Overview report

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Firms, trade, and productivity in Myanmar

An overview of IGC research

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Executive summary

This note provides an overview of research on firms, trade and productivity conducted by the International Growth Centre (IGC) in Myanmar since 2012. In view of a substantial empirical literature establishing that much of the difference in economic output across countries can be explained by differences in total factor productivity (TFP), we organise our discussion under the following subheadings, each of which refers to an area where reforms have the potential to bring about TFP improvements at the country level:

1. Productivity within firms
2. Creation and accumulation of higher quality factors of production
3. Improving resource allocation through better-functioning markets

The IGC's research on productivity within firms in Myanmar has primarily concentrated on two areas that the existing empirical evidence suggests are important for within-firm productivity and for which there are significant quick and low-cost wins to be had – the health of relations between employers and workers and the quality of management practices. The main findings and recommendations are as follows:

- With regards to employer-worker relations, IGC research into Myanmar's garment sector points towards a vital role for worker-leaders inside factories in resolving disputes between workers and employers before they reach a stage where outside mediation is required. This underscores the importance of ensuring workers' freedom of association. A review of the existing barriers in this regard would be a valuable exercise.
- On the quality of management practices, IGC research in Thilawa Special Economic Zone (SEZ) suggests that providing English language training in multinational companies to facilitate communication between foreign senior and domestic middle managers could lead to significant within-firm productivity gains by enhancing the ability of the latter to learn better management skills from the former. This raises the question of whether there is a case for the government to subsidise English language training in Thilawa.

With regards to the creation and accumulation of higher quality factors of production, the IGC's work has spanned diverse sectors and in each case yielded a separate set of recommendations. At a high level, these comprise the following:

- In the Myanmar garment sector, there is scope for the government to boost the incentives of workers to upgrade their skill levels by participating in training opportunities both inside and outside of the factory, whether by subsidising training programmes themselves or by encouraging firms to link their bonus structures in part to further training.
- The IGC's research into language barriers in Thilawa SEZ suggests that domestic managers in zone-based MNCs who pick up new skills from their foreign senior managers are likely to eventually leave their jobs and contribute to skill levels in the wider domestic economy, which strengthens the case for the government to subsidise English language training to facilitate this process.

- The IGC's initial work on the issue of inadequate agricultural financing in Myanmar suggests that agricultural value chain finance – an approach that would leverage the superior information possessed by agricultural value chain actors with the financial resources of private banks – may be particularly promising among potential solutions, but additional research is required in this area.
- IGC research in Myanmar's rice sector identifies inadequate electricity as a major barrier to achieving improvements in productivity and quality at the mill level. The overview report on IGC Myanmar's work in the energy and electricity sector goes into much greater detail on the issue of national electrification and potential policies to expand it.
- Greater ability on the part of traders and farmers to accurately measure the quality of paddy could benefit productivity in the rice sector overall. Affordable moisture sensors and table-top mills are already available in the country, and the IGC's initial research suggests that promoting usage of these among farmers and traders could help in achieving such an outcome.

With respect to improving resource allocation through better-functioning markets, the IGC's research in Myanmar speaks to a wider literature that highlights the role of market distortions in developing countries that serve to punish – in effect, tax – more productive firms (which is equivalent to subsidising less productive ones). These are damaging for aggregate TFP because they lead to an inefficient allocation of society's resources. Specific findings and recommendations from this work are as follows:

- An IGC study looking at the removal in 2013 of the import license requirement in certain sectors suggests that political connections can and do shield firms in Myanmar from competition and, in doing so, constrain the extent to which productivity gains can be achieved from trade liberalisation. Eliminating the import license policy altogether – except for in the case of sensitive products – would alleviate this constraint.
- The outsized role of state-owned banks in providing subsidised financing to the agricultural sector has resulted in chronic underprovision of much-needed credit and other financial services in the sector by crowding out commercial sources of formal finance. This situation is made worse by interest rate caps that prevent the adoption of risk-based pricing among commercial banks that would otherwise be in a position to serve the sector.
- According to an IGC pilot study, Myanmar consumers often purchase foreign-produced goods that are not cheaper or necessarily even better quality than domestically produced versions of the same. This suggests that the government should look into some form of quality certification that would help to dispel biased priors among Myanmar consumers of the quality of foreign-produced goods relative to their locally produced counterparts.
- There is evidence that Myanmar's bean export sector is hampered by a costly search process for overseas buyers who wish to identify a suitable Myanmar exporter with whom to place orders. Interviews with buyers suggest that a transparent feedback mechanism where foreign buyers can leave publicly visible ratings of exporters from whom they have sourced would help to address this issue.

