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Policy Brief Series

# Diversification, Jobs and the COVID-19 Recovery

Exploring Opportunities for Economic  
Diversification and Productive  
Employment in the Philippines

August 2021



Policy Brief Series

# Diversification, Jobs and the COVID-19 Recovery

## Exploring Opportunities for Economic Diversification and Productive Employment in the Philippines

August 2021

A Joint Research Project by the



### About this publication

This policy brief presents key findings extracted from the forthcoming research report by the United Nations in the Philippines on “Exploring the opportunities for economic diversification and productive employment in the Philippines.” The main authors of the report are E. Annette Balaoing-Pelkmans, PhD, and Adrian Mendoza, PhD, under the overall technical guidance provided by Felix Weidenkaff, Sandra Yu, Ma. Concepcion Sardaña, Ma. Lourdes Macapanpan-Rivera (International Labour Organization), Yemesrach Workie, Riza Teresita Halili, Sheena Kristine Cases (United Nations Development Programme), Nobuya Haraguchi, Teddy Monroy and Jezreel Joy Eufemio (United Nations Industrial Development Organization).

### About the cover

Use of personal protective equipment in recycling plastic is important due to chemicals. Workers need training on occupational safety and health, including protocols in handling chemical-based products. Photo © ILO/M. Fossat

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**Community Emergency Employment Programme.** Emergency employment for communities and workers in the informal economy affected by the COVID-19 pandemic in the Bangsamoro Autonomous Region in Muslim Mindanao (BARM). Photo © ILO/MOLE Cotabato City, Philippines



# Foreword

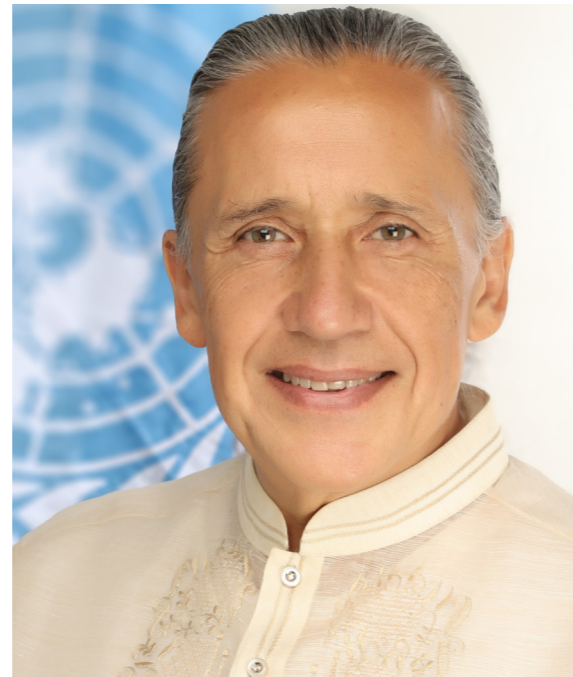
The COVID-19 crisis has led to a massive disruption of the economy and labor market in the Philippines.

It has also revealed the vulnerabilities of sectors and firms that are dependent on foreign trade and intermediates.

To contribute to the analysis of opportunities for the diversification and upgrading of the Philippine economy to generate productive employment that will make growth more inclusive, the International Labour Organization (ILO), the United Nations Development Programme (UNDP) and the United Nations Industrial Development Organization (UNIDO) jointly undertook the research on **Exploring Opportunities for Economic Diversification and Productive Employment in the Philippines**.

This synthesis report and policy brief explores strategies for strengthening and expanding the country's industrial base, starting with an analysis of the product space and the labor market, and proposes policy directions to support recovery in the Philippines.

These strategies will also inform the implementation of the United Nations' updated Cooperation Framework with the Philippines—the Socioeconomic and Peacebuilding Framework for COVID-19 Recovery in the Philippines (SEPF). The SEPF, which was endorsed by the United Nations Country Team



(UNCT) in 2020, is our blueprint for supporting the country to recover from the pandemic, while keeping the country on track to achieve the Sustainable Development Goals (SDGs), in a manner that leaves no one behind.

I am grateful to the Development Coordination Office (DCO) for its financial support that made this research possible.

Thank you.

**Gustavo Gonzalez**  
Resident Coordinator  
United Nations in the Philippines

# Executive Summary

The novel coronavirus (COVID-19) crisis has led to a massive disruption of the economy and labour market in the Philippines. It has also revealed the vulnerabilities of sectors and firms that are dependent on foreign trade and intermediates.

In this context, the United Nations in the Philippines, in collaboration with the International Labour Organization, the United Nations Development Programme and the United Nations Industrial Development Organization conducted a joint research on implementing an evidence-based Socioeconomic and Peacebuilding Framework (SEPF) in the Philippines.

This research aims to contribute to the analysis of opportunities for the diversification and upgrading

of the Philippine economy to generate productive employment that will make growth more inclusive. It explores strategies for strengthening and expanding the country's industrial base, starting with an analysis of the product space, key supply chains and the labour market, and proposes policy directions to support recovery in the Philippines. This research has been informed by consultations and a validation process involving government, employers' and workers' organizations, the private sector, and other stakeholders in the Philippines.



**Keeping distance before entering the public market.** People wait in line and maintain physical distance before entering the public market to reduce the spread of COVID-19, Muntinlupa City, Philippines, May 2020. Photo © ILO/Minette Rimando.

# Key Findings

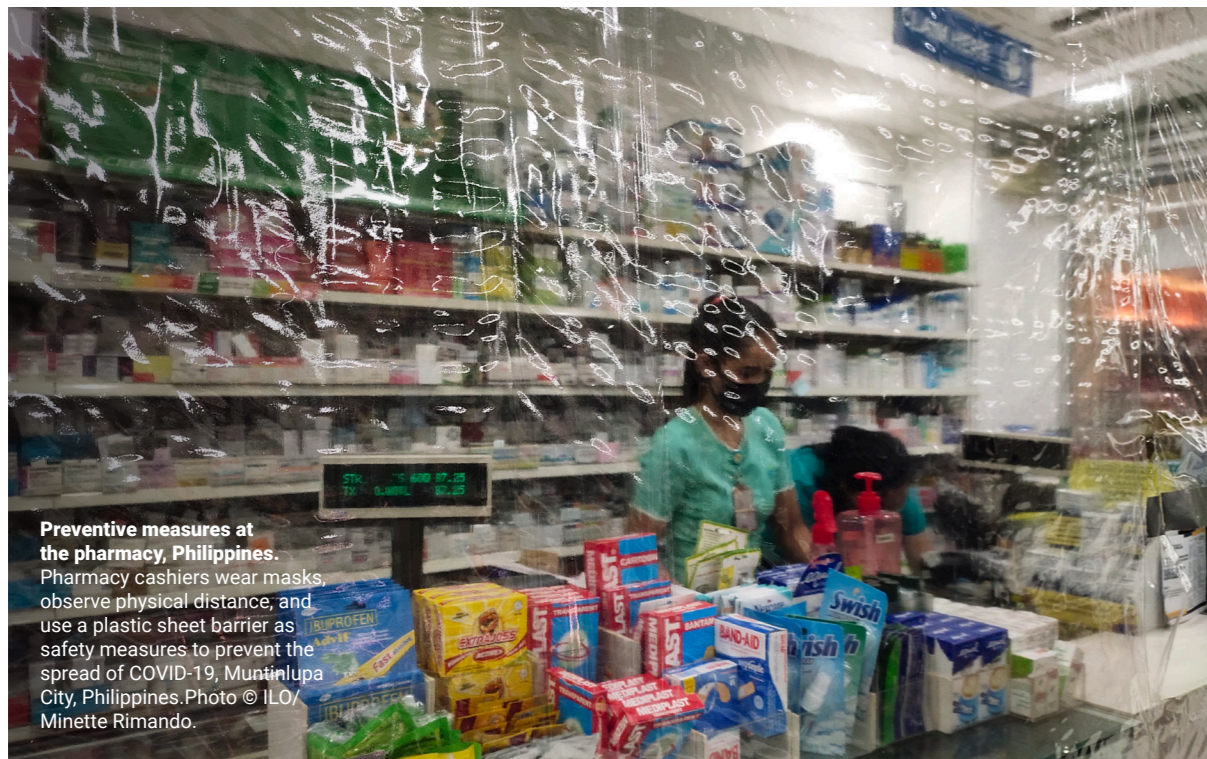
## Overall economic and labour market trends in the Philippines

The Philippines has missed several waves of industrial catch-up in the last century.

It has been one of Asia's early industrializers in the early 1900s, being the third Asian country after Japan and China to enter the so-called 5 per cent industrial growth club (De Dios and Williamson, 2015).

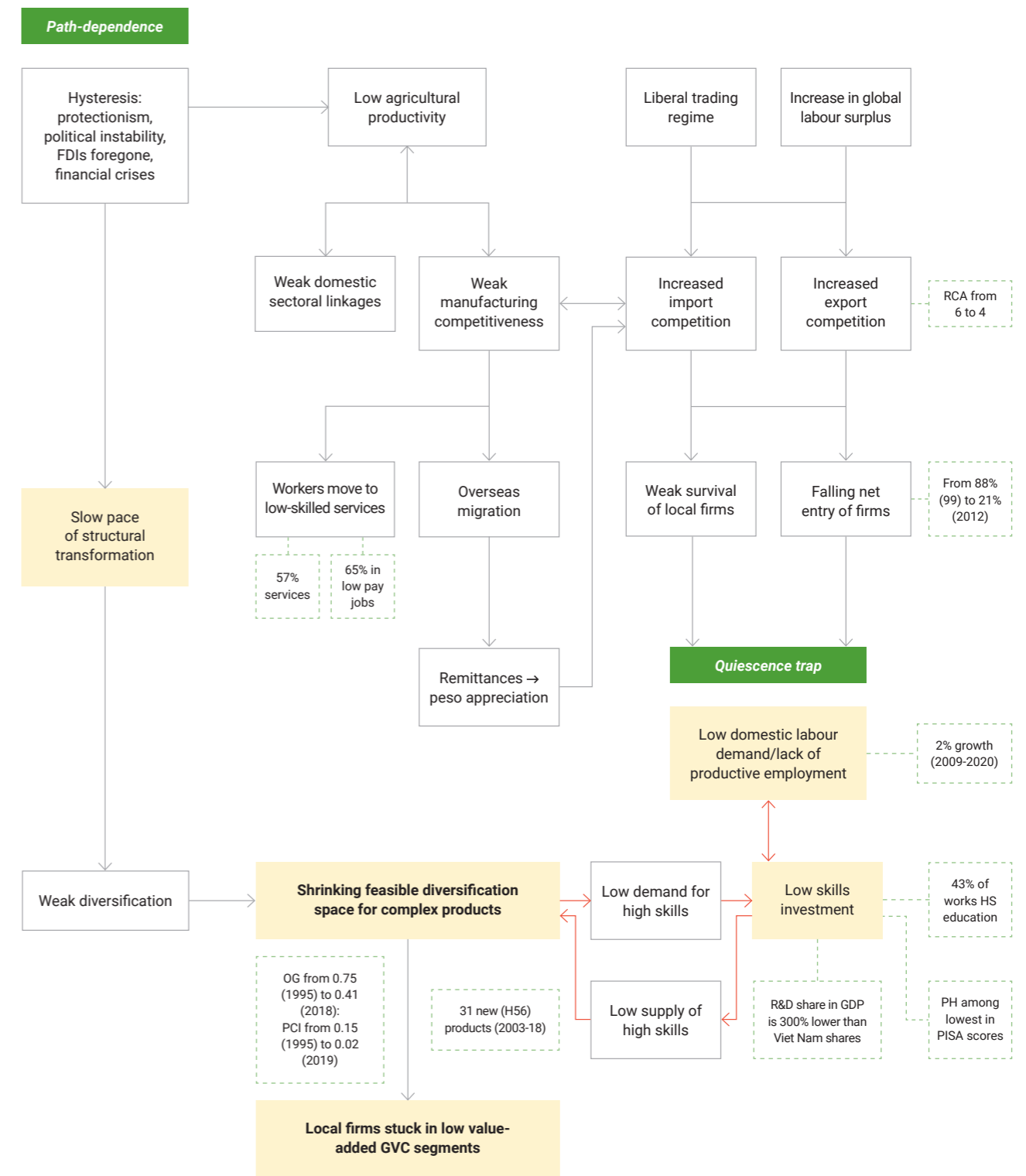
However, the Philippines deviated from this catch-up trajectory in the 1980s and has since been struggling to hold back the forces of de-industrialization and low growth.

