WIDER Working Paper 2022/26

Taxless fiscal states

Lessons from 19th-century America and 21st-century China

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March 2022

Abstract: How do modern fiscal states arise? Perhaps the most dominant explanation, based on the European experience, is that democratic institutions that limited the extractive power of states—exemplified by the 1688 Glorious Revolution in England—paved the way for the rise of fiscal capacity and subsequent prosperity. Revisionist accounts, however, reveal that this dominant narrative is flawed. In fact, numerous factors converged to enable the rise of European fiscal states, and in England, debt and land were particularly salient factors. Building off this literature, I bring attention to the role of 'taxless public financing' (i.e. financing public infrastructure through means other than taxation) in the making of fiscal states in two seldom compared cases: 19th-century America and 21st-century China. Both countries relied heavily on taxless financing to launch an infrastructure boom that spurred rapid growth along with massive corruption and financial risks.

Key words: taxless public financing, fiscal capacity, land, 19th-century America, China

JEL classification: E62, E63, H3, O23

Acknowledgements: I thank the conference organizers Kunal Sen and Antonio Savoia for their immensely useful comments. Wenjia Song and Sylar Sakis provided excellent research assistance.

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This study is published within the UNU-WIDER project Fiscal states—the origins and developmental implications, which is part of the Domestic Revenue Mobilization programme. The programme is financed through specific contributions by the Norwegian Agency for Development Cooperation (Norad).

Information and requests: publications@wider.unu.edu

ISSN 1798-7237 ISBN 978-92-9267-157-0

https://doi.org/10.35188/UNU-WIDER/2022/157-0

Typescript prepared by Mary Lukkonen.

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The Institute is funded through income from an endowment fund with additional contributions to its work programme from Finland, Sweden, and the United Kingdom as well as earmarked contributions for specific projects from a variety of donors.

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1 Introduction

How do modern fiscal states arise? Today, there is wide variation in the ability of governments to collect taxes, with tax revenue ranging from as high as 45 per cent of gross domestic product (GDP) to around 10 per cent. Governments that are able to collect high amounts of taxes are distinguished by their patterns of taxation: they rely on a broad tax base of individual and corporate income (Besley and Persson 2013). From an historical perspective, the 'fiscal state' is part of a bundle of structural transformations, including the rise of nation states and democracy (Yun-Casalilla and O'Brien 2011)—a process known as 'modernization'. As Schumpeter ([1918] 1991: 100) famously observed, 'The fiscal history of a people is above all an essential part of its general history'.

Conventional wisdom about the origins of fiscal capacity draws from Western European experience from the 17th century onward, with non-Western experiences typically dismissed as deviations from this norm.[1] Briefly described, the widely accepted narrative about the Western path goes like this (Acemoglu and Robinson 2012; Besley and Persson 2011; Dincecco 2011; North and Weingast 1989; North 1990):

- Following centuries of war, previously fragmented European polities gradually evolved into centralized states capable of collecting taxes. This increased capacity came with significant risks: there was no guarantee that monarchs will not simply usurp this power to extract from society and trample on private property rights.
- Solving the above problem required placing limits on political power through representative institutions and formal checks and balances, as exemplified by the English Glorious Revolution in 1688.
- The European experience shows that when the government is strong enough to tax yet constrained from abusing its power, citizens are willing to comply with taxation, with the expectation of receiving public goods and services in return. Quoting Adam Smith, Besley and Persson (2011: 10) labels this endpoint as 'easy taxes', which refers not to low taxes but to 'taxes that are easily collected and broad based'.

For development economists and policy makers, the implication of this narrative is that developing countries today should first replicate the European combination of state effectiveness and democratic mechanisms in order to achieve fiscal capacity and economic development. This belief inspired the 'good governance' paradigm at the World Bank and other organizations.[2]

The conventional wisdom raises a troubling question, as the organizers of this conference pointedly ask: 'But can this process [in Europe] arise in a developing country context?' After decades of efforts at trying to replicate European conditions in developing countries, development economists have learned that achieving the prerequisites for fiscal capacity and growth is as hard

[1] As economic historian Bin Wong (1997: 1, 14) observed, 'European state making and capitalism [occupy] privileged positions as universalizing themes in world history'. As a result, the modus operandi in historical scholarship was to ask 'what went wrong in China according to what went right in Europe'. Likewise, political scientist Victoria Hui (2005: 9) remarked, 'When we take the European experience as the norm and non-Western experiences as abnormal, we are led to search for what went wrong in other parts of the world'.

[2] The Worldwide Governance Indicators (WGIs) measure six dimensions of good governance: voice and accountability, political stability and absence of violence, government effectiveness, regulatory quality, rule of law, and control of corruption.

as actualizing the desired outcomes themselves (Andrews 2013; Grindle 2010; Jomo and Chowdhury 2012). As Pritchett and Woolcock (2004: 206) eloquently sum up: 'So, as with many past and present development problems, *the* solution is the problem'. And they add: 'Mimicking… the organizational forms of a particular "Denmark" has in fact been a root cause of the deep problems encountered by developing countries' (193).

Why has it been so difficult for developing countries to replicate the European path of 'good governance (state capacity and democracy) → fiscal capacity?'

My answer is simple: because this was not *actually* the path taken by the West. If European countries had not in fact followed the path depicted in the conventional wisdom, we should not be surprised that it will not work on developing countries today. It is useful to be reminded of Ha-Joon Chang's quote (2011: 494-5; cited in Hodgson 2017).

> Institutional economists need to pay more attention to the real world, both of the present and historical—not the fairy-tale retelling of the history of the world that has come to characterize mainstream institutional economics today… our theories need to be more richly informed by real-world experiences—both history and modern-day events.

Revisionist accounts of the European modernization process paint a very different story. In particular, Hodgson (2017) convincingly shows that the real drivers of England's economic boom were debt and the collateralization of land. His account is consistent with other accounts that highlight the convergence of a range of other factors that propelled the rise of the West. In England, the 1688 Glorious Revolution did increase the power of the propertied class vis-à-vis the crown, but the oft-celebrated claims about its effects on protecting private property are inconsistent with historical facts.

With an accurate account of English history in mind, we should not be surprised to find parallels of the *actual* European experience in other parts of the world. Notably, in his study of American states in the 19th century, John Wallis (2005: 211) referred to 'borrowed funds and special corporate privileges without raising current taxes' as 'taxless finance'. His definition of 'taxless' as a residual category (i.e. 'no direct taxes: property, poll, or income'; Wallis 2000: 68) is broader than the contemporary definition of 'non-tax revenue' adopted by the International Monetary Fund (2014), which includes items like levies and rental income from state assets.[3] Loans, for example, are a source of funding but not revenue for governments.

Extending Wallis's term, my article brings attention to the role of 'taxless public financing'—i.e., financing public infrastructure through means other than taxation—in the making of fiscal states in two seldom compared cases: 19th-century America and 21st-century China. In the US, taxless finance took the form of state-issued bonds and the sale of charters (exclusive operating rights) to corporations (Wallis 2000). China's variant of this method relied heavily on government proceeds from land sales and collateralizing land to borrow funds.