Introduction

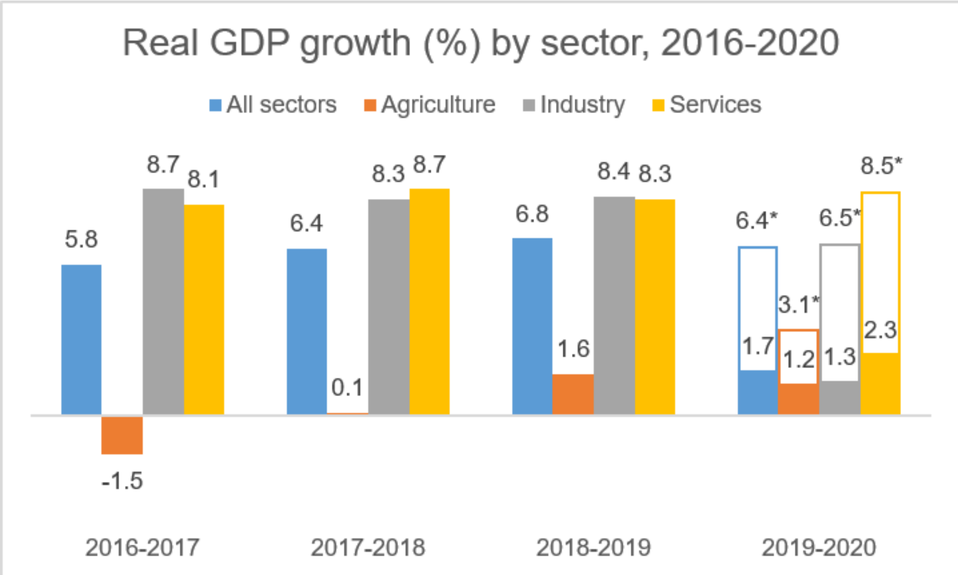
Both the military coup in Myanmar as well as COVID-19 have done major damage to the country's progress over the past decade – a period of significant economic reform which saw the national poverty rate cut in almost half, from 42.4% in 2010 to 24.8% in 2017 (Central Statistical Organization et al., 2019). As significant a setback as this is, however, the 2010s have given us a glimpse of the extraordinary economic potential that the country possesses, provided that its reins are in the hands of a reform-minded government. This note provides an overview of research on firms, trade and productivity – fundamental determinants of economic growth – conducted by the International Growth Centre (IGC) in Myanmar. This research is intended both to inform, by providing reference points from rigorous quantitative research, and spur new and even radical thinking on the part of policymakers to promote economic growth.

The IGC is a research organisation directed by the London School of Economics and Political Science in collaboration with the University of Oxford, funded for the most part by the Foreign, Commonwealth and Development Office of the UK. The IGC has maintained an in-country programme in Myanmar from 2012 to 2021. During this period, we worked closely with counterparts in the civilian government to produce research aimed at supporting policymaking that can bring about inclusive and sustainable economic growth. This research spans a wide range of topics and in many cases responds to direct requests that we have received from government officials.

This particular report concentrates on our work in the area of firms, trade and productivity in Myanmar, conducted between 2012 and 2021. To place this work in its appropriate context, it is useful to, first, establish a sense of what it is that drives economic development in a country like Myanmar and, second, a rough picture of the Myanmar economy before coronavirus reached the country in March 2020, which of course marked the beginning of the period of prolonged and repeated economic disruption that has lasted since. The remainder of this introduction comprises an attempt at briefly summarising this broader context.

A substantial development accounting literature has established that productivity growth is the primary driving force behind economic development. In particular, as summarised by Atkin et al. (2019), it is clear that much of the difference in per capita income (representing economic output) across countries can be explained by differences in total factor productivity (TFP), which is a measure of the output of an economy relative to the amount of factor inputs that it employs (e.g. the number of workers). Thus, the question of how Myanmar can grow its economic output cannot be answered without also asking what the country can do to boost productivity. It is worth noting that productivity does more than just exert a direct effect on economic output, however, as there is evidence that TFP growth also contributes to economic development indirectly through feedback effects on human and physical capital accumulation (Hsieh and Klesow, 2010). As to this question of what can be done to boost productivity – there is an emerging consensus that TFP growth is the result of cumulative micro-level changes, such as the reduction of specific market distortions. These may relate to the capabilities of firms, the functioning of markets and/or the interaction of firms with world markets (Atkin et al., 2019).

We turn our attention now to some key features of the Myanmar economy prior to the disruptions of 2020 and 2021. On the eve of the pandemic, the World Bank (2019b) was projecting a real GDP growth rate of 6.4% for 2019/2020. As is visible from the following figure, which charts Myanmar's growth rate by sector over the period 2016-2020, this was in the same range as the overall growth rates estimated in previous years. Moreover, it is clear that the industry and services sectors were the most rapidly growing sectors of the economy. Unsurprisingly, the World Bank's December 2020 estimate of actual growth in 2019/2020 turned out to be far lower – 1.7% – as a result of the pandemic. The hit to growth originated in the industry and services sectors and was mostly due to the effect of the pandemic on Myanmar's internal conditions – specifically, reduced mobility as a result of containment measures and changes in consumer behaviour – rather than external factors – such as global supply chain disruptions and reduced remittances (World Bank, 2020).



Sources: World Bank (2019); World Bank (2020)
Notes: Real GDP is calculated with a 2015/2016 base year. * signifies that the figure is a forecast that was published in December 2019, prior to the first recorded case of COVID-19 in Myanmar.

At a high level, the effects of the pandemic and the coup notwithstanding, the Myanmar economy has the following characteristics (World Bank, 2019):

- The private sector is dominated by micro, small and medium-sized enterprises (MSMEs), many of which are informal and urban.
- The large firms that do exist are concentrated in natural resource extraction, agro-processing, chemicals, construction, financial services and transport services.
- About 1% of GDP is made up of foreign businesses, mainly in manufacturing (half of which is garments), logistics, communication and information services.
- State economic enterprises account for around 7% of GDP.
- About half of the labour force is employed in agriculture. However, agriculture only accounted for 24% of gross value added in 2018/2019 (International Labour Organization, 2020).

In addition, much of the Myanmar economy is deeply intertwined with the country's legacy of civil conflict. According to research conducted by The Asia Foundation (2017), one quarter of the Myanmar population lives in townships where one or more ethnic armed organisations (EAOs) that challenge the authority of the central government are active. Moreover, the country is home to a substantial trade in illicit drugs, timber, wildlife and gems, which is closely linked with the peace and conflict dynamics surrounding the many armed actors (Felbab-Brown, 2017).

