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Task Force 04

TRADE AND INVESTMENT FOR SUSTAINABLE AND INCLUSIVE GROWTH

Industrial Policy and Sustainable Development: New Trends and Old Challenges

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Abstract

This brief examines the challenges of implementing industrial policy considering international economic developments, particularly multilateral trading rules, the rise of the services, and environmental challenges. While countries retain significant space to pursue industrial development, it has become more challenging. Numerous reforms are proposed, especially multilateral trade regulation, and trade-offs inherent in them explored.

Diagnosis of the Issue

The Historic and Contemporary Challenge of Industrial Policy

Sustainable development encompasses many themes and issues. For emerging and low-income countries, the main development challenge is to raise income through growth. For the world at large, countries need to grow in an environmentally and ecologically sustainable manner.

The precise conditions that gave rise to industrialization among the rich countries of today remain a subject of debate. It is clear, however, that industrial policies have been key. Industrial policy tools used by today's rich countries include tariff protection, export subsidies, quotas, industrial espionage, restrictions on foreign ownership, local content requirements, preferential credit, and state-owned enterprises (Chang, 2008).

For example, during the early stages of industrialization, the highest tariff rates on manufacturing goods were implemented by the UK (45-55%) and the US (35-45%), surpassing Japan (30%), Germany (26%), and other high-income countries. Germany copied British-made goods by circumventing the comparatively weak intellectual property (IP) rules of the day. Japan similarly did not have particularly high tariffs but used export subsidies, restricted foreign ownership, used local content requirements, and more (ibid.).

While the heyday of industrial policy for today's developing countries, the middle part of the 20th century, produced rates of economic higher than the subsequent period of trade liberalization (Weisbrot and Ray, 2011), the strategy of import substitution industrialization faced limits. This included overly ambitious catch-up plans, financial constraints, domestic market limitations, and political economy factors.

Indeed, the success of industrial policy has been considerably driven by historical development of state capacity. For instance, Japan created comparatively uncorrupt, meritocratic bureaucracies under its colonial rule and allowed domestic elites to engage in entrepreneurship. South Korea then had the political-economic structure to avoid infant industry promotion leading to rent-seeking. European colonialism, in contrast, ruled from afar. It enabled domestic elites to retain power by selling political favors. Industrial policy is then vulnerable to rent-seeking and the proliferation of inefficient regulations. For some countries, a more outward orientation proved successful, such as India. Though still a poor country, liberalization spurred considerable economic growth (Kohli, 2004).

Despite the challenges, few countries have managed economic development without promoting indigenous industry and extensive industrial policies. Institutional learning is possible and good institutions often emerge while or after industrialization has been set in motion.

For developing countries, industrial policy varies depending on the level of income. To give an easily quantifiable metrics, the average tariff level on manufacturing goods in the BRIC countries is currently only 9.7% and 12.1% in Sub-Saharan Africa. This is considerably lower than one would expect, given how far they are behind developed countries. Similarly, aside from China, where spending is at European levels, R&D expenditure-to-GDP in developing countries is significantly below high-income countries – 3.5% and 2.3% in the US and the EU versus 0.7% and 0.2-0.6% in Latin America and Africa respectively (World Bank, 2023).

Modern Developments and Challenges

Rise of Services

The industrial policy tools described above are usually geared towards the developmental potential of a growing manufacturing sector. The manufacturing sector has historically demonstrated the greatest ability to generate sustained increases in productivity through automation and economies of scale. The difficulty is that manufacturing is highly energy-intensive, and poorer countries have less access to clean technologies.

It might be argued that the move toward a service-based economy mitigates the economic and environmental challenges of manufacturing-based development. Services are less energy intensive, whereas low fixed and marginal costs mean that entry barriers are lower and scale can be more easily realized.

A number of qualifications, however, need to be borne in mind. Some of the growth of services, though, is statistical reclassification. Firms whose main outputs are physical goods may not be classified as manufacturing depending on how many workers are directly employed in the underlying administrative and service components wings. Furthermore, much of today's service economy is dependent on the manufacturing sector. Manufacturing tends to generate more backward linkages into the economy than services do, so the overall contribution to an economy will be greater than the numbers directly employed (Hauge, 2023).

Global Value Chains

The dependence of different sectors on each other touches on another important change in the global economy, the rise of global value chains. The fragmentation of production

across countries and regions creates both opportunities and challenges for development and changes how industrial policy is pursued. It constitutes an opportunity as an individual country no longer needs to build a domestic supply chain from scratch to develop. Rather, countries can strategically insert themselves into segments of global value chains to build industrial capabilities without all upstream activities in place. They can, therefore, begin exporting sophisticated products more quickly (ibid.).