Through these methods, both countries launched an infrastructure boom that spurred rapid growth alongside massive corruption and financial risks. In my earlier work (Ang 2020), I refer to 19th-century America and 21st-century China as 'Two Gilded Ages'. The term 'gilded'—in contrast to

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[3] According to the IMF, non-tax revenue includes: '(i) compulsory levies in the form of taxes and certain types of social contributions; (ii) property income derived from the ownership of assets; (iii) sales of goods and services; and (iv) other transfers receivable from other units' (IMF 2014: 84).

'golden'—captures the fact that many social problems festered beneath the surface of rapid growth. Public backlash against the excesses of the Gilded Age led (in the US case) and is leading (in China's case) to a shift towards tax-based public financing.

Appreciating the actual, fraught processes by which fiscal states arose among wealth(ier) nations produces three important lessons for building fiscal capacity in developing countries today. First, in order to learn from the past, we must first get history right. Reified accounts that credit democratic checks for leading to tax capacity and prosperity in the West gives the false impression that this is the primary, or even only, cause of success. It in turn justifies oversimplified policy prescription that ignore the multifaceted and evolving set of factors in state and market building. Second, analysts must pay attention not only to taxation but also to taxless means of infrastructure finance, not least debt and land, in the process of modernization. Third, we must correct the habit of emulating 'success' cases—be it pre-20th-century Western Europe, 20th-century America, or China today—without cautious awareness of the costs and risks that accompanied capitalist growth. The world is not simply divided into rich countries that 'succeeded' and poor countries that 'failed'. Even rich countries saw a mixture of triumphs and crises. Experts who advise governments in the developing world today must have a balanced, clear-eyed view of the *actual* historical processes undertaken in developed countries and learn from *both* the positive and negative aspects of their experiences.

1.1 How fiscal states really arose

Standard accounts of the rise of fiscal capacity may be summed up in this pithy, linear formula: centralized states + limits on power → consent → fiscal capacity and prosperity. The case in point is the Glorious Revolution of 1688 in England. As North and Weingast (1989: 804) argued, after the revolution increased the power of parliament to constrain that of the king, 'the new institutions produced a marked increase in the security of private rights'. Secure property rights, in turn, improved the government's ability to raise public funds, and subsequently, private capital markets also boomed. Soon after, they declared: 'England was on the verge of the Industrial Revolution'.

Attractively elegant, consistent with neoliberal values in Western capitalist democracies, and ending with 'happily ever after', North and Weingast's (1989) theory is widely embraced and has been cited over 6,500 times. Its influence is apparent in Acemoglu and Robinson's (2012) global bestseller *Why Nations Fail*, which attributes economic success to 'inclusive' and 'non-extractive' political institutions—essentially, democratic institutions. They featured North and Weingast's (1989) account of the Glorious Revolution as a quintessential case.

Far less known, however, are critiques of North and Weingast's (1989) account by other scholars. Perhaps the most thorough critique is offered by Hodgson (2017: 23), who writes: 'The North-inspired "secure property rights" argument has four major flaws—historical, analytical, motivational and distributional'.

He points out that property rights for the landed nobility were secure long *before* 1688 and that certain forms of property rights actually became less secure *after* the revolution. What was needed for the rise of capitalism, he added, was not simply property rights protection but rather the ability to trade and collateralize land, which was restricted under feudalism. In his words, the problem 'was not that there were too few property rights, but too many' (23). The propertied class, which North and Weingast (1989) casts as proponents of democracy, actually had vested interests in preserving the feudal nature of landed property rights. The push for meaningful economic and political change, therefore, came from the rise of a larger merchant class.

Hodgson's (2017) rebuttal of North and Weingast (1989) is consistent with an earlier volume by Coffman et al. (2013). They argued that the real engine behind the Industrial Revolution was not democratic political institutions and secure property rights but rather financial innovations (e.g., insurance that cut transaction costs). Similar to Hodgson and many other scholars cited in his article, their historical accounts revealed that after the Glorious Revolution, the English government actually became *more* extractive in certain ways.

Whereas these accounts focused on financial instruments (e.g., insurance, land as collateral, and debt), other scholars pointed to the interconnected bundle of large geopolitical and social disruptions that drove the rise of fiscal states in the West. Yun-Casalilla and O'Brien (2011: 24) sum up the key forces in one paragraph:

> Size, territorial dispersion and institutional diversity, relative position in global and international networks, capability to import fiscal techniques and financial advances, and the different degrees of independence in regard to movements of international capital are, therefore, relevant factors in the efficiency of fiscal systems and in their final transition to the fiscal state.

Adding to their long list of salient factors, one must not omit the enormous role of colonialism in accelerating capital accumulation and modernization in the West (Inikori 2002; Pomeranz 2000; Blackburn 2010).[4] Eltis and Engerman (2000: 125) underscored four mechanisms: colonialism 'provid[ed] markets for British goods', 'generat[ed] profits to underwrite the capital stock of the early industrial economy', 'supplied cheap raw materials', and 'slave-grown products… helped stimulation consumerism'.

Taken together, the rich body of revisionist accounts indicate that the *real* story of the rise of the West is far from the dominant narrative. In fact, on a macro level, numerous factors were simultaneously at play. On a micro level, the Glorious Revolution did not have the purported effect of securing private property rights; in some ways, it was the opposite. Eltis and Engerman (2000: 141) were careful to add: 'While slavery had important long-run economic implications, it did not by itself cause the British Industrial Revolution'. Their caveats about slavery as a singular cause should be extended to popular claims about the effects of democratic checks and secure property rights as *the* cause of Western success.

As I earlier argued (Ang 2016), the overwhelming popularity of 'centralized states + limits on power → consent → fiscal capacity and prosperity' and similar single-causal arguments are outgrowths of the 'complicated' (mechanical) paradigm in theories of political economy, which views complex social realities through the lens of 'machines' and breaks it down into discrete, linear parts.[5] In this paradigm, as Mearsheimer and Walt (2013) point out, the objective is to identify and prove which variable has the biggest effect in a regression or causal narrative. I argue that while this method is useful for answering questions that are relatively simple and confined in

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4 Domestic peculiarities were also relevant. In *The Great Divergence*, Kenneth Pomeranz (2000) argued that modernization took off in northeast Europe but not China, despite similar conditions, because of the fortunate abundance of coal in Europe, in addition to the presence of colonies.

5 The terms 'complicated' and 'complex' are often conflated in daily language, but in fact they describe two completely different worlds. To study complicated worlds, we can parse out the different parts into separate categories of cause and effect. Much of our analyses have proceeded as if social worlds are complicated, but they are almost always complex (Ang 2016: 10). Embracing complexity does not mean that we throw our hands up in despair and resign to the messiness. Rather, I argue, it means that we invest our empirical efforts in tracing and modelling—i.e. finding patterns in—the interaction of multiple factors over time (Ang 2021). One pattern across the cases of England, the US, and China appears to be that the liberalization of land and credit, what Hodgson (2017) calls 'the financial revolution', preceded the emergence of modern fiscal states that rely primarily on a broad base of taxes.

nature (e.g., Do giving free chickens improve household income?),[6] they do not take us far in understanding inherently multi-dimensional, complex, and long-term evolutionary processes such as fiscal capacity building. Put differently, while social scientists should simplify, they must not *over*-simplify to the point of omitting crucial variables and patterns of adaptation and change.