Informed by this overall context, this note examines a set of pertinent issues concerning the development of firms, trade and productivity in Myanmar that were the subject of studies conducted by the IGC over the period 2012-2021. We organise these issues under the following subheadings and discuss them in turn before wrapping up with conclusions and policy recommendations:

1. Productivity within firms
2. Creation and accumulation of higher quality factors of production
3. Improving resource allocation through better-functioning markets

Productivity within firms

As mentioned earlier, it is well established by empirical studies that much of economic development is fuelled by productivity growth. Within firms, productivity is shaped by a range of factors, such as levels of human capital and the structure of performance-linked bonuses (Syverson, 2011). Perhaps less widely recognised and, indeed, an area where there are significant quick and low-cost wins to be had is industrial relations. For instance, Akerlof et al. (2020) present evidence that the decision to lay off a quarter of workers in a large Bangladeshi sweater factory following a period of labour unrest led to a large reduction in the productivity[1] of surviving workers which persisted for over six months. Moreover, they find that that this reduction in productivity is driven by a desire on the part of workers to punish the firm for firing so many of their peers – a clear example of how social relations within firms have a significant bearing on productivity.[2] The question then is what can be done to ensure healthy relations between employers and workers, especially when firms find themselves in a position of having to make difficult decisions about retaining their workforce.

In addition to the social ramifications of management decisions, the efficacy of management practices matter also. There are now several empirical studies which find a positive link between management quality and either within-firm productivity or the ability of firms to weather shocks to productivity (see, for example: Bloom et al., 2013; Adhvaryu et al., 2016; and Menzel, 2020). If improvements in management quality are associated with better firm performance, one might ask why don't the firms pay for a suitable programme to upgrade their management quality themselves? One of many possible explanations is that the firms do not realise the extent to which such a programme would be beneficial. There is also a sense in which the benefits of the programme would not be restricted to that firm alone, as workers may eventually leave their jobs and join other firms – even competitors of the firm. This undermines the incentive of any individual firm to invest in the programme in the first place and instead suggests a role for the government in subsidising programmes of this nature. As such, the challenge for a developing country like Myanmar would be to identify suitable programmes to improve management quality within firms that are relatively low-cost for the government (or a donor) to subsidise.

IGC Myanmar has conducted research to confirm that scope exists for productivity improvements in firms in the country through low-cost interventions addressing both the social dimensions of factory operations and the availability of management expertise. We discuss these research projects in turn and present their findings.

<u>The role of worker-leaders in mitigating industrial disputes</u>

[1] As determined in the case of each worker through two separate methods: (1) a common measure of productivity that reflects differences in the complexity of the garment produced; and (2) monthly remuneration, which is determined by management according to the quantity of sweaters produced. Both methods arrive at the same conclusions.

[2] Other studies that document a link between aspects of industrial relations and worker productivity include: Krueger and Mas (2004); Jayaraman et al. (2016); and Atkin et al. (2017).

In 2019, the IGC published research[3] looking at industrial disputes in Myanmar garment factories. This study provides some insight into the social dimensions of factory operations in the country and suggests possible options for strengthening the prevailing framework concerning disputes. The garment sector was chosen because of its size and importance for jobs in Myanmar but also because it has a high incidence of industrial disputes.

Dispute resolution in Myanmar can occur at different levels but the least costly is within-factory dispute resolution. The primary legally mandated mechanism that exists for within-factory resolution is the workplace coordinating committee (WCC) – a factory-level body comprised of representatives from both management and the workforce. According to the Labour Dispute Law 2012, every factory employing more than 30 workers is required to form a WCC that is responsible for carrying out factory-level negotiation and for responding to workplace grievances. Although the exact extent to which this law is implemented in Myanmar factories is unknown, our research team did find that 36.3% of 201 garment factories that they surveyed in 2015 had no worker-leaders, whether from a WCC, union or otherwise.

What the IGC's research does establish, however, is that the success of factory-level dispute resolution in Myanmar factories depends greatly on the presence of worker-leaders, suggesting that freedom of association facilitates the resolution of industrial disputes. More specifically, the study finds that the presence of a worker-leader reduces the incidence of disputes requiring mediation outside of the factory by 10.6%. Also among the findings of the study is the observation that foreign-owned garment factories are 18.4% times more likely to experience a dispute than their purely domestic-owned counterparts. A plausible hypothesis that ties these two findings together is that communication plays a central role in maintaining healthy social relations in the workplace, which are unsurprisingly more likely to break down when the parties involved are of different national origins. With this being the case, it appears that worker-leaders act as a vital communication channel between workers and employers, thus helping to resolve disputes before they get out of hand.

Another finding of the study which gives credence to this interpretation is that factories that have a worker-leader who is an operator – like a majority of workers – have fewer disputes than ones with a worker-leader who is not an operator (typically a supervisor). Indeed, it is reasonable to think that workers would be more inclined to place their trust in, and therefore able to communicate more effectively with, worker-leaders who are perceived as coming from a similar background to them. Consequently, worker-leaders of this description are better positioned to preserve healthy social relations within the factory than worker-leaders that are perceived as being different.

Reducing language barriers to build management expertise

We turn now to the management practices themselves. As mentioned earlier, there is evidence to suggest that management skills matter, whether for within-firm productivity or for the ability of a firm to weather shocks to its productivity. Furthermore, it is well known that multinational corporations (MNCs) tend to be larger, more productive, technologically superior and better managed than other firms (Bloom et al., 2012; Antràs and Yeaple, 2014). In this context, the IGC conducted a series of studies[4] in the Thilawa Special Economic Zone (SEZ) in order to respond to the following question, which was posed to us by the Thilawa SEZ Management Committee: how can the zone generate productive spillovers from MNCs that choose to invest in the zone (that is, indirect effects of zone investment that lead to productivity

[3] Min Zar Ni Lin et al. (2019)
[4] Guillouët et al. (2021)

gains elsewhere in the economy)? The studies IGC conducted also produced findings relating to within-firm productivity, which we will discuss in this section.

