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Industrial policy in Myanmar

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This paper explores industrial policy in Myanmar, drawing on the latest international thinking and analysing the potential for implementing industrial policy in Myanmar. This document is split into four sections. The first section reviews and comments on the Myanmar Industrial Development Strategy 2017. While from a few years ago and written before the recent military coup, this document is still a good benchmark against which it is useful to identify areas for improvement to build Myanmar's future economic development strategy.

The second section describes the most recent thinking around industrial policy in the literature. For a very long time, the consensus in leading policy institutions (the "Washington Consensus") was that the best industrial policy was no intervention at all. However, recently, industrial policy has regained popularity, perhaps due to the ever-growing evidence that distortions are pervasive in developing countries (see e.g., Atkin and Khandelwal, 2020, for a review).

The third section focuses on the institutional capacity required to conduct industrial policy, looking specifically at the Myanmar context. Industrial policy should not just be a set of policies and reforms which can be designed in a top-down way. Because promoting positive externalities and addressing market failures is a complex task, and as many industrial policies from the past have led to worse outcomes than the ones they were trying to improve, governments need to develop effective bottom-up systems to identify externalities, design policies to address them, and implement these policies adequately.

The fourth section concludes and summarises the main recommendations made.

A disclaimer

In the remainder of this policy brief, we use the term *industrial policy* to refer to all policies which support the development of the private sector and promote structural change. As such, *industrial policy* does not just refer only to "industrial" sectors. Government intervention in tourism or IT services is just as much industrial policy as subsidies to the manufacturing sector. We use the term *industrial policy* in this paper as it is widely used in research and policy circles.

1. Review of the 2017 Myanmar Industrial Development Strategy

The 2017 Myanmar Industrial Development Strategy, developed with UNIDO, is an impressive document which covers with a great amount of detail the current state of Myanmar's economy. It covers a diagnostic of different sectors in Myanmar (textiles, food, garments, etc.) and different policy areas (finance, tax, land, etc.) and makes detailed policy recommendations for each area. For anyone looking to get a clear understanding of a specific sector or policy area, the document provides an amazing wealth of information.

While the diagnostic sections are very helpful, the list of policy recommendations is very long and quite generic. It would be impossible for the government, even with the support of development partners, to implement these in any reasonable timeframe. For example, the section on "industrial access to finance" is particularly interesting as it develops several "key issues faced by industrial companies (demand perspective)" as well as "key issues faced by financial institutions (supply perspective)". Approaching the problem by focussing on concrete issues faced by both sides in a market is very helpful. However, policy recommendations such as "strengthen the legal and regulatory framework of the financial sector" or "develop new financial products for a business-enabling environment" are vague and do not necessarily give a clear roadmap for ministries to address some of the finance issues facing industries and companies.

Some of the problems discussed in the report are extremely difficult to address in practice and addressing them offers unclear benefits. An example of this is aiming to dissolve the concentration of labour-intensive garment manufacturing in the Yangon Region and increase the number of garment factories in other states and regions. The process of recent industrialisation in other Asian countries suggests that producers will themselves choose to open factories further from Yangon once labour supply and infrastructure dynamics there make it profitable for them to settle there. There may be benefits to encouraging this movement earlier, but there is a danger of creating loss-making factories unable to compete internationally.

Many of the policy recommendations don't target specific market failures or externalities, which approach is the foundation of industrial policy. The next section provides more detail on why addressing market failures and promoting positive externalities is the foundation of industrial policy. An example from the strategy of a policy recommendation without an explicit market failure is the following: "the aviation sector in Myanmar is largely unused for industrial purposes". Given Myanmar's multitude of domestic airports and the presence of international ones, the fact that little more than 1,000 tonnes of Myanmar exports are shipped via air hardly seems a market failure. It more likely reflects Myanmar's current shipping needs, which can be served by alternative means. It is likely that increased demand for such shipping services, e.g., from the competitive production of higher value exports, would increase the amount of air shipping without any need for government involvement.

Given the current crisis in Myanmar, which has had a massive effect on the economy, there will be a need to re-define an entire new industrial development or industrial policy strategy. To support this effort, the next section of this paper provides the necessary policy framework for thinking about an industrial policy, which should be the starting point of any future industrial development strategy.

We recommend that a future industrial policy strategy should:

- Allow for a **high degree of internalisation and ownership by civil servants** and **effective coordination between various ministries**.
- **Focus on the key market failures/externalities** that the government aims to address but also leave room for **policy priorities and actions to be identified in a bottom-up way**.
- Be a policy framework that **gives autonomy to civil servants to find actionable solutions** to the economic problems that slow down economic development, rather than a list of policy actions which are hard to implement in practice.

