ABSTRACT

The digitization of taxation systems can assist inclusion. However, it can also inadvertently lead to adverse outcomes for the poor in developing countries where many firms in the informal sector have low capabilities. Moreover, larger formal sector firms are often politically networked and in a position to engage in extractive informal transactions that digitization alone cannot restrict. Thus, while digitization creates tools for the enforcement of formal regulations, formalization can be unequal. This contribution focuses on digitized taxation as an application of a more general problem with digitization as a tool for formalization, referring to evidence from the rollout of the Goods and Services Tax (GST) in India. Using the analysis of political settlements, the authors distinguish between types of rule violations in developing economies. Networked higher-capability firms engage in ‘informal’ transactions when they violate rules to extract rents. This is different from the informality of unregistered micro and small enterprises in the informal sector who often violate rules they cannot adhere to, and make informal payments to enforcers to continue operating. When digital technologies are used in these contexts, adverse outcomes for welfare and inclusion can follow from ‘premature formalization’. A more cautious and inclusive path to formalization is necessary to protect vulnerable groups.

INTRODUCTION

At the time of the signing of the Plaza Accord in 1985, the management of Japanese auto company Toyota popularized the phrase ‘squeezing water from a dry towel’. This referred to their need to extract more value from their companies after Western countries forced the Japanese to appreciate
the yen to make the US dollar more competitive. It subsequently came to mean innovating for productivity growth. A similar discourse has emerged in contemporary developing countries using digital technologies to accelerate formalization in order to achieve higher productivity and greater social and economic inclusion (Aker, 2011; Heeks, 2019; ITU, 2016; Singh, 2019). An important component of this strategy is to make the tax net fully inclusive, for instance by making value-added taxes digitally managed to increase compliance. The assumption is that while this will increase the costs of firms, they will benefit from better service delivery and be able to exercise political voice (World Bank, 2007). Most importantly, by levelling the playing field, it will force low-productivity firms to squeeze their towels and raise productivity and force firms that are cheating to start paying taxes. The outcome should be increased revenue generation, more inclusive representation, fairer competition, higher average productivity, more innovation and ultimately more rapid national progress.

We argue that the challenge of productivity growth and inclusion is more complex in developing countries, given the lower capabilities of firms and weaker governance structures that allow different types of rule violations. When the Japanese were squeezing their dry towel to extract more value, they were already one of the most productive economies in the world. Innovation was dispersed across a wide range of high-capability firms. In contrast, most developing country firms have low productivity and limited capabilities for innovations that lead to productivity growth. For most such firms, the returns from ‘squeezing’ are likely to be negligible, while the risk that it will lead to cutting consumption or exiting from that activity are greater. If lower-capability firms close down, sufficient employment may not be triggered by demand shifting to larger firms to re-absorb the individuals who have lost lower-productivity jobs. A more cautious and inclusive path to formalization is therefore appropriate, given the vulnerability of many low-capability ‘informal’ firms in developing countries.

Institutional economists have provided different explanations for the persistence of informality. Some have focused on culture, social norms and beliefs (Bicchieri, 2005; Fukuyama, 1996; North, 1990, 1993), others on the resistance of powerful groups to the enforcement of rules that hurt their interests (Acemoglu and Robinson, 2000, 2012). The political settlements framework draws on these insights and focuses on the interdependence of power and capabilities for explaining different types of informality and their implications (Khan, 2010; Khan and Roy, 2019). In particular, organizations with different power and capabilities may violate formal rules for different reasons, with different implications for development.

A political settlement describes the distribution of power and capabilities across organizations. When organizations interact with others their behaviour may be consistent with formal laws and regulations, or they may be outside of, or even contravene, formal laws. In the latter case, the behaviour of organizations can be described in terms of following informal rules or
institutions. Formal rules are potentially subject to third party enforcement by legally recognized agencies operating within the law. Informal rules describe patterns of behaviour that are adhered to or enforced by other means. These can range from behaviour supported by trust, cultural norms or social sanctions, to enforcement by informal mechanisms including mafias. Informal institutions therefore describe a wide variety of rules and it is important to be specific about types of informality relevant for different questions (Chen, 2006).

Organizations are more likely to adhere to formal rules if the rules are broadly aligned with their interests. They are likely to devise informal rules or violate formal ones when the formal rules are missing, are not feasible, or if they have an opportunity to free ride or benefit from violations. The distribution of benefits across organizations is likely to reflect the distribution of power across them. More powerful organizations will work to change formal and informal rules to bring the distribution of benefits into closer alignment with the distribution of power (Khan, 2010). The political settlements framework examines these interdependencies between organizational power and capabilities, institutions, the distribution of benefits and the impact on development. One implication is that when weaker organizations violate rules, their benefits are generally likely to be smaller, proportionate to their relative power. Another implication is that the same formal rules or institutions, such as industrial policy, may result in very different outcomes across countries. Since the relative power and capabilities of business and government are different, formal policies are modified in different ways, helping to explain dramatically different outcomes of similar policies (Chibber, 2003; Khan, 2018; Kohli, 1994). In the case we are looking at, in which digital technologies are used to improve enforcement, the framework suggests that actual improvements in enforcement may vary across organizations, dependent on their relative power and ability to evade or mitigate enhanced burdens of compliance.

