relate cross-national differences in individuals' tendency for savings accumulation to culture (Feltovich and Ejebu, 2014)). However, there needs to be a wider understanding of processes and mechanisms that drive cross-national differences in consumption. There are several perspectives on the processes and factors underlying cross-national differences.

Culturalist approaches emphasize the importance of national culture on consumption preferences. Differences in cross-cultural levels of self-restraint or long-term orientation introduced by the classic studies of Hofstede suggest that the propensity to consume hedonic products lacking long-term benefits may vary accordingly (Busse, 2014; Hofstede et al., 2010). Steenkamp, Hofstede and Wedel (1999) hypothesize cultural antecedents of the difference in consumers' desire to buy novelty products (consumer innovativeness) and relate it to differences in personal values and some of Hofstede's cultural dimensions. Dwyer et al. (2005) also emphasizes the role of national culture in product diffusion.

Structuralist approaches suggest that under growing affluence, societal value change occurs, as described by Ronald Inglehart, which further increases demand for stimulating, "creative", products, or hedonic consumption. Inglehart (1997) in his Modernization/ Postmodernization theory bases his argument on the ideas of Marx and Weber that culture and the values that dominate in the society are related to the stage of economic development. Using World Value Surveys, Inglehart (1997) demonstrates how, under growing affluence, the priorities of societies shift from materialist to postmaterialist values and that well-being and individualistic values gain dominance. As Offer (2006: 34) summarizes, "[the argument of] Inglehart's long-standing study… is that the post-war cohorts have shifted their preferences from economic to non-economic rewards, as a result of their experience of economic security." Offer (2006), however, notes the increasing level of wealth as a driver of irrational choice. Lack of prudence and self-restraint affects consumer strategies in a sense that the search for emotional arousal and "untested new rewards" sometimes comes at the expense of savings and people's own well-being. Importantly, Offer's study (2006: 143) suggests that social class is an important determinant of consumption behaviour as, "the ability to deter gratification" is costly, therefore, the well-offs have better access to commitment devices.

As noted in the previous sections, however, social class is defined by relative advantages, or individuals' capitals, thus, differences in individuals' capitals as related to their positions in their national social space may constitute intersocietal differences in consumption patterns. In

other words, some regularities in consumption patterns can be observed with cross-national comparative consumption analysis of narrow socio-occupational classes, when the analysis is approached from the perspective of underlying consumer motivations.

In their turn, the differences in individuals' capitals related to their positions in the national social space are reliant on the opportunities and pressures experienced by individuals in different societies. Individuals, however, are associated with occupational fields and there are differences in the dynamics of occupational fields related to accumulation of skills and development of various forms of capital and differences in the system-level expectations between the societies. Amable (2003:4) admits that institutions indirectly affect individual decisions as they "define incentives and constraints that will lead agents to invest in certain assets, acquire certain skills". Moreover, Hall and Soskice (2001) note the importance of informal institutions (historical and cultural influences) on the formation of formal country-specific institutions and agents' economic behaviour. Thus, theorizing occupational classes as possessing distinctive structures of preferences may not omit the perspective of institutions that define the dynamics of occupational fields and the distribution of capitals in these occupational fields.

There are a number of cross-national comparative studies that help explain differences of conditions of existence for the same occupational groups by societal factors, e.g. the level of anti-intellectualism (Lamont, 1992; Savage et al., 1992), differences in social stratification, class closure (Devine, 1997) and social mobility (Esping-Andersen, 1993). These studies show that the characteristics of social environment represent the opportunities and pressures for individuals who, in turn, are driven by the desire to conform to the norms. These pressures, or the conditions of existence (conditional on the occupational field), make individuals invest in particular assets, like investments in self-development, or cultural capital, or status goods. Exploring the structure of preferences among the members of the same occupational fields cross-nationally may firstly, reveal the magnitude and the nature of differences in conditions that characterize the occupational fields and, secondly, indicate which societal factors related to employment and formal and informal institutions that affect the labour market may, in turn, affect the demand for commodities.

1.8. Conclusion: motivation and the outline of empirical investigation

Human motives are embedded in social and institutional contexts; in particular, individuals' motives for consuming and for saving vary according to habits formed by subjective and social incentives. For an individual occupation - the working environment, norms, opportunities and the social trajectory associated with it - represents an incentive that may involve particular patterns of individual investment vital to fulfil system-level expectations (Becker, 1996; Sawyer, 1978). The prior interdisciplinary discourse envisions consumption strategies of individuals as dependent upon their location in the social space characterized by particular distribution of capital forms and types.

This introductory chapter outlined the debate in relation to consumption behaviour conditional on human capital in its various forms that evolves on parallel in the "mature" separated sociological and economic disciplines. The major hindrances on the way to interdisciplinary reconciliation for the sake of further theory-guided and methodologically sound empirical analysis of consumption patterns were discussed. It was noted that consumption analysis in the positivist tradition is hindered by two major obstacles – meaningful aggregation of individuals and meaningful aggregation of commodities. The discussion of the chapter points out that account of sociological literature may immensely help in the meaningful clustering across both dimensions.

Previous literature outlines economic capital, social capital and different types of cultural capital (Bourdieu, 2010; Bourdieu, 2011, Coleman, 1990; Goldthorpe, 1987; Savage et al., 2005) as individual resources which collectively determine individuals' economic behaviour. Possessing a particular combination of resources, individuals occupy positions in the labour market which place them into a social space which to certain extent defines preferences, lifestyles, tastes and practices. The perspective of Becker (1996; Becker and Murphy, 2000) suggests that human capital elements (economic capital, education and social capital) are important predictors of consumption preferences as some commodities are instrumental for supporting the development and augmentation of individual's capitals in line with the pressures of social forces, norms and traditions in one's environment. The parallel Bourdieu's (Bourdieu, 2010[1984]; Bourdieu and Wacquant, 1992) conceptualization suggests that a combination of capital forms is to a certain extent embodied in individuals' habitus and field and, again, collectively defines dispositions and aspects of lifestyles. Progression in the social trajectory involves signalling capitals, therefore, differences in the distribution of capital

forms across occupational fields, or organizational domain, are expected to be associated with preferences for particular groups of commodities. In other words, human capital with a variety of its forms steps in as a reason for individual economic behaviour. Given a variety of structural conditions experienced by members of occupational groups in their field, both conceptualizations imply interaction between agent and structure, leading to individuals' investment into resources. These resources include commodities that carry particular "use-value" and are instrumental for implementation of agents' roles and maintaining and augmenting their position in the field via signalling capitals.

Synthesis of interdisciplinary theoretical propositions allows empirical explorations of consumption patterns to reveal relative priorities in preferences as characteristics of career fields. The disparities in Becker's and Bourdieu's approaches discussed in Chapter 1 have highlighted the high importance of interdisciplinary dialogue. However, the undeniable complementarity of their conceptualizations also suggests the viability of interdisciplinary empirical studies in consumption.

Answering the main research question involves the following steps:

1). identifying groups of individuals with distinctive combinations of capital forms with their inherent consumption patterns in a national environment;

2). the search for significant differences in consumption strategies of such groups and their consumption-related characteristics when income as a differentiator is accounted for (since income is a major factor affecting consumer choices);

3). the search for significant cross-national differences in how the same occupational classes allocate their resources across the dimensions of consumer strategy.

The project aims to use large-scale national surveys to explore consumption patterns of households where the occupation of the head of household defines the occupational class of the household.

Can we identify distinctive meaningful groups on a basis other than income, with their inherent consumption patterns in a national environment? The introductory chapter justifies the rationale for exploring occupational effects in consumption and saving behaviour, when occupation is viewed as a combination of different types of human capital and is imbued with

system-level effects. Bourdieu's (2010) framework suggests an approach for aggregating individuals into socio-occupational groups that allows for the higher level of within-class homogeneity in practices and economic behaviour. For this purpose occupational groups are defined more narrowly than in the traditional stratification schemas with the support of prior sociological studies. Despite the lack of the systematized culturally-defined Bourdieusian-like occupational classification (Oesch, 2015), prior sociological and anthropological literature suggests grounds for deriving particular socio-occupational groups expected to have distinctive consumption behaviour that allows utilizing an alternative approach to occupational dummies. The chapter outlines the theoretical consideration of the alternative occupational aggregates along with the methodological proposition for empirical work.

Are there significant differences in consumption strategies of households and individual consumption-related characteristics associated with different combinations of capital? Given differences in social meanings of goods, as posited by the prominent thesis of Douglas and Isherwood (1979), the effective way of capturing the between-occupational differences is particularization of commodity groups - as noted by Prais and Houthakker (1955: 160), occupational effects in consumer expenditure "will only be significant when the items are particularized". Chapter 2 explores consumption behaviours of managerial/professional groups, to test whether distinctive patterns of "visible" consumption and its particular components – presentational, socialization-related and informational goods - can be identified, consistent with capital combinations required for membership of, and advancement within, particular occupational fields. Narrowly-defined occupational groups are introduced into the model of consumption as a habitus-matrix. Britain's Living Costs and Food survey (2009-2016) is used to test whether occupations with similar combinations of capital forms (economic, social, and cultural) are significant determinants of visible consumption differences for six "narrow" occupational groups: higher- and lower- private sector management; public sector management; business professionals; technical professionals; and educational professionals.

The importance of capital forms for individuals' economic behaviour also suggests implications for personal saving behaviour when savings are viewed as investments to maintain one's lifestyle. Acknowledging that saving behaviour is socially-defined (Harbaugh, 1996; Starr, 2009), the strong effect of occupational field and between-group differences are expected. Treating personal savings as a commodity, Chapter 3 suggests that social pressures associated with an individual's occupation matter for their savings behaviour that represents

an important part of consumption strategy aimed at maintaining the material interests and consistent capital-signalling ability. The significant literature on occupational fields enables predictions about relative savings behaviour for selected occupational groups. The analysis of data from the Understanding Society survey (2009-2015) is used to explore the propensity to save and the levels of monthly savings among the occupational clusters.

Are there significant cross-national differences in how households of the same socio-economic group, or habitus, allocate their resources across the dimensions of consumer strategy? Human motives, including the motives for consuming, are embedded in institutional contexts that cannot avoid a footprint on the economic behaviour of individuals. Undertaking a quantitative analysis of household budget surveys, Chapter 4 explores the three national contexts that are distinctive in institutional settings most relevant to consumption behaviour. The dimensions in the theory of comparative capitalism are hypothesized to impact the patterns of consumption behaviour of the professional groups and cross-national differences are expected. In other words, agents in the similar occupational field are not only characterized by particular combinations of capital forms, but also experience institutional pressures and respond with particular patterns of economic action. Consumption preferences in relation to wealth-signalling, presentational, socialization-related and informational goods, thus, are related to and to some extent are defined by the framework of national formal and informal institutions. Thus, acknowledging the importance of institutional context, consumption preferences represent quantifiable measures of cultural differences and may, thus, characterize cross-national differences in professional fields.

Chapter 2. Career fields, capitals, and consumption preferences: The analysis of the British family expenditure survey (2009-2016)

2.1. Introduction

In the light of prominent studies in sociology and economics (Becker, 1996; Bourdieu, 2010; Savage et al., 1992) the importance of human capital in its different forms (economic, social, cultural) for individual practices, interests and dispositions, cannot be overestimated and is also accentuated in the recent studies of sociology of work and employment, especially in relation to occupational identity (Ashley and Empson, 2017; Chudzikowski and Mayrhofer, 2011; Marks and Bauldry, 2009; McLeod et al., 2009; Spence et al., 2017; Woodhall-Melnik and Matheson, 2017). Interest in the characteristics of career fields in general and the Bourdieusian (2010) theory of practice in particular is supported by recent calls for interdisciplinary inquiry and the wider research agenda related to lifestyles, social contexts and occupational identity development (Arthur, 2008; Khapova and Arthur, 2010). Career fields – the social spaces where individuals' capitals are distributed – not only suggest certain dispositions and interests of their members, but also dictate the conditions for socialization and guide individuals' efforts in their attempts to fit the identity profile of their occupational group.

One of the outcomes of interaction between an individual and the field are investments into assets aimed at maintaining social position and supporting one's advancement in a career trajectory, such as investments in cultural capital or goods signalling one's distinction. The Beckerian (Becker, 1996; Becker and Murphy, 2000) perspective helps us envision an aspiration-driven agent laden with various types of capital, who follows a complex of consumption goals that constitute a larger consumption strategy of investment into commodities instrumental for one's social role to ensure comfort in one's environment, constrained by social and cultural forces. There is some similarity in how the Bourdieusian (2010[1984]; Bourdieu and Wacquant, 1992) conceptualization relates capitals, or individual resources, embodied in one's occupational role with their tastes, values, dispositions and consumption-related practices which is evidenced by prior studies (e.g. Lamont, 1992; Savage et al., 1992; Warde, 1999).

Partly, the objects of these dispositions and practices are goods that carry social meaning or relate to practices that suggest distinction in the context of the field – e.g. cultural goods for educational professionals and status-signalling goods for professionals in commercial settings. While the broad notion of status-signalling goods (Frank, 1985; Hirsch, 1976), including the visible/nonvisible dichotomy (Heffetz, 2011), have been discussed and modelled before (e.g. Charles et al., 2009; Hicks and Hicks, 2014), narrower groups of commodities (e.g. appearance-related (Bourdieu, 1977), informational goods (Featherstone, 2007)) may illuminate distinctive behavioural patterns in agents' consumption strategies. Also, Longhurst and Savage (1996) suggest approaching consumption focusing on socialization and social networks.

The effects of occupation have long been accounted for in consumption analysis. However, these are traditionally equated with the effects of social class and between-occupational differences remain obscured. Originally not intended to capture the actual sociocultural groupings, the big classes represent analytical abstractions (Wright, 2015) that were also criticized for disregarding internal variation and omitting relevant aspects of commonality (Atkinson, 2009; Savage et al., 2005). With the decline of class culture (Beck, 1992; Giddens, 1991) in quantitative research, currently more attention is paid to micro-classes (Weeden and Grusky, 2005; Williams, 2017a; Williams, 2017b) accompanied by suggestions to move away from traditional socio-economic classification schemes and construct an alternative set of categories to better capture the divisions of capital (Atkinson, 2009). Despite some discussions about the diminishing significance of employment as a source of distinction and cohesion (Huppatz and Ross-Smith, 2017; Strangleman, 2009), scholars still find occupation to be an important medium of identity, with lifestyle and taste being a mark of social group membership (e.g. Doherty, 2009; Foster, 2012; Marks and Bauldry, 2009). This suggests the rationale for building human capital distributed in occupational fields into consumption models using narrowly defined occupational groups.

Consumption analysis of commodity clusters, in relation to what extent particular occupational groups are associated with increases in expenditure on goods instrumental for capital-signalling, may reveal dispositions and practices associated with career fields. Research in family economics (Becker, 1991) and the phenomenon of assortative mating characterize the family as an enterprise with aspirations that have a joint household consumption strategy, highly dependent on human capital of its members, especially the breadwinner's. Introducing the Beckerian view of household consumption strategies to the

Bourdieusian concepts of capitals, habitus and field, the following research questions are explored: 1) *Can the consumption strategies of households associated with different predominant forms of capital be predicted by the theory?* and 2) *Are there significant between-occupational differences related to prioritization of a broad group of wealth-signalling goods and more specific - presentational, socialization-related and informational - goods as members of these groups advance in social trajectories of their occupational fields?*

The study employs the British Living Costs and Food Survey 2009-2016 (LCF)[1] - the family expenditure survey - to analyse differences in preferences of occupational groups which sociological literature (Goldthorpe, 1987; Lamont, 1992; Legatt, 1980; Savage et al., 1992 and others) describes as distinctive. Focusing on professional-managerial classes, the traditional NS-SEC classification is partially disaggregated to observe between-occupational differences in consumption preferences of higher and lower management in the private sector, managers in the public sector, business professionals, technical professionals and educational professionals. The analysis employs traditional consumption modelling techniques for pooled cross-sectional data.

2.2. Theoretical background

2.2.1. The Bourdieusian and the Beckerian notions of capitals and the perspective of prioritization in consumption strategies.

The perspectives of Bourdieu (2010) and Becker (1996) both illustrate mechanisms whereby individual's human capital composition affects consumption behaviour. Both approaches to capitals suggest a rationale for considering narrow occupational groups as having higher level of within-group homogeneity than broad classes.

Bourdieu's <u>Distinction</u> (2010) approaches the phenomenon of differences in economic behaviour, including budget allocation to commodity groups, from the perspective of a culturally-defined objective class, which is "the set of agents who are placed in homogenous conditions of existence imposing homogenous conditionings and producing homogenous systems of dispositions capable of generating similar practices…" (Bourdieu, 2010: 95). His study, for example, showed that social-capital rich industrialists spent more on presentation

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[1] Large-scale surveys are encouraged and are successfully used in the sociology of work and employment (e.g. Elsesser and Lever, 2011; Kamerade and Richardson, 2018). The British Family expenditure survey was used in the seminal work of Alan Warde (1997) in the disciplinary area of sociology of consumption.

(clothing, hairdressing etc.), while cultural capital-rich teaching professionals signified by higher austerity – on cultural goods (books, newspapers, magazines etc.). The Bourdieusian framework (2010) views class as a socio-cultural collectivity sharing similar combinations of individual economic, social and cultural capitals. Occupational group is one of the forms of such collectivities. Individuals' social capital and different types of cultural capital[2] are acquired by organizations through human resource development processes as strategic market assets; however, originally capitals are embodied in and continuously develop within individuals associated with organizational fields (Bourdieu, 2011). The Bourdieusian class, thus, may represent an aggregation of professions with similar combinations of capitals predominant in their fields which, due to their position within the structure of social space, are subject to certain expectations, including individual economic behaviour (Bourdieu, 2010; Bourdieu and Wacquant, 1992). Field is "a network, or a configuration, of objective relations between positions [which are] objectively defined, in their existence and in the determinations they impose upon their occupants, agents or institutions" (Bourdieu and Wacquant, 1992: 97)." Fields attract individuals with different combinations of capital forms, as capitals are "underpinnings… of fields – where volume and trajectory of agents' holdings of particular capitals is central to the dynamics of fields" (Savage et al., 2005). The theory of practice suggests commonality in tastes and dispositions, so positions in the field are related to distinctive practices, lifestyles and, thus, preferences in different domains of consumption.

Becker's (1996) approach to the phenomenon suggests that between-group difference in the utility, or the subjective value, of goods with particular characteristics holds because the level of their "instrumentality" relies on individual's capitals. His notion of human capital[3] embraces the total stock of personal capital (i.e. characteristics related to income, education and skills) and social capital related to nonmarket relations with peers (Becker, 1996) and Becker introduced social capital into the utility function (Becker and Murphy, 2000). Purporting the importance of social environment for consumption behaviour of groups,

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[2] Social capital is defined by Bourdieu (1986) as "the aggregate of the actual and potential resources which are linked to possession of durable network of more or less institutionalized relationships of mutual acquaintance or recognition". Social capital can be possessed also by social units, like organizations (Bourdieu, 2011). Cultural capital (including "informational" capital, institutionalized education, training and a range of competences) is field-specific and, depending on the occupational domain, develops as different species, e.g. commercial (mastery in marketing and after-sales services), technological, scientific or financial (mastery of financial resources) capitals possessed by an individual or an organization (Bourdieu, 2011).

[3] While Becker's theory of 1964 views human capital as education and training, later, influenced by Coleman's (1990) view of capitals, Becker's (1996) later notion of human capital expanded to include both the total stock of personal and social elements (Becker and Murphy, 2000).

Becker suggested complementarity between individual resources and the demand for goods with particular characteristics (especially goods related to distinction, like clothing). Literature following this approach views consumers as having a complex of consumption goals that constitute a larger household strategy to ensure social comfort in the environment constrained by social and cultural forces (Becker and Murphy, 2000; De Vries, 2008). Some commodities are instrumental for implementing the social and professional roles and represent strategic investments into the dimensions of consumption strategy.

Occupational effects are often equated with the effect of socio-economic class in the models of consumption, while neglecting the important differences within fractions of socio-economic classes characterized by similarity of other, non-economic, forms and types of capitals. In analysis of consumption behaviour of groups there is a need to derive groups of individuals possessing high degrees of uniformity and meaningful aggregations of commodities (Brown and Deaton, 1972). As the conventional big social classes are not likely to provide groups of individuals with lifestyle similarities (Atkinson, 2009; Wright, 2015), occupational effects when equated with the effects of socio-economic class are likely to be blurred. Rather, the analysis of particularized types of expenditure for specific occupations as, for example, undertaken by Scott and Walker (2015) is more fruitful. Narrower occupational classes, therefore, suggest a solution with higher within-group homogeneity and, thus, more insightful analysis of economic behaviour of groups.

2.2.2. *The use-value of commodities and the methodological approach to grouping*

The intensity of investments into the dimensions of consumption strategy can be captured by modelling expenditure on commodity groups. The body of economic and sociological literature outlines groups of goods with particular characteristics. Economic studies grounded in Veblen's (1899) concept of conspicuous consumption and the enquiry developed around the notion of positional goods (Hirsch, 1977) discuss wealth- and status- signalling characteristics of goods (e.g. Frank, 1985; Hopkins and Kornienko, 2004) and identify commodity categories particularly effective in signalling (Charles et al., 2009; Heffetz, 2011). Human motives, however, are embedded in wider social contexts and individuals not only emulate the rich for status-signalling purposes, but aim at strengthening and improving their social position in their peers' environment and invest into commodities instrumental for their advancement, which makes certain goods and activities more prioritized than the others.

While in economic studies substantial attention is devoted to wealth-signalling characteristics, sociological inquiry suggests a more subtle division of commodities by their social meaning such as presentational (Bourdieu, 2010) and informational goods (Featherstone, 2007). Longhurst and Savage (1996) suggest approaching consumption from the viewpoint of socialization and social networks. Addressing occupational effects in the dynamics of spending on narrow clusters of commodities with similar use-value helps to explore the importance of objects with specific characteristics for particularized professional groups, their objective value "in the eyes of the beholder." From the perspective of economic analysis this means enhancing within-group homogeneity and the homogeneity of commodity clusters vital for identifying significant effects (Brown and Deaton, 1972; Prais and Houthakker, 1955).

Bourdieu's economic account of presentational goods includes clothes, shoes, repairs and cleaning, toiletries, hairdressing and domestic servants (Bourdieu, 2010: 181). Leisure activities, like sports, social events, dining out are substitutes that are instrumental for occupational groups in fields where socialization and network-building are contributing to augmentation of social capital. Dining out and social drinks in cafes and restaurants, where "a man goes to… establish relationships of familiarity" (Bourdieu, 2010: 80), can be instrumental for networking. Sports is signified by socializing techniques and also follow the logic of distinction (Bourdieu, 2010: 210-214). Some firms encourage sports interest among their employees to enhance the team spirit and strengthen bonds with partners (Pascale, 1985). Investments into sports are pronounced in the for-profit sector as a healthy lifestyle and socialization are instrumental for earning capacity (getting back to "jogging and champagne" class of professionals in the private sector in Savage et al., 1992: 114-115). For aspiring groups informational goods - magazines, newspapers, books and television – are a source of knowledge about "personal transformation… relationships and ambition, how to construct a fulfilling lifestyle" (Featherstone, 2007: 18). Undeniably, informational goods are also instrumental for mental stimulation vital to fight boredom; however, their important common trait is the support of inherent auto-didacticism of aspiring classes. **Table 2.1** summarizes the commodity groups with particular characteristics identified from the literature.

Table 2.1. Commodity groups with shared characteristics related to status-signalling, appearance, socialization and acquisition of information.

Visible expenditure aggregate (status signalling)	Presentational goods	Socialization-related goods	Informational goods
Clothing and Footwear Personal Care Personal effects Personal transport Household goods and services Restaurant and cafe meals Alcoholic drinks away from home Recreation and culture	Clothing and Footwear Personal Care Personal effects	Restaurant and cafe meals Alcoholic drinks away from home Sports Social events	Books, Newspapers, magazines
Used for econometric analysis by Hicks and Hicks (2015) and based on sets of "visible" commodities employed by Charles et al. (2009) and Heffetz (2011).	Used for statistical analysis by Bourdieu (2010, p.181) (expenditure on domestic servants is excluded). Personal effects category is added (jewellery, watches, leather goods etc.) in line with the aggregate used by Charles et al (2009).	Aggregate contains categories described by Bourdieu (2010) as important for social capital building and networking.	Bourdieu (2010), Featherstone (2007).

Note. Categories of household expenditure on the four commodity aggregates are used as dependent variables for consumption analysis.

2.2.3. Distinction of occupational groups and the methodological approach to their comparative analysis

Bourdieu's theory of practice, and further explorations of the framework, is mostly focused on professions in the upper classes and there is lack of systematic Bourdieusian-like class analysis (Oesch, 2016) to provide an alternative analytical classification that considers socio-cultural differences and could be, thus, used for consumption analysis. However, sociological studies outline relevant factors in addition to socio-economic class that produce differences in underlying motivations of consumption behaviour – sector, differences in the types of human capital and values distributed in the field – and outline some distinctive occupational groups. Indisputably, higher economic capital is likely to be associated with higher expenditure on commodity groups, however, following the Bourdieusian (2010) logic of distinction other types of capital matter, which suggests interest in comparison occupations in a similar income range. Appreciating the critique of "coarse" big classes (Atkinson, 2009), the study focuses on

and partially disaggregates professional-managerial categories of NS-SEC to compare particular occupational groups (shown in **Table 2.2**) within a single model.

Educational, business and technical professionals are envisioned in prior studies as possessing some degree of specificity. Lamont's (1992) study shows that public sector specialists, like university professors, are more driven by humanitarian goals and less materialistic than private sector "business types", like bankers or accountants. Prior studies note asceticism in the lifestyles, tastes and leisure activities of public sector professionals, especially cultural-capital rich teaching professionals (Bourdieu, 2010) as opposed to the hedonism of private sector middle-class professionals (Savage et al, 1992). Studies of "technical people", like IT-professionals, note the dominance of technical skills over abilities to boost their organization's social capital (interpersonal skills) in their field and egalitarian inclinations in lifestyles (Guerrier et al., 2009; Marks and Bauldry, 2009).

Managers are typically viewed as an undistinctive category of consumers due to their high heterogeneity (Savage et al., 1992; Warde, 1997). Taking the organizational perspective, Legatt (1980) discusses a divide within a managerial category – by industry status - and shows higher levels of human capital elements among managers in higher-rank industries (banking and finance sector, technologically advanced manufacturing and construction) as opposed to managers in industries having on average lower levels of entry requirements and higher chances of promotion (e.g. hospitality or retail). Such division is largely in line with Goldthorpe's (1987) divide into higher and lower managerial positions (long version NS-SEC) which is based on job complexity, size of organization and industry sector (ONS, 2005). The divide is informative of both social forces and lifestyles and suggests a rationale for comparison of higher and lower management in relation to the above-discussed commodity groups. Despite NS-SEC implying differences between managerial positions and professionals due to nature of work and the level of autonomy, this divide becomes more blurred, e.g. a higher-rank technical professional may have managerial duties. This implies that comparisons of consumption behaviour patterns separately within the managerial group and within the professional group are more justified.

Table 2.2. Partial disaggregation of NS-SEC into narrowly defined occupational classes

Social classes (based on NS-SEC classification)	Outlining "narrow" occupational classes within "service class"
Managerial and technical	Higher managerial private sector
	Lower managerial private sector
	Managers in public sector
Professional occupations	Business professionals
	Technical professionals
	Educational professionals
	Other professionals
Skilled non-manual	Skilled non-manual
Skilled manual	Skilled manual
Partly skilled occupations	Partly skilled occupations
Unskilled occupations	Unskilled occupations

Note. The six social classes (based on NS-SEC) are outlined in ONS (2005), the "narrower" groups are derived using NS-SEC (long version), SOC2000 and SOC2010 (ONS, 2010).

Constructing a representative single model for consumption analysis implies that all occupations should be included in the analysis, thus, professional-managerial categories of NS-SEC are considered as three managerial groups, three professional groups and one relatively heterogeneous group of professionals with less evidence about their distinctive behaviour (**Table 2.2**). These groups are further used as occupational factor variables in modelling consumption of visible, presentational, socialization-related and informational goods.

2.2.4. Hypotheses

As the use-value of goods is context-specific and the principles of consumption analysis does not prohibit meaningful intuitive grouping of commodities (Brown and Deaton, 1972), sociologist and anthropologist insights are employed to set hypotheses about narrowly defined occupational groups in relation to consumption of commodities that have particular social meaning in the context of their occupational field.

In line with the logic of distinction in the Bourdieusian (2010) theory of practice, business professionals whose field requires the ability to augment social capital of their organization are expected to view status-signalling, appearance- and socialization-related goods

particularly instrumental for their roles compared to technical professionals, whose field to some extent prioritizes technical knowledge over interpersonal skills (Guerrier et al., 2009). The theory of practice suggests that, in line with the requirements of their career trajectory, business professionals are likely to spend more on presentational and socialization-related goods than technical or educational professionals. The cultural turn for commercialized professionalism in some occupations (Carnegie and Napier, 2010) is expected to be associated with consumption dispositions. For example, in accounting, the turn from rigorous professionals pre-occupied with social responsibility to self-confident well-paid multidisciplinary business consultants (Picard et al., 2014) is associated with emphasis on relationship building, where conduct and appearance matter (Anderson-Gough et al., 2002; Carrington, 2010). Differences in the predominant composition of capital in these two fields and the volume of its types suggest that:

H1. Business professionals seek higher spending on visible goods (H1-1), presentation (H1-2) and socialization (H1-3) than technical professionals.

Asceticism and the dominance of cultural over economic capital as a property of the academic field (Bourdieu, 2010:120-126) maps it in the social space opposed to the commercially-oriented business field. This symbolic property of the field is likely to constrain the emphasis on dimensions of consumption strategy that demonstrate social capital in favour of augmenting cultural capital. Educational professionals play a key part in creation and distribution of knowledge and their preference for cultural goods was also emphasized by Bourdieu (2010).

H2. Educational professionals seek lower spending on visible goods (H2-1), presentation (H2-2) and socialization (H2-3) than business professionals.

H3: Educational professionals are associated with higher expenditure on informational goods than business (H3-1) and technical (H3-2) professionals.

The sum of individual resources in the higher managerial group is generally more substantial than in the lower managerial group (Legatt, 1980) and higher levels of human capital generally suppresses conspicuous behaviour in favour of savings (Moav and Neeman, 2012). Thus, while the status of the former requires the use of positional goods, they are expected to smooth consumption over time and be less prone to status-signalling upon the growth of their economic capital.

H4: The higher managerial group seeks lower conspicuous consumption than the lower managerial group.

Public sector management with non-materialistic values more distributed in their field, inherent austerity and cultural dispositions (Lamont, 1992; Spence et al., 2017) posit them as a distinctively different habitus expected to expose less conspicuous consumption behaviour. From the viewpoint of social mobility, however, British public sector professions (including management) are distinguished by openness and higher opportunities for social mobility than typical professions, owing to lower barriers to entry, such as the expensive training and parental networking required for entry into many higher professions (Friedman et al., 2017). High levels of job complexity and autonomy on one hand and the lack of early socialization into the profession on the other hand are likely to promote knowledge acquisition among higher-rank public sector professions, like management. These considerations lead to the following hypothesis:

H5: Public sector managers seek higher spending on informational goods than private sector managers.

Viewing goods as instrumental for maintaining and augmenting one's position and generally fitting one's career trajectory, the above null hypotheses seek rejection.

2.3. Methodology

2.3.1. Dataset, variables, and sample restrictions

The study uses data from the UK Living Costs and Food (LCF) 2009-2016 survey (ONS, 2017) which provides information on household expenditure and characteristics. The British family expenditure survey has many uses – it supplies information on spending patterns for the Retail Price Index, data to obtain estimates of household final consumption for UK National Accounts and the Statistical Office of the European Communities (Eurostat) and provides data on expenditure and income for various government and non-government uses (ONS, 2010).

The survey uses information from diaries and interviews conducted with approximately 5,000 households annually. Diaries collect data on household spending within 14 days of observation for regularly purchased items; interviews gather data about spending on items that

are not purchased frequently, using different periods of recall depending on the item. The data is then processed to represent weekly equivalents. The unit of analysis is the household, with some data captured at individual level. According to the ONS definition, a household comprises an individual or a group of individuals who have the accommodation as their main residence, i.e. they share at least one meal or share the living accommodation.

The survey employs a complex multi-stage stratified random sample design, with clustering where primary sample units are postal sectors. Government office regions sub-divided by area type (metropolitan and non-metropolitan), socio-economic group of the head of household and car ownership are the stratum identifiers (ONS, 2010). As variables reflecting specific occupations were not available from the End User version, the secure access version of the survey was used for the analysis. The LCF survey design accounts for unequal selection probability using weighting to, first, compensate for non-response and, secondly, to match population distribution in terms of age groups, regions and gender.

The data analysis accounts for weighting. The sample is restricted to households with positive values of gross weekly disposable household income and those whose household reference person[4] (HRP) is aged between 18 and 65. Although members of the same household may possess different combinations of capitals when they belong to different occupational groups, appreciating the high impact of capital combination embodied in the "breadwinner's" (HRP) occupation and capturing the probabilities in a large sample should allow observing significant between-occupational differences in consumption patterns.

Similarly to the problem mentioned by Charles et al (2009) in relation to the American family expenditure survey, some observations reveal a problem of under-reported family incomes (i.e. total expenditure many times exceeds gross family income). Keeping the bottom 95% sample observations, with reasonable total expenditure to gross household income ratios (maximum 1.95), reduces bias due to underreported income[5.] The problem of underreported incomes could potentially have been dealt with in two other ways – firstly, using all available relevant to individual characteristics and trying to predict gross household income and use the

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[4] The notion of HRP as a household representative is used from 2001-02 in the UK government-sponsored surveys to replace the notion of head of household. In the latter approach priority was given to males and the eldest individuals of the same sex, while HRP refers to the owner or renter of accommodation in which the household lives and the eldest of them in case there are more than one.
[5] As a limitation of the survey, when a complete diary was missing, the information was imputed using diaries from respondents with similar characteristics (ONS, 2016). Acknowledging this limitation, household income is used for modelling.

predicted values for further modelling. However, such a newly-generated variable for income is likely to be biased due to omitted variables in its modelling. Another option would be using total expenditure of the household as a proxy for income. This option could also potentially be a cause of substantial bias – firstly, due to the problem of endogeneity (as each expenditure category on the left-hand side of the equation is included in the total expenditure) and, secondly, due to borrowing or other consumption smoothing approaches, total expenditure may exceed family income[6], especially at the bottom end of income distribution (LCF, 2010:22). Thirdly, the measure of total expenditure can be imprecise due to some inherent limitations of the survey, when a complete diary was missing, the information was imputed using diaries from respondents with similar characteristics (LCF, 2010).

Dependent variables are the aggregates of expenditure categories related to status-signalling ("visible"), presentational, socialization-related and informational goods outlined in **Table 2.2.** (The full description of expenditure categories and their corresponding variables are provided in Appendix A, **Table A1**).

Independent variables and controls include family income (gross weekly normal household income of all its members plus the allowances), age and age-squared of HRP, household size, marital status, gender of HRP, number of children, type of tenure (the original variable was re-grouped into 3 categories - 1"Owned outright" 2"Owned with mortgage/rental purchase" 3"Rented or other"), type of settlement[7] , education of HRP, region, and the year of the survey. The data only captures the age when a person completed their full-time education, so the variable was categorized into three groups – less or equal to 16 years old, between 17 and 20 inclusive, and older than 20. These roughly approximates GCSE and below, A-level or college and higher education (finished or unfinished) respectively. As scholars (Charles et al., 2009; Heffetz, 2011) note, housing is a major vehicle for signalling status. However, the

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[6] LCF(2010:22): "LCF income does not include withdrawal of savings; loans and money received in payment of loans; receipts from maturing insurance policies; proceeds from the sale of assets (such as a car)… Despite this, recorded expenditure might reflect these items, as well as the effects of living off savings, using capital, borrowing money or income". Thus, there may be many cases with large positive or negative discrepancies between households' total expenditure and total income and as, as admitted by LCF, "it is not possible to draw up a balance sheet of income and expenditure either for individual households or groups of households", the least we can do is to exclude households that are highly likely to have under-reported income. The conventional uses of the survey (Retail Prices index, GDP, Eurostat) focus on macro-trends, while non-response and the need for imputation, lack of focus on representativeness of particular social groups (occupations) may, of course, be the causes of bias in the results of our analysis. The response rate tends to decline – from 60% in 2000/1 and 50% in 2010 (LCF, 2010: 19) down to 46% in 2015/16 (ONS, 2016, Family Spending)

[7] Initially captured by 8 categories, reflecting whether it is urban, rural, village or hamlet/isolated location and also whether it is sparse or less sparse – the categories are re-combined into 3 categories ignoring density and grouping village and hamlet/isolated together. Due to missing values, imputation was applied using Output Area Classification (OAC1) - "City Living" was assigned to "Urban" and "Countryside" - to "Village, Hamlet".

extent of investment in housing can severely distort patterns of consumption for other expenditure categories, so council tax is used as a proxy for differences in property values to reduce the omitted variable bias.

In line with **Table 2.2** above, we disaggregate NS-SEC categories[8] into narrower occupational groups to use them as indicator variables in modelling; Standard Industrial Classification (SIC) is employed to distinguish between predominantly public[9] and private sector managers. Using Standard Occupational Classification (SOC), three distinctive professional groups are outlined – business professionals (SOC codes 242, 353, 354)10 , technical professionals (SOC codes 212, 213)[11] and educational professionals (SOC code 231 – "Teaching and educational professionals")[12]. The remaining professional groups are pulled into a separate category[13], which is not used for comparison in further analysis. Observations with missing values of predictor variables are omitted. Cross-sectional analysis using Stata software is undertaken for the sample of 22,716 observations.

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[8] NSSEC6 variable is not filled in LCF, so we use User Manual to collapse NSSEC long-version into NSSEC6 classification (ONS, 2005: 22) (See Appendix Tables A2-A5). NSSEC6 is used as a robustness check for modelling to reflect the traditional way for exploring occupational effects. National Statistics Socio-Economic Classification (long version NSSEC) was developed on the basis of Goldthorphe's social classification (1987). Goldthorpe's (1987) schema takes account of economic, social and cultural capital. The schema accounts for differences in position entry requirements, social trajectory, and the size of organization. In managerial positions, for example, financial managers are more likely to be allocated to higher managerial group. Conversely, managers in retail, wholesale, restaurant, hotel, transport and distribution managers are allocated to the lower managerial category, regardless of the size of organization (ONS, 2005). This is in line with Legatt's (1980) division of managers into higher- and lower-status industries. The majority of other managerial positions, however, (production in manufacturing and mining, marketing and sales managers) are allocated to higher or lower management group depending on the size of organization.

[9] In the absence of sector variables, major industry groups that dominate the public sector – Public administration, Education and Health (SIC major groups O, P and Q) (ONS, 2009) - are jointly used as a proxy for the sector variable. The three major industry groups that dominate the public sector are Public administration, Education and Health (SIC major groups O, P and Q) (ONS, 2009). In March 2016 NHS led in the public sector (PS) employment, accounting for around 30% of all PS workers (1.6 mln), closely followed by Education (1.5 mln). Public administration, despite its decreasing trend in PS employment, still accounts for around 1 mln workers and is the third largest PS employer. Other PS establishments employ 0.867 mln workers (ONS, 2016), which although adds bias in our classification, but do not substantially distort our classification, as, for example, in 2016 total PS employment was 5.4 mln compared to 26.2 mln workers in private sector.

[10] SOC code 242 "Business and Statistical professionals" refers to Chartered accountants, Business analysts, management consultants, business and research management professionals and other business, research and administrative professionals; SOC code 353 "Business and Finance associate professionals" refers to Business, Finance and related associate professionals and includes brokers, finance and investment analysts, insurance underwriters, taxation experts, financial and accounting technicians and other; SOC code 354 "Sales, marketing and related associate professionals" includes business sales executives, marketing associate professionals, estate agents, sales accounts and business development managers.

[11] SOC code 212 refers to "Engineering professionals", SOC code 213 – "Information Technology and Telecommunication professionals"

[12] Details of classifications employed in disaggregation are outlined in Appendix, Tables A2-A5.

[13] The "Other professionals" category comprises a widely heterogeneous group of professionals, including health and social care professionals and associate professionals, science, engineering and technology associate professionals; culture, media and sports occupations.

2.3.2. Analytical strategy and methods

As discussed in Section 1.6. above, traditionally the most preferred models of consumption analysis are is double-logarithmic form of Engel curves (Brown and Deaton, 1972; Prais and Houthakker, 1955) which is also used by Charles et al (2009) to explore the effects of groups of individuals in models of visible consumption. The analysis starts with investigation of occupational effects in models of expenditure, on status-signalling, presentational, socialization-related and informational commodity aggregates, using the following cross-sectional OLS models for the full sample are estimated:

$$log\ Expenditure_i = \beta_1 + \delta_1 Occ1_i + \delta_2\ Occ2_i + \ldots + \delta_{N-1} Occ\ (N-1)_i + \beta_2 log\ Income_i\ + \theta X_i + u_i \quad (2.1)$$

where $Expenditure_i$ is the dependent variable whose values equal the observed weekly equivalent of expenditure in a commodity aggregate plus one, $log\ Income_i$ – log gross normal household weekly income; X_i – characteristics of HRP and household (age, age-squared, gender and marital status of HRP, household size, number of children, type of household tenure, region and the type of residential area, education of HRP, council tax, year of the survey); $Occ\ N_i$ – a set of dummies showing the occupational group of the HRP (**Table 2.2**); β_1 - the individual specific unobservable effect; and the error term, u_i. Cultural capital is not limited to the level or duration of formal education, but often also includes other forms, like industry-related experience or additional qualifications from professional bodies, which in the models are assumed to be absorbed by the occupational effects. As an occupational group of HRP, firstly, NS-SEC categories are employed, then these categories are substituted in the models with narrow occupational classes (as shown in **Table 2.2**) to ensure that such disaggregation does not distort the other estimates of the model.

Expenditure on different categories is allocated by the same decision-making household and as presentational, socialization-related, and informational aggregates represent parts of the broader visible aggregate, the equations are thus likely to be related through the correlation in the error terms. Therefore, a seemingly unrelated regression model is employed, which is the system of OLS regressions that accounts for such correlation. Pairwise comparisons between marginal effects of occupations from the models are used to address hypotheses **H1** to **H4**.

A set of dependent variables, whose regression equations may potentially have correlated error terms represents a case of a seemingly unrelated regression equations (SURE) model (Greene, 2012, Chapter 10). Zelner (1962) has found that estimating the parameters of a

system of regression equations, whose disturbance terms are highly correlated, the coefficient estimators are more efficient, at least asymptotically, than coefficient estimators obtained by an equation-by-equation application of least squares. Striving for higher efficiency of estimators and admitting that the error terms of the separate regression equations for the four expenditure aggregates may be correlated (as decision-making in relation to separate expenditure groups is undertaken by the same households), the seemingly unrelated regression (SUR) models are used in this chapter. The general form of the SURE-model (Greene, 2012) is as follows:

$$y_{ti} = \sum_{j=1}^{k_i} x_{tij}\,\beta_{ij} + \varepsilon_{ti} \ , \qquad t = 1,2,\dots T; \ \ i = 1,2,\dots M; j = 1,2,\dots, k_i \qquad (2.2)$$

where y_{ti} is the tth observation on the ith dependent variable which is to be explained by the ith regression equation, x_{tij} is the tth observation on the jth explanatory variable appearing in the ith equation, β_{ij} is the coefficient associated with x_{tij} at each observation and ε_{ti} is the tth value of the random error term associated with the ith equation of the model. The four expenditure aggregates (the broad visible expenditure aggregate and its separate elements – presentational, socialization-related and informational aggregates) are the dependent variables in the system of equations (M=4) and T is the number of observations. The Breusch-Pagan test of independency of regression equations is further used to support the rationale for employing the system of equations instead of relying on single-equation least-squares estimators.

As the dependent variables are slightly positively skewed, for robustness, occupational effects are also estimated via cross-sectional Tobit models for each of the four expenditure aggregates:

$$log(Exp_i)^* = \beta_1 + \beta_2\, log\,Income_i + \delta_1 Occ1_i + \dots + \delta_{N-1} Occ\,(N-1)_i + \Phi\,X_i + u_i \qquad (2.3)$$

$$log(Exp_i) = max[0; \ log(Exp_i)^*]$$

where Exp_i^* is the latent unobserved variable reflecting the desire of individual i to spend on an aggregate; Exp_i is the dependent variable whose values equal the observed weekly equivalent of expenditure in the aggregate plus one. The other predictors are the same as in the model (Eq. 2.1).

The analysis proceeds with qualitative comparison of elasticity coefficients obtained from separate log-log regressions for the six occupational groups of interest, using the same set of

predictors as Eq. 2.1 and omitting the occupational dummy. Then Wald-test estimates cross-model equality of elasticity coefficients to estimate the bias of pooling separate regressions into a single model.

As a robustness check, introducing interaction terms into Eq. 2.1, the study tests the significance of multiplicative effects, i.e. whether the change in income for a particular occupation has significant effects on the change in expenditure level.

$$log\ Exp_i = \beta_1 + \delta_1 Occ1_i + \ldots + \delta_{N-1} Occ\ (N-1)_i + \beta_2 log\ Income_i + \theta X_i + \lambda Occ\ N_i log\ Income_i + u_i \quad (2.4)$$

The "saturation phenomenon" described in Prais and Houthakker (1955), suggests varying elasticity slopes with different levels of individuals' income as turning points. Assuming that income elasticity is not constant, they argued that a better mode fit can be secured with a form where the income elasticity diminishes as the income level rises. Previously, some authors have accounted for non-linearity, for example, by adding a quadratic term (Charles et al., 2009), as non-linearity stems from one of the essential properties "desirable to incorporate" into the algebraic form of the Engel curve – the satiety level, or "a maximum to the quantity of the commodity consumed which is not exceeded however high income rises" (Prais and Houthakker, 1955: 82).

As another robustness check, the following model (Eq. 2.4) is explored to ensure that, when the quadratic term of income is introduced, between-occupational differences identified from the initial model (Eq. 2.1) remain valid if the effect of income change is not linear:

$$log\ Exp_i = \beta_1 + \delta_1 Occ1_i + \ldots + \delta_{N-1} Occ\ (N-1)_i + \beta_2 log\ Income_i + \beta_3 log\ Income_i^2 + \theta X_i + u_i \quad (2.5)$$

2.4. Data analysis and findings

2.4.1. Descriptive statistics

Table 2.3 provides information about the sample in relation to the key variables. It shows that educational professionals have the highest level of education in the "service class" and there are substantial differences in educational levels between the higher- and the lower-managerial groups. The sample is dominated by males, urban-dwellers and mortgage-owners in the service class.

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Table 2.3. Summary statistics

	Higher managerial private	Lower managerial private	Managers public sector	Business profs	Technical profs.	Educational prof.	Other prof.	Skilled non-manual	Skilled manual workers	Semi-skilled	Unskilled	Average /Total
	1	2	3	4	5	6	7	8	9	10	11	
N	942	1,470	548	1,446	1,006	1,139	3,849	4,233	4,892	2,326	865	22,716
HRP characteristics												
Age (mean)	44	44	47	43	42	45	44	43	45	43	44	44
Married, %	70	63	60	59	61	55	53	43	54	38	40	52
Education completed, %												
- by 16yo	26	41	30	21	23	10	28	42	62	61	75	42
- 16 - 20yo	27	29	33	28	22	15	25	34	25	24	17	26
- after 20yo	47	30	38	51	55	75	48	24	13	15	8	31
Male, %	77	79	52	69	93	46	56	47	85	52	66	65
Household characteristics												
Household size	2.88	2.86	2.64	2.67	2.62	2.5	2.64	2.55	2.8	2.68	2.62	2.68
Number of children	0.8	0.74	0.59	0.71	0.67	0.6	0.66	0.66	0.71	0.75	0.69	0.69
Housing tenure, %												
Owned outright	19	16	21	18	17	24	20	18	19	15	14	18
Owned with mortgage	68	62	61	60	58	56	53	47	46	29	26	49
Rented or other	13	22	18	23	25	20	26	35	35	56	61	33
Settlement type, %												
Urban	73	72	75	77	77	73	74	79	76	78	80	76
Town	12	13	13	12	16	14	13	12	13	14	13	13
Village, hamlet, isolated	15	15	12	11	7	13	13	9	11	9	6	11
Total expenditure (£)	1,045	832	805	873	755	717	726	577	569	453	397	655
Total expenditure, st.dev.	638	535	449	572	384	362	458	346	313	256	239	429
Gross family income (£)	1,976	1,319	1,338	1,465	1,292	1,172	1,185	850	808	610	544	1,024
Gross family income, st.d.	1,495	977	819	1,100	708	765	1,008	597	520	372	328	847

Note: The data in the table accounts for weighting, clustering and regional stratification of the LCF survey design. Totals may not add up to decimals due to rounding. N is unweighted cell count. Total weekly expenditure and gross normal weekly income are adjusted to inflation and provided in 2016 prices.

The data about weekly expenditure on status-signalling, presentational, socialization-related and informational goods for each professional-managerial group of interest shows consistent differences between the groups in comparable income ranges.

Exploring how expenditure on commodity aggregates increases upon growth of income and before embarking on modelling, average expenditure levels are estimated in comparable income groups (**Table 2.4**). The sample is subdivided into 10 income deciles and as major overlaps in income ranges across the professional-managerial groups are found in income deciles 6 to 9, deciles 6 and 7 are paired up into an intermediate income group and deciles 8 and 9 - into a higher income group. The OECD-modified equivalisation scale is applied to disposable income and expenditure values to account for differences in household composition[14].

In both the intermediate and the higher income groups, business professionals expose higher level of visible, presentational and socialization related expenditure than technical and educational professionals, while educational professionals lead in expenditure on informational goods. The increase of socialization- and presentation-related expenditure with income is the least pronounced with educational professionals (18% and 6% respectively) compared to business professionals 36% and 21% respectively. This suggests substantial differences in elasticity coefficients between the two groups. Exploring the managerial groups, a substantial, 29%, increase in status-signalling expenditure is observed for lower management in the private sector. Public sector management experiences a 21% increase in expenditure on informational goods and both groups substantially increase investments into socialization (42% and 35% respectively) moving between the income groups. Despite the general austerity of their sector, public sector management outpaces the majority of groups with a 24% increase on presentation-related spending. These findings enable anticipating between-occupational differences in dispositions in relation to the expenditure allocated to the dimensions of consumption strategy.

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[14] "Disposable income is defined as gross weekly cash income less the statutory deductions and payments of Income tax and National Insurance contributions. It is used alongside expenditure as it is the amount households have available to spend or save. Equivalisation takes into account that households with many members are likely to need a higher income to achieve the same standard of living as households with fewer members" (ONS, 2016).

Table 2.4. Equivalised weekly expenditure for visible, presentational, socialization-related and informational goods by occupational and income groups (£)

	Higher managerial private sector	Lower managerial private sector	Managers in public sector	Business profs	Technical profs	Educational profs
Intermediate income group (joint income deciles 6 and 7)						
N	155	331	122	312	257	255
Equivalised income, mean for the group	517.2	518.2	516.3	511	516.3	513.7
Visible expenditure	188.9	173.1	163.5	174.2	150.4	168.4
Presentation	31.9	32.4	30.8	32.6	25.5	29.5
Socialization	29.3	24.3	22.3	28.9	24.3	28.1
Informational goods	9.1	9.3	8.9	9	8.3	10.4
Higher income group (joint income deciles 8 and 9)						
N	314	393	181	442	343	410
Equivalised income, mean for the group	746.3	722.1	724.7	737.3	731.8	726.6
Visible expenditure	228.8	224.1	203	228.8	192.9	200.9
Presentation	41.5	35.8	38.1	39.5	30.6	31.3
Socialization	37.7	34.5	30.2	39.2	30.9	33.1
Informational goods	10.1	10	10.8	10.4	10.3	11.4
Percentage increase between the intermediate and the higher income groups:						
Visible expenditure	21	29	24	31	28	19
Presentation	30	10	24	21	20	6
Socialization	29	42	35	36	27	18
Informational goods	11	8	21	16	24	10

Note. The data in the table accounts for weighting, clustering and regional stratification[15] employed in the LCF survey design and is adjusted for inflation using CPI-index (in 2016 prices). Description of expenditure aggregates is provided in Tables 2.1 and A1. Income deciles are obtained using the values of equivalised income in the restricted sample. Equivalisation employs OECD-modified scale. Number of observations (N) is provided as unweighted cell count.

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[15] In complex survey design an assumption of random sampling design which ignores clustering means potential within-strata homogeneity is also ignored; if this is the case standard errors are upwardly biased (Kreuter and Valliant, 2007).

2.4.2. Exploring occupational effects in a single model

Table 2.5. shows seemingly unrelated regression (OLS) results for the four expenditure aggregates. In models (a1-a4) occupational effects are captured by big NS-SEC classes (ONS, 2005) – the six categories include professional occupations, managerial and technical occupations ("service class"), skilled non-manual, skilled manual, semi-skilled occupations and unskilled workers. In models (b1-b4) the top two NS-SEC categories ("service class") are disaggregated into narrowly defined occupational classes so that the groups of interest represent separate categories of indicator variable to address the hypotheses of the study. As expected, coefficients of determination do not change with class disaggregation and the other parameter estimates and standard errors are not greatly affected by such substitution demonstrating models (a1-a4) as a robustness check for models (b1-b4). Predictors explain 46% of variance in the visible expenditure cluster and $20 - 26\%$ of variance in the other commodity aggregates. The choice of SUR-model is justified by the high value of χ^2 in the Breusch-Pagan test of equation independence.

Given the logarithmic form of income and expenditure, the results are interpreted as percentage increases. Thus, for the full sample a 10% increase in income is associated with 7.6% increase in visible expenditure. Socialization-related expenditure is more income-sensitive. Presentational expenditure shows income elasticity of 62%. There is a non-linear effect of age in most of the aggregates; larger households and homeowners have higher expenditure on all the aggregates; and number of children is negatively associated with the expenditure aggregates, except for informational goods. Couples spend 6% less on socialization than singles. A female undertaking a "bread-winner's" role is associated with 33% higher expenditure on presentation than a male. Generally, higher socio-economic classes (NS-SEC indicator variables) spend more on all aggregates. In line with Moav and Neeman (2012) higher levels of education are associated with less conspicuous consumption and those who finished full-time studies at 20 or later spend 7.5% and 5% less on visible and presentational commodities respectively and 8.5% more on socialization-related commodities and activities. In relation to informational goods, it is observed that social class (which also approximates the level of cultural capital) absorbs the effect of the length of formal education. However, while higher social class is associated with higher expenditure on informational goods, higher-educated individuals within the same class seem to have found ways to save on informational expenditure.

Models (b1-b4), that explore more narrowly defined occupational classes (**Table 2.5**), show the distinctiveness of lower managers and business professionals, whose expenditure on wealth-signalling aggregate is 7% higher than the reference category (skilled manual workers). Managers in the public sector and business professionals are similarly distinctive in relation to presentational goods. Distinctiveness of service class is observed in their substantially higher spending on socialization-related and informational goods. Business professionals spend 29% more on socialization than the reference category while the other professional groups do not exceed 20% difference. Similarly, partialling out the effects of other predictors, educational professionals are signified by 26% higher spending on informational goods. Technical professionals generally show low interest in spending on wealth-signalling and presentation and substantially fall behind in spending on socialization-related and informational goods compared to other professional groups. Skilled non-manual workers are not substantially different in status-signalling and presentation from skilled manual workers, but are distinctive in investments into socialization and knowledge acquisition.

Table 2.5. Seemingly unrelated regressions for visible, presentational, socialization-related and informational expenditure aggregates

	Expenditure aggregates in log-form (models a1-a4)					Expenditure aggregates in log-form (models b1-b4)			
	Visible	Presen-tation	Sociali-zation	Informa-tional		Visible	Presen-tation	Sociali-zation	Informa-tional
Log household income	0.756***	0.620***	0.844***	0.285***	Log Gross household income	0.756***	0.616***	0.844***	0.288***
	(0.010)	(0.017)	(0.018)	(0.013)		(0.010)	(0.017)	(0.018)	(0.013)
NS-SEC classification:					***Narrowly defined occupational classes:***				
Professional occupations	-0.011	0.028	0.137***	0.168***	Higher managerial private	-0.004	0.055	0.102**	0.073**
(N=1908)	(0.022)	(0.036)	(0.039)	(0.027)	(N=942)	(0.028)	(0.046)	(0.050)	(0.035)
Managerial and technical	0.039***	0.062**	0.183***	0.118***	Lower managerial private	0.069***	0.058	0.148***	0.072***
(N=8492)	(0.015)	(0.024)	(0.026)	(0.018)	(N=1470)	(0.023)	(0.037)	(0.040)	(0.028)
					Managerial public sector	0.037	0.137**	0.190***	0.184***
					(N=548)	(0.035)	(0.058)	(0.063)	(0.044)
					Business profs	0.066***	0.154***	0.286***	0.146***
					(N=1446)	(0.023)	(0.039)	(0.042)	(0.029)
					Technical profs	-0.031	-0.071	0.126***	0.079**
					(N=1006)	(0.026)	(0.043)	(0.047)	(0.032)
					Educational profs	0.035	0.072	0.196***	0.261***
					(N=1139)	(0.027)	(0.044)	(0.047)	(0.033)
					Other profs	0.027	0.048*	0.175***	0.132***
					(N=3849)	(0.017)	(0.029)	(0.031)	(0.021)
Skilled non-manual	0.000	0.039	0.117***	0.089***	Skilled non-manual	0.001	0.043	0.121***	0.095***
(N=4233)	(0.016)	(0.027)	(0.029)	(0.020)	(N=4233)	(0.016)	(0.027)	(0.029)	(0.020)
Skilled manual		*(Reference category)*			Skilled manual		*(Reference category)*		
(N=4892)					(N=4892)				
Semi-skilled	-0.071***	-0.027	-0.132***	-0.021	Semi-skilled	-0.071***	-0.026	-0.131***	-0.015
	(0.019)	(0.032)	(0.034)	(0.024)	(N=2326)	(0.019)	(0.032)	(0.034)	(0.024)
Unskilled	-0.159***	-0.058	-0.318***	-0.040	Unskilled	-0.159***	-0.058	-0.317***	-0.036
	(0.028)	(0.046)	(0.049)	(0.034)	(N=865)	(0.028)	(0.045)	(0.049)	(0.034)
Age of HRP	-0.013***	-0.029***	-0.011*	-0.011**	Age of HRP	-0.013***	-0.029***	-0.011*	-0.011**
	(0.004)	(0.006)	(0.006)	(0.004)		(0.004)	(0.006)	(0.006)	(0.004)
Age-squared	0.000***	0.000***	0.000	0.000***	Age-squared	0.000***	0.000***	0.000	0.000***
	(0.000)	(0.000)	(0.000)	(0.000)		(0.000)	(0.000)	(0.000)	(0.000)
log Council Tax	0.195***	0.168***	0.294***	0.150***	log Council Tax	0.192***	0.163***	0.291***	0.157***
	(0.023)	(0.038)	(0.041)	(0.028)		(0.023)	(0.038)	(0.041)	(0.028)
Education (finish 16-19)	0.003	0.033	0.037	0.028*	Education (finish 16-19)	0.003	0.031	0.036	0.025
	(0.013)	(0.021)	(0.023)	(0.016)		(0.013)	(0.021)	(0.023)	(0.016)
Education (finish 20+ yo)	-0.075***	-0.053**	0.085***	0.034**	Education (finish 20+ yo)	-0.076***	-0.054**	0.078***	0.023
	(0.014)	(0.023)	(0.025)	(0.017)		(0.014)	(0.023)	(0.025)	(0.017)
Female HRP	0.098***	0.325***	-0.024	0.083***	Female HRP	0.097***	0.317***	-0.029	0.068***
	(0.011)	(0.019)	(0.020)	(0.014)		(0.011)	(0.019)	(0.021)	(0.014)
Household size	0.125***	0.316***	0.139***	0.093***	Household size	0.125***	0.317***	0.140***	0.093***
	(0.008)	(0.013)	(0.014)	(0.010)		(0.008)	(0.013)	(0.014)	(0.010)
Tenure: w/mortgage	-0.120***	-0.061**	-0.158***	-0.073***	Tenure: w/mortgage	-0.120***	-0.062**	-0.158***	-0.073***
	(0.015)	(0.025)	(0.027)	(0.019)		(0.015)	(0.025)	(0.027)	(0.019)
Tenure: rented/other	-0.352***	-0.178***	-0.445***	-0.182***	Tenure: rented/other	-0.353***	-0.179***	-0.445***	-0.179***
	(0.017)	(0.029)	(0.031)	(0.021)		(0.017)	(0.029)	(0.031)	(0.021)
Number of children	-0.057***	-0.057***	-0.122***	0.029**	Number of children	-0.057***	-0.058***	-0.123***	0.029**
	(0.009)	(0.015)	(0.017)	(0.011)		(0.009)	(0.015)	(0.017)	(0.011)
Living with partner	0.095***	0.136***	-0.059***	0.145***	Living with partner	0.095***	0.135***	-0.060***	0.144***
	(0.013)	(0.021)	(0.023)	(0.016)		(0.013)	(0.021)	(0.023)	(0.016)
Settlement: Town	0.088***	-0.041	-0.025	0.032	Settlement: Town	0.089***	-0.039	-0.024	0.031
	(0.016)	(0.026)	(0.028)	(0.020)		(0.016)	(0.026)	(0.028)	(0.020)
Settlement: Village	0.093***	-0.059**	-0.057*	0.072***	Settlement: Village	0.092***	-0.060**	-0.056**	0.071***
	(0.017)	(0.028)	(0.030)	(0.021)		(0.017)	(0.028)	(0.030)	(0.021)
Region, year controls	yes	yes	yes	yes	Region, year controls	yes	yes	yes	yes
Constant	-0.424***	-1.830***	-3.481***	-1.389***	Constant	-0.413***	-1.792***	-3.476***	-1.428***
	(0.107)	(0.177)	(0.192)	(0.133)		(0.108)	(0.178)	(0.193)	(0.133)
Observations	22,716	22,716	22,716	22,716	Observations	22,716	22,716	22,716	22,716
RMSE	0.743	1.227	1.325	0.919	RMSE	0.742	1.226	1.325	0.918
chi2	19033	7373	8155	5586	chi2	19051	7402	8174	5624
R-squared	0.46	0.25	0.26	0.20	R-squared	0.46	0.25	0.27	0.20
Correlation matrix of residuals:					**Correlation matrix of residuals:**				
Log visible	1				Log visible	1			
Log presentation	0.498	1			Log presentation	0.498	1		
Log socialization	0.459	0.257	1		Log socialization	0.458	0.257	1	
Log information	0.262	0.249	0.207	1	Log information	0.262	0.249	0.206	1
Breusch-Pagan test of independence: chi2(6) = 15865.903, p= 0.0000					Breusch-Pagan test of independence: chi2(6) = 15845.787, p= 0.0000				

Note. The data in the table accounts for weighting in LCF survey design. Reference category for Settlement type is urban, for education - those who finished education at the age of 16 or below, for tenure - Owning home outright. Section "Correlation matrix of residuals" reflects correlations of model residuals for each of the expenditure aggregates. Unweighted N for occupational groups are in the table, weighted N are: higher managerial - 4689, lower managerial -7571, public sector management- 2627, business professionals -7492, technical professionals - 5335, educational professionals - 5650, other professionals - 19296, skilled non-manual -21476, skilled manual - 25263, semi-skilled -11860, unskilled - 4472. Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1.

The categories of educational professionals and public sector managers provide occupational effects of similar magnitude to the models of socialization-related (b3) and informational goods – the former spends 20-26% and the latter 18-19% more compared to the reference category. The magnitude of occupational effects of business professionals and lower management in socialization-related expenditure (b3) is twice as high as the occupational effects of these groups in the model of informational goods (b4) – 29% and 15% versus 15% and 7% respectively. This suggests different priorities of for-profit and not-for-profit sector occupational groups in budget allocation, with socialization-related goods more prioritized in profit-making occupational fields.

Testing hypotheses, however, involves pairwise comparisons of marginal occupational effects in the "service class" (**Table 2.6**). Pairwise comparison of marginal occupational effects allows observing some significant shifts in consumption behaviour associated with occupational groups. The results in **Table 2.6** allow rejecting the null hypotheses related to **H4** - visible expenditure of the lower managerial group is associated with 7.3% higher increase compared to the higher managerial group at the 2% significance level. Dispositions for knowledge acquisition are 11% higher for public than private sector management, in line with **H5**. Regarding hypothesis **H1,** business professionals show significantly different levels of spending from technical professionals on visible (H1-1), presentational (H1-2) and socialization-related (H1-3) goods, with contrast values of 9.6%, 23% and 16% respectively at p-value below 0.05. The business-group spends 8-9% more on socialization and presentation than educational professionals. However, the corresponding null of hypotheses **H2-2** and **H2-3** can only be rejected at p<0.1 level. The null of **H2-1**, that these groups differ in status-signalling, cannot be rejected. Educational professionals' level of spending on informational goods significantly exceeds other professionals' investments, so the null hypotheses **H3-1** and **H3-2** are rejected.

