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Responding to platform firm power: differing national responses

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ABSTRACT
Aware of the power of platform firms and the risks of the platform economy, governments are reconsidering the dominant laissez faire approach in favour of strategies that regulate the power of platform firms. transnational dynamics play an important role in shaping emerging national regimes, but we argue that governments are also influenced by three factors that operate primarily at domestic level: the agency of platform firms, the impact of first-mover US platforms, and domestic politics. We illustrate our approach through an analysis of the trajectories and regulatory measures of four economies: the US, the EU, China, and India. As governance efforts expand to emerging technologies such as AI, our analysis presages broader changes to the structure of what was, with a few important exceptions, a relatively borderless global online economy.

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Governing the platform economy

Online platforms, virtual, N-sided places that mediate transactions of goods, services and data (Hagiu and Wright, 2015, Cusumano *et al*. 2019) have become vital infrastructure for economic, social and political activities (Kenney and Zysman 2016, Plantin *et al*. 2018, van Dijck *et al*. 2018). 'Platforms' as a techno-economic term has a long history that extends back, at least, to the discussion by auto firms that were building different models on the same frame (i.e. platform). Applying this term to software, or, more specifically, to a layer in the software stack (Bratton 2016), Gawer and Cusumano (2002) argued that Cisco, Microsoft and Intel (Wintel) had become leaders on the basis of their operating systems-related power. The current interest in platforms came as the platform designation applied to operating systems was extended to the increasingly monopolistic online websites, most of which, Cusumano *et al*. (2019) term 'transaction' platforms. In the 2010s, interest in platforms extended to what has been termed 'the platformisation of the web' (Gillespie 2010, Helmond 2015), which was a techno-economic development – not a purely technological result. For the purposes of this paper, we concentrate upon online platforms (except in passing we do discuss operating system platforms); most of which are 'transaction' platforms, but we do include app stores and applications such as Google Maps, which enable both transactions and innovative applications (e.g. place-based service apps).

When online platforms (hereafter, 'platforms') first emerged as internet websites, the internet represented the notion of an ever more integrated global economy (Cairncross 2002). Yet, as governments became cognizant of the ability of platforms to shape both public opinion and the

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economy (Kenney and Zysman 2016, Cusumano *et al*. 2019), they are reconsidering the laissez-faire principles they initially adopted and exploring how to conciliate the global scope of the platform economy with national sovereignty (Muller 2017, Cioffi *et al*. 2022).

How should we think about these emerging governance systems? Since the mid-2010s, platforms have been at the centre of controversies regarding competition/antitrust, work, human rights, surveillance, cybersecurity, and political economics (Scott Morton *et al*. 2019, Zuboff 2019, Gawer and Srnicek 2021). However, these initial reactions do not comprehensively address how platforms are transforming social, political and economic life (Popiel 2023). Recently, other authors have started exploring platform governance regimes through newer conceptualisations of state power (Farrell and Newman 2019, 2023, Bradford 2020, 2023). Yet, with their main focus on transnational dynamics, these state-centric perspectives only partially appreciate other factors that also shape policy responses but operate primarily at the domestic level. We therefore build on the state perspectives and extend them by introducing a framework that considers three additional factors: the impact of platform firms on government power, the extent to which polities are responding to the dominance of (foreign) first-mover US platforms, and the role of domestic interests and policy-making processes.

We articulate our framework through the analysis of platform governance regimes in four large jurisdictions since the 1990s: the US, the EU, China, and India. Case selection is based on the size of these economies, the timing of their entrance into the platform economy and variation in their policy responses. The US, the EU, China, and India are the world's largest economies by purchasing power parity (IMF 2023). As the architect of the internet, the US was the first mover in the development of platforms (Abbate 2000, Greenstein 2015), while the EU, China, and India came later. The US maintains the essential features of its initial laissez-faire approach but appears to be reconsidering its commitment to open markets in the face of large Chinese platforms. The EU relies on an extensive regulatory framework yet maintains its commitment to open markets. China combines an autarchic approach with support for domestic firms and increasing regulatory control over platforms. India has adopted a pragmatic compromise in which US platforms provide essential services, some Chinese platforms are banned, and the state supports the development of innovative domestic platform models. Our case selection necessarily leaves out other relevant examples of important economies such as Brazil, Japan, Russia, and South Korea.