This takes me back to Hodgson's (2017) fascinating thesis about the neglected role of debt and collateralization of land in the rise of British capitalism. Hodgson agrees with North and Weingast (1989) that the 1688 Revolution changed the balance of power between the parliament and the crown. However, he contends that the revolution did not lead to secure property rights but rather the outbreak of war, following new foreign alliances. War-making, in turn, accelerated a 'Financial Revolution' (Hodgson 2017: 32). At the heart of this revolution was removing feudal restrictions on land, as he describes (20):

> Barriers to the commodification of land and its use as collateral did not disappear spontaneously or easily… They were defended by strong and enduring vested interests. It took numerous varied Acts of Parliament to remove them, lasting well into the nineteenth century.

Over time, estate, statutory authority, and enclosure acts 'relaxed constraints on the use of land and resource' (Hodgson 2017: 21). From 1750 onward, he shows, parliamentary reforms of landed property rights grew dramatically.[7]

Following Hodgson (2017), my analysis will also bring attention to the role of debt, land, and corporate charters—which I broadly classify under 'taxless public finance'—in driving America's and China's early capitalist boom and their transition into modern fiscal states. I do not argue that this is the singular cause of their modernization but only that it is an indispensable factor. I further emphasize that the reliance on taxless finance in both cases was accompanied by corruption and significant financial risks. Therefore, we must avoid simplistically labelling these cases as 'success'. The American and Chinese paths, as well as the real history in England ('not the fairy-tale retelling' version, to use Chang's quip [Chang 2011]), reveal a common lesson: the process of modernization brings material wealth along with costs and risks. Only through an appreciation of this whole package, warts and all, can policy makers and analysts draw realistic lessons for developing countries today.

2 Two Gilded Ages: America vs. China

The current global order is dominated by the US and China; the two superpowers cannot be dismissed as mere outliers. Given their contrasting political system—the US is a two-party democracy, whereas China is a single-party autocracy—the two nations are rarely compared. Recently, intensifying rivalry has led some to cast US–China relations as the 'Clash of Civilizations'—namely, two unalterably opposed nations that have nothing in common.

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[6] On this note, it is instructive to visit a debate between two development economists. Blattman (2017) argues that using controlled experiments to test whether giving free chickens is more effective than giving cash is 'the best investment we could make to fight world poverty'. Pritchett (2017) counters that this fixation with interventions fails to recognize that poverty is a 'systemic' problem that requires macro-economic and political solutions. 'I argue it probably isn't in the top 100 value for money research questions in development economics', he concludes.

[7] For a follow-up examination of the role of property as collateral in England from 1820 onward, see Hodgson (2021).

I propose, however, that the US in the late 19th century and contemporary China have more in common than most people realize (Ang 2020). During the last century, the US was still a developing country and an emerging power, just as China is today. Both achieved rapid industrialization, accompanied by rampant cronyism, rising inequality, and the rise of a new class of super-rich. More specifically, in both cases, igniting economic growth rested on building large infrastructure that could connect regions across a vast territory, enable trade, and speed up urbanization. Both were also fiscally decentralized: infrastructure spending was largely left to subnational governments.

Comparing China and the US today, it is clear that the US not only far surpasses China in GDP per capita but is also an advanced fiscal state. Table 1 compares their tax capacity and structure (to place them in perspective, I added Ethiopia). One feature that jumps out is that China's fiscal capacity is nearly catching up with the US in terms of tax revenue per capita, but in terms of the composition of revenue, China is much closer to Ethiopia than the US. How did their systems of public finance evolve and arrive at its current state?

Table 1: Fiscal capacity in the US, China, and Ethiopia (2017)

Year: 2017	**United States**	**China**	**Ethiopia**
Tax revenue as of % GDP	20.61%	19.18%	11.63%
Tax revenue (billion USD)	4,022.89	2,311.41	8.81
Tax revenue per capita (USD)	12,374.30	1,667.68	82.77
Share of tax revenue from direct taxes[8]	79.16%	36.09%	38.74%
Fiscal capacity index (indicated by state source of the revenue)	2.78	1.83	-0.64

Source: author's calculations based on data from the UNU-WIDER Government Revenue Dataset (UNU-WIDER 2020), Varieties of Democracy (V-Dem) indicators (Coppedge et al. 2020), and World Bank (2020).

2.1 Taxless finance in 19th-century America

America was once a developing country. According to Acemoglu et al. (2002: 1235), English colonists had brought institutions of good governance with them to American soil, 'providing secure property rights to a broad cross section of society'. This story posits that 'the European form of good institutions protecting private property' is the 'root cause' of American development (Acemoglu 2003).

But was this how development *really* happened in America? Secure property rights among white settlers supported entrepreneurial activities within this segment of the population, but economic transformation required more than just that. To spur interstate commerce and exports, the country also needed massive transportation projects such as railways and canals that would connect broad swathes of undeveloped land. These are long-term, expensive investments that private entrepreneurs would not normally undertake on their own, so the government had to step in by raising funds for construction.

[8] Direct taxes: comprises income taxes, taxes on payroll and workforce, and property taxes.

Did the American process of building fiscal capacity begin with a social contract between state and citizens to collect taxes in exchange for public infrastructure? No, it did not.[9] As Wallis (2005) related, the story begins in 1790. At the time, the new national constitution and state constitutions set no limits on how much governments could borrow and in what manner, and few limits were placed on taxation. If there was a social contract, it was very thin.

American democracy has a seldom-noted feature: it was born along with finance. The year after the Bill of Rights was signed in 1791, Wall Street officially went into business, with traders 'gathering under a buttonwood tree to forge an agreement establishing rules for buying and selling bonds and shares of companies', as the historian Brands (2010: 13) narrated. Years later, these traders would play an outsized role in America's development.

Entering into the 1820s, the expansion of democratic institutions and voting rights for white males intensified pressures on state governments to deliver visible economic results to their constituents. The most effective way to stimulate growth was building cross-state transportation. Vast expanses of undeveloped land stood to appreciate many times in value once transportation was constructed. Moreover, if goods and people could travel easily from coast to coast, commerce would surely boom.

Democracy posed a constraint on development ambitions, however. Local residents did not want to pay taxes for cross-state projects that would benefit other states. Exacerbating this free-rider problem was geographic mobility. If a state insisted on raising taxes, its residents could simply move elsewhere. Despite these limitations, 'it was possible to develop creative ways of financing projects' (Wallis 2005: 213).

One method of taxless finance was issuing charters to private companies in exchange for ownership interest. Charters were essentially monopoly or exclusive rights to run certain businesses. One famous charter (which would later gain notoriety when it became bankrupt) was the Morris Canal and Banking Company, which was chartered in 1824 to construct a canal to transport coal from the mines of Pennsylvania to the East Coast. At the height of its operation, hundreds of boats travelled on this canal that ran through New Jersey, carrying coal, iron ore, and agriculture produce and turning rural settlements into industrial towns.