As the main robustness check, Tobit models were built (Appendix B, **Table B1**). The estimates of income elasticity coefficient for visible and presentational expenditure are very similar (0.756 and 0.616 in OLS and 0.757 and 0.651 in Tobit-models respectively). For socialization-related and informational goods the maximum-likelihood estimator gives higher elasticity coefficients, due to more distinctive positive skewedness of the dependent variables (0.844 and 0.288 in OLS and 0.982 and 0.370 in Tobit respectively). The signs of other predictor coefficients are preserved in the Tobit models and the magnitude of estimates is mainly slightly larger. Pairwise comparison of occupational effects in Tobit model shows that

the statistical significance and the sign of contrasts is in line with OLS-prediction, the size of contrasts estimated by Tobit-models is the same for the visible expenditure aggregate and, where statistically significant, generally 0.5--2% higher for the other three aggregates (**Tables B2 and B2a**).

Table 2.6. Pairwise comparison of marginal occupational effects in expenditure aggregates based on seemingly unrelated regression

	Contrast	S.E.	z	p
Visible expenditure aggregate				
Lower vs Higher managerial in private sector	0.073	0.0314	2.33	0.02
Technical vs Business professionals	-0.096	0.0302	-3.18	0.001
Educational vs Business professionals	-0.031	0.0300	-1.03	0.303
Educational vs Technical professionals	0.065	0.0327	2.00	0.046
Presentational expenditure aggregate				
Technical vs Business professionals	-0.225	0.0499	-4.51	0.000
Educational vs Business professionals	-0.083	0.0496	-1.67	0.096
Educational vs Technical professionals	0.143	0.0540	2.64	0.008
Socialization expenditure aggregate				
Technical vs Business professionals	-0.160	0.0540	-2.96	0.003
Educational vs Business professionals	-0.090	0.0536	-1.67	0.095
Educational vs Technical professionals	0.070	0.0583	1.21	0.228
Informational expenditure aggregate				
Lower vs Higher managerial in private sector	-0.001	0.0389	-0.03	0.973
Managers in public vs Higher managerial in private sector	0.110	0.0508	2.17	0.030
Managers in public vs Lower managerial in private sector	0.112	0.0472	2.37	0.018
Technical vs Business professionals	-0.067	0.0374	-1.79	0.074
Educational vs Business professionals	0.115	0.0371	3.09	0.002
Educational vs Technical professionals	0.182	0.0404	4.50	0.000

Note. The table provides pairwise comparisons across the levels of occupational factor variables with the value of contrast (difference), standard errors, test statistic and p-value. The marginal occupational effects are estimated from a seemingly unrelated regression model (Table 2.5 above). Estimates are obtained using logs of expenditure, so contrasts are interpreted as percentage, by which expenditure is higher when an occupational group is compared to the reference group.

Admitting the heterogeneity of "Other professionals" group, SUR models that omit this category were constructed as a robustness check. The elasticity coefficients for the four expenditure aggregates are nearly the same (0.771, 0.629, 0.850 and 0.295 respectively). The models revealed the statistical significance of the same between-occupational contrasts that were found in the full sample models (**Tables B3** and **B4**).

2.4.3. Exploring separate models for occupational groups

Engel curves for each occupational group separately were built using seemingly unrelated regressions (OLS) technique. **Table 2.7** shows the magnitudes of elasticity coefficients derived from the separate regressions that allow judging shifts in consumption behaviour of occupational groups related to expenditure aggregates. Comparison of the linear estimates of the elasticity curve slopes shows that status-signalling is much less income-elastic among technical and educational professionals - this supports the previously discussed proposition that these fields do not encourage conspicuousness. Economic advancement is most intensively associated with investments into networking and socialization for public sector management, which is characterized by opportunities for social mobility, unsurprisingly, closely followed by business professionals and higher management. Investments into socialization upon the increase of economic capital are less pronounced for educational and technical professionals. The association between economic advancement and status-signalling consumption is well pronounced for public sector management and in this respect they are not significantly different from lower management in the private sector and business professionals (**Table 2.7**).

Differences between occupational groups in relative prioritization of commodity aggregates are also observed using the ratio-approach (**Table 2.7**). Income elasticity coefficients of the aggregates estimated from separate regressions are compared to elasticity of the broad visible expenditure aggregate (denoted as 1) for each group. Compared to the overall income sensitivity level of their visible expenditure, presentation and socialization are highly prioritized by higher private sector management and public sector management (the ratio between the expenditure aggregates for the two occupational groups are 1:1.14:1.47 and 1:1.32:1.38 respectively). The pattern of resource allocation across the dimensions of consumption strategy for the lower managerial group looks similar to the ratio of the full sample. Relatively higher investments into socialization are more pronounced for business professionals compared to technical and educational professionals. The qualitative analysis of elasticity coefficients follows the theory-guided expectations – among professionals, the predominance of cultural capital in an occupational field logically reveals lower growth in spending on commodities instrumental for building social capital, whereas the business field prioritizes socialization-related commodities.

Table 2.7. Income elasticity of visible, presentational, socialization-related and informational expenditure aggregates. SUR-models for separate occupational groups

Expenditure categories (log form)	Higher manage-rial private	Lower manage-rial private	Managers public sector	Business profs	Technical profs	Educatio nal profs	Full sample
N	**942**	**1470**	**548**	**1446**	**1006**	**1139**	**22716**
Visible expenditure aggregate	0.539	0.66	0.739	0.64	0.58	0.555	0.756
	(0.049)	(0.039)	(0.065)	(0.039)	(0.056)	(0.051)	(0.010)
R-squared	0.33	0.36	0.43	0.37	0.39	0.32	0.46
Presentational aggregate	0.614	0.602	0.974	0.626	0.535	0.55	0.616
	(0.084)	(0.068)	(0.117)	(0.067)	(0.097)	(0.087)	(0.017)
R-squared	0.22	0.22	0.25	0.19	0.28	0.19	0.25
Socialization aggregate	0.792	0.736	1.017	0.821	0.668	0.663	0.844
	(0.087)	(0.070)	(0.120)	(0.068)	(0.096)	(0.093)	(0.018)
R-squared	0.19	0.21	0.25	0.22	0.15	0.17	0.27
Informational goods	0.331	0.353	0.419	0.203	0.236	0.251	0.288
	(0.064)	(0.050)	(0.092)	(0.054)	(0.074)	(0.072)	(0.013)
R-squared	0.23	0.21	0.21	0.19	0.24	0.19	0.20
Breusch-Pagan test of independence chi2(6) at Pr.=0.000	739.6	926.6	435.3	1007.9	675.9	797.7	15845.8

Ratios between aggregate elasticities in relation to the visible expenditure aggregate (denoted as 1):

Presentation	1.14	0.91	1.32	0.98	0.92	0.99	0.81
Socialization aggregate	1.47	1.12	1.38	1.28	1.15	1.19	1.12
Informational goods	0.61	0.53	0.57	0.32	0.41	0.45	0.38

Note. The table provides income elasticity coefficients for each of the expenditure aggregates for each occupational group. Coefficients are estimated from seemingly unrelated regressions (OLS) where dependent variables are log expenditure aggregates related to visible, presentational, socialization and informational goods, predictors account for log gross household income, age and age-squared of HRP, log council tax paid by household, household size, HRP's education level, gender, marital status, housing tenure, number of children, type of settlement and regional and year controls. Regressions account for weighting used in the survey design. N is unweighted cell count. Full regression results are provided in Appendix B, Tables B5 and B6. Standard errors in parentheses. All elasticity coefficients are statistically significant at $p<0.05$ level.

As suggested by Dougherty (2011), a single model is more efficient than separate regressions. In support of its higher efficiency stands the result that the differences between slope coefficients (β_2 in Eq. 1.8) are not statistically significant. The "qualitative" comparison (Gelman and Stern, 2006) of elasticity estimates from separate regressions identified important shifts in group behaviour (differences in magnitudes). However, the narrow range of elasticity coefficients does not allow for the statistically significant differences between the slope coefficients across the occupational groups. In other words, β_2 can be assumed to be the same, which points in favour of a single model. The only exception is the elasticity coefficient of public sector management. This group has a significantly higher income elasticity of the presentational commodity aggregate compared to private sector managers according to Wald test results (**Table 2.8**) ($\chi^2 = 5.69$ and $\chi^2 = 7.01$ for higher and lower managers in the private sector respectively at $p<0.05$). Public sector managers also substantially outpace lower managers in private sector in expenditure on socialization-related goods; the elasticity coefficient of the former is also higher than for technical and educational professionals – this envisions public sector managers as a distinctive group. Further exploration (**Table 2.8**) shows that public sector managers also significantly outpace top management and educational professionals in elasticity coefficients on status-signalling.

To summarize, the results support the rationale for pooling separate equations into a single model for testing the rest of the hypotheses, as lack of statistical significance between elasticity coefficients shifts interest towards differences in intercept dummies that can be interpreted as dispositions of occupational groups. Statistically significant distinction of public sector managers calls for the simultaneous estimation of both intercept and slope dummies (interaction terms) in relation to this group. When building separate regressions using Tobit-technique, as expected, the maximum-likelihood estimates are higher than in OLS models (**Table B7**), but the between-occupational differences are in line with OLS-model results (**Table B8**).

Table 2.8. Cross-model pairwise comparisons (Wald-test) of elasticity coefficients between public sector managers and other "service class" groups based on OLS-models

Public sector managers compared to:		Management in private sector		Business profs	Tech. Profs	Educational profs
		Higher	Lower			
Expenditure aggregates:						
Visible expenditure	F-statistic	5.26	1.04	1.52	3.12	4.81
	Prob>F	(0.022)	(0.307)	(0.217)	(0.077)	(0.028)
Presentation	F-statistic	5.69	7.01	6.57	8.49	8.37
	Prob>F	(0.017)	(0.008)	(0.010)	(0.004)	(0.004)
Socialization	F-statistic	2.53	4.84	2.2	5.45	5.78
	Prob>F	(0.112)	(0.028)	(0.138)	(0.020)	(0.016)

Note. Table shows results of pairwise Wald test between elasticity coefficients estimated by OLS models in Table 2.7.

2.4.4. Testing multiplicative effects

Having found significant between-occupational differences in intercepts ("additive" effects), the slopes in the single model were assumed to be constant across the groups. Adding interaction terms, we test whether some occupational groups have both additive and multiplicative effects.

We now explore whether between-occupational contrasts estimated as multiplicative effects (interaction terms for occupational groups as in Eq. 2.4) are expected to be more important than between-occupational contrasts estimated as additive effects (as in Eq.2.1). The Wald-test was undertaken to compare differences in elasticity coefficients for the four expenditure aggregates across the six occupational groups. The test for equality has shown low F-values for the visible and socialization-related aggregates ($F_{(5, 5002)} = 1.63$ with p=0.149 for both) and for informational goods (F-statistic=1.28 at p=0.268). This result means that the slope coefficients do not exhibit statistically significant differences, which in turn indicates that multiplicative effects (interactions terms) are not likely to be more important than additive effects (intercepts). Similar conclusions can be obtained from undertaking pairwise t-tests of differences between elasticity coefficients estimated from separate regressions for each occupational group.

Table 2.9. OLS model for presentational expenditure (accounting for interaction terms)

	Model (c1)		Model (c2)	
	M.E.	S.E.	M.E.	S.E.
Log Gross household income	0.723***	-0.031	0.766***	-0.097
1.Higher managerial private	0.998*	-0.521	1.213	-0.826
2.Lower managerial private	0.562	-0.415	0.777	-0.763
3.Managerial public sector	-0.215	-0.694	(Ref.cat.)	
4.Business profs	1.195***	-0.404	1.410*	-0.757
5.Technical profs	-0.018	-0.548	0.197	-0.843
6.Educational profs	1.486***	-0.512	1.701**	-0.821
7.Other profs	1.179***	-0.283	1.394**	-0.7
8.Skilled non-manual	0.865***	-0.264	1.08	-0.693
9.Skilled manual	(Ref.cat.)		0.215	-0.694
10.Semi-skilled	0.922***	-0.31	1.136	-0.713
11.Unskilled	0.634	-0.431	0.849	-0.773
Age of HRP	-0.028***	-0.006	-0.028***	-0.006
Age-squared	0.000***	0	0.000***	0
log Council Tax	0.167***	-0.038	0.167***	-0.038
Education (finish 16-19)	0.033	-0.021	0.033	-0.021
Education (finish 20+ yo)	-0.048**	-0.023	-0.048**	-0.023
Female HRP	0.315***	-0.019	0.315***	-0.019
Household size	0.313***	-0.013	0.313***	-0.013
Tenure: w/mortgage	-0.062**	-0.025	-0.062**	-0.025
Tenure: rented/other	-0.176***	-0.029	-0.176***	-0.029
Number of children	-0.055***	-0.015	-0.055***	-0.015
Living with partner	0.137***	-0.021	0.137***	-0.021
Settlement: Town	-0.039	-0.026	-0.039	-0.026
Settlement: Village	-0.059**	-0.028	-0.059**	-0.028
1.occ x log Income	-0.142**	-0.073	-0.185	-0.117
2.occ x log Income	-0.08	-0.061	-0.123	-0.11
3.occ x log Income	0.043	-0.1	(Ref.cat.)	
4.occ x log Income	-0.158***	-0.059	-0.200*	-0.108
5.occ x log Income	-0.016	-0.079	-0.059	-0.121
6.occ x log Income	-0.214***	-0.075	-0.256**	-0.118
7.occ x log Income	-0.173***	-0.043	-0.215**	-0.101
8.occ x log Income	-0.128***	-0.041	-0.170*	-0.1
9.occ x log Income	(Ref.cat.)		-0.043	-0.1
10.occ x log Income	-0.149***	-0.049	-0.192*	-0.104
11.occ x log Income	-0.107	-0.07	-0.15	-0.115
Region, year of survey	Yes	Yes	Yes	Yes
Constant	-2.506***	-0.25	-2.721***	-0.685
Observations	22,716		22,716	
R-squared	0.247		0.247	

Note. The table accounts for weighting. Predictors include log gross household income, age and age-squared of HRP, log council tax paid by household, household size, HRP's education level, gender, marital status, housing tenure, number of children, type of settlement and regional and year controls. Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

The between-occupational differences in multiplicative effects (interaction terms), however, are more likely to be found in the presentational aggregate (F=2.22 at p=0.05) which is explored in **Table 2.9**. While the majority of elasticity coefficients across the six occupational groups did not expose statistically significant between-group difference, public sector managers were distinctively different, so they are taken as a baseline for comparison in the model with interaction terms (**Table 2.9**, model c2). Adding interaction terms positively affects the elasticity coefficient for the baseline (skilled manual workers), raising it from 65% (model b2 in **Table 2.5** of the main text) to 72% (model c1 in **Table 2.9**). Taking public sector managers as a baseline category (to be able to compare the other "service class" groups with them), significant differences with educational professionals are observed both in additive (intercept dummies) and multiplicative (slope dummies) effects (**Table 2.9**). Interaction terms are jointly significant with Chi2 (10) =27.58 at p=0.002, while intercept dummies are jointly significant with Chi2 (10) =29.68 at p=0001.

Educational professionals start investing more into appearance even at lower income levels and upon the growth of their economic capital the rate of investment remains relatively low. The pattern is the opposite for public sector managers, who do not invest much into presentation when on lower incomes, but their economic advancement is associated with a high rate of investment. This contributes to prior findings, that employment in the public sector is characterized by more openness (**Table 1.2**) and opportunity is signified by high elasticities of presentation-related commodities, which can be explained by active compensation for the lack of early socialization into the profession. Employing other professional-managerial groups as a baseline does not show any significant between-group differences in multiplicative effects within the "service class" which supports the robustness of results from the basic model (**Tables 2.5** and **2.6**).

Introducing interaction terms between occupational groups and log household income did not improve the coefficient of determination (R-squared in the model with interactions are 0.459, 0.247, 0.265, and 0.199 for the four expenditure aggregates – the same as in the basic model). F-test has shown that occupational intercept dummies are more significant contributors to the model (the null hypothesis of their joint insignificance was rejected at Chi2 (df10) =132) than occupational slope dummies (Chi2 (df10) =118), so the search for the parsimonious solution to ensure the possibility of pairwise comparison of occupational effects favours the original model.

To summarize, no doubt interactions between different predictors can identify interesting patterns; however, the high number of interaction terms substantially reduces the degrees of freedom. Introducing the slope dummies (interaction terms) into a full sample model shows that some groups differ in both dispositions and in the income-sensitivity of presentational expenditure. However, the results suggest that the model with intercept dummies is more efficient and parsimonious and allows more straightforward interpretation of the relative dispositions of occupational groups.

2.4.5. Exploring the non-linear effect of income

Previous models used the linear log-log function, which is also typically viewed and interpreted as a constant. However, as shown in previous studies (Charles et al., 2009), log visible expenditure as a function of log income may follow the quadratic fit, i.e. that income elasticity of visible goods decreases with income growth.

Adding a quadratic of log income to the model does not have a great effect on the magnitude and the statistical significance of predictor coefficients other than occupational categories (Appendix A, **Table B9**). The non-linear effect of income is significant for visible, presentation- and socialization related expenditure aggregates, but insignificant for informational goods. R-squared does not change compared to models (a1-a4) and (b1-b4). Undertaking pairwise comparison of occupational groups shows that adding log-income squared to the models of presentation-, socialization- and information-related expenditure (b2-b4) does not change either the statistical significance, or the magnitude of between-occupational differences (contrasts) (Appendix A, **Table B10**). In the visible expenditure aggregate, however, the non-linear terms partially take variance from some occupational effects, because these occupations differ in the slope (curvature) of log-log function. In other words, for some occupations elasticity is not a constant, but rather changes with the level of income in a non-linear way. Fragments of separate regressions built for these occupations (**Table 2.10**) demonstrate that some occupations have stronger non-linear effects of income on their visible expenditure.

While the contrast between higher and lower management loses statistical significance upon the introduction of the quadratic term, as the between-occupational difference resides in the curvature of log-log-function, the contrast between visible expenditure of business and educational professionals becomes 6% at p=0.05.

Table 2.10. Fragment of the visible expenditure model (SUR) for six occupational groups accounting for non-linearity of log-log function

	Higher managerial private		Lower managerial private		Managers public sector		Business profs		Technical profs		Educational profs		Full sample	
Log income	0.539	2.666	0.66	0.946	0.739	0.593	0.64	1.692	0.58	1.599	0.555	1.634	0.756	2.114
	(0.049)	(0.564)	(0.039)	(0.441)	(0.065)	(0.680)	(0.039)	(0.385)	(0.056)	(0.669)	(0.051)	(0.524)	(0.010)	(0.082)
Log income squared		-0.145		-0.021		0.011		-0.075		-0.074		-0.081		-0.105
		(0.038)		(0.032)		(0.049)		(0.027)		(0.049)		(0.039)		(0.006)

Note. The table shows non-linear effects of income for the visible expenditure aggregate. Income elasticities are estimated from SUR-regressions, where the dependent variable is log expenditure aggregate related to visible goods, predictors account for log gross household income, log gross household income squared, age, age-squared of HRP, log council tax paid by household, household size, HRP's education level, gender, marital status, housing tenure, number of children, type of settlement and regional and year controls. Regressions account for weighting, clustering and regional stratification of LCF survey design. Full regression results are provided in Appendix Tables B11 and B12. Standard errors in parentheses ***p<0.01, ** p<0.05, *p<-.1.

Figure 2.1. Engel curves for visible expenditure estimated for separate managerial groups
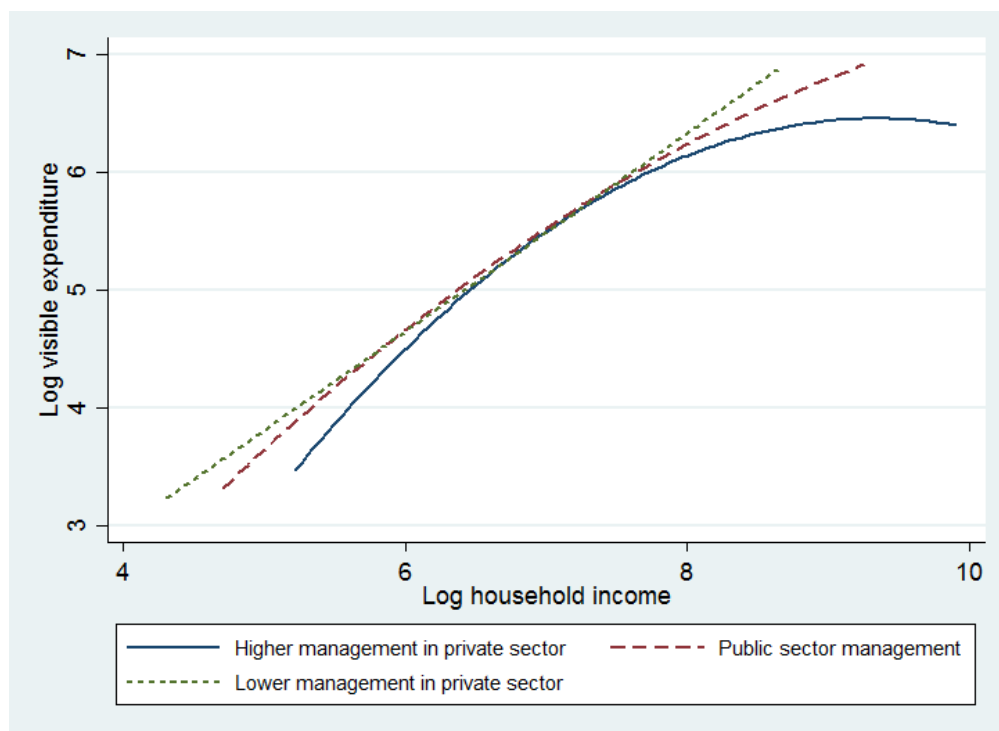
Figure 2.2. Engel curves for visible expenditure estimated for separate professional groups
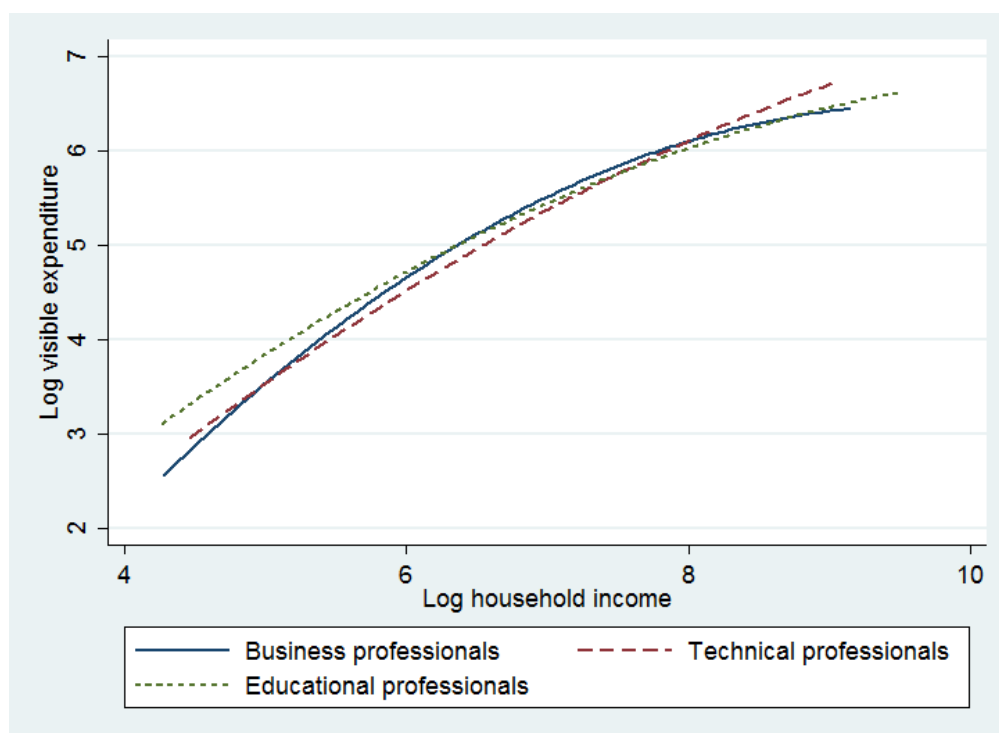
Note for Figures 2.1 and 2.2. The figures show separate Engel curves of log visible expenditure on a quadratic expression in log income for top managers (solid line), lower management (dash line) and public sector managers (short-dash line) in Figure 2.1 and business (solid line), technical (dash line) and educational professionals (short-dash line) in Figure 2.2 using data from LCF. The Engel curves are generated regressing log visible expenditure on log household income and log household income squared separately for the three managerial and the three professional groups.

Figures 2.1 and **2.2** show differences in the curvatures of separate log-log functions for the six occupational groups. **Figure 2.1** shows that at larger changes in income top managers' increase in visible spending is generally lower than for lower management (right-hand side of the curve). In **Figure 2.2** differences in the curvatures of log-log functions among professionals are observed – business professionals' curve starts steeper, i.e. at minor income increases they invest more into visible goods and generally the elasticity coefficient exceeds those of technical and educational professionals. Educational professionals' curve is relatively gradual at the higher end of the income range, which hints at their austerity, also noted earlier in pairwise comparisons of occupational effects (the marginal increase in income of higher income educational professionals is associated with only relatively small additional investments in status-signalling commodities).

To summarize, the results of the basic model in the main text are robust to the introduction of non-linear terms – for professional occupations (business, technical and educational professionals) the contrasts remain mainly unaffected; for managerial professions (higher and lower in private sector) – the between-occupational difference resides in the curvature of Engel curves, which provides plausible explanation for the contrast.

2.5. Discussion and conclusion

Grounded in the Bourdieusian theory of practice and relying on methods of economic analysis, the findings of this chapter evidence that, while being in the comparable income range, some professions that are signified by differences in the distribution of non-economic forms of capital, values, and contexts, reveal differences in patterns of consumption. The theoretical inspiration of the study stems from the prior interdisciplinary discourse that helps envision consumption behaviour of individuals as dependent on their location in the social space characterized by particular distributions of capital forms. Despite Bourdieu's tendency

to over-polarize tastes and cultures of different classes, his vision of connection between the social space and the space of lifestyles remains the major point of departure for studies in many areas of social sciences (Chudzikowski and Mayrhofer, 2011; Khapova and Arthur, 2010). Forms of capital represent one of the organizing principles governing habitus and, in a narrower sense, occupational fields (Bourdieu, 2010; 2011; Bourdieu and Wacquant, 1992). Tastes are also attributed to habitus. To reduce reliance solely on the culture of practices associated with a habitus when explaining differences in economic behaviour of agents, the study places more emphasis on the use-value, or instrumentality, of goods for career trajectories. It comes from the perspective of differences in underlying consumption motivations that stem from agents' place in the social space and the associated pressures that shape agents' consumption strategies. Appreciating the theory of practice, the chapter introduces the Beckerian (1991) approach to consumption analysis that envisions agents' capability for strategic planning and preference setting to reach their goals. An interdisciplinary view on preferences of occupational classes, thus, enables exploration of consumption behaviour to reveal differences in preferences for goods carrying use-value that augments or demonstrates the forms of capital and reinforces agents' occupational identity. Admitting the importance of the visible/non-visible dichotomy widely discussed in the literature (e.g. Charles et al., 2009; Frank, 1985; Heffetz, 2011; Hopkins and Kornienko, 2004), these findings evidence the benefits of distinguishing between more particularized commodity groups – presentational, socialization-related and informational aggregates.

Discussion in Chapters 1 and 2 has highlighted the role of the work environment, with its embedded social and cultural forces, in consumption preferences and lifestyles. In the attempt to move away from the abstractness of traditional broad socio-economic classes, the narrower, more culturally-defined occupational classes were explored in line with the Bourdieusian conceptualization (2010) and an array of studies in sociology and wider social sciences (e.g. Anderson-Gough et al., 2002; Atkinson, 2009; Carnegie and Napier, 2010; Carrington, 2010; Guerrier et al., 2009; Lamont, 1992; Legatt, 1980; Picard et al., 2014; Savage et al., 1992; Savage et al., 2005; Savage et al., 2013; Spence et al., 2017 and others). Prior literature outlining the alternative set of employment-related categories (Atkinson, 2009; Lamont, 1992; Weeden and Grusky, 2005) captures some principal differences in capital forms and conditions of existence. While acknowledging the coarseness of such aggregates, the literature suggests the rationale for their exploration (Atkinson, 2009). As the use-value of goods is context-specific, sociologist and anthropologist insights were used to establish

occupational classes with distinctive predominant compositions of capitals to set hypotheses on relative consumption behaviour. Important differences are found between occupational groups in consumption patterns related to broader status-signalling goods, and more specifically - presentational, socialization-related, and informational goods.

When comparing marginal occupational effects, the study finds significant differences between the groups. Business professionals, as expected, reveal dispositions to more ostentatious consumption and more emphasis on appearance- and socialization-related spending, compared to their counterparts in technical and academic professions. "The ascetic aristocratism" in leisure activities typical for academic professionals and public sector executives (Bourdieu, 2010:282) finds consonance with the shift in consumption priorities from socialization-related spending towards relatively higher emphasis on knowledge acquisition as opposed to priorities revealed by business professionals and lower management in the private sector. The finding resonates with the comparison of commercial industrialists and teaching professionals by Bourdieu (2010) and private sector commercially oriented professionals as opposed to humanitarian goal-oriented public sector professionals discussed by Savage et al. (1992) and Lamont (1992). Top managers demonstrate less ostentatious behaviour than lower management, in line with the expectation that higher cultural capital may suppress conspicuous consumption due to more active savings behaviour (Moav and Neeman, 2012). The findings suggest lower increases in visible expenditure at higher levels of income among high-tier managers. Distinctive consumption behaviour characterizes the ambition-driven group of public sector managers whose field is signified by wider opportunities for social mobility (Friedman et al., 2017) and whose investments in appearance, socialization and knowledge acquisition are relatively high. This group is distinguished by significantly higher investments into informational goods than private sector management.

Shifts in economic behaviour for particular occupational groups can be explained by differences in career trajectories followed by their members. An occupational field is characterized by the nature of predominant skills and types of cultural capital, which on one hand represent resources able to translate into individuals' social and economic rewards and, on the other hand, constitute a vehicle for social closure in the field (Bourdieu and Wacquant, 1992; Savage et al., 2005). Each field possesses its dynamics, implying the importance of development of competences and capabilities vital for their further advancement which, to a certain extent, may require adjustment of lifestyle and economic behaviour. Occupational

effects in the dynamics of spending on narrow clusters of commodities with similar use-value (status-signalling, presentational, socialization-related and informational goods) demonstrate the importance of objects with specific characteristics for particular professional groups, their instrumental value "in the eyes of the beholder." Differences in dispositions and in the pace at which investments into these goods increase suggest that commodity aggregates possess unequal use-value for occupational groups. Thus, the study envisions principal differences in consumption practices and in the priorities in consumption strategies.

As a limitation of the study, household members may belong to different occupational groups and bring varying patterns to the consumption strategy of the household, which adds to statistical "noise" to the results and to some extent hinders clarity of patterns associated with particular occupational fields. However, the large sizes of the occupational sub-samples at least partially address this limitation. Moreover, assortative mating, which characterizes the family as an enterprise with aspirations that have a joint household consumption strategy and inter-generational succession, which on one hand facilitates social mobility and on the other hand reproduces taste, are called to further justify the household as unit of analysis.

The findings contribute to understanding of lifestyle differences between occupational classes as characteristics of career fields, highlight the importance of class, defined by capital composition, and confirm the role of occupation as a salient determinant of underlying motivations and prioritization in consumption strategies. Differences in consumption preferences signify the relevance of occupational identity for individual's lifestyle and suggest that occupational groupings based on human capital combinations constitute salient variables for analysis of individuals' consumption behaviour and underlying motivations, which are important characteristics of career fields.

Appendix A

Table A1. Expenditure aggregates. Variables of LCF survey (2009-2016) and their description

Visible expenditure aggregate includes:

1   Clothing and Footwear (FS3)
2   Personal care (hairdressing, beauty treatment, toiletries, hair products, cosmetics and other) (FSC1)
3   Personal effects (jewellery, watches, leather and travel goods, sunglasses and other) (FSC2)
4   Purchase and operation of personal transport (purchase of new and second-hand vehicles, operation of personal transport including spares and accessories, fuel, repairs and other motoring costs) (FS71, FS72)
5   Household goods and services (furniture, textiles, household appliances, tableware, tools and equipment for house and garden, goods and services for routine household maintenance) (FS5)
6   Restaurant and cafe meals (FSB11)
7   Alcoholic drinks away from home (FSB12)
8   Recreation and culture (FS9)

Presentational aggregate includes:

- categories 1 to 3 above

Socialization aggregate incudes:
- categories 6 and 7 above;
- Sports admissions, subscriptions (spectator sports, participants sports, subscription to sports and social clubs) (FS941), equipment for sport, camping and open-air recreation (C93211t)
- Miscellaneous entertainments (FS944): Admissions to clubs, discos, dances, bingo; Social events and gatherings; Subscriptions for leisure activities and other subscriptions

Informational goods includes:

- Books, newspapers and magazines(FS95)

Table A2. NS-SEC (long-version) operational categories linked to social class

Social Class		NS-SEC operational categories
I	Professional, etc. occupations	3.1, 3.3
II	Managerial and technical occupations	1, 2, 3.2, 3.4, 4.1, 4.3, 5, 7.3, 8.1, 8.2, 9.2
IIIN	Skilled occupations - non-manual	4.2, 4.4, 6, 7.1, 7.2, 12.1, 12.6
IIIM	Skilled occupations -manual	7.4, 9.1, 10, 11.1, 12.3, 13.3
IV	Partly skilled occupations	11.2, 12.2, 12.4, 12.5, 12.7, 13.1, 13.2, 13.5
V	Unskilled occupations	13.4

Source: ONS (2005)

Table A3. NS-SEC analytical classes, operational categories and sub-categories (long-version)

Analytic classes	Operational categories and sub-categories classes
1.1	L1 Employers in large establishments
	L2 Higher managerial and administrative occupations
1.2	L3 Higher professional occupations
	L3.1 'Traditional' employees
	L3.2 'New' employees
	L3.3 'Traditional' self-employed
	L3.4 'New' self-employed
2	L4 Lower professional and higher technical occupations
	L4.1 'Traditional' employees
	L4.2 'New' employees
	L4.3 'Traditional' self-employed
	L4.4 'New' self-employed
	L5 Lower managerial and administrative occupations
	L6 Higher supervisory occupations
3	L7 Intermediate occupations
	L7.1 Intermediate clerical and administrative occupations
	L7.2 Intermediate sales and service occupations
	L7.3 Intermediate technical and auxiliary occupations
	L7.4 Intermediate engineering occupations
4	L8 Employers in small organisations
	L8.1 Employers in small establishments in industry, commerce, services etc.
	L8.2 Employers in small establishments in agriculture
	L9 Own account workers
	L9.1 Own account workers (non-professional)
	L9.2 Own account workers (agriculture)
5	L10 Lower supervisory occupations
	L11 Lower technical occupations
	L11.1 Lower technical craft occupations
	L11.2 Lower technical process operative occupations
6	L12 Semi-routine occupations
	L12.1 Semi-routine sales occupations
	L12.2 Semi-routine service occupations
	L12.3 Semi-routine technical occupations
	L12.4 Semi-routine operative occupations
	L12.5 Semi-routine agricultural occupations
	L12.6 Semi-routine clerical occupations
	L12.7 Semi routine childcare occupations
7	L13 Routine occupations
	L13.1 Routine sales and service occupations
	L13.2 Routine production occupations
	L13.3 Routine technical occupations
	L13.4 Routine operative occupations
	L13.5 Routine agricultural occupations

Source: ONS (2005).

Table A4. Alternative set of occupational categories

Narrow occupational group	Corresponding codes from NS-SEC, SIC and SOC classifications
Higher management in private sector	NS-SEC (long version) L2 and L5 if SIC2007 is not O, P and Q*
Lower management in private sector	NS-SEC (long version) L5 if SIC2007 is not O, P and Q
Public sector management	NS-SEC (long version) L2 and L5 if SIC2007 is O, P or Q
Business professionals	NS-SEC (6 social classes) "Professionals" (Class I) if SOC is 242, 353, 354
Technical professionals	NS-SEC (6 social classes) "Professionals" (Class I) if SOC is 212 and 213
Educational professionals	NS-SEC (6 social classes) "Professionals" (Class I) if SOC is 231
Other professionals	NS-SEC (6 social classes) "Professionals" (Class I) if SOC is not 242, 353, 357, 212, 213 and 231.
Skilled occupations - non-manual	NS-SEC (6 social classes), Class IIIN
Skilled occupations -manual	NS-SEC (6 social classes), Class IIIM
Partly skilled occupations	NS-SEC (6 social classes), Class IV
Unskilled occupations	NS-SEC (6 social classes), Class V

*SIC-codes (1-digit) are provided in Table A5 below.

Table A5. Standard industry classification by industry section

SIC major division	Industry section
A	Agriculture, forestry and fishing
B	Mining and quarrying
C	Manufacturing
D	Electricity, gas, air cond supply
E	Water supply, sewerage, waste
F	Construction
G	Wholesale, retail, repair of vehicle
H	Transport and storage
I	Accommodation and food services
J	Information and communication
K	Financial and insurance activities
L	Real estate activities
M	Prof, scientific, technical activities
N	Administrative and support services
O	Public administration and defence
P	Education
Q	Health and social work
R	Arts, entertainment and recreation
S	Other service activities
T	Households as employers
U	Extraterritorial organisations

Source: UK Standard Industrial Classification of Economic Activities (SIC2007).

Appendix B.

Table B1. Tobit model for visible, presentational, socialization-related and informational expenditure aggregates (occupational effects captured as NS-SEC and as narrowly defined occupational groups)

VARIABLES	Expenditure aggregates in log-form (models a1*-a4*)				VARIABLES	Expenditure aggregates in log-form (models b1*-b4*)			
	Visible	Presen-tation	Sociali-zation	Informa-tional		Visible	Presen-tation	Sociali-zation	Informa-tional
Log gross family income	0.757***	0.655***	0.981***	0.365***		0.757***	0.651***	0.982***	0.370***
	(0.012)	(0.021)	(0.024)	(0.018)		(0.013)	(0.021)	(0.025)	(0.018)
NS-SEC classification:					***"Narrow" occupational groups***				
Professionals (N=1908)	-0.012	0.024	0.142***	0.184***	Higher managers (N=942)	-0.004	0.049	0.074	0.069
	(0.024)	(0.042)	(0.047)	(0.037)		(0.029)	(0.052)	(0.057)	(0.045)
Managerial and technical (N=8492)	0.039**	0.064**	0.199***	0.134***	Lower managers (N=1470)	0.069***	0.059	0.157***	0.081**
	(0.016)	(0.027)	(0.033)	(0.024)		(0.024)	(0.044)	(0.048)	(0.036)
					Managers public (N=548)	0.037	0.139**	0.207***	0.211***
						(0.033)	(0.061)	(0.068)	(0.053)
					Business profs (N=1446)	0.065***	0.161***	0.302***	0.169***
						(0.025)	(0.043)	(0.049)	(0.039)
					Technical profs (N=1006)	-0.031	-0.08	0.147***	0.090**
						(0.028)	(0.052)	(0.054)	(0.045)
					Educational profs (N=1139)	0.035	0.076	0.221***	0.299***
						(0.028)	(0.048)	(0.056)	(0.044)
					Other profs (N=3849)	0.027	0.051	0.195***	0.150***
						(0.018)	(0.032)	(0.038)	(0.028)
Skilled non- manual (N=4233)	0	0.043	0.142***	0.116***	Skilled non-manual (N=4233)	0.001	0.048	0.146***	0.123***
	(0.018)	(0.031)	(0.037)	(0.027)		(0.018)	(0.031)	(0.037)	(0.027)
Skilled manual (N=4892)		*(reference category)*			Skilled manual (N=4892)		*(reference category)*		
Semi-skilled (N=2326)	-0.071***	-0.025	-0.162***	-0.036	Semi-skilled (N=2326)	-0.071***	-0.023	-0.160***	-0.03
	(0.022)	(0.036)	(0.047)	(0.032)		(0.022)	(0.036)	(0.047)	(0.032)
Unskilled (N=865)	-0.159***	-0.064	-0.417***	-0.054	Unskilled (N=865)	-0.159***	-0.064	-0.416***	-0.05
	(0.031)	(0.052)	(0.072)	(0.046)		(0.031)	(0.052)	(0.072)	(0.046)
Age of HRP	-0.013***	-0.032***	-0.016**	-0.011*		-0.013***	-0.032***	-0.015*	-0.011*
	(0.004)	(0.007)	(0.008)	(0.006)		(0.004)	(0.007)	(0.008)	(0.006)
Age-squared	0.000***	0.000***	0	0.000***		0.000***	0.000***	0	0.000**
	0	0.000	0.000	0.000		0	0	0	0
log Council Tax	0.195***	0.168***	0.291***	0.153***		0.191***	0.162***	0.288***	0.161***
	(0.025)	(0.046)	(0.057)	(0.040)		(0.025)	(0.046)	(0.057)	(0.039)
Education (16-19)	0.003	0.032	0.048*	0.022		0.003	0.03	0.046	0.018
	(0.014)	(0.024)	(0.029)	(0.021)		(0.014)	(0.024)	(0.029)	(0.021)
Education (20+ yo)	-0.075***	-0.060**	0.091***	0.01		-0.076***	-0.062**	0.080***	-0.005
	(0.015)	(0.026)	(0.030)	(0.023)		(0.015)	(0.026)	(0.031)	(0.023)
Female HRP	0.099***	0.359***	0.017	0.129***		0.097***	0.350***	0.023	0.113***
	(0.013)	(0.022)	(0.025)	(0.019)		(0.013)	(0.022)	(0.026)	(0.019)
Household size	0.125***	0.336***	0.153***	0.123***		0.125***	0.337***	0.154***	0.122***
	(0.009)	(0.016)	(0.019)	(0.015)		(0.009)	(0.016)	(0.019)	(0.015)
Tenure: w/mortgage	-0.120***	-0.063**	-0.189***	-0.085***		-0.120***	-0.063**	-0.188***	-0.085***
	(0.016)	(0.028)	(0.032)	(0.024)		(0.016)	(0.028)	(0.032)	(0.024)
Tenure: rented/other	-0.353***	-0.182***	-0.532***	-0.239***		-0.354***	-0.183***	-0.532***	-0.236***
	(0.019)	(0.033)	(0.039)	(0.029)		(0.019)	(0.033)	(0.039)	(0.029)
Number of children	-0.057***	-0.062***	-0.127***	0.034**		-0.057***	-0.063***	-0.127***	0.035**
	(0.010)	(0.018)	(0.022)	(0.017)		(0.010)	(0.018)	(0.022)	(0.017)
Living with partner	0.095***	0.155***	-0.068**	0.159***		0.095***	0.154***	-0.069**	0.159***
	(0.013)	(0.023)	(0.028)	(0.021)		(0.013)	(0.023)	(0.028)	(0.021)
Settlement: Town	0.088***	0.044	0.026	0.042*		0.089***	0.042	0.026	0.042*
	(0.016)	(0.028)	(0.033)	(0.024)		(0.016)	(0.028)	(0.033)	(0.024)
Settlement: Village	0.093***	-0.067**	-0.070**	0.086***		0.092***	-0.068**	-0.068*	0.086***
	(0.016)	(0.030)	(0.035)	(0.025)		(0.016)	(0.030)	(0.035)	(0.025)
Region, year	yes	yes	yes	yes		yes	yes	yes	yes
Constant	-0.426***	-2.082***	-4.317***	-2.166***		-0.416***	-2.044***	-4.328***	-2.214***
	(0.121)	(0.210)	(0.249)	(0.184)		(0.122)	(0.210)	(0.251)	(0.184)
Observations	22,716	22,716	22,716	22,716		22,716	22,716	22,716	22,716
Uncensored	22700	21418	19368	18332		22700	21418	19368	18332

Note. Reference category for settlement type is urban, for education - those who finished education at the age of 16 or below, for tenure - owning home outright. Sample weights are used to calculate standard errors. Unweighted N for occupational groups is in the table, weighted N are: Higher managerial - 4689, lower managerial - 7571, public sector management - 2627, business professionals - 7492, technical professionals - 5335, educational professionals - 5650, other professionals - 19296, skilled non-manual - 21476, skilled manual - 25263, semi-skilled - 11860, unskilled - 4472. Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1.

Table B2. Pairwise comparison of marginal occupational effects in visible, presentational, socialization-related and informational expenditure aggregates based on Tobit models

	Contrast	Std. Err.	[95% Conf. Interval]		t	P>t
Visible aggregate						
Lower vs Higher managerial in private sector	0.073	0.032	0.0100	0.1370	2.27	0.023
Managers in public vs Higher managerial in private sector	0.041	0.039	-0.0360	0.1180	1.04	0.297
Business professionals vs HM private	0.07	0.032	0.0070	0.1330	2.16	0.03
Managers in public vs Lower managerial in private sector	-0.032	0.036	-0.1030	0.0380	-0.9	0.368
Business professionals vs LM private	-0.004	0.029	-0.0610	0.0540	-0.12	0.904
Technical professionals vs LM private	-0.1	0.033	-0.1630	-0.0360	-3.06	0.002
Educational professionals vs LM private	-0.034	0.032	-0.0960	0.0270	-1.09	0.276
Technical vs Business professionals	-0.096	0.032	-0.1590	-0.0330	-3.00	0.003
Educational vs Business professionals	-0.031	0.031	-0.0910	0.0290	-1.00	0.315
Educational vs Technical professionals	0.065	0.034	-0.0020	0.1330	1.89	0.058
Presentational goods						
LM private vs HM private	0.01	0.06	-0.1070	0.1264	0.16	0.871
Managerial public vs HM private	0.09	0.073	-0.5320	0.2337	1.23	0.218
Managerial public vs LM private	0.081	0.068	-0.0523	0.2134	1.19	0.235
Technical professionals vs Business professionals	-0.241	0.059	-0.3565	-0.1248	-4.07	0
Educational professionals vs Business professionals	-0.085	0.054	-0.1918	0.0218	-1.56	0.119
Educational professionals vs Technical professionals	0.156	0.063	0.0329	0.2785	2.49	0.013
Socialization-related expenditure						
LM private vs HM private	0.083	0.063	-0.0406	0.2066	1.32	0.188
Managerial public vs HM private	0.133	0.078	-0.0194	0.2860	1.71	0.087
Managerial public vs LM private	0.05	0.074	-0.0941	0.1946	0.68	0.495
Technical professionals vs Business professionals	-0.155	0.06	-0.2724	-0.0380	-2.6	0.009
Educational professionals vs Business professionals	-0.081	0.06	-0.1987	0.0360	-1.36	0.174
Educational professionals vs Technical professionals	0.074	0.066	-0.0548	0.2025	1.12	0.261
Informational goods						
LM private vs HM private	0.012	0.049	-0.8509	0.1087	0.24	0.811
Managerial public vs HM private	0.142	0.063	0.0194	0.2645	2.27	0.023
Managerial public vs LM private	0.13	0.058	0.0164	0.2439	2.24	0.025
Technical vs Business professionals	-0.079	0.053	-0.1823	0.0244	-1.5	0.134
Educational vs Business professionals	0.13	0.05	0.0319	0.2282	2.6	0.009
Educational vs Technical professionals	0.209	0.056	0.1000	0.3181	3.76	0

Note. The table provides pairwise comparison across the levels of occupational factor variable with the values of contrast (difference), standard errors and confidence intervals for the contrasts. The marginal occupational effects are estimated from Tobit regression where the dependent variables are status-signalling, presentational, socialization-related and informational goods, predictors account for the age and age-squared of HRP, log council tax paid by household size, HRP's education level, gender, occupation and marital status, housing tenure, number of children, type of settlement and regional and year controls. Regressions account for weighting, clustering and regional stratification of LCF survey design. Estimates are obtained using logarithmic forms of gross household income and expenditure and are interpreted as percentage by which expenditure is higher when an occupational group is compared to the reference group.

Table B2a. Summary of contrasts between marginal occupational effects (based on Tobit model)

| | Expenditure aggregates | | | |
	Visible	Presentation	Socialization	Informational
Technical professionals	AB	A	BC	CD
HM private	BC	BCDE	AB	BC
Educational professionals	BCD	CDE	CD	E
Managerial public	BCD	DE	BCD	DE
Business professionals	D	E	D	CD
LM private	D	BCDE	BC	C

Note: Occupational groups sharing a letter in the expenditure aggregate column are not significantly different at the 5% level.

Table B3. Seemingly unrelated regression for visible, presentational, socialization-related and informational expenditure aggregates ("Other professionals" category omitted)

	Log Visible	Log Presen- tation	Log Sociali- zation	Log Informa- tional
Log household income	0.771***	0.629***	0.850***	0.295***
	(0.011)	(0.019)	(0.020)	(0.014)
Narrow occupational groups:				
Higher managerial private	-0.020	0.033	0.089*	0.076**
(N=942)	(0.029)	(0.047)	(0.051)	(0.035)
Lower managerial private	0.061***	0.045	0.141***	0.072***
(N=1470)	(0.023)	(0.037)	(0.041)	(0.028)
Managerial public sector	0.029	0.120**	0.181***	0.185***
(N=548)	(0.036)	(0.059)	(0.064)	(0.043)
Business profs	0.055**	0.133***	0.274***	0.150***
(N=1446)	(0.024)	(0.039)	(0.043)	(0.029)
Technical profs	-0.042	-0.093**	0.118**	0.084***
(N=1006)	(0.027)	(0.044)	(0.048)	(0.032)
Educational profs	0.026	0.047	0.182***	0.269***
(N=1139)	(0.027)	(0.045)	(0.049)	(0.033)
Other profs (N=3849)		*(Omitted category)*		
Skilled non-manual	0.003	0.036	0.115***	0.095***
(N=4233)	(0.017)	(0.027)	(0.030)	(0.020)
Skilled manual	0.000	0.000	0.000	0.000
(N=4892)	(0.000)	(0.000)	(0.000)	(0.000)
Partly skilled occupations	-0.063***	-0.023	-0.129***	-0.015
(N=2326)	(0.019)	(0.032)	(0.035)	(0.024)
Unskilled occupations	-0.151***	-0.051	-0.312***	-0.037
(N=865)	(0.028)	(0.046)	(0.050)	(0.034)
Age of HRP	-0.010***	-0.027***	-0.012*	-0.011**
	(0.004)	(0.006)	(0.007)	(0.005)
Age-squared	0.000**	0.000***	0.000	0.000***
	(0.000)	(0.000)	(0.000)	(0.000)
log Council Tax	0.201***	0.197***	0.280***	0.143***
	(0.025)	(0.042)	(0.045)	(0.031)
Education (finished 16-19yo)	-0.002	0.044*	0.028	0.025

	(0.014)	(0.023)	(0.025)	(0.017)
Education (finished 20+ yo)	-0.070***	-0.028	0.082***	0.008
	(0.016)	(0.026)	(0.028)	(0.019)
Female HRP	0.089***	0.320***	-0.017	0.072***
	(0.013)	(0.021)	(0.023)	(0.016)
Household size	0.121***	0.310***	0.134***	0.095***
	(0.009)	(0.014)	(0.015)	(0.010)
Tenure: w/mortgage	-0.133***	-0.061**	-0.154***	-0.062***
	(0.017)	(0.028)	(0.030)	(0.021)
Tenure: rented/other	-0.365***	-0.172***	-0.460***	-0.179***
	(0.019)	(0.032)	(0.034)	(0.023)
Number of children	-0.049***	-0.049***	-0.120***	0.030**
	(0.010)	(0.017)	(0.018)	(0.012)
Living with partner	0.094***	0.148***	-0.049**	0.135***
	(0.014)	(0.023)	(0.025)	(0.017)
Settlement: Town	0.074***	-0.051*	-0.037	0.030
	(0.018)	(0.029)	(0.031)	(0.021)
Settlement: Village	0.084***	-0.077**	-0.055	0.065***
	(0.019)	(0.031)	(0.034)	(0.023)
Controls: year and region of residence				
Constant	-0.568***	-2.008***	-3.431***	-1.429***
	(0.119)	(0.195)	(0.212)	(0.144)
Observations	18,867	18,867	18,867	18,867
RMSE	0.748	1.225	1.331	0.908
Chi2	16316.27	6397.49	6997.48	4850
R-squared	0.464	0.253	0.271	0.204

Correlation matrix of residuals:

Log visible, residual corr. w/the residual of the model in column	1			
Log presentation, residual corr.	0.5015	1		
Log socialization, residual corr.	0.4561	0.256	1	
Log information, residual corr.	0.2594	0.2454	0.2018	1

Breusch-Pagan test of independence: chi2(6) = 13079.985, p= 0.0000

Note. The data in the table accounts for the weighting in LCF survey design. Reference category for Settlement type is urban, for education - those who finished education at the age of 16 or below, for tenure - Owning home outright. Unweighted N for occupational groups are in the table, weighted N are: higher managerial - 4689, lower managerial -7571, public sector management- 2627, business professionals -7492, technical professionals - 5335, educational professionals - 5650, skilled non-manual -21476, skilled manual - 25263, semi-skilled -11860, unskilled - 4472. Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Table B4. Between-occupational contrasts in expenditure aggregates estimated from SUR-model ("Other professionals" category omitted)

	Contrast	S.E.	z	p
Visible expenditure				
LM private vs HM private	0.081	0.032	2.55	0.011
Technical vs Business professionals	-0.097	0.031	-3.19	0.001
Educational vs Business professionals	-0.029	0.03	-0.96	0.338
Educational vs Technical professionals	0.068	0.033	2.06	0.039
Presentational expenditure				
Technical vs Business professionals	-0.226	0.05	-4.51	0.000
Educational vs Business professionals	-0.085	0.05	-1.71	0.087
Educational vs Technical professionals	0.14	0.054	2.58	0.01
Socialization-related expenditure				
Business professionals vs HM private	0.184	0.057	3.25	0.001
Technical vs Business professionals	-0.156	0.054	-2.86	0.004
Educational vs Business professionals	-0.092	0.054	-1.7	0.089
Educational vs Technical professionals	0.064	0.059	1.08	0.28
Informational goods				
LM private vs HM private	-0.004	0.039	-0.11	0.914
Managerial public vs HM private	0.109	0.05	2.16	0.031
Managerial public vs LM private	0.113	0.047	2.41	0.016
Technical vs Business professionals	-0.066	0.037	-1.79	0.073
Educational vs Business professionals	0.118	0.037	3.21	0.001
Educational vs Technical professionals	0.185	0.04	4.59	0.000

Note. The table provides pairwise comparison across the levels of occupational factor variable - the values of contrast (difference), standard errors, test statistic and p-values. Contrasts are estimated from comparison of marginal occupational effects obtained from seemingly unrelated regression model for the four expenditure aggregates that omits "Other professionals" category (Table B3 above). Estimates are obtained using logarithmic forms of expenditure, so contrasts are interpreted as percentage by which expenditure is higher when an occupational group is compared to the reference group.

Table B5. Estimates from models of four expenditure aggregates for the managerial groups

	Higher managerial in private sector				Lower managerial in private sector				Management in public sector			
	Log visib	Log Pres	Log Soc	Log Info	Log visib	Log Pres	Log Soc	Log Info	Log visib	Log Pres	Log Soc	Log Info
Log Gross hh income	0.539***	0.614***	0.792***	0.331***	0.660***	0.602***	0.736***	0.353***	0.739***	0.974***	1.017***	0.419***
	(0.049)	(0.084)	(0.087)	(0.064)	(0.039)	(0.068)	(0.070)	(0.050)	(0.065)	(0.117)	(0.120)	(0.092)
Age of HRP	0.008	-0.041	0.027	-0.005	0.013	-0.033	0.016	0.016	-0.000	-0.071	-0.055	-0.074**
	(0.023)	(0.040)	(0.041)	(0.030)	(0.015)	(0.026)	(0.027)	(0.019)	(0.025)	(0.045)	(0.046)	(0.035)
Age-squared	-0.000	0.000	-0.000	0.000	-0.000	0.000	-0.000	-0.000	0.000	0.001*	0.001	0.001***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.001)	(0.001)	(0.000)
log Council Tax	0.307***	0.193	0.189	0.139	0.320***	0.406***	0.443***	0.073	0.117	0.006	-0.138	0.120
	(0.097)	(0.167)	(0.172)	(0.127)	(0.086)	(0.150)	(0.156)	(0.110)	(0.115)	(0.207)	(0.211)	(0.162)
Education (finish 16-19)	0.019	-0.010	-0.157	-0.045	-0.040	-0.078	0.003	0.100*	-0.049	0.019	-0.163	0.030
	(0.066)	(0.114)	(0.118)	(0.087)	(0.047)	(0.083)	(0.086)	(0.061)	(0.073)	(0.132)	(0.134)	(0.103)
Education (finish 20+ yo)	-0.007	-0.060	0.051	-0.078	-0.088*	-0.087	0.145	0.135**	-0.109	-0.088	0.044	0.067
	(0.065)	(0.112)	(0.115)	(0.085)	(0.050)	(0.087)	(0.090)	(0.064)	(0.076)	(0.137)	(0.139)	(0.107)
Female HRP	0.070	0.171*	0.072	0.081	0.062	0.331***	-0.152*	0.212***	0.137**	0.369***	0.079	0.089
	(0.059)	(0.101)	(0.104)	(0.077)	(0.049)	(0.086)	(0.089)	(0.063)	(0.061)	(0.110)	(0.112)	(0.086)
Household size	0.153***	0.221***	0.064	0.168***	0.128***	0.353***	0.325***	0.133***	0.112***	0.240***	0.027	0.041
	(0.039)	(0.068)	(0.070)	(0.051)	(0.028)	(0.050)	(0.051)	(0.036)	(0.042)	(0.075)	(0.076)	(0.059)
Tenure: w/mortgage	-0.174**	-0.211*	0.158	0.011	-0.089	-0.034	-0.208*	-0.079	-0.016	0.028	-0.087	-0.168
	(0.071)	(0.122)	(0.126)	(0.093)	(0.059)	(0.104)	(0.107)	(0.076)	(0.081)	(0.145)	(0.148)	(0.113)
Tenure: rented/other	-0.411***	-0.345**	0.016	-0.060	-0.282***	0.055	-0.335**	-0.134	-0.258**	-0.117	-0.332*	-0.255*
	(0.097)	(0.168)	(0.173)	(0.128)	(0.073)	(0.128)	(0.133)	(0.094)	(0.104)	(0.188)	(0.191)	(0.147)
Number of children	-0.085*	0.017	0.062	-0.016	-0.138***	-0.103*	-0.354***	0.004	-0.012	0.039	0.062	0.135*
	(0.046)	(0.079)	(0.082)	(0.060)	(0.034)	(0.060)	(0.062)	(0.044)	(0.052)	(0.093)	(0.094)	(0.072)
Living with partner	0.065	0.231**	-0.119	0.210**	0.112**	0.257***	-0.078	0.194***	0.107	-0.164	0.198	0.060
	(0.065)	(0.112)	(0.116)	(0.086)	(0.049)	(0.086)	(0.089)	(0.063)	(0.074)	(0.132)	(0.135)	(0.103)
Settlement: Town	-0.017	-0.169	-0.053	-0.131	0.029	-0.125	-0.117	0.070	0.052	0.009	0.073	0.004
	(0.080)	(0.138)	(0.142)	(0.105)	(0.061)	(0.107)	(0.110)	(0.078)	(0.091)	(0.163)	(0.166)	(0.127)
Settlement: Village	0.110	0.034	0.084	0.158*	0.100*	-0.086	0.004	0.084	0.141	-0.017	0.094	0.162
	(0.072)	(0.123)	(0.127)	(0.094)	(0.057)	(0.100)	(0.104)	(0.074)	(0.093)	(0.167)	(0.170)	(0.130)
Controls: region, year												
Constant	0.240	-0.913	-3.807***	-2.189***	-0.440	-2.292***	-3.549***	-2.243***	-0.636	-2.930**	-1.979	-0.752
	(0.554)	(0.953)	(0.982)	(0.725)	(0.431)	(0.753)	(0.779)	(0.551)	(0.683)	(1.227)	(1.250)	(0.959)
Observations	942	942	942	942	1,470	1,470	1,470	1,470	548	548	548	548
R-squared	0.325	0.215	0.189	0.228	0.363	0.224	0.206	0.207	0.425	0.247	0.253	0.210

Note. The data in the table accounts for weighting in LCF survey design. Reference category for Settlement type is urban, for education - those who finished education at the age of 16 or below, for tenure - Owning home outright. Unweighted N for occupational groups are in the table, weighted N are: higher managerial - 4689, lower managerial -7571, public sector management- 2627, business professionals - 7492, technical professionals - 5335, educational professionals - 5650, Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Table B6. Estimates from models of four expenditure aggregates for the professional groups

	Business professionals				Technical professionals				Educational professionals			
	Log visib	Log Pres	Log Soc	Log Info	Log visib	Log Pres	Log Soc	Log Info	Log visib	Log Pres	Log Soc	Log Info
Log Gross hh income	0.640***	0.626***	0.821***	0.203***	0.580***	0.535***	0.668***	0.236***	0.555***	0.550***	0.663***	0.251***
	(0.039)	(0.067)	(0.068)	(0.054)	(0.056)	(0.097)	(0.096)	(0.074)	(0.051)	(0.087)	(0.093)	(0.072)
Age of HRP	-0.008	-0.058**	-0.046*	-0.015	0.006	0.013	-0.048	-0.017	0.007	-0.043	0.050	0.005
	(0.015)	(0.026)	(0.027)	(0.021)	(0.019)	(0.033)	(0.032)	(0.025)	(0.017)	(0.029)	(0.031)	(0.024)
Age-squared	0.000	0.001**	0.000	0.000	-0.000	-0.000	0.001	0.000	-0.000	0.001	-0.001	0.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
log Council Tax	0.144*	-0.008	0.279*	0.102	0.494***	0.758***	0.759***	0.263*	-0.020	-0.304*	-0.091	0.062
	(0.085)	(0.146)	(0.149)	(0.117)	(0.117)	(0.203)	(0.200)	(0.156)	(0.094)	(0.162)	(0.171)	(0.134)
Education (finish 16-19)	0.087	0.191**	0.227**	0.257***	-0.111	-0.230*	-0.092	-0.013	-0.014	0.104	0.300*	0.360***
	(0.054)	(0.093)	(0.095)	(0.074)	(0.069)	(0.120)	(0.118)	(0.092)	(0.085)	(0.146)	(0.155)	(0.121)
Education (finish 20+ yo)	-0.070	0.128	0.163*	0.205***	-0.155**	-0.176*	-0.008	0.114	0.097	0.187	0.327**	0.350***
	(0.053)	(0.091)	(0.093)	(0.073)	(0.061)	(0.106)	(0.105)	(0.081)	(0.073)	(0.126)	(0.133)	(0.104)
Female HRP	0.039	0.237***	-0.146**	0.029	0.030	0.416***	0.033	-0.178	0.113***	0.325***	0.099	-0.031
	(0.043)	(0.073)	(0.074)	(0.058)	(0.088)	(0.153)	(0.151)	(0.118)	(0.042)	(0.072)	(0.077)	(0.060)
Household size	0.115***	0.174***	0.011	0.116**	0.176***	0.381***	0.167**	0.104*	0.230***	0.424***	0.318***	0.124**
	(0.034)	(0.059)	(0.060)	(0.047)	(0.046)	(0.079)	(0.078)	(0.061)	(0.040)	(0.069)	(0.073)	(0.057)
Tenure: w/mortgage	-0.058	0.072	-0.207**	-0.045	-0.011	-0.080	-0.015	0.053	-0.146**	0.029	-0.229**	-0.030
	(0.057)	(0.097)	(0.099)	(0.078)	(0.074)	(0.129)	(0.127)	(0.099)	(0.061)	(0.105)	(0.111)	(0.087)
Tenure: rented/other	-0.386***	-0.260**	-0.482***	-0.379***	-0.396***	-0.233	-0.214	-0.222*	-0.351***	-0.056	-0.353**	-0.113
	(0.071)	(0.121)	(0.123)	(0.097)	(0.091)	(0.157)	(0.155)	(0.121)	(0.077)	(0.132)	(0.140)	(0.109)
Number of children	-0.081**	-0.000	0.016	0.037	-0.107**	-0.184**	-0.061	0.097	-0.171***	-0.166**	-0.310***	-0.019
	(0.039)	(0.068)	(0.069)	(0.054)	(0.054)	(0.093)	(0.092)	(0.071)	(0.046)	(0.079)	(0.084)	(0.066)
Living with partner	0.036	0.145*	-0.164*	0.079	0.043	0.382***	-0.147	0.192**	0.023	-0.004	-0.055	0.281***
	(0.049)	(0.084)	(0.086)	(0.067)	(0.061)	(0.106)	(0.104)	(0.081)	(0.053)	(0.091)	(0.097)	(0.076)
Settlement: Town	0.189***	0.167	-0.056	0.154*	0.037	-0.037	-0.075	-0.036	0.016	-0.209*	-0.188	-0.024
	(0.063)	(0.108)	(0.110)	(0.086)	(0.070)	(0.121)	(0.119)	(0.093)	(0.065)	(0.112)	(0.119)	(0.093)
Settlement: Village	0.058	-0.003	-0.096	-0.108	0.008	-0.171	-0.175	-0.058	-0.021	-0.168	-0.233*	-0.238**
	(0.065)	(0.111)	(0.113)	(0.088)	(0.092)	(0.159)	(0.157)	(0.122)	(0.067)	(0.115)	(0.122)	(0.095)
Controls: region, year												
Constant	0.540	-0.145	-2.086***	-0.620	-0.966*	-4.170***	-2.989***	-1.828**	0.897*	0.074	-2.821***	-1.536**
	(0.432)	(0.739)	(0.754)	(0.591)	(0.541)	(0.939)	(0.927)	(0.721)	(0.476)	(0.816)	(0.866)	(0.677)
Observations	1,446	1,446	1,446	1,446	1,006	1,006	1,006	1,006	1,139	1,139	1,139	1,139
R-squared	0.368	0.190	0.216	0.191	0.388	0.276	0.153	0.243	0.319	0.190	0.169	0.186

Note. The data in the table accounts for weighting in LCF survey design. Reference category for Settlement type is urban, for education - those who finished education at the age of 16 or below, for tenure - Owning home outright. Unweighted N for occupational groups are in the table, weighted N are: higher managerial - 4689, lower managerial -7571, public sector management- 2627, business professionals -7492, technical professionals - 5335, educational professionals - 5650, Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Table B7. Income elasticity of visible, presentational, socialization-related and informational goods aggregates (Tobit models) for separate occupational groups

Expenditure categories (log form)	Higher managerial private	Lower managerial private	Managers public sector	Business profs	Technical profs	Educational profs	Full sample
N	942	1,470	548	1,446	1,006	1,139	22,716
Visible expenditure	0.539	0.66	0.739	0.64	0.58	0.555	0.757
	(0.058)	(0.043)	(0.065)	(0.047)	(0.063)	(0.053)	(0.013)
Presentational aggregate	0.63	0.617	0.991	0.647	0.577	0.546	0.651
	(0.105)	(0.090)	(0.118)	(0.083)	(0.112)	(0.099)	(0.021)
Socialization aggregate	0.839	0.799	1.072	0.86	0.714	0.708	0.982
	(0.104)	(0.084)	(0.116)	(0.089)	(0.121)	(0.116)	(0.025)
Informational goods	0.390	0.436	0.478	0.247	0.312	0.312	0.370
	(0.079)	(0.063)	(0.106)	(0.075)	(0.106)	(0.094)	(0.018)

Note. The table provides income elasticity coefficients for each expenditure aggregate. Income elasticities are estimated using Tobit regressions, where dependent variables are log expenditure aggregates related to visible, presentational, socialization and informational goods. Predictors account for log gross household income, age and age-squared of HRP, log council tax paid by household, HRP's education level, gender, marital status, housing tenure, number of children, type of settlement and regional and year controls. Regressions account for weighting, clustering and regional stratification of LCF survey design. The expenditure categories covered by each aggregate are described in Table 2.1. N is unweighted cell count. Standard errors in parentheses. All elasticity coefficients are statistically significant at $p<0.05$ level.