As summarized in Figure I, path dependence means that policy decisions did not respond to evolving challenges but rather continued to produce, in the case of the Philippines, weak industrial competitiveness and lack of productive employment, combined with the quiescence trap that keeps investments and demand for skills low. These feed the vicious cycle that makes industrial diversification, upgrading and deep structural transformation increasingly difficult over time. The global environment can reinforce these cumulative forces with the adverse impact of heightened competition on lagging firms and the dwindling policy space. Furthermore, the policy space for governments of developing countries to use protectionist measures has diminished, preventing them from raising the survival chances of their local producers.



**Preventive measures at the pharmacy, Philippines.** Pharmacy cashiers wear masks, observe physical distance, and use a plastic sheet barrier as safety measures to prevent the spread of COVID-19, Muntinlupa City, Philippines. Photo © ILO/Minette Rimando.

Figure I. Systemic problem of Philippine industrialization



Note: Shaded blocks represent the focus areas of this research.

Intensifying the capacity of the Philippine economy to create productive employment is a matter of urgency, with a working-age population of around 75 million and around 600,000 net additional workers entering the labour force each year. This challenge is magnified by the formidable task of recovery from the COVID-19 pandemic. The gross domestic product (GDP) contraction of 9.6 per cent (11.1 per cent of gross national income) is the most severe that the country has ever experienced since World War II, resulting in close to 4 million unemployed at the end of 2020. The rollout of vaccinations has fuelled optimism for recovery, but the new wave of contagion and the resulting lockdown in March 2021, showed how fragile the economy would remain to be as long as the COVID-19 pandemic is not controlled. More than ever, the current economic crisis is demonstrating the intrinsic link between the pursuit of decent jobs, the competitiveness of firms and the overall health of the economy.



Manufacturing is a sector with the highest proportion of occupational accidents involving young people. Photo © ILO/M. Fossat

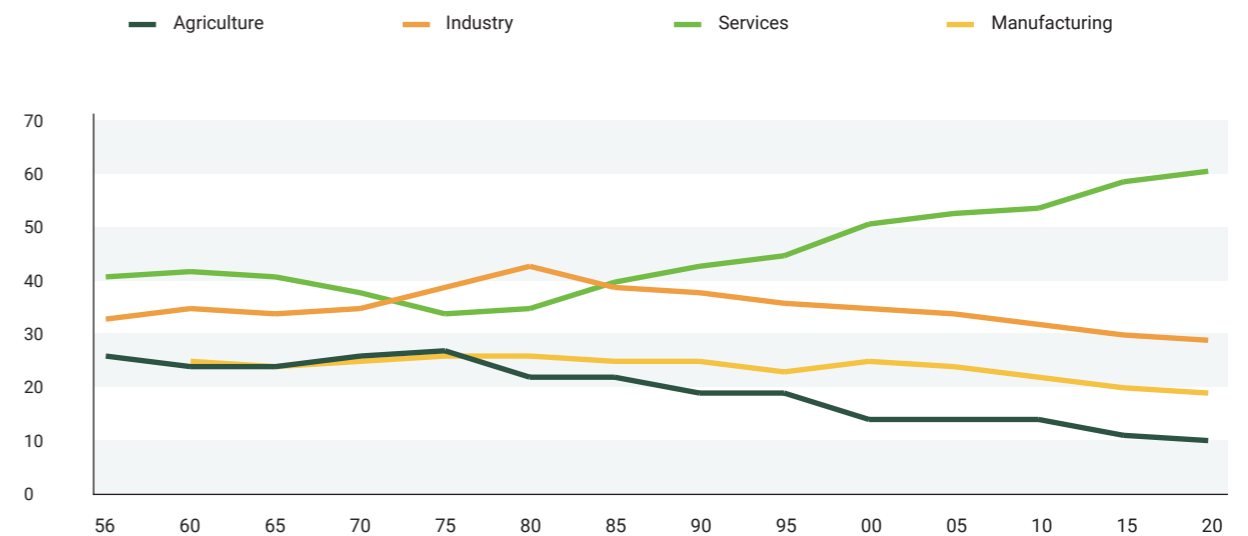
*Intensifying the capacity of the Philippine economy to create productive employment is a matter of urgency, with a working-age population of around 75 million*

The whole-of-nation approach aptly captures the kind of effort needed to confront such a systemic and extremely complex challenge the world faces today. However, developing countries such as the Philippines are particularly handicapped by their weak institutions and their dependence on the continued openness of the world economy for their own economic growth. It is in this light that this report hopes to contribute to the task of recovery in the Philippines by examining the opportunities for economic diversification and upgrading that will lead to more productive employment.

The focus on industrial catch-up is motivated by the prolonged stagnation of Philippine industry and its profound impact on the country's labour market. Unlike developed countries whose workers have largely transitioned away from agriculture to industrial and high-skilled services employment, workers in developing countries such as the Philippines have been moving out of low-productivity agriculture towards low-skilled services jobs. Today, the Philippines is a service-oriented economy, with services accounting for 61 per cent of GDP and 6 out of 10 workers, but a third of them are in low-paying

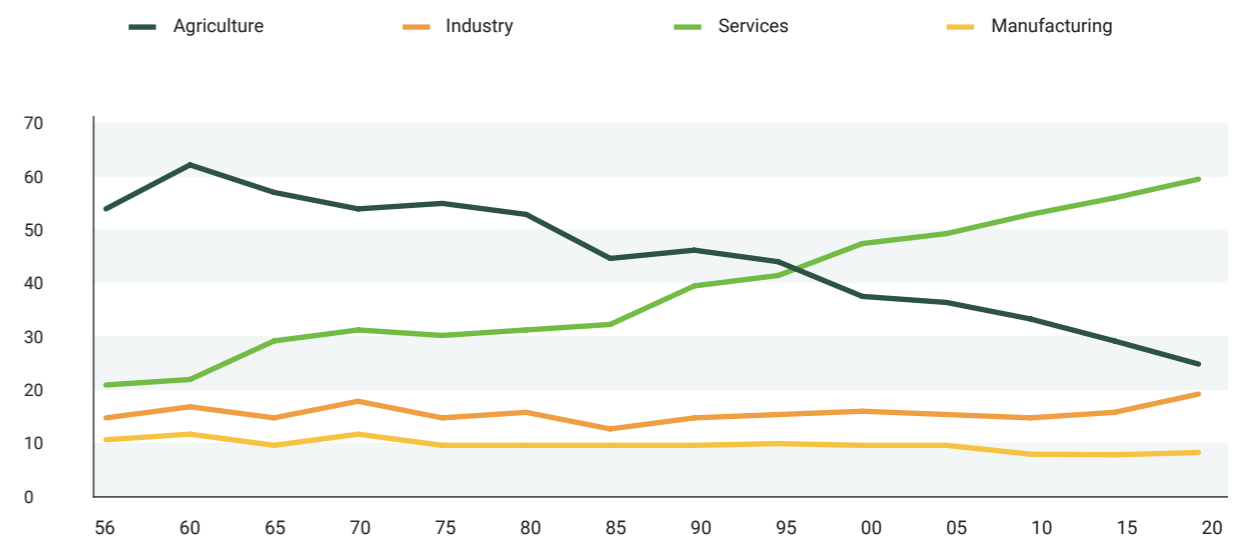
jobs (Figures IIa and IIb). For unskilled workers, manufacturing is a potential springboard towards relatively higher pay, but the share of manufacturing in total employment has been stagnant for more than five decades at just around 10 per cent, while the growth of real wages has been zero for two decades now, prompting millions to seek employment overseas. To achieve sustainable and inclusive growth, the domestic economy urgently needs greater capacity to create productive employment.

Figure IIa. Sectoral distribution of the Philippine economy (percentage of GDP), 1956-2020



Source: Philippine Statistics Authority (PSA), National Accounts of the Philippines

Figure IIb. Sectoral distribution of employment (percentage of total employment), 1956-2020



Source: PSA, Labor Force Survey



**Safety and health in manufacturing.**  
Workers wear personal protective equipment in manufacturing probiotic health drinks. Photo © ILO/M. Fossat

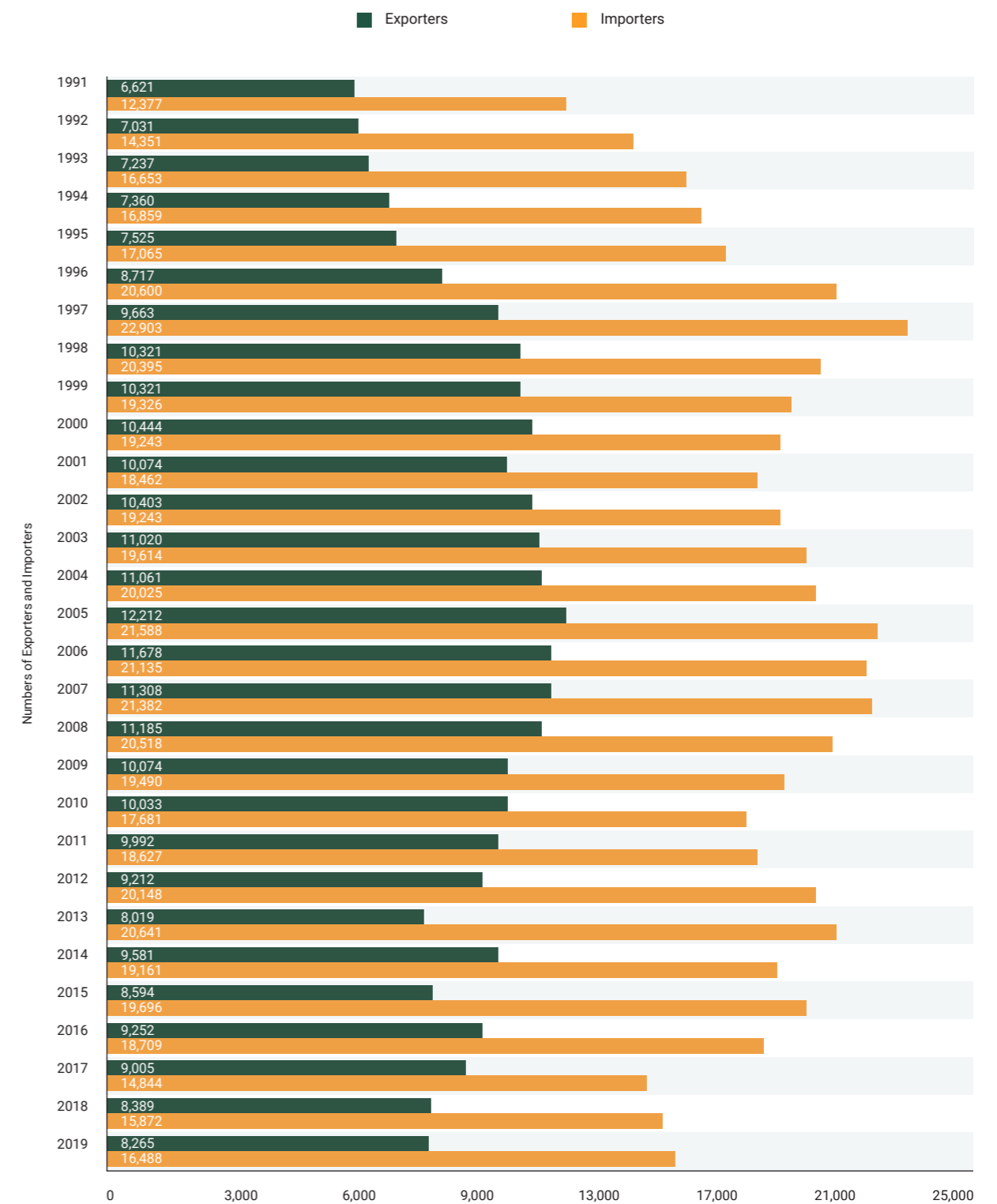
This report highlighted five main trends that characterize the state of the Philippine industry and labour market.