The analysis is based on the triangulation of data for primary and secondary sources including public discourses, statements of policy, national strategic frameworks, enacted legislation, and articles from specialised publications.

Our framework provides a more comprehensive and nuanced perspective on the motivations and interactions behind these emerging regimes. Our analysis demonstrates the variety of government responses to foreign platforms in their domestic economies. It also shows the conflicts and tensions inherent to each of these positions, and the way they translate into different national platform landscapes. As efforts to govern the digital technologies move from platforms to AI, our analysis presages broader changes to the structure of what was, until recently, largely a global platform economy dominated by US platform firms and the sensibilities of its self-referential national policy consensus. We do not enter the debate about a supposed regulation-innovation dichotomy directly. Our position is that regulation per se need not have a negative effect on innovation (Bradford 2024), a point clearly evidenced in the Chinese case.

The rest of the paper reviews the evolving internet governance debates before introducing our framework. We then compare the platform governance regimes of our four polities before discussing their implications and concluding.

From optimism to concern about online platforms

In the second half of the 1990s, the commercial internet emerged as a remarkable connectivity tool that promised ever tighter integration of economies and societies (Castells 2011). The desirability of internet use meant that it diffused globally with astonishing speed (Kogut 2003, Greenstein 2015). In the US, technological leadership, enormous sums of venture capital, a large, single market, and a neoliberal, laissez-faire political economic environment (Chander 2013, Cioffi *et al*. 2022), unleashed an ongoing process of entrepreneurship that resulted in the emergence of what became the global platform leaders.

Until the early 2010s, most of the world followed the US lead in adopting laissez-faire approaches to the proliferation of platforms – but ended in very concentrated markets. Governments intervened mainly to promote internet adoption, stimulate the use of world wide web applications, and build appropriate telecommunications infrastructures (European Directive 95/46/EC and Directive 2000/31/EC, Srinivasan and Krueger 2005, Information Office of the State Council of the People's Republic of China 2010). With few exceptions, US platforms expanded internationally and dominated most markets in which they operated (see Table 1). This expansion was further assisted by US firms acquiring domestic competitors in many nations (Parker *et al*. 2021). The power of US platforms strengthened in the decade of the 2000s with the transition to the smartphone as the dominant internet-access device (Kenney and Pon 2011). But as important, the platform as a business model and technical artifact changed commerce and media, transforming social dynamics and indeed political action (Kenney and Zysman 2016, van Dijck 2013). In the process, these platform firms became ever more deeply embedded in social life and developed monopoly positions allowing them to extract ever more value, while accumulating ever larger troves of data to further hone their operations (Han 2024).

As recognition of platforms as essential infrastructure grew (Kenney *et al*. 2021, Plantin *et al*., 2018, Van Dijck *et al*. 2018), so did political scrutiny. Using the case of Amazon, Khan (2017) argued that platforms' strategy of prioritising growth at the expense of profitability resulted in endemic predatory pricing and the use of technological position to further integration and user cross-feeding. In response, Khan called for the application of existing antitrust frameworks and for extending them to prevent the concentration of power in a few platform firms. Later, others also called for stronger competition frameworks combined with stricter merger controls (Scott Morton *et al*. 2019, Gawer and Srnicek 2021).

The ability of platforms to impact conventional notions of work and employment stimulated conversations regarding platform work taxonomies (Garcia Calvo *et al*. 2023); the asymmetry of power between platforms and those using the platform (Cutolo and Kenney, 2021), the impact of algorithmic systems on work processes (Lee *et al*. 2015) and the so-called 'social protection gap' (Sieker, 2021). Platforms' control over data flows, information access and distribution, and their accumulations of vast troves of very granular data, ignited concerns regarding personal privacy and data protection (Caffarra and Valletti, 2020), behavioural manipulation (Gawer, 2021), misinformation and fake news (Acemoglu *et al* 2022), and surveillance (Zuboff 2019). Frequently, these discussions were framed within the context of broader debates regarding human rights and civil liberties, political polarisation, and democratic stability (Susser *et al*. 2019, Henschke *et al*. 2020).