Table B8. Pairwise comparisons of elasticity coefficients between public sector managers and other "service class" groups (based on Tobit models)

Public sector managers compared to:	Higher management in private sector	Lower management in private sector	Business professionals	Technical professionals	Educational professionals
Based on OLS models					
Visible aggregate	2.46	1.04	1.31	1.85	2.23
Presentational aggregate	2.50	2.75	2.58	2.89	2.91
Socialization-related	1.52	2.02	1.42	2.27	2.33
Informational	0.79	0.63	2.02	1.55	1.44

Note. The table shows Wald-test statistic for cross-model comparisons.

Table B9. Estimates of seemingly unrelated regression model for four expenditure aggregates with account for non-linear effect of income

| | Expenditure aggregates in log-form (models d1-d4) | | | |
	Visible	Presentation	Socialization	Informational
Log household income	2.114***	1.149***	1.193***	0.140
	(0.082)	(0.136)	(0.147)	(0.102)
Log income squared	-0.105***	-0.041***	-0.027**	0.011
	(0.006)	(0.010)	(0.011)	(0.008)
Higher managerial private	0.053*	0.078*	0.117**	0.067*
(N=942)	(0.028)	(0.047)	(0.051)	(0.035)
Lower managerial private	0.081***	0.063*	0.151***	0.071**
(N=1470)	(0.022)	(0.037)	(0.040)	(0.028)
Managerial public sector	0.046	0.140**	0.193***	0.183***
(N=548)	(0.035)	(0.058)	(0.063)	(0.044)
Business profs	0.086***	0.162***	0.291***	0.144***
(N=1446)	(0.023)	(0.039)	(0.042)	(0.029)
Technical profs	-0.029	-0.070	0.126***	0.079**
(N=1006)	(0.026)	(0.043)	(0.047)	(0.032)
Educational profs	0.027	0.068	0.194***	0.261***
(N=1139)	(0.026)	(0.044)	(0.047)	(0.033)
Other profs	0.032*	0.050*	0.176***	0.131***
(N=3849)	(0.017)	(0.029)	(0.031)	(0.021)
Skilled non-manual	0.006	0.045*	0.122***	0.094***
(N=4233)	(0.016)	(0.027)	(0.029)	(0.020)
Skilled manual	0.000	0.000	0.000	0.000
(N=4892)	(0.000)	(0.000)	(0.000)	(0.000)
Semi-skilled	-0.055***	-0.019	-0.126***	-0.017
(N=2326)	(0.019)	(0.032)	(0.034)	(0.024)
Unskilled	-0.132***	-0.047	-0.310***	-0.039
(N=865)	(0.027)	(0.046)	(0.049)	(0.034)
Age of HRP	-0.011***	-0.028***	-0.010	-0.011**
	(0.003)	(0.006)	(0.006)	(0.004)
Age-squared	0.000***	0.000***	0.000	0.000***
	(0.000)	(0.000)	(0.000)	(0.000)
log Council Tax	0.244***	0.183***	0.304***	0.151***
	(0.023)	(0.038)	(0.041)	(0.029)
Education (finish 16-19)	0.001	0.031	0.035	0.025
	(0.013)	(0.021)	(0.023)	(0.016)
Education (finish 20+ yo)	-0.064***	-0.049**	0.081***	0.021
	(0.014)	(0.023)	(0.025)	(0.017)
Female HRP	0.094***	0.316***	-0.029	0.069***
	(0.011)	(0.019)	(0.021)	(0.014)
Household size	0.118***	0.314***	0.138***	0.093***
	(0.008)	(0.013)	(0.014)	(0.010)
Tenure: w/mortgage	-0.120***	-0.061**	-0.157***	-0.073***
	(0.015)	(0.025)	(0.027)	(0.019)
Tenure: rented/other	-0.336***	-0.172***	-0.440***	-0.181***
	(0.017)	(0.029)	(0.031)	(0.022)
Number of children	-0.053***	-0.056***	-0.122***	0.029**
	(0.009)	(0.015)	(0.017)	(0.011)
Living with partner	0.091***	0.133***	-0.061***	0.145***
	(0.013)	(0.021)	(0.023)	(0.016)

Settlement: Town	0.086***	-0.040	-0.025	0.032
	(0.016)	(0.026)	(0.028)	(0.020)
Settlement: Village	0.097***	-0.058**	-0.055*	0.070***
	(0.017)	(0.028)	(0.030)	(0.021)
Region, year	Yes	Yes	Yes	Yes
Constant	-4.981***	-3.582***	-4.652***	-0.927**
	(0.294)	(0.488)	(0.527)	(0.365)
Observations	22,716	22,716	22,716	22,716
RMSE	0.738	1.226	1.325	0.918
Chi2	19564	7422.52	8181.37	5626.33
R-squared	0.463	0.246	0.265	0.199
Correlation matrix of residuals:				
Log visible, residual corr. w/the residual of the model in column	1			
Log presentation, residual corr.	0.4986	1		
Log socialization, residual corr.	0.4595	0.2565	1	
Log information, residual corr.	0.2648	0.2493	0.2065	1
Breusch-Pagan test of independence: chi2(6) = 15910.820, p= 0.0000				

Note. The data in the table accounts for weighting in LCF survey design. Reference category for Settlement type is urban, for education - those who finished education at the age of 16 or below, for tenure - Owning home outright. Unweighted N for occupational groups are in the table, weighted N are: higher managerial - 4689, lower managerial -7571, public sector management- 2627, business professionals -7492, technical professionals - 5335, educational professionals - 5650, other professionals - 19296, skilled non-manual -21476, skilled manual - 25263, semi-skilled -11860, unskilled - 4472. Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Table B10. Pairwise comparisons of marginal occupational effects in expenditure aggregates based on SUR models that account for non-linear effect of income

	Contrast	S.E.	z	p
Visible expenditure aggregate				
Lower vs Higher managerial in private sector	0.0283	0.031	0.9	0.37
Technical vs Business professionals	-0.1145	0.030	-3.81	0.00
Educational vs Business professionals	-0.0588	0.030	-1.97	0.05
Educational vs Technical professionals	0.0557	0.033	1.72	0.09
Presentational expenditure aggregate				
Lower vs Higher managerial in private sector	-0.0144	0.052	-0.28	0.78
Technical vs Business professionals	-0.2324	0.050	-4.65	0.00
Educational vs Business professionals	-0.0935	0.050	-1.88	0.06
Educational vs Technical professionals	0.1389	0.054	2.57	0.01
Socialization expenditure aggregate				
Lower vs Higher managerial in private sector	0.035	0.056	0.62	0.534
Technical vs Business professionals	-0.1645	0.054	-3.05	0.002
Educational vs Business professionals	-0.0967	0.054	-1.8	0.071
Educational vs Technical professionals	0.0678	0.058	1.16	0.245
Informational expenditure aggregate				
Lower vs Higher managerial in private sector	0.0036	0.039	0.09	0.926
Managers in public vs Higher managerial in private sector	0.1157	0.051	2.27	0.023
Managers in public vs Lower managerial in private sector	0.1121	0.047	2.37	0.02
Technical vs Business professionals	-0.0648	0.037	-1.73	0.08
Educational vs Business professionals	0.1178	0.037	3.17	0.000
Educational vs Technical professionals	0.1827	0.040	4.52	0.000

Note. The table provides pairwise comparisons across the levels of occupational factor variable with the value of contrast (difference), standard errors, test statistic and p-values. The marginal occupational effects are estimated from seemingly unrelated regression model (Table 6 above) where the dependent variables are status-signalling, presentational, socialization-related and informational goods, predictors account for log gross household income, log household income squared, age and age-squared of HRP, log council tax paid by household size, HRP's education level, gender, occupation and marital status, housing tenure, number of children, type of settlement and regional and year controls. Regressions account for weighting. Estimates are obtained using logarithmic forms of expenditure, so contrasts are interpreted as percentage by which expenditure is higher when an occupational group is compared to the reference group.

Table B11. Estimates of SUR-models for managerial groups that account for non-linear effect of income

	Higher managerial in private sector				Lower managerial in private sector				Management in public sector			
	Log visib	Log Pres	Log Soc	Log Info	Log visib	Log Pres	Log Soc	Log Info	Log visib	Log Pres	Log Soc	Log Info
Log Gross hh income	2.666***	4.421***	4.355***	1.053	0.946**	1.346*	1.407*	0.192	0.593	0.150	-1.297	-0.162
	(0.564)	(0.970)	(1.001)	(0.744)	(0.441)	(0.770)	(0.797)	(0.564)	(0.680)	(1.222)	(1.242)	(0.955)
Log income squared	-0.145***	-0.259***	-0.243***	-0.049	-0.021	-0.054	-0.048	0.012	0.011	0.060	0.169*	0.042
	(0.038)	(0.066)	(0.068)	(0.050)	(0.032)	(0.055)	(0.057)	(0.040)	(0.049)	(0.089)	(0.090)	(0.069)
Age of HRP	0.005	-0.047	0.022	-0.007	0.013	-0.033	0.016	0.016	-0.000	-0.073	-0.060	-0.075**
	(0.023)	(0.039)	(0.040)	(0.030)	(0.015)	(0.026)	(0.027)	(0.019)	(0.025)	(0.045)	(0.046)	(0.035)
Age-squared	-0.000	0.001	-0.000	0.000	-0.000	0.000	-0.000	-0.000	0.000	0.001*	0.001	0.001***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.001)	(0.001)	(0.000)
log Council Tax	0.306***	0.191	0.188	0.138	0.323***	0.415***	0.452***	0.071	0.115	-0.006	-0.171	0.112
	(0.096)	(0.166)	(0.171)	(0.127)	(0.086)	(0.151)	(0.156)	(0.110)	(0.116)	(0.208)	(0.211)	(0.162)
Education (finish 16-19)	0.022	-0.004	-0.151	-0.044	-0.039	-0.076	0.005	0.099	-0.049	0.014	-0.177	0.026
	(0.066)	(0.113)	(0.117)	(0.087)	(0.047)	(0.083)	(0.086)	(0.061)	(0.073)	(0.132)	(0.134)	(0.103)
Education (finish 20+ yo)	-0.017	-0.078	0.034	-0.081	-0.087*	-0.083	0.150*	0.134**	-0.110	-0.090	0.036	0.065
	(0.064)	(0.111)	(0.114)	(0.085)	(0.050)	(0.087)	(0.090)	(0.064)	(0.076)	(0.137)	(0.139)	(0.107)
Female HRP	0.066	0.163	0.065	0.079	0.064	0.337***	-0.147*	0.211***	0.138**	0.370***	0.081	0.089
	(0.058)	(0.100)	(0.103)	(0.077)	(0.049)	(0.086)	(0.089)	(0.063)	(0.061)	(0.110)	(0.112)	(0.086)
Household size	0.141***	0.199***	0.044	0.164***	0.126***	0.346***	0.319***	0.135***	0.113***	0.243***	0.034	0.042
	(0.039)	(0.067)	(0.069)	(0.052)	(0.029)	(0.050)	(0.052)	(0.037)	(0.042)	(0.075)	(0.076)	(0.059)
Tenure: w/mortgage	-0.176**	-0.215*	0.155	0.011	-0.090	-0.037	-0.210*	-0.079	-0.016	0.027	-0.089	-0.169
	(0.071)	(0.121)	(0.125)	(0.093)	(0.059)	(0.104)	(0.107)	(0.076)	(0.081)	(0.145)	(0.147)	(0.113)
Tenure: rented/other	-0.395***	-0.317*	0.042	-0.055	-0.278***	0.065	-0.326**	-0.136	-0.260**	-0.129	-0.365*	-0.263*
	(0.097)	(0.166)	(0.172)	(0.128)	(0.074)	(0.128)	(0.133)	(0.094)	(0.105)	(0.188)	(0.191)	(0.147)
Number of children	-0.067	0.049	0.091	-0.010	-0.135***	-0.095	-0.346***	0.002	-0.013	0.036	0.053	0.133*
	(0.046)	(0.079)	(0.082)	(0.061)	(0.035)	(0.061)	(0.063)	(0.044)	(0.052)	(0.093)	(0.094)	(0.072)
Living with partner	0.045	0.195*	-0.154	0.203**	0.112**	0.256***	-0.079	0.195***	0.108	-0.162	0.204	0.061
	(0.065)	(0.112)	(0.116)	(0.086)	(0.049)	(0.086)	(0.089)	(0.063)	(0.074)	(0.132)	(0.135)	(0.103)
Settlement: Town	-0.025	-0.183	-0.066	-0.133	0.030	-0.123	-0.115	0.069	0.052	0.011	0.077	0.006
	(0.079)	(0.137)	(0.141)	(0.105)	(0.061)	(0.107)	(0.110)	(0.078)	(0.091)	(0.163)	(0.165)	(0.127)
Settlement: Village	0.112	0.037	0.087	0.159*	0.100*	-0.088	0.003	0.084	0.141	-0.016	0.097	0.163
	(0.071)	(0.122)	(0.126)	(0.094)	(0.057)	(0.100)	(0.104)	(0.074)	(0.093)	(0.166)	(0.169)	(0.130)
Controls: region, year												
Constant	-7.421***	-14.628***	-16.641***	-4.787*	-1.441	-4.893*	-5.891**	-1.681	-0.127	-0.044	6.126	1.281
	(2.097)	(3.608)	(3.722)	(2.767)	(1.595)	(2.785)	(2.882)	(2.040)	(2.468)	(4.434)	(4.506)	(3.466)
Observations	942	942	942	942	1,470	1,470	1,470	1,470	548	548	548	548
R-squared	0.335	0.228	0.200	0.228	0.363	0.224	0.206	0.207	0.425	0.248	0.257	0.210

Note. The data in the table accounts for weighting in LCF survey design. Reference category for Settlement type is urban, for education - those who finished education at the age of 16 or below, for tenure - Owning home outright. Unweighted N for occupational groups are in the table, weighted N are: higher managerial - 4689, lower managerial -7571, public sector management- 2627, business professionals -7492, technical professionals - 5335, educational professionals - 5650, Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Table B12. Estimates of SUR-models for professional groups that account for non-linear effect of income

	Business professionals				Technical professionals				Educational professionals			
	Log visib	Log Pres	Log Soc	Log Info	Log visib	Log Pres	Log Soc	Log Info	Log visib	Log Pres	Log Soc	Log Info
Log Gross hh income	1.692***	1.724***	1.890***	0.076	1.599**	0.798	-0.601	0.256	1.634***	0.630	1.861*	0.529
	(0.385)	(0.661)	(0.674)	(0.529)	(0.669)	(1.162)	(1.146)	(0.893)	(0.524)	(0.900)	(0.953)	(0.746)
Log income squared	-0.075***	-0.079*	-0.076	0.009	-0.074	-0.019	0.092	-0.001	-0.081**	-0.006	-0.090	-0.021
	(0.027)	(0.047)	(0.048)	(0.038)	(0.049)	(0.084)	(0.083)	(0.065)	(0.039)	(0.067)	(0.071)	(0.056)
Age of HRP	-0.010	-0.060**	-0.048*	-0.014	0.005	0.013	-0.047	-0.017	0.010	-0.042	0.053*	0.006
	(0.015)	(0.026)	(0.027)	(0.021)	(0.019)	(0.033)	(0.032)	(0.025)	(0.017)	(0.029)	(0.031)	(0.024)
Age-squared	0.000	0.001**	0.000	0.000	-0.000	-0.000	0.000	0.000	-0.000	0.001	-0.001	0.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
log Council Tax	0.175**	0.024	0.311**	0.098	0.517***	0.764***	0.730***	0.264*	0.005	-0.302*	-0.064	0.068
	(0.086)	(0.147)	(0.150)	(0.118)	(0.118)	(0.204)	(0.202)	(0.157)	(0.095)	(0.163)	(0.173)	(0.135)
Education (finish 16-19)	0.077	0.180*	0.216**	0.259***	-0.108	-0.229*	-0.095	-0.013	-0.011	0.105	0.303*	0.361***
	(0.054)	(0.093)	(0.095)	(0.074)	(0.069)	(0.120)	(0.118)	(0.092)	(0.085)	(0.146)	(0.155)	(0.121)
Education (finish 20+ yo)	-0.074	0.124	0.159*	0.205***	-0.159***	-0.177*	-0.004	0.114	0.100	0.187	0.330**	0.351***
	(0.053)	(0.091)	(0.093)	(0.073)	(0.061)	(0.106)	(0.105)	(0.081)	(0.073)	(0.126)	(0.133)	(0.104)
Female HRP	0.041	0.239***	-0.144*	0.028	0.033	0.417***	0.030	-0.178	0.111***	0.325***	0.098	-0.031
	(0.042)	(0.073)	(0.074)	(0.058)	(0.088)	(0.153)	(0.151)	(0.118)	(0.042)	(0.072)	(0.077)	(0.060)
Household size	0.107***	0.166***	0.003	0.117**	0.176***	0.381***	0.167**	0.104*	0.236***	0.425***	0.325***	0.126**
	(0.034)	(0.059)	(0.060)	(0.047)	(0.046)	(0.079)	(0.078)	(0.061)	(0.040)	(0.069)	(0.073)	(0.057)
Tenure: w/mortgage	-0.058	0.073	-0.207**	-0.045	-0.013	-0.080	-0.012	0.053	-0.149**	0.029	-0.232**	-0.031
	(0.057)	(0.097)	(0.099)	(0.078)	(0.074)	(0.129)	(0.127)	(0.099)	(0.061)	(0.105)	(0.111)	(0.087)
Tenure: rented/other	-0.372***	-0.245**	-0.468***	-0.381***	-0.390***	-0.232	-0.221	-0.222*	-0.348***	-0.056	-0.349**	-0.112
	(0.071)	(0.121)	(0.124)	(0.097)	(0.091)	(0.157)	(0.155)	(0.121)	(0.077)	(0.132)	(0.140)	(0.109)
Number of children	-0.070*	0.011	0.027	0.036	-0.109**	-0.185**	-0.059	0.097	-0.176***	-0.166**	-0.316***	-0.021
	(0.040)	(0.068)	(0.069)	(0.054)	(0.054)	(0.093)	(0.092)	(0.071)	(0.046)	(0.080)	(0.084)	(0.066)
Living with partner	0.027	0.137	-0.172**	0.080	0.040	0.382***	-0.144	0.192**	0.021	-0.004	-0.057	0.281***
	(0.049)	(0.084)	(0.086)	(0.067)	(0.061)	(0.106)	(0.104)	(0.081)	(0.053)	(0.091)	(0.097)	(0.076)
Settlement: Town	0.184***	0.162	-0.061	0.155*	0.036	-0.037	-0.075	-0.036	0.015	-0.209*	-0.190	-0.024
	(0.063)	(0.108)	(0.110)	(0.086)	(0.070)	(0.121)	(0.119)	(0.093)	(0.065)	(0.112)	(0.119)	(0.093)
Settlement: Village	0.056	-0.006	-0.098	-0.108	0.018	-0.168	-0.188	-0.058	-0.024	-0.168	-0.235*	-0.239**
	(0.064)	(0.111)	(0.113)	(0.088)	(0.092)	(0.159)	(0.157)	(0.122)	(0.067)	(0.115)	(0.122)	(0.095)
Region, year												
Constant	-3.162**	-4.009*	-5.846**	-0.173	-4.508*	-5.082	1.422	-1.899	-2.814	-0.203	-6.939**	-2.492
	(1.416)	(2.429)	(2.478)	(1.944)	(2.380)	(4.133)	(4.077)	(3.175)	(1.855)	(3.185)	(3.375)	(2.641)
Observations	1,446	1,446	1,446	1,446	1,006	1,006	1,006	1,006	1,139	1,139	1,139	1,139
R-squared	0.371	0.191	0.217	0.191	0.389	0.276	0.154	0.243	0.322	0.190	0.170	0.186

Note. The data in the table accounts for weighting in LCF survey design. Reference category for Settlement type is urban, for education - those who finished education at the age of 16 or below, for tenure - Owning home outright. Unweighted N for occupational groups are in the table, weighted N are: higher managerial - 4689, lower managerial -7571, public sector management- 2627, business professionals -7492, technical professionals - 5335, educational professionals - 5650, Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Chapter 3. How the perspectives of Becker and Bourdieu add to the understanding of personal savings?

3.1. Introduction

While the importance of within-group homogeneity for the analysis of economic behaviour of groups and the role of capital combination as a meaningful basis for aggregation of individuals, were discussed in Chapter 1, the identified differences in investments into capital-signalling among the occupational groups (Chapter 2) are also expected leave a footprint on the patterns of saving behaviour among individuals who belong to these different social spaces. As discussed in the previous chapter, maintaining social comfort in one's peer group involves signalling capitals, including investments in visible consumption. Depending on the social environment and capital forms prevalent in the peer group, varies the pressure to spend on visible goods. Higher visible expenditure may either suppress savings (Moav and Neeman, 2012) or, in particular peer-groups, social forces may urge individuals to preserve the ability for wealth-signalling via consumption smoothing and, thus, motivate more active savings behaviour. While in the analysis of savings behaviour the precautionary motive has generated the most attention, conformity and a range of other motives, including consumption smoothing to maintain social comfort, have also been discussed by scholars (Browning and Lusardi, 1996; Harbaugh, 1996; Keynes, 1936; Starr, 2009; Veblen, 1899).

As noted by Keynes (1936), for individuals, the strength of motives to save and motives to consume as well as the interplay between saving and consuming vary according to habits formed by a number of subjective and social incentives. Individual's occupation, the working environment, norms, opportunities, the social trajectory and expectations associated with an occupational role, represent an incentive that may involve particular patterns of individual investment vital to fulfil system-level expectations (Becker, 1996; Sawyer, 1978). Possessing a particular combination of resources (or capitals), individuals occupy positions in the labour market which place them in a social space that, in part, defines their preferences, lifestyles and practices, while impacting their economic (Becker and Murphy, 2000; Bourdieu, 2010[1984]); Bourdieu, 2011; Coleman, 1990) and financial behaviour. In other words, assuming endogenous preferences, as purported by Bowles (1998), human capital with a variety of its forms steps in as a motivation for individuals' economic behaviour.

Interaction of saving and consuming is demonstrated by Moav and Neeman (2012), who also suggest that the higher level of human capital (captured by education) suppresses conspicuous consumption in favour of savings. On the other hand, social norms and pressures inspire the motive of avoiding "falling behind the Joneses" (Harbaugh, 1996), where over-saving reflects the priority to maintain stable status-signalling consumption in line with the appropriate lifestyle that, in turn, requires smoothing spending over time. Starr (2009) directly relates the lifestyle conformity motive rooted in Veblen's ideas to more active saving behaviour, i.e. individuals appropriate lifestyles common to their peer-group.

Despite the vast literature on the determinants of saving behaviour, the key omission is that the occupational dimension remains largely underexplored. Many scholars (Dardanoni, 1991; Luguilde, Bande and Riveiro, 2017) agree that the determinants of saving behaviour suggested at the foundations of saving theory stemming from Modigliani's Lifecycle hypothesis (Modigliani and Brumberg, 1954) and Friedman's permanent income hypothesis (1954), only partially explain variation. They admit that omission of important real-world characteristics in modern research of saving behaviour undermines model validity (Dardanoni, 1991). Studies on personal savings (Benito, 2006; Brown and Taylor, 2016; Browning and Lusardi, 1996; Dardanoni, 1991; Fisher, 1956; Gourinchas and Parker, 2002; Guariglia, 2001; Guariglia and Rossi, 2002; Guiso and Paiella, 2008; Luguilde et al., 2017; Lusardi, 1997; Lusardi and Mitchell, 2014; Jappelli and Padula, 2013; Matrogiacomo and Alessie, 2013; Skinner, 1988 and many others) suggest a variety of relevant characteristics that affect savings and explore their effects, e.g. education (Bernheim and Scholz, 1993; Browning and Lusardi, 1996), the level of prudence (Kimball, 1990) and financial literacy (Lusardi and Mitchell, 2014). Occupation is one such characteristic; however, as pointed out later in this chapter, where the effect of occupation is traditionally captured using broad categories of socio-economic classes (e.g. Merrigan and Normandin, 1996; Lusardi, 1997), the occupational dimension represents a major omission. This chapter draws on literature which acknowledges that the effect of occupation is not the same as the one of socio-economic class. Rather, the breadth of occupations covered by class does not allow accounting for system-level conditions which in turn may instil specific practices in consumption and saving behaviour.

While early studies promised fruitfulness in explaining consumption and saving behaviour by occupation (Fisher, 1957; Prais and Houthakker, 1955), much of later research does not find statistical significance of occupational dummies (Lusardi, 1997; Miles, 1997; Merrigan and

Normandin, 1996). Occupational dummies often represent major divisions of social stratification schemas (Carrol, 1994; Gourinchas and Parker, 2002; Merrigan and Normandin, 1996; Skinner, 1988) where the broad categorization and the limited number of occupational categories do not allow observing important differences in the patterns of behaviour of particular occupational groups. As the reason for having occupational and educational indicators in consumption and saving models is "to exploit variation in the environments of different agents and … [allow] different subgroups of population to have different preferences" (Gourinchas and Parker, 2002), it is viable to reduce the heterogeneity of an occupational cluster, disaggregating the major divisions of stratification schemes into occupational classes with higher within-group similarity in characteristics and the conditions of existence of their members.

While studies on personal savings mainly emphasize the precautionary motive and treat occupation as an approximation of labour income uncertainty, inconsistency of results of these studies make some scholars doubt that occupation is a good proxy for income risk (Luguilde et al., 2017). Rather, the conformity motive and motivation to preserve one's status-signalling ability in the peer group, highlighted by Harbaugh (1996) and Starr (2009), imply the importance of occupational dimension. In some occupational fields appearance and conduct are instrumental for implementation of individuals' professional roles and augmenting social capital of their organizations (e.g. Andersen-Gough et al., 2002; Carrington, 2010; Carter and Spence, 2014), especially in fields, like accounting, with a distinctive recent turn from social service professionalism to commercialized professionalism (Carnegie and Napier, 2010; Picard et al., 2014). In line with Bourdieu's (2010) demonstrated between-occupational differences in budget allocation, some fields suggest higher pressures to consume goods instrumental for presentation and status-signalling, which may leave fewer resources for saving. On the other hand, in some professional fields higher levels of cultural capital will lead to prudence (Offer, 2006), precautionary behaviour and stimulating smoothing consumption over time via savings (Moav and Neeman, 2012).

Rather than treating the occupational variable as a proxy for income risk and also acknowledging its value in denoting the social context, this chapter illustrates the benefits of contextual knowledge that stem from sociologists' insights for exploration of occupational effects. It investigates the potential of the occupational dimension as a determinant of saving behaviour which may also represent a viable segmentation variable. Acknowledging the limitations of the major divisions of the classic social stratification schemas for exploration of

occupational effects in consumption-related studies, the benefits of the Beckerian and the Bourdieusian perspectives as an alternative approach are highlighted as they re-emphasize the importance of economic, social and cultural capitals for individual's choice. Employing these parallel perspectives, the sociological literature is further used to find "narrow", more particularized occupational groups whose members initially possess (due to pre-selection process) and then further develop similarities in cultural capital, have similar pressures of environment and similar value assigned to social capital in their field and, therefore, can be assumed to possess similarity in consumption strategies. This approach reduces the heterogeneity of occupational clusters and facilitates observation of between-class differences in practices. Prior sociological literature on occupations as combinations of capital helps set expectations on motives driving individuals' investments to support lifestyles related to their occupation and to some extent predict saving behaviour of particular occupational groups.

Another motivation for research is highlighted by Luguilde et al. (2017), who emphasize an innovative recent methodological approach in explorations of personal savings behaviour – rather than model the effects of determinants for the whole population, individuals' personal characteristics and the characteristics of their environment are used to cluster individuals into groups; then the effect of uncertainty is analysed among the groups. This re-enforces the importance of meaningful consumer segmentation bases; and capital composition as a basis for such segmentation should not be neglected.

The chapter addresses the following research question: *"Can we predict saving behaviour of occupational groups when occupation is viewed as a combination of individual resources?"* In other words, are there significantly different dispositions to save among particularized occupational groups and do these differences follow the prior theoretical discourse? The following occupational groups are explored that, as suggested by prior literature, possess distinctive differences in economic behaviour, inspired by capital forms predominant in their fields and conditions of their working environments: the three managerial groups (higher and lower managerial positions in private sector and management in public sector) and the three professional groups (business, technical and educational professionals). The pairwise comparisons are drawn for these particular groups of interest; the analysis, however, employs a single model and all occupational groups in the sample are included in the models. Using the "Understanding Society" survey, patterns in saving behaviour of household reference persons who fall into one of the selected occupational groups are explored. The findings suggest that occupation, when viewed as a combination of human capital elements with

inherent social influences stemming from its field, represents a salient variable for explorations of saving behaviour and notes some significant differences among the theoretically informed aggregations of occupations.

3.2. Literature Review

3.2.1. On the reasons and motives for saving

The theory of savings can be regarded as a special case of the theory of consumption, as the same economic and social forces that affect the propensity to consume on the other hand may ignite the inducement to save (Luguilde et al., 2017). National accounts define savings as a residual between disposable income and total current consumption. Admitting forward-looking consumer behaviour, saving decisions represent an important part of household consumption strategy.

The standard way of thinking about savings stems from the major tenets of savings theory that rely on Lifecycle Hypothesis (LC) and the Permanent income hypothesis (PIH) (Modigliani and Brumberg, 1954; Friedman, 1957) which suggest that, based on their expectations of income, individuals have certain preferences between current and future consumption and save in order to "smooth" their consumption over their lifecycle. Consumers maximize utility, exploiting the marginal benefit of consumption – they save more at periods of high earnings and save less when income decreases. Hall's contribution (1978) in support of LC/PIH has also shown that at any moment individual's consumption is based on his expectations of lifetime income; in other words, consumers only modify consumption due to unexpected/ unpredictable events (like promotion). However, in general, consumption patterns stay stable both under certain and uncertain income. Scholars discuss the limitations of LC/PIH assumptions which do not hold under tests (Carroll, 1994) and the ambiguity in how scholars interpret the terms of LC/PIH (Browning and Lusardi, 1996). Many real-world characteristics are omitted from the analysis (Dardanoni, 1991) and the studies attempting to identify the other drivers of saving behaviour modelled saving behaviour embracing a wide variety of both objective and subjective factors.

Keynes (1936: 89-112) distinguished between the objective, income-related factors, like real income, changes in fiscal policy and expected future changes in the purchasing power of money (rate of interest) and the subjective factors, like education, convention, present hopes

and past experiences, which may restrain individual propensity to consume or inspire the inducement to save. Aspects related to lifecycle and income broadly constitute the group of objective factors, which even though bear substantial predictive power on saving behaviour according to LC/PIH, still do not explain much variation between individuals (Dardanoni, 1991). Keynes (1936: 107-108) outlined the eight major motives for saving - *Precaution* ("to build up a reserve against unforeseen contingencies"), *Foresight* (later called the life-cycle motive further to Modigliani's model), C*alculation* (the inter-temporal substitution), *Improvement* ("to enjoy a gradually increasing expenditure … [and] standard of life"), *Enterprise* ("to secure a *masse de manoeuvre* to carry out speculative or business projects"), *Independence*, *Pride* and *Avarice*. Browning and Lusardi (1996) complemented the list with the *Downpayment* motive ("to accumulate deposits to buy houses, cars, and other durables"). On the other hand, the motives for consumption, although wary of false division, were categorized by Keynes as Enjoyment, Short-sightedness, Generosity, Miscalculation, Ostentation and Extravagance. Keynes thought of the nature of interplay between these motives as a determinant between the propensity to save versus the propensity to consume.

Among these motives, as previous studies show, about a half (56-60%) of savings are ascribed to the precautionary motive (Dardanoni, 1991; Skinner, 1988). As precautionary savings are a "function of risk-aversion and (subjective) variance of future labour income" (Dardanoni, 1991), some studies established labour income uncertainty as a good predictor of saving behaviour. In turn, the occupational effects "based on simulations of life-cycle consumption under plausible parametrizations" (Dardanoni, 1991: 158), thus, are treated as the "estimates of the true effect of income uncertainty" for savings. The limitations of this approach are, firstly, the endogeneity of the choice of occupation – it is hard to separate the extent of inherent risk-aversion in individuals from the level of income uncertainty defined by their occupation, because risk-averse individuals are likely to choose "safer" jobs (Dardanoni, 1991; Fuchs-Schündeln and Schündeln, 2005). Indeed, as shown, e.g. by Guiso and Paiella (2008) risk-averse individuals are more likely to be found in the public sector. From this, Luguilde et al. (2017) conclude that the occupational variable may be "a bad proxy for income risk". Secondly, these studies mainly rely on the precautionary motive as the major driver of saving behaviour. While most studies on personal savings emphasize the precautionary motive and treat occupation as an approximation of labour income uncertainty (not always with consistent results – Luguilde et al., 2017), Harbaugh (1996) and Starr (2009) suggest that over-saving can represent an attempt to avoid "falling behind the Joneses" in the

future. A variety of motives for saving, as outlined by Keynes, may interact differently with the social context of an occupational field. Admitting the critique of the occupational variable as an unsuitable proxy for income risk, the value of occupation in defining the other motives for saving behaviour should not be underestimated.

To illustrate the variety of reasons underpinning saving behaviour, **Table 3.1** below shows the results of NMG Research Survey (commissioned by the Bank of England), where individuals indicate reasons for their intentions to increase savings. Saving motivations are captured by the categories of the survey question "What would you say is the main factor driving this increase? Maximum 4 RESPONSES" for individuals who answered positively to the question "Over the next year are you planning to change the amount of money you save?" The possible answers were as follows: 1- I am worried about future tax increases; 2- Fear of redundancy / job insecurity; 3- I am worried about future interest rate increases; 4- To make up for the fact that the value of my house or the value of my investment has fallen; 5- Less guaranteed monthly income; 6- I have extra cash from a decrease in mortgage repayments; 7- I have extra cash from increased income / second job / inheritance / lower bills; 8- I am saving for a deposit on house or flat; 9- I am saving for a big item, e.g. car, holiday, home improvements, etc.; 10- I am saving for retirement; 11- I am saving for personal commitments e.g. marriage, children's education, long term care; 12- I am trying to reduce my debts; 13- Other.

The first five reasons to increase savings broadly relate to short-term precautionary measures. Retirement can be viewed as a long-term precautionary measure; motives that stem from individuals having extra cash can be grouped into the "zone of abundance" and the desire to save and buy a house or a big item can be treated as a "zone of ambition" and reflects what is called by Browning and Lusardi (1997) as a *Downpayment* motive for savings (to accumulate deposits for "lumpy" purchases). Interestingly, the highest number of positive responses was earned by individual's desire for expensive commodities – 37.6% of respondents admitted that they save for a big item, like car, holiday package or home improvements. For comparison, the total of positive responses related to short-term precaution is about the same - 38.2%. Whenever mentioned as one of the two major reasons for saving or one of the four, the most frequent reason for saving remains saving for a big item. Admitting the importance of ambition and lifestyle conformity in underlying motives for saving behaviour, the latter is expected to be closely associated with the social context of individual's occupational field.

Table 3.1. Reasons to increase savings (based on NMG Research Survey data)

	1	2	3	4	5	6	7	8	9	10	11	12
One of the reasons when maximum two reasons are selected:												
N	59	115	78	30	41	69	285	268	499	255	274	372
% of total sample	2.33	4.54	3.08	1.18	1.62	2.73	11.26	10.58	19.71	10.07	10.82	14.69
One of the reasons when 3-4 reasons are selected:												
N	125	219	157	44	97	69	235	320	452	234	408	436
% of total sample	4.94	8.65	6.20	1.74	3.83	2.73	9.28	12.64	17.85	9.24	16.11	17.22
% positive response	7.3	13.2	9.3	2.9	5.5	5.5	20.5	23.2	37.6	19.3	26.9	31.9

	Zone of short-term precaution (1+2+3+4+5)	Zone of long-term precaution (10)	Zone of abundance (6+7)	Zone of ambition (8+9)	Personal commitment (11)	Debt reduc-tion (12)
Total number of accounted savings motivations in the sample (1 to 4 per each observation)	965	489	658	1539	682	808

Note. Author's computations using 2010, 2011, 2012, 2013 and 2016 years of NMG Research Surveys (2004-2011) and (2011-2017) workbook owned by Bank of England. Columns represent the reasons when a respondent intends to increase savings: 1- Worried about future tax increases; 2- Fear of redundancy / job insecurity; 3- Worried about future interest rate increases; 4- To make up for the fact that the value of the house or the value of the investment has fallen; 5- Less guaranteed monthly income; 6- Having extra cash from a decrease in mortgage repayments; 7- Having extra cash from increased income / second job / inheritance / lower bills; 8- Saving for a deposit on house or flat; 9- Saving for a big item, e.g. car, holiday, home improvements, etc.; 10- Saving for retirement; 11- Saving for personal commitments e.g. marriage, children's education, long term care; 12- Reducing the debts; 13- Other. % positive response is the number of observations who indicated that the reason for saving applies to their circumstances divided by the total number of observations in the sample. The average number of motives chosen by each respondent is two. The total number of observations is 2532 respondents.

3.2.2. Effects of class and occupation

The traditional approach to the analysis of saving behaviour reveals important limitations. Firstly, occupational effects in saving and consumption behaviour normally use a relatively small number of broadly defined occupational groups, rather than specific occupational groups with their inherent culture of consumption. Socio-economic classes may lack within-group similarity in lifestyles, conditions of existence, pressures and opportunities. Secondly, in the economic tradition there is a lack of support for the interpretivist view of the essence of occupation as a trajectory associated with inherent lifestyle patterns, which leads to certain practices in consumption behaviour, but rather occupation is treated as a proxy for labour income uncertainty. Occupational variables may reflect not only labour income risk, but also other aspects, like job status, opportunities for upward mobility and job entrance requirements. The social forces in the occupational field are no less important characteristics, that may define the between-occupational difference in saving behaviour due to the differences in investments in visible (or status-signalling items) that stem from conformity to peer group lifestyles and affect decisions in budget allocation.

Since Fisher's (1957) study showed the significance of occupation to saving behaviour, namely, higher level of saving with riskier jobs, the role designated to occupational effects has been often deduced to income uncertainty (Lusardi, 1997; Miles, 1997; Skinner, 1988) which represents just one element of system-level effects. As opposed to Fisher's (1957) study, Skinner (1988) found that self-employed save less than the other occupations. Lusardi (1997) finds little evidence that entrepreneurs or self-employed save more than other, "safer", occupations and suggests that, as it is likely that individuals self-select into safer jobs, the other measures of uncertainty and a wider context of institutions stand behind the differences in saving behaviour. Many studies in saving behaviour did not find statistical significance of occupational dummies (Lusardi, 1997; Merrigan and Normandin, 1996; Miles, 1997).

As surveys employed for exploration of consumption and saving behaviour use social stratification schemas, their major divisions typically represent occupational dummies. Thus, all managers are normally treated as a single group, all professional and technical occupations can be grouped together as, for example, in Skinner (1988) or Carrol (1994); managerial and professional occupations are often grouped into a single category, as, for example, in Gourinchas and Parker (2002) who only account for the four broad occupational groups. Merrigan and Normandin (1996) who use five broad occupations do not find support that

occupation affects the strength of precautionary motives. In most studies in saving behaviour there is a limited range of occupational dummies[16] and too broad categorization may not capture differences in spending patterns. Could the lack of within-cluster homogeneity of an occupational class be the reason of occupational dummy insignificance?

Consumption studies, where class practices are of key interest, are likely to experience the limitations of the traditional schemas, as they mainly capture class structure (Goldthorpe, 1987; Savage et al. 2005). The conceptual space of class analysis, however, also covers class consciousness and practices which include individuals' strategy for maintaining and augmenting material interests (Wright, 2006:62-64). Occupational classes are more specific, as they differ by system-level effects (Sawyer, 1978) and social influences (Becker, 1996) characteristic to environments experienced by their members. Prais and Houthakker (1955: 160) noted that "[while] the separate effects of social class on consumption are negligible this is not so for the effects of occupation". Occupational effects have been successfully identified when occupational groups are specific and their wider contexts are accounted for. Thus, for example, distinguishing German civil servants as a group of risk-averse individuals who self-select themselves to civil service occupations characterized by low labour income risk, it was possible to observe the significant occupational effect on saving behaviour (Fuchs-Schündeln and Schündeln, 2005).

As pointed out by Lugilde et al. (2017), "different consumer preference types lead to different reactions of consumers to uncertainty about future income." Therefore, it is important to understand the "specification of preferences", or the nature of risk-aversion, as a determinant of consumers' reaction to income risk and account for these preferences in modelling. Occupational contexts help reveal "specification of preferences" that not only stems from volatility of income, but is subject to field-specific social pressures that may lead to consumption smoothing as a measure of avoiding damage to social comfort in one's position. Individuals' occupations imply social trajectories that define strategies for maintaining and augmenting material interests (Wright, 2006) and advancement opportunities, including upward social mobility (Goldthorphe, 1987).When expenditure on presentation and signalling reputable lifestyle is instrumental for preservation and improvement of individuals' social

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[16] For example, Family Expenditure Survey (UK) 1968-1986 uses 11 occupational groups: professional/technical, managerial, teachers, clerical, shop assistants, skilled manual, semi-skilled manual, unskilled manual, HM forces, retired and unoccupied. Nine of them were used as dummy variables in Miles (1997). Merrigan and Normandin (1996) use five groups: (1) professionals, technicians, and teachers; (2) administrators and managers; (3) clerical workers and shop assistants; (4) skilled manual workers; and (5) semi and unskilled manual workers. Lusardi (1997) uses five occupations: (1) Labourers; (2) Clerical; (3) Precision and craft; (4) professional and entrepreneurs; (5) self-employed.

position in one's field, the motive of risk aversion may lead individuals to consumption smoothing in order to preserve the same level of social comfort in case of income uncertainty.

3.2.3. Importance of capitals in the analysis of saving behaviour

An occupational field where capitals are distributed represents a reference group whose members possess some degree of similarity in preferences due to commonality of experienced conditions in their working environment. Both - Bourdieu's (2010[1984]; Bourdieu and Wacquant, 1992) and Becker's (1996, Becker and Murphy, 2000) - conceptualizations relate capitals to individual's "specification of preferences" which should leave a footprint on saving behaviour. Introducing capitals into the utility function, Becker (1996) highlighted the relationship between social interaction and individual choices, showing how utility of goods is affected by capitals. Also, in line with Veblen (1934), Becker related consumption to status and social forces (Becker and Murphy, 2000) – the latter, however, are integral part of one's occupational role. Viewing savings as a commodity and accounting for the link between conspicuous consumption and saving behaviour (Moav and Neeman, 2012) and the effect of capitals on preferences we may expect saving behaviour to be affected by occupation which reflects the combination of human capital elements, or individual resources.

Mainstream studies in saving behaviour explore the dimensions which are also encompassed by the Beckerian and the Bourdieusian views of individual resources and by what represents the essence of the broader notion of human capital (its personal and social elements) (Becker, 1996) - education, occupation, industry, and background. The traditional measure of human capital is education which, however, only partially captures human capital in its broad sense (both personal and social elements). While education is an important characteristic in saving behaviour, it is subject to endogeneity problems and the effects of education in the models are inconsistent in relation to saving behaviour in general. Financial literacy that guides prudent saving behaviour is sensitive to the level of education (Lusardi and Mitchell, 2014). Education is also used as an indicator for "permanent income", as the two indicators are highly correlated (Browning and Lusardi, 1996). Bernheim and Scholz (1993) find considerable differences in rates of asset accumulation between the households whose head has a college education and those who do not. On the other hand, the effects of education were not found in the propensity to generate "buffer stocks"- the assets (stocks of goods) that households create to buffer their consumption (Deaton, 1991). Also, when modelling inter-

temporal consumption choice in the presence of realistic labour uncertainty, Gourinchas and Parker (2002) do not find any clear pattern of differences in estimated discount factors (which reflect the elasticity of consumption in the presence of uncertainty) that could be attributed to the level of education (Gourinchas and Parker, 2002:77). Similarly, the coefficients of risk aversion did not suggest consistent effects of education.

In addition to education, qualitative differences in human capital can be accounted for by the use of dummy variables for industry (or "field", in the Bourdieusian sense) as a control variable (for example, Dardanoni, 1991; Merrigan and Normandin, 1996). The "field", or industry sector, may effectively capture differences in the types of cultural, or informational, capital (for example, financial literacy as a part of cultural capital can be wider distributed in finance sector).

From the perspective of structural effects in individuals' working environment, uncertainty arising from labour income risk represents one of their elements and in some studies it is treated as endogenous, where occupation itself embodies system-level conditions of an occupational role and the occupational effects are used as proxies for labour income uncertainty (Fisher, 1956; Lusardi, 1997; Merrigan and Normandin, 1996; Skinner, 1988). Other studies, for example, Guariglia (2001) or Kazarosian (1997) develop their own measures of uncertainty which are exogenous to the model. Obviously, both approaches are acceptable in explorations of saving behaviour. The above discussion suggests that social influences derived from occupational position imply a range of factors that cannot be separated. Therefore, there is value in exploring between-occupational differences, appreciating the entirety of effects that an occupation and its field may entail.

In a sense, the Bourdieusian notion of "field" views occupation along with structural conditions associated with it, or system-level effects (Sawyer, 1978), in their integrity. When savings are viewed as an integral part of individual's consumption strategy, the occupational dimension suggests the importance of a richer set of characteristics - the value of social capital in the peer group, the most prioritised species of cultural capital in the field, and the patterns of economic behaviour associated with the value of economic capital (lifestyle, practices, spending patterns, signalling status) common to peer group members. Therefore, there is a rationale in aggregating individuals according to their membership in the social space where hierarchies are formed based on the types of capital most valuable for the field.

3.2.4. Hypotheses

As also noted in Chapter 2, the prior literature distinguishes occupational groups by differences in the predominant within-group combinations of human capital forms and working environment. Despite managers and professionals often being treated as a single category, scarcity of leadership positions (Hirsch, 1977) and their qualitatively different autonomy (Esping-Andersen, 1993) implies differences in social influences of the two groups which, according to Becker (1996), affect individual choice in consumption-related behaviour. Managers, however, are a rather heterogeneous undistinctive category of consumers (Savage et al., 1992; Warde, 1997). Legatt (1980) divides managers by industry status, showing managers in higher-status industries (represented by banking and finance, oil- and chemical manufacturing sectors and construction) as having richer human capital (education, training) and different backgrounds from managers in lower-status industries (e.g. distribution or transportation). From the Bourdieusian perspective such divide represents different classes attracting individuals with different resource combinations for managerial posts.

Similarly, the importance of this divide is shown by Goldthorpe's schema (1987) which reflects differences in the job complexity, autonomy, and the size of organization that, in turn, inform differences in competences (or "cultural capital") and differences in status (which is a part of social capital) of individuals related to these positions. The National Statistics Socio-Economic Classification (NS-SEC), based on the schema, accounts for economic, social and cultural capital, differences in entry requirements of the occupational position, social trajectory, and the size of organization and distinguishes between the higher and the lower managerial occupations. For example, financial managers are more likely to be allocated to higher managerial posts, while managers in retail, wholesale, restaurant, hotel, transportation and distribution – to the lower managerial category (ONS, 2005).

The differences between higher and lower managerial positions can also be viewed from the viewpoint of prestige. As discussed above, our framework views occupations as reflecting particular combinations of different forms of human capital, together with the impacts of specific occupational fields on consumption and savings. As such, occupational "prestige" is not dealt with as a simple, linear, concept across occupations. The Cambridge Social Interaction and Stratification (CAMSIS) occupational prestige scale allows distinguishing occupational groups based on prestige and (to some extent) lifestyle similarity. CAMSIS

theorizes stratification where social space is a structure of social interaction distances; it captures social linkages between occupations which reflect lifestyle similarities and provides a scale of occupational status which allows for differences in social capital and collective "conventions of consumption and behaviour" (Stewart et al., 1980:28).

 Legatt's (1980) findings, discussed above, are broadly corroborated by CAMSIS (Lambert, 2012). As **Table 3.2.** shows, managers in manufacturing, construction and business services have higher prestige than managers in hospitality or distribution sectors, which further justifies the disaggregation of the managerial category.

Table 3.2. Mean values of occupational prestige for selected managerial occupations. CAMSIS scale scores

Occupation	Males	Females
Production managers and directors in manufacturing	59	59
Production managers and directors in construction	58	58
Financial institution managers and directors	65	59
Managers and directors in transport and distribution	51	36
Managers and directors in storage and warehousing	53	36
Managers and directors in retail and wholesale	58	50
Hotel and accommodation managers and proprietors	49	46
Restaurant and catering establishment managers and proprietors	44	41

Source: Lambert (2012). CAMSIS for Britain.
Note. CAMSIS-scale scores are standardized around a continuous normal distribution. The mean value within a gender group is 50, the range is 1.0 to 99.0

Higher managerial groups in the private sector, given higher job complexity, generally possess higher levels of competence and a higher status than lower managerial groups (Goldthorpe, 1987; Legatt, 1980). So to maintain their social position they are more likely to smooth consumption over time. Also, their generally higher level of cultural capital is likely to suppress conspicuous consumption (Moav and Neeman, 2012), freeing more resources for saving. Lower managerial positions are generally distinguished by lower levels of cultural capital, are likely to have a lower level of financial literacy and weaker incentives to suppress conspicuous consumption in their peer group, which may lead to lower savings rates.

H1. *Higher managerial group has higher propensity to save (**H1-1**) and saves more (**H1-2**) than lower managerial group.*

Also, the Bourdieusian conceptualization (2010; 2011) suggests differences in preferences among occupational groups whose fields prioritize different types of capital. Proponents of the Bourdeusian framework note distinctiveness in practices and a higher general level of asceticism common for professionals in the public sector (Savage et al., 1992) and teaching professionals in particular (Lamont, 1992), compared to for-profit sector professions. Thus, austerity and more expressed non-materialistic motivations of educational professionals (Bourdieu, 2010; Lamont, 1992) may inhibit individual preferences for distinction symbols, to certain extent suppress precautionary and downpayment motives (Browning and Lusardi, 1996) and result in less active saving behaviour.

In contrast, some fields where social capital and status play a key role prize material distinction symbols. For business professionals the ability to maintain and augment social capital should motivate their higher spending on status-signalling goods which encourages smoothing consumption over time and saving becomes instrumental for maintaining the same level of presentation in case of income uncertainty. A basis for individuals' recognition in the business-field is the ability to develop social capital (networks of relations) and commercial (mastery in marketing and after-sales services) (Bourdieu, 2011). Business professionals are likely to actively address the potential risks to their status-signalling ability and financial stability. Also, as a part of cultural capital, higher commercial competence, mastery of financial resources distributed in the business field (Bourdieu, 2011), allows suggesting higher financial literacy of their members which, in turn, is an important precondition for savings behaviour (Lusardi and Mitchell, 2014). We, thus, may expect:

H2. Business professionals save more than educational professionals.

The inherent distinctiveness of the public sector field allows considering public sector management as a separate occupational category, distinguishing them from the private sector to consequently avoid statistical "noise" when exploring differences between the higher- and the lower private sector management. While both educational professionals and public sector managers are expected to be guided by humanitarian goals and, thus, be signified by less materialistic values (Lamont, 1992), deference paid to managers in hierarchical relations of organizations will motivate them to smooth consumption over time and save more actively than non-managerial groups, especially those less concerned with fluctuations in income that might impair their ability to signal financial stability.

H3. *Educational professionals have lower propensity to save (**H3-1**) and save less (**H3-2**) than public sector management.*

Similarly, business professionals whose advancement in the field is defined by commercial capital and mastery of financial resources are expected to be better informed about the opportunities and instruments in banking, including opportunities that retail banking provides in relation to saving products than occupations with relatively lower level of job complexity and lower barriers for entry and promotion. This may be reflected in differences in propensities to save. On the other hand, as noted by scholars (Anderson-Gough, 2002; Carrington, 2010 and others), in the field of business professions conduct, appearance and material status symbols are instrumental for maintaining reputation, the ability to augment organization's social and symbolic capital, thus, smoothing consumption is of high importance. We may, thus, expect that

H4. *Business professionals have higher propensity to save (**H4-1**) and saves more (**H4-2**) than the lower managerial group.*

The selected occupational categories are expected to have significant impact on the levels of regular savings and significant between-occupational differences that will justify the rationale for viewing particularized occupational groups as clusters with distinctive saving behaviour.

3.3. Methodology

3.3.1. Dataset and sample restrictions

The data for analysis is taken from waves 2, 4 and 6[17] of the "Understanding Society" survey (2010-2015) as these waves collect answers for questions that can be used as dependent variables for the study. *Understanding Society* is an initiative funded by the Economic and Social Research Council and various Government Departments, with scientific leadership by the Institute for Social and Economic Research, University of Essex, and survey delivery by NatCen Social Research and Kantar Public. The research data are distributed by the UK Data Service. The UK Household Longitudinal Study survey (UKHLS) started in 2009 on the basis of the British Household Panel Survey, which was substantially expanded by a wider range of aspects of interest and larger sample sizes. The survey collects annual data about a wide range

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[17] The variables on saving behaviour of our interest do not occur in waves 1, 3 and 5.

of characteristics from the sample of approximately 40,000 households. The data enables research across multiple disciplines such as sociology, economics and psychology and helps understand the effects of social and economic change on the well-being of the UK population. The sampling design of the survey uses postcodes as a primary sampling unit and several stratifiers[18] to ensure the representativeness of the sample; weighting is employed to address non-response bias[19]. The first study of saving behaviour that used UKLHS data was undertaken by Guariglia (2001).

In relation to savings behaviour the following survey questions are used:

1) "Do you save any amount of your income, for example, by putting something away now and then in a bank, building society, or Post Office account, other than to meet regular bills? Please include share purchase schemes and ISA's." When the answer was positive, the second question was asked to the respondents:

2) "About how much on average do you personally manage to save a month?"

The unit of analysis in the study is an individual. Only the responses of household reference persons (HRP) are used, as the profession of the head of household defines consumption and, thus, the financial strategy of the household. The sample is restricted to 20-64 year old individuals, to observations with positive values of family and personal incomes[20] only, and the observations whose shares of income saved do not exceed one (i.e. 100 percent of family income) to reduce the response error. Only observations that have either full-time or part-time employment are kept in the sample, effectively excluding unemployed individuals from the sample. All observations that have missing values on dependent, explanatory or control variables are omitted from analysis, leaving the sample of 33,577 observations in panel data, or 17,787 unique individuals.

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[18] To ensure sample representativeness postal sectors are stratified by regions, then sectors are sorted into three bands based on the proportion of HRPs with a non-manual occupation; further stratification also accounts for ethnic minority density (Lynn, 2009:6).

[19] The percentage of fully responding households is 61-62% across the three waves (Knies, 2017).

[20] Household income in the database is top-coded at £20,000

3.3.2. Methodological approach to grouping occupations

In the approach to grouping occupations, the previously discussed sociological literature is considered, that relates occupation to the forms of capitals distributed in their corresponding fields, lifestyles and characteristics related to economic behaviour, and particularly to consumption.

In modelling we utilise distinctive occupational groups for which there is evidence on differences in consumption motivations to make meaningful predictions and between-occupational comparisons regarding their saving behaviour that stem from specific combinations of human capital and social influences related to their working environments. Among the professional- managerial, or "service class" (Abercrombie and Warde, 2000), we consider educational professionals, higher and lower private sector managerial positions, public sector management, educational professionals, "knowledge-workers" (computer professionals and engineers) and the group of finance, sales and business professionals. The hypotheses in relation to these groups are outlined above. When the groups are not associated with specific expectations it is still important to preserve their apartness so that distinctiveness of groups with specific expectations is not obscured. High efficiency of models can only be reached when the full sample is considered. The specificity of occupational categories as opposed to broader categories of socio-economic classification is expected to contribute to interpretation of occupational effects.

The ten occupational groups are employed as a set of dummy variables. For modelling purposes, the professional-managerial classes (the two upper major divisions of socio-economic classification NS-SEC6) are partially disaggregated (**Table 3.3**).

Table 3.3. Methodological approach: Partial disaggregation of NS-SEC into narrowly defined occupational groups

Social classes (based on NS-SEC classification)	Outlining "narrow" occupational classes within "service class"
Managerial and technical	Higher managerial private sector
	Lower managerial private sector
Professional occupations	Managers in public sector
	Business professionals
	Technical professionals
	Educational professionals
	Other professionals
Skilled non-manual	Skilled non-manual
Skilled manual	Skilled manual
Partly skilled occupations	Partly skilled occupations
Unskilled occupations	Unskilled occupations

Note. The six social classes (based on NS-SEC) are outlined in ONS (2005), the "narrower" groups are derived using NS-SEC (long version), SOC2000 and SOC2010 (ONS, 2010)

Namely, NS-SEC (long-version) developed on the basis of Goldthorphe's schema (1987; ONS, 2005) is employed to distinguish between the higher- and the lower managerial positions (ONS, 2005 and 2010) and job sector variable is used to distinguish between public and private sector employees and obtain the three managerial groups. Using NS-SEC and the codes of International Standard Classification of Occupations (ISCO88) the three professional groups are distinguished – business professionals, technical professionals and educational professionals[21].The other professional occupations are pulled into a separate category. The rest of NS-SEC6 classification is preserved.

3.3.3. Model specifications

Respondent answers to the survey questions outlined above provide values for the dependent variables. The comparative analysis of whether HRPs representing different socio-

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[21] The group of business professionals comprise business professionals, finance and sales associate professionals and business services agents and trade brokers; these occupations refer to ISCO88-codes 241, 341, 342. Technical professionals include computing professionals, architects, engineers and related professions; these occupations refer to ISCO88-codes 213, 214, 312. Educational professionals include minor ISCO88 groups 231-239 (ILO, 2017).

occupational classes have significant differences in the propensity to save is undertaken using the random- effects panel logistic regression model:

$$S_{it}^D = 1[\alpha_i + \beta_1 \log Y_{it} + X'_{it}\lambda + \delta_1 Occ1_{it} + \ldots + \delta_{N-1} Occ(N-1)_{it} + \varepsilon_{it} > 0]$$
(3.1)

where S_{it}^D is the propensity to save (dichotomous variable reflecting whether the individual saves), Y_{it} – gross household income, X_{it} – household characteristics (the HRP's age, the number of dependent children, the number of employed in the household, housing tenure type, the HRP's highest level of education, whether HRP works full-time, has a partner, urban or rural location of residence and twelve regional dummies), $OccN_{it}$ -occupational group of the HRP, $t = 1,\ldots T$ - wave of the survey when interview was taken, α_i - the individual-specific unobservable effect, ε_{it} - error term. Occupational group $OccN_{it}$ is explored, firstly, as a set of indicator variables representing six social classes and, secondly, as narrowly defined occupational groups (NS-SEC6 classification and narrow occupational groups as shown in Table 3.3. above). Equation (3.1) shows $OccN_{it}$ as a reference category and each occupational group can be used as a reference group interchangeably (Acock, 2014; Dougherty, 2011; Long and Freese, 2001) as the interest of the study lies in the difference (contrasts) between the occupational effects δ_N.

Education is an important predictor, captured as a set of dummies reflecting the highest level of educational attainment (1- University degree, 2- Other higher degree, 3 – A-level, 4- GCSE, 5- Other qualification, 6- No qualifications). As noted by Offer (2006), education builds up the capacity for personal commitment, self-control and prudence, therefore, the difference in individual resources and previous studies have shown that individuals without college-level education tend to save less than the degree-educated ones (Bernheim and Scholz, 1993; Guariglia, 2001; Kazarosian, 1997) which, can only be partially explained by the higher earnings of the latter (Browning and Lusardi, 1996). Mortgage-related variables were previously found to have significant effects on saving behaviour (e.g. Brown and Taylor, 2016), thus, we use the survey question "Does your household own this accommodation outright, is it being bought with a mortgage, is it rented or does it come rent-free?" (with answers classified as: 1- Owned outright; 2 - owned/being bought on mortgage; 3 - shared ownership (part-owned part-rented); 4- rented; 5- rent free; 6-other), to create a categorical variable that keeps the first option to represent homeowners without mortgage liabilities, joins options 2 and 3 to define homeowners with mortgage-related or other

relatively fixed liabilities, while the last category aggregates the last 3 options, aggregating individuals with higher flexibility of housing-related payments. As an approach to the between-occupational comparative analysis, the marginal occupational effects in the models are compared pairwise for each set of occupation-related categories.

Between-occupational differences are also explored in the models of monthly amounts saved. Examining the amounts saved we analyse a corner solution, as nearly half of values are clustered at zero. As discussed by previous studies (Brown and Taylor, 2016; Guariglia, 2001) the amounts saved can be negative, thus, representing a latent variable which quantifies the desire to save. However, the survey question regarding the amounts saved captures nonnegative values only, thus, the regressand is censored at zero.