First, it was noted that the organisational structure of MNCs in Thilawa was typically characterised by a three-tier hierarchy, whereby foreign managers (FMs) supervise less-experienced domestic managers (DMs) who, in turn, manage domestic production workers. It was understood from surveys of these domestic managers that for 52.4% of them the primary attraction to work in the zone was to gain new skills – of which, 41% were looking to gain management skills in particular – from working in MNCs. Based on the evidence already cited on how management quality affects productivity, it is clear that DMs being able to achieve this objective would very likely result in productivity gains for the MNCs themselves.

Second, it was identified that the primary language of communication in Thilawa firms is English – even when it is not spoken natively by either the DMs or the FMs – and that English proficiency was found to be lacking among most DMs as well as FMs. In fact, after administering a specially developed English language test, it was found that only 11.1% of DMs and 32.3% of FMs could be considered proficient in English. The implication is that much of the expected transmission of management skills between FMs and DMs is prevented by a considerable language barrier.

Spurred by these findings, the research team conducted an experiment where they randomly provided language training to DMs in Thilawa SEZ. They found that those that received the training saw their levels of English comprehension, frequency of interactions with FMs and efficiency in managing teams and performing tasks when the instructions are given in English increase, suggesting that language training in MNCs can enhance knowledge transfers and benefit within-firm productivity. As with management trainings, it is curious that firms do not invest in language training themselves given that there are clear benefits to doing so. Regardless of why this is the case, the results do suggest a potential role for the government in subsidising English language training in the zone.

Creation and accumulation of higher quality factors of production

A number of researchers have attempted to answer the question of why TFP varies so much between countries by looking at the extent to which access to high-quality factors of production is a determinant of country TFP. In this section, we discuss how the IGC's work in Myanmar has contributed to this particular line of enquiry and, in so doing, yielded potentially valuable insights for policymakers in the country.

To this end, we organise our discussion according to the specific factor of production in question. In the case of labour, the IGC has carried out research looking at the skill levels of production workers in the Myanmar garment sector and, as already discussed, the fostering of local management expertise for running more productive enterprises. In the area of capital, we have worked closely with development partners such as the International Food Policy Research Institute (IFPRI) and the Myanmar Economic Association (MEA) to gain a better understanding of the constraints to financial access in Myanmar's agriculture sector – a sector that is of considerable importance in the immediate term not only for employment of Myanmar's rural population but also for food security. Finally, access to inputs more broadly as well as electricity in particular have emerged as notable limiting factors in our work looking at constraints to quality upgrading in Myanmar's rice sector. We discuss these issues in turn.

<u>Towards a more productive labour force</u>

For increasing productivity in key labour-intensive industries like garments, it useful to draw a distinction between the skills development of production workers and that of managers. Both are crucial for increasing the regional competitiveness of Myanmar-based firms, but the latter also has a dimension of whether management expertise is concentrated among Myanmar nationals or foreigners who are working in Myanmar. As mentioned, the IGC has conducted research in the Myanmar garment sector and the Thilawa SEZ on how to improve productivity via both channels.

We begin with the skill levels of production workers. In 2019-2020, at the request of the Ministry of Commerce (MOC), the IGC conducted a study[5] of the Myanmar garment sector where a specially developed skill measurement protocol[6] was used to obtain a baseline assessment of the skill levels of different types of operators in unionised Myanmar garment factories. They found that skill grades, as assigned by the factory, correspond more closely with the variety of operations performed by an operator than their efficiency in performing a given operation. In addition, they found the skill level of an operator – both in terms of efficiency at a given operation as well as the ability to perform a variety of operations – plays a significant role in determining their earnings, even once their skill grades and levels of education and experience have been accounted for.

The findings suggest that Myanmar garment factories prize skill levels, with respect to both the efficiency and variety of operations, as distinct attributes of workers and reward them accordingly using a system of skill grades and bonuses. The immediate policy implication is that the government can target these same skill levels by subsidising or otherwise facilitating appropriate training opportunities both inside and outside of the factory. Furthermore, a separate study[7] that was done in parallel, which sought to inform the minimum wage revision that was originally scheduled for 2020, suggested that scope exists in some factories for increasing the wage premium received by workers for being assigned a higher skill grade. If the premium is not sufficiently large, workers will not have a strong enough incentive to participate in trainings and thus upgrade their skills.

We turn now to the skill levels of managers. We have already discussed the IGC's experiment[8] in the Thilawa SEZ where our researchers found that MNCs are well placed to build up management skills in DMs, provided that their mechanism for doing so – knowledge transfers from more experienced FMs – is not hampered by significant language barriers. A second experiment[9] that was conducted by the research team went further in suggesting that the benefits of these knowledge transfers would not be restricted to the zone and instead would permeate the wider domestic economy as DMs go back on the job market.

To arrive at this conclusion, the second experiment asked human resource (HR) managers in both domestic and international firms in Myanmar but outside the zone to rate hypothetical résumés that vary in their level of English language proficiency and MNC experience. The study found that résumés with better English and/or MNC experience are rated more highly by HR managers and would attract higher wages as a result. Taken together, the first and second experiments suggest that trainings to reduce language barriers within MNCs in Thilawa generate productivity gains that benefit not only the MNCs themselves but also contribute to the availability of management expertise in the wider domestic economy. This is because the DMs who receive this training would no doubt leave their Thilawa jobs eventually

[5] Boudreau et al. (2021)
[6] The protocol was developed with the help of an industrial engineer employed in the Myanmar garment sector and collects information on two different features of workers' skills: (1) the efficiency of a given operation; and (2) the variety of operations performed by the worker.
[7] Tanaka et al. (2020)
[8] Guillouët et al. (2021)
[9] Guillouët et al. (2021)

to join or set up their own non-Thilawa firms, where their skills would be of significant value and, in all likelihood, engender further knowledge transfers and productivity gains. This opportunity for productive spillovers creates a case for the government (perhaps supported by a donor) to subsidise English language training in the zone.