2. The case for industrial policy

When is industrial policy justified?

Industrial policy is justified in the presence of externalities, market failures, or distortions. An externality is an indirect cost or benefit of an economic activity incurred by a third party that is not factored into the activity or transaction. Market failures, such as credit constraints for firms, are malfunctions in the economy that yield an outcome which does not maximise economic growth. A classic example of a negative externality is that of a firm whose productive activity results in pollution, which imposes a cost on third parties, such as residents near to the firm. As the polluting firm is not made to bear this indirect cost, it will overproduce compared to the production level that would be optimal for the economy if the externality costs were factored in. In the presence of positive externalities, firms' individual optimal choices could lead them to underprovide the activity that generates a positive impact to other firms or economic agents, compared to the levels which would be optimal for the economy.

In the presence of externalities and market failures, there is in theory a strong case for the government to intervene and design policies that lead to optimal or improved outcomes. This is the textbook rationale for any government intervention in markets and is the basis for government regulation of polluting industries, as these firms impose a negative externality on others. However, this theory is difficult to implement in practice. While in the case of pollution, the intervention seems straightforward, most externalities and market failures are hard to identify, let alone quantify, and designing an effective policy or intervention which would lead with certainty to better economic outcomes is a challenging task.

How does industrial policy relate to growth policy? **The foundation for long-run economic development is structural change**: the movement of workers and resources from low to high productivity activities and sectors and the production of new products with new technologies. Structural change in developing countries usually takes the form of movement away from agriculture as the dominant form of industry towards manufacturing and service sectors. However, market failures and externalities are prevalent in the process of structural change, which is why in many instances, despite governments making important investments in infrastructure and improving the business climate, it does not necessarily happen.

Consider the following example. Entrepreneurs who are considering entering a new sector need to train workers and managers, who may later leave their firm and join competitors once skilled. Competitors may also learn from new firms about better production techniques or new market opportunities. Entering new sectors also typically requires investment, however, with new sectors, firms are unlikely to have an existing track record, so they appear as too risky to banks and private investors. **The barriers for entrepreneurs to enter new industries may thus be too high and, consequently, the economy does not diversify into new and more modern sectors**.

Box 1: Externalities, distortions, and market failures: A few examples

External economies of scale – Total productivity in certain sectors increases with the number of firms producing in that sector or using a certain production technology, resulting in external economies of scale. One reason for this may be that by being closer to each other, firms can then produce at lower costs, by e.g., benefiting from the same transport systems and infrastructure or simply by increasing specialisation. A country may then achieve comparative advantage in an industry when enough firms are producing in that industry. Conversely, since firms do not internalise the benefits to other businesses of them entering the sector, there may not be enough firms in the sector to reach a competitive scale. This provides a rationale for subsidising production in these sectors.

Economic development as a self-discovery – Hausmann and Rodrik (2003) argue that economic development consists of experimentation. First mover firms need to engage in costly experimentation, trying out new products, production techniques, and export markets to discover their comparative advantage or sectors that can become success stories. Other firms can learn from this experimentation without having to incur these costs themselves, entering into competition with the first movers. Because first movers are not compensated for the costs of their pioneering activities, they have little incentive to experiment, resulting in very little experimentation taking place in the absence of state intervention.

Information frictions – Private businesses may be unwilling to invest in new sectors or technology upgrading on their own, mainly because of insufficient information on these elements. Amsden (1989) and Wade (1990) suggest that the government's guidance regarding high potential sectors and technologies was essential in industrialisation in South Korea and Taiwan. Justin Yifu Lin provides an additional argument for government guidance by pointing out that market prices give signals for incremental change but can block more considerable economic diversification and innovation.

High market power or concentration – Many industries are concentrated in the hands of a couple of large conglomerates, a situation which is common in Myanmar. These firms have market power and in certain instances, the government can change regulations to allow these firms to keep their market power, rather than lowering the cost of entry in these sectors to foster competition. These monopolistic dynamics result in low competition and, consequently, higher costs and/or lower service or product quality for consumers.

A brief history of industrial policy

Despite the numerous theoretical descriptions of market failures in developing countries, it is very difficult in practice to measure the size of these distortions. There is virtually no evidence to say where – in which sector and in which firm – market failures are the most severe or externalities are the most prevalent. And there are reasons to believe that many of these externalities and market failures are country and context specific.