At the same time, the highest value-added processes are still undertaken in the developed countries. This includes highly productive and profitable activities such as design, marketing, and manufacturing but excludes assembling and transporting the final product. For instance, China has been the leading exporter of electronics since 2004, but its profit share is only 3 percent compared to 25 percent in Taiwan and 33 percent in the US (Wade, 2019).

From an industrial policy perspective, the fragmentation of production means that countries need not promote or shield all inputs that comprise a finished product, but can instead specialize in components. Low-income countries can learn and improve productivity by manufacturing or assembling products according to the specifications and guidelines of the home country. This can help achieve middle-income status. For middle-income countries, the arrival of FDI provides a boost to employment and income in the short run. However, unless it is combined with policies to link foreign investment to the indigenous economy or otherwise upgrade local technology, rising wages subsequently render the host country uncompetitive in the low-value goods in which it specializes. Global value chains require the judicious use of industrial policies to promote strategic segments, though they have become more difficult to pursue.

Narrowing of Policy and Ecological Space

The policy space in which developing countries can pursue industrial policy is much narrower today. WTO rules, in conjunction with various regional and bilateral trade agreements, have committed to lowering trade and other barriers to cross-border commerce. Countries may also have decided to liberalize their domestic markets unilaterally. For reasons of space and scope, we focus on multilateral trade and investment rules.

The WTO is committed to the reduction of trade barriers, and tariff levels have duly continued to fall over the last thirty years or so since the WTO came into existence. Members are required to 'bind' or set maximum tariff levels so that members have discretion as to what tariff level is actually applied. It is planned to gradually reduce the upper limits for both developed and developing countries, though low-income countries can avail of exceptions.

Quotas and export subsidies are eliminated under WTO rules, though some exceptions are allowed. Low-income countries are permitted to use export subsidies, and subsidies other than those to promote exports are generally allowed such as subsidies for R&D and reducing regional inequalities.

Regarding FDI, the agreement on Trade Related Investment Measures (TRIMS) prohibits the use of local content requirements. It does not prevent the use of other forms of FDI regulation such as imposing conditions on joint ventures with local firms, technology transfer arrangements between foreign and local firms, and limitations on foreign equity ownership. Temporary exceptions to the WTO TRIMS agreement are once again permitted for low-income countries and countries addressing balance of payments issues (Chang et al., 2016).

While trade barriers have fallen, international rules also provide protection in some areas. The agreement on Trade-Related Intellectual Property Rights (TRIPS) strengthens the protection of patents and other IP rights. Though patent protection is one way of financing innovation in areas where it would not otherwise be undertaken, the level of IP protection afforded to companies under TRIPS goes significantly beyond. In many industries, copying technology is not straightforward, so innovation naturally gives the inventor temporary monopoly profits. The TRIPS and bilateral agreements, though, have expanded the items subject to protection, lengthened the protection period, and narrowed the allowable exceptions. The international IP regime has been described as ill-suited to the needs of developing countries (Baker et al., 2018).

There is more leeway to pursue environmentally sustainable industrial policies. As renewable energy technologies are still young, patents and IP do not yet constitute a major impediment to their diffusion. Rather, developing countries are not incentivized to adopt them, given the absence of regulatory, fiscal, and other measures that promote clean energy (UNCTAD, 2021). Patenting plant varieties does, though, reduce the range of plants farmers use, which negatively impacts biodiversity.

So-called feed-in tariffs are not precluded under WTO or other international rulesets. These are arrangements where the state requires energy providers to purchase a certain amount of energy at a fixed price from renewable energy generators. The cost is typically borne by the consumer. These have been used extensively by the EU and across the world to promote the renewable energy sector. While the name implies a form of tariff, they could equally be termed a price-fixing mechanism or, indeed, a local content requirement. Under WTO rules, members have a right to implement policies to protect the environment or health. Other green policies that could be used, if there was inclination and/or legal-

institutional context to support them, include public investment, green bonds, public banking, environmental performance standards, and more.

Recommendations

Though the available policy space is narrower, it has not been closed. The following recommendations, however, are based not on working within existing constraints, but on expanding the policy space available to developing countries, particularly in relation to multilateral trade rules. The subsequent section looks at some of the domestic- related factors.

Exempt renewable industrial policies from multilateral rules

Countries should be allowed to use industrial policy to build their capacity in renewable energy generation. While derogations to international trading rules are available for environmental purposes, these are not strong enough. For large developing countries, local content requirements have been one of the most important types of internationally-restricted industrial policy to promote renewables (Mathews, 2017). Exemptions could come in various forms, such as a rule change on local content requirements specifically, reestablishment of previously permitted 'green light' subsidies, or a broader declaration of renewable energy as a global public good.