Indeed, the notion that SEZs should generate positive spillovers is one of three broad recommendations in a 2016 report[10] by IGC researchers on ensuring the success of SEZs in Myanmar. In particular, the report stresses the importance of recognising that SEZs in and of themselves impose a cost on society – in the form of forgone revenues from tax incentives and duty drawbacks and in the form of the opportunity cost of zone-specific infrastructure investment. It is thus important to ensure that the value proposition of a planned SEZ outweighs these costs, which can be substantial. In addition to generating spillovers that benefit the wider domestic economy, the authors argue that SEZs should: in the short run, create an attractive business climate in order to attract domestic and foreign investors; and, in the long run, promote experimentation in rules and regulations, with a view to scaling up policies that prove to be effective inside zones.

Meeting the capital needs of a growing agriculture sector

Smallholder farmers in countries such as Myanmar face substantial constraints to achieving their growth potential. Notable among these are excessive exposure to risk and inadequate access to credit – both of which undermine the willingness and ability of smallholders to invest in the level of capital needed to significantly grow their output and/or transition to higher value or value-added production (International Finance Corporation, 2014). In 2019, the IGC started a collaboration with IFPRI and the MEA to look into these constraints in the context of Myanmar and to better understand the country's prevailing policy framework surrounding agricultural finance.

In addition to surveying the existing policies, the research team explored the scope for agricultural value chain finance (AVCF) to address the aforementioned constraints. This is where, rather than serving the farmers and agribusinesses directly, financial institutions (FIs) partner with value chain actors other than the end borrower in order to extend their financial services. But why AVCF? Because we can expect the typical FI to have multiple reasons to be cautious about entering the market for agricultural finance – such as the geographical dispersion of rural borrowers, the need for specialised financial product designs and the unique risks associated with agriculture – and AVCF is uniquely positioned to allay these concerns. It does so by enabling FIs to tap into the privileged information on and access to end borrowers enjoyed by other actors in the same value chain, such as the buyers, suppliers and traders. Such a relationship is secure insofar as the value chain actor would have a stake in the success of the potential borrower and would lack the liquidity to provide the financing themselves, which would cut out the need for an FI.

One might ask why there is a need to attract private FIs to service the sector and whether the same role could not be played by a state-owned bank (SOB) in Myanmar. The argument to the contrary is that Myanmar is better off targeting its limited resources at the gaps that markets cannot fill. The effects of the coup notwithstanding, there is little to indicate that the country's microfinance institutions (MFIs) and commercial banks would be unable to serve the country's demand for agricultural finance at market rates provided the policy framework is sufficiently conducive for them to do so. This brings us to our next point: in principle, any policy that has a bearing on the costs, returns and risks of agriculture has the potential to influence agricultural financing decisions. It is in this context that the team at IGC, IFPRI and MEA came

[10] Khandelwal and Teachout (2016)

up with specific policy recommendations for a variety of ministries to consider. We discuss some of these on p. 16.

Access to better inputs for quality upgrading in Myanmar's rice sector

In 2019, a team of IGC researchers conducted a study[11], in collaboration with Innovations for Poverty Action and the Myanmar Rice Federation, on rice mills in three regions of lower Myanmar (Ayeyarwady, Bago and Yangon). This research speaks to a request received from the then MOC to assess the opportunities for quality upgrading in Myanmar's considerable rice export sector and to propose policy recommendations for alleviating the constraints to the same. In line with what we would expect, the survey revealed that the quality of inputs in the sector is itself a determinant of the final product quality as well as productivity of the rice mill.

Among surveyed mills, an unreliable supply of electricity was commonly cited by millers as a constraint to increasing quality and productive capacity, along with financial constraints and a lack of market demand. It was noted that millers can rely on some combination of being supplied by the national grid and generating their own electricity, with a sole reliance on own generation seemingly inadequate to meet the demands of larger mills. Moreover, the cost of electricity was found to be the biggest contributor to annual operating costs after labour. If in addition to being costly the electricity supply is also unstable, millers would be prevented from utilising milling machines to their full potential. Given the sunk cost associated with purchasing a milling machine (only a small minority of millers were found to rent machines), this would serve as a disincentive for mills to invest in upgrading their equipment and milling capacity. The implication for policymakers is that providing access to reliable electricity is essential for enhancing productivity in rice mills and, consequently, the rice sector more broadly, whether through its direct impact on operating efficiency or its indirect impact on investment incentives. The IGC's overview report on energy in Myanmar discusses the issues around expanding and improving electricity access at length and can be referred to for suggested policy measures in that area.

An offshoot pilot project[12] conducted in early 2020 suggests that investment incentives depend not only on the actual quality of inputs but also the ability of value chain actors to assess input quality. The pilot involved conducting a paddy quality grading experiment with rice farmers and traders, which suggested that a lack of an objective measure of quality may lead farmers to misrepresent paddy quality. Moreover, this inability on the part of traders to form their own accurate assessments of quality undermines the incentive of farmers to invest in high-quality seed and other determinants of paddy quality in the first place, which is likely to have ramifications for productivity further down the value chain. The pilot also suggested that a solution was easily available in the form of affordable moisture sensors and table-top mills, which are already used by millers and could be adopted by farmers and traders to eliminate this source of inefficiency.[13]

Improving resource allocation through better-functioning markets

Much of IGC's research into the constraints facing private sector development in Myanmar have focused on the role of resource misallocation and its origin in market distortions. These are highly prevalent in former command economies, such as Myanmar. Indeed, many vestiges of centralised economic planning remain in Myanmar. As we will see, these have important

[11] International Growth Centre (2020)
[12] Tang (2020)
[13] The study suggested that the reason the devices weren't widely adopted already was because of a common misperception that they are expensive.

and frequently detrimental consequences for productivity in the country's now sizeable private sector.