**1. The competitiveness of Philippine manufacturing has been showing signs of weakness over the last two decades.** From 1995 to 2018, the number of exports with comparative advantage has fallen from 20 per cent to 14 per cent of total products.<sup>1</sup> The number of exporting firms has also been shrinking,

with the survival rate of manufacturing exporters trending down since 2001 and the rates of new entry falling from a high of 88 per cent in 1999 to just 24 per cent in 2012 (Figure III). The Philippines has also become more of a market of consumer goods rather than a hub of manufacturing exports due to the combination of a liberal trading regime and a large domestic market with increasing purchasing power boosted by the robust flow of remittances. For Filipino firms, this entails behaving like exporters who must compete with foreign businesses to survive in the domestic market.

<sup>1</sup> Source: Author estimates based on the Atlas of Economic Complexity database.

**Figure III. Number of exporters and importers**

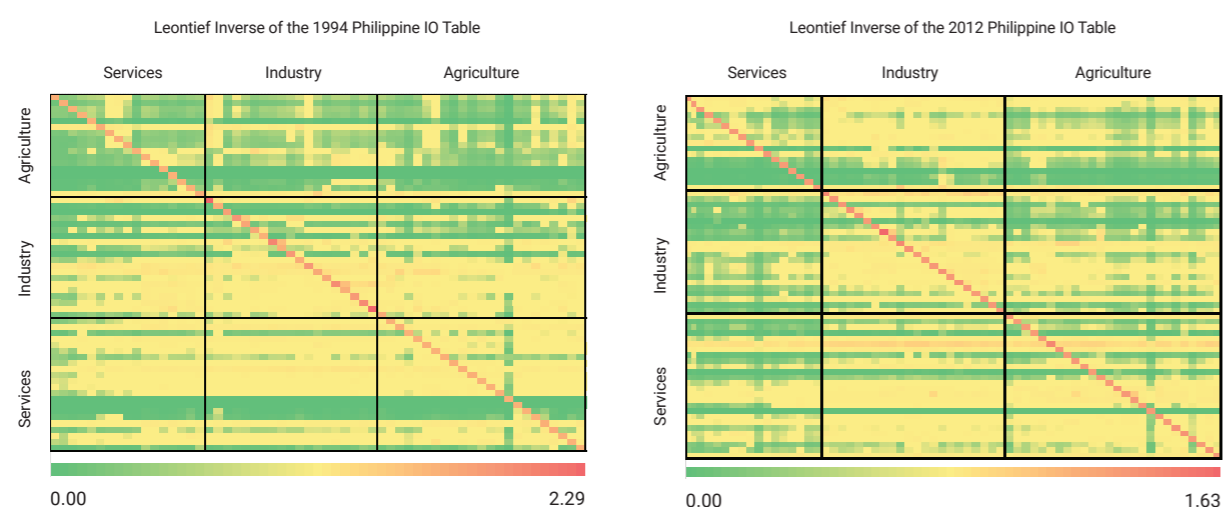


Source: Balaoing, Jandoc and Mendoza (2020), using PSA transactions database.

**2. The Philippine industrial base has become less integrated throughout the years, which constrains firms from domestically sourcing their inputs in the most cost-efficient manner.** This is illustrated in Figure IV, which is the input-output view of the Philippine economy's structural transformation from 1994 to 2012.<sup>2</sup> While agriculture has become a more important source of input for industry and services,

the role of these sectors for agriculture production has diminished. Based on the extent of transactions within sectors, manufacturing seems to have also become less integrated as indicated by the reduced intensity of sourcing within sub-sectors. Important local value chains such as copper show minimal linkages between firms that mainly turn to foreign markets for their export and import needs.

**Figure IV. Input-Output view of the Philippines' structural transformation**



Source: Authors' illustration using the PSA's input-output tables.

**3. The Philippines has increased the sophistication of its exports through its participation in global value chains (GVCs) but has languished in low value-added segments of production.** The position of the Philippines in the low value-added segments of GVCs has stagnated, with unit values of its top exports (e.g., semiconductors, electronics) remaining low and largely unchanged from 1991 to 2012. Differences in average unit values between partner

firms are consistent with the pattern of specialization where the Philippines demonstrates a comparative advantage in labour-intensive, and thus lower-value export goods, and a comparative disadvantage in higher-value, capital-intensive imports.

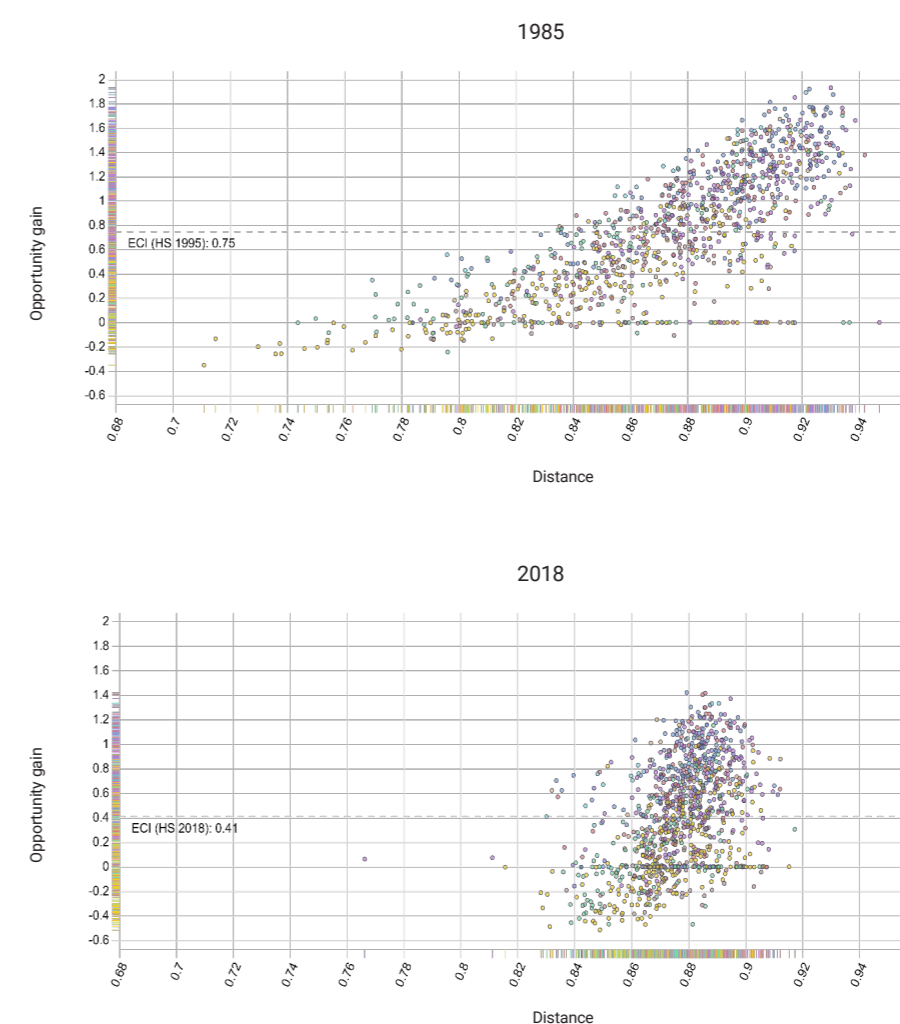
**4. Industrial catch-up and diversification towards more complex products is becoming increasingly difficult, slowing down the pace of economic**

<sup>2</sup> Based on the latest PSA input-output table covering the period 1994–2012.

**diversification.** The Philippines did diversify from 2003 to 2018 but this added just 3 per cent to export revenues, contributing \$33 to the country's income per capita in 2018. In comparison, Viet Nam added 48 new products (mostly in electronics) and \$1,015 to its per capita income, and 35 per cent to total exports during the same 15-year period. This suggests that while the Philippines has diversified,

the volume of its new products was not big enough to substantially contribute to overall growth. The diversification space for the Philippines has also significantly narrowed (Figure V). In 1995, there were evidently more complex products that are related to the country's skill endowments compared to 2018. This means that catch-up difficulties are cumulating throughout the years.

**Figure V. Feasible diversification path for the Philippines, 1995 vs. 2018**



ECI = Economic Complexity Index. Distance on the x-axis measures how close a country's current export capabilities are to the capabilities needed to export a new product. Products whose requirements are largely different from the current capabilities have longer distances (close to 1).