Commit a share of high and middle-income GDP to international open-source research

Certain forms of research, such as basic research, are most suitably done under public funding or provision. Translating basic research into practical applications is the job of

the private sector. International rules on patents and IP increasingly block the undertaking and diffusion of important research. A global fund to address technological bottlenecks where the findings are made available to all has the potential to address many of the important challenges society faces. This could be done under the aegis of organizations such as the WHO or IEA, which contract the private sector and other entities to undertake and publish research.

International institutions to encourage developing countries to use the industrial policy space available to them

Though the industrial policy space for developing countries has been considerably curtailed, it has not been eliminated. Many countries are not using the space available to them. This can be seen in the large difference that often exists between the binding or ceiling tariffs countries have agreed to under WTO rules and the actual levels countries choose to implement (Chang et al., 2016). The difference is testament to the fact that a large part of the unused space owes itself to pressures emanating outside the WTO, including domestic-led liberalization. Instead of promoting liberalization as a pre-condition for assistance, international and supranational regional institutions should encourage the use of industrial policy tools for long-term sustainable development purposes.

Address anomalies in multilateral economic governance

In a sense, core aspects of multilateral governance are anomalous in that they prevent or restrict developing countries from leveraging the industrial policy tools used by today's rich countries in the past. While overhauling global economic governance is unlikely, a number of anomalies exist that could be addressed. For instance, R&D subsidies are

allowed, but export subsidies are not. This is despite the fact that the international markets in which developed country MNCs operate can be considered oligopolistic. Allowance of export subsidies in a developing country context would, therefore, level the playing field (Lee, 2018). Similarly, developed and developing countries have considerable latitude to subsidize the agricultural sector, despite its role in global emissions. While policies to pursue a secure and stable food supply should be permitted, similar policies should be allowed to ensure a stable and secure environment. A review of anomalies is therefore warranted.

Scenario of Outcomes

Several issues arise in encouraging developing countries to make greater use of industrial policy tools. Many developing countries have poor and corrupt states, so industrial policy can lead to rent-seeking. Shielding firms from competition removes a key incentive for them to operate efficiently. Even when well-crafted and implemented, fundamental uncertainty can lead to them failing. Policies such as local content requirements raise costs for firms and consumers, most of whom are poor. Industrial policy draws public resources from other areas, including social spending. This is true of both green and non-green sectors.

One can mitigate the challenges and trade-offs. Policies that insulate firms from competition should be targeted, time-limited, and subject to performance standards. Another consideration is how far a country should attempt to deviate from its comparative advantage. Lin (2015) suggests countries develop their ´latent´ comparative advantage – deviate, but not too far. For instance, a resource-rich economy might attempt to move from extraction to refining. Though some countries, such as South Korea, were successful in deviating far when they developed a steel industry, countries, such as Ireland, were not when they tried to develop an auto industry. Where on the technological ladder to target can be seen as a risk-reward trade-off.

Some of the challenges that multilateral agencies can assist with are governance-related, so involve less resource-based trade-offs. Low-income countries have limited institutional capacity, so it may be useful to set up autonomous public agencies separate from the civil service, with expertise from the private sector (Altenburg and Lutkenhorst, 2015). In Latin America, university and public R&D tends to be selected based on scientific importance as opposed to firm needs. East Asia, in contrast, favours industrial

technology oriented toward the needs of domestic firms (Lee, 2019). Both regime types have often been successful in creating well-educated populations, but the East-Asian model has been better at facilitating industrialization. International agencies could provide advice and financial assistance contingent on industrial policy-related governance reforms.

The last point raises the important question of research. Again, low-income countries have different challenges than their middle-income counterparts. Their economies are often still agrarian and the dominant business type is informal micro enterprises. Domestic demand is low, and the consumption that takes place is very often limited to a limited range of simple goods. Literacy rates and educational levels may be very low. Moreover, low-income countries are less constrained as high-income countries are reluctant to bring cases against them for IP breaches. Making a greater share of basic and other types of research open source is unlikely to lead to significant technological diffusion, as the issue of research capacity among firms does not even arise.

The benefits of open-source research are most likely to accrue to emerging economies in terms of enhanced technological capabilities. While firms in middle-income economies have some research capacity, most of their innovations are minor adaptations of existing technologies that are not patentable. For such firms, patent license fees can be formidable and SMEs in particular fear litigation (Lee, 2019). The existing IP regime, therefore, benefits developed countries and prevents emerging economies from copying the technology of the wealthy, as current developed countries did in the past. The most common argument against changing IP rules is that a change would be a disincentive to fund research and innovation. Note, however, that the above proposal is not to relax IPR rules but merely to fund innovation differently. For international public bodies to contract private firms to publish research, the barrier is fiscal.

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