Economic informality, as we define it, refers to any economic activity organized outside or in conflict with the formal structure of economic laws and regulations. A wide variety of activities can therefore be described as informal. Firms or individuals are not ‘formal’ or ‘informal’, only their activities are, and there may be very few firms in a developing country that comply fully with all formal rules or with none. Moreover, different types of firms may violate different rules for different reasons. At the level of an individual firm, formality is therefore a matter of degree (Tokman, 1992). Formalization refers to any process that significantly increases the range of activities a firm conducts in accordance with formal laws and regulations (Nguyen et al., 2014). This includes the formal registration of the firm, financing through formal banking and investment markets, employing workers in accordance with health, safety and other regulatory requirements, producing goods that meet certified standards, in certified premises, paying relevant taxes, with the requisite insurance, and so on. The degree of formality of
an organization can therefore vary along a spectrum. Formalization can be based on lowering regulatory requirements so that less capable firms can become compliant, or on increasing sanctions to force firms to comply or close down (Gandolfo, 2013). When the violating firms are poor and lack power, the strategy that is more likely to emerge is one that increases sanctions to force them to squeeze their towels and formalize.

The literature on firms often makes a distinction between ‘formal’ and ‘informal’ sector firms, but we should read this as a judgement about the degree of formalization of their activities and not as a binary distinction. In particular, firms in the formal sector do not necessarily follow all formal rules. Large firms in developing countries often use their power and connections to violate important rules, informally extracting rents, often with negative developmental implications. These violations can include distorting the rules for getting bank loans so that, for instance, collateral is not provided or uses of funds are misreported, loans are not repaid on time, or at all; capturing subsidies they are not entitled to; fixing prices in public contracts; and so on. Formal sector firms may also benefit by deliberately keeping aspects of labour market processes informal (Barrientos, 2008; Meagher, 2019; Nadvi, 2004; Siggel, 2010). However, firms classified as formal are likely to be registered, pay formal taxes (though the amounts may be informally negotiated), their financial transactions may be with formal banks, and they may comply with many employment laws. In contrast, many low-productivity small firms operating close to subsistence levels may also be evading formal rules, but mainly because they lack the capability to comply. As these firms may not even be able to comply with the basic requirement of registration, they are typically described as informal sector firms. When detected by enforcement agencies, they are likely to face stiff penalties (relative to their ability to pay) or to have to pay large bribes in order to continue to operate. Given the different reasons and types of informality across firms, enforcing greater formalization on a selective segment of violations need not necessarily lead to higher productivity or greater welfare (Meagher, 2018; Pimhidzai and Fox, 2013).

In this article, we assess the implications of using digital technologies to manage taxes as a way of accelerating formalization along one dimension of activities, namely tax payments. This is likely to have different effects on different types of tax violations, and the overall effects are likely to depend on the distribution of power and capabilities across firms. We look at the implementation of the Goods and Services Tax (GST) in India as a lens for assessing the broader issue of digitization as a tool for accelerating formalization. To simplify our analysis, we make a distinction between two organizational types. The first are low-productivity MSMEs (micro, small and medium enterprises) in the informal sector that lack the capability to invest in or use technology that can raise their productivity (Bhattacharya, 2019). Most of these firms are likely to be micro and small firms. The second are higher-capability and usually much larger firms. They may be deliberately
violating rules with the support of their networks of power. Digitization is likely to have different effects on the two types of firms. For the first, the use of digital technologies to force higher levels of compliance may push them beyond their capabilities to pay, while not delivering better public goods or other targeted benefits quickly enough. The second type of firm may benefit from the markets vacated by their informal sector competitors and they may also benefit more from better public goods financed by higher tax revenues.

The top end of firms may also benefit from significant investment opportunities in the ‘new economy’. Digital data, including digital tax records, can create opportunities for first movers who can commercialize these data. Market power based on network economies is difficult enough to regulate in advanced countries where the disruption has happened largely within existing rules, rather than by violating rules. In developing countries the opportunities for exploiting digital data raise additional challenges because the powerful are also able to informally violate or change rules in ways that are less visible, and therefore even more difficult to regulate or mitigate (Ramanathan, 2016).