Recently, scholars have started to regard these specialised approaches as 'incomplete', 'marked by blind spots', and 'too narrow' to address the transformational impact of platforms because they individualise problems that derive from the systemic aspects of the platform economy (Popiel 2023). In line with these criticisms and in a historical moment marked by global volatility and uncertainties (Tyson and Zysman 2022), some authors have started to integrate platforms into a new perspective on state power. Thus, Muller (2017) sees emerging platform regimes as part of efforts to address the contradictions between national sovereignty and global capabilities of digital communications. Farrell and Newman (2023, 2019) understand platforms as a critical component in the development of global networks that converge in the US, enabling it to spread its influence across countries. Bradford (2023) builds on Farrell and Newman's linkage between technology and state power, but believes that power derives from the ability to enact and enforce laws and regulations. Therefore, in her understanding, other large economies besides the US can develop transnational spheres of influence through regulation, even if they have no large, domestic platforms or experience in operating such platforms (Bradford 2020). These two interpretations underpin

Table 1. Largest platforms by market share (as of January 2024).

	US	China	Russia*	India	EU	Japan	South Korea	Brazil	Worldwide
Social Media	Facebook/ Instagram (1)	WeChat/ Douyin (2)	vk.com (1)	Facebook/ Instagram (1)	Facebook/ Instagram (3)	Twitter/Instagram (1)	Namu/Twitter (1)	Facebook/Instagram/ Whatsapp (1)	Facebook/ Instagram (1)
Search	Google (1)	Baidu (2)	Yandex (1)	Google (1)	Google (3)	Google (1)	Google/Daum (1)	Google (1)	Google (1)
E-commerce & Shopping	Amazon (1)	Alibaba/ Pinduoduo (2)	Ozon.ru (1)	Amazon/Flipkart (1)	Amazon (2)	Amazon/Rakuten (1)	Coupang (1)	Mercado Libre/Amazon (1)	Amazon/eBay (1)
Maps	Google (1)	Gaode/Baidu (2)	2gis.ru (1)	Google/ Mapsofindia (1)	Google (3)	Ekitan.com/ map.yahoo.com (1)	Naver/Kakao (1)	Google/ Economia.uol.com (1)	Google/Naver/ 2gis
OS	Windows/iOS (3)	Android/ Windows (3)	Windows/ Android (3)	Android/ Windows (3)	Windows/ Android (3)	Windows/iOS (3)	Windows/ Android (3)	Android/Windows (3)	Android/ Windows (3)

(1) Similarweb.com.
(2) Statista.
(3) Statcounter.

diverse perspectives of emerging platform governance regimes. Farrell and Newman see the US regime as a strategy to support and defend its unique position. Governance initiatives in other countries become reactions to the US' regime that aim to retaliate, protect domestic interests, and/or develop alternative sources of leverage. Bradford sees different governance regimes as manifestations of competing views about the relationship between states, markets, and individual rights.

These state-centric perspectives embrace the systemic character of platforms, overcoming an important limitation of the specialised approaches. Yet, with their focus on cross-national dynamics, they pay less attention to forces that operate primarily at the domestic level. We extend and complement these contributions by emphasising three additional aspects that also shape platform governance systems: the agency of platform firms, the impact of US platforms' first-mover advantage on late comers, and domestic politics. Attention to these aspects can provide a fuller, more nuanced perspective on the options available to governments, the constraints they face, and the motivations for their choices.

Toward a comprehensive approach to platform governance

The agency of platform firms

State-centric perspectives acknowledge the power of platform firms but do not fully appreciate how they may use it to constrain and empower governments. The power of platforms stems from their evolution into essential social, political and economic infrastructure (Khan 2018) and from the monopolistic power the dominant platforms have in specific business areas (Kenney and Zysman 2016, van Dijck *et al*. 2018). Platforms may exert their power to prevent states from introducing legislation that damages their interests by limiting the availability of their services, eliminating barriers to disinformation, introducing fees that price users out of their services, or exiting a market entirely, among many other actions. For example, Meta responded to the introduction of legislation that forced it to offer news payments to publishers in Australia, the UK, Germany, and France, by 'deprecating' or de-prioritising Facebook News (Meta 2024). Jurisdictions that lack domestic platforms are particularly vulnerable to platform power as the foreign platforms may exit the market at any time and for any reason and governments may have no substitutes.[1]

Platforms can also empower governments by agreeing to implement government-mandated limits on the use of the platform's network or by restricting access to critical knowledge accumulated by the platform (Farrell and Newman 2023). In addition, platforms can contribute to the fulfilment of public policy goals. Platforms are an essential component in the delivery of foundational systems such as identity, payments, and public data exchanges (Bonina *et al*. 2021). Platforms can also help address infrastructural gaps such as deficient logistics and distribution systems, underdeveloped telecommunications infrastructures (Singh 2020), and low levels of societal trust (McKnight *et al*. 2023). Governments can channel the power of platforms to fulfil public objectives by developing long-term, deep relationships with platform firms and by providing appropriate policy incentives (Acemoglu and Johnson 2023).