Source: Atlas of Economic Complexity ( <https://atlas.cid.harvard.edu/> )



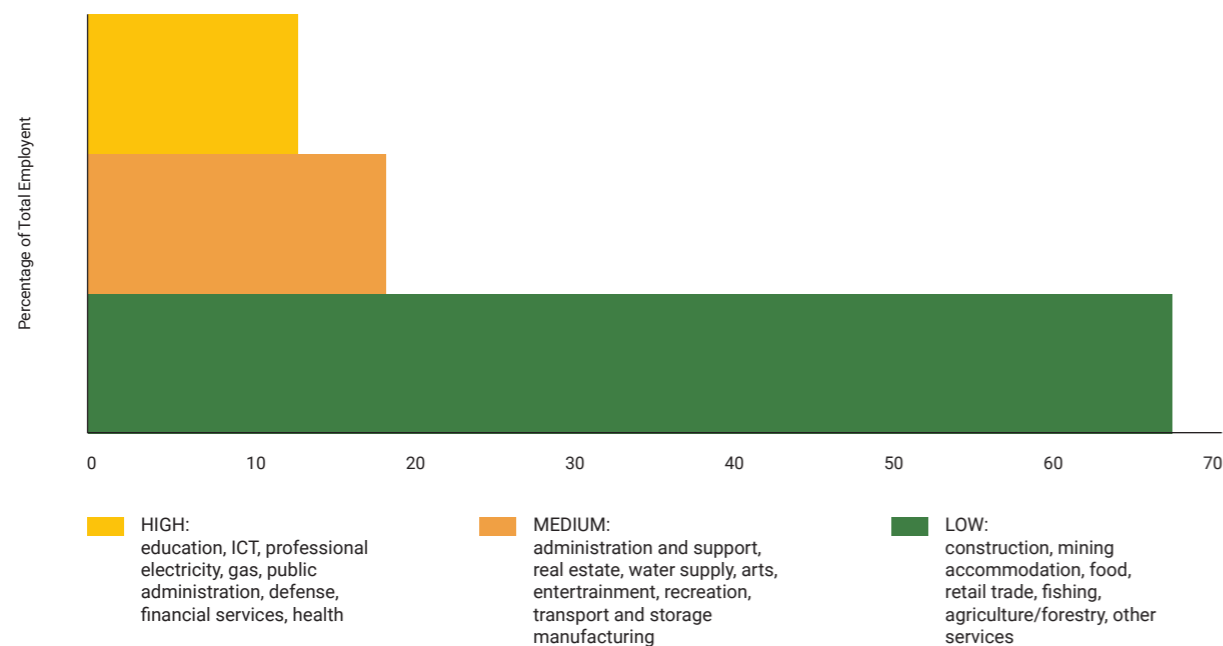
**5. The Philippine labour market is characterized by stagnant growth in real wages, persistent gender disparities, low employment growth and poor quality of work.**

While labour productivity has been largely positive for more than two decades, averaging at 3 per cent annual real growth (with the last eight years posting a 5 per cent increase), the growth of real wages has been zero. The divergence between labour productivity and wages implies that the distribution of income has been tilting in favour of capital. This in turn, results in higher inequality and lower overall demand. For women, not only are real wages stagnant, but their compensation is lower than that of men. In occupations with a significant number of female workers, such as service and sales as well as elementary occupations, women earn around one-third less than their male counterparts. Despite an almost equal sex ratio, female labour force participation rates averaged around 49 per cent compared to 79 per

cent of males, hovering at around 38 per cent of total employment for 25 years now.

March 2021 data show that 56 per cent of all workers are employed in the services sector but around 31 per cent of them, or 14.2 million, are in low-pay or low-skill jobs such as wholesale and retail trade, accommodation and food services, and other services. Across the major industry groups, 67 per cent of all workers are in the low-pay category (30.5 million), 19 per cent in the middle (8.8 million) and 13 per cent (6.1 million) in the highest pay range (Figure VI). The large proportion of workers in low-paying sectors is also reflected in the same high share of those employed in elementary occupations (27 per cent on average from 2016-2020), middle-low skill occupations such as service and sales workers (18 per cent) and agricultural workers (11 per cent).

Figure VI. Distribution of workers in average basic pay categories (percentage of total employment), March 2021



Source: Authors' estimates based on Labor Force Survey data. Average basic pay is based on 2018 PSA Household-based data.

# Routes towards economic diversification and industrial upgrading

**Safety and health in manufacturing.** Safety and health risks in small businesses are high for workers. Local communities earn from traditional-craft of lantern making but it is also vital to ensure occupational safety and health, and protect workers from dangers and accidents. Photo © ILO/M. Fossat

This research project has identified three routes which present opportunities but also profound challenges towards diversification and upgrading.

Using the product space methodology developed by the Massachusetts Institute of Technology's Observatory of Economic Complexity, key products and industrial sectors were examined and identified as potential policy targets. Three routes of economic diversification and upgrading were explored for the Philippines (Table 1).

Table 1  
Three routes towards diversification and upgrading

|                                    | Route 1  | Route 2   | Route 3   |
|------------------------------------|--|---|---|
| <b>Approach to diversification</b> | Leap-frogging: upgrading towards high-productivity, more sophisticated goods.                  | Climbing-up through stepping stones (or the value-added ladder): greater integration in Global Value Chains | Sustaining the local industrial base: ensure survival and expansions of local firms (especially SMEs) |
| <b>Industrial policy</b>           | Active industrial policy: cohesive and targeted  | Open-economy Industrial Policy; direct engagement with GVC lead firms                                       | Local firms-centric Industrial Policy   |
| <b>Targeted sectors</b>            | High technology, achievable in medium-longer term  | Top exports in GVC  | Top traditional exports; firm/labour-populous   |
| <b>Research questions</b>          | What is structure and density of product space; how to 'jump' to nearby, more complex products | Which sectors are in GVCs? Who are the lead firms in key GVCs that country wants to target?                 | What are the major constraints in the competitiveness of local firms?                                 |
| <b>Policy aim</b>                  | Target productivity- and complexity-enhancing sectors  | Make country attractive host for GVC lead firms stimulate partnership with, and upgrading of local firms    | Increase competitiveness of local firms both foreign and domestic market                              |

The first route is directed towards leapfrogging to a more sophisticated economic structure, and one that requires the most active form of industrial policy aimed at technological upgrading. The idea is that breaking path dependence and the inertia it fosters needs a juggernaut that will unleash its own self-sustaining dynamics. While staging an industrial catch-up plan can be very costly and the price of targeting errors high, the consequence of policy inaction can be higher still as the resulting stagnation of the country's technological growth is cumulatively

widening the gap between its current capabilities and those required to produce complex products.

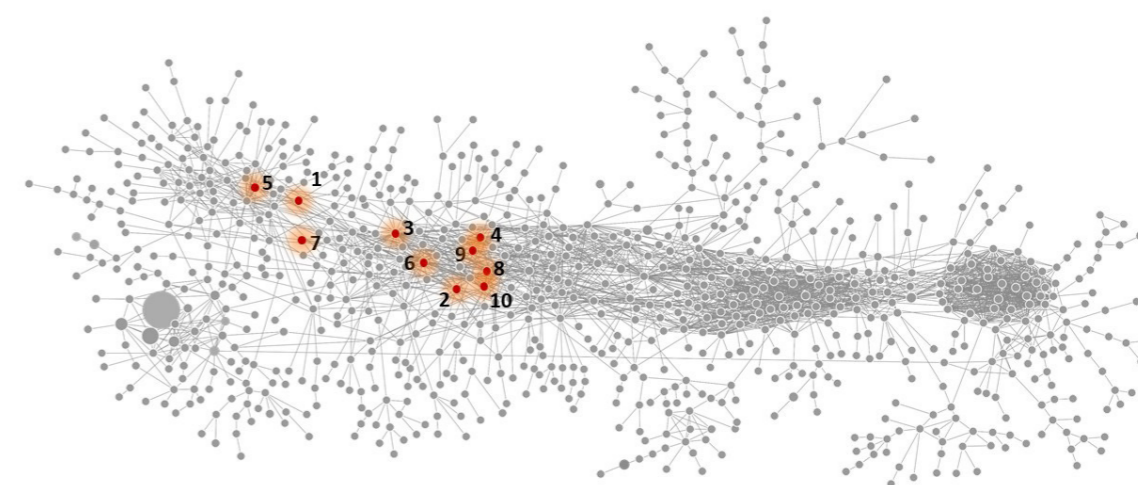
A leapfrogging industrial policy has a time horizon of at least a decade. The top 10 promising products are identified based on based on the opportunity gains of triggering diversification towards complex products and the potential size of these opportunities as indicated by the size of world trade and modulated by comparative advantage considerations (Figure VII).

The top products targeted for Route 1 are machines not elsewhere classified (HS 8479), screws and similar articles like iron and steel (HS 7318), transmission shafts (HS 8483), appliances for thermostatically controlled valves (HS 8481), instruments for physical or chemical analysis (HS 9027), equipment for temperature change of materials (HS 8419), instruments for measuring properties of liquids or gases (HS 9026), parts and accessories for metal working machines (HS 8466), ball or roller bearings (HS 8482) and electrical lighting equipment used for motor vehicles (HS 8512). Table 2 shows that most of these products have low revealed comparative advantage (RCA) of less than one. Low revealed comparative advantage—or low relatedness to the country's current capabilities set—signifies that a long-run timeframe is needed to reach these targets (e.g. 10 to 15 years). Yet, they are found in the top 30 per cent of exports in terms of RCA, which shows that firms active in this sector are already developing a higher

set of skills very much different from what most exporters possess.

Moreover, rapid employment growth in the sectors manufacturing these products is also a clear sign of dynamism. Industrial machinery and chemicals sectors that largely correspond to Route 1 products have seen a rapid growth in employment in the last decade. A 4 per cent annual growth per annum in the next 10 years to 15 years would increase its employment share from 6 to 13 per cent. Since these are also sectors that rank highly in terms of wages, their expansion will raise the pool of quality jobs. This demonstrates the critical nexus of productivity, skills and wages. However, the number of establishments has been falling at a rate of 3 per cent annually from 2012 to 2018. Stimulating the new entry of firms and carefully monitoring the status of firms in the industrial machinery and chemicals sectors to arrest further exit, are therefore necessary ingredients in the employment dimension of industrial policy.

Figure VII. Product space visualization of Route 1 products, 2018<sup>3</sup>



Source: Authors' illustration based on Atlas of Economic Complexity <https://atlas.cid.harvard.edu/>

<sup>3</sup> The product space is a network representation of how globally traded products are connected to each other based on the know-how required to produce them. The nodes are coloured based on the product classifications, and their size represent the share of the product in the total trade of the country.

Table 2  
Profile of Route 1 products, 2018

|    | Product  | HS4 Code | PH exports     | World exports  | RCA   | Distance | PCI  | OG   |
|----|--|----------|----------------|----------------|-------|----------|------|------|
| 1  | Machines n.e.c.  | 8479     | \$123 million  | \$126 billion  | 0.22  | 0.879    | 1.88 | 1.42 |
| 2  | Screws and similar articles (iron/steel)                 | 7318     | \$98.7 million | \$40.1 billion | 0.602 | 0.885    | 1.53 | 1.41 |
| 3  | Transmission shafts                                      | 8483     | \$119 million  | \$58.2 billion | 0.459 | 0.887    | 1.59 | 1.32 |
| 4  | Appliances for thermostatically controlled               | 8481     | \$112 million  | \$90.6 billion | 0.273 | 0.881    | 1.75 | 1.3  |
| 5  | Instruments for physical or chemical analysis            | 9027     | \$31.5 million | \$44.7 billion | 0.154 | 0.886    | 1.62 | 1.3  |
| 6  | Equipment for temperature change of materials            | 8419     | \$148 million  | \$39.5 billion | 0.824 | 0.883    | 1.55 | 1.26 |
| 7  | Instruments for measuring properties of liquids or gases | 9026     | \$37.5 million | \$22.8 billion | 0.362 | 0.875    | 1.54 | 1.19 |
| 8  | Parts and accessories for metal working machines         | 8466     | \$9.96 million | \$20.4 billion | 0.259 | 0.886    | 1.41 | 1.12 |
| 9  | Ball or roller bearings                                  | 8482     | \$34.9 million | \$33.3 billion | 0.231 | 0.877    | 1.58 | 1.12 |
| 10 | Electrical lighting equipment used for motor vehicles    | 8512     | \$118 million  | \$33.3 billion | 0.806 | 0.862    | 0.90 | 0.83 |