Charters were especially profitable in the banking sector. The more exclusive they were, the more valuable. Politicians and legislators could extract abundant rents by limiting market entry and granting access only to those who paid. It was no surprise, then, that charters became fertile ground for 'access money' corruption, fuelling the rise of Gilded Age tycoons and dynasties, who in turn funded the patronage machines of state politicians:

> For example, the Camden and Amboy railroad obtained a monopoly of the northeast to southwest rail route in New Jersey, connecting New York and Philadelphia, in return for giving a substantial block of stock to the state. In New York, the Albany Regency headed by Martin Van Buren granted bank charters only to its political allies. In Arkansas, the state chartered a bank and capitalized it by issuing state bonds, and then allowed the bank to be controlled by two powerful families (Wallis 2005: 214–5).

[9] This section draws partially from Ang (2016) Chapter 7, which mapped out the co-evolution of the US economy and fiscal institutions.

Another scheme involved state governments borrowing and then investing in infrastructure projects either directly or through banks. Riding on public faith that governments would unlikely default on loans, state governments could easily secure large sums of money for construction by issuing bonds. Banks bought these bonds and then brokered them on the London market or reinvested in companies that constructed public projects. For European traders at the time, 'Of the developing countries, the United States appeared the most promising. The rate of return on investments in American railroads and telegraphs, for instance, outstripped that on most investments in Europe' (Brands 2010: 14). Through financial schemes that drew in multiple players, within and beyond American shores, public funds flowed without the need to tax.

The 1830s was a time of economic boom. Completion of the Erie Canal proved wildly successful, raking in large fortunes for the state of New York (Wallis 2005, 2000). Elsewhere, Ohio, Pennsylvania, and Maryland started building canals. Land and property prices soared, and the economy surged. By 1836, state governments had chartered over 600 banks. Between 1790 and 1860, they spent $425 million on infrastructure improvements, outstripping federal spending of $54 million. Wallis (2005: 226) summed up, 'State governments, by any measure, played a central role in the promotion of financial and transportation investment and development' (2005: 226). (As we will see, this is also an exact description of post-2000s China.)

The frenzy of construction and rapid growth, financed without taxation, drew speculators on Wall Street. A deluge of state bonds hit the market after 1836 (Wallis 2001: 19). When this coincided with international factors (including a sudden fall in cotton prices), it triggered the Panic of 1837, followed by an economic depression in 1839. In August 1839, the Morris Canal and Banking Company became the first bank to default on payments to state governments. From there, more defaults followed. As construction projects halted and land prices fell, revenue from property taxes shrunk, leaving the state government less able to repay loans. In the southern and western regions, one-third of state borrowing went into investing in state banks. 'The relationship between state governments and banks were so close', Wallis (2001: 19) noted, 'that when states began to experience financial troubles in 1839, so did their banks'. (Again, this parallels China.) Because of the interlocking of public and private finances, the financial crisis of 1839 was especially deep. It lasted four years, with nine states defaulting on their debts in 1941 and 1942.

The crisis of 1839 stirred heated public and legislative debates about the causes of the crisis, corruption, and the need to restructure public finance. A surprisingly self-critical process of deliberation ensued (one that seems painfully lacking in contemporary policy debates): 'State legislatures throughout the country were asking "how did we get in to this mess?" and "how can we prevent this from happening again?"' In the end, the states 'decided that bad institutions were the cause of the crisis' (Wallis 2005: 234). States got into their current mess through taxless finance, so to prevent the same risks in the future, legislators proceeded to limit taxless finance by changing constitutional rules.

Within 10 years from 1842, 11 states changed their constitutions, enshrining in law a body of rules that are today hailed as quintessential market-supporting institutions. These included a general incorporation law that allowed free entry to all lines of businesses, restrictions on the amount and procedures of public borrowing, and uniform property tax codes. Another lesson that state governments learned in the 1840s was that 'taxes must be raised when spending is contemplated' so that there would be more accountability and better management of risks (Wallis 2005: 213).

Even then, the story did not end with 'happily ever after'. There were now clearer rules on state lending and borrowing, but they were not airtight, and corruption was never eliminated. By the 1860s, the government again played a central role in sponsoring railroad construction, which could catapult the entire economy by connecting the East and West Coasts. Through a mixture of persuasion and bribes (including suitcases stuffed with company shares), private railway companies lobbied politicians to subsidize their projects with loans and land grants. For the construction of a single railway line from the Missouri River to California, the federal government extended loans through 30-year bonds at six per cent interest, and in addition, the contractors were entitled to 10 square miles of land for each mile of railway built (Brands 2010). Because the land had virtually no value until it was accessible, the government in effect leveraged a free resource to finance an expensive construction project—again, without having to tax. But 'over the long term, the land would prove the most valuable part of the subsidy', observed the historian Brands (2010: 49). Once the country was eventually connected by rail, the enormous land holdings of the railway tycoons swelled in value.

As the US economy leapt forward, the tax structure evolved. Local governments moved steadily towards benefit taxation (where users are taxed according to the services they receive) and decentralized fiscal responsibilities, such that by the 1900s, city rather than state governments took the lead in providing infrastructure for public utilities (water, gas, sewage) (Wallis 2005). Some state governments also introduced mechanisms to resolve debts in the event of defaults. For example, the 1870 Illinois Constitution ruled that creditors could oblige municipal governments to tax all property in order to pay their debts (McConnell and Picker 1993; cited in Liu and Waibel 2008).

Through this winding journey, punctured by five financial panics (in 1819, 1837, 1857, 1873, and 1893), America entered the 20th century with an impressive fleet of physical infrastructure and fiscal rules fit for a modern market economy.

2.2 Taxless finance in 21st-century China

In December 1978, under the leadership of Deng Xiaoping, China embarked on its 'second revolution' of reform and opening. For Chinese leaders, the challenge they faced was not just raising national income but, more importantly, making a structural transition from a planned to market economy. Under central planning, 'a modern tax system was not necessary', Naughton (2007: 60) explained. By controlling prices and suppressing private enterprises, the government made state-owned companies extremely profitable, which in turn supplied the bulk of budgetary revenue. Once markets were opened up, there was a need to tax.

China is a politically unitary state—not a federal system. It is also a single-party dictatorship, in which all officials are appointed top-down by the party apparatus and not elected. The core feature of the reform period, however, was political centralization paired with extensive economic and administrative decentralization, giving rise to a hybrid governing system—'directed improvisation' (Ang 2016). For local governments to take initiative, they had to be given autonomy and resources that they could independently use.