Digital technologies can therefore exacerbate pre-existing asymmetries of power. While already capable firms may benefit, less capable firms in the ‘informal sector’ may face much stricter enforcement of their violations and higher compliance costs, higher informal costs of evasion, or forced exit from many areas of activity (Bellagio Centre, 2017). Instead of greater inclusion, the result may be greater inequality, higher entry barriers into markets and greater difficulties in improving their technological capabilities. We describe this potentially adverse outcome as ‘premature formalization’.

The informal sector, defined as unregistered firms, accounts for 50–80 per cent of GDP and 70–90 per cent of employment in Asia and Africa (Benjamin and Mbaye, 2012; Schneider et al., 2010). It includes large numbers of MSMEs, especially micro and small enterprises. These firms rarely generate the income required to invest in compliance mechanisms such as software or even manual systems of record keeping (Bruhn and McKenzie, 2013; Joshi et al., 2014). Even in OECD countries with high average productivities, compliance costs for SMEs (small and medium-sized enterprises) are much higher as a proportion of their costs relative to larger firms (OECD, 2009: 29). A 2013 study estimated that only 5 per cent of SMEs in India had a presence on the internet (Gurumurthy and Chami, 2018: 56). Some low-wage SMEs, like Bangladeshi or Vietnamese garments factories, participate in global value chains even if they get a bad deal (Nadvi, 2004). But the vast majority of MSMEs have significantly lower productivity than the typical garments factory. This heterogeneity is important to keep in mind: there are big differences in capabilities within the MSME sector, with a very long tail. The low-capability MSMEs have very limited political voice especially when it comes to influencing policy or accessing finance, even though they are the most numerous types of firm (Forkuoh et al., 2015).
Firm productivity grows slowly. It is not just dependent on investments in machines and technology but also requires protracted periods of learning organizational capabilities to use technology at high productivity (Amsden, 1989; Khan, 2019). This is why making some digital technologies available usually has a much slower effect on the productivity of low-capability firms but allows much more rapid improvements in the enforcement of some formal rules including tax payments (Bhattacharya, 2019; Khan and Roy, 2019). Premature formalization can therefore also be described as a process in which formal compliance costs increase faster than gains in productivity. For firms that are already at the margins of survival, this can result in unnecessary hardship or market exit. There is growing evidence that rapid formalization can have these effects for MSMEs, and we argue that these effects are not accidental (Demenet et al., 2016; Dibben et al., 2015; La Porta and Shleifer, 2014).

In the following section we discuss the different types of informality engaged in by informal and formal sector firms in developing countries and the implications for digitizing taxation. We then examine the co-evolution of taxation, productivity and representation in advanced countries that led to the emergence of the ‘fiscal state’. In contrast, in the clientelist politics commonly observed in developing countries, paying a little more tax is unlikely to have a significant effect on the political voice of small businesses or strategies of capability development. Rapid improvements in tax enforcement using digital technologies may therefore result in adverse consequences that we describe as premature formalization. We review the evidence on the impact of digitizing taxation from India’s GST and other developing countries. We then review the available evidence on how digital data are helping to create network economies for politically connected companies that may further disadvantage MSMEs significantly. In the final section we outline some of the implications of our analysis and put forward an alternative pathway to greater formalization that is both developmental and inclusive.

THE INFORMALITY OF ‘INFORMAL’ AND ‘FORMAL’ SECTOR FIRMS

Firms that are violating rules are not always free riding to gain an unfair advantage. In developing countries, low-capability firms violate many rules because they are unable to comply. Nevertheless, it has been argued that, even in these cases, forcing compliance is a good thing and would improve efficiency (Farrell, 2004). The argument is that enforcement will either induce productivity improvements in firms or, if they go out of business, the labour and resources freed will be absorbed by more productive firms elsewhere. Of course, if neither happens, there may be huge welfare costs if a large number of lower-capability firms in the informal sector are forced to close down.
Enforcement is likely to be welfare enhancing if most firms are capable of following rules and only a few opportunists are violating. A general adherence to rules (a rule of law) is likely to emerge under these circumstances and is supported by enforcement. As firms become technically sophisticated, they need formal rules and contracts because complex transactions cannot be based solely on informal understandings, personalized relationships or trust. When most firms have high capabilities and require formal contracting, even powerful firms are likely to be sanctioned when they violate. Firms are likely to stop transacting with a violating firm and support enforcement because any signal that they tolerate violations will affect their own credibility as parties to contracts (Khan, 2010; North et al., 2007, 2013). Politicians too become rule followers, because they are constrained by a broad distribution of powerful taxpayers.

In contrast, if there are only a few powerful organizations and if their capabilities are low, the enforcement of laws is not likely to be essential for their survival. Informal enforcement may work well enough, and also allow the capture of rents. Politicians too can violate rules in these contexts and stay in power by delivering benefits to powerful networks and clients (Khan, 2018). Politicians are always more responsive to firms that can pay more tax or mobilize greater instrumental power (Fairfield, 2015). In contexts where the powerful do not demand the enforcement of rules, powerful firms not only have the power to influence policy, they can also violate rules. Their violations do not lead to action by peers directly or through enforcement agencies because transacting with rule-violating organizations does not inflict significant reputational costs in these contexts. Improvements in enforcement technologies are therefore likely to result in more complex outcomes: weaker violators may face stricter enforcement, but politically connected violators may find new ways of evading enforcement.