In the academic literature, as Hopenhayn (2014) summarises, the emerging consensus is that distortions that serve to punish – in effect, tax – more productive firms (which is equivalent to subsidising less productive ones) is damaging for aggregate TFP because it leads to an inefficient allocation of society's resources. Indeed, the IGC has identified and investigated a number of such distortions that prevail in the Myanmar economy today, which we discuss in this section. We begin by considering a set of prominent input market distortions – that is, policies that fundamentally skew access to inputs among firms – in the country. In this category, we will focus on barriers to import liberalisation that emerge from Myanmar's complex political economy and distortions in the market for agricultural finance (as already touched upon). We then turn to output market distortions, considering how misperceptions of quality among Myanmar consumers may be disadvantaging domestic firms and the case for export promotion in order to reap the full benefits of greater trade openness.

Import liberalisation in sectors with politically connected firms

A number of economic policies that have been pursued historically in Myanmar – an environment with heavy concentration of political power and influence – have served to undermine competition that would be in the interest of fostering a more productive economy. One such set of policies is the country's export and import license regime, which requires firms to obtain a license from the MOC in order to clear either exports or imports through customs. This policy remains in place today although the range of products to which the policy is still applicable has been much reduced over the past decade, presumably in recognition that a greater degree of trade liberalisation would benefit the Myanmar economy. IGC researchers looked at a specific instance, in 2013, of the range of applicable products that require an import license – many of which are inputs in the production of Myanmar goods and services – being reduced, and found that political connections severely hampered the effectiveness as well as, seemingly, the implementation of the policy change.[14]

More specifically, the study found that the removal of import licenses in sectors with a significant proportion of firms that are either state-owned enterprises or have a connection with the administration of the time did not lead to subsequent import growth in that sector.[15] This is at odds with what is typically documented in the empirical literature, whereby trade liberalisation induces growth through some combination of entry of new firms and reallocation of productive resources from less to more productive firms, which is indeed what was observed in the study for sectors that have few SOEs and/or politically connected firms.[16] These findings suggest that an important policy lever – that of trade policy – is not as effective in bringing about productivity growth in some sectors of the Myanmar economy as in others.

There are a number of potential explanations for these results. For one, connected firms may be more likely to import goods in sectors where firms need to operate at a large scale in order to be competitive, perhaps in order to have sufficient access to capital and/or foreign currency. The requirement to operate at a large scale may then act as a barrier to entry for smaller, non-connected firms, thus impeding one of the channels via which trade liberalisation would normally lead to growth – entry of new firms. Another potential explanation relating to this channel is that connected firms may be perceived by other, non-connected firms as strong

[14] Forster et al. (2019)
[15] An example of a sector that was impacted in this way is stone, plaster and cement (HS2 code 68).
[16] See, for example: Topalova and Khandelwal (2011); Khandelwal et al. (2013); and Brandt et al. (2017).

competitors, thus deterring the non-connected firms from attempting entry into sectors where connected firms are prominent.

Additional findings of the study go further in suggesting that the presence of politically connected firms: (1) reduces the likelihood of a sector undergoing liberalisation (in this case, removal of the import license requirement) in the first place; and (2) increases the likelihood that such a policy is not implemented even after being introduced. Regardless of their explanation, the additional findings suggest that political connections can and do shield firms in Myanmar from competition and, in doing so, constrain the extent to which productivity gains can be achieved from trade liberalisation. It is not just the entrepreneurs without political connections that lose out in this setting, however, as the consumers of the politically connected firms will ultimately receive higher prices and lower quality for their purchases than they would if import liberalisation was undertaken in the absence of these anti-competitive forces. Eliminating the import license policy altogether – except for in the case of sensitive products – followed up by enforcement of the change in policy would help to address this source of inefficiency.

It is worth mentioning in this context that related policies should also be looked at carefully if a liberalisation or reform is being considered, in case there is a need for these to be harmonised in some way with the policy change in question. For example, although no import license is required for garment inputs in Myanmar, there is a tax exemption on imports that is available to "cut-make-pack" producers; but, in order to secure the exemption, the producer must obtain an endorsement certificate from the Myanmar Garment Manufacturers Association (MGMA) and an "import license" (not the same kind as what we have been discussing) from the MOC that serves as verification of the shipment amount. This policy is understandable from the perspective of preventing tax fraud; however, to ensure that the removal of the (not tax-related) import license requirement for garment inputs is not negated or undermined by this separate but clearly related policy, the tax exemption policy and/or process should be re-evaluated as well. In this particular case, the IGC collaborated with the MGMA and the MOC to bring the process for obtaining this additional license fully online, which is not only more efficient but also removes the scope for corruption that exists if person-to-person interaction is required.

<u>The role of government in the provision of agricultural finance</u>

As alluded to in our discussion of agricultural value chain finance on p. 9, the resources of developing country governments – scarce as they are – are best used to fund services that the private sector is not well placed to provide. Indeed, this is the rationale behind public utilities, which are often most efficient when provided by closely regulated monopolies. This is not true of most sectors, where heavy government involvement can be counterproductive. As discussed in our 2020 report[17], agricultural finance in Myanmar presents such a case. In particular, the outsized role of SOBs in providing subsidised financing to the agricultural sector – primarily in the form of loans of up to MMK 2.5 million (USD 1,600) indexed to acreage from the Myanmar Agricultural Development Bank – is distortionary in that it crowds out commercial sources of formal finance and has resulted in chronic underprovision of much-needed credit and other financial services in the sector. In particular, the subsidised rates at which credit is available to certain categories of agricultural producers in the country means that commercial lenders would have to operate at a loss in order to be competitive in the sector and so are deterred from entering it altogether.