This is probably why, for so long, the consensus in leading policy institutions (the "Washington Consensus") was that the best industrial policy was no policy. Many countries were trying to pick winners - trying to identify high potential sectors - and doing so accurately was challenging. A large body of evidence now confirms that it is indeed very difficult to identify high potential sectors *ex ante*. Easterly et al. (2009) show that, often, only a very small number of sectors generate a very large proportion of a country's exports. Thus, the likelihood of subsidising a sector which will eventually become an export hit is low. More recently, Freund and Pierola (2012) show that a country's comparative advantage is typically driven by a handful of firms, so identifying high-potential firms in high-potential sectors *ex ante* is likely to be even more difficult before this grouping of firms materialises.

The case for industrial policy was also weakened by political economy considerations. In Myanmar's case, the military's role in both politics and major economic sectors means that there is significant scope for industrial policy to be misused. For example, with weak institutions, little accountability and limited transparency, subsidies or monopoly power can quickly become a means of transferring rents to powerful and well-connected firms.

Between the 1950s and the 1980s in Latin America, many countries experimented with industrial policy in the form of import substitution industrialisation. These were policies meant to increase the cost of imports to protect domestic producers from foreign competition. The motivation behind these policies was the "infant industry" hypothesis which argues that many sectors need to be protected to allow them to learn by doing and reach a certain scale before they are required to compete on an equal footing with foreign firms. The consensus is that these policies did not achieve their expected impact, even if recent evidence shows that productivity growth in Latin America at the time was higher than in the 1990s. There is also no clear evidence that the failure of these policies came from the absence of sizable positive externalities in the sectors picked or from a failure to implement these policies effectively.

Other more recent arguments from the literature show industrial policy as being an uncertain, difficult process, with the actual outcomes of policies sometimes running counter to what one might initially expect. Meade (1955) and Lipsey and Lancaster (1956) underline that in an economy with many externalities and market failures, the effect of many policies implemented simultaneously will not be easily predictable. In addition, the 'obvious' policy in response to low productivity in a sector may not be the right one. An example of this is given by Macchiavello and Morjaria (2021) who find that coffee farmers are worse off when they have access to multiple downstream mills even though *ex ante* one might expect greater competition among buyers to benefit the sellers.

This evidence and experience should not, however, lead policymakers to believe that the Washington Consensus was the right approach. Rather, there is a need to approach industrial policy differently, starting with a concrete problem and proposing a solution, which should then receive continuous feedback and improvement. We discuss this point further in the next section.

A large body of evidence has shown that externalities are prevalent in developing countries and that they appear in many different forms. From distortions which affect competition, labour, and capital markets to trade, information and knowledge frictions, the list of market failures for which there is evidence is very long (see Atkin and Khandelwal, 2020; Atkin et al., 2021). Given this context, it does not make sense that the best approach is no intervention, even when institutional capacity is low.

Many governments already carry out various forms of industrial policy, even if they call it by other names, such as export facilitation, promotion of foreign investment, free-trade zones, etc. This suggests that there is a widespread consensus among policymakers that externalities and market failures are prevalent and that there is room for the government to address these. The question then becomes *how* to conduct industrial policy effectively, rather than *if* industrial policy should be conducted.

Industrial policy, state-owned enterprises, connected firms, and liberalisation

A large literature suggests that state-owned enterprises (SOEs) and politically connected firms dominate a lot of industries in developing countries. **In Myanmar, large conglomerates and crony capitalism are so prevalent that it cannot be ignored for the conduct of industrial policy.**

Outside of Myanmar, **a large body of evidence has shown that the presence of SOEs and politically connected firms leads to a large misallocation of resources** (see Atkin and Khandelwal, 2020). While SOEs and politically connected firms often have easier access to inputs and export quotas and to capital, especially via state banks (Khandelwal et al., 2013; Orbán, 2019), they tend to be much less productive than private sector firms because they have multiple, often ill-defined targets (Mobarak and Purabasari, 2006).

While a few recent papers have shown that liberalisation can reduce this misallocation, some recent evidence from Myanmar (Forster et al., 2021) suggests that **the benefits of the 2013 import liberalisation were very small in sectors dominated by crony firms**. These results suggests that crony firms could retain an advantage even in a liberalised market, through e.g., access to credit or foreign currency, which allows them to sustain their high market power in some industries, regardless of what the 'rules of the game' in that sector may be. Therefore, in the case of industrial policy, **understanding how certain large conglomerates have reached a form of market domination is an essential first step to trying to predict the impact of a given policy.**

3. Organisational capacity to deliver an effective industrial policy

Having the right framework in place for industrial policy is not enough. Identifying externalities and market failures and a way to address them effectively is challenging. This is where building the appropriate state capacity to deliver industrial policy is key.