US platforms' first-mover advantage

The rapid, global expansion of US platform firms, coupled with network effects (Cusumano *et al*. 2019), enabled US platforms to dominate most of the countries in which they operate (see Table 1). As the internet evolved into vital infrastructure, countries dominated by US platforms found themselves locked into dependence upon the increasing central and powerful US platforms, which provide essential services at the cost of transferring capability, wealth, and decision-making control to the tech companies themselves in a path-dependent manner. As a result, not only do most late-comer nations no longer had significant domestic platforms, but the capabilities to develop them have either atrophied or remained underdeveloped, limiting their ability to initiate a self-reinforcing spiral. States in these late-comer countries can issue norms and regulations but they remain locked within a structure that they can only tweak through regulation with few plausible domestic alternatives.

To the extent that late comer economies have managed to prevent dependency, this has relied on their ability to provide centralised support for infant domestic platforms, build barriers to the expansion of US platform firms, or combinations of both (Kontareva and Kenney 2023, McKnight *et al*. 2023). In exceptional cases, domestic platforms have also benefited from the relative 'backwardness' of their home countries, which initially delayed the entry of US platform firms or limited the quality of their services, and from 'local biases' in the form of linguistic barriers, social, or cultural proximity to their users (Eocman *et al*. 2006). By retarding the entry of US first-movers, these factors left space for smaller, domestic platforms to emerge and occupy a space that US first-movers would otherwise have dominated. But, perhaps most importantly, this space provided room for governments to recognise the importance of the internet and protect the domestic market.

Domestic politics and policy-making processes

Global economic forces and geopolitical tensions influence domestic policy decisions, yet, governments ultimately choose policies that are determined by domestic interests and policy-making processes (Katzenstein 1978). While governments may sometimes transplant external policies, they normally do so when a powerful minority within that government favours those policies on domestic grounds but adopting them in the absence of the external influence is politically costly or even impossible (Putnam 1988). In addition, policy narratives vary depending on the domestic context. For instance, nation states that place national security at the top of political priorities may frame issues related to the treatment of foreign platforms or data processing as national security concerns. The US, China and India are examples of this.

The salience of challenges raised by platforms and the timing of government responses can also vary depending on domestic political factors. Thus, regulating the relationship between platforms and information was an early priority for authoritarian regimes concerned about the effects of information on domestic rule (McKnight *et al*. 2023). By contrast, early reactions in democratic countries aimed to exempt platforms from liability for content posted by third parties. Recent responses have focused on competition with traditional media, deep fakes, misinformation and manipulation of electoral processes (Acemoglu *et al*. 2022).

Case studies

This section supports our framework through an evolutionary analysis of platform governance regimes in the US, the EU, China and India. Table 2 summarises our analysis and its implications.

United States: first-mover global dominance

The privatisation of the US internet backbone in the mid-1990s turned what had been until then a state-centric initiative, into an enormous decentralised commercial infrastructure (Kenney 2003). The US' enormous pool of global-class software and network engineers, abundant venture capital, leading computer science university departments, and lenient government policies stimulated investment in all manner of web-based business models (Chander 2013). The speed with which Silicon Valley entrepreneurs were able to raise enormous quantities of venture capital allowed firms to scale up rapidly, thereby securing first-mover advantages both domestically and globally thereby controlling most global markets and defeating potential national rivals (see Table 1).

The US adopted a laissez-faire approach based on weak enforcement of copyrights, antitrust, taxation of online sales and privacy (Chander 2013, Cioffi *et al*. 2022). Except for a few areas such as cybersecurity, pornography and online bullying, the US exercised minimal regulatory oversight.

Table 2. Emerging platform governance systems.