[17] Basu et al. (2020)

The situation has been compounded by interest rate caps that prevent the adoption of risk-based pricing, which would see commercial banks charging interest rates above the cap for high-risk sectors like agriculture. To be sure, the concerns of the government with doing away with these entirely may have some merit – namely, that the commercial banking sector is still in its infancy with regards to capacity for risk analysis and risk-based pricing. However, it is not clear that their capacity is necessarily too low either and so a commitment to gradually doing away with interest rate caps in parallel with encouraging financial institutions to build their capacity for risk assessment and underwriting (and regulators to build their capacity for assessing the same) would serve the sector well. In fact, this was already the general direction of financial sector reforms prior to the coup.

Reducing biased perceptions of quality to promote domestic enterprises

We turn now to some output market distortions that the IGC has looked at in the Myanmar context. As a member of ASEAN and the more recently established Regional Comprehensive Economic Partnership, Myanmar has made commitments to gradually reduce its tariffs on imported consumer goods, which presents a threat to the survival of domestic producers who are faced with the prospect of more and more competition from imports. To an extent, the increased competition would be associated with welfare gains for consumers provided that they are now able to consume better quality and/or cheaper foreign-produced goods. However, it is not clear that this always happens. As documented in one IGC pilot study[18], Myanmar consumers often purchase foreign-produced goods that are not cheaper or necessarily even better quality than domestically produced versions of the same. In other words, they pay a premium for foreign goods simply because they are foreign and therefore perceived to be of higher quality – not because of actual differences in quality. This is much to the detriment of the best domestic producers who would otherwise be well-placed to withstand foreign competition and, indeed, serves to distort the market in favour of their foreign competitors. A potential policy solution, which the IGC could evaluate and help to fine-tune, would be to introduce quality certification that would help to dispel biased priors among Myanmar consumers of the quality of foreign-produced goods relative to their locally produced counterparts.

Costly search and the case for export promotion

In addition to its potential for generating welfare gains for consumers, increased trade openness can benefit domestic producers by expanding their access to overseas markets. However, the realisation of the latter could be hampered by a costly search process for overseas buyers who wish to identify a suitable Myanmar exporter with whom to place orders. Such a scenario would favour those exporters that are, for whatever reason, better at finding foreign buyers or can be found more easily by buyers, giving them an edge over exporters that may in fact be more productive or have better quality output but are not as well placed to link up with buyers. This amounts to a distortion in the market for exports and constrains productivity growth in export industries. A recent IGC study[19] found evidence that Myanmar's bean export market, with buyers most commonly located in India, does indeed present such a scenario.

Through analysis of transaction prices and buyer-exporter relationships in customs records, the study found that the median search cost for new and continuing buyers of Myanmar beans is USD 2,600 and USD 1,700, respectively. Interviews with the buyers revealed that most of the cost associated with searching for and establishing a new relationship with an exporter

[18] Guillouët (2020)
[19] Teachout (2019)

goes into auditing and vetting the exporter. This implies that a transparent feedback mechanism, such as an online platform that allows foreign buyers to leave publicly visible ratings of exporters from whom they have sourced, would go some way in reducing the cost of search and its distortionary implications for the bean export market, thereby forcing firms to compete on dimensions of productivity and product quality in Myanmar. At the sector level, an increase in competition along these lines would be associated with higher productivity growth.

The study also noted that it is highly unlikely that the issue of high search costs is restricted to the bean sector in Myanmar, such that export promotion policies to reduce the cost of linking up with foreign buyers should be considered as beneficial for export commodities in general. Indeed, an IGC policy note prepared for the Myanmar Trade Promotion Organization in 2021 describes four broad categories of export promotion activities that can be pursued by country governments:

1. Country image building, e.g. in the form of advertising, promotional events or advocacy.
2. Exporter training, technical assistance and capacity building, including in regulatory compliance, information on trade finance, logistics, customs, packaging and pricing.
3. Marketing, in the form of trade fairs, exporter and importer missions and follow-up services offered by representatives abroad.
4. Market research and publications that bring to the attention of potential exporters general, sector-level or firm-level information based on market surveys, online information on export markets and importer and exporter contact databases.

It is worth noting that making it easier to link up with overseas buyers is beneficial for export industries not only because of its effects on competition but also because firms may see the efficiency of their operations increase through the experience of exporting itself – that is, “learning by exporting”. Atkin et al. (2017) find evidence of this phenomenon in a study which involved linking up previously non-exporting Egyptian rug producers with foreign buyers, observing that the opportunity to supply sophisticated overseas buyers for the first time had a long-lasting positive impact on the producers’ productivity as well as profits. This is yet another channel by which trade can result in a more effective allocation of society’s resources.

Conclusions and policy recommendations

Productivity growth is widely recognised among economists as the central driving force behind economic development. This accords great importance to the private sector in less developed countries, and indeed a significant amount of the IGC’s research in Myanmar over the period 2015-2021 has concentrated on the need for private sector development in particular. This report gives an overview of these pieces of research and how they all fit together with a view towards achieving higher levels of productivity growth in Myanmar. Specifically, we have looked at ways in which the findings and implications of this research can inform policy in Myanmar to promote productivity within firms, the creation and accumulation of higher quality factors of production, and improved resource allocation through better-functioning markets.