The monthly amounts saved by household reference persons are explored employing random effects Tobit model:

$$\log\left(S_{it}^A\right)^* = \alpha_i + \beta \log\left(Y_{it}\right) + X_{it}'\lambda + \delta_1 Occ1_{it} + \ldots + \delta_{(N-1)}Occ\left(N-1\right)_{it} + \varepsilon_{it} \quad (3.2)$$

$$\log\left(S_{it}^A\right) = \max\left[0; \log\left(S_{it}^A\right)^*\right]$$

where S_{it}^{A*} is the latent unobserved uncensored variable, S_{it}^A is the censored dependent variable whose values equal the observed monthly amounts saved plus one, $\log Y_{it}$– log gross household income; X_{it} – household characteristics (as described for Eq. 3.1), $OccN_{it}$ - occupational group of the HRP, α_i - individual-specific unobservable effect, ε_i - error term. As also undertaken by Guariglia (2001), pooled cross-sectional models are explored using the same sets of regressors for both dependent variables.

3.4. Results and discussion

3.4.1. Summary statistics

Summary statistics (**Table 3.4**) show that, except for the groups of lower managerial positions, the percentage of members from the selected professional-managerial groups who regularly save reaches 61-68%. There are substantial differences in the level of education among the selected professional-managerial groups. Top management has the highest income on average; the lower managerial group is comparable to the three professional groups in terms of income, but is signified by the substantially lower number of observations with higher education. The means for monthly amounts saved suggest considerable between-occupational differences. The propensity to save and income elasticity of savings is, thus, explored partialling out the effects of relevant personal and household characteristics, essentially looking whether the particularized occupational groups take on substantial part of the variance in the models.

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3.4.2. Results of the models for propensity to save and amounts saved.

In the models we account for the effects of income and education (personal element of human capital) and observe significant occupational effects which reflect the social influences accompanying each occupation – the social capital embodied in individuals' relations within the group and the effect of the field with its inherent structure of human capital of the peer group defining norms in economic behaviour.

Tables 3.5 and **3.6** show the results of the pooled cross-sectional and the random effects panel regression models for the propensity to save (logistic model) and monthly amounts saved (Tobit). The models show that when NS-SEC classification is partially disaggregated the statistical significance and the magnitude of parameter coefficients not related to occupation are not greatly affected. Models (a1), (a2), (c1) and (c2) reflect a more traditional way for capturing occupational effects and employ six categories of NS-SEC classification. Models (b1), (b2), (d1) and (d2) show the effects of more particularized occupations using the same techniques and model specifications. The similarity of findings between models that employ NS-SEC compared to models that employ "narrow" occupational groups allows viewing the former as a robustness check of the latter approach.

The statistical significance and signs of predictors mainly follow the same pattern both in cross-sectional and random effects panel regressions, except that variables related to gender and urban residence only exhibit statistical significance in the cross-sectional models. All models evidence significant non-linear effect of age. Age-effect may, however, carry two components – the life-cycle effect (as discussed by Modigliani and Brumberg, (1954)) and the effect of age cohort (where generations, who experienced difficulties in obtaining credit have developed a saving habit).

According to random effects Tobit model ((d2) in **Table 3.6**), every 1% increase in family income is associated with 1.8% increase in personal savings. In line with prior scholarly findings, educated individuals are more likely to take advantage of financial opportunities (Crossley et al., 2012; Offer, 2006). Children are negatively associated with savings – Kazarosian (1997) views them as a form of security. The higher number of employed people in the household or being married is also associated with lower level of savings, which follow the similar logic as both factors can be viewed as forms of security.

Table 3.4. Summary statistics

Occupational group	1	2	3	4	5	6	7	8	9	10	11	Total
N	1,203	2,532	1,123	1,558	1,598	1,810	5,324	6,104	6,645	4,477	1,203	33,577
Observations who save regularly, %	68	55	64	62	61	61	53	49	43	38	33	50
Observations who save regularly, st.dev.	17	13	19	18	17	16	10	9	9	11	19	4
Monthly amount saved, mean	338	187	232	241	240	180	184	100	102	63	40	145
Monthly amount saved, st.dev.	23	17	26	16	18	10	10	6	5	4	4	4
Total gross household income, mean	6,912	5,057	5,609	5,248	5,135	5,442	4,949	3,708	3,675	3,100	2,828	4,315
Total gross household income, st.dev.	162	96	129	129	109	111	81	47	43	45	68	30
Age (mean)	44	43	46	43	42	45	45	44	46	44	46	45
No. of children (mean)	0.83	0.72	0.57	0.66	0.71	0.64	0.67	0.67	0.74	0.72	0.6	0.69
No. of employed in household (mean)	1.86	1.86	1.83	1.66	1.74	1.73	1.74	1.72	1.8	1.69	1.74	1.76
Education, %:												
Degree	55.4	31	53.3	57.6	54.4	85.2	49.5	20.3	12.9	11.2	3.8	31.7
Other higher degree	14.4	14.9	18	10.9	15.4	10.1	19.5	12.5	10.5	11	4.2	13
A-level	17.5	24.9	17.3	18.3	16.8	2.4	14.1	27.3	28.6	24.1	15.8	21.6
GCSE	9.4	19.8	8.1	10.2	9.7	1.7	11.1	28.4	27.3	31.5	35.2	20.9
Other qualification	3.1	6.8	2.4	2.7	2.9	0.5	4.1	7.6	13.5	13.3	23	8.3
No qualification	0.3	2.7	0.9	0.4	0.9	0	1.6	3.8	7.2	9	18.1	4.5

Note. The data in the table accounts for weighting (cross-sectional adult main weight) and clustering employed in survey design. Monthly amounts saved and gross household incomes are provided in 2015 prices using CPI index. Occupational groups: 1 - Higher managerial positions, 2- Lower managerial positions, 3- Managers in public sector, 4- Business professionals, 5- Technical professionals, 6- Educational professionals, 7 -Other professionals, 8 -Skilled non-manual, 9 - Skilled manual, 10- Partly skilled, 11- Unskilled.

All random effects regressions have significant intra-correlation coefficients ρ which indicates the importance of the panel component and favours random-effects model compared to the cross-sectional model. The intra-correlation coefficient shows the share of the estimated variance in the overall error accounted by the individual effect; and large magnitude of ρ points out at relatively low heterogeneity within clusters (i.e. the outcomes resemble each other across the waves of the survey for each unique individual). However, the panel dataset is unbalanced and responses of unique individuals are only registered twice on average (T-bar=1.9) across the survey waves.

All models show more active saving behaviour of the "service class" and skilled non-manual occupations compared to skilled manual workers. Working class milieus traditionally tend to de-emphasize the value of social status in employment relations as it is far from being the central value as opposed to middle-classes (Vester, 2005), which may inhibit their desire to maintain consistent consumption practices. Peer-pressures of occupational fields are more characteristic for non-manual and professional-managerial occupational fields. Earlier economic studies explained the distinctively lower levels of savings in the working class by the lack of long-term consumption strategies due to irregular income (Prais and Houthakker, 1955). However, Vester (2005) notes that even nowadays when skilled blue-collar workers are less a subject to casualised work, the experience of insecure and limited incomes among working class is still remembered. Secondly, the proponents of Bourdieu note striking distinctiveness in tastes among the middle-classes (Bourdieu, 2010; Warde, 1997). Thus, maintaining higher standard of living among middle-classes would require more active saving. Also, as opposed to clerical occupations, skilled manual workers reveal less active saving behaviour, as clerks are likely to be transitory positions on the way up the social ladder (Packard, 1959) and their ability of consistent social upgrading and diligent conformity to the requirements of working environment is expected to be of strategic importance.

Of particular interest to the study are the differences between the managerial groups, between "business types" and academics. The models show that even after partialling out what is referred by Becker as "personal element" of human capital (income, education); the patterns of saving behaviour for some occupational groups are still distinctively different from the others. While on average savings behaviour of lower managerial positions is not much different from the manual worker group (that is distinguished by relatively low level of savings), management in the public sector and higher managerial positions in the private sector are the distinctive savers. According to model (d1) these occupational groups are

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associated with 62-66% higher likelihood of saving compared to the skilled manual category respectively. In hierarchical relations of organizations managers are likely to smooth their consumption to support their ability to signal financial stability and status. The higher managerial group with generally richer cultural capital is also likely to possess higher financial literacy to motivate more active savings behaviour. Similar motivations may guide business professionals, who closely follow the two top-saving groups.

Higher value of social capital in the business field makes business professionals conscious about preserving their status by securing and maintaining their ability to upgrade socially via status symbols. This explains their more active saving behaviour to support the consistency of such upgrade; in other words, smoothing consumption over time. Also, financial knowledge is a form of human capital (namely, cultural, or informational, capital) and financially-savvy individuals are more prone to asset accumulation (Lusardi and Mitchell, 2014). Therefore, predominance and the high value of individuals' financial knowledge in business sectors, especially in finance and banking, is another reason for more active saving behaviour among business professionals.

Despite the similarity of system-level effects inspired by the public sector, educational professionals significantly differ from public sector management by lower propensity to save and the amounts saved. In line with expectations, educational professionals tend to save less than their counterparts in the other selected professional-managerial categories and some clerical groups. Cultural capital-rich educational professionals also possess relatively high occupational prestige – higher education professionals score 80 and 82 for males and females respectively and secondary education professionals score 80 and 74 according CAMSIS-scale (Lambert, 2012). However, sociological studies note asceticism as a distinctive feature of socio-cultural professionals (Bourdieu, 2010; Lamont, 1992, Savage et al., 1992), as their symbolic capital is mainly augmented by accumulation of cultural capital or professional knowledge, and their professional role with its inherent social influences does not accommodate conspicuous consumption as predominantly instrumental, which, in turn, may suppress the pressure to smooth consumption over time.

In relation to the "service class", while the models based on NS-SEC6 classification (models a1, a2, c1, c2) only allow comparing two broad groups –professionals and the managerial/technical group, the results from models that employ "narrow" occupational groups (models b1, b2, d1, d2) show that significant differences are found depending on the

type of managers and the type of professionals. This underlines the importance of "narrow" occupational groups for the analysis of saving behaviour and shows the need for more detailed pairwise comparisons.

Random effects models are preferred over pooled cross-sectional OLS models as they account for panel survey design and account for individual-specific unobservable effects α_i which is the degree of intra-personal correlation (when the same individual across the years of observation is treated as one group, the random effect α_i captures the within-group autocorrelation) (Brown and Taylor, 2016; Dougherty, 2011). It must be admitted, however, that pooled cross-sectional OLS models rely on the finite sample assumption, while random effects models– on a less realistic assumption about asymptotic properties of the model (Dougherty, 2011:526). Therefore, both models are preserved to allow observing the consistency of results.

3.4.3. Pairwise comparison of occupational effects

The pairwise comparison of marginal occupational effects in the propensity to save based on pooled cross-sectional and panel logit regressions shows statistically significant difference between professionals and the managerial/technical group. The former significantly exceed in the propensity to save by 14% at t-value of (-2.01) and 22% at t-value (-2.41) for the two models respectively. The effect of the broad managerial/technical group is likely to be explained by the influence of relatively passive saving behaviour of lower management that represent a substantial part of the group. The pairwise comparison of marginal occupational effects in monthly amounts saved based on pooled cross-sectional and panel Tobit regressions also shows statistically significant difference between the two groups. Professionals significantly exceed in monthly amounts saved by 38% at t-value of (-2.69) and 36% at t-value (-2.90) for the two models respectively.

The pairwise comparison undertaken among the narrow occupational groups (**Table 3.7**) allows seeing more subtle differences. Exploration of contrasts shows that among the managerial groups lower management in private sector is distinguished by significantly lower (28-30%) propensity to save in line with **H1-1**. The group also is signified by lower amounts saved ceteris paribus (49-70% less depending on the model) in line with expectations of **H1-2**.

Table 3.5. Cross-sectional model results for the propensity to save (Logit) and monthly amounts saved (Tobit)

	Models using NS-SEC6 classification					Models using "narrow" occupational groups			
	Cross-sectional LOGIT (a1)		Cross-sectional TOBIT (a2)			Cross-sectional LOGIT (b1)		Cross-sectional TOBIT (b2)	
	M.E.	S.E.	M.E.	S.E.		M.E.	S.E.	M.E.	S.E.
Log household Income	0.745***	0.039	2.119***	0.088	Log household Income	0.733***	0.039	2.092***	0.088
Age	-0.053***	0.013	-0.135***	0.029	Age	-0.055***	0.013	-0.141***	0.029
Age-squared	0.000***	0.000	0.001***	0.000	Age-squared	0.000***	0.000	0.001***	0.000
University degree	0.483***	0.087	1.270***	0.215	University degree	0.490***	0.087	1.295***	0.215
Other higher degree	0.317***	0.091	0.873***	0.224	Other higher degree	0.318***	0.091	0.875***	0.224
A-level	0.288***	0.084	0.767***	0.211	A-level	0.283***	0.084	0.751***	0.210
GCSE	0.163*	0.084	0.442**	0.211	GCSE	0.162*	0.084	0.439**	0.211
Other qualification	0.163*	0.095	0.484**	0.239	Other qualification	0.164*	0.095	0.485**	0.239
Social class (based on NS-SEC):					*"Narrow" occupational groups:*				
Professional occupations	0.310***	0.078	0.795***	0.169	1.Higher managerial private	0.417***	0.096	1.009***	0.196
Managerial and technical profs	0.171***	0.048	0.419***	0.116	2.Lower managerial private	0.134**	0.065	0.308**	0.154
					3.Managers in public sector	0.346***	0.093	0.803***	0.197
					4.Business professionals	0.296***	0.084	0.754***	0.182
					5. Technical professionals	0.269***	0.080	0.679***	0.179
					6. Educational professionals	0.153*	0.085	0.311*	0.186
					7.Other professionals	0.083	0.058	0.213	0.137
Skilled non-manual	0.200***	0.055	0.403***	0.129	8.Skilled non-manual	0.195***	0.055	0.388***	0.129
Skilled manual	*(Ref.cat.)*		*(Ref.cat.)*		9.Skilled manual	*(Ref.cat.)*		*(Ref.cat.)*	
Partly skilled	-0.021	0.059	-0.152	0.145	10.Partly skilled	-0.028	0.059	-0.171	0.145
Unskilled occupations	-0.111	0.095	-0.491**	0.237	11.Unskilled occupations	-0.116	0.094	-0.506**	0.236
No. of children	-0.247***	0.020	-0.619***	0.047	No. of children	-0.246***	0.020	-0.616***	0.047
No. of employed in household	-0.206***	0.027	-0.575***	0.064	No. of employed in household	-0.203***	0.027	-0.568***	0.064
Tenure: Bought with mortgage	-0.485***	0.051	-1.364***	0.110	Tenure: with mortgage	-0.485***	0.051	-1.357***	0.109
Tenure: Rented or other	-0.829***	0.058	-2.215***	0.131	Tenure: Rented or other	-0.826***	0.058	-2.203***	0.131
Full-time	0.317***	0.043	0.844***	0.103	Full-time	0.310***	0.043	0.822***	0.104
Gender (male)	0.001	0.037	0.174**	0.085	Gender (male)	-0.011	0.038	0.143*	0.086
Urban	0.100**	0.041	0.197**	0.096	Urban	0.096**	0.041	0.189**	0.096
Single	0.112**	0.045	0.308***	0.104	Single	0.109**	0.045	0.303***	0.104
Controls: year and region of residence					*Controls: year and region of residence*				
Constant	-4.381***	0.386	-12.212***	0.892	Constant	-4.251***	0.390	-11.888***	0.903
Number of observations	33,577		33,577		Number of observations	33,577		33,577	
Uncensored observations			15032		Uncensored observations			15032	
F-test	44.10 *p=0.000*		80.48 *p=0.000*		F-test	39.38 *p=0.000*		72.2 *p=0.000*	

Note. Results in the table account for weighting (cross-sectional adult main interview weight) and clustering (primary sampling unit). Reference groups: for Education-variable - "No qualification", for Tenure-variable - "House owned outright". *** $p<0.01$, ** $p<0.05$, * $p<0.1$

Table 3.6. Random effects panel regression results for the propensity to save (Logit) and monthly amounts saved (Tobit)

	Models using NS-SEC6 classification					Models using "narrow" occupational groups			
	Random effects LOGIT (c1)		Random effects TOBIT (c2)			Random effects LOGIT (d1)		Random effects TOBIT (d2)	
	M.E.	S.E.	M.E.	S.E.		M.E.	S.E.	M.E.	S.E.
Log gross household Income	1.033***	0.044	1.845***	0.063	Log gross household Income	1.019***	0.044	1.827***	0.063
Age	-0.090***	0.017	-0.150***	0.024	Age	-0.092***	0.017	-0.154***	0.024
Age-squared	0.001***	0.000	0.001***	0.000	Age-squared	0.001***	0.000	0.001***	0.000
University degree	0.852***	0.113	1.479***	0.172	University degree	0.866***	0.113	1.509***	0.172
Other higher degree	0.591***	0.117	1.039***	0.179	Other higher degree	0.595***	0.117	1.046***	0.178
A-level	0.540***	0.110	0.935***	0.169	A-level	0.529***	0.110	0.918***	0.169
GCSE	0.266**	0.110	0.467***	0.168	GCSE	0.262**	0.109	0.461***	0.168
Other qualification	0.301**	0.123	0.545***	0.188	Other qualification	0.301**	0.123	0.544***	0.188
Social class (based on NS-SEC):					*"Narrow" occupational groups (N):*				
Professional occupations	0.548***	0.101	0.906***	0.142	1.Higher managerial private (1203)	0.656***	0.120	1.054***	0.166
Managerial and technical profs	0.332***	0.061	0.545***	0.090	2.Lower managerial private (2532)	0.355***	0.087	0.565***	0.127
					3.Managers in public sector (1123)	0.617***	0.122	0.958***	0.170
					4.Business professionals (1558)	0.546***	0.108	0.887***	0.153
					5. Technical professionals (1598)	0.430***	0.109	0.715***	0.156
					6. Educational professionals (1810)	0.320***	0.109	0.475***	0.158
					7.Other professionals (5324)	0.185**	0.073	0.325***	0.108
Skilled non-manual	0.366***	0.069	0.501***	0.102	8.Skilled non-manual (6104)	0.363***	0.069	0.495***	0.102
Skilled manual	*(Ref.cat.)*		*(Ref.cat.)*		9.Skilled manual (6645)	*(Ref.cat.)*		*(Ref.cat.)*	
Partly skilled	-0.002	0.074	-0.077	0.111	10.Partly skilled (4477)	-0.010	0.073	-0.090	0.111
Unskilled occupations	-0.199*	0.120	-0.452**	0.184	11.Unskilled occupations (1203)	-0.204*	0.119	-0.460**	0.184
No. of children	-0.353***	0.024	-0.555***	0.036	No. of children	-0.351***	0.024	-0.552***	0.035
No. of employed in household	-0.263***	0.034	-0.440***	0.049	No. of employed in household	-0.260***	0.034	-0.437***	0.049
Tenure: Bought with mortgage	-0.710***	0.064	-1.210***	0.090	Tenure: with mortgage	-0.713***	0.064	-1.214***	0.090
Tenure: Rented or other	-1.166***	0.075	-1.915***	0.107	Tenure: Rented/other	-1.162***	0.074	-1.908***	0.107
Full-time	0.500***	0.054	0.835***	0.079	Full-time	0.490***	0.054	0.820***	0.079
Gender (male)	-0.058	0.049	0.083	0.073	Gender (male)	-0.072	0.050	0.057	0.074
Urban	0.086	0.053	0.072	0.079	Urban	0.080	0.053	0.065	0.079
Single	0.132**	0.057	0.245***	0.083	Single	0.127**	0.057	0.239***	0.083
Controls: wave of the survey and region of residence					*Controls*				
Constant	-5.917***	0.473	-10.313***	0.690	Constant	-5.767***	0.473	-10.087***	0.691
Number of observations	33,577		33,577		Number of observations	33,577		33,577	
No. of unique observations	17,787		17,787		No. of unique observations	17,787		17,787	
Uncensored observations			16447					16447	
Intra-correlation coefficient, ρ	0.531 *p=0.011*		0.504 *p=0.008*		Intra-correlation coefficient, ρ	0.530 *p=0.011*		0.502 *p=0.008*	
Wald chi-squared	1902.09 *p=0.000*		3259.13 *p=0.000*		Wald chi-squared	1919.75 *p=0.000*		3290.15 *p=0.000*	

Note. Subsample sizes for the narrow occupational groups are provided in the brackets. *** p<0.01, ** p<0.05, * p<0.1.

Also, while business professionals have slightly higher propensity to save than the other professionals, the contrast is not statistically significant. However, in line with **H2**, business professionals, indeed, save 41-44% more than educational professionals in similar households. The result remains valid when the model accounts for whether an employee is a member of employer's pension scheme (see **Tables C3.1**. and **C3.2**). The contrast can be explained by the motivation of business professionals to avoid diminishing social comfort and desire to maintain the similar level of presentation-related and capital-signalling consumption in case of income volatility. It is hardly separable from the downpayment motive (Browning and Lusardi, 1997) that is important for groups whose environment suggests high value of material symbols as status-signalling devices.

As expected, public sector managers have higher propensity to save (**H3-1**) and generally save more than the group of public sector professionals - educational professionals save 48-49% less than the former (**H3-2**). While the null hypothesis for **H4-1** can only be rejected at $p<0.1$ level which indicates that that business professionals and lower private sector management are not substantially different in their propensity to save, these two groups are significantly different in the level of savings (32-45% difference depending on the model) in line with **H4-2**.

To summarize, comparing individuals with similar personal element of human capital (partialling out income and education), the social element of human capital which, according to Becker (1996) stems from non-market relations with peers and system-level effects of the "field" (Bourdieu and Wacquant, 1992; Sawyer, 1978) still explain significant part of variation in personal saving behaviour which is reflected in significant between-occupational differences.

Table 3.7. Pairwise comparison of marginal occupational effects based on models for propensity to save (Logit) and monthly amounts saved (Tobit)

	Cross-sectional LOGIT (b1)		Random effects LOGIT (d1)		Cross-sectional TOBIT (b2)		Random effects TOBIT (d2)	
	Contrast	S.E.	Contrast	S.E.	Contrast	S.E.	Contrast	S.E.
Lower vs. Higher m-ment in private sector	-0.283***	0.097	-0.301**	0.129	-0.701***	0.195	-0.489***	0.176
Public sector m-ment vs. vs. Higher m-ment private	-0.072	0.115	-0.039	0.152	-0.206	0.223	-0.097	0.204
Public sector m-ment vs. Lower m-ment private	0.212**	0.098	0.261**	0.131	0.495**	0.205	0.392**	0.181
Business profs vs. Lower m-ment private	0.162*	0.089	0.191*	0.119	0.446**	0.190	0.322**	0.167
Technical profs vs. Lower m-ment private	0.135	0.087	0.075	0.120	0.371**	0.190	0.15	0.171
Educational profs vs. Lower m-ment private	0.019	0.089	-0.035	0.119	0.003	0.188	-0.091	0.171
Business profs vs. Public sector m-ment	-0.049	0.110	-0.071	0.144	-0.049	0.223	-0.07	0.198
Technical profs vs. Public sector m-ment	-0.077	0.108	-0.187	0.146	-0.125	0.223	-0.242	0.203
Educational profs vs. Public sector m-ment	-0.193*	0.107	-0.297**	0.143	-0.492**	0.216	-0.483**	0.199
Technical vs. Business professionals	-0.027	0.101	-0.116	0.134	-0.075	0.211	-0.172	0.188
Educational vs. Business professionals	-0.143	0.101	-0.226*	0.132	-0.443**	0.207	-0.413**	0.185
Educational vs. Technical professionals	-0.116	0.099	-0.11	0.134	-0.368*	0.208	-0.241	0.190

Note. Based on the four models (provided in Tables 3.5. and 3.6.), the table provides pairwise comparisons across the levels of occupational factor variable with the value of contrast (difference) and standard errors. *** p<0.01, ** p<0.05, * p<0.1.

3.4.4. Robustness checks

Being a member of employer's pension scheme may reduce future income uncertainly and address one of the major reasons for saving, so as a robustness check the control variable for being a member of employer's pension scheme was introduced into the random-effects Tobit model to test whether the validity of results holds. Due to a high number of missing values for the pension-related variable, the sample size was substantially reduced (see Appendix, **Table C3.1.** for the full results) and despite occupational dummies in the model still reveal a similar pattern to the original model, the pairwise marginal occupational effects (Appendix, **Table C3.2**) based on the model show a very limited number of statistically significant contrasts. Still the contrast between educational professionals and business professionals and the contrast between educational professionals and public sector management remained statistically significant at p<0.01. This may be due to a much smaller sample size (pension-related variable is missing for about a third of all observations) where nearly half observations have zero amounts saved and also due to the small number of observations in the subgroups of pension-scheme members and non-members across the professional-managerial groups. The signs of contrasts are preserved that implies that a larger sample size would allow expecting the same between-occupational contrasts.

Another robustness check is omitting "Other professionals" category from the basic model due to lack of theoretical justification for its relative homogeneity. Models (e1) and (e2) in Appendix **Tables C3.3** and **C3.4** omit nearly a third of the sample to show that omitting the ambiguous category does not have a substantial effect on the model and supports the validity of findings related to between-occupational differences.

The analysis employs an unbalanced dataset, thus, as a robustness check, individuals observed only for a single time period are removed from the dataset to explore the robustness of the panel estimations. **Tables C3.5.** and **C3.6**, Appendix C, show the results of random effects logit and Tobit panel regressions in the reduced sample (models (g1) and (g2)). The findings in relation to **H1-1, H1-2** (higher and lower management in private sector), **H2** (business and educational professionals) and **H4** (business professionals and lower management) are supported. While the sign of between-occupational contrast in relation to **H3** remains the same and the magnitude is relatively high, the difference between savings behaviour between

educational professionals and public sector management is not found statistically significant. This can be explained by substantially reduced sample sizes of subsamples.

As a robustness check, to ensure that the statistical significance of between occupational contrasts is not a result of random allocation of individuals in artificial classes, 11 classes were randomly generated in the sample. The list of pairwise comparisons is provided for the original models and the experiments that use eleven randomly generated classes in Appendix C, **Table C3.7**. The experiment shows that random allocation of individuals in artificial classes generates very few parametric differences.

3.5. Conclusion

This chapter finds that occupation - viewed as a dimension, which accounts for the combination of human capital elements and for social influences characteristic to working environments - represents a salient variable and an important classifier in modelling saving behaviour. The specificity of occupational groups contributes to interpretative power of occupational effects and, given sufficient knowledge on human capital characteristics for particular occupational groups, their saving behaviour, can be modelled in a predictable way.

As a powerful incentive for agent's economic action, human capital in its broad sense (that accounts for economic, social and cultural forms) steps into the interplay between the motives for saving and the motives for consuming, such as ostentation – the interaction highlighted by Keynes (1936) and also Moav and Neeman (2012); and we observe that not only personal elements of human capital (income and education), but also field-specific social influences associated with occupation have impact on consumption strategy. A part of such strategy is saving behaviour, which can be viewed as investments to support one's lifestyle, conditioned on social influences which originate from non-market relations with peers, occupational prestige and pressures, opportunities, and norms in one's occupational class.

The effect of occupational class in saving behaviour stems from the interaction of social influences and economic behaviour as discussed by Becker and Murphy (2000) where social influences not only encompass individuals' social capital formed in employment relations within their professional field, but also are defined by lifestyles, practices and conventions of economic behaviour of their peer-group. These, in turn, are determined by the distribution of

human capital forms in the field, namely, the value of social and cultural capital, the predominant types of cultural capital (commercial, financial, technological), the peer group's expectations on signalling economic capital and corresponding lifestyles. Thus, knowledge of practices, motivations and behaviours of specific occupational groups would enhance the predictive power of occupational variables in the interplay of motives for saving and consuming.

The (expected) differences identified among the selected occupational groups confirm the rationale for considering the occupational dimension in saving behaviour as a combination of individual resources, or capitals, rather than broad socio-economic classes. Regardless of whether the relational or interactionist paradigm is appropriated (Eloire, 2014), i.e. whether the social and cultural capital resides within an individual who gets attracted by certain working environments through self-selection processes or is formed directly within the working environment (Coleman, 1990), occupational group that epitomizes a combination of individual resources and values (Bourdieu, 2010; Becker, 1996) prioritised in a certain environment, or "field" (Bourdieu and Wacquant, 1992), apparently is an important differentiator in the patterns of saving behaviour.

With a few exceptions (Harbaugh, 1996; Starr, 2009), the studies of saving behaviour traditionally focus on the precautionary motives (e.g. Fuchs-Schündeln and Schündeln, 2005; Lusardi, 1997; Skinner, 1986) and generally neglect a variety of motivations encompassed by theorists (Browning and Lusardi, 1996; Keynes, 1936). These motivations can be highlighted by the interdisciplinary approach and relevance of the Bourdieusian and the Beckerian conceptualizations illustrates the importance of socio-economic perspective for the explorations of saving behaviour.

In addition to precaution, ambition is another important incentive for saving. Therefore, active saving behaviour may originate from the willingness to smooth consumption over time to preserve and signal the consistent level of material wealth for groups with high system-level expectations about social capital and status display. This motive for saving that involves conformity and signalling to the peer-group was highlighted by Veblen (1965[1899]) and re-emphasized in more recent work (Starr, 2009). The groups with relatively higher levels of cultural capital, evidenced by the recognizable ability and certified accomplishments (the managerial and professional groups), in general are signified by more active saving behaviour

in line with Moav and Neeman (2012). However, the social influences (Becker and Murphy, 2000; Bourdieu and Wacquant, 1992) of working environment impose differing pressure to signal wealth. Thus, some occupational groups within the professional-managerial class are more active in their saving behaviour, which demonstrates their more pronounced desire to preserve status through smoothing consumption over time and suggests the importance of underlying downpayment motive (Browning and Lusardi, 1996).

Meanwhile, groups with generally more distinctive cultural capital express less active saving behaviour. We observe more active saving behaviour in selected occupational groups with higher occupational prestige (higher management in private sector) among the managerial groups and higher predominant significance of social capital (business professionals) among the professional groups, which demonstrates their saving behaviour as being a part of the strategy for social upgrading via consistent consumption behaviour. On the contrary, among the professional groups, educational professionals rich in cultural capital and known for their ascetic lifestyles and less materialistic motivations (Bourdieu, 2010; Lamont, 1992; Savage et al, 1992) express less active saving behaviour as consistent consumption for the sake of augmentation of symbolic capital is viewed less instrumental in their field. Thus, the study, by taking on board socio-economic insights, illustrates the underlying mechanism by which occupation and with its inherent conditions of existence affects saving behaviour in a predictable way.

Consolidating the results from this chapter and Chapter 2, we observe that while higher management spends significantly less on visible goods than lower management, the propensity to save and the amounts saved of the former group are significantly higher. This reinforces the argument of Moav and Neeman (2012), than human capital suppresses conspicuous consumption. The findings in relation to professional groups, however, show that more active saving is not necessarily undertaken *at the expense* of conspicuous consumption. Rather, admitting that saving behaviour contributes to long-term social comfort, savings and conspicuous consumption for some groups seem to complement each other. Business professionals while exceeding technical and educational professionals in visible expenditure are also signified by more active saving behaviour. (The question, however, still remains at the expense of which budget categories the simultaneous increase in savings and conspicuous consumption for this group is supported). This can be explained by the higher need to

maintain consistent spending on presentation and socialization so pronounced in the business field, as shown by the findings in Chapter 2.

The two different patterns observed among the managerial and the professional groups suggests that the interplay between the motives for saving and the motives for consuming goods with particular characteristics (whether suppressing or complementing one another) is socially-defined, i.e. depends on individual's position in the social space that motivates economic action. Thus, using the two different datasets (LCFS and UKLHS "Understanding Society") helps support the argument that social influences and capital distribution specific to occupational field are associated with the interplay between the underlying motivations in consumption and saving behaviour (Keynes, 1936). These substantial differences underlying economic behaviour can only be observed when occupation is treated narrowly along with social influences and the account for capital forms dominating the occupational fields. This supports the view that there is a need for wider utilisation of insights from sociological studies to better understand individuals' financial behaviour (Smelser and Swedberg, 2011).

Interestingly, the observed substantial difference in the amounts saved between business professionals and educational professionals suggest the significant association of savings with the occupational field, however, there is nearly no difference in the propensity to save between these two groups. Viewing the amounts saved as a manifested economic action and the propensity to save as an inner characteristic of individuals or a disposition, the findings hint that as there is no difference in the propensity/disposition and members of these groups are not different in inner characteristics related to savings, like risk-aversion. Rather, the substantial difference in the amounts saved suggests that it is the exogenous factors and the external social influences that dictate the action of individuals. This finding also partly addresses the concern over the potential endogeneity of occupational dummies in models as some prior scholarly work is concerned that risk-aversion is associated with occupational choice (e.g. Guiso and Paiella, 2008).

The exploratory work undertaken in this chapter is interesting as specialists note insufficient knowledge in personal financial and saving behaviour. The low level of personal savings in the UK (European Commission, 2010) and the need for engendering a saving "habit" calls for better understanding of consumers and their segmentation (Crossley, Emmerson and Leicester, 2012: 99). Scholars note a general lack of understanding of cultural and

institutional factors in determining economic, and, in particular, saving behaviour (Asilis and Gosh, 2002). Also, compared to the successful evolution of research themes in corporate finance (Wilson et al., 2010) and despite the high priority of customer-centric business models in retail banking, specialists admit that "banks today have a simplistic understanding of their customers" (PwC, 2017). Exploration of individuals' economic and financial behaviour and understanding of consumer behaviour in application to the context of the complex world of retail banking in particular, benefits from integration of insights from the other disciplines. Knowing dispositions of particular meaningfully aggregated groups of individuals may facilitate targeting, helping to develop and more effectively communicate the benefits of investment portfolios encouraging development of saving culture.

One limitation of this study is that only a few occupational classes are explored, where distinctive patterns are expected. There is potential for exploration of other occupational groups, acknowledging, however, the lack of studies on systematic classification of occupational clusters with common patterns of economic behaviour.

Acknowledging the viability of the occupational dimension reveals the potential to investigate and model saving behaviour through a variety of secondary data sources which include information on individuals' occupations. This approach could also be applied cross-nationally, to see to what extent behaviours associated with specific occupations transcend national boundaries – though differences in social structures between national contexts may act to limit the generalisability of these findings to other national contexts.

Appendix C

Table C3.1. Results of random-effects Tobit model for monthly amounts saved

	M.E.	S.E.
Log gross household Income	1.847***	0.081
Age	-0.160***	0.028
Age-squared	0.001***	0.000
Education:		
University degree	0.691***	0.225
Other higher degree	0.273	0.229
A-level	0.252	0.221
GCSE	-0.131	0.220
Other qualification	-0.090	0.243
"Narrow" occupational groups:		
1.Higher managerial private (1,050)	0.607***	0.178
2.Lower managerial private (1,668)	0.426***	0.153
3.Managers in public sector (1,040)	0.462**	0.180
4.Business professionals (1,065)	0.561***	0.179
5. Technical professionals (1,185)	0.271	0.176
6. Educational professionals (1,647)	-0.045	0.174
7.Other professionals (3,459)	0.071	0.139
8.Skilled non-manual (4,562)	0.133	0.126
9.Skilled manual (2,563)		
10.Partly skilled (2,686)	-0.295**	0.139
11.Unskilled occupations (658)	-0.672***	0.224
Full-time	0.364***	0.099
Member of employer pension scheme	-0.608***	0.080
Gender (Male)	0.195**	0.082
Urban	0.116	0.088
Single	0.149	0.095
No. of children	-0.569***	0.041
No. of employed in household	-0.533***	0.058
Tenure: with mortgage	-1.294***	0.101
Tenure: Rented/other	-1.802***	0.122
Controls: wave of the survey and region of residence		
Constant	-8.159***	0.854
Number of observations	21583	
Number of unique individuals	11903	
Uncensored observations	12002	
Intra-correlation coefficient, ρ; p-value	0.511 *at p=0.0096*	
Wald chi-squared	2063.65 *at p=0.000*	
Log-likelihood	-39994.017	

Note. Compared to the basic model of the study, this model includes pension-related variable. Subsample sizes for the narrow occupational groups are provided in brackets.
*** p<0.01, ** p<0.05, * p<0.1.

Table C3.2. Pairwise comparison of marginal occupational effects based on random-effects Tobit model for monthly amounts saved

	Contrast	Std. Err.	z	P>z
Lower vs. Higher m-ment in private sector	-0.182	0.180	-1.01	0.312
Public sector m-ment vs. vs. Higher m-ment private	-0.146	0.198	-0.74	0.462
Business profs vs. Higher m-ment private	-0.046	0.200	-0.23	0.817
Technical profs vs. Higher m-ment private	-0.337*	0.199	-1.69	0.090
Educational profs vs. Higher m-ment private	-0.653***	0.192	-3.39	0.001
Public sector m-ment vs. Lower m-ment private	0.036	0.183	0.2	0.844
Business profs vs. Lower m-ment private	0.135	0.182	0.74	0.458
Technical profs vs. Lower m-ment private	-0.155	0.182	-0.85	0.394
Educational profs vs. Lower m-ment private	-0.471***	0.176	-2.67	0.008
Business profs vs. Public sector m-ment	0.099	0.200	0.5	0.619
Technical profs vs. Public sector m-ment	-0.191	0.202	-0.95	0.345
Educational profs vs. Public sector m-ment	-0.507***	0.191	-2.65	0.008
Technical vs. Business professionals	-0.290	0.200	-1.45	0.146
Educational vs. Business professionals	-0.607***	0.191	-3.18	0.001
Educational vs. Technical professionals	-0.316*	0.193	-1.64	0.100

Note. Table provides pairwise comparisons across the selected levels of the occupational factor variable with the value of contrast (difference) and standard error for the model that accounts for the pension-related variable (model results in Table C3.1).. *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

Table C3.3. Robustness check. Estimates of random effects models for the propensity to save and amounts saved (Other professionals" category omitted)

	Random effects LOGIT (f1)		Random effects TOBIT (f2)	
	M.E.	S.E.	M.E.	S.E.
Log gross household Income	1.046***	0.050	1.866***	0.070
Age	-0.097***	0.018	-0.157***	0.026
Age-squared	0.001***	0.000	0.001***	0.000
Education:				
University degree	0.796***	0.120	1.394***	0.181
Other higher degree	0.591***	0.124	1.035***	0.189
A-level	0.467***	0.115	0.823***	0.175
GCSE	0.240**	0.114	0.419**	0.174
Other qualification	0.286**	0.127	0.507***	0.194
"Narrow" occupational groups:				
1.Higher managerial private	0.668***	0.122	1.074***	0.168
2.Lower managerial private	0.361***	0.088	0.581***	0.128
3.Managers in public sector	0.638***	0.124	0.982***	0.173
4.Business professionals	0.580***	0.110	0.939***	0.156
5. Technical professionals	0.444***	0.111	0.745***	0.158
6. Educational professionals	0.328***	0.112	0.487***	0.162
7.Other professionals	*(Omitted cat.)*		*(Omitted cat.)*	
8.Skilled non-manual	0.381***	0.070	0.520***	0.103
9.Skilled manual	*(Reference cat.)*		*(Reference cat.)*	
10.Partly skilled	0.017	0.074	-0.050	0.112
11.Unskilled occupations	-0.197	0.120	-0.447**	0.184
No. of children	-0.360***	0.026	0.871***	0.088
No. of employed in household	-0.273***	0.037	0.065	0.081
Tenure: with mortgage	-0.713***	0.071	-0.039	0.086
Tenure: Rented/other	-1.205***	0.081	0.292***	0.091
Full-time	0.527***	0.060	-0.569***	0.039
Gender (male)	-0.063	0.055	-0.452***	0.054
Urban	0.005	0.058	-1.198***	0.099
Single	0.155**	0.062	-1.964***	0.116
Controls: wave of the survey and region of residence				
Constant	-5.823***	0.516	-10.286***	0.753
Number of observations	28,253		28,253	
Number of unique individuals	15,344		15,344	
Uncensored			13670	
Intra-correlation coefficient, ρ; p-value	0.530 *p=0.012*		0.506 *p=0.009*	
Wald chi-squared	1685.8 *p=0.000*		2938.35 *p=0.000*	
Log-likelihood	-16974.9		-48133.7	

Note. Reference groups: for Education-variable - "No qualification", for Tenure-variable - "House owned outright" *** p<0.01, ** p<0.05, * p<0.1

Table C3.4. Pairwise comparison of marginal occupational effects based on random effects model ("Other professionals" category omitted)

	Models omitting "Other professionals" category			
	Based on Random effects LOGIT (f1)		Based on Random effects TOBIT (f2)	
	Contrast	**S.E.**	Contrast	S.E.
Lower vs. Higher m-ment in private sector	-0.307**	0.129	-0.493***	0.176
Public sector m-ment vs. vs. Higher m-ment private	-0.0306	0.153	-0.091	0.206
Business profs vs. Higher m-ment private	-0.088	0.143	-0.135	0.195
Technical profs vs. Higher m-ment private	-0.225	0.144	-0.328*	0.197
Educational profs vs. Higher m-ment private	-0.340**	0.143	-0.586**	0.198
Public sector m-ment vs. Lower m-ment private	0.276**	0.132	0.402**	0.183
Business profs vs. Lower m-ment private	0.219*	0.120	0.358**	0.168
Technical profs vs. Lower m-ment private	0.082	0.121	0.165	0.172
Educational profs vs. Lower m-ment private	-0.033	0.121	-0.094	0.173
Business profs vs. Public sector m-ment	-0.057	0.145	-0.0432	0.199
Technical profs vs. Public sector m-ment	-0.194	0.147	-0.237	0.205
Educational profs vs. Public sector m-ment	-0.309**	0.144	-0.495**	0.201
Technical vs. Business professionals	-0.137	0.135	-0.194	0.189
Educational vs. Business professionals	-0.252*	0.132	-0.452**	0.187
Educational vs. Technical professionals	-0.115	0.135	-0.258	0.192

Note. Based on the models that omit the heterogeneous category of occupational factor variable (robustness check in Table C3.3.), the table provides pairwise comparisons across the levels of occupational factor variable with the value of contrast (difference) and standard errors.
*** p<0.01, ** p<0.05, * p<0.1.

Table C3.5. Random effects panel regression results for the propensity to save (Logit) and monthly amounts saved (Tobit) that omit single-year observations

	Model (g1) Random effects LOGIT		Model (g2) Random effects TOBIT	
	M.E.	S.E.	M.E.	S.E.
Log gross household Income	1.009***	0.051	1.787***	0.072
Age	-0.079***	0.022	-0.130***	0.033
Age-squared	0.001**	0.000	0.001***	0.000
Education:				
University degree	0.793***	0.140	1.359***	0.210
Other higher degree	0.568***	0.145	0.944***	0.218
A-level	0.475***	0.137	0.791***	0.207
GCSE	0.302**	0.136	0.473**	0.206
Other qualification	0.254*	0.151	0.408*	0.228
"Narrow" occupational groups:				
1.Higher managerial private	0.603***	0.137	0.928***	0.185
2.Lower managerial private	0.255**	0.100	0.407***	0.143
3.Managers in public sector	0.504***	0.137	0.756***	0.189
4.Business professionals	0.588***	0.125	0.886***	0.174
5. Technical professionals	0.315**	0.124	0.537***	0.176
6. Educational professionals	0.329**	0.129	0.474***	0.183
7.Other professionals	0.113	0.085	0.191	0.123
8.Skilled non-manual	0.332***	0.081	0.433***	0.118
9.Skilled manual				
10.Partly skilled	-0.135	0.088	-0.265**	0.130
11.Unskilled occupations	-0.164	0.140	-0.360*	0.212
No. of children	-0.356***	0.028	-0.545***	0.041
No. of employed in household	-0.258***	0.040	-0.427***	0.056
Tenure: with mortgage	-0.728***	0.075	-1.209***	0.102
Tenure: Rented/other	-1.212***	0.088	-1.946***	0.125
Full-time	0.452***	0.063	0.747***	0.092
Gender (male=1)	-0.038	0.060	0.113	0.087
Urban	0.148**	0.063	0.154*	0.091
Single	0.090	0.068	0.171*	0.098
Controls	Yes	Yes		
Constant	-5.728***	0.612	-9.863***	0.883
Observations	26,236		26,236	
No. of unique observations	10,446		10,446	
No. of uncensored observations			13166	
Intra-correlation coefficient, ρ	0.530 *p=0.011*		0.498 *p=0.008*	
Log-likelihood	-15573.9		-45513.2	
Wald chi-squared	1425.69 *p=0.000*		2258.23 *p=0.000*	

Note. Models (g1) and (g2) are robustness checks for models (d1) and (d2). Individuals, who only appear one across the 3 waves are omitted from the sample. Subsample sizes for the narrow occupational groups are: higher managerial - 984, lower managerial - 2,044, public sector management - 942, business professionals -1,245, technical professionals - 1,331, educational professionals- 1,431, other professionals - 4,249, skilled non-manual -4,741, skilled manual - 5,078, semi-skilled -3,285, unskilled -906. *** p<0.01, ** p<0.05, * p<0.1.

Table C3.6. Pairwise comparison of marginal occupational effects based on models (g1) and (g2) for the propensity to save and monthly amounts saved that omit single-year observations

Based on models:	Random effects LOGIT (g1)		Random effects TOBIT (g2)	
	Contrast	S.E.	Contrast	S.E.
Lower vs. Higher m-ment in private sector	-0.348**	0.146	-0.521***	0.195
Public sector m-ment vs. vs. Higher m-ment private	-0.099	0.559	-0.173	0.225
Public sector m-ment vs. Lower m-ment private	0.249*	0.147	0.248*	0.200
Business profs vs. Lower m-ment private	0.333**	0.137	0.478***	0.188
Technical profs vs. Lower m-ment private	0.059	0.137	0.129	0.192
Educational profs vs. Lower m-ment private	0.074	0.139	0.066	0.196
Business profs vs. Public sector m-ment	0.084	0.163	0.13	0.554
Technical profs vs. Public sector m-ment	-0.189	0.164	-0.219	0.225
Educational profs vs. Public sector m-ment	-0.175	0.620	-0.282	0.224
Technical vs. Business professionals	-0.273*	0.153	-0.349*	0.211
Educational vs. Business professionals	-0.259**	0.153	-0.412**	0.212
Educational vs. Technical professionals	0.015	0.154	-0.063	0.217

Note. Based on models (g1) and (g2) in Table C3.5., this table provides pairwise comparisons across the levels of occupational factor variable with the value of contrast (difference) and standard errors. *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

Table C3.7. Comparison of contrasts from models using narrow occupational groups and models with individuals randomly allocated to groups

| | Using narrow occupational groups defined by theory | | | | | | | | | Using 11 groups, to which individuals are allocated randomly | | | | | | | |
| | Propensity to save — Contrasts from Logit model (d1) | | | | Amounts saved — Contrasts from Tobit model (d2) | | | | | Propensity to save — Contrasts from Logit model (d1) | | | | Amounts saved — Contrasts from Tobit model (d2) | | | |
Occupa-tion	Contrast	S.E.	z	p-value	Contrast	S.E.	z	p-value	"Random" group	Contrast	S.E.	z	p-value	Contrast	S.E.	z	p-value
2 vs 1	-0.301	0.129	-2.34	0.02	-0.489	0.176	-2.79	0.01	2 vs 1	0.044	0.091	0.48	0.63	0.110	0.127	0.86	0.39
3 vs 1	-0.040	0.152	-0.26	0.79	-0.097	0.204	-0.47	0.64	3 vs 1	0.001	0.091	0.02	0.99	0.054	0.127	0.43	0.67
4 vs 1	-0.110	0.142	-0.78	0.44	-0.167	0.194	-0.86	0.39	4 vs 1	0.105	0.091	1.15	0.25	0.159	0.127	1.25	0.21
5 vs 1	-0.227	0.143	-1.58	0.11	-0.339	0.196	-1.72	0.09	5 vs 1	0.021	0.091	0.22	0.82	0.072	0.128	0.57	0.57
6 vs 1	-0.337	0.142	-2.37	0.02	-0.580	0.196	-2.95	0.00	6 vs 1	0.012	0.091	0.14	0.89	0.056	0.127	0.44	0.66
7 vs 1	-0.472	0.120	-3.93	0.00	-0.729	0.164	-4.44	0.00	7 vs 1	0.057	0.091	0.62	0.53	0.095	0.128	0.75	0.46
8 vs 1	-0.294	0.121	-2.43	0.02	-0.559	0.166	-3.37	0.00	8 vs 1	0.086	0.091	0.94	0.35	0.145	0.127	1.14	0.26
9 vs 1	-0.656	0.120	-5.45	0.00	-1.054	0.166	-6.37	0.00	9 vs 1	0.112	0.091	1.23	0.22	0.195	0.127	1.53	0.13
10 vs 1	-0.666	0.127	-5.26	0.00	-1.144	0.176	-6.5	0.00	10 vs 1	-0.048	0.091	-0.53	0.60	-0.038	0.127	-0.3	0.77
11 vs 1	-0.861	0.160	-5.39	0.00	-1.514	0.232	-6.53	0.00	11 vs 1	-0.057	0.091	-0.63	0.53	-0.057	0.128	-0.45	0.65
3 vs 2	0.261	0.131	1.99	0.05	0.392	0.181	2.16	0.03	3 vs 2	-0.042	0.091	-0.47	0.64	-0.056	0.127	-0.44	0.66
4 vs 2	0.191	0.119	1.6	0.11	0.322	0.167	1.93	0.05	4 vs 2	0.061	0.091	0.67	0.50	0.049	0.127	0.38	0.70
5 vs 2	0.075	0.120	0.62	0.54	0.150	0.171	0.88	0.38	5 vs 2	-0.023	0.092	-0.25	0.80	-0.038	0.128	-0.29	0.77
6 vs 2	-0.035	0.119	-0.3	0.77	-0.091	0.171	-0.53	0.60	6 vs 2	-0.031	0.091	-0.34	0.73	-0.054	0.128	-0.42	0.67
7 vs 2	-0.171	0.090	-1.9	0.06	-0.240	0.129	-1.86	0.06	7 vs 2	0.013	0.092	0.14	0.89	-0.015	0.128	-0.11	0.91
8 vs 2	0.007	0.088	0.08	0.93	-0.070	0.127	-0.55	0.58	8 vs 2	0.042	0.091	0.46	0.64	0.035	0.127	0.27	0.79
9 vs 2	-0.355	0.087	-4.08	0.00	-0.565	0.127	-4.47	0.00	9 vs 2	0.068	0.091	0.75	0.45	0.085	0.127	0.67	0.50
10 vs 2	-0.365	0.095	-3.86	0.00	-0.655	0.139	-4.72	0.00	10 vs 2	-0.092	0.091	-1	0.32	-0.148	0.128	-1.16	0.25
11 vs 2	-0.560	0.135	-4.14	0.00	-1.025	0.204	-5.02	0.00	11 vs 2	-0.101	0.092	-1.1	0.27	-0.167	0.128	-1.31	0.19
4 vs 3	-0.071	0.144	-0.49	0.62	-0.070	0.198	-0.36	0.72	4 vs 3	0.104	0.091	1.14	0.26	0.105	0.127	0.82	0.41
5 vs 3	-0.187	0.146	-1.28	0.20	-0.242	0.203	-1.19	0.23	5 vs 3	0.019	0.092	0.21	0.83	0.018	0.128	0.14	0.89
6 vs 3	-0.297	0.143	-2.08	0.04	-0.483	0.199	-2.43	0.02	6 vs 3	0.011	0.091	0.12	0.90	0.002	0.127	0.01	0.99
7 vs 3	-0.432	0.121	-3.58	0.00	-0.632	0.167	-3.78	0.00	7 vs 3	0.056	0.091	0.61	0.54	0.041	0.127	0.33	0.75
8 vs 3	-0.254	0.122	-2.09	0.04	-0.462	0.168	-2.75	0.00	8 vs 3	0.085	0.091	0.93	0.35	0.090	0.127	0.71	0.48
9 vs 3	-0.617	0.122	-5.04	0.00	-0.958	0.170	-5.62	0.00	9 vs 3	0.111	0.091	1.22	0.22	0.141	0.127	1.11	0.27
10 vs 3	-0.626	0.127	-4.92	0.00	-1.047	0.179	-5.86	0.00	10 vs 3	-0.049	0.091	-0.54	0.59	-0.092	0.128	-0.72	0.47
11 vs 3	-0.821	0.160	-5.12	0.00	-1.418	0.234	-6.05	0.00	11 vs 3	-0.059	0.092	-0.64	0.52	-0.112	0.128	-0.87	0.38
5 vs 4	-0.116	0.134	-0.87	0.39	-0.172	0.188	-0.91	0.36	5 vs 4	-0.085	0.091	-0.93	0.36	-0.086	0.127	-0.68	0.50
6 vs 4	-0.226	0.132	-1.72	0.09	-0.413	0.185	-2.23	0.03	6 vs 4	-0.093	0.091	-1.01	0.31	-0.103	0.127	-0.81	0.42

7 vs 4	-0.361	0.108	-3.36	0.00	-0.562	0.151	-3.72	0.00	7 vs 4	-0.048	0.091	-0.52	0.60	-0.063	0.127	-0.5	0.62
8 vs 4	-0.183	0.107	-1.71	0.09	-0.392	0.151	-2.6	0.01	8 vs 4	-0.019	0.092	-0.21	0.84	-0.014	0.127	-0.11	0.91
9 vs 4	-0.546	0.108	-5.05	0.00	-0.887	0.153	-5.79	0.00	9 vs 4	0.007	0.091	0.08	0.94	0.036	0.127	0.28	0.78
10 vs 4	-0.556	0.114	-4.88	0.00	-0.977	0.163	-6	0.00	10 vs 4	-0.153	0.091	-1.68	0.09	-0.196	0.127	-1.54	0.12
11 vs 4	-0.750	0.150	-5.01	0.00	-1.347	0.222	-6.06	0.00	11 vs 4	-0.162	0.092	-1.77	0.08	-0.216	0.128	-1.69	0.09
6 vs 5	-0.110	0.134	-0.82	0.41	-0.241	0.190	-1.27	0.21	6 vs 5	-0.008	0.092	-0.09	0.93	-0.017	0.128	-0.13	0.90
7 vs 5	-0.245	0.110	-2.23	0.03	-0.390	0.157	-2.49	0.01	7 vs 5	0.037	0.092	0.4	0.69	0.023	0.128	0.18	0.86
8 vs 5	-0.067	0.111	-0.61	0.54	-0.220	0.158	-1.39	0.16	8 vs 5	0.066	0.092	0.72	0.47	0.072	0.128	0.56	0.57
9 vs 5	-0.430	0.109	-3.94	0.00	-0.715	0.156	-4.57	0.00	9 vs 5	0.092	0.091	1	0.32	0.122	0.127	0.96	0.34
10 vs 5	-0.439	0.116	-3.78	0.00	-0.805	0.168	-4.79	0.00	10 vs 5	-0.068	0.092	-0.75	0.46	-0.110	0.128	-0.86	0.39
11 vs 5	-0.634	0.151	-4.19	0.00	-1.176	0.225	-5.22	0.00	11 vs 5	-0.078	0.092	-0.85	0.40	-0.130	0.128	-1.01	0.31
7 vs 6	-0.135	0.105	-1.29	0.20	-0.150	0.151	-0.99	0.32	7 vs 6	0.045	0.092	0.49	0.63	0.040	0.128	0.31	0.76
8 vs 6	0.043	0.108	0.4	0.69	0.021	0.154	0.13	0.89	8 vs 6	0.074	0.092	0.8	0.42	0.089	0.128	0.7	0.49
9 vs 6	-0.320	0.109	-2.92	0.00	-0.475	0.158	-3.01	0.00	9 vs 6	0.100	0.091	1.1	0.27	0.139	0.127	1.1	0.27
10 vs 6	-0.329	0.114	-2.89	0.00	-0.565	0.166	-3.4	0.00	10 vs 6	-0.060	0.092	-0.66	0.51	-0.094	0.128	-0.73	0.47
11 vs 6	-0.524	0.151	-3.47	0.00	-0.935	0.226	-4.14	0.00	11 vs 6	-0.070	0.092	-0.76	0.45	-0.113	0.128	-0.88	0.38
8 vs 7	0.178	0.072	2.47	0.01	0.170	0.106	1.61	0.11	8 vs 7	0.029	0.092	0.32	0.75	0.049	0.127	0.39	0.70
9 vs 7	-0.185	0.073	-2.53	0.01	-0.325	0.108	-3.02	0.00	9 vs 7	0.055	0.091	0.6	0.55	0.099	0.127	0.78	0.43
10 vs 7	-0.194	0.080	-2.43	0.02	-0.415	0.119	-3.48	0.00	10 vs 7	-0.105	0.091	-1.15	0.25	-0.133	0.128	-1.04	0.30
11 vs 7	-0.389	0.126	-3.08	0.00	-0.785	0.193	-4.07	0.00	11 vs 7	-0.114	0.092	-1.24	0.21	-0.153	0.129	-1.19	0.23
9 vs 8	-0.363	0.069	-5.27	0.00	-0.495	0.102	-4.86	0.00	9 vs 8	0.026	0.091	0.28	0.78	0.050	0.127	0.39	0.69
10 vs 8	-0.372	0.074	-5.01	0.00	-0.585	0.112	-5.24	0.00	10 vs 8	-0.134	0.092	-1.46	0.11	-0.182	0.128	-1.42	0.16
11 vs 8	-0.567	0.122	-4.65	0.00	-0.955	0.187	-5.11	0.00	11 vs 8	-0.143	0.092	-1.56	0.12	-0.202	0.128	-1.58	0.12
10 vs 9	-0.010	0.073	-0.13	0.90	-0.090	0.111	-0.81	0.42	10 vs 9	-0.160	0.091	-1.75	0.08	-0.233	0.128	-1.82	0.07
11 vs 9	-0.204	0.119	-1.71	0.09	-0.460	0.184	-2.51	0.01	11 vs 9	-0.169	0.091	-1.85	0.06	-0.252	0.128	-1.97	0.05
11 vs 10	-0.195	0.123	-1.58	0.11	-0.370	0.190	-1.95	0.05	11 vs 10	-0.009	0.092	-0.1	0.92	-0.020	0.128	-0.15	0.88
No. and % of contrasts with $p<0.05$			35, 64%				37, 67%					0, 0%				1, 2%	
No. and % of contrasts with $p<0.10$			39, 71%				41, 75%					4, 7%				3, 5%	

Note. Models (d1) and (d2) for the propensity to save (logit) and monthly amounts saved (Tobit) are provided in Table 3.6. The between occupational contrasts identified from models (d1) and (d2) correspond to the following occupational groups: 1 - Higher managerial positions, 2- Lower managerial positions, 3- Managers in public sector, 4- Business professionals, 5- Technical professionals, 6- Educational professionals, 7 -Other professionals, 8 -Skilled non-manual, 9 - Skilled manual, 10- Partly skilled, 11- Unskilled. The between-occupational contrasts from models (h1) and (h2) correspond to 11 groups, where individuals are allocated randomly

Chapter 4. Signalling capitals: Consumption preferences from the perspectives of comparative capitalism and the Bourdieusian logic of distinction

4.1. Introduction

Chapters 2 and 3 demonstrated that the empirical analysis guided by sociological theory reveals well-justified patterns in individuals' consumption and saving behaviour. This chapter takes the argument to another level of analysis to illustrate how the national setting of the economy interacts with the varied contexts defined by occupational field, which results in predictable differences in the patterns of consumption behaviour. Agents are placed in the social contexts (occupational fields), which are characterized by distribution of capital forms, but they also experience institutional pressures and respond with particular patterns of economic action. Consumption preferences for goods that carry social meaning are, thus, related to and defined by the framework of national formal and informal institutions. Some scholars suggest that there are cross-national differences in motivations underlying consumption patterns (Taylor and Houthakker, 2010). However, within-country heterogeneity requires seeking for a different unit of analysis. In this respect identifying groups of individuals, who possess relatively high homogeneity in preferences, would facilitate exploratory work both on the national level and help the cross-national comparisons.

Followers of the culturalist approach suggest that the determinants of human organization and behaviour are the "differences in cultural values, rather than material and structural conditions" (Franke et al., 1991). An underlying assumption of the culturalist approach is that cognitive and psychological processes that define individuals' decision-making are pancultural, universal. In a sense, the whole nation is treated as having predominant values, attitudes, common psychological dimensions and the resulting pitfall is that the within-country heterogeneity is largely omitted, as noted, for example, in critiques of Hofstede's framework (McSweeney, 2002). The patterns of individuals' behaviour are conditioned on a much richer set of factors and, as fairly noted by Trentmann (2016: 451), "a chief executive in Stockholm or Paris is closer to his counterpart than to the local postman". While the country as a unit of analysis is pervasive in cross-national consumption research (e.g. Dwyer et al., 2005; Steenkamp, Hofstede and Wedel, 1999; Tellis et al., 2009), the analysis would benefit

from being taken one level down – to groups of individuals, who possess within-group homogeneity. The Bourdieusian "habitus" (2010), often treated as socio-occupational collectivity in prior studies, is a particularly beneficial approach to grouping individuals for a cross-national comparative study. Such approach accounts for combinations of capital forms, integrates social forces into the analysis of consumption behaviour, allows comparing "like with like" and, thus, makes inferences about the magnitude of cross-national differences when within-group heterogeneity is, at least partially, addressed.

Spence et al. (2016) emphasize the role of habitus in highlighting informal norms and conventions of national systems, as lifestyles and dispositions of professional groups reflect the organizational imperatives which, in turn, vary cross-nationally and are also guided by the dimensions discussed in the comparative capitalism literature. The synthesis of the Bourdieusian theory of practice with the comparative capitalism literature offers a foundation for the analysis of agents' economic behaviour (and consumption behaviour in particular), with stronger interpretative potential to explain the dispositions and practices prevailing in professional groups in different national contexts. Dimensions discussed in the comparative capitalism literature, like industrial relations and education systems, affect motivations to invest in particular types of goods, which signal and augment individuals' capitals. Other dimensions also include credentialism (Lamont, 1992; Savage et al., 1992) and historical and cultural factors, which represent institutions shaping agents' behaviour (Hall and Soskice, 2001).

Given the close association between the forms and volume of human capital on one side and consumption behaviour on the other side, the important differences and similarities in education systems, training practices and factors favouring their development imply some predictability of consumption patterns observed at the country level and at the between-occupational level across the national contexts. Literature on varieties of capitalism (VoC) (Amable, 2003) suggests that education and training systems is one of the dimensions that distinguish between the archetypes of capitalism. Amable (2003) distinguishes between the five major models of comparative capitalism - liberal market economies (UK, US, Canada, Australia), coordinated market economies (CME) (Germany, Belgium, Netherlands, France, Austria), socio-democratic model (Nordic states – Sweden, Finland, Denmark), Mediterranean (Italy, Spain, Portugal, Greece) and Asian model (Japan, South Korea). Amable (2003:160-161) admits, however, that education systems are very heterogeneous and may not correspond to the archetypal models. Aventur et al. (1999) "maps" European

countries in terms of two dimensions – practices of continuing training depending on employer's initiative and practices depending on employee's initiative. These practices differ between CMEs and the UK (as the only European representative of an LME) and also within the CME-cluster (see Table 4.1. below). Strong employer's initiatives in training is the companies' training effort which often means more hours of training per employee and easier access to training (Aventur, 1999). The additional effect of the social setting, where skill acquisition occurs, on occupational identity should not be neglected. Brown (1997) draws particular attention to the social dimension of learning process during training – skills and knowledge are acquired in particular social settings, individuals learn from each other and the process of becoming more skilled also involves developing more distinctive occupational identity. This, in turn, allows expecting some distinctiveness in dispositions and lifestyles as an attempt to fit the norms and traditions of habitus (Bourdieu, 2010). Thus, differences in training and educational systems may bear implications for between-occupational differences in consumption-related behaviours and motivations underlying consumer choice.

Several professional groups are explored in three national contexts that differ by institutional setting. Further to the discussion in previous chapters, consumption patterns are explored in line with Bourdieu's (2010[1984]) and Becker's (1996; Becker and Murphy, 2000) frameworks (as discussed in the previous chapters) and in relation to the groups of commodities, which are instrumental for the display and augmentation of different forms of human capital: the visible expenditure aggregate and its several elements – presentational, socialization-related and informational expenditure aggregates. Agents are viewed as signalling their capitals, which are dominant in their occupational fields and follow the logic of distinction in line with the Bourdieusian theory of practice (as discussed in Chapters 1 and 2). The chapter addresses the following research questions: *1) Do priorities in relation to signalling capital forms differ cross-nationally in line with the expectations based on the national institutional setting? 2) Is professional habitus definitive for prioritization in consumption strategies across national systems?*

The chapter explores whether the patterns of consumption preferences of professional/ managerial groups in relation to expenditure aggregates can be predicted by the comparative capitalism literature. The three national contexts are considered, which represent the different models of capitalism. The British context represents the Liberal market economy (LME) model. Another context is France, whose model in relation to education systems and industrial relations (as major dimensions in the comparative capitalism literature) are close to

the coordinated market economy (CME) model (Amable, 2003). Comparisons are also drawn with Hungary, as a representative of a transitional economy. The comparative capitalism literature, along with the literature about the dimensions of informal institutions, helps hypothesize the between-country differences in the dispositions for the same professionals groups.