Factors shaping platform governance	United States	European Union	China	India
Agency of platform firms	-US Platform dominance globally as a source of power – Platform monopoly at home as a barrier to competition and public welfare	-Foreign platform dominance as a threat to 'digital sovereignty' – Regulatory capacity as an instrument to control and oversee the power of foreign platforms	-Domestic platfoms as an instrument to catch up and increase self-sufficiency – Domestic platforms as a threat to the one party system	-Foreign platforms as a tool to develop the domestic IT services sector – New domestic platform models as an instrument of public service delivery and economic growth
US platforms first-mover advantage	Open markets/First-mover global dominance	Open markets	Relative autarky	Pragmatic compromise
Domestic interests and policymaking processes	Conflict between supporting domestic platforms and reigning in their power. Conflict between supporting the position of domestic platforms abroad and foreign platforms gaining market share in the US. *Priorities*: Antitrust and national security.	Conflict between supporting the single market and asserting domestic sovereignty. *Priorities:* digital sovereignty	Conflict between the one-party rule and domestic platform firms, between autarky and foreign barriers to Chinese platform expansion abroad *Priorities*: economic and technological development, protecting the one-party system	Conflict between allowing US platforms that fulfill infrastructure gaps and developing domestic platforms to support domestic value capture and public welfare. *Priorities*: economic development, public service delivery, national security
Governance system	*First-Mover Global Dominance*	*A Conflicted Reaction to First-Mover Platforms*	*Autarky*	*Creating a new platform economy*
Impact of domestic governance system on platform firms	*Domestic platforms: few impediments to growth, value generation and value capture Foreign firms: Chinese platforms face increasing barriers to expansion*	*Domestic platforms: receive little to no direct or indirect support and face high compliance costs Foreign firms: face no discriminatory barriers but must comply with EU regulation*	*Domestic platforms: autarky provides space for growth Foreign firms: largely blocked*	*Domestic platforms: government direct incentives for the emergence of new platform models Foreign firms: currently tolerated but facing an increasingly assertive regulator*

US platform firms also benefited from exemptions from obligations applicable to brick-and-mortar businesses, in particular, the interstate commerce clause that exempted platforms from directly collecting state and local sales taxes on goods shipped across state borders (Einav *et al*. 2014). Further, Section 230 of the 1996 Communications Decency Act exempted platforms from liability for content posted by third parties (Kosseff 2019). In addition, the 1998 Digital Millennium Copyright Act provided important protection for websites whose users upload copyrighted material, effectively laying responsibility for the discovery of such material on the copyright owners and allowing the website to deliver the material until notified (Chander 2013, Sag 2017).

The US laissez-faire approach was complemented by a strong reliance on a judiciary that had internalised the Chicago school of antitrust doctrine that focuses on 'consumer welfare' (Vogel 2023). This approach was generally unconcerned with markets where dominance did not necessarily translate into high prices (Khan 2017). The enormous resources wielded by the platforms and sympathetic courts made it difficult to prevail in legal action. Even when successful, the impact of ex-post legal success came too late to redress market outcomes in winner-takes-all environments (Parker *et al*. 2021). This 'benign' neglect and general lack of enforcement of regulations, for example, made it possible for Uber and Lyft to ignore local conveyance regulation (Thelen 2018) and Airbnb to ignore local zoning regulations (Nieuwland and van Melik 2018).

The transition to the smartphone as the dominant internet-access device after 2007 resulted in US platforms' control of the two dominant operating systems, iOS and Android. The monopoly-like power of US platform firms, together with a recognition of their value as essential infrastructures (Kenney and Zysman 2016, Van Dijck *et al*. 2018), and greater awareness of the risks of the platform economy, led some to argue in favour of managing platforms more tightly to promote the public welfare without necessarily harming competition or distorting markets (Vogel 2023). Yet, so far, the US' main response has been to lean even more heavily on antitrust. In particular, the appointment of Lina Khan as chair of the Federal Trade Commission in 2021, led to an increasing scrutiny of the actions of the dominant platform firms (Lasarte 2023).