Source: Atlas of Economic Complexity (<https://atlas.cid.harvard.edu>)  
RCA = revealed comparative advantage; PCI = product complexity index; OG = opportunity gain; n.e.c = not elsewhere classified

The second route towards diversification is to climb up or across the value-added ladder within GVCs, in a stepping-stone approach to diversification and upgrading. It is broadly assumed that greater participation of developing country firms in global and regional production networks would hasten industrialization by exposing them to new technology

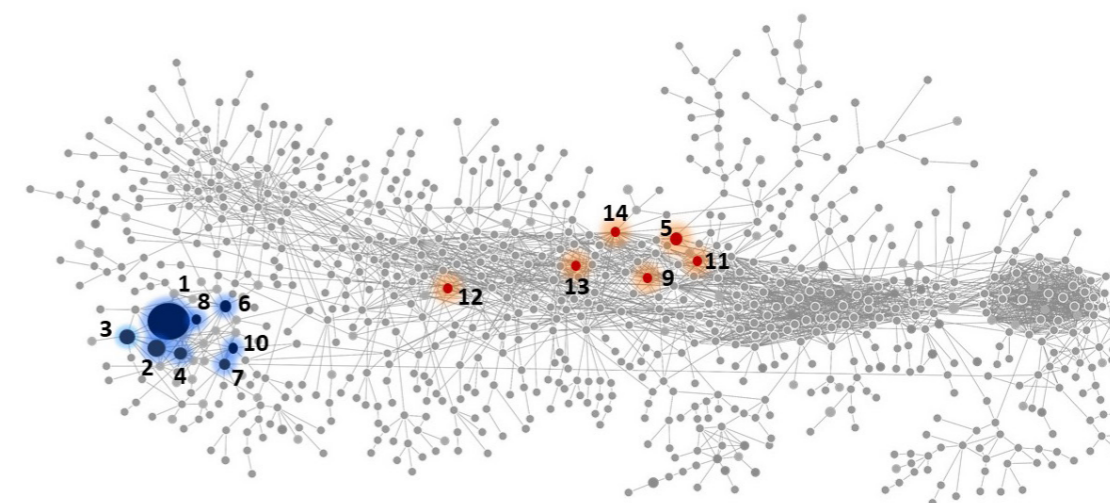
and bigger markets, as well as encouraging individuals to gain higher-level skills. Since global trade is increasingly taking place within firms, industrial policy with GVC participation as a lynchpin is what many would consider as the new variant of industrial policy, which is more suited to 21st Century industrialization. Indeed, the countries' top exports

are also being largely produced and distributed within the global networks of transnational lead firms. The top products in Route 2 are electronic integrated circuits (HS4 8542) as seen in Figure VIII and Table 3, parts and accessories for office machines (HS4 8473), computers (HS4 8471), semiconductor devices (HS4 8541), electrical transformers (HS4 8504), electrical machines (HS4 8543), electrical capacitors (HS4 8532), and sound storage media (HS4 8523).

The products of interest for a stepping-stone industrial policy are those that are at the core of the

product space because of the higher opportunities for linkages with other firms that produce more complex products and require more similar skill sets. Products such as electrical apparatus of less than 1,000 volts, electric motors and generators, automatic regulating instruments, vulcanized rubber plates and parts for use with electric generators have the good properties of extensive linkages with other complex products, high complexity indices, and strong comparative advantage. Note that the RCAs in Table 3 are higher than those listed in Route 1.

Figure VIII. Product space visualization of Route 2 products, 2018



Source: Authors' illustration based on Atlas of Economic Complexity <https://atlas.cid.harvard.edu/>

Table 3  
Profile of Route 2 products, 2018

|    | Product  | Code     | PH trade         | RCA  | PCI    |
|----|--|----------|------------------|------|--------|
| 1  | Electronic integrated circuits                       | 8542 HS4 | \$25,600 million | 10.9 | 0.9479 |
| 2  | Parts and accessories for office machines            | 8473 HS4 | \$8,040 million  | 7.4  | 1.1673 |
| 3  | Computers  | 8471 HS4 | \$4,210 billion  | 3.55 | 0.9693 |
| 4  | Semiconductor devices                                | 8541 HS4 | \$2,780 million  | 6.71 | 0.9852 |
| 5  | Electrical transformers                              | 8504 HS4 | \$1,850 million  | 4.69 | 0.5813 |
| 6  | Electrical machines with individual functions n.e.c. | 8543 HS4 | \$1,640 million  | 7.09 | 1.3764 |
| 7  | Electrical capacitors                                | 8532 HS4 | \$1,240 million  | 10.3 | 0.9661 |
| 8  | Sound storage media                                  | 8523 HS4 | \$917 million    | 5.03 | 1.3317 |
| 9  | Electrical apparatus for < 1k volts                  | 8536 HS4 | \$789 million    | 1.82 | 0.7175 |
| 10 | Parts of radios, telephones, and TVs                 | 8529 HS4 | \$590 million    | 2.81 | 0.7396 |
| 11 | Electric motors and generators                       | 8501 HS4 | \$412 million    | 1.68 | 0.9197 |
| 12 | Automatic regulating instruments                     | 9032 HS4 | \$252 million    | 1.57 | 1.0657 |
| 13 | Vulcanized rubber plates                             | 4008 HS4 | \$22.9 million   | 1.18 | 0.9906 |
| 14 | Parts for use with electric generators               | 8503 HS4 | \$85.1 million   | 1.08 | 0.791  |

Source: Atlas of Economic Complexity (<https://atlas.cid.harvard.edu>)

A GVC-driven industrial policy is considered to be a more pragmatic, less interventionist approach. The quality ladder within the GVCs, through a stepping-stone approach, provides a more natural trajectory for diversification and upgrading than the leapfrogging strategy of Route 1.

However, participation in GVCs is both a blessing and a curse. GVCs are a blessing for local firms that can move up the ladder because of technology-driven

and highly dynamic shifts in specialization within the chain. On the other hand, they are a curse for those trapped in low value-added segments of production, where there is not much incentive for upgrading. The growing momentum for building more resilient, flexible and robust GVCs following the disruptions caused by the COVID-19 crisis presents both risks and opportunities for a GVC-driven upgrading. For example, Mendoza (2021) finds that while there is an ongoing restructuring of GVCs in East Asia and

Southeast Asia, with multinationals planning to diversify away from traditional hubs such as China to explore new locations in the Association of Southeast Asian Nations (ASEAN) region, the Philippines stands to benefit less compared to its neighbours. The preferred relocation sites are Viet Nam, Thailand and Malaysia since they have better sets of capabilities and a more conducive business climate.

Nevertheless, the Philippines may still benefit indirectly from the spillovers generated by its strong linkage with other ASEAN economies. These developments provide a strong motivation for the Philippine government to employ an arsenal of measures that can directly or indirectly increase the potential value of local suppliers for GVC lead firms to benefit more from the ongoing shake-up in global production networks.

The labour market trends in Route 2 GVC-driven sectors point to increasing firm net exits, with around 20 and 30 per cent drop for the electronics components and computer sectors, respectively, from 2012 to 2018, and a net exit of around 200 firms for the entire group. This resulted in just around 2,600 net increase in jobs annually for all 27 Route 1 sectors. These are the GVC sectors that produce the country's top exports, which imply a weak linkage between the open and export-oriented industrial policy of the country and employment growth. One concrete factor behind this result is the scarcity of technically skilled workers. The deficiency in the number of technicians, for instance, and the technical skills gap between the Philippines and its neighbouring Southeast Asian countries are staggering. It would take a substantive increase in investments in technical education to triple the number of both male and female technicians, which is needed to approximate the performance of Viet Nam, for example. In raising ambitions in terms of productive employment, industrial policy must also strengthen the commitment to invest in skills.

**The third route is geared towards sustaining the local industrial base.** Industrialization entails not only the creation of new goods but also the

survival and expansion of existing sectors with a strong comparative advantage. Yet, the intensely competitive global environment, most especially markets for exports from developing countries, threatens to further shrink the already sparse industrial base of these economies. Nine sectors with more than 20 years of comparative advantage have disappeared from the Philippines' roster of strong traditional export sectors, while those that remain display stagnant or falling comparative advantage indices (Figure IX and Table 4). Each product line that loses competitiveness has relatively greater value for countries like the Philippines with relatively few competitive sectors.

Global competition has been felt particularly in the textiles and garments sectors, where comparative advantage indices have been consistently falling since 1995, resulting in the disappearance of 33 out of 44 product lines with comparative advantage, i.e., RCA  $\geq 1$ . In electronics, RCA indices are stagnant, from 3.4 in 1995 to 3.9 in 2018, while in machinery, RCAs dropped from 4.7 to 2.9 during the same period. The struggle to compete with countries or GVCs with enormous scale advantages are also driving local firms to downgrade into lower quality—hence, lower cost—product niches, use cheap and environmentally harmful technologies, and/or further push down labour costs to survive. While the domestic market is being flooded by increasingly lower-cost and higher-quality imports, numerous local manufacturing firms are caught in a vicious cycle of low quality and further weakening competitiveness.

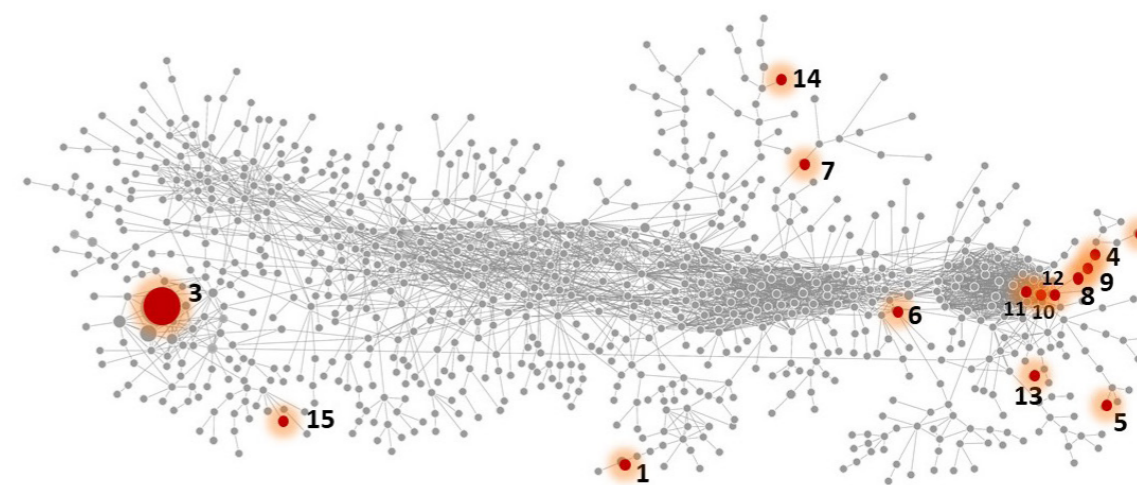
*The growing momentum for building more resilient, flexible and robust GVCs following the disruptions caused by the COVID-19 crisis presents both risks and opportunities for a GVC-driven upgrading.*