4.2. Background literature and hypotheses

4.2.1. Institutions and habitus

There is a lack of cross-national comparative work in the sociology of professions (Spence, 2016), which would allow hypothesizing distinctive differences in dispositions, lifestyles, underlying motivations, preferences and the other aspects of economic behaviour among the members of professions in different national contexts.

Some scholars approach the comparative analysis of agents' behaviour from the viewpoint of comparative capitalism to obtain insights about how national contexts as combinations of institutional factors define practices in employment relations (Brewster et al., 2008; Walker et al., 2014). Such practices, to a certain extent, motivate agents to develop, augment and display the forms of capitals and types of skills most valued in their field.

Institutional factors in their complementarity create conditions that affect the behaviours of agents. Hall and Soskice (2001) differentiate between the liberal market economy (LME) and the coordinated market economy (CME) by a number of dimensions and their interaction. Some scholars importantly note that the dichotomy of CMEs and LMEs neglects important differences within these clusters and underline the diversity between countries that belong to the same cluster (Amable, 2003; Walker et al., 2014). Although admitting that the distinction is not always clear-cut across all the dimensions, Hall and Soskice (2001) view the varieties of capitalism approach as an important framework to understand differences between the structures of national economies and business systems. Even though Hall and Soskice (2001) mostly focus on firms' strategies and their economic behaviour in different national systems, they come from a more general perspective – that institutions are "socializing agencies" that instil norms and attitudes, a "matrix of sanctions and incentives" that shape agents' behaviours (Hall and Soskice, 2001: 5). Amable (2003: 4) re-emphasizes this interaction

between institutions and agents' behaviour – "institutions define incentives and constraints that will lead agents to invest in certain assets, acquire certain skills."

From the viewpoint of the individual as an agent, individuals also pursue their career trajectories and invest in commodities instrumental for building up their capitals. When certain bundles of goods are more likely to build up their social and cultural capital in particular professional fields, individuals shape their consumption strategies to better fit their "matrix of sanctions and incentives". Just like firms invest in assets to build their social, informational, scientific and financial capital to address competition (Bourdieu, 2011), individuals build up their "competitive advantages", investing into education, skills and building networks of relationships that may also contribute to their knowledge-building and advancement.

In relation to some dimensions of comparative capitalism, like product-market regulation and labour-market regulations, the dichotomy between the LMEs and the CMEs is more clear-cut, while the same partition may not apply to the other dimensions, like education systems (Amable, 2003). As education is often found to influence consumption (e.g. education may suppress conspicuous consumption (Moav and Neeman (2012)), education systems are likely to affect individuals' consumption strategies. While France is not clear type of CME, in the dimension of education – France follows the Continental European capitalism formula (Amable, 2003, pp.103-106, pp.168-169, pp. 174-175). France, along with Germany, the Netherlands and Belgium, is characterized by stronger employers' initiatives in continuing training. In the UK, along with the USA, Australia and Canada, higher education is much less financed than in the Socio-democratic model of capitalism or "classic" countries of Continental European capitalism[22]. While the cluster of countries including Germany, France, Netherlands, and Ireland are characterized by "a high degree of homogeneity of primary and secondary curricula and certification procedures" (Amable, 2003: 168), this is not the case for the LMEs (USA, UK, Canada, Japan), who possess higher heterogeneity and whose "education system is also organized around market signals" (Amable, 2003: 176).

The CME-pattern is characterized by substantial employment protection complemented by education systems that promote vocational training to strengthening industry- and company-specific knowledge and skills. On the contrary, the LME environment, characterized by

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[22] As opposed to Liberal market economies, Netherlands, Belguim, France, Germany, and Ireland are characterized by a strong public education system (Amable, 2003: 167)

labour fluidity typically, provides general skills and individuals' career success depends on their self-initiated development of marketable skills. This, in turn, is likely to make individuals engage in independent knowledge building, including more active socialization and networking, if they seek career advancement.

Differences in continuing training can be found between CMEs and LMEs and also within the CME cluster (Amable, 2003). The UK was found as being signified by both strong employer initiatives and having a widespread individual initiative in continuing training (Aventur et al., 1999). Most of CMEs have moderate initiatives from both sides (Table 4.1). France stands out by having moderate individuals' initiative (individuals' initiative by Aventur et al. (1999) includes (tradition of life-long education and personal development), taking it close to the other countries of the CME-cluster and strong employer initiatives, similar to the UK. This similarity between France and the UK, despite these countries belong to different archetypal models, may suggest similarity in how distinctive the occupational identities are within the national contexts. On the other hand, differences in individual initiatives predominant in the two national settings suggest that attitudes and, thus, underlying motivations of agents, may differ between the contexts.

Table 4.1. Continuing Training in the European Community

	Employee Initiative		
	Slight	*Average*	*Strong*
Limited	Italy Spain Greece Portugal	Ireland	
Moderate		Germany Austria Belgium Luxembourg	France
Widespread		Netherlands	United Kingdom
Strong			Denmark Finland Sweden

(Row label: Individual Initiative)

Source: Aventur et al. (1999)

The types of industrial relations are definitive for the behaviours of some professional groups and also aspiring classes. Amable (2003: 130) urges to avoid "resorting to a dichotomy" addressing the diversity of industrial relations, which embrace wage-bargaining, coordination, centralization, disputes and relations between managers and employees in general. The UK (and Anglo-Saxon model in general) and France belong to different industrial relations systems, where the former is characterized by pluralism, i.e. employers follow strategies to avoid confrontation, while the French system (similarly to Portugal, Italy, Belgium and Spain) is characterized by contestative relations, antagonistic conflicts of interests and lack of negotiation (Amable, 2003: 137). This difference is also reflected in the stronger hierarchy and formality of the managerial role in France compared to the Anglo-Saxon system. A managerial role in France is demanding in relation to a high level of linguistic accomplishment, dress, posture and appearance in particular (Barsoux and Laurence, 1997: 84-85). The difference in industrial relations is also revealed by how a French manager gets things done by the power of position, while an Anglo-Saxon manager – by the power of personality (Barsoux and Laurence, 1990; 1997). Barsoux and Lawrence (1991) note that "unlike Anglo-Saxons, the French seem to view management as an intellectually rather than an interpersonally demanding exercise." French management "owes their position to their cleverness" in the national context that is characterized by a traditionally low level of social openness (Barsoux and Laurence, 1997: 85). The Anglo-Saxon system, on the other hand, encourages "qualities of emission" - charisma, pugnacity, capacity to communicate and motivate. The desire to excel in these qualities promotes higher reliance on individuals' networking, socialization and abilities to maintain the reputation of the organization.

These between-country differences – industrial relations, education and credentialism – that stem from differences in institutional settings, have deep historical roots and may have affected the difference between Becker's (1996; Becker and Murphy, 2000) and Bourdieu's (2010; 2011) appropriated paradigms in relation to where the social capital resides. Becker and Bourdieu in their conceptual frameworks rely on two different paradigms that may to a certain extent be shaped by their home country cultures. The Bourdieusian framework suggests that good taste (including presentation/ appearance) is an inherent characteristic, a prerequisite, a "built-in" element of symbolic capital for a representative of higher class. It represents an "endogenous" part of individuals' symbolic capital, thus, the display of capitals unavoidably entails investments in appearance. Becker's view of social capital as shaped by social forces in one's environment suggests that the need to emphasize presentation

(appearance), as a key vehicle in display of social capital is conditional on the corresponding behaviour of the peer group, on whether the occupational field motivates, supports and encourages such emphasis.

Social capital is located at the intersection of the two paradigms - relational versus interactionist (Eloire, 2012: 176). Becker is his understanding of social capital was close to Coleman's view (1990) that social capital does not reside within an individual, but is "embodied in the relations among persons" (Coleman, 1990:304) and its efficiency is defined by network closure (Eloire, 2012: 174). On the other hand, Bourdieu's <u>Distinction</u> (2010[1984]) views social capital as an asset, which can be accessed and realized through interpersonal ties. Becker's emphasis on the exogeneity of social capital may reflect the canons of the Anglo-Saxon culture. In this case, the change of occupational field may not entail the preservation of the same status in the new environment, as the "social" part (networks, status) are only relevant for that particular field. The Bourdieusian view on the "residence" of social capital suggests that it is a given attribute of an individual (endogenous characteristic), partially defined by background, origin and education. This difference in the two paradigms appropriated by the French and the American thinkers, in a sense, can be a cultural feature that defines the difference in the emphasis put on appearance in the French and Anglo-Saxon types of society.

Table 4.2. Clothing expenditure in selected European countries in 2010, Euro/PPS

| | Income quintiles | | | | | |
	1	2	3	4	5	5th to 1st decile ratio
Austria	40	45	45	42	48	1.20
Belgium	24	28	32	38	44	1.83
Czech republic	25	29	35	42	49	1.96
Denmark	27	42	38	44	49	1.81
Finland	23	27	23	28	34	1.48
France	35	29	30	32	33	0.94
Spain	36	37	44	43	46	1.28
Sweden	27	36	39	35	44	1.63
United Kingdom	26	34	41	50	52	2.00

Source. Eurostat (2010) Structure of consumption expenditure by income quintile and COICOP consumption purpose.

The differences in the emphasis on appearance are illustrated in the between-country difference in spending on such a visible product category as clothing. The Eurostat (2010) data in **Table 4.2** shows clothing expenditure across income quintiles. Against the expectations for this type of expenditure to increase proportionally with income across all countries, in some countries the poorest people spend about the same or more money as the top-income earners (France). Clothing expenditure of the last two income quintiles is very similar with the first three income quintiles in France. In contrast, in the UK, investments in appearance seem to grow much more proportionally with income.

To summarize, there is a number of dimensions in the comparative capitalism literature and informal institutional factors that lead agents to invest in assets and skills and shape the perceptions of their value. The differences in these dimensions and informal institutional factors allow anticipating differences in capital-signalling consumption patterns between the national contexts in general and in relation to particular professional fields.

4.2.2. Expectations on comparative behaviours of professional groups

In line with the Bourdieusian framework (2010; 2011) and the findings of Chapter 2, individuals are likely to signal the types of capital most valued in their field. We, thus, may expect the contrasting difference in the corresponding elements of visible consumption between business and technical professionals, whose fields differ by dominance of social capital versus technical knowledge. Both France and the UK represent mature models of capitalism with established industrial relations. Moreover, despite France and the UK belong to different archetypal models of capitalism, the similarity in the intensity of employer initiative (Aventur et al., 1999) and the process of socialization into profession that accompanies continuing training (Brown, 1997), allow expecting pronounced certain extent of distinction between occupational identities of professional groups. As discussed in Chapter 2, the professional distinction is likely to be associated with distinctive patterns in consumption strategies. Namely, we may expect:

> **H1(a, b, c):** In France business professionals are signified by higher spending on a) status-signalling goods, and in particular on b) presentational and c) socialization-related goods than technical professionals.

H2(a, b, c): In the UK business professionals are signified by higher spending on a) status-signalling goods, and in particular on b) presentational and c) socialization-related goods than technical professionals.

Similarly, educational professionals' distinction characterized by dominance of and the pressure to signal cultural capital in their field is likely to be reflected in their higher levels of spending on cultural, or informational, goods.

H3: In France educational professionals are signified by higher spending on informational goods than the other professional-managerial groups

H4: In the UK educational professionals are signified by higher spending on informational goods than the other professional-managerial groups

Compared to the mature models of capitalism, where the professional ethos is formulated, in a transitional economy these patterns may not be as clear-cut. Thus, we do not expect H5 (a, b and c) to be rejected:

H5 (a, b, c): In Hungary business professionals are not distinctively different in their spending on a) status-signalling goods, b) presentational and c) socialization-related goods than technical professionals.

In relation to informational goods, the value of education must be taken into account in the historical perspective. High emphasis on education in the countries of the Soviet bloc promoted its value regardless of social class. Therefore, educational professionals may not be distinctive in their investments in cultural capital. In other words,

H6: In Hungary educational professionals are not signified by higher spending on informational goods than other professional-managerial professions

History and culture constitute an important informal institutional factor that creates "shared understandings" in a particular environment (Hall and Soskice, 2001) and affects consumption (Friehe and Mechtel, 2014). Transitional economies are hard to assign to any type of capitalism across all their dimensions (Dudziak, 2014). While they are characterized by the ongoing re-distribution of economic power, their distinctive feature is ex-communist past experience. As suggested by Friehe and Mechtel (2014), ex-communist heritage affects

consumption preferences - limited consumer choice, the "system's emphasis on egalitarianism" (within and across professions) did not go unnoticed. Their research shows that ex-communist political regimes are positively associated with conspicuous consumption.

A special social role in communist regimes were taken by managers, who were often important political authorities, with their symbolic roles also distinguished by material status symbols (Kostera and Wicha, 1995). During the communist regime the power was concentrated in the hands of bureaucrats and managers, and although in post-communist Hungary the top of political elite was replaced, the economic elite in the 1990s consisted of managers of state-owned and private enterprises (Andorka, 1995). The modern Hungary shows substantial intergenerational succession, with 42% of the upper class originating from professional and senior management families (Albert et al., 2017). It may be, thus, hypothesized that

> **H7:** In Hungary management is signified by higher expenditure on visible aggregate as opposed to management in the countries of developed capitalism.

The association between the communist past (the past experience of scarcity and egalitarianism) and conspicuous consumption (Friehe and Mechtel, 2014) suggests that this part of consumption strategy is likely to be more pronounced in the transitional economies than in the mature forms of capitalism. Thus, an increase in income is expected to be associated with a higher increase in visible consumption in Hungary (a representative of the transitional capitalism) than in the UK or France (representatives of the mature models). Presentational expenditure according to the visibility-index of Heffetz (2011) is one of the most visible categories of conspicuous consumption, thus, we may hypothesize that

> **H8 (a, b):** Income elasticity of (a) visible and (b) presentational consumption is higher in a transitional economy than in a non-transitional economy.

The nature of educational systems that supply predominantly general skills to the labour market, higher labour fluidity and the importance of interpersonal skills in Anglo-Saxon market economies contribute to the need of socialization and network-building. Investments in socialization as an investment into individuals' social capital, thus, are expected to be an important part of consumption strategy. On the contrary, in economies where educational and training system's focus on developing industry- and firm-specific skills, relative emphasis on technical, informational capital rather than interpersonal skills, may be associated with

relatively lower emphasis on socialization and favour informational goods instead. Also, as discussed above, the predominance of interactionist versus relational paradigms in the societies (as reflected in the differences in the frameworks of Becker and Bourdieu) are expected to define the emphasis put on personal appearance versus socialization and networking. The above considerations allow proposing the following hypotheses:

> **H9:** Presentation is perceived as a capital-signalling device in France to a larger extent than in the UK.

> **H10:** Socialization and networking are perceived as a capital-signalling device in the UK to a larger extent than in France.

Less widespread individual initiative in continuing training, life-long education and personal development in France than in the other European countries (Aventur et al., 1999) allow suggesting that knowledge acquisition may be perceived as not a strong a capital-signalling device. We, thus, may expect that:

> **H11:** Acquisition of informational goods is perceived as a capital-signalling device in the UK to a larger extent than in France.

Prior scholarly work draws on a long history of anti-intellectualism in Anglo-Saxon culture, illustrating how during the interwar period intellectuals were experiencing hostile attitudes. Culture and the process of learning itself were associated with overly leisured way of life. Anti-intellectualism was "a matter of pride in the upper-middle-class" (Samuel 1983a:35 as cited by Savage et al. 1992:113). More recently, Lamont (1992: 123-127) noted that high school and college students who are inclined to intellectualism are forced to "understate their intellectual interests and provide evidence that they are down-to-earth - as it is assumed that are not" (Lamont, 1992: 123). The Anglo-Saxon culture sometimes tends to suggest inappropriateness of what is so valued by Bourdieu as a major feature of intellectuals – their linguistic capital. For example, Boorstin (1969: 144) cites J. Powers, the dean of early American association of advertising in relation to anti-intellectualism: "the commonplace is the proper level for writing in business, where the first virtue is plainness; "fine writing" is not only intellectual, it is offensive." On the contrary, the French upper-middle classes express higher affection to the core values of intellectualism – the ability to discover, the pleasures of the company of intellectual giants and their ability to synthesize (Lamont, 1992).

Anti-intellectualism is likely to have effects on consumption of cultural goods, thus, we may hypothesize that:

H12: Income elasticity of informational goods is lower in the UK than in France

Similarly, in France management is traditionally more credentialed than in Britain (Savage et al., 1992) and is an object of high expectations in terms of intellectual capacity and possession of knowledge. Credentialed management is more likely to view investments in cultural capital (including informational goods) as a vehicle to signal cultural capital. Thus, within the French context, managers are expected to appreciate the capital-signalling ability of informational goods to a larger than average extent. This leads us to the following hypothesis:

H13: French management is signified by a more pronounced perception of informational goods as a capital-signalling device than the general population

This may not be the case for the UK, where anti-intellectualism may have placed informational goods at a lower position of the visibility-scale and the emphasis on personality may have distracted attention from the display of cultural and linguistic capitals. Hence:

H14: British management is not signified by a more pronounced perception of informational goods as a capital-signalling device than the general population.

4.3. Methodology

4.3.1. Datasets, samples, and restrictions

Data from the Harmonized European Household Budget Survey (Eurostat, 2010) is employed to explore consumption patterns of occupational groups in France. The survey design uses weighting to account for the non-response error. Only household reference persons (HRP) of 20-65 years old are kept in the sample. We omit observations with the non- specified values of occupational classification (ISCO08) and observations, whose current activity status is student, fulfilling domestic tasks, permanently disabled, in military service or not specified. Keeping the bottom 95% sample observations, with the most reasonable total expenditure to gross household income ratio (maximum 2.05), reduces the bias due to underreported income. This restriction also reduces the likelihood of heavily upwardly biased shares of

income spent on specific categories and, thus, excessive distortions in models. Models account for weights provided by the survey methodology.

In the French sample, to estimate the effect of occupational class, we collapse the two-digit occupational codes of the International Standard Classification of Occupations 2008 (ISCO08) into major groups (one-digit occupational code) and obtain ten classes. Secondly, to obtain an indicator variable for narrowly defined classes we then use the two-digit codes to partially disaggregate the classes of professionals and professional associates that are associated with more specific occupational fields[23]. Sample sizes for occupational groups are provided in **Table 4.3** below.

Table 4.3. Sizes of occupational subsamples in France and Hungary

Narrow occupational groups	France	Hungary
Managers	562	327
Educational professionals	549	404
Science, engineering and ICT profs	976	541
Business professionals	974	561
Legal, health, social and cultural profs	812	464
Clerks	812	455
Services Sales	1182	778
Skilled Manual workers	1,464	1,418
Plant Machine operators	886	901
Elementary occupations	1011	709
Armed Forces	86	90
Total	9,314	6,648

Note. Subsample sizes are based on the restricted national samples.
Source: Eurostat (2010).

The sample for Hungary is also obtained from the Eurostat Harmonized European Household Budget Survey 2010 that draws on the data collected by the Hungarian national survey. We keep HRPs of 20-65 years old only. We omit observations with the non-specified values of

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[23] Managers include chief executives, senior officials and legislators; Administrative and commercial managers; Production and specialized services managers; Hospitality, retail and other services managers. Educational professionals are ISCO08 category 23. Technical professionals include science, engineering and ICT professionals and associate professionals (ISCO08 21, 25, 31 and 35). Business professionals include business and administration professionals and associate professionals (ISCO08 24 and 33). Health, legal, social, cultural and related professionals and associate professionals are captured by ISCO08 codes 22, 26, 32 and 34. Skilled agricultural worker category is joint with the craft and trades category, as the former has a very small sample size and these two categories are traditionally combined, as for example, in SOC2000 and SOC2010.

occupational classification ISCO08 and the observations whose current activity status is student, fulfilling domestic tasks, permanently disabled, in military service or not specified. We only keep the bottom 99% sample observations, within the reasonable total expenditure to gross household income ratio (maximum 1.99). Grouping occupations is approached in the similar way as in the French sample.

The British sample is obtained from the UK Living Costs and Food survey (2009-2016). The UK LCF survey (ONS, 2017) uses information from diaries and interviews. Diaries collect data on household spending within 14 days of observation for regularly purchased items; interviews gather data about spending on items that are not purchased frequently, using different periods of recall depending on the item. The data is then processed to represent weekly equivalents. The basic unit of analysis is the household.

The survey employs a complex multi-stage stratified random sample design with clustering where primary sample unit are postal sectors. Government office regions sub-divided by area type (metropolitan and non-metropolitan), socio-economic group of head of household and car ownership are the stratum identifiers (ONS, 2010). The LCF survey design accounts for unequal selection probability using weighting to, first of all, compensate for non-response and, secondly, to match population distribution in terms of age groups, regions and gender.

Table 4.4. Sizes of occupational subsamples in the British sample

Occupational group	N
Managers	3,287
Educational professionals	1,279
Science, engineering and ICT profs	1,946
Business professionals	1,729
Health, legal, soc, cult profs	3,273
Admin and secretarial	2,093
Services & Sales	2,911
Skilled trades	2,769
Machine operatives	1,884
Elementary	2,229
Total	23,400

Note. Subsample sizes are based on the restricted national samples.
Source: ONS (2017).

The sample is restricted to HRPs[24] aged between 18 and 65 who had positive values of gross weekly disposable household income. Household income is the gross weekly normal household income of all its members plus allowances. Similarly to the problem mentioned by Charles et al. (2009), there is also a problem of under-reported family incomes (i.e. total expenditure in some observations may many times exceed gross family income). Keeping the bottom 95% sample observations, with the most reasonable total expenditure to gross household income ratio (maximum 1.95), allows avoiding excessive distortions in models and exploratory statistics. As a limitation of the survey, when a complete diary was missing, information was imputed using diaries from respondents with similar characteristics (LCF, 2010). Acknowledging this limitation, household income is used for modelling. SOC2000 and SOC2010 classifications are employed to derive occupational groups similar to ISCO08 divisions used in the Harmonized European Household Budget Survey for France and Hungary (**Table 4.4**)[25] to ensure the comparability between national contexts.

4.3.2. Analytical strategy and methods

Between-occupational differences in the models of commodity aggregates are captured by estimating Engel curves using log-transformed values of the visible, the presentational, the socialization-related and the informational expenditure aggregates (the same aggregates as explored in Chapter 1; full description of expenditure categories is provided in Appendix D, Table D1). We may estimate the OLS models (pooled cross-sectional OLS for the UK) for each of the expenditure aggregates

$$\log(S_i) = \alpha + \beta_i \log Y_i + \Phi\, N_i + B\, X_i + \varepsilon_i \tag{4.1}$$

where S_i is expenditure in each aggregate (as described in Chapter 2, **Table 2.1**) that is defined by weekly equivalent of expenditure plus one, $\log Y_i$ – log household income; X_i –

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[24] The notion of HRP as a household representative is used from 2001-02 in the UK government-sponsored surveys to replace the notion of head of household. In the latter approach the priority was given to males and the eldest individuals of the same sex, while HRP refers to the owner of the renter of accommodation in which the household lives and the eldest of them in case there are more than one.

[25] Managers (Major division 1 of SOC), Educational professionals (two-digit SOC 23), Scientists, engineers and ICT professionals and associate professionals (21 and 31), business and admin professionals and associate professionals (three-digit 242, 353), health, legal, cultural and social professionals and associate professionals (22,241, 243, 321, 351, 355). Administrative and secretarial – SOC major division 4, services and sales (SOC major divisions 6 and 7), skilled trades – SOC major division 5, plant, machinery operators (SOC 8), elementary occupations (SOC 9). Armed forces remain in the category of legal, health, social and cultural professionals as in original SOC.

matrix of HRP's and household characteristics, N_i - occupational group of HRP, α - the individual specific unobservable effect, ε_i - error term. The set of predictors for the UK includes log gross normal household weekly income, occupational group of HRP (as indicated in **Table 4.4**), age, gender, education of HRP, marital status of HRP, household size, number of children, region and year of the survey. For the French and the Hungarian samples the predictors are log income where income is net income (total income from all sources including non-monetary components minus income taxes), age category (5 year), education, occupational group of the HRP (as indicated in **Table 4.3**), gender, marital status of the HRP, family size, whether household has children and the regional control variables. Compared to the original education-variable, the category "no formal education" is added to "Primary education" due to the small sample size of the former.

As expenditure aggregates stem from the same household budget, the error terms are likely to be correlated. Therefore, seemingly unrelated regression (SUR) models are employed (as in Chapter 2). In line with the general form of the SUR-model (Greene, 2012) and as all four expenditure aggregates have the same equation specification, for each country we consider a model comprising the four multiple regression equations as follows:

$$y_{ti} = \sum_{j=1}^{k_i} x_{tij}\beta_{ij} + \varepsilon_{ti} \quad , \qquad t = 1,2, \dots T; \; i = 1,2, \dots M; j = 1,2, \dots, k_i \qquad (4.2)$$

where y_{ti} is the tth observation on the ith dependent variable which is to be explained by the ith regression equation, x_{tij} is the tth observation on the jth explanatory variable appearing in the ith equation, β_{ij} is the coefficient associated with x_{tij} at each observation and ε_{ti} is the tth value of the random error term associated with the ith equation of the model. For each country of interest there are M=4 equations and T observations.

The elasticity coefficients for expenditure aggregates may not be directly comparable between the UK and the other two countries, as the measures of income available for modelling differ (gross normal household income in the UK and net income for Hungary and France). However, when income tax is assumed to increase proportionally with the family income and the elasticity measures are estimated on the log-scale (as percentage increase), the measures of income can be compared. As the SUR-models for each country are built, the pairwise comparison of occupational effects is undertaken for the professional-managerial groups to observe which occupational groups are distinctively different within their national context. Tobit models are further used as robustness checks to verify the statistical significance of the

estimated results, because the dependent variables are slightly positively skewed due high incidence of zero values. Tobit models are then explored in relation to whether the statistical significance of contrasts between the occupational effects remains valid. The SUR-model for the British context needs to undergo additional robustness checks. Firstly, occupational indicator variable is substituted with the NS-SEC categories to ensure that the voluntary categorization undertaken in this empirical work does not substantially distort the model results and, secondly, the pairwise comparison of between-occupational contrasts is undertaken when the "Other professionals" category is omitted from the sample.

When the variation of variance in the distribution of the dependent variables cannot be assumed constant, there is a need for a robustness check using generalized linear models (GLM). GLM is considered an effective measure to address heteroscedasticity problem in the data. Heteroscedasticity is also diagnosed using kernel-weighted local smoother functions (the details are provided in Appendix E).

The extent to which a particular group of goods can be viewed as a capital-signalling device can be captured by the extent to which the unobserved drivers of investment change in the broad status-signalling commodity group are correlated with the unobserved drivers of investment change in more particularized groups of visible commodities, which help augment or display different types of individuals' capitals. In other words, partialling out all available relevant observable characteristics, we estimate the residuals in expenditure elasticity equations. These reflect the unobserved motivations related to the desire to spend on expenditure aggregates. For example, correlation between the residuals of the visible and the presentational expenditure aggregates is a measure of how much the unobserved drivers of investment into appearance are the same as the drivers for signalling one's capitals. Relatively high coefficients of the residual correlation between visible and presentation-related commodities for a particular group would signify higher desire to signal one's capital by appearance; between visible and socialization – the desire to signal one's worth by investments into network-building; high residual correlation between visible and informational goods – more distinctive desire to signal capitals by their investment into knowledge-acquisition efforts. A similar approach in relation to whether the two outcome variables in the equations of a seemingly unrelated regression model share common unobserved underlying factors is employed in previous research, e.g. Kaplan and Prato (2016) or Zischka (2016).

The unobserved heterogeneity captured by the error term reflects factors not accounted for by predictors that also drive expenditure aggregates. Thus, the intuition behind correlation of the error terms between the two equations is that there are the same motivations/ drivers of the two expenditure aggregates or the same omitted unobserved variables of psychological or cultural nature that guide investments in each group of commodities. Cross-equation correlation of errors, thus, allows observing patterns in unobserved heterogeneity among the units of analysis (households), namely, whether the two expenditure aggregates, whose dependent variables represent investments in commodities with particular characteristics, share the common unobserved underlying factors.

Following the discussion of literature on differences in the formal and the informal institutions of national economies, we expect between-country differences in how motivations (unobserved characteristics) in signalling individuals' capitals are associated with the motivations underlying the other expenditure aggregates. Thus, the next stage of exploration employs the benefits offered by the key assumption of the seemingly unrelated regression model - that the error terms in the regressions of the four expenditure aggregates are correlated.

In order to extract meaningful correlations between the error terms of two equations, the stochastic element (the error term) should not bear explanatory power, i.e. there should be absolute randomness in the residual plots. Cox (2004) suggested using a residual-versus-fitted plot (a graph that plots the residuals against the fitted values) to evaluate whether the scatter plot is patternless, i.e. does not have distinctive curvature or outliers. After graphing model diagnostics (**Figures D1-D3**, Appendix D) that mainly show patternless distribution of the error term, correlation of residuals from the four models of expenditure aggregates for each country are estimated.

In order to do significance tests between the correlation coefficients, we need to estimate their confidence intervals. In traditional practice confidence intervals of correlation coefficients are of little interest and their estimation poses some technical difficulties, as Pearson's correlation coefficient has an "awkward skewed distribution" (Cox, 2008). To solve this problem, Fisher (1915 as cited by Cox, 2008) suggested transformation of Pearson's r to reach normal distribution, known as Fisher's z transform, which, in turn, allowed estimating the confidence intervals of the correlation coefficient. Testing the overlaps between the confidence intervals of corresponding correlation coefficients between the countries and between the occupational

groups allows observing whether the difference in the correlation coefficients is statistically significant.

4.4. Results

4.4.1. Exploratory statistics

The between-country differences in the shares of income devoted to visible items reflect the differences in price levels and standards of living. Generally higher level of income in France than in Hungary (according to OECD data (2018a), GDP per capita (USD, constant prices, PPPs) in 2010 was 35,944.2 USD in France and 21,555.9 USD in Hungary) leaves more resources to be allocated to visible expenditure in absolute terms. In Hungary, a generally lower level of wealth makes necessities, rather than status-signalling items, comprise a larger proportion of an average family budget. (The corresponding GDP per capita indicator for Britain was 36,051.4 USD in 2010).

Table 4.5. Share of family income spent on the visible aggregate for for the categories of "service class" (UK)

	N	Share of family income spent on visible commodity categories			Weekly equivalised family gross income, £	
		Mean	Sd	Coef. of variation	Mean	Sd
UK						
Full sample	23400	0.276	0.198	0.72	1020	841
Managers	3287	0.274	0.197	0.72	1509	1200
Educational professionals	1279	0.272	0.19	0.70	1154	748
Technical professionals	1946	0.252	0.177	0.70	1221	754
Business Professionals	1729	0.269	0.192	0.71	1436	1076
Health, legal, soc-cultural profs	3273	0.273	0.185	0.68	1231	974
Full "service class"	11514	0.269	0.189	0.70	1331	1013

Note. Calculations are based on data from Living Costs and Food Survey UK (2009-2016) in the restricted sample. Data in the table accounts for weighting, clustering and stratification used in the survey. All indicators account for inflation and are provided in 2016 prices. The share of family income uses family gross income as a denominator.

In the UK (**Table 4.5**), while the average share of income spent on the visible aggregate appears to be broadly similar across the "service class"; technical professionals have the lowest value. On average they spend 2% less on visible items than the rest of the service class. The French service class (**Table 4.6**) also spends similar shares of income on status-signalling commodities; however, the group of health, legal, social and cultural professionals stands out by a higher value of the indicator. In Hungary, there is a larger difference between the general population and the service class with the latter spending 2-4% higher share of income on more visible items. Interestingly, while the average incomes vary substantially across the occupational clusters, the values of average shares of income spent on the visible aggregate are very close across the "service class" groups.

Table 4.6. Shares of family income spent on the visible aggregate for the categories of "service class" in France and Hungary

	N	Share of family income spent on visible commodity categories			Weekly equivalised family net income, Euro	
		Mean	St.dev.	Coef. of variation	Mean	St.dev.
France						
Full sample	9314	0.302	0.215	0.71	529	383
Managers	562	0.289	0.176	0.61	822	372
Educational professionals	549	0.296	0.209	0.71	635	350
Technical professionals	976	0.303	0.189	0.62	604	439
Business Professionals	974	0.308	0.191	0.62	659	417
Health, legal, soc-cultural profs	812	0.322	0.215	0.67	699	606
Full service class	3873	0.306	0.205	0.67	673	484
Hungary						
Full sample	6648	0.197	0.140	0.71	129	63
Managers	327	0.243	0.163	0.67	178	81
Educational professionals	404	0.218	0.144	0.66	146	55
Technical professionals	541	0.233	0.146	0.62	181	80
Business Professionals	561	0.225	0.144	0.64	162	68
Health, legal, soc-cultural profs	464	0.229	0.150	0.65	152	74
Full service class	2297	0.229	0.148	0.65	164	73

Note. Calculations are based on data from the Harmonized European household Expenditure Survey (Eurostat, 2010) in the restricted samples (restrictions are outlined in Section 4.3.1). Data in the table accounts for weighting applied in surveys. In the French and the Hungarian samples the denominator for the share of income is net family income - total income from all sources including non-monetary components minus income tax.

Coefficients of variation (**Tables 4.5** and **4.6**) for the shares of income spent on visible commodity categories show that at the upper end of income distribution (the professional-managerial classes) there is slightly higher heterogeneity in France and the UK. For the Hungarian service class, the distribution is signified by more values clustered around the mean (coefficient of variation for Hungary is 0.65 compared to 0.67 in France). This can be explained by generally lower purchasing power of the Hungarian population or, possibly, by accessibility of credit or the extent, to which a particular country represents a society affected by explosion of consumer debt.

Household debt as a percentage of net disposable income in 2010 was 85%, 108% and 158% for Hungary, France and the UK respectively (OECD, 2018b) with the latter being one of the countries with the most indebted households worldwide (Trading Economics, 2018). As noted in Chapter 1, scholars find between-country cultural differences in saving practices of households and **Figure 4.1** shows the level of household savings in the three countries. Scholars note similarity of Anglo-Saxon societies in relation to saving habits, with Canada and the USA having similarly low savings rate (Feltovich and Ejebu, 2013).

Figure 4.1. Household savings as a percentage of total disposable income, 2000-2016
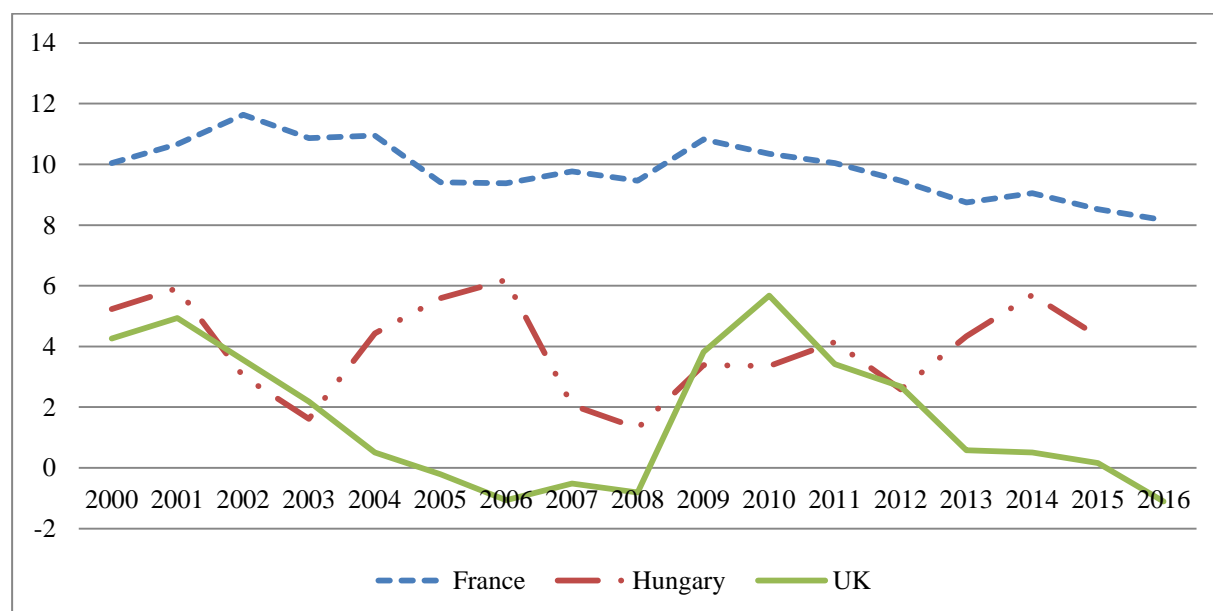
Note. Data from OECD (2018c)

Exploring variance in the sample using standardized variables (*z*-scores) for the visible expenditure aggregate, we observe the distance of each occupational group from the sample mean captured by the number of standard deviations (**Table 4.7**). This is a way of seeing how distinctive a particular occupational group is in its national context and also helps observe whether this occupational group is as distinctive in the other national contexts. In other words, as the distance from the sample mean is measured by standard deviations, Z-transformation[26] suggests the comparability of expenditure across the national contexts. Admitting the existence of slight positive skewness, the distribution of the visible expenditure aggregate is very close to normal, which makes *z*-transformation feasible. **Table 4.7** also provides the mean values of the standardized variable by occupational group for income deciles 6, 7, 8, 9 and 10 (in the restricted sample). By doing this, we observe how the distance (measured in standard deviations) from the sample mean changes as income increases in each occupational group.

Compared to the other "service class", management is characterized by the highest deviation from the sample mean across the three national contexts. Across the three countries, the shortest distance from the national sample mean is observed with the British management (0.431 st. dev.) and the highest distance is in the Hungarian sample (0.785 st. dev.). Thus, in Hungary, management is a more distinctive group in relation to visible consumption than in the UK or France, with the latter, however, not falling too far behind Hungary.

French business professionals are less distinguished from the general population (0.272 standard deviations from the mean of the standardized variable) than business professionals in Hungary (0.361 st. dev.) or the UK (0.336 st. dev.). Technical professionals in Hungary are more distinctive in their national context among the other service class compared to technical professionals in France and Britain. A reason for this can be the relatively higher importance and, thus, the status of technical professions for the Hungarian economy – in France and the UK only 19-20% of GDP comes from industry sector, while in Hungary the industrial sector contributes to nearly 31% of GDP (CIA, 2017). Educational professionals across the countries are characterized by generally low deviation from the sample mean compared to the other service class groups – on average French teachers are only 0.169 standard deviations away from the sample mean, while Hungarian and British educational professionals are 0.231 and 0.111 standard deviations away from the mean respectively.

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[26] Standardized variable is a z-score: $Z=(X-\mu)/\sigma$, where X – a normally distributed random variable with mean μ and standard deviation σ.

Exploring z-scores across income deciles allows observing how these distances from the mean vary between occupations in particular income bands and between the national contexts. Educational and technical professionals in the UK upon their progress from the 6th income decile onwards do not reach as high deviations from the sample mean as business professionals. They all start at roughly similar levels, but business professionals at every income decile exceed educational, and especially, technical professionals, in their visible spend. Business professionals reach a z-score of 1.109 by their tenth income decile - about twice as large as the one of technical and educational professionals. British managers start at a higher level of visible expenditure compared to the sample mean (the highest z-score in the 6th income decile across the occupational groups – 0.148 st.dev.) and lead in terms of the distance from the sample mean across income deciles. However, the spread of the z-score is very large at every income decile which suggests that such heterogeneity may not allow observing their distinctiveness in models against the other occupational clusters.

Similarly to the managerial group, Hungarian technical professionals are characterized by relatively higher investment in status-signalling – they notably exceed the sample mean in every income decile. Hungarian business professionals are particularly undistinctive across income deciles and only exceed educational professionals (the "humblest" group) by the 10th income decile. One of the explanations is that, in the conditions of emerging capitalism, the identity of a business professional may be an emerging phenomenon and, thus, their distinctiveness in the service class is less pronounced.

In the French context more distinctiveness between business professionals and technical/educational professionals is observed at the level of "aspiring classes" (income deciles 6 and 7) where business professionals lead in their visible expenditure. Further on, in income deciles 8 and 9 visible expenditure across these three groups seems to level out. Technical professionals reach the "saturation point" the soonest – in the 10th income decile their status-signalling expenditure is the lowest level across the French "service class" groups.

To summarize, based on the results of the z-scores for visible expenditure, the forthcoming models are expected to show differences between business professionals on one side and technical and educational professionals on the other side in the French and the British context, unless the considerable heterogeneity obscures their distinctiveness and suppresses the statistical significance of the occupational effects in the models.

Table 4.7. Z-scores for the visible expenditure aggregate by income decile in the categories of "service class"

	N	Z- score for occ. group over all income deciles		Decile 6		Decile 7		Decile 8		Decile 9		Decile 10	
		Mean	St.d.	Mean	St.d.	Mean	St.d.	Mean	St.d.	Mean	St.d.	Mean	St.d.
France													
Managers	562	0.679	1.218	0.230	0.833	0.003	0.783	0.579	1.026	0.652	0.812	1.160	1.497
Educational profs	549	0.169	1.082	-0.011	0.842	0.255	0.790	0.420	1.193	0.479	1.081	0.968	1.434
Technical profs	976	0.163	0.912	0.058	0.698	0.166	0.771	0.334	0.732	0.616	1.050	0.845	1.425
Business profs	974	0.272	1.084	0.102	0.841	0.322	0.776	0.310	0.804	0.464	0.881	1.434	1.625
HLSC profs	812	0.303	1.107	0.025	0.621	0.073	0.695	0.373	0.847	0.994	1.193	1.268	1.502
Full service class	3872	0.295	1.124	0.074	0.791	0.190	0.804	0.375	0.903	0.625	1.047	1.169	1.608
Hungary													
Managers	327	0.785	1.477	0.199	0.748	0.350	1.095	0.711	1.143	0.706	0.910	1.803	1.936
Educational profs	404	0.231	1.005	-0.008	0.561	0.455	1.104	0.307	0.710	0.635	1.337	0.977	1.402
Technical profs	541	0.670	1.418	0.207	0.687	0.249	0.954	0.668	1.075	0.727	1.148	1.627	1.849
Business profs	561	0.361	1.107	-0.007	0.612	0.417	0.829	0.317	0.797	0.542	0.921	1.546	1.503
HLSC profs	464	0.342	1.344	0.061	0.639	0.045	0.829	0.351	0.687	0.659	1.272	2.062	2.065
Full service class	2297	0.472	1.294	0.083	0.652	0.311	0.965	0.452	0.900	0.653	1.102	1.664	1.828
UK													
Managers	3287	0.431	1.33	0.148	0.932	0.338	1.087	0.465	1.103	0.599	1.345	1.113	1.743
Educational profs	1279	0.111	0.938	0.06	0.845	0.165	0.872	0.132	0.77	0.311	1.002	0.518	1.361
Technical profs	1946	0.091	0.899	-0.083	0.688	0.084	0.745	0.248	0.932	0.175	0.869	0.589	1.269
Business profs	1729	0.336	1.329	0.04	0.728	0.271	0.946	0.418	1.061	0.444	1.145	1.109	2.059
HLSC profs	3273	0.170	1.020	0.009	0.801	0.182	0.842	0.227	0.91	0.487	1.155	0.880	1.418
Full service class	11514	0.249	1.147	0.032	0.808	0.213	0.913	0.311	0.983	0.43	1.115	0.938	1.670

Note. Number of observations (N) is provided as unweighted cell count. Income deciles are obtained using the values of equivalised income in the restricted sample. Equivalisation employs the OECD-modified scale. For the British sample the data in the table accounts for weighting, clustering and stratification of the survey design and the original variable is adjusted for inflation using CPI-index (in 2016 prices).

4.4.2. SUR- model results and hypothesis testing.

This section provides the results of the basic SUR-models (**Tables 4.8** and **4.9**) and the pairwise comparison of occupational effects across the three national contexts (**Table 4.10**), along with their robustness check using a SUR-model that accounts for the non-linear effect of income (**Table 4.11**).

Table 4.8 shows that in France 10% increase in household income is associated with the 8.4%, 7.8%, 14.6% and 9.2% increase in the visible, the presentational, the socialization-related and the informational aggregates respectively. In Hungary income elasticity of the broad visible and the presentational aggregates are higher (0.98 and 0.82 percentage points), while the socialization-related and the informational aggregates are generally less income-elastic. Elasticity coefficients for Britain (**Table 4.9**) are 0.82, 0.64, 0.92 and 0.32 ppt respectively, which shows that, with household's income growth, there is generally lower emphasis on presentational and informational goods compared to France and Hungary. Coefficients of determination show that the models of the visible expenditure aggregate explain 36-49% of variance across the national contexts. The presentational expenditure model shows a much better fit for Hungary (R^2=37%), compared to France and the UK, where the models explains only 21-25% of variance. Breusch-Pagan test of equation independence is statistically significant at *p=0.000* for all three countries, which justifies the use of the SUR-model instead of the separate models. Correlation matrix of residuals shows especially substantial correlation between the visible and the presentational expenditure aggregates (50, 54 and 50 percent for France, Hungary and the UK respectively).

There is a negative effect of age on the expenditure aggregates, except for informational goods, in France and Hungary. In the British context the age-effect is much less distinctive, which hints at a higher interpenetration of consumption patterns across generations. There is still a positive effect of age on consumption of informational goods. Education adds a significant dimension to consumption patterns – generally, more educated people in France (tertiary stage 2) and Britain (higher education) have relatively lower effect on increase in the visible and the presentational expenditure aggregate. This is in line with the proposition of Moav and Neeman (2012) that human capital (education) suppresses conspicuous consumption. On the contrary, in Hungary the emphasis on visible and presentational commodities tends to increase with education. Across the three contexts investments in information tend to increase with education.

An increase in household size is associated differently with the outcome variables across the contexts. As household size grows, a Hungarian household invests relatively more in informational commodities (each additional member of the household is associated with a 34% increase in the informational expenditure aggregate), probably, at the expense of investments into socialization (a 10% decrease) and the minimal increase in appearance-related spending (8%) (**Table 4.8**). In contrast, the growth in size of a British household is associated with relative prioritization of the presentational and socialization-related expenditure compared to informational goods. Each additional member of a British household is associated with a 32% increase in presentational expenditure, a 13% increase in socialization-related spending and only a 9% increase in informational goods (**Table 4.9**). France shows a similar pattern to Britain, but with more emphasis on informational goods.

In France and Britain, when HRP is a female, appearance-related expenditure tends to be higher than with male HRPs (9% higher in Britain and 31% higher in France). Interestingly, in Hungary female HRPs tend to prioritize informational goods instead. Female HRPs tend to socialize less than males. However, the significance of the gender-effect is only observed in Hungary. Children do not seem to have a substantial effect on the four expenditure aggregates in France, but tend to substantially constrain appearance- and socialization-related expenditure in Hungary and in the UK.

Firstly, using skilled manual workers as a reference category for the basic model, the occupational effects are estimated. For investments in status-signalling and appearance, between-occupational differences among the professional-managerial groups are minimal in France in relation to the reference group. However, French technical professionals still seem to assign lower priority to status-signalling and appearance. The Hungarian sample shows larger heterogeneity – e.g. educational professionals are not much different from the reference group. In the British sample, technical professionals seem to devalue status-signalling and appearance similarly to France, however, the contrast with the reference group vary between expenditure aggregates. Based on the SUR-model, the between-occupational contrasts in relation to professional-managerial groups are estimated pairwise in each national context and for each of the expenditure aggregates.

Table 4.8. Seemingly unrelated regression model results for four expenditure aggregates in France and Hungary

	France				Hungary			
	Log Visible	Log presen-tation	Log sociali-zation	Log infor-mation	Log Visible	Log presen-tation	Log sociali-zation	Log infor-mation
Log family income	0.837***	0.782***	1.460***	0.924***	0.979***	0.820***	0.915***	0.694***
	(0.019)	(0.033)	(0.068)	(0.061)	(0.024)	(0.029)	(0.083)	(0.056)
Age	-0.039***	-0.036***	-0.171***	0.137***	-0.043***	-0.077***	-0.167***	0.002
	(0.005)	(0.008)	(0.017)	(0.015)	(0.004)	(0.005)	(0.015)	(0.010)
1. Managers	0.258***	0.343***	1.204***	0.715***	0.190***	0.237***	0.473***	0.076
	(0.043)	(0.074)	(0.156)	(0.138)	(0.048)	(0.060)	(0.170)	(0.115)
2. Educational professionals	0.251***	0.363***	1.481***	1.401***	0.038	0.063	-0.176	0.131
	(0.048)	(0.083)	(0.174)	(0.154)	(0.051)	(0.063)	(0.180)	(0.121)
3. Technical professionals	0.199***	0.299***	1.065***	0.576***	0.109***	0.122**	0.358**	-0.019
	(0.034)	(0.058)	(0.122)	(0.108)	(0.041)	(0.051)	(0.145)	(0.098)
4. Business professionals	0.281***	0.491***	1.363***	0.937***	0.125***	0.115**	0.465***	-0.031
	(0.036)	(0.062)	(0.130)	(0.115)	(0.041)	(0.051)	(0.146)	(0.098)
5. Health, legal, soc. cult. profs	0.260***	0.325***	1.352***	1.083***	0.113**	0.118**	0.178	-0.035
	(0.039)	(0.068)	(0.142)	(0.126)	(0.044)	(0.054)	(0.155)	(0.104)
6. Clerks	0.182***	0.287***	0.881***	0.515***	0.077*	0.038	0.094	-0.052
	(0.040)	(0.069)	(0.144)	(0.127)	(0.043)	(0.053)	(0.150)	(0.101)
7. Service Sales	0.132***	0.300***	0.599***	0.124	0.127***	0.077*	0.192*	0.102
	(0.034)	(0.059)	(0.123)	(0.109)	(0.032)	(0.040)	(0.114)	(0.077)
9. Plant Machine Operators	0.058*	0.116*	0.143	-0.130	0.034	-0.026	0.090	0.057
	(0.035)	(0.060)	(0.126)	(0.112)	(0.030)	(0.038)	(0.107)	(0.072)
10. Elementary occupations	-0.018	0.025	0.111	-0.059	-0.124***	-0.104**	-0.210*	-0.200**
	(0.037)	(0.064)	(0.135)	(0.120)	(0.036)	(0.044)	(0.126)	(0.085)
11. Armed Forces	0.073	0.294*	0.346	0.534*	0.157*	0.112	-0.029	-0.053
	(0.098)	(0.169)	(0.355)	(0.315)	(0.082)	(0.102)	(0.289)	(0.195)
2. Lower secondary	0.302***	0.417***	0.939***	0.350	0.159***	0.047	-0.018	0.313***
	(0.067)	(0.116)	(0.243)	(0.215)	(0.030)	(0.037)	(0.106)	(0.072)
3. Upper secondary	0.296***	0.347***	0.987***	0.169	0.287***	0.230***	0.502***	0.595***
	(0.063)	(0.109)	(0.228)	(0.202)	(0.034)	(0.042)	(0.120)	(0.081)

Table 4.8. Seemingly unrelated regression model results for four expenditure aggregates in France and Hungary (continued)

4. Post-secondary non-tertiary	0.310***	0.387***	1.402***	0.355*	0.351***	0.234***	0.892***	0.641***
	(0.065)	(0.112)	(0.234)	(0.208)	(0.044)	(0.055)	(0.157)	(0.106)
5. Tertiary stage 1	0.262***	0.378***	1.487***	0.319	0.425***	0.274***	1.237***	0.830***
	(0.067)	(0.116)	(0.243)	(0.215)	(0.044)	(0.055)	(0.156)	(0.105)
6. Tertiary stage 2	0.288***	0.302***	1.472***	0.474**	0.594***	0.561***	1.869***	1.161***
	(0.066)	(0.115)	(0.240)	(0.213)	(0.049)	(0.061)	(0.173)	(0.117)
7. Unallocated	0.196***	0.256**	0.911***	0.020				
	(0.062)	(0.108)	(0.226)	(0.200)				
Gender (female)	0.031	0.314***	-0.096	0.085	-0.030	0.005	-0.236***	0.360***
	(0.020)	(0.035)	(0.074)	(0.066)	(0.021)	(0.026)	(0.074)	(0.050)
Marital status (single)	0.050**	0.099***	-0.124	0.000	-0.194***	-0.127***	-0.012	-0.158***
	(0.021)	(0.037)	(0.077)	(0.068)	(0.021)	(0.026)	(0.074)	(0.050)
Household size	0.080***	0.237***	0.123***	0.159***	-0.009	0.082***	-0.099***	0.341***
	(0.008)	(0.014)	(0.030)	(0.027)	(0.008)	(0.010)	(0.029)	(0.020)
W/children	0.034	0.009	0.067	-0.128	-0.116*	-0.211***	-0.709***	-0.237
	(0.048)	(0.083)	(0.174)	(0.154)	(0.061)	(0.075)	(0.214)	(0.145)
Controls (Regions)	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*
Constant	-0.365*	-2.033***	-11.553***	-8.517***	-1.601***	-1.607***	-4.896***	-4.483***
	(0.198)	(0.341)	(0.715)	(0.634)	(0.213)	(0.263)	(0.749)	(0.506)
Observations	9,314	9,314	9,314	9,314	6,648	6,648	6,648	6,648
Chi2	5121.45	2512.21	2004.34	1535.35	6299.44	3966.53	1484	1892.01
RMSE	0.816	1.408	2.950	2.615	0.703	0.869	2.477	1.673
R-squared	0.355	0.212	0.177	0.142	0.487	0.374	0.182	0.222

Correlation matrix of residuals:

Between residual of log visible and residual of log presentational expenditure	0.4952	1			0.5349	1		
Between residual of log visible and residual of log socialization-related expenditure	0.3504	0.1493	1		0.3404	0.1865	1	
Between residual of log_ visible and residual of log informational expenditure	0.2226	0.1518	0.1369	1	0.2493	0.161	0.178	1
Breusch-Pagan test of independence	chi2(6)=4485.218, Pr = 0.000				chi2(6) = 3699.718, Pr = 0.000			

Note. Models use the data from Harmonized European Household Budget Survey (Eurostat, 2010). Coefficients are estimated from the seemingly unrelated regression model where dependent variables are log expenditure aggregates related to visible, presentational, socialization and informational goods (details are provided in Appendix D, Table D1). Age is coded in 5 classes. Reference category for education is "Primary education". All regressions account for weighting. The exact expenditure categories for each aggregate are described in **Table D1** in Appendix D. Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1.

Table 4.9. Results of seemingly unrelated regression model for four expenditure aggregates in the UK

	log visible	log presentation	log socialization	log informational
Log family income	0.814***	0.643***	0.916***	0.320***
	(0.010)	(0.016)	(0.017)	(0.012)
1.Managers	0.035*	0.053	0.134***	0.064***
	(0.020)	(0.033)	(0.036)	(0.025)
2.Educational professionals	0.044	0.064	0.174***	0.242***
	(0.028)	(0.045)	(0.049)	(0.034)
3.Engineering, science and ICT profs	-0.017	-0.052	0.128***	0.074***
	(0.023)	(0.037)	(0.041)	(0.028)
4.Business professionals	0.067***	0.128***	0.273***	0.122***
	(0.024)	(0.039)	(0.043)	(0.029)
5.Health, legal, social, cult profs	0.061***	0.090***	0.155***	0.127***
	(0.021)	(0.034)	(0.037)	(0.025)
6.Admin and secretarial	0.017	0.054	0.123***	0.115***
	(0.023)	(0.038)	(0.041)	(0.028)
7.Services & Sales	-0.075***	-0.031	-0.077**	0.041
	(0.021)	(0.035)	(0.038)	(0.026)
9.Skilled trades	0.000	0.000	0.000	0.000
	(0.000)	(0.000)	(0.000)	(0.000)
10.Machine operatives	-0.067***	-0.091**	-0.182***	-0.116***
	(0.022)	(0.036)	(0.040)	(0.027)
11.Elementary	-0.203***	-0.082**	-0.328***	-0.059**
	(0.022)	(0.036)	(0.039)	(0.027)
Age of HRP	0.004***	-0.001	0.001	0.019***
	(0.000)	(0.001)	(0.001)	(0.001)
2.Education (completed 16-19y.o)	0.020	0.040*	0.048**	0.036**
	(0.013)	(0.021)	(0.023)	(0.016)
3. Education (completed 20+y.o.)	-0.068***	-0.045**	0.077***	0.037**
	(0.014)	(0.023)	(0.025)	(0.017)
Gender (Female)	0.093***	0.306***	-0.032	0.051***
	(0.012)	(0.020)	(0.021)	(0.015)
Household size	0.113***	0.316***	0.134***	0.089***
	(0.008)	(0.013)	(0.014)	(0.009)
Number of children	-0.049***	-0.070***	-0.133***	0.021*
	(0.009)	(0.015)	(0.016)	(0.011)
Marital status (Single)	0.135***	0.150***	-0.027	0.169***
	(0.012)	(0.020)	(0.022)	(0.015)
Controls (12 regions; year of survey)	*Yes*	*Yes*	*Yes*	*Yes*
Constant	-0.792***	-2.153***	-3.627***	-1.870***
	(0.066)	(0.108)	(0.118)	(0.081)
Observations	23,400	23,400	23,400	23,400
RMSE	0.751	1.226	1.338	0.920
Chi2	18531.6	7642.42	7868.52	5581.63
R-squared	0.442	0.246	0.252	0.193
Correlation matrix of residuals				
Corr. between residual of log visible and residual of log presentational expenditure	0.4996	1		
Corr. between residual of log visible and residual of log socialization-related expenditure	0.4582	0.2567	1	
Corr. between residual of log visible and residual of log informational expenditure	0.2709	0.252	0.2069	1.000

Breusch-Pagan test of independence: chi2(6) = 16499.399, Pr = 0.0000

Note. Models use data from the British Living and Food Costs survey (2009-2016) (LCF, 2017).All regressions account for weighting estimated by the survey methodology. Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1 .

Table 4.10. Pairwise comparison of occupational effects estimated from the SUR-models

	France				Hungary				UK			
	Contrast	S.E.	z	P>z	Contrast	S.E.	z	P>z	Contrast	S.E.	z	P>z
Visible expenditure aggregate												
Educational profs vs Managers	-0.007	0.052	-0.14	0.892	-0.152***	0.055	-2.77	0.006	0.009	0.026	0.36	0.721
Technical profs vs Managers	-0.059	0.042	-1.41	0.159	-0.081*	0.049	-1.64	0.102	-0.052**	0.022	-2.40	0.016
Business profs vs Managers	0.024	0.042	0.56	0.572	-0.065	0.049	-1.31	0.192	0.032	0.022	1.42	0.157
Technical vs Educational profs	-0.052	0.047	-1.1	0.271	0.071	0.050	1.43	0.154	-0.061**	0.028	-2.20	0.028
Business vs Educational professionals	0.031	0.047	0.66	0.510	0.087*	0.049	1.78	0.075	0.023	0.028	0.79	0.427
Business vs Technical profs	0.082**	0.035	2.36	0.018	0.016	0.043	0.37	0.709	0.084***	0.025	3.39	0.001
Presentational expenditure												
Educational profs vs Managers	0.021	0.089	0.23	0.817	-0.173***	0.068	-2.56	0.010	0.011	0.042	0.26	0.793
Technical profs vs Managers	-0.044	0.072	-0.61	0.542	-0.115*	0.061	-1.89	0.059	-0.105***	0.035	-2.96	0.003
Business profs vs Managers	0.148**	0.072	2.06	0.040	-0.121**	0.061	-1.98	0.047	0.076**	0.037	2.07	0.038
Technical vs Educational profs	-0.064	0.081	-0.8	0.426	0.058	0.062	0.95	0.342	-0.012**	0.045	-2.55	0.011
Business vs Educational professionals	0.128	0.080	1.59	0.111	0.052	0.060	0.86	0.389	0.065	0.046	1.40	0.161
Business vs Technical profs	0.192***	0.060	3.2	0.001	-0.006	0.053	-0.12	0.906	0.181***	0.040	4.49	0.000
Socialization expenditure												
Educational profs vs Managers	0.277	0.187	1.48	0.139	-0.649***	0.193	-3.37	0.001	0.040	0.046	0.86	0.390
Technical profs vs Managers	-0.139	0.150	-0.93	0.354	-0.115	0.174	-0.66	0.509	-0.007	0.038	-0.17	0.866
Business profs vs Managers	0.159	0.151	1.05	0.294	-0.008	0.174	-0.05	0.963	0.139***	0.040	3.47	0.001
Technical vs Educational profs	-0.416**	0.169	-2.46	0.014	0.534***	0.175	3.05	0.002	-0.046	0.049	-0.93	0.352
Business vs Educational professionals	-0.118	0.168	-0.7	0.482	0.641***	0.172	3.72	0.000	0.099**	0.050	1.96	0.050
Business vs Technical profs	0.298**	0.126	2.36	0.018	0.107	0.152	0.7	0.483	0.145***	0.044	3.30	0.001
Informational aggregate												
Educational profs vs Managers	0.686***	0.166	4.14	0.000	0.055	0.130	0.42	0.675	0.178***	0.032	5.63	0.000
Technical profs vs Managers	-0.139	0.133	-1.04	0.298	-0.094	0.117	-0.8	0.422	0.010	0.026	0.37	0.710
Business profs vs Managers	0.222*	0.134	1.66	0.097	-0.106	0.118	-0.9	0.366	0.058**	0.027	2.11	0.035
Technical vs Educational profs	-0.824***	0.150	-5.49	0.000	-0.149	0.118	-1.26	0.208	-0.168***	0.034	-4.94	0.000
Business vs Educational professionals	-0.463***	0.149	-3.11	0.002	-0.161	0.116	-1.39	0.166	-0.120***	0.035	-3.46	0.001
Business vs Technical profs	0.361***	0.112	3.23	0.001	-0.012	0.103	-0.12	0.907	0.048*	0.030	1.59	0.111

Note. Pairwise comparisons of marginal occupational effects (contrasts) are estimated from the SUR-model (Tables 4.9 and 4.10). Shaded cells refer to hypothesis testing (H1, H2, H3, H4, H5 and H6). *** $p<0.01$, ** $p<0.05$, * $p<0.1$

The results of the pairwise comparison of occupational effects estimated from the SUR-model (**Table 4.10**) address our hypotheses. Firstly, in line with expectations both in France and Britain business professionals spend on average 8% more on visible expenditure (**H1a** and **H2a**), 18-19% more on presentation (**H1b** and **H2b**) and 15% (UK) and 30% (France) more on socialization (**H1c** and **H2c**) than technical professionals. All the six null hypotheses (no difference) are rejected at p<0.05. (The contrasts in relation to hypotheses H1-H4 are highlighted in Tables 4.11 and 4.12 for convenience). The similarity in distinctiveness of consumption behaviour of occupational groups between the two contexts can be explained by similarly distinctive occupational identities of the professional groups. Distinctive identities are partly shaped by high intensity of employer initiatives in continuing training (Aventur et al., 1999). As a part of training, more intensive socialization into profession occurs (Brown, 1997), as individuals learn from each other and immerse into the professional habitus, absorbing the norms of social context surrounding the professional field. Occupational identities, however, may not be fully shaped in the transitional economy, thus, in line with expectations related to **H5a, H5b** and **H5c,** Hungarian business professionals are not distinctively different from technical professionals, or any other professional groups.

As suggested above, the distinctive occupational identity of educational professionals is expected to be associated with relatively higher emphasis on cultural, or "informational", capital. Indeed, in line with expectations related to **H3** and **H4**, educational professionals are distinguished by significantly higher expenditure on informational goods than the other professional-managerial groups in both France and Britain. Namely, in France educational professionals are estimated to spend 46% more on informational goods than business professionals, 67% more than managers, 82% more than technical and 32% more than the other professional groups (**Table 4.10**). This difference between educational professionals and the other "service class" is still statistically significant, but less distinctive in magnitude in the UK, where educational professionals spend about 12-18% more on informational goods than the other professional-managerial groups. Again, educational professionals in Hungary are not signified by distinctive spending on augmentation of their cultural capital. One reason for this can be high emphasis on education across the countries of the former Soviet bloc, where general population was much motivated towards knowledge acquisition regardless of occupational specialization and this may explain more homogeneous investments in informational goods across the professional groups.