The long-standing US commitment to an open-platform economy has been challenged recently as Chinese platforms such as TikTok, Shein, and Temu have achieved significant market share in the US (Wong 2023). In the context of growing geopolitical tensions, the US government banned the downloading of TikTok to federal government devices (Berman 2023). More broadly, the 2023 RESTRICT Act, enables the US government to limit the operations of foreign firms, including foreign platforms, based on national security. While defending its market from foreign platforms, the US has strived to protect the interests of US platform firms abroad through measures such as the 2023 agreement on data transfers from the EU (White House 2022).

In summation, the US largely continues to adhere to the laissez-faire strategy that created the context for the global success of the US platform firms. Yet, the US is grappling with tensions between supporting domestic firms and promoting public welfare, and between supporting domestic platforms abroad and defending the domestic market from foreign platforms.

European Union: a conflicted reaction to first-mover platforms

Although EU countries were among the first to adopt the internet, underlying factors such as fragmented services markets, linguistic and cultural preferences, underdeveloped capital markets, bankruptcy laws that deter risk-taking, and the absence of an immigration policy to attract top tech talent, made it difficult for EU-wide platforms to emerge (Bradford 2024). To facilitate the development of the EU single digital market, the 1995 Data Protection Directive removed obstacles to the movement of personal data across EU countries. Mirroring the US, the 2000 E-Commerce Directive stimulated the development of electronic commerce by exempting platforms from liability over transmitting or hosting unlawful third-party content. Yet, simultaneously, the Commission also reformed competition rules and imposed limits on state-level subsidies. The combined effect of these measures was to facilitate the market entry and expansion of US first-mover platforms across the EU while preventing EU countries from supporting domestic platform startups. The result was a market dominated US firms (See Table 1).

As Europe recognised the implications of the platform economy, the Commission introduced legislation to address some of the effects of platforms on society, reduce external dependencies, and regain digital power. The goal was to reduce threats to EU territory and hopefully influence platform governance abroad in what Farrand and Carrapico (2022) characterise as a form of regulatory mercantilism. Nonetheless, EU initiatives did not change the commitment to equal treatment of all internet firms and thus did not involve efforts to hinder US platforms to provide space for European alternatives. The 2016 General Data Protection Regulation (GDPR) protects individual rights and freedoms, especially the right to privacy, and limits the free movement of personal data. The 2022 Digital Services Act (DSA) introduces a set of rules on how platforms must address online disinformation and information, products, services and illegal activities. The Digital Markets Act (DMA) regulates the power of very large 'gatekeeper' platforms in an attempt to guarantee fair and contestable markets. These measures showcase the EU's capacity and willingness to regulate the platform economy and may influence the adoption of similar measures elsewhere. Nonetheless, in the absence of comprehensive measures to support the development of EU platforms, these measures have not altered Europe's dependence on US platform firms. The lack of large domestic platforms with vast repositories of data makes Europe dependent on US companies and their expertise and severely limits their ability to play a significant role in the platform economy. For instance, in an effort to reclaim its ‘digital sovereignty’ in 2019, the EU launched Gaia X, a collective European cloud project. Yet, not only did the project fail to capture significant market share, but discussions around it underscored contradictions and ambiguities about the concept of ‘digital sovereignty’ itself (Adler-Nissen and Eggling 2024).

China: autarky vs autonomy?

When the internet was first introduced to China, US firms such as Yahoo!, Google and Amazon opened offices there. However, unlike the EU, the Chinese government limited their growth. Concurrently, China’s willingness to experiment with new policy approaches during the 1990s and 2000s (Breznitz and Dupree 2011) and a fast-growing domestic market, encouraged entrepreneurship and resulted in the formation of hundreds of new firms seeking to provide internet-enabled services (McKnight *et al*. 2023). These startups competed fiercely in a relatively open, market-driven environment (Muller and Farhat 2022). The government encouraged domestic entrepreneurship because platform firms were economically valuable, and it was believed that they would enable China to rapidly advance technologically, increasing self-sufficiency (Hughes and Wacker 2003).

To facilitate platform development, the Chinese government introduced investment tax benefits, facilitated investment in China by foreign VC firms, and did not prevent Chinese firms from listing on foreign markets (Huang *et al*. 2015). However, foreign investors were forbidden from directly owning internet firms but rather ‘owned’ them through legal work arounds. Responding to the use of the internet to criticise the government, censorship policies were soon introduced that made it politically difficult for foreign internet firms to continue to operate in China (Jiang 2010), thereby creating even greater space for domestic firms. Out of ferocious internal competition, a number of global-class platform firms such as Alibaba, Baidu, Tencent and others emerged, though unlike US first-mover platforms, until recently, these remained largely confined to the Chinese market.