To be effective, industrial policy requires an organisational structure which encourages problem solving by motivated officials, complemented with frequent input from the private sector. Thus, working on bureaucratic capacity, and considering what can be done and how information can flow from the private sector to civil servants is essential to designing and delivering industrial policy.

A different approach to industrial policy

Traditional industrial policy assumed that government knows about the most important market failures. It was mostly focused on manufacturing sectors, particularly low-skill export-oriented sectors, and adopted a very top-down approach. The government would pick high potential sectors and mostly support them through subsidies and protection from foreign competition.

Modern industrial policy (Aiginger and Rodrik, 2020) recognises that many market failures are unobservable *ex ante*. The information required to recognise and address them is dispersed among many economic actors. Moreover, it recognises that bureaucratic capacity to enact industrial policy will be a function of the state's interaction with market actors and its willingness combine experimentation with various policy solutions with regular feedback from stakeholders in an iterative fashion.

Box 2: Traditional v. modern industrial policy

	Sectoral focus	Assumptions	Policy design	Constraints
Traditional approach	Export-oriented manufacturing	Governments can observe externalities	Top-down, identify priority sectors, 'hard' policies	None
Proposed approach	All sectors, including IT, tourism, and other services.	Externalities are hard to observe, require a collection of dispersed information	Bottom-up, iterative process with firms, 'soft' policies	Strategy depends on institutional capacity and political economy factors

Policymakers need to take a pragmatic approach when it comes to industrial policy. The Inter-American Development Bank (2014) proposes a three-step plan: 1) identify sectors subject to externalities; 2) design a policy that addresses the market failure specifically; and 3) make sure the state has the institutional capacity to implement the policy. On the first two points, the Inter-American Development Bank recommends public-private collaboration to identify the most important constraints that firms face and the policies that can best address these issues (see Ghezzi, 2017 for an example of how this was implemented in Peru). Harrison and Rodriguez-Clare (2010) make a similar suggestion. They argue that "soft" policies, involving strong collaboration between the government and private sector organisations, are preferable to "hard" interventions, which may end up being a bigger source of distortions than the ones they are trying to address.

The effect of a policy in a specific environment is often not obvious. **Experimentation, feedback, and evaluation are crucial, as was demonstrated by China's Special Economic Zones** (for examples, see Li et al., 2010; Yuan et al., 2010; Zeng, 2010; and Khandelwal and Teachout, 2016). As explained by Andrews, Pritchett and Woolcock (2012), industrial policy should start by aiming to solve particular problems in a local context. It should then combine an environment that encourages experimentation with iterative feedback mechanisms – both qualitative and quantitative. These should lead to continuous improvement in the reform's implementation. Even where textbook solutions are helpful, their potential will be greatly improved by constant feedback – quantitative and qualitative – from implementing officials, targeted producers, financial institutions, and buyers of the produced products (domestic and international).

Historical experiences in Korea and Taiwan suggest that pragmatic experimentation combined with frequent discussions between bureaucrats and businesses (public-private dialogue) led to better policy implementation (Rhee, Ross-Larson and Pursell, 1984). However, public-private dialogue can easily be marred by coordination problems, such as the risk of capture and rent-seeking, mistrust between parties, and differences in the set of information possessed by each party. Thus, effective industrial policy requires not only that public-private dialogue takes place but for the institutional mechanisms for public-private dialogue to be sufficiently participatory, inclusive, and transparent (World Bank, 2017).

Recent examples of effective mechanisms for public-private dialogue include Ethiopia's efforts to attract FDI (Sutton, 2019), Argentina's support of non-traditional agriculture (Bisang et al., 2014), and the setting up of sectoral round tables in Peru (see Ghezzi, 2017). In these cases, the government made clear that while it is not enacting trade protection or subsidies, it understands that sectoral growth could be augmented through greater coordination between businesses and the state.

An institutional approach which recognises the difficulty of conducting industrial policy, searches for information extensively before designing a policy, moves forward step by step, and constantly evaluates this process is needed for successful development of industrial policies. But how should this bottom-up and iterative approach be implemented in a bureaucracy? We turn to this question in the next section.