Table 4  
Route 3 products with falling competitiveness

|    | Product                                | Code | RCA 1995 | RCA 2013 | RCA 2018 | 2018 exports   |
|----|--|------|----------|----------|----------|----------------|
| 1  | Bananas and plantains                  | 0803 | 22.7     | 27.8     | 21.9     | \$1.43 billion |
| 2  | Coconut and palm kernel oil            | 1513 | 130      | 48.1     | 34.9     | \$930 million  |
| 3  | Electronic integrated circuits         | 8542 | 6.51     | 12.2     | 10.9     | \$25.6 billion |
| 4  | Cashew nuts and coconuts               | 0801 | 16.2     | 10.6     | 6.44     | \$253 million  |
| 5  | Seaweeds and edible vegetable products | 1212 | 12.5     | 6.23     | 2.29     | \$10.9 million |
| 6  | Fruits and nuts, otherwise prepared    | 2008 | 13       | 6.47     | 4.15     | \$309 million  |
| 7  | Solid vegetable oil and fat residues   | 2306 | 14.7     | 5.55     | 2.05     | \$63.1 million |
| 8  | Wood marquetry, ornaments, etc.        | 4420 | 12.9     | 2.34     | 1.3      | \$11.5 million |
| 9  | Basketwork                             | 4602 | 34.9     | 6.7      | 4.22     | \$32.3 million |
| 10 | Men's shirts, knit                     | 6105 | 10.5     | 1.88     | 0.74     | \$26.0 million |
| 11 | Babies' garments, knit                 | 6111 | 15.9     | 1.15     | 0.316    | \$10.4 million |
| 12 | Babies' garments                       | 6209 | 31.2     | 2.31     | 0.871    | \$9.30 million |
| 13 | Hats, knit                             | 6505 | 13       | 0.676    | 0.685    | \$16.8 million |
| 14 | Unrefined copper                       | 7402 | 17.2     | 0.0009   | 0.324    | \$15.5 million |
| 15 | Cigarette lighters                     | 9613 | 10.4     | 4.49     | 3.72     | \$28.9 million |

Source: Atlas of Economic Complexity (<https://atlas.cid.harvard.edu>)

Figure IX. Product space visualization of Route 3 products, 2018



Source: Authors' illustration based on Atlas of Economic Complexity (<https://atlas.cid.harvard.edu/>)

In 2017, almost three-quarters of the Philippines' establishments were micro and small, with less than 20 employees. The seeds of the country's industrial champions are sown in this vast field of small and medium-sized enterprises (SMEs). The fast-growing small and middle-sized firms are particularly crucial to development and employment, yet their sheer number is a deterrent to a more targeted and nurturing policy. Middle-sized firms, in particular, are considered big enough to cope on their own, often without much public sector support, yet they are the

most vulnerable to competition and other supply shocks. They are more strongly linked to local supply chains populated by micro- and small-sized firms, and the more attractive partners of large local or foreign firms. The "missing middle" could therefore be one of the main obstacles for developing a robust and inclusive industrial base.

**The capacity of manufacturing to absorb workers from low-skill agriculture and services will depend on the upgrading and employment expansion of Routes 2 and 3 sectors.** Yet job creation in majority of these sectors has been averaging at 1 per cent growth, significantly below the economy-wide average of 3 per cent. Even the goal of approximating that economy-wide average would translate to only around 300,000 manufacturing jobs over the next 10 years.

Three possible routes of industrial policy (IP) have been explored in this research, along with possible products and industrial sectors as targets (Table 5). The premise is that with rapidly shifting technological frontiers, policy inaction will only lead to cumulative difficulties of keeping up with providing productive employment and reducing poverty.



Table 5  
Routes of diversification and policy options

| Products | Route 1<br>Leapfrogging IP                            | Route 2<br>GVC-driven IP                             | Route 3<br>Sustaining IP               |
|----------|---|--|--|
|          | Machines n.e.c.                                       | Electronic integrated circuits                       | Bananas and plantains                  |
|          | Iron/steel screws                                     | Parts and access, (office machines)                  | Coconut and palm kernel oil            |
|          | Transmission shafts                                   | Computers  | Electronic integrated circuits         |
|          | Thermostatically controlled valves appliances         | Semiconductor devices                                | Cashew nuts and coconuts               |
|          | Instruments for physical or chemical analysis         | Electrical transformers                              | Seaweeds and edible vegetable products |
|          | Equipment for temperature change of materials         | Electrical machines with individual functions n.e.c. | Fruits and nuts, otherwise prepared    |
|          | Instruments for measuring properties of liquids/gases | Electrical capacitors                                | Solid vegetable oil and fat residues   |
|          | Parts and accessories for metal working machines      | Sound storage media                                  | Wood marquetry, ornaments, etc.        |
|          | Ball or roller bearings                               | Electrical apparatus for < 1k v.                     | Basketwork                             |
|          | Electrical lighting equipment used for motor vehicles | Parts radios, telephones, TV                         | Men's shirts, knit                     |
|          |   | Meters   | Babies' garments, knit                 |
|          |   | Other parts (mach. and appl.)                        | Gloves, knit                           |
|          |   | Electric motors and generators                       | Babies' garments                       |
|          |   | Automatic regulating instr.                          | Hats, knit                             |
|          |   | Electrical apparatus for > 1k v.                     | Unrefined copper                       |
|          |   | Other engines and motors                             | Cigarette lighters                     |
|          |   | Vulcanized rubber plates                             |  |
|          |   | Parts for use with electric generators               |  |

| Products                   | Route 1<br>Leapfrogging IP  | Route 2<br>GVC-driven IP   | Route 3<br>Sustaining IP  |
|----------------------------|---|--|---|
| <b>Timeframe</b>           | Long-run (10-15 years)  | Short- / medium-run  | Continuous  |
| <b>Employment</b>          | From 6 to 13 per cent share of total employment; 4 per cent growth per annum; for 10-15 years   | From 33 to 40 per cent of total employment; 0.06 to 3 per cent employment growth; for 5-10 years   | From 1 to 3 per cent employment growth short- to medium-run.  |
| <b>Firms</b>               | From -3 to 2 per cent growth per annum  | From -1 to 3 per cent growth per annum   | From 3 to 5 per cent growth per annum   |
| <b>Vertical policies</b>   | <ul style="list-style-type: none"> <li>Technology access and build-up (reverse engineering; patents; R&amp;D; focus on green tech)</li> <li>Need strong coordinating agency (with mandate to ensure implementation)</li> <li>Active labour policies to attract well-educated engineers and technicians</li> <li>Proactive collaboration with Engineering and Technical knowledge institutions for patent development and commercialization</li> <li>Explore policy space for (time-bound) use of local content and trade policy instruments</li> </ul>  | <ul style="list-style-type: none"> <li>Identify GVC and local lead firms for direct and strategic engagement; customize incentives to attract GVC lead firms with large impact for upgrading and generation of productive employment</li> <li>Proactive measures to help local suppliers increase bargaining position with GVC lead firms</li> <li>Establish linkage (and supplier search) programme</li> <li>Facilitate setting of concrete (social, process) upgrading in collaboration with stakeholders, especially workers</li> </ul> | <ul style="list-style-type: none"> <li>Profiling of key Filipino-owned small and medium firms; target strategic firms for close collaboration</li> <li>Strengthen/customize shared services in green technology/products</li> <li>Incentivize frugal innovation in green technology/products</li> <li>Use Economic Processing Zone benchmarks in strategies to lower production costs for local firms</li> <li>Surveillance mechanism to monitor survival, exit, new entry rates of local SMEs (especially in export markets); assistance for local distressed firms</li> </ul> |
| <b>Horizontal policies</b> | <ul style="list-style-type: none"> <li>Identify strategic firms and social partners (e.g., workers' and employers' associations, knowledge associations) for collaborative action; regularly review sector and firm selection</li> <li>Big push in R&amp;D spending (towards tripling of current expenditures) and investments in skilling and re-skilling (target technical professions)</li> <li>Facilitate workers' access to labour market, as unemployed and new labour market entrants will need to be effectively (re)integrated</li> <li>Targeted financing strategies in collaboration with selected public and private financing institutions</li> <li>Review tariff structure (bound vs. applied) for possible temporary adjustments</li> <li>Set concrete "ease of doing business" targets that can be evaluated and monitored by stakeholders</li> <li>Facilitate integration of green technology/products strategies in firm business models</li> <li>Fast-track establishment of standard certification bodies and implement plans to enable compliance of local SMEs</li> </ul> |  |   |

# Policy Recommendations

## Policy space for economic diversification and upgrading

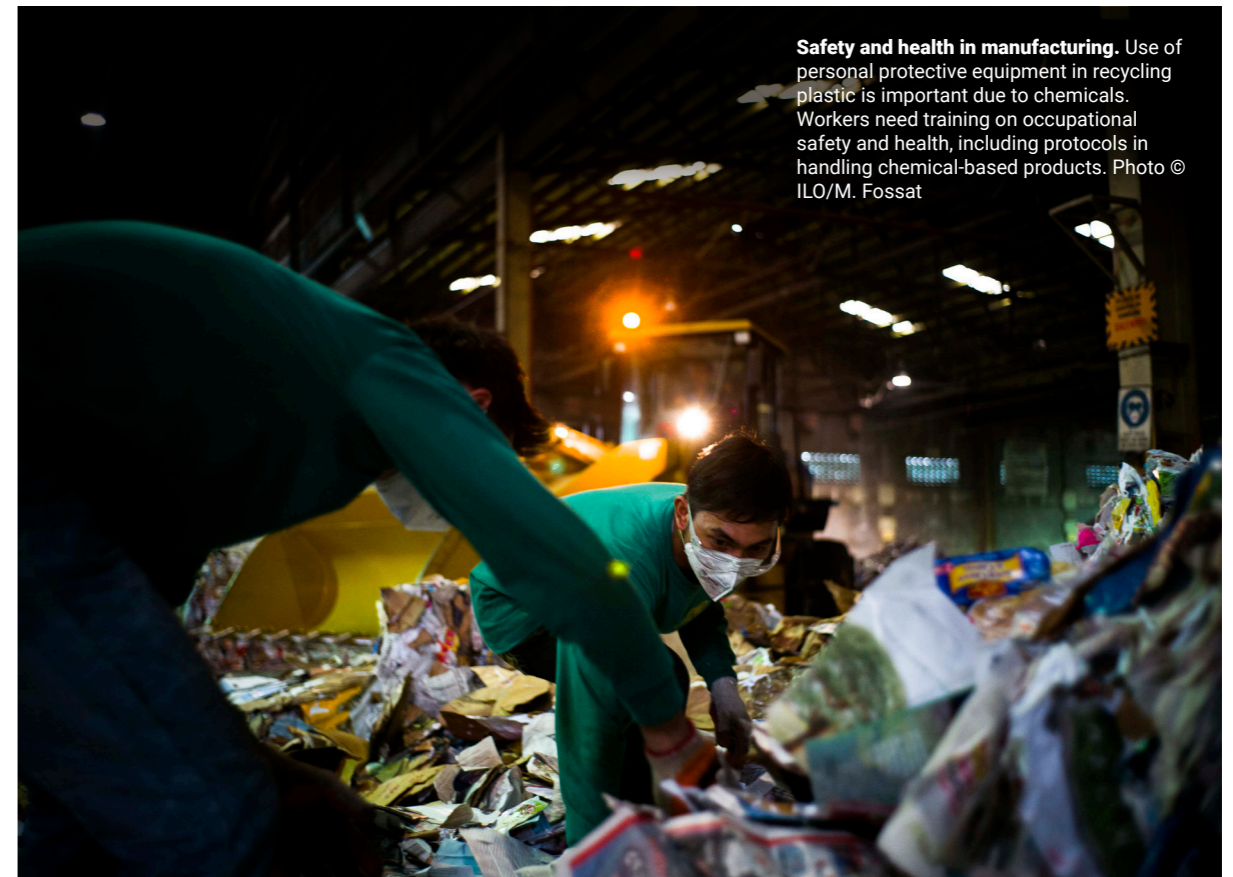
The seeming dilemma between high-technology diversification and developing agro-based and other traditional sectors is a consequence of the Philippines' peculiar structural transformation. While the country has not been able to reduce its dependence on primary exports, it has nonetheless been able to acquire some presence in high-technology manufacturing due to its integration in GVCs. However, after decades of filling in the most labour-intensive and relatively simple segments of production, the imperative to upgrade is increasingly becoming acute. The extreme dualism plaguing the Philippine economy poses high demands to deliver very diverse sets of policies, requiring a different mix of strategies.