In line with **Table 4.5**, which shows that Hungarian management has the highest (24%) share of income on visible commodities compared to the other professional-managerial groups, **Table 4.8** indicates that the managerial category is signified by the highest spending on visible and presentational groups of goods (19% and 24% respectively) compared to the reference category. In relation to expectation that Hungarian managers are signified by distinctive conspicuous consumption (**H7**) among the service class, however, the statistical significance at $p<0.05$ level is only observed with educational professions. As noted earlier in relation to z-scores of the visible aggregate, managers are a very heterogeneous category. Substantial within-group heterogeneity, thus, does not allow observing statistically significant contrasts. Having larger sample sizes would allow disagregating the managerial category (as in Chapter 2). As opposed to Hungary, in the UK (**Table 4.9**), management is not as distinctive compared to the similar reference group. In France (**Table 4.8**) all the professional-managerial groups are significantly distinguished from general population (approximated by the reference group) spending 20-28% more, however, there are no substantial differences among the professional-managerial groups themselves.

As expected, in relation to **H8a** and **H8b** visible and presentational expenditure in a transitional economy are generally more income-elastic than in the representative countries of developed capitalism. This is in line with the findings of Friehe and Mechtel (2014), who found that past experience of the communist regime left a footprint on conspicuous consumption. While the elasticity coefficients estimated by the SUR-model for France are 84% and 78% respectively, for Hungary these indicators are 98% and 82% respectively (**Table 4.8**). For Britain these are lower than for Hungary as well – 81% and 64% respectively. It must be noted, however, that the elasticity indicators from the SUR-model for Britain account for gross family income (rather than net family income as in the models for France and Hungary). In line with **H12** and the expectations that anti-intellectualism in Anglo-Saxon countries (Savage et al., 1992) may be associated with lower income elasticity of informational goods, income elasticity of informational goods is lower in the UK than in France (32% and 92% respectively).

Robustness checks were undertaken for the models above. **Tables D2a and D3a** in Appendix D show the results of Tobit models for the three countries and the pairwise comparisons of marginal occupational effects from these models are provided in **Tables D2b** and **D3b**. While the maximum likelihood estimates (in Tobit models), as expected, are higher than the ordinary least squares estimates, the between-occupational contrasts remain statistically

significant and mainly preserve their magnitude. **Table D4a** (Appendix D) show the results of the SUR-model when the "Other professionals" category is omitted from the British sample and **Table D4b** demonstrates that the between-occupational contrasts retain their statistical significance. **Table D5** is to confirm that the SUR-model is not substantially distorted because of the changes in occupational categorization – having NS-SEC categories in the model instead of the occupational categories provided in the basic SUR-model (**Table 4.8**) does not have a great effect on the sign or magnitude of the estimates.

Another robustness check is to account for the non-linear effect of income (the full SUR-models are in Appendix, **Tables D6a** and **D6b**, which also show that the increase in R-squared is minimal). The SUR-models that accounted for the non-linear effect of income (log income squared) were explored to verify that the results for the pairwise comparisons of marginal occupational effects hold valid and **Table 4.11** below shows that all the hypothesized between-occupational differences are supported. Interestingly, the account for the non-linear effect of income resulted a statistically significant difference between business and educational professionals in Hungary in relation to both the visible and the presentational expenditure aggregates (**Table 4.11**).

As a robustness check, to explore, whether statistical significance of between occupational contrasts may be a result of random allocation of individuals in artificial classes, 11 classes were randomly generated in the French sample. The list of pairwise comparisons is provided for the original model and the two experiments that use eleven randomly generated classes in Appendix D, Table D13. As expected, the experiments show that not only the results of pairwise comparison do not have much theoretical value, but also that random allocation of individuals in artificial classes generates few parametric differences.

Table 4.11. Pairwise comparisons of marginal occupational effects from SUR- models with account for the non-linear effect of income

	France				Hungary				UK			
	Contrast	S.E.	z	P>z	Contrast	S.E.	z	P>z	Contrast	S.E.	z	P>z
Visible expenditure aggregate												
Educational profs vs Managers	-0.050	0.052	-0.97	0.330	-0.183***	0.055	-3.33	0.001	-0.025	0.026	-0.98	0.326
Technical profs vs Managers	-0.092**	0.041	-2.22	0.026	-0.086*	0.049	-1.75	0.081	-0.078***	0.022	-3.64	0.000
Business profs vs Managers	-0.003	0.042	-0.08	0.933	-0.075	0.049	-1.52	0.129	0.025	0.022	1.11	0.266
Technical vs Educational profs	-0.042	0.047	-0.9	0.368	0.097**	0.050	1.94	0.052	-0.053**	0.028	-1.92	0.054
Business vs Educational professionals	0.047	0.046	1.01	0.312	0.108**	0.049	2.2	0.028	0.05*	0.028	1.78	0.076
Business vs Technical profs	0.089***	0.035	2.56	0.010	0.011	0.043	0.25	0.799	0.103***	0.025	4.21	0.000
Presentational expenditure												
Educational profs vs Managers	-0.026	0.089	-0.29	0.772	-0.210***	0.068	-3.09	0.002	-0.003	0.042	-0.06	0.952
Technical profs vs Managers	-0.080	0.072	-1.11	0.265	-0.121**	0.061	-1.99	0.047	-0.115***	0.035	-3.26	0.001
Business profs vs Managers	0.119*	0.072	1.65	0.099	-0.134**	0.061	-2.18	0.029	0.073**	0.037	2.00	0.046
Technical vs Educational profs	-0.054	0.081	-0.67	0.503	0.089	0.062	1.44	0.151	-0.113***	0.045	-2.49	0.013
Business vs Educational professionals	0.145*	0.080	1.81	0.070	0.076	0.060	1.26	0.208	0.076**	0.046	1.63	0.102
Business vs Technical profs	0.199***	0.060	3.32	0.001	-0.012	0.053	-0.23	0.817	0.188***	0.04	4.68	0.000
Socialization expenditure												
Educational profs vs Managers	0.257	0.188	1.37	0.171	-0.590***	0.194	-3.05	0.002	0.033	0.046	0.71	0.477
Technical profs vs Managers	-0.155	0.151	-1.03	0.305	-0.105	0.174	-0.6	0.545	-0.012	0.039	-0.30	0.762
Business profs vs Managers	0.146	0.151	0.96	0.335	0.012	0.174	0.07	0.947	0.137***	0.04	3.43	0.001
Technical vs Educational profs	-0.412**	0.169	-2.43	0.015	0.485***	0.176	2.76	0.006	-0.045	0.049	-0.90	0.369
Business vs Educational professionals	-0.111	0.168	-0.66	0.510	0.602***	0.173	3.49	0.000	0.104**	0.051	2.06	0.039
Business vs Technical profs	0.301**	0.126	2.39	0.017	0.117	0.152	0.77	0.444	0.149***	0.044	3.39	0.001
Informational aggregate												
Educational profs vs Managers	0.670***	0.166	4.03	0.000	-0.006	0.131	-0.05	0.961	0.183***	0.032	5.76	0.000
Technical profs vs Managers	-0.151	0.134	-1.13	0.260	-0.105	0.117	-0.89	0.373	0.013	0.027	0.51	0.611
Business profs vs Managers	0.213*	0.134	1.58	0.113	-0.127	0.118	-1.08	0.281	0.059**	0.027	2.14	0.032
Technical vs Educational profs	-0.821***	0.150	-5.46	0.000	-0.098	0.119	-0.83	0.408	-0.169***	0.034	-4.97	0.000
Business vs Educational professionals	-0.458***	0.149	-3.07	0.002	-0.120	0.116	-1.03	0.301	-0.124***	0.035	-3.56	0.000
Business vs Technical profs	0.363***	0.112	3.25	0.001	-0.022	0.103	-0.22	0.828	0.045	0.03	1.50	0.133

Note. Pairwise comparisons of marginal occupational effects (contrasts) are estimated from the SUR-model that account for the non-linear effect of income (full results in Appendix D, Tables D6a and D6b).
*** p<0.01, ** p<0.05, * p<0.1.

4.4.3. Exploring correlation of residuals

This section analyses the extent to which a particular group of goods can be viewed as a capital-signalling device. As a method of analysis (described in Section 4.3.2), we explore the correlation between the unobserved drivers of investment change in the broad status-signalling commodity group and the unobserved drivers of investment change in presentational, socialization-related and informational goods.

Correlations of residuals from the models of the four expenditure aggregates are explored and compared between the three national contexts. Correlation coefficients are estimated between the error terms of the expenditure models (correlation of residuals) for the full national samples and for the selected professional-managerial groups (**Table 4.12**). The residuals from the models for the separate occupational groups are estimated in the SUR-models, with the same set of predictors as in the models for the full sample (Appendix D, **Tables D7, D8** and **D9**). This procedure allows estimating the extent to which expenditure aggregates share common unobserved underlying factors for a group of individuals and tests whether a particular aggregate is a better signalling device in a particular national context and also for a particular professional group.

Correlations of residuals from the models of expenditure aggregates for each country are estimated along with their 95% confidence intervals using Fisher's z transform in line with Cox (2008). Exploring the overlaps between the confidence intervals of the corresponding correlation coefficients allows observing whether the difference between the coefficients is statistically significant.

Exploration of correlations among the residuals of the visible aggregate and the residuals of its particular elements has implications for **H9, H10, H13** and **H14**. The magnitude of correlation coefficients shows the extent to which an element is viewed as a signal of one's status and symbolic capital. **Table 4.12** shows that in France the unobserved drivers of investment in presentation correlate stronger with the drivers that motivate status-signalling than in the UK. The residual correlation coefficient is 0.528 for the full sample compared to 0.496 in the UK. Moreover, confidence intervals of these correlation coefficients do not overlap that supports our expectations in relation to **H9**. So, in general, as expected the French are more likely to view presentational expenditure as a signalling device than the British, however, the magnitude of the between-country difference is not large. This difference is the same for the managerial groups and slightly larger for the professional groups. In particular, in France educational professionals

seem to value appearance as a more important signalling device than British teachers and academics. The correlation between the model residuals for these aggregates is 0.55 in France and 0.50 in the UK and the confidence intervals for the coefficients do not overlap, which means that the difference is statistically significant.

Similarly, residual correlations between the visible and the socialization-related expenditure aggregates support expectations in relation to **H10**. There is residual correlation coefficient of 0.320 for the full sample in France compared to 0.456 in the UK (**Table 4.12**) and no overlap in confidence intervals. This supports the proposition that socialization in an Anglo-Saxon country, like the UK, is viewed more as a capital-signalling device than in France. In other words, the desire for signalling one's worth correlates the closest with the drivers for socialization in the UK, which suggests that individuals' expressed efforts in communication and networking (reflected as investments in socialization-related activities) are considered as a more valuable vehicle for signalling one's worth. The substantial difference between the residual correlation coefficients estimated for informational goods and the visible expenditure aggregate (0.197 for France and 0.270 for the UK), suggests that acquisition information is not perceived as a capital signalling device to the same extent as in the UK. This may be explained by the comment of Aventur et al. (1999) that "career advancement paths based on continuing training and its certification are not well developed, and, in addition, the tradition of life-long education and personal development is less widespread in France than in other European countries.

In relation to **H13**, French managers, as expected, view informational goods more as a capital-signalling device compared to the general population (full sample). The residual correlation between the visible and the informational expenditure aggregates is 0.245 for the managerial group, which is significantly higher (as confidence intervals do not overlap) than the residual correlation of 0.197 for the full sample. This allows rejecting the null of **H13**. The difference is even more pronounced when the SUR-model accounts for the non-linear effect of income. On the contrary, British management does not seem to be signified by distinctive perceptions of informational goods as a capital-signalling device – the residual correlation indicators are very similar for the managerial occupational group and the full sample (0.265 and 0.270 respectively) in line with the expectations related to **H14**. These findings suggest that there are between-country differences in the attitudes towards the importance of cultural capital among managers.

To summarize, the underlying motivations revealed by exploration of residual correlations imply that the French and the British contexts differ substantially in how their agents view the

instrumental value of some commodity groups in terms of their status- and capital-signalling ability. In Britain, socialization is viewed as a capital-signalling device to a greater extent than in France. The pattern is the opposite in relation to presentational goods. Moreover, while there are some substantial differences at the country level, taking specific occupational groups as a unit of analysis helps reveal important differences characteristic to particular occupational groups.

Table 4.12. Correlation between residuals of expenditure models

	Estimates based on the basic SUR-model						Estimates based on the SUR-model that accounts for non-linear effect of income					
	France			UK			France			UK		
	Corr.coef.	95% CI		Corr.coef.	95% CI		Corr.coef.	95% CI		Corr.coef.	95% CI	
Residual correlations for the visible and the presentational expenditure aggregates												
Full sample	0.528	0.514	0.543	0.496	0.486	0.505	0.526	0.511	0.540	0.496	0.486	0.506
Managers	0.523	0.508	0.538	0.493	0.483	0.502	0.483	0.467	0.498	0.492	0.482	0.502
Educational profs.	0.552	0.537	0.566	0.503	0.493	0.512	0.557	0.542	0.570	0.504	0.494	0.513
Technical profs	0.539	0.524	0.553	0.497	0.488	0.507	0.537	0.522	0.551	0.501	0.491	0.510
Business profs	0.539	0.524	0.553	0.494	0.485	0.504	0.535	0.521	0.550	0.492	0.482	0.501
Residual correlations for the visible and the socialization-related expenditure aggregates												
Full sample	0.320	0.302	0.338	0.456	0.446	0.466	0.323	0.305	0.341	0.457	0.447	0.457
Managers	0.361	0.343	0.378	0.461	0.451	0.471	0.347	0.329	0.365	0.459	0.449	0.469
Educational profs.	0.370	0.352	0.387	0.467	0.457	0.477	0.384	0.367	0.401	0.466	0.456	0.476
Technical profs	0.341	0.323	0.359	0.472	0.462	0.482	0.344	0.326	0.362	0.470	0.460	0.480
Business profs	0.539	0.524	0.553	0.469	0.459	0.479	0.333	0.315	0.351	0.466	0.456	0.476
Residual correlations for the visible and the informational expenditure aggregates												
Full sample	0.197	0.177	0.216	0.270	0.258	0.282	0.199	0.179	0.218	0.272	0.260	0.284
Managers	0.245	0.226	0.264	0.265	0.253	0.277	0.238	0.219	0.257	0.271	0.259	0.283
Educational profs.	0.242	0.223	0.261	0.262	0.251	0.274	0.213	0.193	0.232	0.265	0.253	0.277
Technical profs	0.232	0.212	0.251	0.279	0.267	0.291	0.224	0.204	0.243	0.282	0.270	0.293
Business profs	0.208	0.189	0.227	0.274	0.262	0.286	0.210	0.191	0.230	0.274	0.262	0.286

Note. Residual correlations are estimated from the SUR-models in Tables 4.8 and 4.10 (full samples) and also from the separate SUR-regressions for occupational groups where the four expenditure aggregates are dependent variables and predictors and controls include family income, age category, education, gender, marital status, household size, number of children and region of residence. Full regression results for the SUR-models are provided in Appendix D, Tables D7, D8 and D9.

4.4.4. Testing results with Generalised Linear Models

According to the results of the SUR-models in Sections 4.4.2 and 4.4.3, the important differences in consumption patterns were revealed at the country level and the occupational level. However, there is a need to test whether some of the underlying assumptions of the SUR-model are not violated. The exploration of non-parametric Engel curves provided in **Appendix E** illustrates that, indeed, there might be a problem of heteroscedasticity in the data, i.e. variance can hardly be assumed constant. Generalised Linear Models (GLM) has been previously found to tackle the heteroscedasticity problem in the data (Manning and Mullahy, 2001; McCullagh and Nelder, 1983; Mihaylova et al., 2011). This section, after the critical analysis of GLM-methodology and its benefits over the OLS estimation method, offers the results of GLM-regressions for the four expenditure aggregates aimed at supporting the validity of results obtained from the basic SUR-models.

4.4.4.1. Critical analysis of GLM versus OLS

According to Gauss-Markov theorem, the classic ordinary least squares function assumes normal (Gaussian) distribution of the error term and its expected value of zero. The variance of the error term is assumed to be constant (σ^2 = constant) across all the expected values of the dependent variable (homoscedasticity assumption). In real-life data the distribution of the error term may not be normal. As shown by Manning and Mullahy (2001), expenditure may have many zero values and typically has positively skewed distribution. The true measurements will often have non-normal error distribution because, as pointed out by McCullagh and Nelder (1983), error not only means residuals, or the sum of squares for (y − ŷ) for each individual observation, but a more general error, the unobserved error, e.g. something that makes residuals deviate from the constant further as X increases. As an attempt to return to normality of distribution, in OLS modelers estimate log-transformed dependent variables, which often helps approximate the normality of the probability density function ("bell"-shape). For example, income distribution is typically log-normal. However, when the expenditure data shows many zeros, these can both be explained by either zero average expenditure on the given category or the fact that the spending did not occur at the time of the survey (Deaton, 1997; Shinobu, 2009). Log-transformation will exclude observations for both reasons, but addition of one (often employed in log-transformation process for the purpose of keeping the observations with zero-values of expenditure) is likely

to distort the normality of the probability density function in case of numerous zero-values. Thus, one may still face a corner solution and be forced to use Tobit models (a maximum likelihood estimation method) or a two-step selection model. Another solution suggests inspecting the actual distribution of data values that allows approximating it to the other standard distributions. As summarized by McCullagh and Nelder (1983:3), "statistical models contain both systematic and random elements, and their value lies in allowing us to replace the individual data value by a summary that describes their general characteristics in terms of a limited number of quantities". In other words, we may generate a pattern of the data which can to some extent replace the data itself.

Admitting the major limitations of expenditure data (the varying degrees of skewness, heteroscedasticity on the log-scale and heavy-tailed distributions for log (y)), GLM is recommended when the error term is heteroscedastic (Manning, 2006; Manning and Mullahy, 2001; McCullagh and Nelder, 1983; Mihaylova et al., 2011). One benefit of GLM over the classic OLS linear models is that the distribution is allowed to be non-normal. Secondly, the distribution of the error term and the link function between the predictors and the outcome variables can be defined arbitrary that allows better fit to the actual data.

With expenditure we are primarily interested in prediction of a constant rate of increase in relation to the change in the dependent variables; these are often estimated as Engel curves. Rate of increase can either be the proportion of income spent on an expenditure category or log of response, reflected in log-linear, or exponential-response, model

$$\ln(y) = x\delta + \varepsilon \qquad\qquad (4.3)$$

As the dependent variable is expectation of y conditional on x $=E(y|x)$, it is proportional to the exponential of its log-scale prediction

$$E(y|x) = \exp(x\delta + \varepsilon) \qquad\qquad (4.4)$$

The distribution of $x\delta+\varepsilon$ is called the exponential family.

OLS standard assumptions require the error term ε be homoscedastic, but if this assumption is violated, then equation (4.3) turns to (4.5):

$$\ln(y) = x\delta + \ln(x) \ , \qquad\qquad (4.5)$$

meaning that the error term becomes a function of the predictor value. In this case OLS estimator becomes biased.

While in classic linear models y is an independently normally distributed variable with $E(y)=\mu$ where $\mu=x\beta$ (μ – is the predicted mean value based on parameter coefficients), in generalized models the idea is to separate modelling into three steps (McCullagh and Nelder, 1983). While OLS makes assumptions about the random component, for example, that the outcome variable Y has independent normal distribution, constant variance σ^2 and $E(Y)=\mu$, GLM considers the following components:

1. The linear predictor to capture the systematic component. The linear component will be modelled from regressors /covariates $x_1, x_2, \ldots, x_p$

$$\eta = \sum_{j=1}^{p} \beta_j \, x_j \tag{4.6}$$

2. The link between the random and the systematic components, the link function g is defined, thus, as $\eta_i = g(\mu_i)$ where $\mu_i = E(y_i)$

   The link function g describes how the expected value of a response y_i is related to the linear predictor η.

3. The response variable y_i has a probability distribution where variance depends on the mean μ_i:

$$Var\,(y_i) = \phi V(\mu_i) \tag{4.7}$$

   and ϕ is the dispersion parameter. The distribution of variance for y_i can be defined by its exponential family (for example, gamma, Poisson distribution or inverse Gaussian).

In other words, GLM allows the linear model to be related to the dependent variable via a link function and also allows the variance for each observation to be a function of its predicted value. In GLM the mean and the variance function are specified for a raw-scale variable Y, conditional on X, and the variance function can be described in the following structure:

$$v(y|x) = \sigma^2 \, v(x) \tag{4.8}$$

When $v(x) = 1$, then variance of y conditional on x is homoscedastic (this corresponds to the assumption of OLS estimator), or unrelated to x. This may not be the case and variance of y conditional on x may be defined by the dispersion parameter and also depend on x, e.g. $v(y|x) = k_1\mu(x)$ would express the variance proportional to x. GLMs allow the choice for probability density function of the error term which is encoded in the choice for the exponential family – the most common exponential families include Gaussian, poisson, gamma and inverse Gaussian (McCullagh & Nelder, 1983; Nelder & Wedderburn, 1972). The dispersion and "overdispersion" in general form can be expressed as:

$$v(y|x) = k(\mu(x\beta))^\lambda \tag{4.9}$$

where λ is finite and non-negative. Thus, if λ=0, $v(y|x) = k$ and variance is, thus, homoscedastic (characteristic to Gaussian, or normal, distribution). When λ=1, variance grows proportionally to the mean (Poisson distribution); if when λ=2 – variance is a function of mean-squared (Gamma distribution) and when λ=3 we observe the inverse Gaussian, or Wald, distribution, where variance grows proportionally to the cubic of the predicted mean (Manning and Mullahy, 2001; McCullagh and Nelder, 1983). Modified Park test is often used to define the better suited type of the exponential family, as under GLM-assumptions a response variable can have an arbitrary distribution (Manning and Mullahy, 2001). Thus, for example, if the data shows that the linear predictor η predicts log Y (log- link function), or Y-square, with a better fit than Y itself (identity-link function), then the model better suited for the data at hand can be chosen.

There are tests to define the distributional family (or the type of heteroscedasticity present in the data) and the most appropriate link-function. Modified Park test detects heteroscedasticity - it predicts the square of residuals as a function of log of predictions using GLM with a log-link and the gamma family. As specified by Manning and Mullahy (2001), residuals and predictions on the untransformed scale for y are estimated and a specific form of heteroscedasticity is tested, namely, whether the raw-scale variance (variance of the untransformed response variable) is a power function of the raw-scale mean function. The Pearson correlation test (correlation between raw-scale/untransformed predictions and residuals) and the Pregibon's Link Test (that explores the model with predictions and squared values for predictions as the two covariates) are typically employed as goodness-of-fit tests. They are helpful in exploring whether changes in the link-function improve the model.

To arrive to the classic OLS model from the GLM, the identity link and the gaussian family (normal distribution) are specified. OLS is thus considered a special case of the generalized linear model, but the case with strong assumptions. Expenditure (where many zero values characterize datasets and distribution is highly positively skewed) have previously been successfully modelled using GLMs with a log-link and the gamma family (e.g. Manning and Mullahy, 2001; Sanwald and Theurl, 2017).

4.4.4.2. GLM regressions and pairwise comparison of occupational effects

In our case a GLM-model for each of the expenditure aggregates can be specified as follows:

$$\eta = \sum_{j=1}^{p} \beta_j \, x_j \qquad\qquad (4.10)$$

where is η the linear component. The linear component η is defined by the following regressors: x_p - log family income, age, education, occupation and the other characteristics of household j specified earlier for the SUR-model (Eq. 4.1). The log-link function and the gamma exponential family ($\lambda=2$) are initially employed. However, in line with Manning and Mullahy (2001), while most often the gamma-family shows the best fit, the Modified Park test is undertaken to define the most appropriate exponential family.

As the Modified Park test was undertaken for the response variables in the French sample (**Table 4.13**), it showed a lack of homoscedasticity at p=0.000. Gamma-family was identified as the best solution for the visible and the socialization-related aggregates. For the presentational and the informational expenditure aggregates, Poisson exponential family offers a better fit (Chi2 for the Poisson family has the lowest values compared to the other families - 41.27 and 7.15 for the models of presentational and informational goods respectively). The choice of the exponential family is also confirmed by the value of the coefficient for the Modified Park test (the coefficient closer to one indicates a better fit of the Poisson exponential family, closer to two – gamma family). Statistically insignificant Pearson correlation coefficient indicates a substantial goodness of fit. Pearson correlation coefficient is insignificant for the presentational aggregate (p=0.902), which shows a substantial goodness-of-fit. While correlation between predicted values and the residuals is statistically significant for the other response variables, still the magnitude is relatively low. Pregibon's test shows

that non-linearity is the case for the majority of the aggregates, which justifies the choice of log-link (compared to identity-link).

The tests for the models of the Hungarian sample (**Table 4.13**) suggest using the gamma-family for the visible and the presentational and the Poisson-family in the other two expenditure aggregates. In the British sample models fit the data much better when the gamma exponential family is employed for all the aggregates (gamma-family has the lowest value of Chi2 in the results of the Modified Park test). Log-link is preserved across the models as it allows meaningful interpretation of results – namely, capturing percentage change in the income-regressor and the percentage change in the response variable.

Having addressed the heteroscedasticity issue in the data, the elasticity coefficients show lower values compared to the OLS-estimator. However, the signs of the estimates and the major relative differences in the magnitude of coefficients related to age, education and gender across the models are preserved in the results of GLMs (**Tables 4.13** and **4.14**), in line with the results of the SUR-models (**Tables 4.8** and **4.9**).

In relation to the effect of household size, the patterns revealed by the SUR-models are slightly refined. In GLM-models, in line with prior findings (in Section 4.4.2), for Hungary an increase in the household size is associated with the increase in expenditure on informational goods (increase of 17%) and the decrease in the socialization-related aggregate. In France the prior finding that investments in presentational and informational goods are positively associated with the increase in household size is supported. However, while the SUR-model has shown a positive effect of household size on the socialization-related expenditure, GLM shows that this category is mainly unaffected by the increase in household size. GLM shows that Britain is the only national context out of the three where the increase in the number of family members is positively associated with the socialization-related household spending. This re-emphasizes the importance of networking and socialization in the context.

While observing the similarities in the patterns of SUR and GLM results, importantly, the contrasts between occupational effects identified from the SUR-models (**Table 4.10**) find support in GLM-based between-occupational contrasts (**Table 4.15**). Moreover, in addition to supporting the findings from the hypotheses testing, some additional important effects become more pronounced as the models have dealt with the heteroscedasticity issue.

Compared to the SUR-models, the between-occupational contrasts identified from GLMs are slightly lower in magnitude, but the statistical significance remains strong. French and British business professionals spend 7-8% more on the visible (**H1a, H2a**), 13-15% more on presentational (**H1b, H2b**) and 11% more on socialization-related aggregates (**H1c, H2c**) than technical professionals (**Table 4.15**). (The statistical significance at p<0.05 is preserved for all hypotheses, except H1c). In line with expectations related to **H5a, H5b** and **H5c** and the prior SUR-model findings, the between-occupational contrast in relation to these occupational groups is still not observed in the Hungarian sample. The distinctiveness of educational professionals in relation to informational goods in France (**H3**) and Britain (**H4**) is supported.

An interesting result, which has not appeared in the SUR-models, but is well justified by the theory (Bourdieu, 2010), is the statistically significant difference in presentational expenditure between business and educational professionals in the British and the French contexts. In France business-people spend 20% more than teachers and academics, while in Britain they spend 9% more (**Table 4.15**). The pairwise comparisons based on SUR-models (**Table 4.10**) have only shown 13% and 7% difference respectively with the contrast being statistically insignificant (p=0.111 and p=0.161 respectively). Even after addressing the heteroscedasticity issue, distinctively higher income-elasticity of visible and presentational expenditure remains the case for Hungary (**H8a** and **H8b**). In relation to **H12,** the difference in income-sensitivity of informational goods between France and Britain remains substantial (0.60 versus 0.47).

To summarize, despite the heteroscedasticity problem in the data, which may have affected the results of the SUR-models (in Section 4.4.2), the robustness check using GLM-approach supports the validity of findings obtained using the OLS estimation method (SUR-models). SURE-model has higher efficiency of coefficient estimators in the system of regression equations compared to estimators obtained from equation-by-equation approach (Zellner, 1962). While GLM allows more precision due to tackling the heteroscedasticity issue, it still estimates parameters equation-by-equation. Our hypothesis testing, however, requires exploration of residual correlations and the postestimation analysis of SUR-model allows residual correlations readily available from the system of equations, which suggests some benefits of the SUR-model. While the magnitude of coefficient estimates differs between the models, the statistical significance and the magnitude of between-occupational contrasts (which are the primary interest of exploration) remain consistent between the SUR and GLM models. This allows considering both models and prioritizing SURE due to its postestimation opportunities together with accounting for correlation of disturbance terms.

Table 4.13. Generalised Linear Model results for four expenditure aggregates in France and Hungary

	France				Hungary			
	Log Visible	Log presen-tation	Log sociali-zation	Log infor-mation	Log Visible	Log presen- tation	Log sociali-zation	Log infor-mation
Log family income	0.792***	0.527***	0.938***	0.598***	0.919***	0.771***	1.021***	0.507***
	(0.017)	(0.033)	(0.051)	(0.067)	(0.031)	0.031	(0.091)	(0.048)
Age	-0.028***	-0.018**	-0.071***	0.088***	-0.038***	-0.064***	-0.095***	-0.002
	(0.004)	(0.007)	(0.012)	(0.016)	(0.005)	0.005	(0.016)	(0.008)
1. Managers	0.166***	0.289***	0.395***	0.347**	0.173***	0.237***	0.309**	0.107
	(0.037)	(0.056)	(0.105)	(0.156)	(0.058)	0.078	(0.142)	(0.075)
2. Educational professionals	0.144***	0.123**	0.363***	0.734***	0.021	0.100	0.023	0.066
	(0.041)	(0.059)	(0.107)	(0.177)	(0.055)	0.068	(0.146)	(0.082)
3. Technical professionals	0.113***	0.191***	0.308***	0.101	0.076*	0.104**	0.165	-0.005
	(0.029)	(0.049)	(0.096)	(0.123)	(0.045)	0.050	(0.126)	(0.068)
4. Business professionals	0.184***	0.322***	0.417***	0.363**	0.092**	0.150***	0.148	0.038
	(0.031)	(0.050)	(0.098)	(0.143)	(0.045)	0.053	(0.126)	(0.073)
5. Health, legal, soc. cult. profs	0.193***	0.188***	0.406***	0.463***	0.102**	0.161**	0.260*	0.090
	(0.034)	(0.058)	(0.101)	(0.139)	(0.050)	0.064	(0.139)	(0.073)
6. Clerks	0.110***	0.166***	0.187	0.133	0.067	0.113**	0.109	0.037
	(0.034)	(0.055)	(0.115)	(0.154)	(0.046)	0.057	(0.135)	(0.077)
7. Service Sales	0.087***	0.161***	0.234**	-0.031	0.127***	0.076*	0.208	0.063
	(0.029)	(0.050)	(0.097)	(0.128)	(0.040)	0.041	(0.141)	(0.054)
9. Plant Machine Operators	0.034	0.078	0.020	-0.146	0.025	0.004	0.055	0.027
	(0.030)	(0.052)	(0.105)	(0.161)	(0.035)	0.038	(0.117)	(0.047)
10. Elementary occupations	-0.054*	0.016	-0.122	-0.125	-0.107**	-0.036	-0.152	-0.086
	(0.032)	(0.065)	(0.112)	(0.195)	(0.042)	0.049	(0.159)	(0.064)
11. Armed Forces	-0.032	0.081	0.200	0.290	0.120	0.151	-0.242	0.070
	(0.084)	(0.097)	(0.352)	(0.236)	(0.081)	0.095	(0.202)	(0.130)
2. Lower secondary	0.141**	0.245***	0.351*	0.380**	0.137***	0.071*	0.028	0.252***
	(0.058)	(0.094)	(0.206)	(0.168)	(0.036)	0.040	(0.144)	(0.050)
3. Upper secondary	0.151***	0.202**	0.358*	0.146	0.242***	0.210***	0.418***	0.388***
	(0.054)	(0.087)	(0.196)	(0.137)	(0.039)	0.046	(0.149)	(0.058)
4. Post-secondary non-tertiary	0.149***	0.233**	0.445**	0.355**	0.336***	0.188***	0.493***	0.457***
	(0.056)	(0.091)	(0.197)	(0.149)	(0.054)	0.061	(0.174)	(0.076)

Table 4.13. Generalised Linear Model results for four expenditure aggregates in France and Hungary (continued)

5. Tertiary stage 1	0.131**	0.204**	0.498**	0.321**	0.396***	0.254***	0.753***	0.602***
	(0.058)	(0.095)	(0.201)	(0.158)	(0.050)	0.060	(0.168)	(0.076)
6. Tertiary stage 2	0.117**	0.200**	0.541***	0.497***	0.520***	0.473***	0.950***	0.802***
	(0.057)	(0.093)	(0.198)	(0.156)	(0.054)	0.064	(0.175)	(0.079)
7. Unallocated	0.070	0.234***	0.273	0.205				
	(0.054)	(0.088)	(0.195)	(0.144)				
Gender: Female	-0.001	0.121***	-0.151***	0.067	-0.053**	0.018	-0.259***	0.132***
	(0.018)	(0.030)	(0.050)	(0.089)	(0.024)	0.028	(0.074)	(0.038)
Single	0.051***	0.034	-0.115**	-0.136*	-0.151***	-0.100***	0.012	-0.099***
	(0.018)	(0.029)	(0.055)	(0.076)	(0.023)	0.026	(0.072)	(0.038)
Household size	0.052***	0.129***	-0.002	0.121***	-0.016*	0.073***	-0.141***	0.170***
	(0.007)	(0.011)	(0.022)	(0.025)	(0.009)	0.009	(0.035)	(0.016)
W/children	0.046	-0.005	0.104	0.029	-0.109*	-0.110	-0.070	-0.256***
	(0.041)	(0.088)	(0.134)	(0.200)	(0.064)	0.071	(0.250)	(0.095)
Regional controls								
Constant	0.625***	1.679***	-2.736***	-1.803**	-0.768***	-0.912***	-3.669***	-0.994**
	(0.176)	(0.343)	(0.545)	(0.719)	(0.279)	0.281	(0.826)	(0.429)
Observations	9,314	9,314	9,314	9,314	6,648	6,648	6,648	6,648
Variance function	[Gamma]	[Poisson]	[Gamma]	[Poisson]	[Gamma]	[Gamma]	[Poisson]	[Poisson]
Link function	[Log]	[Log]	[Log]	[Log]	[Log]	[Log]	[Log]	[Log]
Log-likelihood	-96273	-8920815	-75146	-3408697	-57143	-47400	-1226564	-339634
Modified Park Test, coef.	1.71 *p=0.000*	1.457 *p=0.000*	1.515 *p=0.000*	1.370 *p=0.000*	1.61 *p=0.000*	1.667 *p=0.000*	1.325 *p=0.000*	1.439 *p=0.000*
Modified Park Test, Chi2-value for each exponential family (for all coefficients p=0.000):								
- Gaussian	1905.22	420.1	207.34	97.86	848.55	437.33	338.81	513.93
- Poisson	330.99	**41.27**	24.02	**7.15 *p=0.008***	121.89	70.03	**20.42**	**47.85**
- Gamma	**52.74**	58.47	**21.14**	20.67	**49.69**	**17.43**	87.78	78.07
- Inverse Gaussian	1070.48	471.61	198.73	138.42	631.95	279.52	540.9	604.6
Testing goodness-of-fit Pearson correlation test Pregibon test	-0.0942 *p=0.000*	-0.0175 *p=0.092*	0.101 *p=0.000*	-0.0017 *p=0.868*	-0.109 *p=0.000*	-0.0763 *p=0.000*	-0.010 *p=0.400*	-0.034 *p=0.005*
xb	3.215 *p=0.000*	2.691 *p=0.000*	2.354 *p=0.000*	0.878 *p=0.081*	1.629 *p=0.000*	2.217 *p=0.000*	0.922 *p=0.009*	2.422 *p=0.000*
xb-squared	-0.119 *p=0.000*	-0.111 *p=0.000*	-0.096 *p=0.002*	0.009 *p=0.844*	-0.043 *p=0.019*	-0.101 *p=0.000*	0.004 *p=0.91*	-0.153 *p=0.000*

Note. Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Table 4.14. Generalised Linear model results for four expenditure aggregates in Britain

	Log Visible expenditure		Log Presentation		Log Socialization		Log Information	
	M.E.	S.E.	M.E.	S.E.	M.E.	S.E.	M.E.	S.E.
Log family income	0.787***	0.01	0.708***	0.018	0.854***	0.019	0.473***	0.025
Managers	0.041**	0.02	0.075*	0.042	0.060*	0.033	0.074*	0.043
Educational professionals	0.022	0.026	-0.003	0.051	0.067	0.045	0.293***	0.061
Science, engineering and ICT profs	-0.024	0.023	-0.058	0.045	0.026	0.038	0.114**	0.049
Business professionals	0.059**	0.024	0.091*	0.048	0.139***	0.039	0.134***	0.049
Health, legal, soc, cult profs	0.027	0.020	0.052	0.043	0.032	0.033	0.152***	0.044
Admin secretarial	0.002	0.023	0.018	0.047	0.05	0.039	0.118***	0.046
Services & Sales	-0.051**	0.022	-0.023	0.044	-0.099***	0.037	0.049	0.046
Machine operatives	-0.063***	0.022	-0.072	0.045	-0.132***	0.042	-0.150***	0.045
Elementary	-0.178***	0.022	-0.053	0.046	-0.271***	0.042	-0.049	0.055
age of HRP	0.005***	0.000	0.001	0.001	0.004***	0.001	0.024***	0.001
2.educ	0.014	0.012	0.041*	0.025	0.042*	0.022	0.088***	0.027
3.educ	-0.047***	0.014	-0.036	0.023	0.096***	0.024	0.196***	0.032
2.gender	0.064***	0.012	0.250***	0.023	-0.055***	0.021	0.089***	0.028
Marital status (married=1)	0.107***	0.012	0.043**	0.022	-0.044**	0.021	0.152***	0.027
Household size	0.080***	0.008	0.213***	0.014	0.120***	0.014	0.140***	0.020
Number of children	-0.035***	0.009	-0.050***	0.015	-0.136***	0.016	-0.005	0.022
Controls: region and year	Yes		Yes		Yes		Yes	
Observations	23,400		23,400		23,400		23,400	
Log pseudolikelihood =	-147455		-108335		-102274		-59733	
Modified Park Test, Coef. at p=0.000	1.761		1.64		1.535		1.521	
Modified Park Test results (Chi2 for exponential family and p-value)								
- Gaussian	5418.25	0.000	608.55	0.000	623.67	0.000	487.55	0.000
- Poisson	1011.26	0.000	92.69	0.000	75.82	0.000	57.21	0.0000
- Gamma	100.16	0.000	29.31	0.000	57.12	0.000	48.34	0.000
- Inverse Gaussian	2684.97	0.000	418.39	0.000	567.57	0.000	460.93	0.000
Tests on goodness-of-fit when log-link used:								
Pearson Correlation test	-0.205	0.000	-0.1244	0.000	-0.1703	0.000	-0.0601	0.000
Pregibon test:								
xb (coef. and p-value)	2.185	0.000	2.203	0.000	1.729	0.000	1.368	0.000
xb-squared (coef. and p-value)	-0.115	0.000	-0.168	0.000	-0.114	0.000	-0.124	0.000

Note. All GLM models employ the gamma variance function and the log-link function. Robust standard errors are provided. *** p<0.01, ** p<0.05, * p<0.1

Table 4.15. Pairwise comparison of occupational effects estimated from GLMs

	France				Hungary				UK			
	Contrast	S.E.	z	P>z	Contrast	S.E.	z	P>z	Contrast	S.E.	z	P>z
Visible expenditure aggregate												
Educational profs vs Managers	-0.022	0.053	-0.42	0.677	-0.152***	0.057	-2.65	0.008	-0.019	0.024	-0.80	0.425
Technical profs vs Managers	-0.053	0.040	-1.31	0.190	-0.097*	0.054	-179	0.074	-0.065***	0.021	-3.14	0.002
Business profs vs Managers	0.018	0.041	0.45	0.650	-0.080	0.054	-1.49	0.137	0.018	0.022	0.82	0.413
Technical vs Educational profs	-0.031	0.050	-0.61	0.540	0.055	0.051	109	0.275	-0.046*	0.026	-1.77	0.077
Business vs Educational professionals	0.040	0.050	0.81	0.419	0.071	0.048	1.48	0.138	0.037	0.027	1.38	0.169
Business vs Technical profs	0.071**	0.036	1.96	0.050	0.016	0.044	0.37	0.713	0.083***	0.024	3.44	0.001
Presentational expenditure												
Educational profs vs Managers	-0.166***	0.060	-2.78	0.005	-0.138*	0.076	-1.82	0.069	-0.078*	0.042	-1.85	0.065
Technical profs vs Managers	-0.098*	0.054	-1.82	0.068	-0.133*	0.071	-1.88	0.061	-0.133***	0.035	-3.79	0.000
Business profs vs Managers	0.033	0.054	0.62	0.538	-0.088	0.073	-1.20	0.229	0.016	0.036	0.43	0.664
Technical vs Educational profs	0.068	0.057	1.20	0.229	0.004	0.062	0.07	0.945	-0.055	0.045	-1.23	0.220
Business vs Educational professionals	0.199***	0.055	3.59	0.000	0.050	0.062	0.81	0.419	0.094**	0.046	2.03	0.042
Business vs Technical profs	0.131***	0.048	2.71	0.007	0.046	0.049	0.94	0.349	0.149***	0.04	3.72	0.000
Socialization expenditure												
Educational profs vs Managers	-0.032	0.097	-0.32	0.745	-0.286**	0.141	2.02	0.043	0.007	0.042	0.16	0.873
Technical profs vs Managers	-0.087	0.089	-0.98	0.327	-0.144	0.126	-1.15	0.252	-0.034	0.035	-0.96	0.335
Business profs vs Managers	0.022	0.090	0.25	0.804	-0.161	0.125	-1.28	0.199	0.079**	0.036	2.18	0.029
Technical vs Educational profs	-0.056	0.091	-0.61	0.542	0.142	0.127	1.12	0.264	-0.040	0.045	-0.90	0.370
Business vs Educational professionals	0.054	0.089	0.61	0.544	0.125	0.124	1.01	0.313	0.072*	0.046	1.58	0.115
Business vs Technical profs	0.109	0.082	1.34	0.180	-0.017	0.114	-0.15	0.883	0.113***	0.040	2.83	0.005
Informational aggregate												
Educational profs vs Managers	0.387***	0.147	2.64	0.008	-0.042	0.082	-0.51	0.613	0.199***	0.051	3.93	0.000
Technical profs vs Managers	-0.246**	0.114	-2.2	0.032	-0.112	0.081	-1.39	0.165	0.048	0.043	1.12	0.265
Business profs vs Managers	0.016	0.117	0.14	0.891	-0.069	0.084	-0.82	0.413	0.065	0.045	1.46	0.144
Technical vs Educational profs	-0.633***	0.142	4.45	0.000	-0.071	0.081	-0.87	0.384	-0.151***	0.055	-2.75	0.006
Business vs Educational professionals	-0.371***	0.140	2.66	0.008	-0.027	0.084	-0.32	0.748	-0.134**	0.056	-2.39	0.017
Business vs Technical profs	0.262**	0.106	2.46	0.014	0.043	0.079	0.55	0.584	0.017	0.050	0.34	0.732

Note. Pairwise comparison of marginal occupational effects is undertaken based on the generalised linear models for the four expenditure aggregates. All models use log-link function. For the French sample the models use gamma-family for visible and socialization-related expenditure aggregates, Poisson-family for the presentational and the informational expenditure aggregates. For the Hungarian sample the models use gamma-family for the visible and the presentational expenditure aggregates, Poisson-family for socialization-related and informational expenditure aggregates. In the UK sample, all models employ gamma family and log-link.

4.5. Conclusion

In this chapter the between-country differences in consumption of visible and capital-signalling commodities were hypothesized based on the differences in national institutional settings – both formal, as related to the dimensions in the models of comparative capitalism, and informal institutions. The representative of a country cluster signified by the features of the liberal market economy, the representative of an economy signified by several distinctive features of the continental European model and a transitional economy were explored and important differences and similarities in relation to consumption strategies at both the country-level and at the level of professional fields were identified.

Institutional setting, together with the pressures and incentives of the professional field, defines the value of capital forms, motivates agents' investment in different types of capital-signalling commodities, and determines the perceived value of commodities as a capital-signalling device. In other words, the same occupational group, by their preferences, in different national contexts experiences the pressure to signal different forms of capitals by different vehicles of capital-signalling.

Differences are identified at the country level and at the level of professional groups. Generally higher dispositions towards conspicuous consumption associated with ex-communist heritage, in line with Friehe and Mechtel (2014), found their reflection in higher income-sensitivity of visible, and in particular, appearance-related commodity groups in Hungary. The mature capitalism is characterized by better shaped professional identities and, as a result, clearer distinctions in preferences and dispositions. Namely, where occupations represent distinctively different combinations of capitals (Bourdieu, 2010; Bourdieu, 2011; Savage et al., 1992), like commercially-oriented business professionals, whose social capital and networking matter for personal and organizational success, or professionals rich in technical capital or humanitarian-value laden ascetic educational professionals, the mature forms of capitalism, high intensity of employer initiatives in continuing training (Aventur et al., 1999) and, as a results, better socialization into profession (Brown, 1997) suggest well-shaped professional identities with their characteristic features of lifestyle and dispositions.

Business professionals in Britain and France are distinguished from technical professionals by higher investments in appearance, status-signalling and socialization, i.e. the occupational

field of technical professionals does not assign high value to status-signalling commodities. The structure of economy and industrial relations that stem for that structure define the status of professions – the strong industrial sector in Hungary and traditionally high value of technical knowledge for the economy defines the status to technical professions. Moreover, unlike French or British technical specialists, in Hungary technical professionals are not distinguished by the lower levels of status-signalling. This implies the existence of substantial differences in the occupational identities of technical professionals in the countries of mature capitalism and in transitional economies.

The between-occupational differences identified in the French and the British contexts, thus, re-inforce the claims made in Chapter 2. Consumption behaviour related to capital-signalling ought to consider the social context, where members of occupational fields are viewed as collectivities, which experience similar social forces, have similarity in capital forms, and also dispositions (Savage et al., 2005). The Bourdieusian theory of practice (2010[1984]), thus, bears implications for economic behaviour of groups and explains the important contrasts in their consumption preferences for capital-signalling commodities. The findings, however, also illustrate that economic behaviour of agents is not only defined and constrained the occupational field, but also by the national setting.

The societal norms appropriated in the industrial relations of the national system shape attitudes to capital forms. Anti-intellectualism, as a feature of American and British society (Lamont, 1992; Savage et al., 1992), seems to have diminished the signalling value of informational goods, which were found to have low income-elasticity in the UK. Also, in Britain the growth in family size does not have as strong effect on the dispositions to acquire knowledge as it has on investments in socialization and appearance. In the context of a transitional economy, the increase in the household size rather is associated with relatively high investment in informational goods at the expense of investments into socialization and appearance.

Whether the underlying motivations for consumption of presentational, socialization-related and informational goods are underpinned by the desire to signal status or symbolic capital was investigated using the exploration of residual correlations between the models of expenditure aggregates. Credentialism in the French national system plays an important role in organizational imperatives (Barsoux and Laurence, 1990; 1997), which suggests high value of cultural capital for career advancement. In France investments into augmenting cultural

capital are found to be less used for signalling, but rather are likely to be guided by auto-didacticism or the other internal motives. In a liberal market economy, like Britain, labour fluidity and short-term employment relations (Amable, 2003) force agents rely on signalling capitals – both investments into information acquisition and socialization in the UK are more about "signalling" than due to the other internal motivations. Also, in the French national context, agents see higher instrumental value of presentational goods for capital-signalling, which may reflect between-societal differences in prevalent paradigms about endogeneity/ exogeneity of social capital, as discussed in Eloire (2012).

In the British national context socialization is much more associated with signalling status and one's capitals than in France. This difference signifies the emphasis placed on the value of networking in the national context, where, as a feature of liberal market economy, relatively high labour fluidity on one side and more emphasis on general rather than country-/industry-specific knowledge in education system on the other side motivate individuals to actively engage in networking as a source of career advancement and independent knowledge-building. While there are some substantial differences at the country level, taking narrowly-defined occupational groups as a unit of analysis (inspired by the approach of Chapters 2 and 3) showed the differences in the underlying motivations at the level of professional groups. For example, in France educational professionals view appearance as a more important capital-signalling device than British teachers and academics. French managers view informational goods more as a capital-signalling device compared to general population (full sample), which is not the case in Britain.

The approach of this study is principally different from the culturalist approach to agents' behaviours. As opposed to pan-cultural perspective on societies, as distinguished mainly by (empirically defined) between-country differences in values (e.g. Hofstede's cultural dimensions) and characterized by the assumed within-country homogeneity (McSweeney, 2002), the study promotes a more in-depth analysis of formal and informal institutions and the need to account for individuals' capital composition. Aggregates of individuals distinctive in their combinations of capitals can be beneficially used as units of cross-national comparative analysis. The agents are viewed as aligning their consumption strategy in line with the social forces that stem both from their national institutional setting and employment relations, as well as being embedded in the historical context. The institutional setting guides agents' behaviour in relation to display and augmentation of capital forms and result in distinctive preferences and dispositions. As consumption patterns (especially in relation to capital

signalling) are relevant characteristics of professional fields, such exploratory approach would also address the call for more international and comparative work to develop better understanding of professions (Adams, 2015).

The analytical approach can be further applied to studying more specific professions across a wider variety of national contexts (subject to data availability and sufficient sample sizes). As Amable's (2003) study shows, there are several distinctive models of capitalism signified by differences in fundamental institutional areas, further directions may consider exploring capital-signalling behaviours of professionals from the other models of capitalism – the social-democratic (Sweden, Denmark), the Asian model (South Korea, Japan) - or focus upon similarities and differences within the cluster of countries, which belong to the same model. Moreover, further cross-national comparative research on consumption-related behaviour may devote more attention to as specific professions as accountants or sales professionals given the interest of business scholars in these professional domains.

The three cases studies were chosen to represent the three different types of capitalism models and such representation also partly relies on data availability. While the case of Germany would be of high interest for the comparative analysis, there is, unfortunately, limited comparability of the data collected in relation to occupational membership.

In relation to managerial implications, the findings of the chapter re-inforce that institutions, and informal institutions in particular, step up as the factors that may hinder the transfer of professional practices due to the diversity of national systems, where organizations operate, that constrain/ motivate agents' behaviour. Developing knowledge on economic behaviour of agents, who belong to different professional groups, across national contexts would allow building up cultural intelligence of multinational organizations, design more effective international motivation and reward systems and positively affect the level of social comfort of expatriate employees or members engaged in international assignments.

Appendix D

Table D1. Expenditure categories and their aggregates (description and variables in surveys)

	Categories of expenditure and their aggregates	Variables in databases	
		UK LCF	Eurostat (HU and FR)
	Categories of visible consumption referred to by Hicks and Hicks (2014) and based on Charles et al. (2009) and Heffetz (2011)		
1	Clothing and Footwear (FS3)	FS3	EUR_HE03
2	Personal care (hairdressing, beauty treatment, toiletries, hair products, cosmetics and other) (FSC1)	FSC1	EUR_HE121
3	Personal effects (jewellery, watches, leather and travel goods, sunglasses and other) (FSC2)	FSC2	EUR_HE123
4	Purchase and operation of personal transport (purchase of new and second-hand vehicles, operation of personal transport including spares and accessories, fuel, repairs and other motoring costs) (FS71, FS72)	FS71, FS72	EUR_HE071, EUR_HE072
5	Household goods and services (furniture, textiles, household appliances, tableware, tools and equipment for house and garden, goods and services for routine household maintenance) (FS5)	FS5	EUR_HE05
6	Restaurant and cafe meals (FSB11)	FSB11	EUR_HE1111
7	Alcoholic drinks away from home (FSB12)	FSB12	
8	Recreation and culture	FS9	EUR_HE09
	Expenditure aggregates used in the study:		
1	*Visible expenditure (broad definition) as in Hicks and Hicks (2014) and based on Charles et al. (2009) and Heffetz (2011):* Clothing and Footwear (FS3), Personal Care (FSC1), Personal effects (FSC2), Personal transport (FS71, FS72), Household goods and services (FS5), Restaurant and cafe meals (FSB1), Alcoholic drinks away from home (FSB12), Recreation and culture (FS9)		Clothing and Footwear (EUR_HE03), Personal Care (EUR_HE121), Personal effects (EUR_HE123), Personal transport (EUR_HE071, EUR_HE072), Household goods and services (EUR_HE05), Restaurant and cafe meals (EUR_HE1111), Recreation and culture (EUR_HE09)
2	*Presentational aggregate:* Clothing and Footwear (FS3), Personal Care (FSC1), Personal effects (FSC2)		Clothing and Footwear (EUR_HE03), Personal Care (EUR_HE121), Personal effects (EUR_HE123)
3	*Socialization aggregate:* - Sports admissions, subscriptions (spectator sports, participants sports, subscription to sports and social clubs) (FS941), equipment for sport, camping and open-air recreation (FS933)		- Recreational and sporting services (EUR_HE0941), equipment for sport, camping and open-air recreation (EUR_HE0932)
	- Restaurant and cafe meals (FSB11), Alcoholic drinks away from home (FSB12)		- Restaurant and cafe meals (EUR_HE1111)
4	Informational goods: Books, newspapers and magazines(FS95) and TV, video subscriptions, licences (FS943)		Newspapers, books and stationery (EUR_HE095) and television, radio taxes and hire of equipment (EUR_HE09423)

Note. Eurostat aggregates do not allow distinguishing between alcoholic beverages consumed at home and outside of home, so this subcategory is not included into visible and socialization expenditure for France and Hungary. Admissions to clubs, social events etc. are not outlined as separate categories in Eurostat, so these are not included into the socialization-related aggregate.

Table D2a. Tobit model results for four expenditure aggregates (France and Hungary)

	France				Hungary			
	Log visible	Log presen-tation	Log socializa-tion	Log Informa-tion	Log visible	Log presen-tation	Log socializa-tion	Log Informa-tion
Log Family income	0.837***	0.793***	1.901***	1.374***	0.979***	0.821***	1.790***	0.836***
	(0.030)	(0.049)	(0.130)	(0.126)	(0.032)	(0.037)	(0.208)	(0.080)
1. Managers	0.258***	0.343***	1.515***	0.960***	0.190***	0.236***	0.867**	0.055
	(0.053)	(0.091)	(0.259)	(0.255)	(0.053)	(0.063)	(0.379)	(0.152)
2. Educational professionals	0.251***	0.371***	2.005***	1.942***	0.038	0.062	0.028	0.143
	(0.056)	(0.089)	(0.280)	(0.280)	(0.057)	(0.073)	(0.411)	(0.150)
3. Technical profs	0.199***	0.301***	1.432***	0.891***	0.109**	0.121**	0.558*	-0.042
	(0.044)	(0.088)	(0.222)	(0.219)	(0.047)	(0.055)	(0.335)	(0.137)
4. Business professionals	0.282***	0.497***	1.795***	1.349***	0.125***	0.114*	0.922***	-0.039
	(0.047)	(0.080)	(0.229)	(0.222)	(0.047)	(0.062)	(0.344)	(0.133)
5. Health, legal, soc,cult profs	0.260***	0.330***	1.791***	1.515***	0.113**	0.117	0.418	-0.068
	(0.054)	(0.093)	(0.247)	(0.249)	(0.055)	(0.075)	(0.367)	(0.149)
6. Clerks	0.182***	0.292***	1.244***	0.790***	0.077	0.036	0.293	-0.062
	(0.052)	(0.094)	(0.268)	(0.267)	(0.048)	(0.068)	(0.368)	(0.141)
7. Services Sales	0.132**	0.307***	0.804***	0.151	0.126***	0.077*	0.438	0.130
	(0.052)	(0.085)	(0.243)	(0.234)	(0.039)	(0.045)	(0.296)	(0.107)
9. Plant MachineOperators	0.058	0.119	0.191	-0.186	0.034	-0.026	0.248	0.092
	(0.053)	(0.095)	(0.261)	(0.244)	(0.034)	(0.041)	(0.272)	(0.097)
10. Elementary Occs	-0.018	0.029	0.122	-0.116	-0.124***	-0.107**	-0.922***	-0.248*
	(0.055)	(0.103)	(0.279)	(0.264)	(0.047)	(0.054)	(0.353)	(0.129)
11. Armed Forces	0.073	0.297**	0.520	0.842	0.157*	0.110	0.032	-0.077
	(0.100)	(0.150)	(0.623)	(0.592)	(0.081)	(0.119)	(0.608)	(0.262)
Age	-0.040***	-0.036***	-0.236***	0.194***	-0.043***	-0.078***	-0.355***	-0.002
	(0.007)	(0.012)	(0.032)	(0.032)	(0.005)	(0.006)	(0.037)	(0.015)

Table D2a. Tobit model results for four expenditure aggregates (France and Hungary) (Continued)

2. Lower secondary	0.304**	0.434**	1.589***	0.493	0.159***	0.047	0.096	0.379***
	(0.131)	(0.191)	(0.549)	(0.465)	(0.037)	(0.043)	(0.292)	(0.104)
3. Upper secondary	0.297**	0.361*	1.690***	0.267	0.287***	0.231***	1.338***	0.704***
	(0.129)	(0.189)	(0.524)	(0.440)	(0.041)	(0.050)	(0.320)	(0.118)
4. Post-secondary non-tertiary	0.312**	0.404**	2.268***	0.497	0.351***	0.235***	2.174***	0.746***
	(0.130)	(0.191)	(0.533)	(0.455)	(0.055)	(0.062)	(0.389)	(0.155)
5. Tertiary stage 1	0.264**	0.394**	2.357***	0.416	0.425***	0.275***	2.497***	0.943***
	(0.132)	(0.195)	(0.540)	(0.467)	(0.053)	(0.066)	(0.388)	(0.147)
6. Tertiary stage 2	0.289**	0.316	2.267***	0.632	0.594***	0.562***	3.338***	1.299***
	(0.131)	(0.194)	(0.537)	(0.461)	(0.056)	(0.072)	(0.414)	(0.158)
7. Unallocated	0.197	0.266	1.561***	0.009				
	(0.130)	(0.191)	(0.524)	(0.442)				
Gender (Female)	0.032	0.318***	-0.095	0.169	-0.030	0.005	-0.486***	0.441***
	(0.028)	(0.047)	(0.133)	(0.132)	(0.025)	(0.031)	(0.178)	(0.070)
Single	0.050*	0.101**	-0.126	-0.003	-0.194***	-0.128***	0.017	-0.186***
	(0.027)	(0.043)	(0.136)	(0.131)	(0.024)	(0.029)	(0.184)	(0.071)
Household size	0.080***	0.240***	0.179***	0.228***	-0.009	0.082***	-0.121*	0.374***
	(0.011)	(0.019)	(0.054)	(0.052)	(0.010)	(0.010)	(0.071)	(0.028)
W/children	0.034	0.012	0.093	-0.405	-0.115	-0.212*	-1.472***	-0.293
	(0.070)	(0.140)	(0.355)	(0.398)	(0.076)	(0.121)	(0.525)	(0.207)
Controls (regions)	Yes	Yes	Yes	Yes				
Constant	-0.369	-2.178***	-17.591***	-15.152***	-1.602***	-1.612***	-14.301***	-6.147***
	(0.326)	(0.525)	(1.407)	(1.345)	(0.285)	(0.334)	(1.877)	(0.734)
Observations	9,314	9,314	9,314	9,314	6,648	6,648	6,648	6,648

Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Table D2b. Occupational contrasts based on Tobit model results for four expenditure aggregates (France and Hungary)

	France					Hungary			
	Contrast	S.E.	z	P>z		Contrast	S.E.	z	P>z
Visible expenditure aggregate									
Educational profs vs Managers	-0.007	0.054	-0.13	0.897		-0.152***	0.053	-2.87	0.004
Technical profs vs Managers	-0.058	0.047	-1.25	0.211		-0.081*	0.049	-1.64	0.100
Business profs vs Managers	0.024	0.046	0.51	0.607		-0.065	0.049	-1.31	0.190
Technical vs Educational profs	-0.052	0.050	-1.03	0.303		0.071	0.050	1.42	0.155
Business vs Educational professionals	0.031	0.049	0.63	0.531		0.087*	0.049	1.77	0.076
Business vs Technical profs	0.082**	0.040	2.05	0.040		0.016	0.045	0.36	0.719
Presentational expenditure									
Educational profs vs Managers	0.028	0.087	0.32	0.748		-0.174***	0.066	-2.65	0.008
Technical profs vs Managers	-0.043	0.084	-0.51	0.611		-0.115**	0.055	-2.11	0.035
Business profs vs Managers	0.153**	0.078	1.96	0.050		-0.122**	0.061	-2.01	0.044
Technical vs Educational profs	-0.071	0.083	-0.85	0.394		0.059	0.062	0.94	0.345
Business vs Educational professionals	0.125*	0.073	1.72	0.085		0.052	0.065	0.8	0.423
Business vs Technical profs	0.196***	0.075	2.6	0.009		-0.006	0.055	-0.12	0.907
Socialization expenditure									
Educational profs vs Managers	0.490*	0.267	1.83	0.067		-0.839**	0.395	-2.13	0.034
Technical vs Educational profs	-0.573**	0.253	-2.26	0.024		0.530	0.367	1.44	0.149
Business vs Educational professionals	-0.210	0.247	-0.85	0.395		0.894**	0.360	2.48	0.013
Business vs Technical profs	0.363*	0.199	1.82	0.069		0.364	0.320	1.14	0.255
Informational aggregate									
Educational profs vs Managers	0.983***	0.282	3.49	0.000		0.088	0.145	0.61	0.544
Technical profs vs Managers	-0.069	0.235	-0.29	0.770		-0.097	0.147	-0.66	0.511
Business profs vs Managers	0.390*	0.229	1.7	0.090		-0.094	0.147	-0.64	0.521
Technical vs Educational profs	-1.052***	0.265	-3.96	0.000		-0.184	0.140	-1.32	0.187
Business vs Educational professionals	-0.593**	0.257	-2.31	0.021		-0.182	0.138	-1.32	0.188
Business vs Technical profs	0.459**	0.206	2.22	0.026		0.002	0.139	0.02	0.987

Note. Full results of Tobit models are provided in Table D2a. Shaded cells refer to hypothesis testing (H1, H3, H5 and H6). *** p<0.01, ** p<0.05, * p<0.1

Table D3a. Tobit models for four expenditure aggregates (UK)

	Log Visible	Log Presentation	Log Socializ.	Log Info
Log family income	0.814***	0.674***	1.060***	0.400***
	(0.009)	(0.017)	(0.020)	(0.014)
1.Managers	0.035*	0.050	0.128***	0.048
	(0.020)	(0.035)	(0.042)	(0.030)
2.Educational professionals	0.044	0.069	0.204***	0.261***
	(0.028)	(0.048)	(0.057)	(0.041)
3. Technical profs	-0.017	-0.056	0.146***	0.068**
	(0.023)	(0.039)	(0.047)	(0.034)
4.Business professionals	0.067***	0.131***	0.288***	0.125***
	(0.024)	(0.041)	(0.050)	(0.036)
5. HLSC profs	0.061***	0.094***	0.171***	0.132***
	(0.021)	(0.036)	(0.043)	(0.031)
6.Admin and secretarial	0.017	0.062	0.166***	0.133***
	(0.023)	(0.040)	(0.048)	(0.035)
7.Services & Sales	-0.075***	-0.030	-0.090**	0.037
	(0.020)	(0.037)	(0.044)	(0.032)
9.Skilled trades	0.000	0.000	0.000	0.000
	(0.000)	(0.000)	(0.000)	(0.000)
10.Machine operatives	-0.067***	-0.092**	-0.208***	-0.155***
	(0.022)	(0.039)	(0.047)	(0.034)
11.Elementary	-0.203***	-0.084**	-0.405***	-0.093***
	(0.022)	(0.038)	(0.046)	(0.033)
Age	0.004***	-0.001*	-0.000	0.023***
	(0.000)	(0.001)	(0.001)	(0.001)
Education (completed 16-19y.o)	0.020	0.039*	0.063**	0.036*
	(0.013)	(0.022)	(0.027)	(0.019)
Education (completed 20+y.o)	-0.069***	-0.052**	0.079***	0.019
	(0.014)	(0.024)	(0.029)	(0.021)
Gender (Female)	0.093***	0.332***	-0.042*	0.074***
	(0.012)	(0.021)	(0.025)	(0.018)
Single	0.135***	0.166***	-0.035	0.187***
	(0.012)	(0.021)	(0.026)	(0.019)
Household size	0.113***	0.336***	0.158***	0.119***
	(0.008)	(0.013)	(0.016)	(0.011)
Number of children	-0.049***	-0.080***	-0.153***	0.011
	(0.009)	(0.015)	(0.019)	(0.013)
Controls: regions (12), year of survey (8)	Yes	Yes	Yes	Yes
Constant	-0.795***	-2.434***	-4.660***	-2.712***
	(0.065)	(0.114)	(0.140)	(0.100)
Observations	23,400	23,400	23,400	23,400

Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1.