The emergence of widespread rule-following behaviour therefore requires as a necessary condition the emergence of a broad base of high-capability firms that will support and demand the impartial enforcement of rules. But improvements in capabilities and productivity across firms is a slow process requiring intense learning efforts. Low-productivity firms typically become more capable by gradually acquiring organizational and technical capabilities, rather than by having rules forced upon them (Amsden, 1989; Khan, 2013; Wade, 1988).

Policies supporting learning and capability development have to be driven by political leaderships with the time horizon and implementation capabilities to be able to benefit from a longer-term economic transformation. They are rarely driven by pressure from low-capability firms themselves, who usually have limited power and influence. Even if the latter became legitimate taxpayers, paying small amounts of tax, this is unlikely to significantly improve their political influence (Roy, 2017). Meagher’s (2011) work in Nigeria shows that even dynamic SMEs usually lack the agency to drive transformative collective action. For low-capability firms, paying more taxes
is therefore likely to mainly raise their costs, with limited improvements in influence (Benjamin and Mbaye, 2012; Mallett et al., 2018; Vij et al., 2017).

Figures 1 and 2 summarize the implications of using digitization to improve tax compliance in these two ideal-typical configurations. Figure 1 describes a society that already has a rule of law. Here firm capabilities are high, and violations are occasional and opportunistic. SMEs that violate rules hurt those that are compliant. Digitizing compliance to improve
enforcement can reduce this damage and prevent productive companies going out of business through unfair competition from free riders. Improved tax collection also improves the delivery of public goods that helps raise the productivity of all firms. Finally, most firms are already productive and powerful enough to exercise political voice in a rule-following political system. This helps them determine the public goods provided in exchange for the taxes they pay.

In contrast, Figure 2 shows a different set of outcomes in a society where the rule of law is weak. These countries have political settlements (distributions of power and capabilities) that only allow a rule by law: rules are enforced, but are more likely to be enforced when the violator is weaker than the violated (Khan, 2018). Here, improved enforcement capabilities may lead to higher compliance costs and taxes for lower-productivity enterprises, without commensurate improvements in public services that can help raise their productivity. Moreover, more powerful organizations (both economic and political) may continue to use informal power to evade regulations. They may also benefit from the exit of some of their low-capability competitors. At the top end of powerful companies, access to data can create lucrative opportunities, including collusive ones, in contexts of weak regulation. The policy support for digitization assumes the first type of political settlement as in advanced countries. Developing country political settlements are likely to be closer to the second, where digitization can easily lead to exclusionary outcomes (Jacobs, 2017: 52).

THE ‘FISCAL STATE’ VERSUS THE CLIENTELIST STATE

The political settlement framework provides an analysis of these different types of relationship between state and society and the role of taxation in that relationship. The role of taxation in cementing the relationship between state and society in advanced countries has been the subject of a large literature on institutions and governance (Besley and Persson, 2014; Bird, 1992; Brautigam, 2008; Brennan and Buchanan, 1980; Levi, 1989; Mann, 1993; Moore, 2008; Ross, 2004; Schumpeter, 1991). This work ranges from applications of rational choice theory to heterodox political economy, but a common theme is the evolution of state–society relations through bargaining over taxation. The emergence of institutions to protect property rights, establish checks and balances on the executive, or provide political stability has been traced to different aspects of the tax bargain (North, 1990: 49; Olson, 2000).

Historical work on the emergence of the ‘fiscal state’ in advanced Western countries has also outlined the pivotal importance of taxation. Brewer (1989) shows how state capacity developed in late 17th-century England through improvements in the tax-collecting capacity of the British Excise Office. Daunton (2001) describes the transformation of Britain from a
domain state (where the ruling classes raised taxes from their own estates),
to a tax state (where the state financed itself through general taxation)
an finally to a fiscal state (where the level and uses of taxation were
determined in representative bodies). A number of authors have traced a
similar co-evolution of representation and taxation in the United States
and France (Bailyn et al., 1977; Morgan and Morgan, 1953; Ross, 2004).
The modern state became a ‘tax state’, where taxation and representation
were closely related (Schumpeter, 1991: 112). The relationship between
representation and taxation usually evolved very differently in developing
countries, mediated by different types of colonialism. While there were a
range of experiences, colonial rule in non-settler colonies almost always
engaged in extensive social engineering. Some forms of representation
gradually emerged, but the primary objective was not to raise taxes with
consent, but to manage and control societies from above. To do this, colonial
powers often created what looked like modern representative institutions,
but they functioned very differently (Di John, 2006; Khan, 2002, 2005,
2012). Colonial rulers did not need to engage in negotiations with taxpayers
to raise revenue. They could rely on their military superiority to persuade
people to pay taxes. The function of representation was instead to selectively
incorporate leaders and organizations with organizational power (rather
than tax-paying ability) to reduce the costs of maintaining control. This
involved organizing and selectively incorporating groups based on tribes,
religions, ethnicities, regions or other markers, to divide societies and make
rule easier. The politics of clientelism emerged out of these processes as
identity-based groups or populist parties were incentivized to mobilize in
conflicts over the distribution of rents. Politics was usually not driven by
productive interests paying taxes in order to negotiate their rates and uses.