**Governments have an indispensable role to play in helping break the path-dependence that characterizes the industrialization process of developing countries in the midst of so much market failures and institutional voids** (Felipe, 2015). The challenge is that the more complex and systemic a country's problems become, the greater the risk of policy failure, which could lead to less support for proactive industrial strategies. However, a purely *laissez-faire* approach could make catch-up growth even more unattainable, as market failures and externalities cumulatively worsen and further discourage investments on knowledge creation and technological advancement.

The threat of being further ensnared in the vicious cycle of weak industrial base, low productivity and overall sluggish economic growth has prompted the Philippine government to embark on a series of policy initiatives that led to the Comprehensive National Industrial Strategy of 2016. This was followed by the launch of two major programmes, the Inclusive Innovation Industrial Strategy (IIS) and more recently, REBUILD PH, to revitalize business, investments, livelihood and domestic demand during the COVID-19 economic crisis. In response to the impact of the COVID-19 crisis on the labour market, the launch of the National Employment Recovery Strategy (NERS) in 2021 is expected to support restarting economic activities, restoring business confidence, upgrading and retooling the workforce, and facilitating labour market access.<sup>4</sup>

A closer look at the industries prioritized, the strategies designed, as well as the whole analysis underpinning these policy choices, shows that planners are amply informed by past lessons and current threats, the rich extant literature and extensive stakeholder engagements. Current policies tick all the right boxes with their emphasis on agriculture-manufacturing linkages, support for micro, small and medium-sized enterprises (MSMEs), deepening of linkages with regional and global production networks, human resource development, innovation and the perennial need to reduce the cost of production and of doing business in general. One can therefore argue that the problem lies not so much in the paucity of ideas or analytical

<sup>4</sup> The NERS is anchored on the policy framework of the International Labour Organization for responding to and tackling the socioeconomic impact of the COVID-19 crisis.



**Safety and health in manufacturing.** Use of personal protective equipment in recycling plastic is important due to chemicals. Workers need training on occupational safety and health, including protocols in handling chemical-based products. Photo © ILO/M. Fossat

shortcomings, but in the more practical domain of implementation, monitoring and coordination. Industrial policy has multiple dimensions that involve numerous agencies at various levels of government and requires the strong collaboration and dialogue of key stakeholders such as business, workers' and employers' organizations, and knowledge institutions. Instituting the right governance mechanisms is therefore crucial to achieving policy credibility, coherence and momentum.

However, even the best policy leaders must contend with the fact that the policy terrain has become decisively more challenging as governments must aim to rapidly industrialize their country, diversify and move up to higher value-added specialization, in a period where the policy space has become significantly narrower. To enable local firms to compete, the government can no longer rely on the protectionist instruments of the past and must now muster more

positive, enabling measures that would allow local firms to survive increased global competition. The prominence of GVCs, however, has cast doubts on the efficacy of industrial policy in a global market driven by powerful corporate boardrooms.

Global value chains as a term may be relatively new, but the off-shoring revolution could be traced back to the period when countries such as Singapore, Hong Kong (China), Taiwan (China) and the Republic of Korea were themselves struggling to diversify out of simple and narrow ranges of specialization. There is an alternative narrative of path dependence characterized by a virtuous cycle of growth, driven by the cumulative agglomeration effects of ever-increasing industrial activities. To draw lessons for the Philippines, some illustrative episodes of catch-up growth were examined, particularly of countries that have more recently completed their industrial transition.

**Occupational safety and health.**  
In the construction industry, monitoring the proper use of personal protective equipment is vital. Construction is one of the most dangerous sectors due to the high rates of occupational injury and illness.  
Photo © ILO/M. Fossat



**Lessons from leapfrogging industrial policies**

Many would still argue that industrial policy is reminiscent of the old approaches discredited in the import-substitution era of developing countries. The experiences of Asian newly industrialised countries (NICs) demonstrate, however, that leapfrogging is possible in the presence of certain critical conditions: a forward-looking coherent vision centred on bold ambitions; integrated government interventions galvanized by a lead agency with strong coordinating and monitoring powers; intense policy learning to speedily correct errors; autonomous, high-quality and long-termist bureaucracy; close monitoring of progress and survival of domestic firms; and tight collaboration with the private sector and other stakeholders. More important, a leapfrogging industrial policy entails a big and prolonged push towards the overall quality of education and skills (conducive to building “productive knowledge”<sup>5</sup>) as well as towards

technology acquisition through strategies such as reverse engineering and patent ownership.

An important feature of Asian NICs’ industrial policy approach is their ability to balance export-oriented and import-substituting industrialization strategies. Developing countries today have significantly less freedom to use the latter, but this can compel the key stakeholders of industrial policy to develop positive and creative import-substitution strategies based on multisectoral collaboration and institutional innovation to address market failures.

Eight key lessons are presented here, drawn from the experiences of Asian NICs and other countries (Table 6). Although industrialization is highly context-dependent, it is nonetheless useful to explore some insights on what could be the important features of industrial policies for catch-up industrial growth.

Table 6  
Lessons in the practice of industrial policy in the GVC era

| Lessons  | Policy implications  |
|--|--|
| <b>Lesson 1: Upgrading is rapid when GVCs are intrinsically motivated to upgrade their local suppliers.</b>  | Industrial policy might only crowd out private investments when GVC firms are sufficiently incentivized by countries’ locational assets.   |
| <b>Lesson 2: Targeting strategic sectors can be useful to build an ambitious narrative for a developmentalist industrial policy, but perseverance, implementation strategies and policy learning are crucial.</b>  | Bold, long-term and ambitious targets are needed but they must be made credible by long-term sustained public investments and implementation milestones.   |
| <b>Lesson 3: Outward-orientation should be pursued with the goal of developing a domestic supplier base and promoting the overall growth of domestic industries. Export processing zones must be accompanied by a purposive strategy to stimulate technological spillovers to the point that local enterprises can be established, with potential capacities to compete against foreign firms.</b> | The goal of industrial policy is to build the domestic industrial base; active support for local industries to compete and partner with foreign firms should be the priority. Surveillance measures are useful in monitoring the resilience and survival of domestic industries in periods of heightened competition and reform.   |
| <b>Lesson 4: Local content policies and linkage development programs are key in ensuring that domestic firms benefit from the presence of, and engagement with, GVC firms.</b>   | Successful countries often have liberal policy towards foreign direct investments but have strict rules to induce GVC lead firms to commit more local equity and integrate local firms in their input sourcing strategies. However, the complementary investment of the government in upskilling the workforce is indispensable.   |
| <b>Lesson 5: Proactive engagement with both local and GVC lead firms is key to understanding how to best develop the country’s locational assets.</b>  | Successful countries not only have a strategy to employ an arsenal of tax breaks and subsidies for foreign firms, but have also deployed a pragmatic tactic of attracting these producers by customizing the delivery of infrastructure and technical skills to meet their needs.  |
| <b>Lesson 6: The government is a first-mover or the main investor in knowledge creation. The development of a skilled workforce is an indispensable prerequisite for successful industrial catch-up.</b>   | Governments of successful countries have a proactive role in supporting research institutes and target projects that ensure the transmission of R&D results to industry for commercialization. Stress is placed on technological upgrading as mirrored in policy efforts to increase the technical skills of the future workforce. |
| <b>Lesson 7: Institutional entrepreneurship is key to ensuring policy coherence and efficient implementation (and adjustment) of strategies.</b>   | New institutions are designed that lead to political and social consensus. A clear and powerful mandate must be given to a coordinating body to ensure monitoring and implementation of policies.  |
| <b>Lesson 8: Addressing market failures in credit provision is a necessary, although not sufficient condition for catch-up growth.</b>   | Access to financing, especially for SMEs, is crucial. Finance institutions are major actors in the design and implementation of industrial policy.   |

<sup>5</sup> According to Hausman, et. al., (2007), productive knowledge refers to the technical know-how needed to produce a certain product.



## Policy options for economic upgrading and diversification

**The Philippines' own industrial policy experience has shown the importance of a GVC strategy that combines both a top-down approach (i.e., engagement with foreign lead firms to induce upgrading and industrial linkages with local firms) and a bottom-up approach (i.e., upgrading through broader stakeholder partnerships that address the specific constraints faced by local firms and workers in the value chain).** Ideally, these are not fragmented approaches but essential elements of an overall vision that involve all the key participants in a global value chain. The Philippines has lately undertaken a more top-down approach through the Comprehensive Automotive Resurgence Program, which is at the core of the Comprehensive National Industrial Strategy. The Philippine experience illustrates how the effectiveness of top-down approaches will be constrained when bottom-up approaches geared to ensure the viability of linkages with the local value chain are not fully developed. However, a largely bottom-up approach, such as in the copper sector, is also inadequate when not combined with top-down strategy where more direct engagement with GVC-led firms is essential.

**One of the most critical challenges facing the Philippines today is the slow build-up of skills.** The problem is how to incentivize investment in skills that might not yet have a critical demand. This is the quiescence trap where the lack of economic diversification and upgrading create conditions that perpetuate low growth. While path dependency can be broken by an ambitious but implementable industrial policy, the quiescence trap can be overcome by complementary and simultaneous public-private investments in skills and education. Addressing the coordination failure that hampers the completeness and simultaneity of such investments is therefore one of the key priorities of policy. Moreover, there must be a clear trajectory towards high-skilled sectors that will produce high-paying jobs. The chicken-and-egg problem of higher wages and high skills (productivity) cannot be solved simply by increasing investments in upskilling.

The large wage differentials between local and foreign employment will drive migration of workers, so that any rise in expenditures for training and education will translate into de facto subsidies for firms abroad. Employers may be reluctant to further invest in the skills upgrading of their workforce if the incidence of job poaching is high. Therefore, there must be increased prospects for higher paying jobs domestically, as well as a credible commitment to improve the quality of the local workforce to attract investments in higher-skilled industries.