Table D3b. Summary of occupational contrasts estimated from Tobit models (UK)

	Margin	Std. Err.	Groups
Visible expenditure			
Technical profs	-0.742	0.0655	B
Managers	-0.690	0.0659	CDE
Educational professionals	-0.681	0.0670	CDE
HLSC profs	-0.664	0.0647	E
Business professionals	-0.658	0.0667	DE
Presentational expenditure			
Technical profs	-2.219	0.115	AB
Managers	-2.113	0.116	CD
Educational professionals	-2.094	0.118	CDE
HLSC profs	-2.069	0.114	DE
Business professionals	-2.031	0.117	E
Socialization-related expenditure			
Managers	-4.563	0.142	A
Technical profs	-4.545	0.140	A
HLSC profs	-4.521	0.139	A
Educational professionals	-4.487	0.144	AB
Business professionals	-4.403	0.143	B
Informational goods			
Managers	-2.757	0.10155	BC
Technical profs	-2.736	0.1007	CD
Business professionals	-2.679	0.10263	DE
HLSC profs	-2.672	0.09982	E
Educational professionals	-2.543	0.10319	F

Note: Occupational groups sharing a letter in the expenditure aggregate
column are not significantly different at the 5% level.

Table D4a. Estimates from SUR-model for four expenditure aggregates in Britain ("Other professionals" category omitted)

	Log Visible	Log Presentation	Log Socializ.	Log Info
Log family income	0.824***	0.650***	0.916***	0.323***
	(0.010)	(0.017)	(0.018)	(0.013)
1.Managers	0.033	0.041	0.137***	0.068***
	(0.021)	(0.034)	(0.037)	(0.025)
2.Educational professionals	0.048*	0.036	0.181***	0.251***
	(0.028)	(0.046)	(0.050)	(0.034)
3.Technical profs	-0.018	-0.067*	0.132***	0.078***
	(0.023)	(0.038)	(0.041)	(0.028)
4.Business professionals	0.066***	0.115***	0.277***	0.128***
	(0.025)	(0.040)	(0.044)	(0.029)
6..Admin and secretarial	0.026	0.048	0.128***	0.117***
	(0.024)	(0.038)	(0.042)	(0.029)
7.Services & Sales	-0.064***	-0.036	-0.072*	0.043*
	(0.022)	(0.035)	(0.039)	(0.026)
9.Skilled trades	0.000	0.000	0.000	0.000
	(0.000)	(0.000)	(0.000)	(0.000)
10.Machine operatives	-0.065***	-0.090**	-0.181***	-0.116***
	(0.023)	(0.037)	(0.040)	(0.027)
11.Elementary	-0.195***	-0.081**	-0.325***	-0.058**
	(0.022)	(0.036)	(0.039)	(0.027)
Age	0.004***	-0.001	0.001	0.019***
	(0.001)	(0.001)	(0.001)	(0.001)
2.Education (completed 16-19y.o)	0.017	0.040*	0.040	0.037**
	(0.014)	(0.022)	(0.024)	(0.017)
3.Education (completed 20+y.o)	-0.071***	-0.012	0.066**	0.023
	(0.015)	(0.025)	(0.027)	(0.018)
Gender (Female)	0.086***	0.322***	-0.030	0.050***
	(0.013)	(0.022)	(0.024)	(0.016)
Single	0.147***	0.164***	-0.009	0.167***
	(0.014)	(0.022)	(0.024)	(0.016)
Household size	0.112***	0.316***	0.134***	0.088***
	(0.008)	(0.013)	(0.015)	(0.010)
Number of children	-0.044***	-0.064***	-0.135***	0.019
	(0.010)	(0.016)	(0.017)	(0.012)
Controls: regions (12), year of survey (8)				
Constant	-0.868***	-2.218***	-3.632***	-1.896***
	(0.072)	(0.116)	(0.127)	(0.086)
Observations	20,127	20,127	20,127	20,127
R-squared	0.444	0.252	0.255	0.196

Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Table D4b. Summary of occupational contrasts estimated via SUR model that omits "Other professionals" category (UK sample)

	Margin	Std. Err.	Groups
Visible expenditure			
Technical profs	-0.82	0.07	AB
Managers	-0.77	0.07	CD
Educational professionals	-0.75	0.07	CD
Business professionals	-0.73	0.07	D
Presentational expenditure			
Technical profs	-2.01	0.12	AB
Educational professionals	-1.91	0.12	CDE
Managers	-1.90	0.12	D
Business professionals	-1.83	0.12	E
Socialization-related expenditure			
Technical profs	-3.51	0.13	B
Managers	-3.51	0.13	B
Educational professionals	-3.47	0.13	BC
Business professionals	-3.37	0.13	C
Informational goods			
Managers	-1.88	0.09	BC
Technical profs	-1.87	0.09	BCD
Business professionals	-1.82	0.09	D
Educational professionals	-1.69	0.09	

Note: Occupational groups sharing a letter in the expenditure aggregate column are not significantly different at the 5% level.

Table D5. Estimates from SUR-model of expenditure aggregates using NS-SEC categories instead of narrowly-defined occupational groups (UK)

	Log Visible	Log Presentation	Log Socializ.	Log Info
Log family income	0.829***	0.654***	0.936***	0.317***
	(0.009)	(0.015)	(0.017)	(0.011)
1. Professional occupations	0.005	0.039	0.158***	0.183***
	(0.022)	(0.035)	(0.039)	(0.027)
2. Managerial and technical occ.	0.054***	0.068***	0.205***	0.124***
	(0.015)	(0.024)	(0.026)	(0.018)
3. Skilled non-manual	0.008	0.044*	0.134***	0.097***
	(0.016)	(0.027)	(0.029)	(0.020)
5. Partly skilled occupations	-0.106***	-0.042	-0.167***	-0.028
	(0.019)	(0.031)	(0.034)	(0.023)
6. Unskilled occupations	-0.201***	-0.074*	-0.376***	-0.056*
	(0.027)	(0.045)	(0.049)	(0.034)
Age of HRP	0.004***	-0.001	0.001	0.019***
	(0.000)	(0.001)	(0.001)	(0.001)
Education (completed 16-19y.o)	0.024*	0.047**	0.053**	0.043***
	(0.013)	(0.021)	(0.023)	(0.016)
Education (completed 20+y.o)	-0.059***	-0.036	0.091***	0.050***
	(0.014)	(0.022)	(0.024)	(0.017)
Gender (Female)	0.097***	0.320***	-0.029	0.077***
	(0.011)	(0.018)	(0.020)	(0.014)
Single	0.139***	0.152***	-0.023	0.169***
	(0.012)	(0.020)	(0.022)	(0.015)
Household size	0.107***	0.311***	0.124***	0.087***
	(0.008)	(0.013)	(0.014)	(0.009)
Number of children	-0.044***	-0.065***	-0.125***	0.023**
	(0.009)	(0.015)	(0.016)	(0.011)
Controls: regions (12), year of survey (8)				
Constant	-0.899***	-2.251***	-3.798***	-1.891***
	(0.065)	(0.106)	(0.115)	(0.079)
Observations	23,391	23,391	23,391	23,391
R-squared	0.440	0.245	0.250	0.191

Note. Skilled manual category of NS-SEC is used as a reference category. Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Table D6a. Estimates from seemingly unrelated regressions for expenditure aggregates when models account for non-linear effect of income (France and Hungary)

	France				Hungary			
	Log Visible	Log presentation	Log socialization	Log information	Log Visible	Log presentation	Log socialization	Log information
Log family income	3.867***	4.046***	2.850**	2.013**	3.112***	3.310***	-3.144**	4.896***
	(0.317)	(0.549)	(1.152)	(1.021)	(0.395)	(0.489)	(1.395)	(0.941)
Log family income squared	-0.143***	-0.155***	-0.066	-0.052	-0.116***	-0.136***	0.222***	-0.229***
	(0.015)	(0.026)	(0.054)	(0.048)	(0.022)	(0.027)	(0.076)	(0.051)
Age	-0.038***	-0.034***	-0.170***	0.138***	-0.040***	-0.074***	-0.172***	0.007
	(0.005)	(0.008)	(0.017)	(0.015)	(0.004)	(0.005)	(0.015)	(0.010)
1. Managers	0.283***	0.370***	1.216***	0.724***	0.204***	0.253***	0.446***	0.103
	(0.043)	(0.074)	(0.156)	(0.139)	(0.048)	(0.059)	(0.170)	(0.115)
2. Educational professionals	0.233***	0.344***	1.473***	1.394***	0.021	0.044	-0.144	0.097
	(0.048)	(0.083)	(0.174)	(0.154)	(0.051)	(0.063)	(0.180)	(0.121)
3. Technical professionals	0.191***	0.290***	1.061***	0.573***	0.118***	0.132***	0.341**	-0.001
	(0.034)	(0.058)	(0.122)	(0.109)	(0.041)	(0.051)	(0.145)	(0.098)
4. Business professionals	0.280***	0.489***	1.362***	0.937***	0.129***	0.120**	0.458***	-0.023
	(0.036)	(0.062)	(0.130)	(0.115)	(0.041)	(0.051)	(0.145)	(0.098)
5. Health, legal, soc. cult. profs	0.274***	0.340***	1.359***	1.088***	0.112**	0.117**	0.180	-0.037
	(0.039)	(0.068)	(0.142)	(0.126)	(0.044)	(0.054)	(0.154)	(0.104)
6. Clerks	0.178***	0.283***	0.879***	0.513***	0.076*	0.037	0.095	-0.053
	(0.040)	(0.068)	(0.144)	(0.127)	(0.042)	(0.053)	(0.150)	(0.101)
7. Service Sales	0.136***	0.304***	0.601***	0.125	0.128***	0.079**	0.189*	0.106
	(0.034)	(0.059)	(0.123)	(0.109)	(0.032)	(0.040)	(0.114)	(0.077)
9. Plant Machine Operators	0.050	0.106*	0.139	-0.133	0.031	-0.030	0.097	0.050
	(0.035)	(0.060)	(0.126)	(0.112)	(0.030)	(0.038)	(0.107)	(0.072)
10. Elementary occupations	-0.010	0.034	0.115	-0.056	-0.106***	-0.083*	-0.245*	-0.164*
	(0.037)	(0.064)	(0.135)	(0.120)	(0.036)	(0.044)	(0.127)	(0.085)
11. Armed Forces	0.055	0.275	0.338	0.528*	0.159*	0.114	-0.032	-0.050
	(0.098)	(0.169)	(0.355)	(0.315)	(0.082)	(0.101)	(0.289)	(0.195)
2. Lower secondary	0.300***	0.414***	0.938***	0.350	0.152***	0.039	-0.006	0.300***
	(0.067)	(0.116)	(0.243)	(0.215)	(0.030)	(0.037)	(0.106)	(0.071)

Table D6a. Seemingly unrelated regressions for expenditure aggregates when models account for non-linear effect of income (continued)

3. Upper secondary	0.293***	0.344***	0.985***	0.168	0.280***	0.221***	0.517***	0.579***
	(0.063)	(0.108)	(0.228)	(0.202)	(0.034)	(0.042)	(0.120)	(0.081)
4. Post-secondary non-tertiary	0.314***	0.391***	1.403***	0.356*	0.346***	0.228***	0.901***	0.632***
	(0.064)	(0.112)	(0.234)	(0.208)	(0.044)	(0.055)	(0.157)	(0.106)
5. Tertiary stage 1	0.263***	0.378***	1.487***	0.319	0.433***	0.283***	1.220***	0.847***
	(0.067)	(0.116)	(0.243)	(0.215)	(0.044)	(0.055)	(0.156)	(0.105)
6. Tertiary stage 2	0.308***	0.323***	1.481***	0.481**	0.622***	0.593***	1.816***	1.216***
	(0.066)	(0.114)	(0.240)	(0.213)	(0.049)	(0.061)	(0.174)	(0.117)
7. Unallocated	0.206***	0.268**	0.916***	0.024				
	(0.062)	(0.108)	(0.226)	(0.200)				
Gender (Female)	0.026	0.307***	-0.099	0.083	-0.036*	-0.003	-0.224***	0.347***
	(0.020)	(0.035)	(0.074)	(0.066)	(0.021)	(0.026)	(0.074)	(0.050)
Single	0.050**	0.100***	-0.124	0.001	-0.189***	-0.121***	-0.022	-0.147***
	(0.021)	(0.037)	(0.077)	(0.068)	(0.021)	(0.026)	(0.074)	(0.050)
Household size	0.072***	0.229***	0.120***	0.156***	-0.008	0.083***	-0.102***	0.343***
	(0.008)	(0.015)	(0.031)	(0.027)	(0.008)	(0.010)	(0.029)	(0.020)
W/children	0.070	0.048	0.083	-0.115	-0.109*	-0.203***	-0.721***	-0.225
	(0.048)	(0.083)	(0.174)	(0.154)	(0.061)	(0.075)	(0.214)	(0.145)
Regional controls								
Constant	-16.309***	-19.202***	-18.870***	-14.248***	-11.353***	-12.987***	13.657**	-23.689***
	(1.676)	(2.902)	(6.092)	(5.401)	(1.815)	(2.247)	(6.408)	(4.325)
Observations	9,314	9,314	9,314	9,314	6,648	6,648	6,648	6,648
Chi2	5263.59	2557.28	2006.12	1536.68	6356.4	4008.05	1494.39	1917.69
RMSE	0.812	1.405	2.950	2.615	0.701	0.868	2.475	1.671
R-squared	0.361	0.215	0.177	0.142	0.489	0.376	0.184	0.224

Correlation matrix of residuals:

Between residual of log visible and residual of log presentational expenditure	0.4924	1			0.533	1		
Between residual of log visible and residual of log socialization expenditure	0.3509	0.1488	1		0.3437	0.1892	1	
Between residual of log_ visible and residual of log informational expenditure	0.2226	0.1514	0.1368	1	0.2466	0.1582	0.1803	1

Breusch-Pagan test of independence chi2(6) = 4460.566, Pr=0.000   Breusch-Pagan test chi2(6)=3698.552, Pr.=0.000

Note. Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Table D6b. Estimates from seemingly unrelated regressions for expenditure aggregates when models account for non-linear effect of income (Britain)

	(13) Log Visible	(14) Log Presentation	(15) Log Socialization	(16) Log Information
Log family income	2.123***	1.159***	1.171***	0.139
	(0.081)	(0.132)	(0.145)	(0.099)
Log family income squared	-0.101***	-0.040***	-0.020*	0.014*
	(0.006)	(0.010)	(0.011)	(0.008)
Managers	0.064***	0.064*	0.140***	0.060**
	(0.020)	(0.033)	(0.036)	(0.025)
Educational professionals	0.039	0.061	0.173***	0.243***
	(0.027)	(0.045)	(0.049)	(0.034)
Science, engineering and ICT profs	-0.015	-0.051	0.128***	0.074***
	(0.023)	(0.037)	(0.041)	(0.028)
Business professionals	0.089***	0.137***	0.277***	0.119***
	(0.024)	(0.039)	(0.043)	(0.029)
Health, legal, soc, cult profs	0.069***	0.093***	0.156***	0.126***
	(0.021)	(0.034)	(0.037)	(0.025)
Admin secretarial	0.015	0.053	0.123***	0.115***
	(0.023)	(0.038)	(0.041)	(0.028)
Services & Sales	-0.058***	-0.024	-0.073*	0.039
	(0.021)	(0.035)	(0.038)	(0.026)
Skilled trades	0.000	0.000	0.000	0.000
	(0.000)	(0.000)	(0.000)	(0.000)
Machine operatives	-0.069***	-0.092**	-0.183***	-0.116***
	(0.022)	(0.036)	(0.040)	(0.027)
Elementary	-0.177***	-0.071**	-0.323***	-0.063**
	(0.022)	(0.036)	(0.039)	(0.027)
age of HRP	0.005***	-0.000	0.001	0.019***
	(0.000)	(0.001)	(0.001)	(0.001)
2.educ	0.019	0.040*	0.048**	0.037**
	(0.013)	(0.021)	(0.023)	(0.016)
3.educ	-0.053***	-0.039*	0.080***	0.035**
	(0.014)	(0.023)	(0.025)	(0.017)
2.gender	0.089***	0.304***	-0.033	0.051***
	(0.012)	(0.020)	(0.021)	(0.015)
Household size	0.131***	0.148***	-0.028	0.170***
	(0.012)	(0.020)	(0.022)	(0.015)
Number of children	0.106***	0.314***	0.133***	0.089***
	(0.008)	(0.013)	(0.014)	(0.009)
Marital status (married=1)	-0.044***	-0.068***	-0.132***	0.020*
	(0.009)	(0.015)	(0.016)	(0.011)
Controls: region, year				
Constant	-5.031***	-3.825***	-4.451***	-1.287***
	(0.268)	(0.439)	(0.479)	(0.330)
RMSE	0.746686	1.225931	1.338144	0.919841
Chi2	19010.25	7662.87	7872.72	5585.75
R-squared	0.4482	0.2467	0.2517	0.1927
Observations	23,400	23,400	23,400	23,400

Table D6b. Estimates from seemingly unrelated regressions for expenditure aggregates when models account for non-linear effect of income (Britain) (Continued)

Correlation matrix of residuals

Corr. Between residual of log_visible and residual of log presentational expenditure	0.4998	1		
Corr. Between residual of log_visible and residual of log socialization-related expenditure	0.4596	0.2565	1	
Corr. Between residual of log_visible and residual of log informational expenditure	0.2738	0.2524	0.2071	1

Breusch-Pagan test of independence: chi2(6) = 16575.918, Pr = 0.0000

Note. Number of observations in each occupational group is provided in Table 1. Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1.

Figure D1. Residual versus fitted plots for four expenditure aggregates (France)
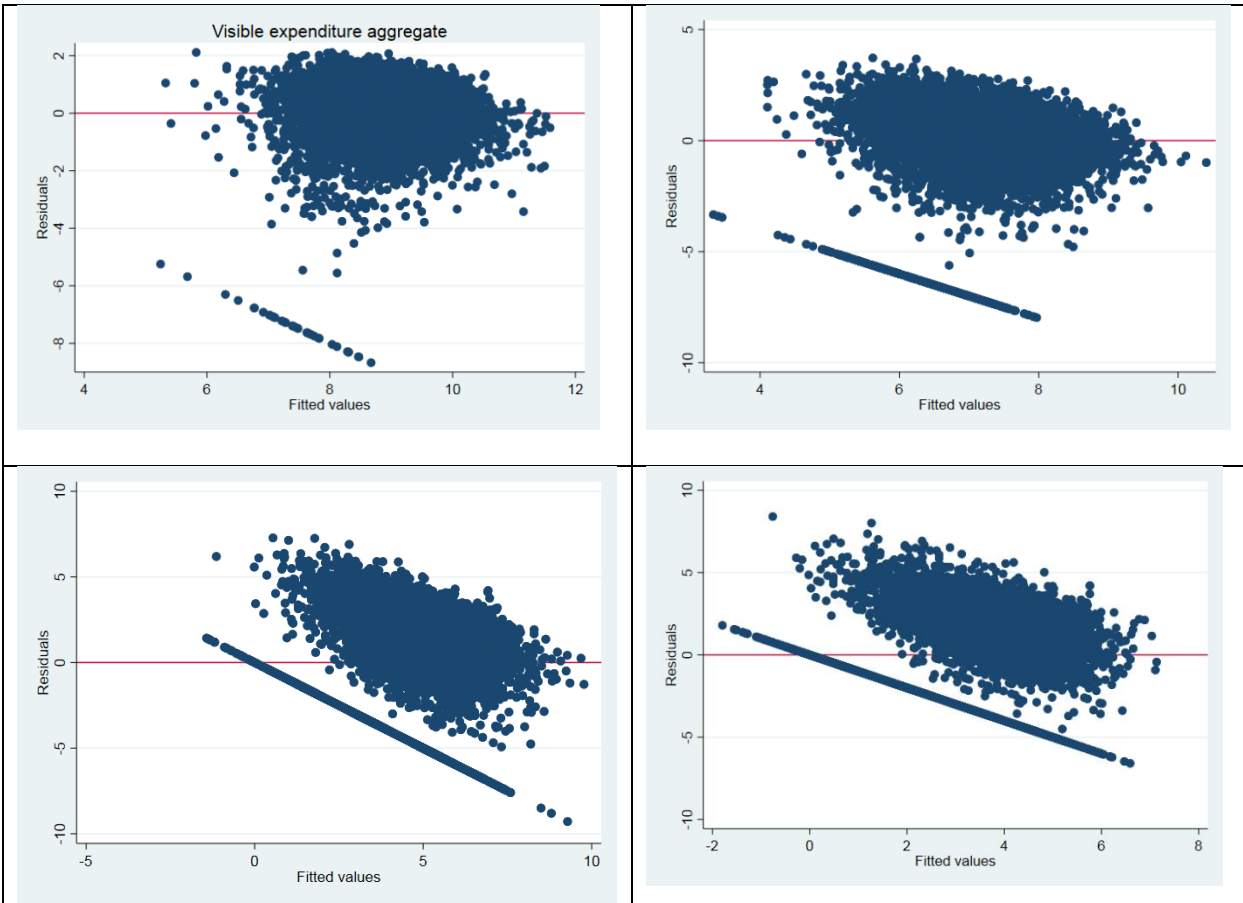
Figure D2. Residual versus fitted plots for four expenditure aggregates (Hungary)
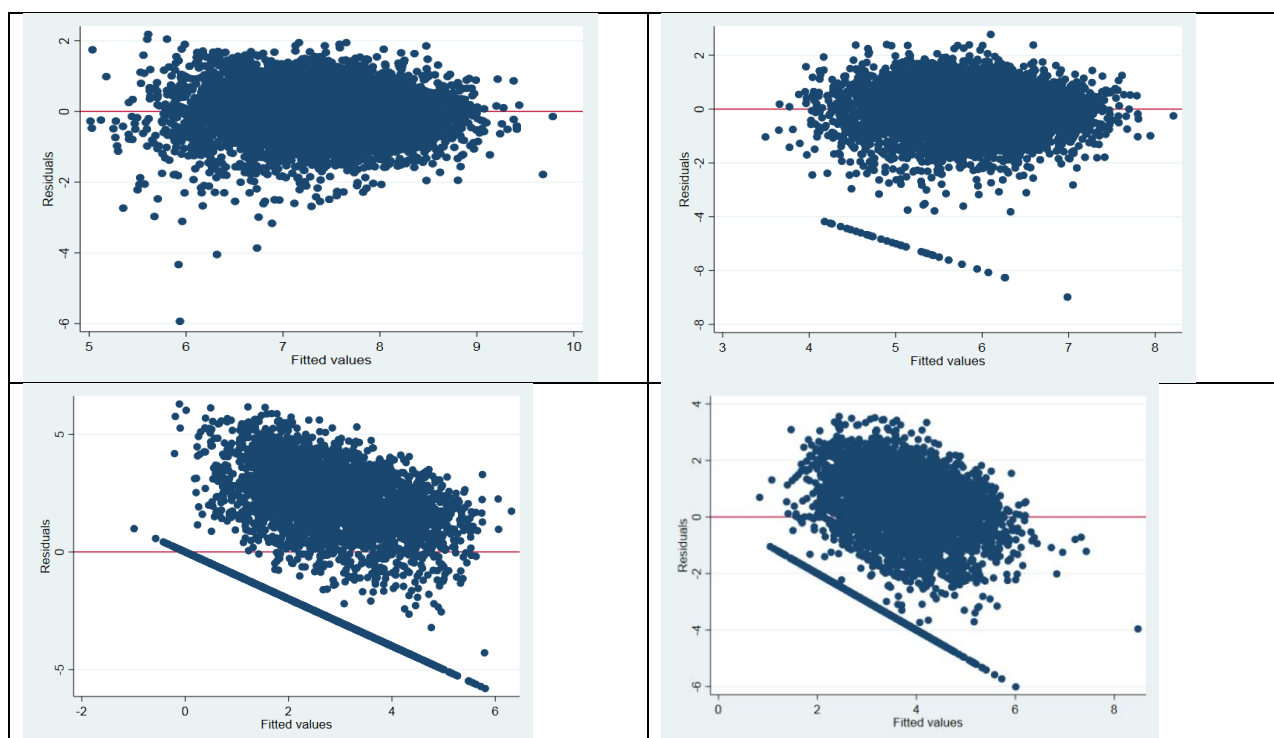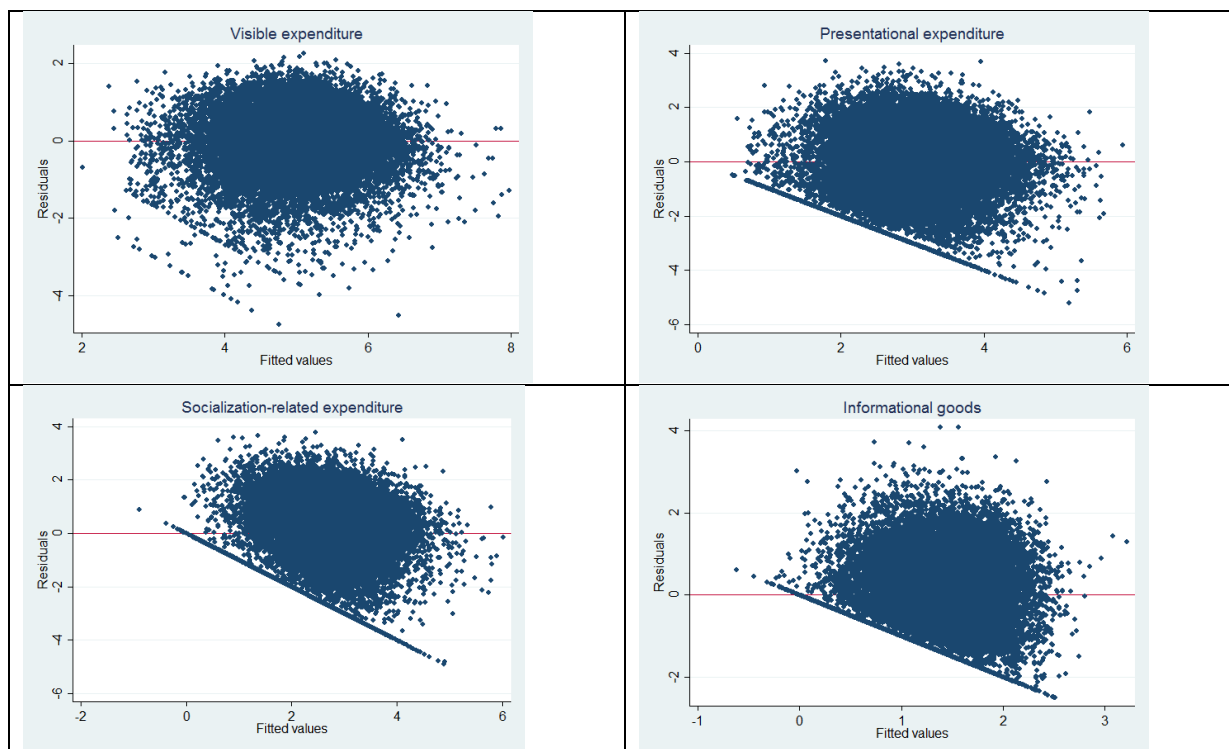

Figure D3. Residual versus fitted plots for four expenditure aggregates (UK)

Note. The plots use values from the full sample, i.e. N=23400 for each expenditure aggregate.

Table D7. Seemingly unrelated regressions estimated separately for five professional-managerial groups in the UK (1)

	1. Managers				2. Educational professionals				3. Technical professionals			
	Log Visible	Log Presentation	Log Socializ.	Log Info	Log Visible	Log Presentation	Log Socializ.	Log Info	Log Visible	Log Presentation	Log Socializ.	Log Info
Log family income	0.728***	0.640***	0.868***	0.371***	0.609***	0.512***	0.718***	0.247***	0.749***	0.665***	0.892***	0.318***
	(0.023)	(0.038)	(0.040)	(0.029)	(0.044)	(0.074)	(0.080)	(0.061)	(0.036)	(0.060)	(0.062)	(0.047)
age of HRP	0.003**	0.003	-0.003	0.019***	0.008***	-0.000	0.009***	0.023***	0.008***	-0.001	0.003	0.024***
	(0.001)	(0.002)	(0.003)	(0.002)	(0.002)	(0.003)	(0.003)	(0.003)	(0.002)	(0.003)	(0.003)	(0.002)
2.educ	0.014	-0.017	0.011	0.096**	0.032	0.128	0.378***	0.422***	-0.104**	-0.252***	-0.170**	-0.072
	(0.033)	(0.057)	(0.060)	(0.043)	(0.080)	(0.134)	(0.145)	(0.112)	(0.050)	(0.083)	(0.085)	(0.065)
3.educ	-0.056*	-0.061	0.099	0.100**	0.123*	0.175	0.345***	0.377***	-0.198***	-0.141*	-0.109	0.030
	(0.034)	(0.058)	(0.060)	(0.043)	(0.068)	(0.115)	(0.124)	(0.096)	(0.044)	(0.074)	(0.076)	(0.058)
Gender (Female)	0.053*	0.284***	-0.049	0.105***	0.113***	0.323***	0.061	-0.017	0.175***	0.510***	0.180**	0.092
	(0.031)	(0.053)	(0.056)	(0.040)	(0.040)	(0.068)	(0.074)	(0.057)	(0.050)	(0.085)	(0.086)	(0.066)
Married												
	0.135***	0.199***	-0.002	0.185***	0.079	0.019	0.009	0.300***	0.178***	0.348***	-0.109	0.189***
	(0.034)	(0.058)	(0.060)	(0.043)	(0.050)	(0.084)	(0.091)	(0.070)	(0.045)	(0.075)	(0.076)	(0.058)
Household size	0.108***	0.296***	0.178***	0.113***	0.189***	0.440***	0.241***	0.118**	0.117***	0.385***	0.124**	0.115***
	(0.019)	(0.033)	(0.034)	(0.025)	(0.036)	(0.060)	(0.065)	(0.050)	(0.031)	(0.052)	(0.053)	(0.040)
No. of children	-0.065***	-0.062	-0.159***	0.021	-0.151***	-0.219***	-0.253***	-0.009	-0.034	-0.152***	-0.046	0.044
	(0.023)	(0.039)	(0.041)	(0.029)	(0.041)	(0.068)	(0.074)	(0.057)	(0.035)	(0.059)	(0.060)	(0.046)
Controls: regions (12), year of survey (8)												
Constant	-0.114	-2.067***	-3.057***	-2.330***	0.245	-1.503***	-2.800***	-1.774***	-0.390	-2.278***	-3.446***	-1.980***
	(0.171)	(0.293)	(0.305)	(0.220)	(0.299)	(0.503)	(0.544)	(0.419)	(0.253)	(0.424)	(0.434)	(0.330)
Observations	3,287	3,287	3,287	3,287	1,279	1,279	1,279	1,279	1,946	1,946	1,946	1,946
R-squared	0.345	0.212	0.192	0.188	0.314	0.206	0.157	0.184	0.340	0.249	0.151	0.198

Note. Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Table D7. Seemingly unrelated regressions estimated separately for five professional-managerial groups in the UK (2)

	4. Business professionals				5. Legal, social, health, cultural profs			
	Log Visible	Log Presentation	Log Socializ.	Log Info	Log Visible	Log Presentation	Log Socializ.	Log Info
Log family income	0.699***	0.646***	0.884***	0.255***	0.757***	0.607***	0.917***	0.292***
	(0.033)	(0.057)	(0.058)	(0.045)	(0.023)	(0.041)	(0.043)	(0.033)
age of HRP	0.007***	0.005	0.003	0.025***	0.003***	0.000	-0.000	0.019***
	(0.002)	(0.003)	(0.003)	(0.002)	(0.001)	(0.002)	(0.002)	(0.002)
2.educ	0.098**	0.201**	0.176**	0.237***	0.047	0.033	0.121*	0.047
	(0.049)	(0.084)	(0.085)	(0.066)	(0.033)	(0.059)	(0.063)	(0.047)
3.educ	-0.045	0.087	0.127	0.175***	-0.033	-0.176***	0.150**	0.102**
	(0.049)	(0.083)	(0.085)	(0.065)	(0.031)	(0.057)	(0.060)	(0.045)
Gender (Female)	0.063	0.288***	-0.114*	0.054	0.106***	0.229***	-0.062	0.052
	(0.040)	(0.068)	(0.069)	(0.053)	(0.025)	(0.045)	(0.048)	(0.036)
Married	0.109**	0.195**	-0.120	0.124**	0.070**	0.075	-0.144**	0.185***
	(0.046)	(0.078)	(0.080)	(0.061)	(0.030)	(0.054)	(0.057)	(0.043)
Household size	0.144***	0.235***	0.111**	0.137***	0.115***	0.313***	0.133***	0.095***
	(0.032)	(0.055)	(0.056)	(0.043)	(0.020)	(0.035)	(0.037)	(0.028)
No. of children	-0.112***	-0.072	-0.117*	0.006	-0.075***	-0.099**	-0.113***	0.029
	(0.035)	(0.060)	(0.061)	(0.047)	(0.022)	(0.040)	(0.043)	(0.032)
Controls: regions (12), year of survey (8)								
Constant	-0.077	-1.907***	-3.334***	-1.904***	-0.291*	-1.683***	-3.461***	-1.565***
	(0.254)	(0.433)	(0.441)	(0.340)	(0.163)	(0.294)	(0.311)	(0.233)
Observations	1,729	1,729	1,729	1,729	3,273	3,273	3,273	3,273
R-squared	0.345	0.183	0.202	0.178	0.381	0.193	0.190	0.157

Note. Standard errors in parentheses *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

Table D8. Seemingly unrelated regressions estimated separately for four professional-managerial groups in France (1)

	1. Managers				2. Educational professionals			
	Log Visible	Log Presentation	Log Socializ.	Log Info	Log Visible	Log Presentation	Log Socializ.	Log Info
Log family income	0.546***	0.763***	0.996***	0.914***	0.715***	0.345***	1.142***	0.915***
	(0.072)	(0.124)	(0.295)	(0.280)	(0.074)	(0.115)	(0.298)	(0.287)
age of HRP	0.005	0.011	0.020	0.281***	0.009	0.013	0.050	0.231***
	(0.017)	(0.029)	(0.070)	(0.066)	(0.016)	(0.025)	(0.064)	(0.061)
Education: Lower secondary	0.582*	0.973*	2.831**	0.549				
	(0.308)	(0.531)	(1.266)	(1.201)				
Education: Upper secondary	0.363	0.577	1.581	0.010	0.543***	0.169	0.960	-0.175
	(0.289)	(0.498)	(1.187)	(1.127)	(0.204)	(0.318)	(0.824)	(0.794)
Education: Post-secondary non-tertiary	0.521*	0.854*	1.792	-0.070	0.415***	0.070	1.068	-0.248
	(0.287)	(0.496)	(1.181)	(1.121)	(0.161)	(0.251)	(0.650)	(0.627)
Education: Tertiary stage 1	0.262	0.554	2.552**	-0.255	0.321**	0.125	0.648	-0.811
	(0.291)	(0.501)	(1.194)	(1.133)	(0.160)	(0.250)	(0.648)	(0.624)
Education: Tertiary stage 2	0.478*	0.303	2.924**	0.550	0.239*	0.027	0.848	-0.637
	(0.284)	(0.489)	(1.166)	(1.106)	(0.143)	(0.223)	(0.577)	(0.556)
Education: Unallocated	0.325	0.248	2.585**	0.144	0.300**	0.031	1.923***	0.248
	(0.288)	(0.497)	(1.184)	(1.124)	(0.145)	(0.226)	(0.584)	(0.563)
Female	-0.002	-0.110	-0.676**	0.160	0.043	0.105	0.376	-0.127
	(0.065)	(0.112)	(0.267)	(0.254)	(0.058)	(0.090)	(0.234)	(0.225)
Married	0.020	0.086	-0.128	-0.083	0.035	0.099	0.169	-0.459
	(0.069)	(0.119)	(0.284)	(0.269)	(0.072)	(0.112)	(0.291)	(0.281)
Household size	0.140***	0.248***	0.309***	0.466***	0.083***	0.227***	-0.040	0.019
	(0.027)	(0.047)	(0.112)	(0.107)	(0.028)	(0.043)	(0.112)	(0.107)
No. of children	-0.847	0.728	1.817	2.393	-0.004	-0.032	0.771	1.006
	(0.536)	(0.925)	(2.204)	(2.091)	(0.170)	(0.265)	(0.687)	(0.662)
Regional controls								
Constant	2.597***	-1.886	-7.945**	-8.995***	0.846	3.194***	-8.122***	-6.560**
	(0.816)	(1.406)	(3.352)	(3.180)	(0.749)	(1.170)	(3.031)	(2.920)
Observations	562	562	562	562	549	549	549	549
R-squared	0.294	0.272	0.140	0.164	0.359	0.189	0.119	0.134

Note. Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Table D8. Seemingly unrelated regressions estimated separately for four professional-managerial groups in France (2)

	3. Technical professionals				4. Business professionals			
	Log Visible	Log Presentation	Log Socializ.	Log Info	Log Visible	Log Presentation	Log Socializ.	Log Info
Log family income	0.755***	0.723***	1.476***	0.283	0.779***	0.731***	1.463***	0.756***
	(0.057)	(0.112)	(0.219)	(0.200)	(0.049)	(0.078)	(0.191)	(0.181)
age of HRP	-0.016	0.025	-0.077	0.249***	-0.009	-0.002	-0.307***	0.143***
	(0.014)	(0.028)	(0.056)	(0.051)	(0.013)	(0.021)	(0.051)	(0.048)
Education: Lower secondary	-0.004	0.087	0.985	0.171	-0.015	-0.227	-0.102	2.814***
	(0.266)	(0.523)	(1.026)	(0.938)	(0.204)	(0.326)	(0.793)	(0.751)
Education: Upper secondary	0.136	0.292	0.973	0.166	-0.121	-0.379	-0.408	2.326***
	(0.254)	(0.500)	(0.981)	(0.897)	(0.199)	(0.316)	(0.770)	(0.729)
Education: Post-secondary non-tertiary	0.034	0.363	0.745	0.684	-0.116	-0.464	-0.192	2.498***
	(0.258)	(0.507)	(0.995)	(0.909)	(0.199)	(0.317)	(0.771)	(0.731)
Education: Tertiary stage 1	0.098	0.060	1.203	0.908	-0.174	-0.198	-0.255	2.604***
	(0.256)	(0.504)	(0.988)	(0.903)	(0.200)	(0.319)	(0.776)	(0.735)
Education: Tertiary stage 2	0.055	0.293	1.633*	1.385	-0.064	-0.283	-0.198	2.539***
	(0.257)	(0.505)	(0.990)	(0.905)	(0.199)	(0.316)	(0.770)	(0.730)
Education: Unallocated	-0.108	0.091	1.104	0.268	-0.168	-0.312	-0.292	2.506***
	(0.254)	(0.500)	(0.980)	(0.896)	(0.197)	(0.314)	(0.764)	(0.724)
Female	0.116	0.431***	0.330	-0.265	-0.024	0.328***	-0.037	-0.061
	(0.077)	(0.151)	(0.296)	(0.271)	(0.050)	(0.079)	(0.192)	(0.182)
Married	0.029	0.010	-0.329	0.297	0.007	0.138	-0.216	0.326
	(0.060)	(0.118)	(0.231)	(0.211)	(0.058)	(0.092)	(0.223)	(0.211)
Household size	0.082***	0.330***	0.236**	0.255***	0.082***	0.197***	0.115	0.163*
	(0.024)	(0.047)	(0.093)	(0.085)	(0.025)	(0.039)	(0.095)	(0.090)
No. of children	-0.056	0.412	-0.969*	-0.336	0.213	0.204	0.160	-0.318
	(0.137)	(0.270)	(0.530)	(0.484)	(0.157)	(0.251)	(0.610)	(0.578)
Regional controls								
Constant	0.845	-1.307	-11.526***	-2.359	0.820	-0.469	-7.790***	-7.888***
	(0.623)	(1.225)	(2.402)	(2.195)	(0.542)	(0.864)	(2.102)	(1.992)
Observations	976	976	976	976	974	974	974	974
R-squared	0.280	0.196	0.127	0.113	0.346	0.223	0.140	0.113

Note. Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Table D9. Seemingly unrelated regressions estimated separately for four professional-managerial groups in Hungary (1)

	1. Managers				2. Educational professionals			
	Log Visible	Log Presenta-tion	Log Socializ.	Log Info	Log Visible	Log Presenta-tion	Log Socializ.	Log Info
Log family income	0.826***	0.794***	1.128***	0.696***	0.708***	0.832***	0.943*	0.743***
	0.090	0.102	0.388	0.227	0.113	0.150	0.483	0.259
Age of HRP	-0.041**	-0.069***	-0.347***	0.025	-0.030*	-0.054**	-0.246***	-0.029
	0.017	0.020	0.075	0.044	0.016	0.021	0.069	0.037
Education: Lower secondary	-0.150	0.084	-2.825	-1.212	0.086	-0.173	-3.082	0.054
	0.489	0.551	2.104	1.230	0.459	0.609	1.962	1.050
Education: Upper secondary	-0.089	0.432	-1.909	-0.444	-0.399	-0.316	-2.798*	-1.016
	0.476	0.536	2.048	1.197	0.379	0.503	1.620	0.867
Education: Post-secondary non-tertiary	-0.075	0.264	-1.285	-0.223	-0.341	-0.382	-2.156	-0.768
	0.480	0.541	2.066	1.208	0.382	0.507	1.633	0.874
Education: Tertiary stage 1	0.093	0.394	-0.554	-0.004	-0.086	-0.369	-2.064	-0.612
	0.475	0.535	2.043	1.194	0.349	0.464	1.494	0.800
Education: Tertiary stage 2	0.081	0.701	-0.662	0.273	-0.025	-0.248	-1.284	-0.382
	0.478	0.538	2.056	1.202	0.353	0.469	1.511	0.809
Female	-0.023	-0.117	-0.301	0.128	0.085	0.084	0.030	0.562***
	0.072	0.081	0.310	0.181	0.080	0.106	0.342	0.183
Married	-0.251***	-0.206**	-0.823**	-0.318	-0.263***	-0.079	-0.468	0.004
	0.088	0.100	0.381	0.223	0.074	0.098	0.315	0.168
Household size	-0.039	0.023	-0.193	0.334***	0.011	0.025	-0.149	0.196***
	0.033	0.037	0.140	0.082	0.032	0.042	0.136	0.073
No. of children	-1.166**	-1.523**	-5.180**	-0.288	-0.037	-1.071*	-4.405**	-1.179
	0.544	0.614	2.344	1.370	0.464	0.617	1.985	1.063
Regional controls								
Constant	0.647	-0.937	-2.252	-3.548	1.350	-1.129	-1.171	-2.833
	0.987	1.113	4.249	2.484	1.054	1.400	4.508	2.413
Observations	327	327	327	327	404	404	404	404
R-squared	0.416	0.428	0.244	0.276	0.278	0.170	0.114	0.125

Note. Standard errors in parentheses *** $p<0.01$, ** $p<0.05$, * $p<0.1$

Table D9. Seemingly unrelated regressions estimated separately for four professional-managerial groups in Hungary (2)

	3. Technical professionals				4. Business professionals			
	Log Visible	Log Presenta-tion	Log Socializ.	Log Info	Log Visible	Log Presenta-tion	Log Socializ.	Log Info
Log family income	0.789***	0.878***	0.693**	0.550***	0.824***	0.722***	0.875***	0.523***
	0.071	0.081	0.319	0.200	0.073	0.103	0.315	0.201
Age of HRP	-0.032**	-0.044***	-0.220***	0.027	-0.036***	-0.085***	-0.086	0.021
	0.012	0.014	0.056	0.035	0.013	0.019	0.058	0.037
Education: Lower secondary	0.524	-0.086	-0.752	-0.251	0.072	-0.319	0.648	-0.225
	0.321	0.366	1.442	0.903	0.326	0.463	1.416	0.901
Education: Upper secondary	0.526*	0.306	-0.657	0.268	-0.123	-0.308	0.645	0.197
	0.306	0.349	1.374	0.860	0.289	0.412	1.258	0.801
Education: Post-secondary non-tertiary	0.756**	0.323	1.269	0.532	-0.033	-0.384	1.048	0.060
	0.309	0.353	1.389	0.869	0.300	0.426	1.302	0.829
Education: Tertiary stage 1	0.768**	0.394	0.768	0.879	0.020	-0.231	1.549	-0.011
	0.306	0.350	1.377	0.861	0.294	0.418	1.278	0.814
Education: Tertiary stage 2	0.960***	0.651*	1.253	0.877	0.198	0.049	1.729	0.353
	0.308	0.351	1.382	0.865	0.298	0.423	1.293	0.823
Female	-0.041	0.049	0.135	0.408**	-0.181***	0.059	-0.433*	0.225
	0.069	0.079	0.310	0.194	0.057	0.081	0.247	0.157
Married	-0.159**	-0.162**	-0.474	-0.273	-0.220***	-0.268***	-0.096	0.016
	0.068	0.078	0.306	0.191	0.069	0.098	0.300	0.191
Household size	-0.044*	0.034	-0.206*	0.373***	-0.001	0.035	-0.209	0.331***
	0.026	0.030	0.117	0.073	0.030	0.043	0.130	0.083
No. of children	0.478**	0.616**	-0.195	0.525	0.209	0.230	0.685	-0.214
	0.242	0.276	1.085	0.679	0.174	0.248	0.758	0.483
Regional controls								
Constant	0.120	-2.127***	-0.843	-2.977	0.462	0.196	-4.238	-2.317
	0.712	0.812	3.197	2.001	0.704	1.001	3.058	1.947
Observations	541	541	541	541	561	561	561	561
R-squared	0.422	0.434	0.177	0.207	0.420	0.268	0.106	0.114

Note. Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Table D10. Summary statistics on household characteristics for the full sample and separate occupational groups in Britain

	Full sample	Managers	Educ.profs	Tech.profs	Business profs	HLSC profs	Admin secretar	Services & Sales	Skilled trades	Machine operatives	Elementary
N	23400	3287	1279	1946	1729	3273	2093	2911	2769	1884	2229
HRP characteristics											
Age (mean)	43.97	45.28	45.21	42.00	42.68	43.56	45.14	42.75	44.52	45.44	43.33
Married (==1), %	0.52	0.66	0.54	0.58	0.58	0.55	0.41	0.33	0.58	0.57	0.39
Education, %											
- completed by 16yo	0.42	0.35	0.10	0.25	0.23	0.25	0.40	0.53	0.64	0.70	0.64
- completed 16 - 20yo	0.26	0.28	0.16	0.23	0.29	0.28	0.38	0.29	0.25	0.20	0.23
- completed after 20yo	0.31	0.37	0.74	0.52	0.48	0.47	0.22	0.18	0.11	0.10	0.13
Male (==1), %	0.65	0.75	0.46	0.87	0.69	0.56	0.34	0.320	0.93	0.92	0.63
Household size	2.68	2.84	2.53	2.59	2.67	2.67	2.38	2.61	2.85	2.86	2.67
Number of children	0.69	0.74	0.62	0.62	0.71	0.70	0.56	0.72	0.73	0.73	0.73
Gross family income (£)	1020	1509	1154	1221	1436	1231	804	630	834	776	563
Gross family income, st.d.	841	1200	748	754	1076	974	625	419	442	414	344

Note: The data in the table accounts for weighting and regional stratification of LCF survey design. Totals may not add up to decimals due to rounding. Total expenditure and gross normal weekly income are adjusted to inflation and provided in 2016 prices. The statistics are estimated for the restricted sample. Source: LCF (2017).

Table D11. Summary statistics on household characteristics for the full sample and separate occupational groups in France

	Full sample	Managers	Educ. profs	Technical profs	Business profs	Health, legal, soc,cult profs	Clerks	Services Sales	Skilled workers	Machine Operators	Elementary Occupations	Armed Forces
N	9,314	562	549	976	974	812	812	1,182	1,464	886	1,011	86
Gender of HRP (Male), %	65	75	47	89	55	42	36	51	93	86	43	95
Household size	2.65	2.95	2.42	2.66	2.48	2.47	2.32	2.56	2.97	2.76	2.63	3.17
Have children, %	96	100	97	96	98	95	97	93	95	94	96	93
Single, %	55	38	60	53	57	58	67	60	48	53	65	30
Education Primary or no education	2.1	1	0	0.9	1.4	0.4	1.6	3.4	2.9	2.9	4.4	0
Lower secondary	7.6	4.4	4.3	6	7.8	5.3	11.9	10.5	5.4	8.7	9.5	23.7
Upper secondary	18.5	9.6	3.1	16.5	11.4	5.4	20.7	21.1	30.7	29.8	21.2	17.1
Post-secondary non-tertiary	13.2	12.4	8.7	12.3	15.1	12.9	17.4	17.4	13	10.4	8.1	23.5
Tertiary stage 1	9.8	11.9	10.6	16	15.2	17.8	11	6.8	5.5	2.9	2.3	3.9
Tertiary stage 2	14.1	33.7	45.1	20.9	21.4	28.8	8	4.5	1.9	1.8	2.1	9.2
Unallocated	34.7	27.1	28.3	27.4	27.5	29.4	29.4	36.3	40.6	43.4	52.4	22.6

Note. Data in the table accounts for weighting. The statistics are estimated for the restricted sample. Source: Eurostat (2010).

Table D12. Summary statistics on household characteristics for the full sample and separate occupational groups in Hungary

	Full sample	Managers	Educ. profs	Technical profs	Business profs	Health, legal, soc,cult profs	Clerks	Services Sales	Skilled workers	Machine Operators	Elementary Occs	Armed Forces
N	6,648	327	404	541	561	464	455	778	1,418	901	709	90
Gender of HRP (Male), %	61	63	24	81	37	32	23	51	89	77	55	88
Household size	2.81	2.95	2.76	2.79	2.57	2.56	2.34	2.65	3.04	2.96	2.97	2.99
Have children, %	98	100	100	99	97	99	98	97	97	97	97	98
Single, %	54	67	55	58	54	47	44	48	62	58	40	66
Education												
Primary or no education	14.3	0.5	0.8	0.7	0.8	1	5.7	9.8	14.6	26.3	56.7	1.2
Lower secondary	30.3	6.7	1.1	5	2.8	10.7	10	36.9	61.1	49.1	30.7	16.1
Upper secondary	24.8	22.8	4	22.9	39.5	26.7	56	37.8	17.6	20.2	9.8	28.1
Post-secondary non-tertiary	7.5	12.4	3.9	13.2	10.4	12.7	13.8	8	5	3.3	2	9
Tertiary stage 1	14.1	38.5	60.9	30	31	18.4	10.2	6	1.3	1	0.7	35
Tertiary stage 2	9.1	19.1	29.3	28.1	15.5	30.5	4.3	1.6	0.4	0.1	0.2	10.6

Note. Data in the table accounts for weighting. The statistics are estimated for the restricted sample. Source: Eurostat (2010)

Table D13. Pairwise comparison of between-group contrasts using theory-defined narrow occupational groups and 11 groups with individuals allocated randomly

| Occupational groups | Using theory-defined narrow occupational groups | | | Using 11 random groups | | | | | | |
| | | | | | Experiment 1 | | | Experiment 2 | | |
	Contrast	S.E.	p	Random groups	Contrast	S.E.	p	Contrast	S.E.	p
Educational profs vs Managers	-0.007	0.052	0.892	2 vs 1	0.018	0.040	0.661	-0.050	0.040	0.212
Technical profs vs Managers	-0.059	0.042	0.159	3 vs 1	-0.082	0.040	0.040	0.023	0.040	0.568
Business profs vs Managers	0.024	0.042	0.572	4 vs 1	-0.019	0.040	0.630	-0.065	0.040	0.108
Health, legal, soc,cult profs vs Managers	0.002	0.044	0.961	5 vs 1	0.020	0.039	0.616	-0.054	0.040	0.178
Clerks vs Managers	-0.076	0.047	0.108	6 vs 1	-0.032	0.040	0.424	-0.030	0.040	0.455
Services Sales vs Managers	-0.126	0.043	0.004	7 vs 1	0.030	0.040	0.449	-0.033	0.040	0.408
Skilled Workers vs Managers	-0.258	0.043	0.000	8 vs 1	-0.066	0.040	0.097	-0.057	0.040	0.157
Machine Operators vs Managers	-0.200	0.045	0.000	9 vs 1	-0.028	0.040	0.494	-0.061	0.040	0.134
Elementary vs Managers	-0.276	0.047	0.000	10 vs 1	0.032	0.040	0.427	-0.078	0.040	0.054
Armed Forces vs Managers	-0.185	0.102	0.069	11 vs 1	-0.019	0.040	0.641	-0.062	0.040	0.117
Technical profs vs Educational profs	-0.052	0.047	0.271	3 vs 2	-0.099	0.040	0.013	0.073	0.040	0.067
Business profs vs Educational profs	0.031	0.047	0.510	4 vs 2	-0.037	0.040	0.360	-0.015	0.040	0.703
Health, legal, soc,cult profs vs Educational profs	0.009	0.048	0.848	5 vs 2	0.002	0.040	0.955	-0.005	0.040	0.909
Clerks vs Educational profes	-0.069	0.051	0.173	6 vs 2	-0.050	0.040	0.219	0.020	0.040	0.616
Services Sales vs Educational profs	-0.119	0.048	0.013	7 vs 2	0.013	0.040	0.754	0.017	0.039	0.668
Skilled Workers vs Educational profs	-0.251	0.048	0.000	8 vs 2	-0.084	0.040	0.037	-0.007	0.040	0.856
Machine Operators vs Educational profs	-0.193	0.050	0.000	9 vs 2	-0.045	0.040	0.266	-0.011	0.040	0.785
Elementary vs Educational profs	-0.268	0.050	0.000	10 vs 2	0.014	0.040	0.724	-0.028	0.040	0.483
Armed Forces vs Educational profs	-0.178	0.104	0.088	11 vs 2	-0.036	0.040	0.369	-0.013	0.039	0.749
Business profs vs Technical profs	0.082	0.035	0.018	4 vs 3	0.062	0.040	0.118	-0.088	0.040	0.029
Health, legal, soc,cult profs vs Technical profs	0.061	0.038	0.110	5 vs 3	0.101	0.039	0.010	-0.077	0.040	0.054
Clerks vs Technical profs	-0.018	0.040	0.663	6 vs 3	0.049	0.040	0.216	-0.053	0.040	0.185
Services Sales vs Technical profs	-0.067	0.035	0.058	7 vs 3	0.112	0.040	0.005	-0.056	0.040	0.185
Skilled Workers vs Technical profs	-0.199	0.034	0.000	8 vs 3	0.016	0.040	0.696	-0.080	0.040	0.046
Machine Operators vs Technical profs	-0.141	0.037	0.000	9 vs 3	0.054	0.040	0.178	-0.084	0.040	0.038
Elementary vs Technical profs	-0.217	0.039	0.000	10 vs 3	0.113	0.040	0.004	-0.101	0.040	0.012
Armed Forces vs Technical profs	-0.127	0.098	0.199	11 vs 3	0.063	0.040	0.114	-0.085	0.040	0.031
Health, legal, soc,cult profs vs Business profs	-0.021	0.037	0.567	5 vs 4	0.039	0.040	0.324	0.011	0.040	0.793

Clerks vs Business profs	-0.100	0.040	0.012	6 vs 4	-0.013	0.040	0.750	0.035	0.040	0.382
Services Sales vs Business profs	-0.149	0.035	0.000	7 vs 4	0.049	0.040	0.216	0.032	0.040	0.421
Skilled Workers vs Business profs	-0.281	0.036	0.000	8 vs 4	-0.047	0.040	0.242	0.008	0.040	0.843
Plant Machine Operators vs Business profs	-0.223	0.038	0.000	9 vs 4	-0.008	0.040	0.838	0.004	0.040	0.915
Elementary vs Business profs	-0.299	0.039	0.000	10 vs 4	0.051	0.040	0.203	-0.013	0.040	0.753
Armed Forces vs Business profs	-0.209	0.099	0.035	11 vs 4	0.001	0.040	0.986	0.003	0.040	0.948
Clerks vs Health, legal, soc,cult profs	-0.078	0.042	0.064	6 vs 5	-0.052	0.040	0.192	0.024	0.040	0.542
Services Sales vs Health, legal, soc,cult profs	-0.128	0.038	0.001	7 vs 5	0.010	0.039	0.794	0.021	0.040	0.590
Skilled Workers vs Health, legal, soc,cult profs	-0.260	0.039	0.000	8 vs 5	-0.086	0.039	0.029	-0.003	0.040	0.947
Machine Operators vs Health, legal, soc,cult profs	-0.202	0.042	0.000	9 vs 5	-0.047	0.040	0.235	-0.006	0.040	0.876
Elementary vs Health, legal, soc,cult profs	-0.278	0.042	0.000	10 vs 5	0.012	0.039	0.762	-0.023	0.040	0.563
Armed Forces vs Health, legal, soc,cult profs	-0.187	0.100	0.062	11 vs 5	-0.038	0.039	0.332	-0.008	0.040	0.840
Services Sales vs Clerks	-0.049	0.039	0.205	7 vs 6	0.062	0.040	0.121	-0.003	0.039	0.940
Skilled Workers vs Clerks	-0.182	0.040	0.000	8 vs 6	-0.034	0.040	0.398	-0.027	0.040	0.499
Machine Operators vs Clerks	-0.124	0.042	0.003	9 vs 6	0.005	0.041	0.910	-0.031	0.040	0.445
Elementary vs Clerks	-0.199	0.042	0.000	10 vs 6	0.064	0.040	0.113	-0.048	0.040	0.233
Armed Forces vs Clerks	-0.109	0.101	0.281	11 vs 6	0.013	0.040	0.737	-0.032	0.039	0.412
Skilled Workers vs Services Sales	-0.132	0.034	0.000	8 vs 7	-0.096	0.040	0.016	-0.024	0.040	0.544
Machine Operators vs Services Sales	-0.074	0.037	0.043	9 vs 7	-0.058	0.040	0.151	-0.028	0.040	0.487
Elementary vs Services Sales	-0.150	0.037	0.000	10 vs 7	0.002	0.040	0.967	-0.045	0.040	0.260
Armed Forces vs Services Sales	-0.060	0.099	0.547	11 vs 7	-0.049	0.040	0.222	-0.029	0.039	0.453
Machine Operators vs Skilled Workers	0.058	0.035	0.094	9 vs 8	0.038	0.040	0.339	-0.004	0.040	0.928
Elementary vs Skilled Workers	-0.018	0.037	0.637	10 vs 8	0.098	0.040	0.014	-0.021	0.040	0.607
Armed Forces vs Skilled Workers	0.073	0.098	0.458	11 vs 8	0.047	0.040	0.235	-0.005	0.040	0.983
Elementary vs Machine Operators	-0.076	0.040	0.056	10 vs 9	0.059	0.040	0.142	-0.017	0.040	0.674
Armed Forces vs Machine Operators	0.015	0.099	0.883	11 vs 9	0.009	0.040	0.825	-0.002	0.040	0.966
Armed Forces vs Elementary	0.090	0.100	0.368	11 vs 10	-0.050	0.040	0.209	0.015	0.040	0.700
No. and % of contrasts with p<0.05			28; 51%				9; 16%			5; 9%
No. and % of contrasts with p<0.10			35; 64%				10; 18%			8; 15%

Note. Pairwise comparisons of theory defined occupational groups are estimated from the seemingly unrelated regression equation model of visible expenditure aggregate in France (Table 4.7)

Appendix E. Non-parametric Engel curves for the visible expenditure aggregate

Homoscedasticity is one of the important underlying assumptions of the OLS-estimators, which is often violated in the distribution of expenditure data (Mihaylova et al., 2010). Visually observing the variance in the data allows suggesting the presence of heteroscedasticity. Non-parametric Engel curves along with confidence intervals are often used to visually observe the potential change in variance upon the growth in the outcome variable.

Scatterplot smoothing, which is based on univariate nonparametric regressions, has been used by researchers as a tool that does not make any preliminary assumptions about the functional form in finding the expected values of the outcome variable. Instead, it lets the data speak for itself (Cleveland, 1979). One of the types of non-parametric regression is kernel-weighted polynomial regression, which is also used in explorations of expenditure (e.g. Heffetz, 2011; Perez-Truglia, 2013). Kernel smoother function provides estimated data points as a smooth line. The points are defined by parameters – kernel function, bandwidth (width of bins), number of points used to obtain a smooth and weighted function. In the local linear regression, using the values within the bandwidth, a locally straight regression line is fitted and $\hat{Y}_i$ is predicted for each X_0. The predicted $\hat{Y}_i$ are used as data points for which kernel function assigns different weights to neighbouring points – the further is X from X_0 the lower weight it obtains. The most common kernel function is parabolic (Epanechnikov).

The dispersion in the values of visible expenditure is explored across the three national contexts and across the occupational groups. In the French sample, the non-parametric curves are built for the full sample and for separate occupational groups (**Figures E1** and **E2**).

Figure E1. Local polynomial smooth for the French sample
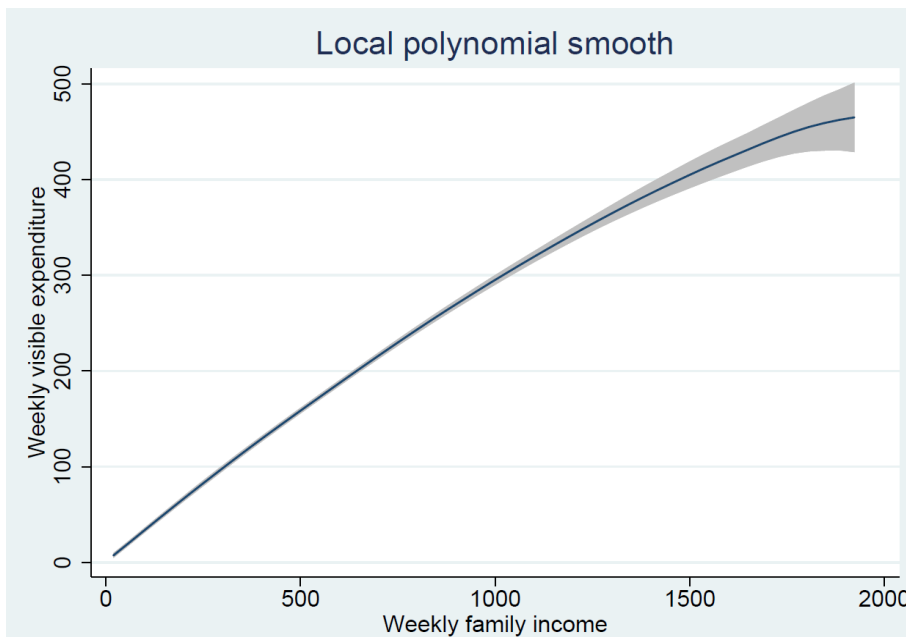
Note to Figure E1. The non-parametric Engel curve is obtained using kernel-weighted local polynomial for the visible expenditure aggregate on household income with the parabolic (Epanechnikov) kernel function for the observations where annual family income does not exceed EUR 100,000; the bandwidth for the smoother is 500. Shaded area denotes the 95% confidence interval.