The distribution of patronage was more important than the delivery of
public goods for maintaining support for colonial rule. The development
of productive enterprises was also a lower political priority for most colo-
nial powers, and this too resulted in a weaker link between taxation, pro-
ductive interests and demands for representation. Anti-colonial movements
eventually emerged, with leaders from the intermediate classes, but this led
to colonial rulers being replaced with local ones playing very similar pa-
tronage games. Productive groups continued to play a subordinate role in
most cases. These differences in the broad historical background help to ex-
plain why productive taxpayers were and remain much less powerful in these
political settlements relative to those in advanced countries and relative to
redistributive clientelist networks in their own countries which still domi-
nate in the politics of rent distribution. The relevant point for us is that the
feedback loop between taxation and political accountability has historically
been weaker in most developing countries (Fjeldstad and Therkildsen, 2008;
Meagher, 2018).
India’s GST, Digital Enforcement and MSMEs

In the political settlements of developing countries where the rule of law is weak, the enforcement of laws is likely to be selective. The relative power of the parties involved is likely to influence what is well-enforced and on whom, and what is not. We explore the implications of technology that may allow improvements in the enforcement of particular taxes, using the example of the Goods and Service Tax (GST) introduced in India in 2017. The GST is like a value-added tax and has a number of objectives. One is to eliminate price distortions by unifying tax rates for various categories of products across the country; previously, each Indian state could impose its own taxes, making it difficult for a product produced in one state to be sold in another at competitive prices. Another objective is to increase tax compliance as its digital management enables end-to-end digital checking of invoices and transactions (Srivastava and Chaudhary, 2017). Finally, the GST is also presented as a tool for formalizing the economy by bringing informal sector enterprises into the tax net by lowering exemption thresholds (Ghosh, 2020).

The digital compliance happens through the Goods and Services Tax Network (GSTN), a platform that manages all the transactions and data related to the GST. It provides every registered firm with a digital identity that is visible to the authorities but also to others charged with operating the platform. Businesses that have an annual turnover of roughly US$ 50,000 or more (4 million rupees), or that trade across states, have to register and file returns online. The compliance costs for GST are significant as three returns have to be submitted each month. Although the minimum turnover for registration appears to be high, many MSMEs fall within this bracket, and moreover, many others who are below the limit feel compelled to register in order to trade with other registered firms. Within 18 months of its introduction, the number of firms registered for GST was double the number registered in the pre-GST sales tax regimes (Ghosh, 2020: 33).

While big businesses were largely welcoming of the policy, smaller ones, particularly in the informal sector, immediately began to register serious difficulties (Chowdhury, 2019; Mukherjea, 2019; Rajagopalan, 2018; Rajshekhar, 2017; Yadav, 2018). Estimates of the size of the MSME sector in India put it at close to 63 million units with micro enterprises accounting for 99.4 per cent of this universe (Soni, 2020). Micro enterprises are defined as those with an annual turnover of up to US$ 662,715 at 2020 exchange rates (Rastogi, 2020). These micro enterprises make up the vast majority of firms in India (Rajshekhar, 2017; Vij et al., 2017). Over 95 per cent of MSMEs are unregistered or informal (Vij et al., 2017).

The immediate concerns voiced by MSMEs regarding the GST were the cost of compliance, which affected their viability, and harassment by tax authorities. Larger firms already have well-functioning and automated finance departments and high levels of interstate transactions that can benefit from
the simplification brought about by uniform tax slabs. This is not the case for MSMEs who had to introduce new systems and competencies and had little to gain from the simplification of cross-state activities (Tyagi et al., 2019). Research on the effects of an enhanced enforcement of tax systems in other developing countries also points to the heterogeneous effects across firm types (Joshi et al., 2014). An analysis of the Indian experience is important because platforms like the GSTN, and even dedicated platforms for micro enterprises, are being considered in Nigeria (GSMA, 2019) and other countries. The dominant narrative about the economic and political benefits of enforcing formal tax rules has suppressed the growing evidence that the formalization of MSME taxation may be premature and may widen their social gap with firms of higher capabilities (Mallett et al., 2018; McCulloch et al., 2010; McKenzie and Sakho, 2010).