In 1985, the reformist leadership introduced 'particularistic fiscal contracting'. Previously, under central planning, all revenue was centralized and then reallocated to local governments according to plan, so there was no incentive for local officials to promote growth and collect revenue. With fiscal contracting, the central government struck bargains with each province, giving them the right to retain any excess revenue over a predetermined amount of revenue remitted upward. The reform also introduced a new fiscal category known as 'extra-budgetary revenue', which can be kept entirely by local governments and was primarily comprised of profits from collectively owned township and village enterprises (TVEs) (Oi 1992, 1999).[10]

Endowed with rights to keep surplus revenue, local governments enthusiastically promoted rural industrialization and TVEs, which became the driver of China's early economic take-off (Oi 1992). At the same time, to maximize their own share of revenue, local authorities cooked the books and colluded with local enterprises to evade tax payments so that to maximize locally retained 'extra-budgetary' funds. As a result, from 1979 to 1993, the central government's share of revenue plummeted even as the economy and fiscal revenue rose (Man and Hong 2011). For central leaders, this was a worrying trend, both because it was losing political control over increasingly autonomous local governments and because the central government lacked funds for executing national policies (e.g., foreign policy) and infrastructure.

The year 1993 marks a watershed in Chinese reform history. That year, a new central leadership under President Jiang Zemin and Premier Zhu Rongji took over, with the platform of 'building a socialist market economy'. Their resolution was to take market reforms to the next level, from experimenting with market activities on the fringes of a centrally planned economy to building a comprehensive institutional apparatus for a modern market economy (Qian 2003).

Fiscal reform was on the top of the agenda. In 1994, the central government unveiled the tax-sharing reform, which replaced particularistic fiscal contracting with a uniform list of central, local, and shared taxes. Table 2 lists the 10 largest tax items. At the top is the value-added tax (VAT), of which 75 per cent belonged to the central government and 25 per cent was shared among subnational governments; this was changed to a 50–50 split in 2016. To ensure reliable collection and remission of central taxes, Beijing established central tax agencies in all localities, alongside local tax agencies (which collected local taxes).

[10] Emerging from the bottom up in the 1980s, TVEs were a hybrid entity that were neither state nor privately owned but collectively owned by governments at the grassroots level. In practice, many TVEs were 'red' disguises for privately run enterprises (Tsai 2007), which were later privatized en masse in the 1990s (Kung and Lin 2007).

Table 2: China's tax structure and central-local share (2017)

Tax	Amount (trillion: yuan)	% of total tax revenue	Central share of tax item (%)	Local share of tax item (%)
Domestic VAT	5.64	39.1	50	50
Corporate income tax	3.21	22.2	60	40
VAT from imports	1.53	10.6	100	0
Individual income tax	1.20	8.3	60	40
Domestic consumption tax	1.02	7.1	100	0
Land appreciation tax	0.49	3.4	0	100
Deed tax	0.49	3.4	0	100
City maintenance and construction tax	0.44	3.0	0	100
Vehicle purchase tax	0.33	2.3	100	0
Tariffs	0.30	2.1	100	0
Others	1.18	8.2	N/A	N/A

Source: author's calculations based on data from China Finance Yearbook (Zhongguo Caizheng Nianjian) 2018.[11]

The net effect of this reform was to reverse the allocation of revenue between central and local authorities almost overnight. As Table 2 shows, whereas Beijing took the lion's share of taxes, only three of the top 10 largest items were assigned to local coffers entirely. After 1994, local governments found themselves in financial straits: they had no authority to enact local taxes; they were barred by the National Budget Law from incurring budget deficits; and prior to 2014, they were not legally allowed to sell bonds to raise revenue.

Yet, despite these constraints, the central government continued to hold local governments responsible for financing essential public services such as education and public health. On top of that, localities had to bear the cost of promoting economic growth, which entails investing heavily in infrastructure and providing financial support for businesses. The result was a drastic fiscal shortfall.

To make up for this shortfall, Beijing made fiscal transfers (central-to-local grants) with the guarantee that each province's revenue base would not fall below standards in 1993 (State Council 2008). But this brought little comfort to local governments, as their expenditures kept growing. Moreover, reliance on fiscal transfers placed local authorities at the mercy of higher-level superiors who distributed the grants. Another compensatory measure in 1994 was the assignment of land-based taxes (including the urban land tax, farmland occupation tax, real estate tax, deed tax, and land-valued added tax) to local governments. But their sums were modest; in 2009, they only made up 16 per cent of local tax revenue (Wu 2011: 45).

Mainstream theories of fiscal capacity focus on and measure tax revenue. In fact, taxless revenue can make up a significant share of public revenue, as in China's case (see Table 3). In 2017, tax revenue made up 61 per cent of total budgetary revenue, followed by non-tax revenue (e.g.,

[11] Total tax revenue (14.44 trillion yuan) reported in the yearbook includes tax rebates in the amount of –(1.39 trillion yuan), which means that not accounting for these rebates, total tax revenue is higher. If rebates were excluded, actual revenue collected is 15.82 trillion yuan. In computing per cent of total revenue, I take the total tax revenue reported in the financial yearbook.

administrative fees and fines) at 12 per cent, government earmarked funds (revenue collected and spent on a particular purpose) at 26 per cent, and revenue from state-owned assets at 1 per cent.

For local governments facing tax shortfalls, the real significant alternative of revenue was proceeds from leasing land, an earmarked category that was loosely monitored and controlled. In principle, all land in China is owned by the state. Following the National Land Management Law, local governments have the right to convert rural land into land for urban or commercial use, subject to centrally allocated quotas (each locality is mandated to maintain a certain stock of rural land) (Zhou 2010: 79). After local governments 'package' a given plot of rural land (i.e. demolish the site, compensate farmers, and provide amenities), they lease the rights to use this land for a stipulated period of time.

Table 3: Breakdown of national public revenue 2017

	Amount in 2017 (trillion: yuan)	**Share of total revenue**
Total budgetary revenue	17.26	73%
o Of which: tax revenue	o Of which: 14.44	o Of which: 84%
o Of which: non-tax revenue	o Of which: 2.82	o Of which: 16%
Government earmarked funds	6.15	26%
o Of which: land transfer fees	o Of which: 5.00	o Of which: 81%
Revenue from state-owned assets	0.26	1%
TOTAL REVENUE (A+B+C)	23.67	100%

Source: author's calculations based on data from China Finance Yearbook (*Zhongguo Caizheng Nianjian*) 2018.

Developers bid on these leases and buy and sell them on the market. They pay a one-time 'land transfer fee'. As Figure 1 shows, in total, land transfer fees have more than doubled between 2010 and 2018. They were equivalent to more than 75 per cent of local tax revenue in 2010, 2011, and 2018. In other words, for local governments, generating revenue by selling land became just as important as producing tax revenue through 'real' economic activities such as manufacturing and regular consumption.[12]

To generate even more revenue from land, local governments devised a creative scheme known as government financing vehicles (GFVs). Similar to the taxless financing scheme in 19th-century US, it involves local governments setting up subsidiary companies to borrow funds, using land or land revenue as collateral, for the purpose of building infrastructure, which could be public (e.g., highway) or quasi-public (e.g., industrial park) in nature. As a county-level finance bureaucrat describes: 'Each GFV is like a state-owned company and can be responsible for multiple projects'.[13]

The origins of GFVs may be traced to an experiment conducted in 1998. The China Development Bank and Wuhu City Government in Anhui province collaborated on a financial model described as 'bundle a city's construction projects together, and then rely on state-established GFVs to collectively borrow and repay loans' (see Cao 2014). The experiment quickly caught on first among the coastal provinces. In Liaoning (a north-eastern province), GFVs appeared 5–10 years later.[14]