The combination of support for domestic platforms and constraints on the operations of foreign rivals continually intensified. Chinese platforms expanded into an increasing number of sectors including finance, entertainment, and logistics (Jia and Kenney 2022). Simultaneously, the government upgraded its firewalls, blocking US platforms that provided internet search, social media, and video streaming services and leaving lucrative market segments empty (Leskin 2019). The result was a market dominated by domestic, increasingly capable platforms (Hermes *et al*. 2020).

As Chinese platforms grew, the party-state came to view their capacity to concentrate wealth, accumulate vast amounts of data, compete with government-owned banks, and reorganise large sectors of society and the economy as a threat to the government’s ability to maintain stability, control vital infrastructures, and balance competing societal interests. Accordingly, beginning in the late 2010s, the party-state intensified efforts to curb the power of domestic platforms, relying on greater oversight of platform’s financial activities (Patterson *et al*. 2020), more stringent antitrust rules and an increase in antitrust investigations (McKnight *et al*. 2023), more expansive control over information (Shirk 2022), and public golden shares that carry special rights and directorship appointments (McMorrow *et al*. 2023). One partial response was that Chinese platforms looked for further growth abroad. This expansion prompted the US (Maheshwari and Holpuch 2023), the EU (Goujard 2023), and India (Phartiyal 2023) to explore various types of bans and restrictions on the operations of these Chinese firms in their domestic markets.

On the whole, the Chinese platform economy is almost entirely autarchic. The success is remarkable as China has developed, by some criteria, the largest platform economy in the world. More recently, Chinese platforms have introduced apps that are among the most widely adopted internationally, thereby becoming the first nation to have domestic platforms that successfully compete with the US platform firms. Despite being a closed system, the international presence of Chinese platforms and technology firms means some of these measures may have extraterritorial implications.

India: new ideas to create a domestic platform economy?

From the early 1990s, India sought to leverage its labour force's skills in software and English-language capabilities to provide information technology services to other countries, accelerating economic growth (Dossani and Kenney 2007). To that end, India's initial strategy consisted of eliminating legal barriers to foreign investment (Srinivasan and Krueger 2005) and introducing legislation, such as the 2000 Information Technology Act, that provided legal validity and certainty to online transactions. While the government encouraged VC investment in Indian internet firms, it was unconcerned when US firms such as Walmart acquired the largest Indian retail platform, FlipKart, or when Chinese platforms invested in Paytm, the largest Indian online payment processor and MakeMyTrip, the largest Indian online travel platform.

India's initial neglect meant that US first-mover platforms came to dominate the market for 'core' services such as search, social media, or video streaming (see Table 1). Given the network effects and winner-take-all dynamics prevalent among platforms, this has made it difficult for domestic platforms to emerge in 'core' segments, leaving them to concentrate on apps that run on foreign (US) platforms. Concerns about foreign control of the platform economy only were expressed in the late 2010s (Lasarte 2023). India's most substantial actions consisted of multiple waves of bans of Chinese mobile phone apps, including TikTok and WeChat (Mishra *et al*. 2022). In addition, in 2019, modifications to India's foreign direct investment legislation forced large US retail platforms such as Amazon and Flipkart (Walmart) to reconfigure their ownership structures and decrease their ownership in key vendors on their site (Phartiyal 2019, Singh 2022)

Simultaneously, India launched alternative government-supported platforms. Some of these are part of the government's Digital India (2015) flagship program to enhance the delivery of public services. Another unique initiative is the Open Network for Digital Commerce, an open-source e-commerce platform launched in early 2023, that, if successful, has the potential to significantly change the existing global platform landscape, as a successful open-source e-commerce platform would compete directly with large private e-retailers and could be exported to other nations (Parkin 2022).

India's size and speed of growth makes it one of the most important internet markets. Yet, India continues to be dominated by US platforms, as they entered the domestic market and grew organically and through acquisitions. From a former laissez-faire attitude, India has evolved into active regulation and is experimenting with creating a government-, seller-centric, retail platform that is not controlled by foreign owners. The Indian example suggests that there may be ways to build a domestic platform economy that are not as draconian as the Chinese response or as light as the EU regulation-centric regime.