Like a value-added tax, GST requires firms to keep invoices and records to recover tax rebates on input purchases. The digital management system, the GSTN, allows the tax authority to match invoices through the transaction chain to control fraud and evasion. The digital compliance requirement affects large and small firms in very different ways. Most informal sector firms transact with many others in small transactions and repeated transactions are less common. That means new details of trading partners have to be entered each time. In contrast, formal sector firms are more likely to have repeated transactions. The costs of keeping records per transaction are therefore higher for smaller informal firms, and their transaction sizes are smaller. This makes the compliance cost per transaction in MSMEs an even higher share of their smaller transaction values. While larger firms also report higher compliance costs, for them the cost increase is rarely existential (Rajshekhar, 2017). The minutes of the 32nd meeting of India’s GST Council (the constitutional oversight body) recorded that businesses with a turnover of around US$ 80,000 annually, who were paying annual GST of only around US$ 67,1 would nevertheless have to spend US$ 200–270 on filing their returns (Ghosh, 2020). For MSMEs operating in low-value activities, disproportionate compliance costs are not unusual or restricted to India. Studies in Africa highlight similar effects (Benjamin and Mbaye, 2012; Forkuoh et al., 2015).

Introducing a tax like the GST in a poor economy requires many exemptions and allowances. Paradoxically, this also made GST a complex tax and many firms ended up paying too much because the exemptions were not always understood. For instance, small firms limited to intra-state trading could opt to be in a ‘composition scheme’ and pay 1 per cent of their turnover as tax, but they are not allowed to collect GST from customers or claim refunds. Similarly, some manufacturers face higher rates of GST on their inputs than their outputs, resulting in a tax overhang that blocks

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1. This can happen because there are five rates: 0 per cent, 5 per cent, 12 per cent, 18 per cent and 28 per cent.
capital before rebates are recovered. Thus, many problems were created by variations in rates and exemptions, which themselves reflect the problem of forcing a heterogeneous and low-productivity base of firms into a digitally administered system with invoice cross-checking. Here we only focus on the most general issues affecting compliance costs.

In her survey of 157 MSMEs, Ghosh (2020) looked at the effects of GST on steel almirah (cupboard) manufacturers in Mumbai, hosiery makers in Delhi and power-loom operators in Surat. Informal firms accounted for a large proportion of firms in these sectors. While 30 per cent of SMEs (mostly mid-sized firms) already had accountants, smaller firms registered on the GSTN had to hire in accounting services costing them between US$ 160 and US$ 400 annually. In almirah manufacturing, many small firms below the threshold revenue level felt compelled to register on the GSTN because their buyers were registered dealers. Though there are exemptions allowing registered dealers to buy from unregistered firms, these are difficult to administer, and most registered dealers choose not to. Moreover, registered small firms selling to smaller unregistered dealers are forced to cut prices to remain competitive as they cannot pass on GST to these dealers. The winners from this confusion have been branded producers and large registered dealers as they have a simple invoice chain to manage and can absorb the compliance costs. It was widely reported in the Indian media that large formal sector firms rapidly increased their market share after GST was introduced (Srinivasan and Shankar, 2018).

If average productivity in activities like almirah manufacturing is rising, it is because MSMEs are closing down, leaving the space to larger registered firms, not because they are squeezing their dry towels to innovate and become more productive (Ghosh, 2020; Rajshekhar, 2017; Yadav, 2018). Evidence from other countries such as Sri Lanka suggests that a much better strategy would have been to let MSMEs formalize activities as and when their benefits from doing so exceeded their costs (De Mel et al., 2013). Many of the purported benefits of formalization do not materialize in practice and firms on the ground are the best judge of whether the theoretical benefits are real. For instance, studies by De Mel et al. (2013) in Sri Lanka and McKenzie and Sakho (2010) in Bolivia show that access to credit does not increase with formalization for most SMEs. A majority of SMEs lack collateral that banks consider acceptable, and their narrow profit margins and low turnover make them high-risk businesses (Vij et al., 2017). Unless supported by special schemes, the fact that they have become registered taxpayers on digital systems (or have made progress on other dimensions of formalization) is unlikely to change these fundamental constraints.

Given that the likely effects of GST on MSMEs in India were significant, adverse and predictable, it is interesting to ask why India moved ahead with a GST with digital enforcement on this scale. It partly reflects the low bargaining power of the huge number of MSMEs relative to the far less numerous corporate interests that stood to gain from GST and therefore...
supported the reform. In neighbouring Bangladesh, moves in the early 2000s to introduce a VAT system with rebates, pushed by the International Monetary Fund and development partners, were blocked and watered down by a coalition of MSME interests. Here MSMEs were supported by formal sector firms, because they too had low productivity levels and were threatened by the compliance costs of the VAT system (Hassan and Prichard, 2016). India’s problem may well have been a much wider gap between its small but powerful corporate sector and the much larger lower-productivity economy lacking political voice that was left further behind by policies like the GST. This could be a cautionary tale for other countries contemplating selective formalization.