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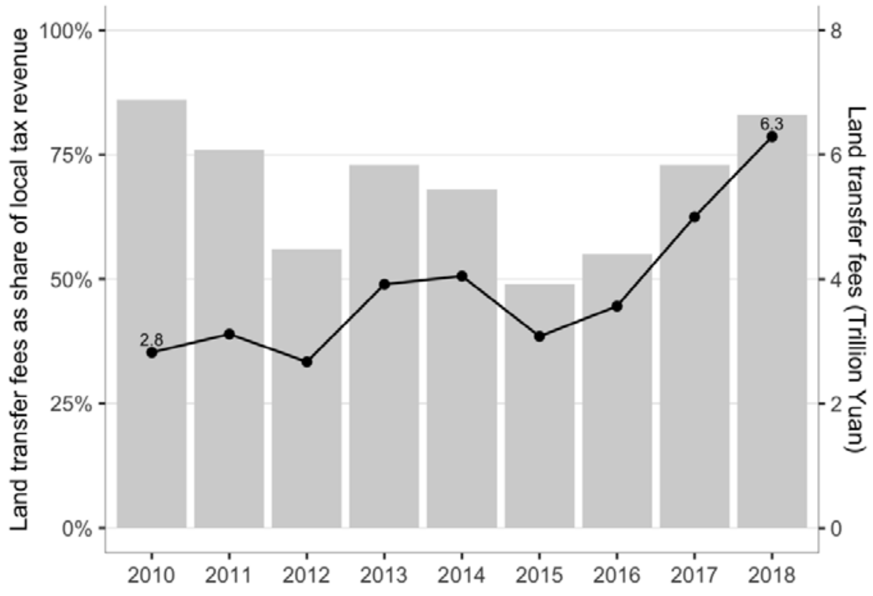
12 In recent years, central planners have warned against the trend of 'moving from a real to a hollow economy' (tuoshixiangxu), which began in the early 2000s. This refers to local governments moving away from promoting industrialization towards real estate development and to investors from productive economic activities to speculation.

13 B2011-280 (author's interview, Shandong, 2011).

14 B2011-290 (author's interview, Liaoning, 2011).

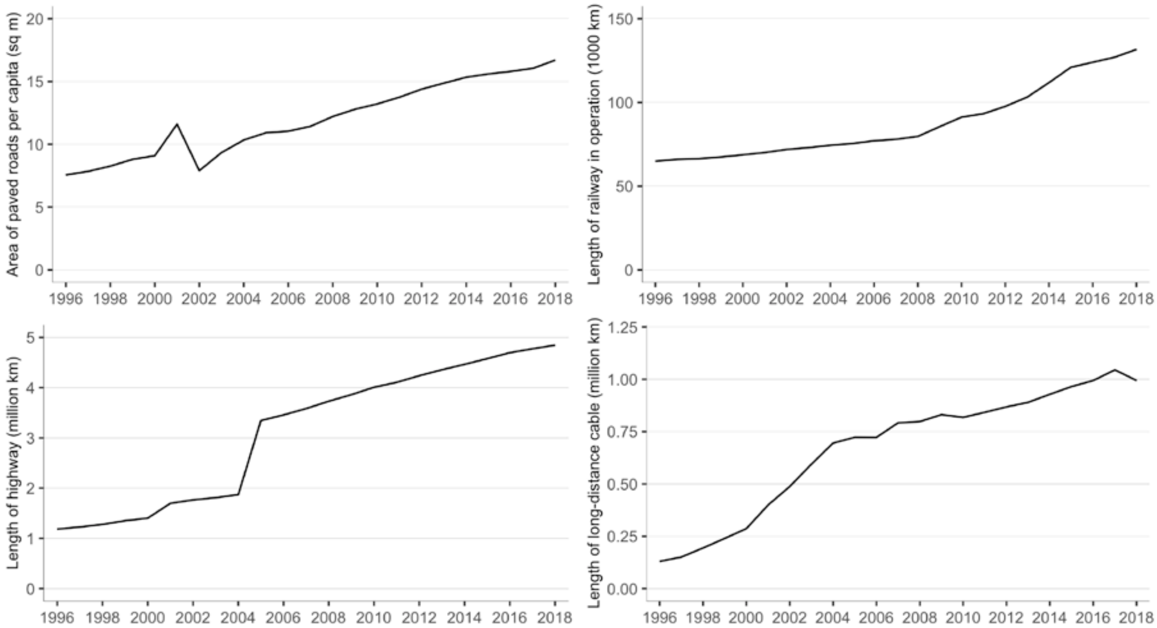
Figure 1: Land transfer fees more than doubled from 2010 to 2018



Source: author's illustration based on data from China Finance Yearbook (*Zhongguo Caizheng Nianjian*) 2011–9.

Similar to the American case, the Chinese style of taxless finance enabled local governments to finance an infrastructure boom without raising taxes, or as Bai et al (2016: 6) put it, 'It was possible for local governments to implicitly run deficits… with the explicit purpose of borrowing for public spending'. Beginning in the 2000s, China saw a rapid expansion of public utilities, highways, roads, long-distance cable, and other infrastructure across the country (Figure 2). Bardhan describes the gap in infrastructure in China and India as 'the dazzling difference'.

Figure 2: China's infrastructure boom from the 2000s



Source: author's illustrations based on data from China Statistical Yearbook (*Zhongguo Tongji Nianjian*) 1997–2019.

One clear benefit of this infrastructure boom was that it accelerated urbanization and economic growth. Especially in less developed regions, infrastructure increased their accessibility and helped them catch up economically with the coast. Liaoning province, an industrial rustbelt, was a case in point. In response to the central government's exhortation to 'reinvigorate the Northeast', the Liaoning provincial government formulated a three-pronged development strategy: create an industrial ring around the capital Shenyang, create another along Jinzhou's coastline, and promote the shipping and fishery industry. Without GFVs, one official explained, these ambitions could not be realized:[15]

> Our development these few years have indeed been rapid, especially with the arrival of a new governor, and following the three-pronged strategy, we have launched special economic zones, industrial clusters, industrial parks, and various projects. Every city is eager to develop, and such development demands money. In particular, to grow rapidly within a short time requires a large amount of capital. But every city is short of capital, so the higher-level governments can support them by setting up GFVs to raise funds.

Rapid construction without taxation comes with risks. 'What if the GFVs can't pay back their loans?' I asked the aforementioned county official, whose county had three GFVs. The official assured that this will not happen as the county government would not set up the GFVs in the first place if they were not financially feasible.

In reality, the GFVs had 'contingent risks', just as we saw in the American case. If the public projects were completed and stimulated growth, then local governments will earn more revenue to repay the loans. But if they had invested in duplicative, white elephant projects, taxpayers would indirectly shoulder the cost of financing this waste. Worse, if the economy slows or real estate prices start to fall (which will depress land prices and revenue), then local governments run the risk of being unable to pay their debts.