Figure E2. Local polynomial smoother for five "service class" groups (France)
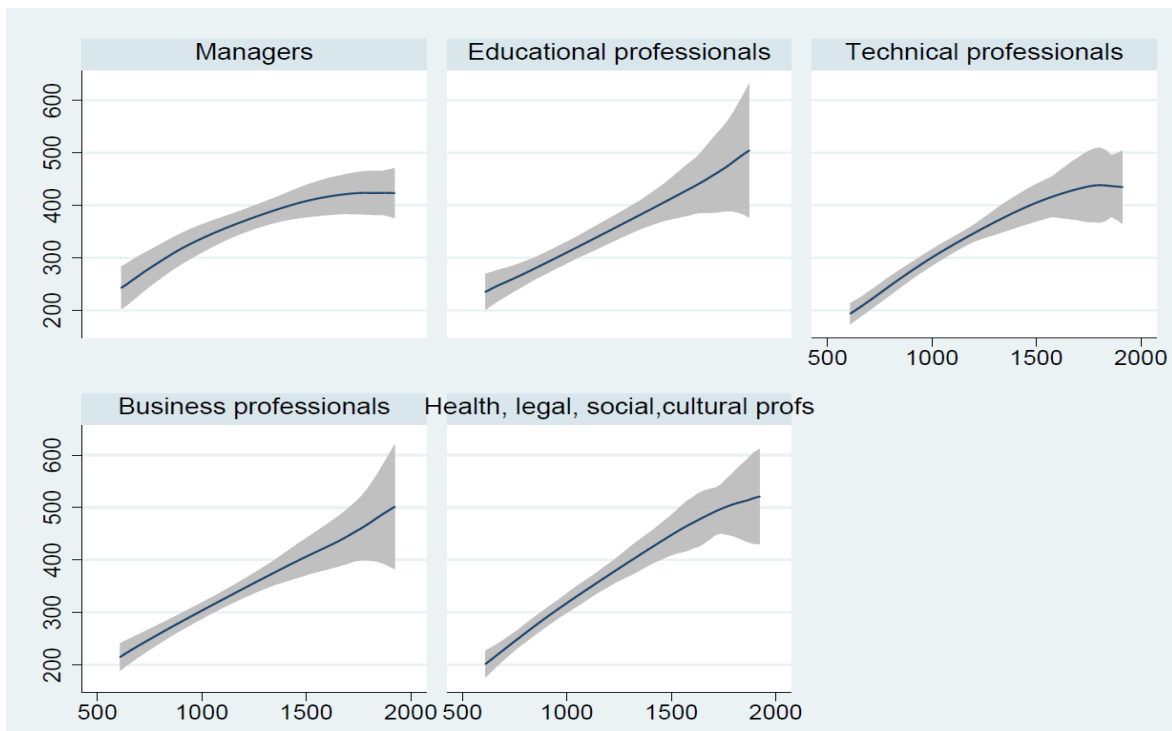
Note to Figure E2. The non-parametric Engel curves are obtained using kernel-weighted local polynomial for the visible expenditure aggregate on household income with the parabolic (Epanechnikov) kernel function, if annual

family income does not exceed EUR 100,000; the bandwidth for the smoother is 500. Shaded area denotes the 95% confidence interval.

From **Figure E1** we observe that for the full population Engel curve is non-linear and is characterized by heteroscedasticity (variation of the variance) – the variance increases towards the end of the income range. The nature of heteroscedasticity, however, differs by occupational groups. **Figure E2** shows that variance is relatively constant for the managerial group; the other service class groups follow the same pattern as the full sample. Differences, however, are observed in the shape of Engel curves – for managers, technical professionals and HLSC professionals the levels of visible expenditure stop growing at some point, as if reaching a "saturation point", which is not the case for business and educational professionals. Thus, we may expect some differences between the groups as for some of them visible expenditure is less income-elastic.

In Engel curves the closer bend towards the X-axis characterizes more luxurious goods, while a bend towards the Y-axis is characteristic for necessities. According to **Figure E2**, for technical professionals status-signalling goods are less of a necessity than for business professionals. This may be due to the nature of their working environment where the display of technical skills dominate over the need to build and/or display social capital, including using the commodities that facilitate such display.

For the British sample **Figure E3** shows the non-parametric Engel curve up to the 99th percentile; **Figure E4** – accounts for more observations at the top end of the income distribution. From the difference in the curvature between the two figures the distinctively high income-elasticity of visible expenditure is observed at the top income percentile along with high heterogeneity.

Figure E3. Local polynomial smoother function for Britain (up to 99th income percentile)
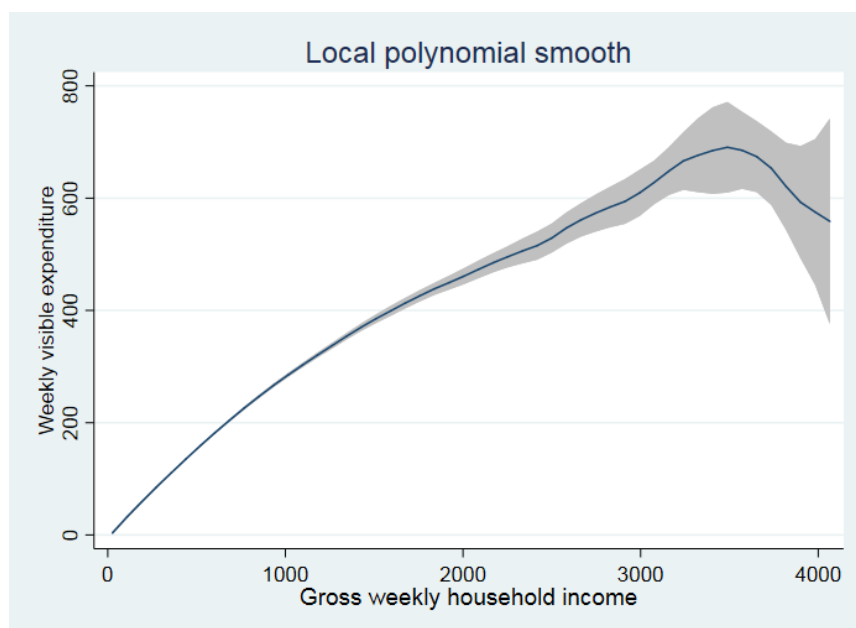
Note for Figure D3. The non-parametric Engel curve is obtained using kernel-weighted local polynomial regression (kernel smoother) for the visible expenditure aggregate on household income with the parabolic (Epanichnikov) kernel function estimated in the full sample if weekly family income does not exceed 4067 pounds (up to 99th income percentile in the sample); the bandwidth for the smoother is 200. Shaded area denotes the 95% confidence interval. The visible expenditure and gross weekly normal expenditure are adjusted for inflation (in 2016 prices). The full sample size is 23,400 (unweighted cell count), 234 observations at the top end of income distribution are excluded from the sample to construct the above figure.

Figure E4. Local polynomial smoother for Britain (up to monthly income of £5,000)

Local polynomial smooth
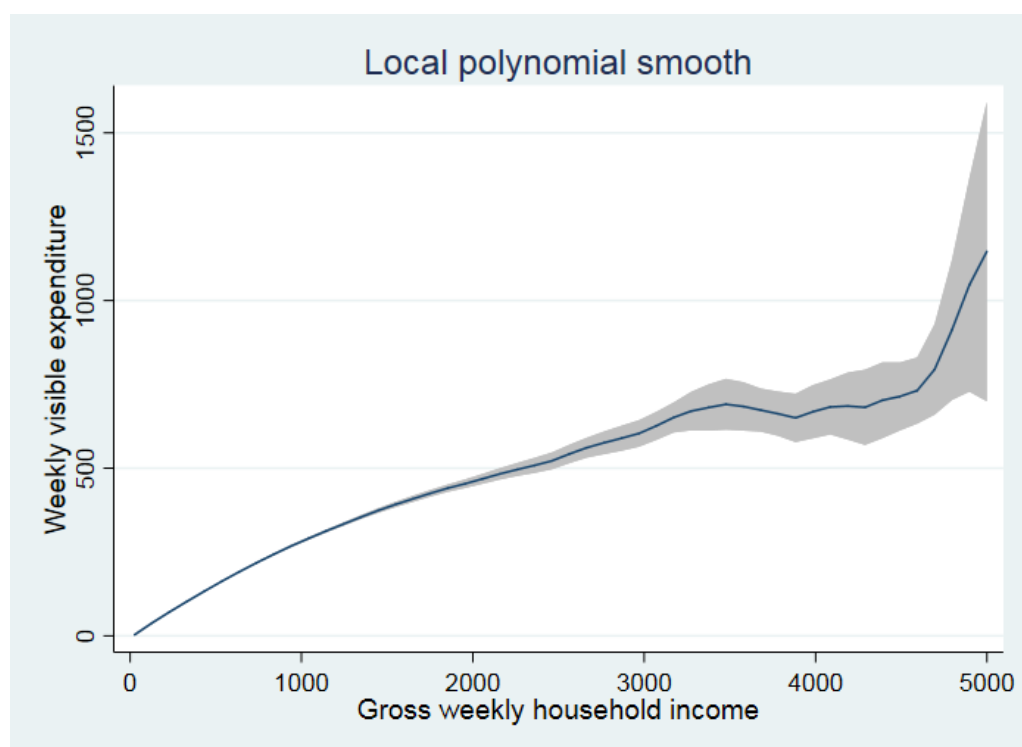
Note for Figure E4. The non-parametric Engel curves are obtained using kernel-weighted local polynomial regressions (kernel smoothers) or the visible expenditure aggregate on household income with the parabolic (Epanichnikov) kernel function estimated in the full sample if weekly family income does not exceed 5,000 pounds; the bandwidth for the smoother is 200. The shaded area denotes the 95% confidence interval. The visible expenditure and gross weekly normal expenditure are adjusted for inflation (in 2016 prices). The 99th percentile in the sample starts from GBP 4067 (in 2016 prices). The full sample size is 23,400 (unweighted cell count) and restricting the sample excludes 141 observations.

Separate polynomial smoothers for occupational groups (Figure E5) reveal that, for British educational and technical professionals, generally visible expenditure is less income-sensitive (although technical professionals have a small "jump" in visible expenditure at the very end of the distribution). Educational professionals are characterized by very high variation of variance (for this reason we may not expect them to be a distinctive group – the standard error for this occupational category in the forthcoming models is expected to be high unless the model tackles the heteroscedasticity problem).

Figure E5. Local polynomial smoother for five professional -managerial groups (Britain)
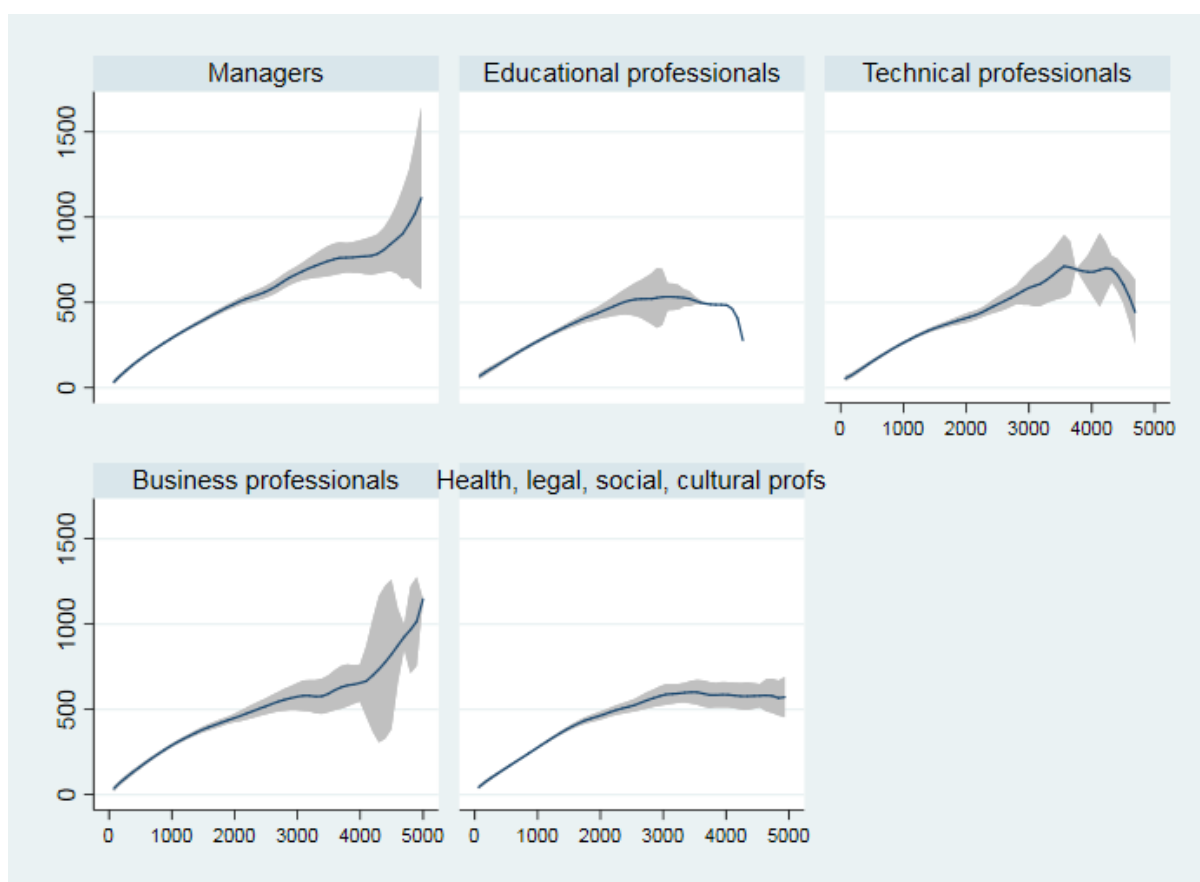
Note for Figure E5. The non-parametric Engel curves are obtained using kernel-weighted local polynomial regressions (kernel smoothers) or the visible expenditure aggregate on household income with the parabolic (Epanichnikov) kernel function estimated in five occupational sub-samples of households if weekly family income does not exceed GBP 5,000 (in 2016 prices); the bandwidth for the smoother is 400. The shaded area denotes the 95% confidence interval. N (unweighted cell count) for each occupational group is as follows: managers – 3287, educational profs – 1279, technical professionals – 1946, business professionals – 1729, health, legal, social and cultural professionals - 3273.

In the Hungarian sample, as educational professionals are typically earning less than the other "service class" (**Table 4.6**), the non-parametric curve for the group is generally shorter (**Figure E7**). Also, for management and technical professions the curves reveal the linear pattern. The steepness of the slopes is generally high across the groups.

Figure E6. Local polynomial smoother for full Hungarian sample
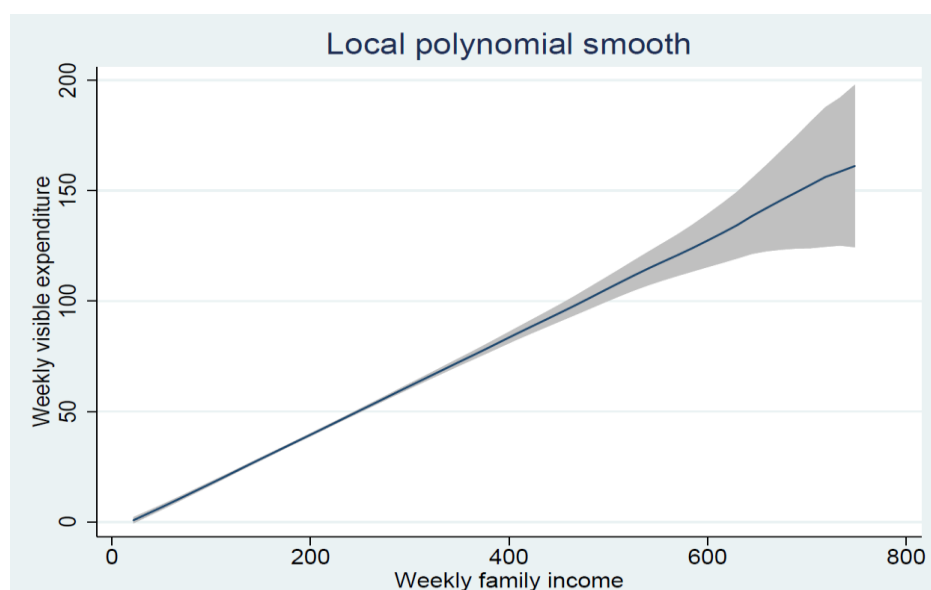
Note for Figure E6. The non-parametric Engel curves are obtained using kernel-weighted local polynomial regressions for the visible expenditure aggregate on household income with the parabolic (Epanechnikov) kernel function for observations where annual family income does not exceed EUR 40,000; the bandwidth for the smoother is 100.

Figure E7. Local polynomial smoother for five professional -managerial groups (Hungary)

Note for Figure E7. Non-parametric Engel curves are estimated using kernel-weighted local polynomial regressions of visible expenditure on family income between EUR 9,360 annual family income (EUR 180 weekly family income) (starting from the fifth income decile where there are substantial overlaps in income range and the majority of observations are located) and EUR 40,000 annual family income, the band width for the smoother is 100. The shaded area denotes 95% confidence interval. Horizontal axis: weekly family income; vertical axis: weekly visible expenditure.

To summarize, the data (Figures E1-E7) as presented via the non-parametric Engel curves shows that, firstly, the models may need to account for nonlinearity of relationship between visible expenditure and income and, secondly, high variation of the variancee revealed the by non-parametric Engel curves suggests that viability and the results of the OLS models need to be validated using the models that deal with the problem of heteroscedasticity. There is general increase in the magnitude of variance upon the growth of income, which suggests the presence of heteroscedasticity. Thus, generalized linear models (Manning and Mullahy, 2001; Nelder and Wedderburn, 1972) would be beneficial to ensure the robustness of results.

Chapter 5. Conclusion

The aims of the thesis were to investigate how capital combinations and their associated social trajectories can be used to identify occupational groups with pronounced consumption orientations reflecting distinctive human capital forms, and to compare the consumption strategies of these groups within and between national contexts. This thesis explored the relationship between occupation (approached as a combination of economic, social, and cultural capital, together with consumption implications of the occupational "field") and household consumption elements, which are viewed as strategic capital-signalling investments. This relationship was investigated in the British national context in separate studies for consumption and savings and within a cross-national comparative study using the data from the British, the French and the Hungarian household expenditure surveys.

The thesis relies on the frameworks of Gary Becker and Pierre Bourdieu. The theoretical foundations of their frameworks are not found to be in conflict, despite Becker's view of strategic consumption and Bourdieu's habitus and field as underlying reasons for dominant lifestyles and dispositions were developed in separated disciplinary domains. With habitus and field captured by membership of an occupational group, the approach of the thesis shows that positivist methods can be used to estimate the effect of capital combination on consumption.

Several aspects of consumption behaviour of occupational groups were explored in the three empirical studies. The first study explored contrasts between several narrowly-defined professional-managerial groups in Britain, in relation to capital-signalling consumption: the broad visible expenditure aggregate and its three elements – presentational (personal appearance), socialization-related expenditure and informational goods. While savings behaviour is traditionally viewed as precautionary, the second study, guided by the literature, re-emphasized the motive of maintaining social comfort and pursuing conformity with the norms of individuals' field to highlight the value of narrowly-defined occupational groups in explaining between-occupational contrasts in savings behaviour. The first two empirical chapters, thus, captured patterns of consumption and saving behaviour among several professional and managerial groups in Britain and revealed differences in their consumption priorities and underlying motivations. The third empirical part explored whether the between-occupational contrasts in relation to capital-signalling consumption are valid across the national contexts distinguished by different institutional settings. This part also revealed

differences in capital-signalling consumption at the national level and in relation to the specific occupational groups.

The triangulation of data is ensured by using different samples and types of surveys - several large-scale databases collected at the national level are used to answer the research question of the thesis. The thesis used micro-level data from the British Living Costs and Food survey (Secure version), the British Panel Household survey ("Understanding Society"), Harmonized European Household Budget Survey (Eurostat), as well as NMG Research Surveys (Bank of England) and Cambridge Social Interaction and Stratification scales (CAMSIS) datasets. The methodological approach employed several techniques of multivariate regression (seemingly unrelated regression, Tobit, logit, random-effects model and generalised linear models) with further estimation of the magnitude and statistical significance of between-occupational contrasts.

The findings of the thesis suggest a number of contributions to the literature and motivate further research. The thesis highlights the importance of social and institutional context for consumption analysis and re-emphasizes that consumption strategies are reliant upon an agent's position in the social space that is defined by the combination of capitals. Narrowly-defined occupation as a combination of capital forms is argued to be a salient determinant of consumption priorities. Consumption strategies, thus, convey important characteristics of career fields in relation to lifestyles and the aspects of agents' economic behaviour, instrumental for ensuring social comfort and advancement in occupational fields. The synergies identified between Becker's and Bourdieu's frameworks highlight the value of mixed epistemologies for consumption analysis, whereas the analysis of particularized expenditure categories in relation to narrowly-defined occupational groups is beneficial for understanding their lifestyles. Contrary to the pan-cultural view of international differences with its weak accounting for within-country heterogeneity, approaching cross-national quantitative comparative analysis from the perspective of agents' capitals and narrowly-defined groups allows capturing more subtle inter-societal differences when utilizing positivist methods in the comparative studies of habitus and field. Further research on the cross-national differences in motivations underlying consumption via models of realised consumer choice at the national level and at the level of occupation is expected to illuminate country typologies and has the potential for further wide application in business studies.

5.1. Distinction by consumption strategy: Motivation to interdisciplinary reconciliation

The thesis addressed the possibilities of an interdisciplinary consensus in relation to how capital combinations and trajectories can delimit occupational groups with particular consumption orientations to model and demonstrate different forms of human capital. As exploratory work in consumption analysis is hindered by disciplinary disparities, the thesis highlighted the synergies and re-emphasized the potential of revitalisation and relevance of the unified interdisciplinary approach.

The long-evolving disparities in the disciplinary traditions left a large underexplored terrain in the theory of consumption. These mainly resulted from the difficulties of reconciling the individualistic foundation of economic theory and its limited evolution towards wider acceptance of the definitive role of social interaction for agents' economic behaviour (Bögenhold et al., 2016; Veblen, 1965[1899]) on one hand, and the role of social contexts for individuals' practices and economic behaviour, including their endeavours to demonstrate capital and earn recognition, on the other hand. The attempts to bridge the interdisciplinary gap in consumption are signified by the stream of literature that points out the rationale to examine the consumption behaviours of groups. This thesis focuses on Bourdieu's and Becker's conceptualizations in particular, as their models, while developed in different disciplinary domains, both allow comparative analysis of capital-signalling consumption behaviour among groups defined by capitals and are well-embedded in their disciplines. Both scholars approach the boundaries of their disciplinary areas, which substantially enriches the analysis; and implications of their models allow characterizing career fields.

Commodities with signalling features as a vehicle for displaying capital were discussed in the rich stream of literature, which relies of Veblen's (1965: 25) claim that the "motive that lies at the root of ownership is emulation". This argument was developed by scholars in a number of ways. Initially the concept of emulation referred to emulating the rich in the context of Marxist vision of classes and stemmed from conformist behaviour. Emulation of others' consumption behaviour was viewed by Veblen (1965[1899]) as proportionate to the size of capital where capital primarily referred to economic capital. In the context of the polarized society where "economic prosperity depended upon emulation" (De Vries, 2008: 63), "the possession of wealth confers honour; it is an invidious distinction" (Veblen, 1965: 26).

Rather, Bourdieu's conceptualization suggested that distinction is the honour earned by capitals in their multiple forms and guises, not limited to economic capital alone. The breadth

of virtues that convey honour according to Bourdieu's logic is not limited to wealth (i.e. the economic element of capital). Similarly, Adam Smith (1974[1759]) in the <u>Theory of Moral Sentiments</u> admonishes that honour is conferred not only by possession of wealth, but by practices of virtue and wisdom. These virtues reside in the other forms of capital capable of earning distinction. For aspiring professionals in particular, practice of virtue involves "real and solid professional abilities" (Smith, 1974: 63). Thus, wisdom and professional abilities, as virtues of practice (that, within the Bourdieusian framework, are considered as a part of cultural capital), convey another fundamental for distinction on a par with economic capital, but also are reliant on the social environment that grants appreciation of these virtues.

Bourdieu's conceptualization of distinction transformed the old categories of perception. Veblen's concept of conspicuous consumption was largely embedded in the context of the Marxian polarized view of society where "it becomes indispensable to accumulate, to acquire property, in order to retain one's good name" (Veblen, 1965: 29) and focussed on the dichotomy between the leisure class and working classes. Bourdieu, on the other hand, conceptualized emulation and the vehicles for distinction in the modern, much "flatter", society characterized by the diversity of social contexts defined by employment relations, a variety of capitals valued in those contexts, and the need to possess and display these capitals.

Becker's emphasis on the strategic behaviour of agents adds another dimension to the analysis of relationships between social contexts and commodities that signal capital and status (Becker, 1965; Becker and Murphy, 2000; De Vries, 2008). Thus, while Bourdieu's conceptualization suggests that distinction is the honour earned by capitals in a variety of its forms, this thesis, appreciating the synergies between Bourdieu and Becker's approaches, suggests that the strategic development and display of these capitals involves distinctive consumption strategies. The ability of some commodities to display and augment the perceived value of individual's capital (whether in its economic, social or cultural form) and the strategic motivation to consumption, thus, gains particular importance in the view of the Bourdieusian notions of 'habitus' and 'field', where individuals enter into relations of competition to accumulate, display and realize the potential of their capitals. Different career trajectories, thus, emphasize different dimensions of consumption strategy.

The common roots in the theory that underlies the conceptualizations of Becker and Bourdieu suggests that they are not in conflict, but rather highlight the different sides of consumption behaviour – the conscious and the unconscious, the agent's strategy and the habitual

behaviour. In the view of the unified approach, both strategy and habitus are closely intertwined drivers, which reside in the "black box" of consumer decision-making, and are eventually reflected in agents' practices, routines and the realised consumer choice.

Both the Bourdieusian analysis of expenditure of occupational groups that informed the between-habitus differences, and Becker's introduction of social forces into economic models, represent attempts to join the economic and the social and allow making predictions in relation to consumption behaviours of groups defined by capitals. The epistemological wall and the disciplinary traditions, however, brought more focus to the social contexts in one thinker's work and to the economic and rational in the other's work. The theoretical discussion of Chapter 1 showed the conceptual complementarity and the feasibility of the empirical analysis of groups characterized by commonality of capital forms to explore their consumption behaviour in a systematic and theory-motivated way. Thus, to avoid the subjects of the social world being represented as merely "operational divisions … [that] only need to be recorded" with no further explanation (Bourdieu, 2010:591), the approach to the unified analysis would suggest account for socio-cultural belonging when applying classificatory schemes in the framework of consumption analysis.

However, while consumer theory focuses on individuals, individuals may not be assumed to be autonomous and Becker's work on family economics suggests that consumption does not primarily follow the logic of isolated choices, rather consumption-related decision-making is guided by common goals within the household. These are, however, intimately aligned with social (and professional) roles of household members and their career paths. As socio-economic standing of a family is defined by their "bread-winner", so the position of the bread-winner in the socially and culturally defined space should leave a major footprint on consumption goals and aspirations of the family. This view justifies the rationale for exploring household expenditure patterns as defined by capital distribution in the occupational field of the bread-winner's professional position.

5.2. Summary of empirical findings

Guided by the synthesis of Becker's and Bourdieu's approaches and seeking to answer the research question as to whether the consumption strategies of households are associated with different combinations of capital forms and whether these may be predicted by the theory, the

thesis undertook three empirical studies. First, it explored the capital-signalling investments most likely to secure the social comfort and advancement in the career field across several occupational groups. Next, acknowledging that maintaining sufficient levels of these investments over time needs material backup, savings behaviour of the same groups was explored. The final empirical study of the thesis compared the capital-signalling investments of occupational groups, signified by differences in capital combinations, cross-nationally.

The first empirical study found that occupational groups signified by distinctive differences in combinations of capital forms, distributed in their fields, differ in their expenditures on visible goods and the three important sub-classes of visible expenditure – presentational, socialization-related, and informational goods. These are instrumental for visible display of different forms of individuals' capital and, thus, carry different relative values across the occupational fields. The rich body of prior sociological literature allowed hypothesizing significant differences between specific managerial/professional groups. The study used the secure version of the British Living Costs and Food survey (2009-2016) to relate occupational characteristics to consumption patterns and test whether distinctive patterns of "visible" consumption and its components can be identified, consistent with capital combinations required for membership of, and advancement within, particular occupational fields. Using the seemingly unrelated regression models in cross-sectional data and undertaking a pairwise comparison of marginal effects of occupational groups (habitus) in the similar income range, the study finds evidence of different levels of expenditure on these clusters of goods for specific managerial/professional groups that are consistent with combinations of capitals distributed in their career fields. While appreciating the association between habitus and certain aspects in economic behaviour of agents as stemming from the culture of practice, the study places more emphasis on the use-value, or instrumentality, of goods for career trajectories with a particular focus on consumption behaviours that represent investments in occupational recognition and advancement.

Given the high emphasis that some professional groups pay to status-signalling and presentation-related goods, maintaining the spending standard capable of ensuring social comfort and conformity with norms and traditions of their peer-groups would require an adequate saving strategy. Savings, viewed as a measure to maintain the strategy of consumption aligned with the norms of the occupational field, should, thus, be affected by individuals' capitals and be associated with the field, where the value and virtue of capitals are legitimized. Viewing savings as a commodity that requires a share of household budget

and represents a part of consumption strategy, the second study of the thesis argues that analysis of the determinants of personal savings behaviour could be substantially improved with the addition of "occupation" variables – defined narrowly, rather than based on the broad classifications traditionally used in previous studies. Using the random effects logistic regression and the random effects Tobit models, the analysis of panel data from the Understanding Society survey (2009-2015) explored the propensity to save and the levels of monthly savings among the narrow clusters of professional/managerial occupational groups defined by distinctive combinations of capital forms. The occupational dimension was found to be a salient variable and an important classifier in modelling saving behaviour and the paper suggests that, given sufficient knowledge of human capital characteristics for specific occupational groups, their saving behaviour can be modelled in a predictable way.

Triangulation between the datasets (LCFS, UKLHS "Understanding Society", CAMSIS and NMG Research Surveys) employed in the two studies illuminated the interplay of consumption and saving behaviour as related to the pressures and incentives of career fields. **Table 5.1** summarizes the findings about the strategic dimensions of consumption behaviour of professional groups from the first two studies (Chapters 2 and 3).

Business professionals, who emphasize status-signalling, presentational and socialization-related goods, as identified from the first paper, are also distinctive savers. Their strategy can be summarized as aimed at maintaining their ability to signal status and augment the social capital of their organizations. The groups whose field prioritizes some forms of cultural capital – technical and educational professionals - show less active saving behaviour and also lower investments in appearance and networking (i.e. the vehicles for augmentation and signalling of social capital). Admitting that saving behaviour contributes to long-term social comfort, savings and conspicuous consumption for business professionals seem to complement each other, due to the need to maintain consistent spending on presentation and socialization in their career field.

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Table 5.1. Interplay between the motives for saving and the motives for consuming for the British professional and managerial groups

	Expenditure aggregates				Savings behaviour	
	Visible	*Presentation*	*Socialization*	*Informational goods*	Propensity to save	Amounts saved
Business vs Technical professionals	more ***	more ***	more ***	more *	more	more
Business vs Educational professionals	more	more *	more *	less ***	more *	more **
Educational versus Technical Professionals	more **	more***	more	more ***	less	less
Higher managerial vs. Lower managerial in private sector	less **	same	less	less	more **	more ***
Business profs vs. Lower management	same	more *	more ***	more	more *	more **
Educational profs vs. Public sector management	same	less	same	more *	less ***	less **
Public sector management vs. Lower management (private)	less	more	more	same	more **	more **

Source: Based on Chapters 2 and 3.
Note. The table summarizes findings about the aspects of consumption and saving behaviour explored in Chapter 2 and Chapter 3 (most of the results in relation to professional and managerial groups are available in **Table 2.6.** and **Table 3.7).** The cells in the table reflect the direction of difference and the levels of statistical significance of the corresponding contrasts between marginal occupational effects. When the coefficient of contrast is less than 0.01, the cell indicates "same".
***p<0.01, **p<0.05, *p<0.1.

Consolidating the findings about the managerial groups from both empirical papers we observe that, while higher management spends significantly less on visible goods than lower management, the propensity to save and the amounts saved by the former group are significantly higher. In other words, compared to the three professional groups above, where more active saving is not undertaken at the expense of conspicuous consumption, here is an opposite scenario with the managerial groups – conspicuous consumption rather suppresses savings. Lower managerial groups place more emphasis on visible goods at the expense of savings. Thus, when observing whether the motives for saving and the motives for consuming suppress or complement each other, one may evidence the impact of social context defined by the occupational field and the forms of capitals. The two different patterns observed among the managerial and the professional groups highlight that the interplay between the motives for saving and the motives for consuming are socially-defined, i.e. depend on individuals' positions in the social space that motivates economic action.

Substantial differences in consumption behaviour can only be observed when occupation is treated narrowly along with social influences and the account for capital forms dominating the occupational fields. In line with positivist methods, the thesis employs variables of occupational membership as "catch-all" units that reflect inseparability of social forces and the value of capital forms in career fields (following the logic of Becker's approach to social capital (Becker and Murphy, 2000; Fine, 2000)). Such "catch-all" units allow empirical investigation to support theory and arrive to testable predictions. Thus, the method of exploration offered by the thesis allows capturing some important aspects of social influences along with using large sample sizes. It draws on the benefits of mixed epistemologies - the rigour of economic approach characterized by the "view from the top" – on one side, and wider utilisation of insights from sociological studies, to better understand individuals' consumption-related and financial behaviour on the other side.

While the current cross-national comparative literature mainly appropriates the pancultural approach with little attention to within-country heterogeneity, the thesis emphasizes the role of formal and informal institutions and agents' capitals distributed in occupational fields. Extending the first empirical study of the thesis, the third chapter represents a cross-national comparison to illustrate how the institutional setting of a national context and its interaction with social contexts defined by the employment field allows formulating predicted differences in capital-signalling consumption of occupational groups.

This study focused on representative economies with distinctive differences in the dimensions, which, firstly, define the models of capitalism, and are also likely to affect consumption behaviour in relation to capital augmentation and display. The same dimensions of consumption strategies, as in the first paper, at the country level and at the level of professional groups, were explored in the French, the Hungarian and the British national contexts. **Table 5.2** summarizes the key results from Chapter 4.

Table 5.2. Summary of findings from the cross-national comparative study (Chapter 4)

	France	**UK**	**Hungary**
Contrast between Business vs. Technical professionals			
- visible expenditure	8 % at p<0.05	8 % at p<0.05	insign.
- presentational expenditure	19 % at p<0.05	18 % at p<0.05	insign.
- socialization-related expenditure	30 % at p<0.05	15 % at p<0.05	insign.
Contrast between Educational professionals and other professional-managerial groups			
- expenditure on informational goods	sign. at p<0.05	sign. at p<0.05	insign.
Income elasticity of expenditure aggregates (based on SUR-models)			
- visible expenditure	0.84	0.81	0.98
- presentational expenditure	0.78	0.64	0.82
- informational expenditure	0.92	0.32	0.69
Expenditure aggregate perceived as a capital-signalling device: France vs. Britain			
- presentational expenditure	more***		
- socialization-related expenditure	less***		
- informational expenditure	less***		

Sources and notes. The table summarizes findings about the aspects of consumption from Chapter 4 (full results available in Tables 4.8, 4.9, 4.10 and 4.12). Income elasticity represents the percent increase in the corresponding expenditure aggregate when household income increases by 1%. Whether an expenditure aggregate is perceived as a more effective capital-signalling device is estimated via exploration of overlaps in confidence intervals of correlation coefficients estimated between model residuals. ***p<0.01, **p<0.05, *p<0.1.

The claim made in the first empirical paper applies to the countries representing mature capitalist economies - there is a relationship between distinctive occupational groups and the structure of their preferences in relation to goods, which convey different dimensions of consumption strategy. Occupations that represent distinctively different combinations of capitals, like commercially-oriented business professionals, whose social capital and

networking matter for personal and organizational success, or professionals rich in technical capital or ascetic educational professionals, have characteristic features of lifestyle and dispositions. While the patterns of between-occupational contrasts have shown a substantial degree of similarity between Britain and France, the formulation of the professional ethos is suggested to be a more common feature of mature capitalism; Hungary has not shown significant between-occupational contrasts in capital-signalling consumption (**Table 5.2**). Admitting path dependence, which would also imply gradual development of distinctive professional ethos, this finding suggests that the Hungarian society yet has to reach the stage, when distinctiveness of occupational group behaviours is pronounced.

In line with prior literature, higher income-sensitivity of conspicuous consumption was found in the representative transitional economy. The French context is signified by intellectualism and credentialism due to education system that defines the value of cultural capital in industrial setting showed high income elasticity of informational goods.

The value of a type and form of capital as a virtue of professional practice, a subject of distinction, and an object of conformist behaviour, is institutionally defined. Where institutional forces encourage cultural capital to be the ultimate contributor to the honour of a profession, strategic investments in informational goods become a signalling vehicle to a larger extent than in a national context, where the other forms of capital constitute not a lesser virtue of professional practice. The analytical technique of residual correlations allowed exploring whether the underlying motivations for consumption of appearance-, socialization-related or informational goods, are driven by the motive of status-signalling. Compared to Britain, in the French national context, agents see higher instrumental value of personal appearance for capital-signalling. The opposite is found in relation to socialization-related expenditure. The features of liberal market economies - labour fluidity and higher emphasis on general rather than industry- specific knowledge in their education systems – explain the motivation of individuals to actively engage in networking, which can be a source of career advancement and independent knowledge-building. Cross-national differences in the underlying motivations are noted at the level of professional groups. For example, managers in France view informational goods more as a capital-signalling device compared to the general population (full sample). Conversely, this pattern is not observed in Britain. Also, in France educational professionals view appearance as a more important capital-signalling device than in Britain.

To summarize, the findings of the thesis highlight the value of narrowly-defined occupation for the quantitative analysis of household consumption-related behaviours, due to its better explanatory potential that stems from wider use of contributions from sociological and anthropological studies. The thesis argues that elements of consumption behaviour represent strategic investments in occupational recognition and advancement and characterize career fields. It illuminates the patterns of consumption behaviour in the structures of social space which pave the way to future comparative inter-temporary and cross-national studies.

5.3. Contribution to knowledge

The thesis makes a number of academic contributions to the existing literature. First, it demonstrates tastes as a function of objective factors and highlights the importance of class, defined by capital composition. It also confirms the role of occupation as a salient determinant of underlying motivations and prioritization in agents' consumption strategies. The thesis contributes to knowledge about relative characteristics of career fields and re-emphasizes the need to account for social meanings of goods in economic analysis of consumption. It highlights the role of individuals' capitals in the interaction between savings and distinction-related consumption. The findings and the conceptual framework motivate further explorations in several disciplinary areas that also suggest important implications for business studies. Moreover, exploiting the further directions of research in the area is expected to re-invigorate academic interest in the benefits and the potential for the re-unified interdisciplinary approach to consumption in social sciences.

Inter-class penetration of tastes and growing affordability of visible goods diminished the role of income when analysing tastes and preferences, giving way to lifestyle as a mark of peer-group membership (Galbraith, 1958; Trigg, 2001). Given the growing obsolescence of traditional social class, there is a risk of wholesale rejection of class-related variables in consumption analysis undertaken in the economic research tradition. The empirical findings suggest that occupation - viewed as a dimension which accounts for the combination of human capital elements and for social influences characteristic to working environments - represents a salient determinant of consumption priorities and an important classifier in modelling consumption and savings behaviour. The specificity of occupational groups contributes to the interpretative power of occupational effects. Narrowly-defined occupational groups, clustered on the basis of similarities in social forces, norms, and working

environments, provide results that are not only significant, but corroborate the findings of recent qualitative studies that practices are conditioned on the social environments of occupational fields.

Following the Bourdieusian logic that dispositions and practices are defined by habitus, the revealed association between the distinctive occupational groups and the structure of their preferences suggest that consumption strategies convey characteristics of career fields. The thesis, thus, contributes to understanding of lifestyle differences between occupational classes.

The methodological approach of the thesis has re-enforced the value of the previous proposition about exploring the between-class differences via particularized expenditure aggregates (Prais and Houthakker, 1955). Acknowledging differences in the vehicles that generate distinction across the fields justifies the disaggregation of the visible/non-visible goods dichotomy. A further focus on the narrow clusters of commodities with similar use-value (status-signalling, presentational, socialization-related and informational goods) demonstrated the social importance of objects with specific characteristics for particular professional groups, i.e. their instrumental value "in the eyes of the beholder." Objects of consumption in the context of competitive fields become observable, tangible vehicles of distinction. Differences in the dispositions in relation to particularized groups of commodities suggest that commodity aggregates possess unequal use-value for different occupational groups. These important differences would be left unattended unless a broad wealth-signalling expenditure aggregate is disaggregated. The ways that expenditure groups are particularized, however, need to be informed by (existing or future) research in the sociology of consumption.

The thesis, inspired by Bourdieu's and Becker's visions of re-unified social sciences and the synergies in their approaches, illustrates the benefits of incorporating sociological and anthropological insights when analysing the structure of preferences, as these enrich and enhance the explanatory potential of consumption models. It also promotes the importance of interdisciplinary dialogue. Social sciences tend to systematically ignore the theoretical interactions between disciplinary fields and the differences in research traditions hinder exploration of consumption behaviour. Consumption behaviour, however, is not a primarily economic phenomenon, but rather is deeply embedded in social context, as social interaction

and cultural influences largely define the choice of commodities and consumers' long-term strategies.

The thesis re-emphasizes the value of mixed epistemology as the key approach in the unified social sciences, to reflect the phenomena of reality, and speculates on the traits of such approach in Bourdieu's and Becker's work. While the empirical analysis undertaken in the thesis uses positivist methods, the general approach of the study cannot be viewed as purely positivist. The positivist approach to consumption analysis would mainly focus on the act of purchase and the registered levels of spending, with any relevant characteristics treated as exogenous to the models. This epistemological stance contrasts with realism, where consumption primarily addresses values, attitudes and identities, which define consumer choice, and how the objects of purchase are used. Bourdieu rejected methodological individualism in the relationship between the individual and society and his concepts of habitus and field were developed at the group level. The original concepts, however, focused on the individual as a unit of analysis (Bögenhold et al., 2016; Bourdieu (2010[1984]). In fact, while in his work Bourdieu (2010, 2011) opposes positivist methods, scholars agree that Bourdieu follows the mixed epistemology – realism and positivism (Christoforou and Laine, 2006; Longhurst and Savage, 1996). In a sense, his approach is "a mid-way between rationalism and realism", which helps avoiding the extremes of traditional epistemological dichotomies treating them as "not opposing, but complementary positions – to draw together the theory and the experiment" (Christoforou and Laine, 2006: 5).

The value of the Bourdieusian framework, which uses habitus as a "catch-all" concept imbued with values, norms, traditions, and lifestyles, was acknowledged by scholars in heterodox economics – "by using this framework economists are able to build stronger theories, which lead to testable predictions… and are grounded on empirical studies… they can produce theories… incorporating the social dimensions of economic behaviour…" (Christoforou and Laine, 2006: 5). Similarly, Becker, in the positivist tradition, approaches social capital as a "catch-all" concept. Despite some critique of such approach, when a "catch-all" construct represents a meaningful, theory-guided, embodiment of the phenomenon (a habitus in our case), the variance it explains in the model earns a legitimate role in improving the explanatory power of the model, allowing the social to enter the positivist model. Amartya Sen (1990:264), while acknowledging the limited predictive and explanatory power of economic methods, expressed admiration for Becker's attempts to unify the analysis in the

social sciences and admitted that "whatever tools prove to be appropriate in economics would… have relevance in sociology".

Similarly, the thesis uses occupational variables as a "catch-all" for the combination of capitals. It argues that while positivist methods may not answer many questions of the sociological research agenda, this, however, does not diminish the value of the economic approach in illuminating the structure of relationships and, in particular, in establishing significant distinctiveness of certain occupational classes in relation to consumption practices.

The thesis emphasizes that formal and informal institutional factors, societal norms and traditions impact agent's prioritization logic in consumption and, thus, the differences in the structures of preferences for the same habitus across national contexts are to certain extent predictable. The findings motivate further analysis of consumption patterns, as linked to institutional settings, to explore the potential of deriving country typology based on factors that guide economic behaviour of agents.

Moreover, the outcomes of the thesis motivate further linkages to business studies in several disciplinary areas. While human resource management (HRM) typically focuses on firms, the occupational field represents another analytical dimension – the social space where professional knowledge is disseminated across networks and where the value of different types of cultural capital is established. The place of the firm in the social space is characterized by predominant distribution of capitals and organizations are constrained by their fields of industrial activity, which dictate the need to preserve and augment their scientific, commercial or technical capital as a source of competitive advantage (Bourdieu, 2011). Understanding the social meaning of objects and consumption-related practices in the context of an occupational field may act to facilitate social cohesion, socialization into profession and suggest optimal ways of employee incentivization.

Institutional settings define the value of particular types of capitals in the national occupational fields. In other words, societies reward the same occupations (as combinations of capital) differently due to factors like credentialism, anti-intellectualism, status of particular professions, traditions and values. Institutional settings, thus, may dictate the differentials in consumption strategies appropriated by the same occupational groups across societies.

The prior literature successfully exploits the Bourdieusian framework to derive propositions for augmenting expatriate capitals (Harlsberg and Brewster, 2009). An important part of an

expatriate's cultural intelligence is avoidance of inappropriate action in the new cultural environment (Selmer, 2006). Consumption behaviour and lifestyle (that also relate to the three dimensions of in-country adjustment – adjustment related to work, non-work settings and interaction with host nationals) thus constitutes one of the dimensions in expatriate adjustment that should not be neglected to ensure their social comfort. The current measurement of the cross-cultural difference (distance) in this area, however, often relies on the pan-cultural Hofstede's approach (e.g. Zhang, 2012).

The findings of the thesis suggest that the objective institutional factors when applied to more specific socio-occupational contexts may provide a meaningful (guided by sociological and economic theory) explanation for the difference. The thesis, thus, offers the first step to country typology - it uses literature to establish consumption-related expectations. However, arguing that the focus is solely on the national trait is not sufficient and the pan-cultural approach, with universal values ascribed to the whole country population, has inherent limitations. Rather, more attention should be paid to the agents, their capitals and the pressures and incentives stemming from the country-specific context of their occupational field.

The thesis also has implications for consumer behaviour. While social class tends to be treated as a redundant concept, occupational groups as culturally-defined class fractions still can be viewed as a relevant segmentation basis. Moreover, the thesis re-emphasizes that there is a wider scope for exploring the determinants of variation in national and cross-national consumption patterns. Between-country differences are often analysed from the cultural perspective of Hofstede's analytical framework, for example, in relation to adapting international retailing strategies or adapting branding and advertising strategies (Mooij and Hofstede, 2002; Mooij and Hofstede, 2010) as a way to pursue higher national responsiveness to the local market. Often the more affluent consumer groups, with higher purchasing power, are of interest for MNEs, thus, more focus on social contexts and heterogeneity within the upper classes would provide more insights for international marketing strategy.

To summarize, while the Bourdieusian approach maps the space of lifestyles, dispositions and practices on the social space, this thesis relates the social space (as a world of occupational fields) with preferences for goods instrumental for earning distinction, honour and signalling capitals. In other words, the thesis suggests that distinction by capitals is

distinction by investment. Veblen's concept of emulation as a product of invidious consumption has earned its legitimacy over its long history of development. However, while having the same theoretical foundations, the motive of distinction, which rather implies signalling the possession of values, capitals and virtues of practice to the peer-group, shows undeniable relevance to the modern context. Consumption analysis, thus, benefits from being unseparated from the context of agent's peer-group and accounting for the socially-defined use-value of commodities. This emphasizes occupational field as a distinctive social formation and an important analytical unit, whose exploration bears implications for adjacent disciplinary areas.

5.4. Limitations and difficulties

One of the major limitations in the empirical approach of the thesis is the potential model endogeneity. Traditionally sociologists, and Bourdieu (2010) in particular, purport the endogeneity of preferences, while economists treat preferences as exogenous (Christoforou and Laine, 2006). The latter approach allows modelling consumption using multivariate regression and assuming variables to be exogenous to the models. The general approach of the thesis admits that both – socialization into a profession (occupational field as an exogenous factor) may affect preferences and self-selection into an occupational field based on inner dispositions may in some ways be associated with consumption preferences. The investigation of the two mechanisms, which are hard to separate, could be a subject of exploration using non-positivist methods and is not covered by this thesis.

There is, however, no theoretical presumption that exactly the same set of inner characteristics/ factors that defines individuals' self-selection into the occupation also defines the amount of investment into visible, presentational, socialization-related or cultural expenditure and the amount of savings. Admitting the potential effect of both mechanisms (socialization and self-selection), the models of the thesis may not be claimed fully endogenous; however, some extent of bias due to potential endogeneity is admitted. In a similar way, the renowned work of Skinner (1988), which identified lower levels of savings for self-employed and sales-related occupations using occupational dummies, admitted differences in attitudes towards risk among occupations, but not the direct link with saving behaviour: "if those most accepting of risk also chose sales or self-employment for their

occupation, there would be no theoretical presumption that such occupations should save more"

Also, as Prais and Houthakker (1955:160) warn against the problem of endogeneity of occupation in consumption models, they note that the difficulty in identifying separate effects of occupation is its association with other characteristics, like income or region. They, however, suggest that this source of endogeneity is possible to overcome with larger occupational subsamples to obtain a sufficient range of variation.

Finally, given long established expectations about differences in consumption preferences among social classes (Prais and Houthakker, 1955), social (or occupational) class is potentially partially endogenous to models, despite being accounted for in consumption and saving models for many decades of research (e.g. Cage, 1988; Friehe and Mechtel, 2014; Fuchs-Schündeln and Schündeln, 2005; Skinner, 1988). As the empirical investigation of the thesis has shown that model estimates do not change with partial class disaggregation, in a sense, there are no precondition to claim that the potential endogeneity-related bias the models increases due to the fact of partial class disaggregation

Another limitation of this study is that only a few occupational classes are explored - the main focus is on the "service class", where professional identities are more pronounced and, thus, more distinctive patterns are expected. There is potential for exploration of the other occupational groups. However, a lack of studies on systematic classification of occupational clusters with common patterns of culturally-defined economic behaviour hinders empirical investigation. For the same reason the extent of disaggregation of the "service class" is limited. Insufficient sociological literature to set expectations on preferences of other narrowly defined occupational groups led to the need to use an unallocated category of "other professionals". However, the robustness checks showed that disaggregation of broad socio-economic groups do not substantially distort model results in relation to other predictors. Also, any solution to the problem of aggregations inevitably leads to coarseness of both - individual aggregates and commodity aggregates (Brown and Deaton, 1972), which is another limitation of the study.

Limitations in the design of the surveys used for empirical exploration (the duration of diaries, where households report their expenditure for the purposes of the survey, the response, non-observation and non-response errors), inevitably set limitations to the validity of results (Groves, 1998). For example, in the British LCF survey, the high number of

nonresponding households may have affected precision of the data collected and, thus, contributed to non-observation error; also, there are categories of expenditure, for which missing information was imputed (LCF, 2010).

When the approach initially employed in the analysis of the British LCF survey was applied cross-nationally, to see to which extent behaviours associated with specific occupations transcend national boundaries, smaller occupational subsamples in other national contexts may have resulted in insufficiently pronounced between-group contrasts in those contexts. Also, there were difficulties related to the comparability of variables related to expenditure and occupation across the expenditure surveys from the three national contexts.

The interdisciplinary aspect of this study was a challenge. As the disciplines matured in their own unique traditions, so did the terminology, the styles of narratives and the norms in communicating the findings. The thesis does not argue the supremacy of a particular epistemology and methods, rather emphasizing the benefits of complementarity for profound exploration of the phenomena of reality and attempting to illuminate intuitions in relation to the specific logics of the separated disciplinary worlds.

5.5. Further research directions

The research area addressed by the thesis is located at the intersection of the sociology of consumption, the sociology of occupation and the positivist approach to strategic consumption behaviour. Further explorations in economic behaviour of specific occupational classes may not only illustrate the underlying social processes and mechanisms that shape demand for certain goods, allowing socio-cultural forces to enter the consumption analysis of particularized groups of commodities (and thus, augment the explanatory potential of occupational effects in modelling). Moreover, it will also illuminate lifestyles and underlying motivations of individuals in the organizational domains where their occupational classes are prevalent.

The expansion of the enquiry can evolve in four major directions as well as their intersections:

1) explorations about relationship between objects of consumption and "narrowly" defined occupational groups in the positivist research tradition, and addressing the mechanisms for

commonality in consumption-related behaviours in interpretivist tradition. Sociological studies of specific occupational groups that investigate consumption-related behaviours and underlying motivations as a result of institutional pressures and incentives of the corresponding career fields would further develop the area of enquiry;

2) in the branch of business studies, the findings regarding the economic behaviour of particular occupational groups can be applied and further developed in the area of human resource management and comparative HRM. Insights about consumer preferences in relation to particularized consumer goods and cross-national differences in preferences and underlying motivations may be interesting for marketing scholars and practitioners;

3) historical studies of occupational groups in the economic tradition of consumption analysis;

4) theoretical work on exploring the evolution of the socio-economic thought in consumption, using closer synthesis of interdisciplinary concepts and systematization of consumption-related knowledge in sociological and anthropological domain to facilitate empirical work that employ economic methods.

First, more systematic and detailed knowledge of occupational fields with their prioritized forms and types of capitals and trajectories would help construct a conceptual framework *a priori* that would allow researchers to understand and interpret the observed differences and commonalities in dispositions and preferences instead of attributing them *ex post* to values. The findings suggest that occupation matters and the more in-depth knowledge on occupations is developed, the more explanatory potential there is for the analysis of consumption and the better the set of predictors becomes in modelling. Expansion and synthesis of extant qualitative literature about consumption-related behaviours, underlying motivations in consumption and especially capital-signalling behaviour of specific occupational groups such as accountants, sales representatives, or academics, is needed to further develop this research area. Such work on occupational profiles in relation to consumption behaviour would allow testing the existence of distinctive differences in occupational identities and define agents' work/home orientation across the fields and between national contexts.

Further expansion in the area of the social meaning of objects - their use-value, instrumentality for capital signalling and the social meaning of object ownership - may define another set of tools for more effective and multi-dimensional cross-national and inter-

temporary comparisons of consumption patterns. Also, addressing the limitations in the scope of exploratory work of the thesis, further investigation may extend to transitional occupations, or aspiring intermediate groups, and their consumption strategies.

The findings imply that there are differences in the interplay between the motives for consuming and the motives for saving among different habituses. As proposed by Feltovich and Ejebu (2013), positional goods inhibit savings. However, the findings show that this may depend on the social context. The findings, thus, trigger another question – when both savings and "precautionary spending" on presentation and socialization are emphasized, then, in broad terms, what is "sacrificed"? Would the social environment of occupational groups be also acting as to affect the propensity to acquire debt? In the game-playing character of the field, the strategic behaviour in relation to capital display may require substantial economic resources. Management of personal finance and the nature of loans that agents take to ensure their social comfort via capital-signalling consumption, thus, is expected to characterize the consumption strategy of some occupational groups and the pressures of their field. For example, Bone (2006) illustrates how socialization into profession of a seller involves ostentatious consumption and material display of financial success. His study shows how the pressures of the occupational field make employees to go beyond current earnings and take a loan on as visible object of consumption as a luxury car (Bone, 2006). Such pressures and system-level expectations will be evidenced in the patterns of consumption and financial behaviour of members of occupational groups and will also represent important characteristics of career fields.

Further work in the non-positivist tradition would reveal and conceptualize the mechanisms regarding how commonality is forged within habitus, as the Bourdieusian framework is focused on "obsessive search for cultural "difference", neglecting the reasons and mechanisms for within-group commonality (Longhurst and Savage, 1996).

Human Resource Management

Continuing research in the area may contribute to knowledge of career fields and occupational profiles. Scholars emphasize the importance of interdisciplinary work as a way of avoiding "separate and disconnected research advances" in career studies (Chudzikovski and Mayrhofer, 2011; Khapova and Arthur, 2011). Namely, Chudzikovski and Mayrhofer (2011)

note that the Bourdieusian framework represents the most useful foundation for an overarching theoretical framework in career studies. They stress that the potential contributions may stem from exploring the interplay between habitus, fields, and capital on one hand and the emergence of individual dispositions on the other hand. Positivist methods and large sample sizes can be particularly useful to *identify* dispositions of distinctive occupational groups from large samples of socio-economic and attitudinal surveys.

The high relevance of consumption patterns and consumption-related attitudes for career research stems from the finding that consumption patterns reflect and may serve as quantifiable measures of dynamics in career fields (e.g. growing pressures for individuals' capital-signalling). Observing inter-temporary shifts in consumption behaviours of members of career fields may help infer changes in occupational identity over time. Interest in this area was highlighted by the qualitative study of Picard et al. (2014) on accountants; however, quantitative evidence would be an important contribution.

Conversely, asserting the high social value of objects or groups of commodities or common characteristics that goods possess for members of an occupational field may underpin the foundation for development of new reward and recognition schemes. A non-monetary reward – whether a gift or an experience (like use of recreational facilities, travel vouchers, meals, theatre or cinema tickets, domestic goods or use of company cars) - carries symbolic value, which becomes an object for aspiration and, thus, encourages the desired patterns of actions and strategic behaviours among employees. The type, value and symbolism of the most prized non-financial rewards, however, are defined by organizational culture, which, in its turn, is reliant on the occupational domain. In other words, the material non-monetary rewards for business consultants, academics or IT-professionals can be considered from the viewpoint of the supremacy of human capital forms distributed in their occupational domains and the associated consumption preferences and dispositions. Further exploration of preference structures among narrowly-defined occupational groups allows expecting implications for comparative HRM area in relation to cross-national incentivization schemes, as, where preferences and motivations of members of occupational fields differ cross-nationally, the reward schemes need to be adjusted accordingly.

Prior scholarly work has identified important differences between LMEs and CMEs and also within CMEs in relation to financial incentivization (Walker et al., 2018). Further exploitation of the benefits that stem from the synthesis of the Bourdieusian theory of practice, the broader

VoC literature, and the differences between LMEs and CMEs and within the CME-cluster (Amable, 2003; Walker et al., 2014; Walker et al., 2018), enables exploratory work to identify justified dispositions/ inclinations of agents (professional groups) experiencing the pressures of social context of their occupational field and facilitate adjustment of cross-national non-financial reward schemes.

Also, as mentioned above, developments in this area can be employed by organizations, which pursue training of culturally intelligent expatriates and continuing work on country typologies to establish consumption-related expectations, is another area of further research. Given the importance of developing individuals' capabilities for intercultural effectiveness (Ang et al., 2007; Earley and Ang, 2003), or cultural intelligence, there is need to further develop systematic knowledge of norms, practices and conventions in different cultures. Augmentation of expatriate capitals (Harlsberg and Brewster, 2009), and expatriate cultural intelligence, as a part of their cultural capital, in particular (Selmer, 2006), has been of long interest for HRM-scholars. Comparative work on cross-national patterns of preferences and dispositions may contribute to the existing body of literature and allow more detailed insights about particular occupational groups. Empirical work towards country typologies based on consumption- and lifestyle-related constructs may, however, be constrained by limited sample sizes of occupational groups or insufficiency of relevant variables in expenditure surveys for some countries.

Marketing

While in the marketing discipline social class has long been viewed as a means of segmentation (Kamakura and Mazzon, 2013), with the decline of social class and growing importance of peer-group as a driver for conformity and, thus, within-group homogeneity, Bourdieusian habituses represent particular interest as reference groups. There is potential for exploring a variety of aspects in consumption and financial behaviour as defined by the social contexts of occupational groups.

In their marketing strategy firms most often focus on the most affluent strata of society and when the traditional stratification approach operates with little disaggregation at the top, the analysis of consumption patterns leaves much potential for explaining the variance underutilized. Rather, the Bourdieusian concepts of capitals, field and habitus may help develop an approach to meaningful socio-economic segmentation to be utilised in national and cross-national comparative marketing studies.

Systematic cross-national comparison of preference structures may inform the design of an effective international marketing strategy that accounts for idiosyncratic country characteristics and, thus, contribute to decision-making in relation to market entry.

History

While the history of professions may or may not find much interest in the structure of preferences of their members, research on the history of consumption would benefit from the aggregated units of analysis that can be tracked over time and habitus (viewed as an occupational grouping with relative within-group similarity in capitals, social forces and experiencing similar pressures that constrain economic freedom) can be one of the solutions. De Vries (2008: 4) points out that consumption research either focuses on the consumer or the forces that constrain and direct the consumer. Both approaches reflect the epistemological difference in the scientific enquires. In the mid-way between the extremes, however, stand the "habitus-specific" forces that impose differentials upon constraints experienced by the representatives of different occupational fields. In other words, when social contexts are neglected, this leaves "little conceptual space for a history of consumer behaviour located between the chaos of arbitrary individual impulses on one side and the remorseless push of overarching structural and institutional forces on the other" (De Vries, 2008: 4).

Habitus, as the analytical dimension in consumption patterns, ensures interpretative power and context. Historical longitudinal research on occupational groups may help reveal changes in the relative importance of some goods that possess social meaning in the context of the field and illuminate the dynamics of fields. For example, while economic downturns may surely affect relative prioritization in household budget allocation and consumption (Kamakura and Du, 2012), occupational groups may vary nevertheless in the extent of their resistance against pressures to change the structure of their consumption preferences in relation to some capital-signalling commodities. Thus, observing shifts in economic behaviour over time may reveal the changes in underlying pressures in occupational fields.

Despite relying on the framework that was developed for French society in the 1970s, the thesis, by identifying the statistical significance between groups in relation to a number of consumption aspects, shows that between-occupational differences in preferences, lifestyles and tastes still persist. However, the distinctiveness of professional groups is not observed across societies. The findings from the cross-national comparative study suggest that depreciation of human capital or inflation of social capital may not solely be subjects of path

dependence, but rather are defined by formal and informal institutions and are sensitive to the dynamics of occupational fields. The inter-temporary observation of between-occupational contrasts would signify the development of distinctive occupational identities in the society; allow researchers to make judgements about path dependence and, thus, constitute another area of further exploratory work.

Sociology and economics

There is scope for theoretical work on development of the socio-economic thought in consumption and closer synthesis of interdisciplinary concepts. The socio-economic perspectives developed by Veblen (1899) and Bourdieu (1984) rely on the concept of habit formation and while Veblen's ideas found wide recognition in the economic literature, Bourdieu's impact is, unfortunately, still limited (Bögenhold et al., 2016). Despite some conceptual fuzziness, the Bourdieusian approach offers guidance for empirical investigation and fights "the lazy trend … of reducing all social interactions to the logic of economics" (Neveu, 2018: 360) that obscures individuals' motivations so important in modern behavioural economics (Altman, 2015; Swedberg and Smelser, 2011). As the scientific fields radically separated, both Becker and Bourdieu, while being constrained by the disciplinary traditions of their time, were seeking to re-unite the fields (Becker, 1996; Bourdieu, 2011). Despite strong disparities in their approaches, there are substantial conceptual overlaps in relation to the predictability of consumption behaviour by agents' capitals. The close convergence of both conceptualizations at the edges of their disciplinary boundaries suggests that at certain points reconciliation may allow continuing theory-motivated and theory-guided exploratory work in the interdisciplinary space.

The importance of occupational variables, as observed from the empirical findings of the thesis, suggests the high value of the search for an alternative set of categories that represent contextually meaningful groupings of occupations for further practical implementation of Bourdieu-inspired quantitative class analysis (Atkinson, 2009). Coarseness of broad aggregates of traditional classification schemes hinder observing regularities in consumption patterns of narrowly-defined occupational groups. With further development and systematization in the area of culturally-defined classes in line with the Bourdieusian framework, insights about their consumption-related motivations conditioned by their working environment would highlight new, more internally homogenous occupational classes that possess distinctive preferences.

The prior economic analysis suggested that the structure of preferences, rather than being pursued in terms of broad commodity aggregates (e.g. food, housing, recreation and culture), should be better approached in terms of underlying motivating substrates. Addressing the nature of such motivating substrates represents a subject for further development in sociology of consumption.

The dynamics of social mobility in the field is expected to be an important factor that transforms consumption strategies. The impact of field-specific opportunities for social mobility in particular occupational fields on the structure of preferences of their members, especially in relation to consumption of objects instrumental for capital-signalling can be explored in more depth.

The research agenda may also interrogate a wider range of social, economic and attitudinal surveys. For example, a wider picture can be obtained from observing how people spend their time, which to some extent may define what and how they consume. Time use surveys can be used as complementary sources of information in analysis of consumption behaviour of groups, as "time-budget studies … are capable of opening out into the exploration of social meaning" (Gershuny and Sullivan, 1998); they provide social context and purpose of activities.

To conclude, the thesis proposes a conceptual perspective and empirical evidence that advancement in the social trajectory relies on individuals and households behaving strategically and distinction by capitals involved in such advancement, to a substantial degree, is earned as distinction by investment. Capital-signalling elements of consumption behaviour represent strategic investments in occupational recognition and advancement and characterize career fields. Such perspectives and the findings of the thesis represent guidance and inspiration for further operationalization and testing of advancements in interdisciplinary theory. Acknowledging the conceptual link between consumption and capitals and taking it one level of abstraction down to the link between the priorities in spending and narrowly-defined occupations as combinations of capital forms bear important implications for adjacent research areas and paves the way to future comparative inter-temporary and cross-national studies. The thesis illuminates the logic of utilizing consumption-related constructs as measures of intensity of strategic capital-signalling, to invite and inspire further explorations of narrowly-defined occupational groups and the dynamics of fields, and to re-invigorate further interdisciplinary work.

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Declaration of original authorship

I confirm that this is my own work and the use of all material from other sources has been properly and fully acknowledged.

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