REALLY BIG PLAYERS: QUASI-PRIVATE ‘NATIONAL INFORMATION UTILITIES’

At the very top of the corporate pyramid in India, there is a new and rapidly evolving organizational structure emerging to harvest and exploit data linked to digital identities. This involves quasi non-governmental organizations with close formal and informal links with bureaucrats and politicians. These organizations, which include the GSTN, the Unique Identification Authority of India (UIDAI) which manages Aadhaar, and the National Payments Corporation of India (NPCI), have built and manage national-level databases and platforms, which give them the ability to access troves of data. In a context where formal rules are weakly enforced, the regulation of these and other powerful organizations raises important questions. Many of these organizations are non-profit organizations with a government stake while others are private organizations. Meagher and Lindell (2013) highlight the complex ways in which formal and informal sectors can interact in developing countries, and point out that outcomes are not necessarily beneficial for the poor. We take this further by interrogating how large ‘formal’ players in developing countries interact informally in their own dealings with the state, thereby further increasing their inequalities with the ‘informal’ sector.

The huge advantage of being a first mover in processing big data is a phenomenon affecting both advanced and developing countries. However, in developing countries, the quasi-private first movers are, in addition, closely

2. Aadhaar is an identification number used by successive Indian governments as proof of identity and residence, and which is linked to citizens’ biometric data. Launched in 2009, the aim is to improve welfare outcomes and inclusion by formalizing the identity of citizens. Its enforcement has been controversial as India’s higher courts have ruled it voluntary and not a mandatory requirement. Yet the current Indian government has linked many critical welfare services to the possession of an Aadhaar number. As a result, it is also able to use Aadhaar to exclude minorities and the poor (Khan and Roy, 2019). Privacy concerns remain high as there is little transparency around how data are managed, and the initial aim of inclusion has been inconsistently met.
associated with public data systems and enjoy informal relationships with governments. The challenges of regulating digital strategies are therefore significantly greater compared to advanced countries where a stronger rule of law can be more effective in enforcing laws restricting collusive relationships between companies, bureaucrats and politicians. The problem in advanced countries is that laws have been slow to adapt to new technologies and market challenges, and the adaptation has been slowed by powerful interests. The issue has not in general been that powerful data organizations in advanced countries have flouted laws. Indeed, there have been effective anti-trust actions against big tech firms on both sides of the Atlantic, including rulings on taxation (Apple in Ireland) and legislative scrutiny of Facebook and Google. But governments are still not sure about the best regulatory structures given the new challenges thrown up by network economies, where breaking up companies with market power can actually raise prices for consumers.

Collusive relationships and emerging market power in developing countries often arise for different reasons. In some countries, governments want to exercise greater control over the economy and polity. In countries like India, with relatively developed technology sectors, the motive is also to develop domestic data-based companies. Access to data at scale, it is argued, can help create an Indian equivalent of an American FAANG (Facebook, Apple, Amazon, Netflix, Google) or of a Baidu in China. This is not necessarily a disinterested industrial policy goal, as the development of such companies can serve to further increase the power of particular business–government coalitions.

This informal industrial policy is very different from the formal support for technology companies in advanced countries where research and innovation are often funded and regulated by the state. Examples such as Darpanet or the Jet Propulsion Laboratory in the USA that indirectly supported the commercialization of knowledge by private companies have been widely discussed (Mazzucato, 2013). The concern with the digital economy in advanced countries is how to control the market power of first movers who benefit from large network economies or to appropriately regulate them when they have access to sensitive data (Singh, 2020; UNCTAD, 2019). The additional problem in developing countries is that a significant portion of the public data ecosystem is coming under the control of quasi-private organizations that manage public databases with the government as a stakeholder (Khan and Roy, 2019; Lakshmanan, 2020). Here, the issue is not just that the laws have not fully adapted to the new challenges, but, in addition, the government is unlikely to be able to enforce laws on these quasi-private data organizations when political interests within governments are stakeholders. This is a new dimension of the informality that powerful organizations already exercise in violating or distorting rules in developing countries. Thus, the problem in developing countries is not just that the laws have not fully...
adapted to new data-use challenges, but also that any laws are likely to be enforced in partisan ways.