Such risks were exacerbated by a gigantic US$586 billion stimulus that the central government injected into the economy in 2008 to cushion the blow of the US financial crisis. Spurred by a sudden expansion of loose credit, many GFVs and dubious projects were hastily approved. Another obvious risk factor was the lack of transparency and, to use James Scott's (1998) term, 'state legibility'. The first central audit of local government debts was carried out in 2011 (see Zhou and Qing 2011). Prior to it, for more than a decade, even the central government did not know how much local governments owed.

In 2010, the State Council (the highest office of the executive branch) officially acknowledged the financial risks accompanying GFVs in a directive titled 'Notice on Strengthening the Management of GFVs'. It pointed out that 'the scale of debts owed by GFVs is rapidly expanding, and the operation of GFVs is under-regulated' (State Council 2010). The first central audit conducted in 2011 was a necessary first step in taking stock of the problem. It found that local governments had accumulated about 10.7 trillion yuan of debt by the end of 2010, with about half incurred by GFVs (see Zhou and Qing 2011).

In 2014, the State Council issued a follow-up decree, this time stating explicitly that 'governments must not borrow through enterprises, nor can enterprise debts be handed over to governments'. (In reality, some GFVs are merely shell companies staffed by government employees, so they cannot be separated from each other.) In addition, the State Council added the level of

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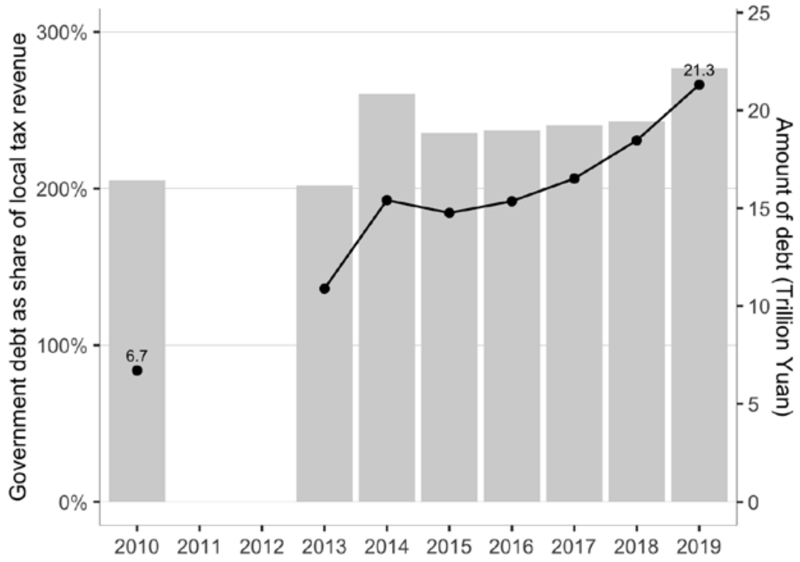
[15] B2011-290 (author's interview, Liaoning, 2011).

indebtedness as a 'hard target' in the evaluation of local leaders. 'We shall hold responsible the individuals involved in unrealistically and excessively incurring debts', it warned (State Council 2014).

Figure 3: Surge of local government debt since 2010



Source: author's illustration based on data from a central audit conducted (National Audit Office of the People's Republic of China 2011, 2013), Finance Yearbook of China (*Zhongguo Caizheng Nianjian*) 2015–8 (2014–7) and official website of the Ministry of Finance (2018, 2019, 2020).

To what extent this order has worked is not clear. One problem with China's evaluation system is that, over the years, too many targets and penalties have been added (Ang 2016). When everything is a priority, nothing is a priority. Moreover, even if local officials dutifully complied with the State Council's restrictions, past loans still have to be paid. The total amount of local government debts nearly quadrupled from 6.7 trillion yuan in 2010 to 21.3 million yuan in 2019 (Figure 3). In 2020, the Ministry of Finance issued a warning that local government debts reached 26 trillion yuan (US$4 trillion) by the end of year (see Yu and Luo 2020). In 2010, these debts were twice the amount of local tax revenue, and by 2019, they scaled up to more than 2.5 times the tax base.

In the midst of this conundrum, central regulators have considered imposing a property tax on homeownership, both to provide local governments with a stable source of tax revenue and to deter speculative home purchases (Lu and Sun 2013). In 2011, Shanghai and Chongqing were selected as trial cities, but years later, the experiment with a property tax proved ineffective at curbing housing prices. As *Caixin* reported, there were other obstacles (see Wang and Wang 2017). Those who held multiple properties were opposed to such a tax, and the government worried about depressing the real estate sector, even as they sought to rein in speculation. In 2016, half of China's new bank lending went to real estate, so if this sector suffers, banks would also suffer.

Today, China has become the world's second-largest economy and is widely perceived as a strategic competitor to the United States. In reality, although it has come a long way since the 1980s, it is still a developing country, one hampered by central-local fiscal imbalances and which has not yet developed a sustainable fiscal structure for local governments. The public debts incurred since the 2000s have bequeathed a large stock of infrastructure, but whether and how existing debts can be paid remains to be seen.

2.3 Lessons for developing economies

What lessons can we draw for developing economies from a comparative historical review of America's and China's paths to building fiscal capacity? What has the textbook literature missed? Below, I highlight some lessons.

1. Taxless finance is an important but risky source of public finance, particularly for infrastructure construction.

This volume centres on how governments become 'capable of collecting revenues from a broad tax base [and] spending funds on a range of goods and services'. When analysts speak of fiscal capacity, this is the capacity that concerns them (Moore et al. 2018).[16] The Addis Tax Initiative, established in 2015 to 'improve the fairness, transparency, efficiency, and effectiveness of tax systems' (see Addis Tax Initiative 2015), is likewise focused on increasing the tax capacity of developing countries so that they can meet the Sustainable Development Goals without relying too much on foreign aid.

There is no question that taxation is indispensable, as tax revenue provides revenue for public spending that can be allocated through the budgetary process. Current expenditure items such as the public payroll must be paid through tax revenue. Yet my analysis adds that we cannot fully appreciate how tax capacity arises without also considering taxless mechanisms of public finance. The latter includes the capacity of states to borrow and repay, as well as their ability to leverage state resources (e.g., land sales, land grants, corporate monopoly rights) to finance earmarked public projects.

Taxless finance is not a minor complication. Historical accounts of Western Europe, the US, and China all indicate that debt and land have played a central role in financing large-scale infrastructure needed to catapult an economy forward. Due to the significant costs of infrastructure, these projects cannot feasibly be financed through taxes alone but require some borrowing and financing arrangements. As Liu and Waibel (2008) pointed out in a World Bank report, subnational borrowing among developing countries has grown since the 1990s for three reasons: fiscal decentralization, large infrastructure projects, and the growing mobility of international capital.

The implications of new sources of infrastructure finance for developing economies should be part of the research agenda. In recent years, one prominent and contested source of finance is China's Belt and Road Initiative (BRI), a scheme to build infrastructure and trade links between China and 65 other countries, with an estimated cost of US$1.2 trillion by 2027(Ang 2019; Chatzky and McBride 2020). Whether this is a boon or bane for recipient countries depends on how their governments use Chinese loans and funds (Staden et al. 2018). Surely such a large infusion of capital will impact developing economies and their fiscal capacity, perhaps to a greater degree than the factors traditionally featured in the political economy.