A bottom-up approach to industrial policy

This paper has emphasised the need for understanding the market failures which prevent firms from growing and structural transformation from happening. **Identifying market failures and externalities is challenging in practice**. It typically requires a very deep understanding of how specific sectors function, what the main barriers to firms are, and a combination of quantitative and qualitative evidence.

Relying on information gathered at all levels of the bureaucracy, in particular through interactions and consultations with the private sector, can be an effective way to identify market failures and externalities (Inter-American Development Bank, 2014). The information collected can be qualitative, hearing what firms in each sector may have to say or through quantitative evidence and data collection in each industry.

Even once government officials have decided that a certain friction, e.g., lack of access to credit, is a central obstacle, the best solution is often hard to identify. A policy that worked in another country may not work under the specific political and economic dynamics of the country in question, including the role played by influential firms. A further difficulty is often identifying firms that should be beneficiaries of a policy. Here too**, trying to identify solutions using**

a bottom-up approach can make sure the solutions are an effective way to address the problems identified by the bureaucracy.

Successful industrial policy attempts to change the behavior of firm owners or managers. The communication of a policy to the private sector, and the bureaucracy's awareness of the private sector's difficulties and objectives when designing and implementing industrial policy, will greatly affect its ability to induce the desired behaviour.

It may thus be beneficial to empower and incentivise civil servants to constantly improve policies already in place and come up with additional policies to be tried, tested, improved, or discarded. Traditional public sector organisations are often organised according to rigid rules. This may hamper initiatives and experimentation. Instead, the ministry should be a forum for policy discovery, as well as the facilitator of the feedback mechanisms necessary for the fine-tuning that may be needed to make a policy successful.

Incentivising civil servants

While aspects such as remuneration policies matter for the hiring and retaining of personnel with the skills and motivation to drive purposeful industrial policy, organisational structure and leadership may matter just as much.

Making bureaucrats responsible for firm and sector performance can be a powerful motivator – at any level of skills and intrinsic motivation of the civil service. Theoretical and historical work discusses the costs and benefits of feedback and accountability channels between bureaucrats and firms/the people. Sutton (2019) describes the motivating effect of clear priorities given to the bureaucracy, finding that, civil servants in charge of investment promotion are motivated when their work has an impact on business and job creation.

Economic theory is supportive of these considerations. Besley and Ghatak (2005) discuss mission-match theoretically. A match in goals between the principal and the executing agent (civil servant in the case of industrial policy) increases effort and can in fact be a substitute for incentive pay, which is often not implementable in the public sector. In other words, **creating a clearer match between civil servants' input and the outcomes that they care about may not only mechanically improve the ministry's efficiency but also go beyond that because of its motivational effect** –without the need for extrinsic rewards, like bonuses.

A related issue is the need to free up civil servants' time from tasks that can be potentially automated (e.g., routine processing of data) so that they can instead focus on those activities that align with their motivations and which, in a well-designed organisational structure, have a direct bearing on policy outcomes.

Feedback mechanisms

No measure aimed at promoting private sector development should be implemented without **independently collecting responses from a wide range of "street-level" bureaucrats charged with implementing the policy as well as those affected (e.g., businesses)**. This should avoid mistakes that are either expensive or simply waste time. This implies that a **suitable channel exists both**

within and across ministries (such as sector working groups) for these responses to be conveyed to senior decision makers.

While it would be desirable to base the assessment of whether a policy "worked" on comprehensive and statistically rigorous evaluations, this is often not feasible, or at least would take too long. Iteration and adaptation requires continuous (at least quarterly) feedback from the implementation and recipient level to the policy design level.

Such feedback mechanisms, applied consistently, have the potential to build capacity and expand the set of policies the implementing agency can be expected to implement effectively and without falling prey to excessive rent-seeking.

Political economy constraints and SOEs

Any policy that allocates public funds faces the risk of attempts to capture it by private individuals as well as civil servants. This problem may be especially grave in Myanmar where recent evidence (Forster et al., 2021) show that reforms aimed at getting rid of inefficiencies are likely to be less effective if SOEs or large business conglomerates have a stake in the status quo.

Historical experience and best practice in the implementation of development policies suggest a partial solution to this problem. **Private sector participants in public-private consultation bodies that provide oversight of public agencies should be selected so that they have opposing interests** – for example, because they compete for the same pool of resources. Moreover, **there should also be a sufficiently large number of private sector participants**; if there are just two parties, they may still collude. It is essential to give voice to a large enough set of opinions to overcome the public sector's informational disadvantage.