The GSTN is an excellent example of a platform that generates huge quantities of granular data down to recording discrete trades of businesses classified according to the Harmonized System of Nomenclature (HSN) codes from invoices recorded on the platform. It also collects data on movements of goods using the electronic waybills (ewaybills) that businesses have to submit whenever goods transported are worth over US$ 665. In 2016, Nandan Nilekani, one of India’s foremost technology entrepreneurs and the founder-chairman of the country’s UIDAI that collects and manages data for the Aadhaar identity system, laid out his expectation that digitizing identity and linking it to a variety of transactions including taxation would bring millions of consumers and small businesses in the informal sector into the formal economy (Ramanathan, 2016). The huge benefit, he thought, would be that these individuals would then get access to reliable and cheap credit, because financial institutions would forego high transaction fees to get access to the rich digital information generated by their customers.

Nilekani was wrong. It is not just that this is taking time to come about. Unlike normal commodities, the generator of data has no enforceable property rights over the data even in advanced countries. Were notional rights over data recognized, it would require a degree of impartial regulatory control that is not easy to imagine in the typical developing country. The generation of data so far (in both advanced and developing countries) has been more like a transfer where one side does not get paid but may get access to services of a type and at a price determined by the other side. But in developing countries MSMEs are particularly weak in bargaining over the benefits they get from ‘granting’ others the use of their data, and the quasi-private companies are much less constrained in the exercise of their market power. MSMEs are already compelled to register for GST, and Lakshmanan (2020) describes the data that can be accessed by platforms like the GSTN as another form of tax collection. But as with the taxation of MSMEs, the mining of their data, linking it to data from other government agencies, or sharing it with private entities to create new products, is unlikely to benefit the MSMEs which will, in all probability, remain commercially uninteresting. On the contrary, the use of these data by financial or other companies to focus on lucrative segments of the market lowers the risks for the former, but more effectively excludes the vulnerable. In countries like Kenya, linking digital identities to credit histories has helped reduce non-performing loans for banks, but at the expense of MSMEs which have higher risks but are potentially productive (Gelb and Diofasi, 2016). Some of these data may occasionally be used to improve the targeting of welfare spending, but the main impetus of using the data will be the search for even greater profits by big first-mover companies that can access and use the data (Lakshmanan, 2020). In India there are already plans to use GST data to launch an application for banks and financial companies to access data on SME receivables.
as well as invoice details. These data will then be used to develop an underwriting model to provide creditworthy businesses with credit but also to exclude higher-risk firms, likely to be smaller and more vulnerable ones, as assessed by their data.

CONCLUSION

Digital technologies and incremental processes of formalization do not necessarily result in exclusion any more than they necessarily ensure inclusion. Both outcomes are possible. We only question the expectation that the formalization of a growing range of activities using digital tools is necessarily a way of ensuring accelerated inclusion, greater political voice for the vulnerable and a faster pace of development. Some of these expectations may be plausible in a world which already has a favourable configuration of organizational power and production capabilities. These configurations would also support a rule of law and ‘modern’ representative relationships between taxpayers and states. Developed countries, in which many of these conditions have held for some time, also face concerns of accelerated concentration in the new digital economy.

However, developing countries have yet to go through the phase of productive, broad-based capitalism that helped push up income levels in advanced countries. In the political settlements of the typical developing country, large-scale enforced formalization at low per capita incomes, even along very specific dimensions of activity, can result in enhanced exclusion. We describe this as premature formalization and our reference to the Indian experience with its GST shows that this is not just a theoretical possibility. In such instances, formalization could lead to many small firms being unable to survive due to costs of compliance. They may be further disadvantaged by the data generated by their activities identifying their businesses as higher risk and being excluded from the digital economy driven by large first-mover digital firms.

What then may be a less problematic path towards inclusion, towards rising living standards and greater political voice for the many who are excluded? The political settlements framework suggests part of the answer. The low productivity and low levels of organizational capabilities of the excluded lie at the heart of the configuration of power that excludes them. We believe this constraint needs to be directly targeted by policy. Countries that have emerged from poverty and backwardness have done so because their economic policies and institutions succeeded in raising productive and organizational capabilities across broad swathes of their societies. We suggest taking seriously a direction of causality that is the reverse of the one that underpins a lot of our current understanding of formality and informality. Instead of expecting that policy supporting incremental formalization will lead us towards greater productivity and inclusion, we suggest a much
greater need to focus on how to directly raise productivity across a broad spectrum of firms and activities as a way of achieving sustainable formalization and inclusion. At the very least, both directions of causality need to be looked at very carefully.

Policies to improve skills and to support the transfer of technologies and the transfer and learning of organizational capabilities that raise productivity do not necessarily require the recipients of this support to immediately follow rules of registration, tax compliance and so on, which may be too costly for them at their existing levels of productivity. If absolutely essential, easier and cheaper ways of recording citizens and activities to enable programme support already exist and can be further developed. After all, catching up and learning strategies were implemented by countries including South Korea, Taiwan and China before their societies were fully formalized. Indeed, their success in raising productivity and capabilities allowed them to accelerate their formalization. Digital technologies and systems can greatly help in these processes, but only if we understand both directions of causality and identify the more important direction of causality for policy attention.

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