2. To find the way out of the poverty trap, take history seriously.

Adding taxless finance to the picture helps point a way out of the intractable 'chicken-and-egg' problem inherent in any argument about development, which I term 'the poverty trap' (Ang

[16] For example, Dincecco and Prado (2012) measure fiscal capacity as 'share of total revenue from direct taxes' and 'ratio of tax revenue to GDP'.

2016).[17] Was it economic growth that enabled fiscal capacity or vice versa? Hinting at a 'two-way relationship', Besley and Persson (2013: 106) admit that 'little is yet known about [it]':

> Throughout the chapter, we have taken political institutions as given. But it is questionable whether the forces that shape the development of the tax system can be separated from those that lead to institutional change. States that raise significant revenues will find themselves facing strong demands for accountability and representation, creating a two-way relationship between political development and the growth of the tax system. Little is yet known about this relationship.

In *Pillars of Prosperity*, Besley and Persson (2011: 304) argue that legal and fiscal capacity go hand in hand, as 'investments in different parts of the state are often complements to one another'. Agreed, but if all good things go together in 'common interest states', then how did this positive equilibrium arise in the first place? And conversely, if all bad things go together in 'redistributive and weak states', are they forever stuck?

Their answer appears to be 'yes'.

> Extending the analysis to include predation and elite control, we also identified how poor governance results in a predatory state. Such states do not invest in legal capacity. Since poor-governance institutions and low-cohesiveness institutions are likely to go together, we would expect predatory states to cluster among redistributive and weak states (Besley and Persson 2011: 304).

Their logic and conclusion resoundingly echoes *Why Nations Fail.* As Acemoglu and Robinson (2012: 44) state: 'This persistence and the forces that create it also explain why it is so difficult to remove world inequality and to make poor countries prosperous'. While this argument is correct, it is essentially deterministic and fatalistic: poor and weak states have no way out.

Finding the way out of the poverty trap, I argue, requires taking history seriously. By this, I do not mean simply arguing that some past event has long-lasting effects on present-day outcomes—rather, I mean that we should document how multiple factors interacted to produce complex outcomes and identify sequential patterns.

My earlier work (Ang 2016) showed that development is best understood as a three-step coevolutionary process that begins with indigenous innovation (in colloquial terms, I call this 'using what you have'). Taxless finance is a form of indigenous innovation: it involved making use of land and credit and monetizing state power. Initially, however, because of the lack of regulation and public attention, taxless methods of finance produced risks that imploded.

3. Taxless finance was an intermediate step towards taxation.

The US in the 19th century did not skip straight to a fiscal state, even after centralizing political control and establishing a democracy among white settlers. Instead, to avoid driving away voters, state governments initially relied on taxless finance. It was only after financial risks had exploded that forced them to regulate this form of financing and transition towards taxation.

[17] In microeconomics, the term 'poverty trap' usually refers to individual or household units. Jeffrey Sachs famously characterizes countries in Africa as stuck in a trap of poverty, disease, conflict, and poor governance—his recommended solution is massive foreign aid. Here, I use 'poverty trap' to mean that poor-and-backward countries have a hard time growing their economies because they lack the ideal prerequisites for growth in the first place.

Whether China has entered the ranks of a fiscal state is questionable; its current status is a 'work in progress'. A consistent pattern in China's reform history is that a major policy change (e.g., the 1994 tax-sharing reform) solves a previous problem but creates a new one. In response, local governments devise a solution, which gets out of hand, forcing central regulators to step in and mandate a 'clean up'. Overall, the system moves forward, but in fits and starts, like in the US.

4. Taxless finance does not involve social consent in the way taxation does.

Suppose a city has plans for public construction. To raise funds, residents are asked to vote on whether they agree to pay higher taxes for this project. This is a clear instance in which democratic citizens give consent to being taxed in exchange for a public good. But what if instead of raising taxes, city authorities propose to issue a bond? Do they need explicit consent from voters? This depends on the laws governing bonds issuance. For example, in 2016, Californian citizens voted on whether state-wide voter approval was required to issue bonds of more than US$2 billion, also known as Proposition 53 (see Ballotpedia 2016).[18]

In the case of 19th-century America and reform-era China, citizens did not vote or give explicit consent to engage in taxless finance. In the case of the former, it was because rules and laws on government borrowing had not yet been enacted at the time, whereas in China, there are no elections. Governments took the decision to issue charters and bonds, or borrowed, on behalf of society. Instead of being taxed, citizens indirectly paid for the cost of public infrastructure by bearing 'contingent liabilities'.

In the case of the US, it means that if a construction project succeeded and generated revenue, taxpayers would get their bonds back with interest. But if the project failed, the bonds would be worthless. Similarly, in China, if state borrowing resulted in projects that contributed to growth, the entire city would benefit; conversely, if the projects failed, then the cost of borrowing would fall on every resident. In the event of a financial meltdown, the entire nation suffers. Given the highly connected nature of global finance, other countries can be dragged down by one big economy financial risk, as we saw in 2008.

Taxless finance is highly susceptible to corruption, as we see in both the US and China. American railway corporations in the 19th century managed to extract the most favourable terms from politicians, such that they profited immensely while taxpayers shouldered the largest risk (Brands 2010). This 'contract' between capitalists and the state was clearly unfair—and indeed corrupt—but because citizens did not pay out of pocket and were mostly unaware of the financial schemes going on, it was easy for profiteers to get away legally. In China, land-based finance was a hotbed for corruption. Because urban land is many times more commercially valuable than rural land, government officials and developers can collude to extract astronomical rents from the conversion of land.

Thus, managing taxless finance calls for a different set of mechanisms.[19] Whereas collecting taxes and spending them is relatively straightforward, finance is not common knowledge, even to individuals with PhDs. Furthermore, because the liabilities of borrowing are contingent and spread out across society, citizens have weak incentives to monitor how their governments borrow and use funds. Hence, on top of the general principles of transparency and accountability, social monitoring of taxless finance relies on professional civic groups, publicly engaged experts, and

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[18] The amendment was defeated by a thin margin.

[19] They include designing mechanisms and rules for resolving governmental defaults and bankruptcies, which is a highly specialized and technical subject (Liu and Waibel 2008).

business reporters who are knowledgeable about finance. In China these mechanisms are lacking because of the suppression of civil society and a free press; instead, the party relies on the disciplinary apparatus to investigate and arrest corrupt officials (Ang 2020; Stromseth et al. 2017).

3 Conclusion

The study of fiscal capacity has so far exclusively centred on the ability of governments to collect taxes. To be sure, taxes are absolutely necessary, but it is not the whole picture. A re-examination of British capitalism, according to revisionist accounts, as well as a historical review of the fiscal transformations in 19th-century America and post-1994 China all point to the equally important but neglected role of taxless public finance—in particular credit and land. A systems approach, rather than an isolated approach, to fiscal capacity should consider not only the ability of governments to tax but also their ability to leverage and manage the risks of taxless means of public finance.

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