Also of particular value for Myanmar are lessons from Korea's post-war economic successes (see Box 3 below), given parallels between the state-business relationship in the aftermath of the Korean War and the legacy of military-linked crony capitalism in Myanmar.

Box 3: Lessons from post-war South Korea for cultivating state-business relations (Kim, 2017)

Comprehensive developmental state – The Park administration that led South Korea in the 1960s and 1970s came to power in a military coup and instituted an approach to national economic development referred to as the "comprehensive developmental state". This involved a radical shift in the relationship between Korean businesses and the state towards one based on the following principles:

- The role of private businesses is subservient to the state, whose primary objective is national economic development; and
- The state should have at its disposal some combination of "carrots" (access to resources) and "sticks" (sanctions) that it can use on private businesses in order to promote national economic development.

It is important to note here that such an authoritarian approach would probably leave most countries mired in corruption (as the Myanmar experience so clearly demonstrates) rather than produce another South Korean-style success story. South Korea's own success with this approach may have had something to do with the fact that the leading figures in the Park administration had no existing ties to South Korea’s post-war elite. Nevertheless, the full set of ingredients for this success are by no means well understood.

Democratic developmental state – With South Korea’s democratisation in the 1980s came a new model of national economic development, which can be referred to as the “democratic developmental state”. It was characterised by:

- A shift in industrial policy from targeting selected sectors with heavy subsidies to providing time-limited support for sunset industries;
- Development-oriented policymaking would no longer take priority, with the focus shifted instead to regulatory policy; and
- Abolition of state-owned banks, policy-based credit programmes and industrial licensing, thus significantly limiting the ability of the state to reward businesses that play a pro-development role in the economy (i.e., the “carrots” of the former comprehensive developmental state).

This period actually resulted in higher levels of economic growth for South Korea, eventually seeing the country emerge as an advanced economy at the turn of the 21st century. Indeed, it is this latter period that would be most relevant for policymakers in a federal democratic Myanmar.

4. Conclusions and policy recommendations

Given the scale of the current crisis in Myanmar as well as the COVID-19 pandemic, both of which have affected the economy massively, there will be a need for a future civilian government to develop a new industrial development or industrial policy strategy for Myanmar. This paper aims to support this effort by providing an initial policy framework for thinking about industrial policy.

While a strong case is often made for the government to conduct industrial policy – in the sense of intervening and designing policies that lead to improved outcomes in the presence of externalities and/or market failures – the reality is that it is very difficult to do so with any precision, largely because the underlying distortions can be exceedingly difficult to quantify. Moreover, political economy considerations around whether industrial policy can be misused to favour well-connected firms and promote crony capitalism further undermine the case for industrial policy in countries like Myanmar.

Yet, a number of developing countries (e.g., China, South Korea) have achieved considerable success through industrial policy. Indeed, this paper argues that industrial policy has a high chance of being effective if the country adopts a framework of first identifying concrete problems and then pursuing an iterative process of designing and refining solutions based on continuous feedback, experimentation, and evaluation.

In particular, this paper makes the following broad recommendations for the conduct of industrial policy by a future civilian administration of Myanmar:

- Develop an understanding of how certain large conglomerates have achieved market domination in their respective sectors, as a first step towards trying to predict the impacts of potential industrial policies.
- Rely on information gathered at all levels of the bureaucracy, in particular through interactions and consultations with the private sector, in order to identify the market failures and externalities that the industrial policy would be designed to address.

- Whenever possible, identify solutions using a bottom-up approach. This requires empowering and incentivising civil servants to constantly improve policies already in place and come up with additional policies to be tried, tested, improved, or discarded.
- Make bureaucrats responsible for firm and sector performance to improve both motivation at the individual level and performance at the ministry level. Relatedly, bureaucrats should be allocated the time to focus on those activities that have a direct bearing on policy outcomes.
- Recognising that it will not be feasible to conduct a rigorous evaluation of every policy, a process should be put in place of independently collecting responses from a wide range of “street-level” bureaucrats charged with implementing the policy as well as those affected (e.g., businesses). A suitable channel should exist both within and across ministries (such as sector working groups) for these responses to be conveyed to senior decision makers.
- As any policy that allocates public funds faces the risk of attempts to capture it by private individuals as well as civil servants, private sector participants in public-private consultation bodies that provide oversight of public agencies should be selected so that they have opposing interests. There should also be a sufficiently large number of them.

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