From global to splintered internet?

As different jurisdictions have become aware of the broader economic, social, and political implications of the platform economy, states have begun to regulate the power of platforms. While emerging governance regimes are partly shaped by cross-national factors, a nuanced understanding of the motivations behind these systems requires a parallel examination of domestic factors. These include the power of platforms relative to national governments, governments' acceptance of the dominance of US platform firms, and domestic interests and policy-making processes.

Combinations of these three factors operate differently across countries leading to diverse governance regimes but also raise tensions and conflicts. The US, the first mover, benefited disproportionately from its laissez-faire approach and gained significant leverage through the global expansion of US platforms. Yet, the recent expansion of Chinese platforms into the US challenges the US commitment to open global markets. Europe and China responded to the expansion of US platforms by developing comprehensive governance regimes. And yet, Europe, in line with its commitment to the single market, has neither imposed formal barriers to the entry of any platform nor supported the development of domestic platforms whereas China, in an effort to protect the party-state and create space for the development of domestic platforms, has done the mirror opposite. India has charted an intermediate approach consisting of blocking many Chinese firms and mildly challenging the dominance of US platforms while exploring the development of open-source domestic platforms that aspire to succeed by adopting a different business model.

These emerging governance regimes have important economic implications for platform firms and their ability to shape the structure of the platform economy beyond their borders. The link between governance regimes and the presence of very large domestic platforms is, in this regard, critical, because of the monopolistic/monopsonistic aspect of platform-organised market/spaces, and the ability of platforms to determine the rules of participation. Laissez-faire was the context within which US platform firms were established and grew. The first-mover advantage of US platforms and their dominance in most of the world promoted and benefited from the adoption of laissez-faire in most nations. As US platforms expanded into other segment such as cloud computing leveraging their already huge data centres and AI, their technological and first-mover advantages translated into access to ever larger caches of data that enabled them to dominate these new segments.

The Chinese response provided room for domestic platforms to emerge. The presence of large Chinese platforms with international projection and access to enormous caches of data allows China to play an increasingly important role in shaping the global platform economy. Yet, due to current geopolitical tensions and the autarkic character of the Chinese platform economy, some nations have enacted or are considering protective measures to limit the growth of Chinese platforms in their economies. Lacking any significant domestic platforms, Europe considers itself to be the first mover in the adoption of governance measures. In doing so, it sees itself as having stimulated and shaped international regulatory discussions. Yet, the absence of significant domestic platforms necessarily limits Europe's ability to control its own economy – much less have significant global influence. Finally, India is looking for ways to develop its domestic platform firms while adopting innovative approaches to address the power of foreign platforms. This is evidenced by support for the development of domestic open-source platforms. To date, India's regime has exerted very limited influence abroad, but were its newly launched open source platforms to be adopted abroad and become successful, this could create new opportunities for Indian software services firms.

By themselves, these regimes will not cause the splintering of the platform economy, let alone the internet stack. However, they will affect the global businesses of platform firms. With a few exceptions such as Apple, US platforms have already left China. US firms are committing significant resources to expanding infrastructure in India in the hopes of making it more difficult for the Indian government to enact drastic measures against them. However, India's actions against Chinese platform firms suggest that India might extend various controls to the US platform giants.

Our review of the actions of these four polities in reaction to the global dominance of US platforms and the role of domestic firms suggests that governments are grappling with the challenges of the transition to an economy where platforms have become vital infrastructure. Given the increased interest in data-driven AI technologies and the importance of cloud-based computing services, the enormous advantages large platforms have in terms of data, compute power, and skilled technologies mean that threats to sovereignty will likely increase. Meanwhile, the lack of core domestic platforms may compound the disadvantages that laggard nations experience as foreign platforms are able to extract profits from their political economies – a drag that will increase if platforms become even more central to the political economy. As efforts to govern digital technologies move to include AI, new questions may arise as to whether differential regulation of AI will represent a deeper fragmentation of the internet system, and what state sovereignty means in platform/AI-impacted national political economies.

Note

1. After the Russian war in the Ukraine began, US platforms were required by the US government sanctions to leave Russia. In this case, Russia was prepared for the withdrawal. If it had not been, then key internet services such as search would have ended (for discussion, see Kontareva and Kenney 2023).

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