## Industrial policy in the context of COVID-19 and climate change

**The COVID-19 crisis has exposed the weaknesses of economic, health, social and political systems. In so doing, however, it has also presented extraordinary opportunities to muster the political will and collective action towards necessary fundamental reforms.** Increasing agricultural productivity and resilience have risen to the top of the policy agenda, and so has the imperative of addressing the vulnerability of millions of the working poor, daily wage workers, youth and other vulnerable groups. The COVID-19 economic stimulus package for local firms is a potential catalyst for inclusive growth if proper focus is given to SMEs, and their capacity to benefit from the recovery boom that typically follows deep economic crises. However, the stimulus package could go beyond short-run survival and have a lasting impact on inclusive growth if it is used to institutionalize reforms particularly in credit access, formalization, digitization and innovation, as well as incentivize industrial linkages and the transition towards green technologies and products.

Lessons drawn from other countries reflect important features of industrial policies for catch-up industrial growth. Invariably anchored on bold and long-term targets to build domestic industrial base, successful countries extended strict rules to induce GVCs or large companies to integrate local firms in their input-sourcing strategies with complementary investment in upskilling the workforce and supporting research institutes. Tax breaks and subsidies are combined

with pragmatic strategies to deliver necessary skills, finance and infrastructure to producers and to build socio-political consensus. A COVID-19 economic package for local firms can take place under a fully coordinated industrial package that contributes to long-lasting development impact.

**The climate change crisis is another formidable challenge shaping the industrial policy of governments worldwide.** It also poses an enormous opportunity for developing countries to leapfrog into new products, technologies and markets that

are efficient, profitable and sustainable. Decades of debate between developed and developing countries about the seeming trade-offs between industrial catch-up and environmental sustainability have gradually been tempered by the severely urgent need to bring down global carbon emissions, as well as the exponential growth of green technologies that can sustainably drive industrial growth. However, there are short-run transition costs that might further increase the heavy burden of smallholder and SMEs. Once again, this calls for approaches oriented towards sustaining the weakest of firms and communities.



**Emergency employment pay day.** Over 200 workers under the Community Emergency Employment Programme (CEEP) received their initial payment on 11 December 2020. Photo © ILO

# Areas for United Nations Support

This research contributes to the implementation of the United Nations Socioeconomic and Peacebuilding Framework (SEPF) and is linked to the People, Prosperity and Planet pillars as strategic areas of focus.

The United Nations SEPF recognizes the need to create decent, productive and green jobs while promoting economic diversification. The evidence and policy directions generated from this study aim to contribute to the promotion of the decent work agenda, the Updated Philippine Development Plan 2017-2022 and the National Employment Recovery Strategy.

This research can provide the basis for evidence-informed action to advance the achievement of Sustainable Development Goals (SDGs)<sup>6</sup> in the Philippines through joint United Nations policy and programme support and assistance in the following areas:

**1. Societal collaboration and building a collective vision towards a responsive yet durable industrial policy thrust.** While the research identified industries

that could drive economic diversification, industrial policy is not simply an exercise of picking winners and losers but a process of building collective action that breaks path-dependence and economic malaise. Collaboration is necessary due to the growing complexity of today's societal problems.

**2. Prioritizing sectors and firms towards clarifying the horizontal and vertical policies required, as well as directing resources to where more impact can be expected.** There should be an understanding that these are mere strategies that must constantly be assessed and adjusted accordingly. Responsiveness and agility in adjusting policies to evolving market conditions have been important features of Asian economies. This requires key stakeholders in industrial policy to develop strategies, including import-substituting ones, to build domestic resilience based on multisectoral collaboration and institutional innovation to address market failures. Local and regional government units will be key to identifying and assisting strategic firms. Drawing on local officials to collaborate in a national effort not only expands the scope and impact of policies but could also potentially reduce regulatory capture by integrating them in a more transparent, collaborative process.

**3. Preserving current trade opportunities and expanding access to markets including global value chains.** Immediate steps are needed to halt the damaging process of export substitution. Philippine competitiveness is progressively weakening as its global market shares are being taken over by other developing countries such as Viet Nam for electronics, Cambodia for garments and Ecuador for bananas.

Enhancing the capacity of Philippine industries to diversify and participate in both global and national trade may include fostering quality advantages, such as the implementation of a global quality and

standards programme to ensure compliance of products and services with market requirements and standards on consumer health and safety, environmental impact, labour conditions and/or sustainability, as key elements of competitiveness, especially in global business relations.

**4. Ensuring domestic firms' survival and development, especially in the agriculture sector, to meet booming domestic food needs, and addressing food poverty and hunger from a food systems perspective.** This is a sector where increased fiscal stimulus would also have far-reaching effects. The sectors identified as potential Route 3 sectors include agro-based products as well as the country's current top exports, such as garments. Industrial upgrading and diversification do not simply mean

promoting new complex products but also ensuring the survival and expansion of more traditional sectors with strong comparative advantage.

The usual modality of public assistance is the provision of inputs such as seeds and fertilizers. However, access to credit and technical know-how, especially, in digitalization, would have the most direct impact on incomes during the COVID-19 crisis. There is also a need to develop critical interventions such as deepening of agricultural technical support and market linkages, especially to institutional buyers. This will raise agricultural incomes and boost the country's ability to service food and industrial raw materials based in the agricultural sector. One important area of support is improving the food cold chain which will reduce post-harvest losses



**Safe water, decent work amid COVID-19.** Over 100 households and 1,600 schoolchildren now have better access to safe water at the TCES. The ILO-Japan Water and Sanitation Project contributed to creating decent work, providing safe water and promoting peace in the Bangsamoro Autonomous Region in Muslim Mindanao (BARMM). Photo © ILO

<sup>6</sup> In particular, SDG 1: end to poverty; SDG 8: economic growth and decent work for all; SDG 9: resilient infrastructure, inclusive industrialization and fostering innovation; SDG 10: reduced inequalities; and SDG 11: inclusive, safe, resilient, inclusive and sustainable cities and communities.

and boost agrifood value chains, with attention to ensuring energy-efficient and green cold chains.

**5. Productive employment creation, with attention to building domestic industries and reducing gender gaps.** Progress in Route 3 sectors has the potential to make a significant contribution to the creation of productive employment and reducing gender gaps. In addition to agro-based products, the garment sector emerged in Route 3, where a significant number of female workers has been employed, although around 10,000 jobs and 300 firms were also lost between 2012 and 2018. It is not always emphasized how labour-intensive sectors in a period of industrial catch-up and transition are critical springboards for unskilled workers to access productive employment and raise overall demand. Sri Lanka's experience in upgrading its apparel sector from lower value-added cut-and-trim segments to the manufacture of original designs reflects possible directions for tapping market

segments that are underserved as a way of boosting productive employment, especially female workers.

One important policy challenge when such markets are identified is injecting innovation, take-up of new technology and upgrading of skills even in sectors that used to produce homogenous products. It may be noted that Philippine garments have lower foreign value added, at around 15 per cent in 2015, compared to Cambodia's 39 per cent, Viet Nam's 46 per cent, and Thailand's and Indonesia's 22 per cent. There is room for linking more local garment manufacturers to foreign partners, and/or stimulating the absorption of foreign technology and the use of imported inputs.

**6. Skills and lifelong learning to improve employability.** Horizontal policies are vital to addressing economy-wide challenges and laying down the pillars of broad-based industrialization,

the most critical of which is a robust education and training system, and skills build-up that are indispensable prerequisites of catch-up growth. Industrial policy faces a challenging trap where the paucity of high-skilled jobs discourages households, workers and firms to invest in skills. Escaping this trap would require a big push for skilling up. A clear and powerful vision is essential to synchronize public and private investments in this area. Moreover, there must be a clear trajectory towards high-skilled sectors that will produce high-paying jobs. Singapore addressed this trap by launching a wage correction policy in 1979 to boost wages and reduce firm reliance on cheap labour and technologies. Taiwan (China) discouraged foreign direct investments on labour-intensive sectors when it reached saturation in the labour-intensive markets. Such cohesive policy strategy is needed to avoid industrial policy falling into fragmentation and reform fatigue.

Within a cohesive policy approach, skills and lifelong learning can be strengthened by focusing on non-formal and vocational/technical education, promoting soft skills and maximizing the use and access to digital or online platforms and other modalities for learning delivery. The inclusion of marginalized and disadvantaged groups, including but not limited to the youth, rural women, persons with disabilities, forcibly displaced persons and indigenous people, is important in achieving these aspects. At the same time, partnerships between the private sector, government agencies and the international community are essential to finance investments, including digital investments, training and other necessary support to workers and firms.

**7. Integrating MSMEs, youth and women within industrial development strategies.** The COVID-19 economic stimulus package for local firms is a potential catalyst for inclusive growth if proper focus is given to SMEs, and their capacity to benefit from the recovery boom that typically follows deep economic crises. The impact of the stimulus package could go beyond short-run survival and have a lasting impact on inclusive growth if it is used to institutionalize reforms.

Access to finance is an important area of industrial policy, particularly in an economic crisis. Strong government intervention is needed to address the increased risk aversion of banks when many local firms need credit to make it to the end of the pandemic, when an increase in demand is expected. If SMEs do not have access to finance that will see them through the economic crisis, larger firms with sufficient financial buffers or access to low-cost finance will be the ones that will largely benefit.

Financial innovations must be incentivized to scale up public and private investments in value chains that are more responsive to the needs of specific industry sectors and groups. Elements of financing packages can include value chain financing, strategies towards greening of industries, mainstreaming gender and youth concerns, and business continuity management. Youth and women



Fishing at dusk in Muntinlupa City, Philippines. A fisherman hooks up bait in the water. Photo © ILO/Bobot Go



**Safety and health in manufacturing.**  
Proper ventilation for better air circulation is vital in offices especially in the manufacturing sector, which has a high rate of occupational accidents.  
Photo © ILO/M. Fossat

enterprises need targeted support through access to skills development programmes and livelihood and employment opportunities.

**8. Strengthening social protection systems to build resilience.** A serious and cohesive effort to strengthen social protection systems will minimize fragmentation, increase efficiency and improve governance. It will also help ensure universal social protection for all workers, especially those in the informal economy. Income support and guaranteed access to quality health care are key elements of a responsive and well-functioning system. Additionally, urgent reforms are needed to establish automatic mechanisms during employment shocks, build an integrated data and information network to support quick-response public action, and overhaul finance and credit services especially for MSMEs and smallholders. Sustainability, equality and resilience to natural and human-induced hazards are now critical requisites of socio-economic solutions.

**9. Linking industrial policy and reforms to address climate change and environmental challenges.** If there is an area where leapfrogging can be meaningful, it is in the shift to more efficient and environmentally sound technologies. Countries like

the Philippines could skip inferior, expensive and environmentally harmful production practices and leapfrog towards the frontier of green technologies. This may include funding capacity-building for impacted sectors, which could be used to incentivize the move towards sustainable practices and technologies. This can be done as governments leverage their fiscal stimulus to help cut carbon emissions and speed up other targets to combat the adverse effects of climate change.

SMEs need more public support since the transition to renewable energy and other green technologies could be disruptive and impose short-run adjustment costs. This is particularly true for smaller firms that have little choice but to employ cheap but polluting technologies and energy sources. In the same way that policymakers are continuously being compelled to balance various competing health and economic objectives during the COVID-19 crisis, addressing the climate change crisis could imply difficult trade-offs—certainly in the short-run. A human-centred vision remains the best compass, whether it be for employment recovery and climate change measures that prioritizes the most poor and vulnerable, or for industrial policies motivated to ensure the survival and success of the country's homegrown firms.

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