Among cost-effective ways to promote within-firm productivity, the IGC has found evidence to suggest that measures to strengthen labour relations in foreign firms by empowering worker-leaders as a communication channel between employers and workers merit consideration. Also highlighting the vital role of workplace communications, research that the IGC has conducted in the Thilawa SEZ suggests that productive knowledge transfers can be significantly hampered in MNCs by language barriers and that subsidised language training would go some way towards remedying this problem.

With regards to expanding the supply of higher quality factors of production, the IGC's work in the Myanmar garment sector points towards a potential role for the government in boosting the incentives of workers to upgrade their skill levels by participating in training opportunities both inside and outside of the factory, whether by subsidising training programmes themselves or by encouraging firms to link their bonus structures to workers getting additional training. Moreover, the IGC's research into language barriers in the Thilawa SEZ suggests that the benefits of training programmes for DMs in MNCs would not be restricted just to the MNCs where they currently work, as they would would likely eventually leave their jobs and contribute to skill levels in the wider domestic economy. In Myanmar's agricultural sector, the IGC and its partner organisations have begun exploring the potential of value chain financing as a solution to the problem of chronic undersupply of financial services, including credit, in the country's agriculture sector, with scope to do further work in this area. In a separate study, an inadequate supply of electricity is also found to be a problem in the rice sector (and likely other sectors too); the IGC's overview report on energy in Myanmar can be referred to for policy recommendations on this issue. In addition, IGC research in the rice sector suggests that a greater ability on the part of traders and farmers to accurately observe the quality of paddy could benefit productivity in the sector overall.

Relating to the ability of markets to function and therefore allocate resources as efficiently as possible, the IGC has looked into several sets of issues that warrant careful consideration by Myanmar's policymakers. One is to recognise that the effectiveness of pro-market reforms in Myanmar may be compromised by the country's distinctive political economy, in which a history of concentrated political power has helped to entrench a class of politically connected businesses, some of which may have a strong interest in preserving the status quo. IGC researchers have considered this possibility in the context of government efforts to liberalise imports in 2013. In separate work, the IGC and partner organisations have argued that a history of subsidised interest rates offered by SOBs has contributed to a considerable financing gap in Myanmar's agriculture sector by crowding out commercial providers of financial services. IGC research has also looked at some of the ways in which Myanmar's transition towards greater trade openness presents both challenges and opportunities for the country. For example, one IGC pilot study finds evidence of a significant premium that Myanmar consumers are willing to pay in order to consume imported goods. Given that this premium is determined on the basis of perceived rather than actual quality, there is scope for the government to introduce measures to address such biases and thus help to level the playing field for domestic firms, which may otherwise struggle to maintain their domestic demand as more and more imports become available. At the same time, export promotion policies are a way for the government to ensure its domestic firms are in the best possible position to tap into overseas demand as well.

We conclude with the following policy recommendations, which are derived from the various pieces of research that we have discussed over the course of this note:

1. Conduct a thorough review of the current barriers to freedom of association in Myanmar, with clearly identified steps for addressing these.
2. Explore the possibility of subsidising English language training in SEZs, with a view to promoting transfers of management expertise and efficiency gains within zone-based MNCs.
    - In tandem, look into potential policies to reduce search and labour mobility costs for workers in the zone who may wish to take up employment outside of the zone after having benefited from their experience working in MNCs. One such policy was introduced in Shenzhen in China, where zone workers received mandatory three-year contracts after which they were expected to

take up a job outside of the zone. In this latter regard, there would be a balance to strike between facilitating labour mobility out of the zone and preserving the incentive of zone-based firms to invest in training their domestic workforce, which would be undermined if staff turnover was high (Khandelwal and Teachout, 2016).

3. Consider subsidising or otherwise facilitating training opportunities for garment workers that are aimed at improving both their efficiency in performing a given operation as well as their ability to perform a variety of operations.
   - In parallel, encourage firms to look into opportunities to refine their wage and bonus structures to increase workers' incentives to participate in these trainings.
4. Look into the following subset of policy recommendations, which are geared towards enhancing the conditions for effective AVCF in the country:
   (1) Regulators should encourage commercial banks and MFIs to explore value chain financing as a risk-reduction strategy.
   (2) Take into account the implications of agricultural financing policies for underserved groups, such as women and marginalised communities.
   (3) Although the emerging insurance industry serves an important function for trade and large-scale agriculture, be wary of the commercial viability of microinsurance schemes aimed at individual farmers in the absence of significant government subsidies.[20] Group insurance may be more viable for serving smallholders.
   (4) Move line ministries away from direct delivery of financing programmes and SOBs from offering distortionary interest subsidies that deter commercial banks and MFIs from serving agriculture.
   (5) Gradually do away with interest rate caps in parallel with encouraging financial institutions to build their capacity for risk assessment and underwriting, as well as regulators to build their capacity for assessing the same.
5. Look into possible measures that enhance the ability of value chain actors to assess input quality, with a view to strengthening investment incentives. For example, the government could try to raise awareness among farmers and traders of the existence and relative affordability of transparent quality measurement devices through agricultural extension.
6. Eliminate the import license requirement except for sensitive products. This should be followed up by measures to ensure enforcement of the change in policy and careful consideration of whether related policies need to be harmonised with this change.
   - More generally, be cognizant of the country's complex political economy when designing policies, recognising that policy implementation and outcomes may deviate quite substantially from wider international experience when applied to Myanmar.
7. Explore the possibility of introducing quality certification in order to dispel biased notions among Myanmar consumers that foreign-produced goods are of inherently superior quality compared to their locally produced counterparts.
8. Ensure all exporters are registered on an online platform that gives overseas buyers the option of leaving publicly visible ratings of exporters which they have sourced from. This would help to reduce the cost for overseas buyers of sourcing from Myanmar for the first time.

[20] See Carter et al. (2017) for some innovative approaches to addressing the problem of low take-up at actuarially fair market prices.

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