

# **Structural Transformation, LDC Graduation and the Coronavirus Disease 2019 Pandemic: Policy Options for Cambodia, Lao People's Democratic Republic and Myanmar**

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# Abstract

This paper has four objectives. First, it assesses progress made by Cambodia, Lao PDR and Myanmar (CML) towards graduating from their Least Developed Countries (LDC) status, and summarizes potential impacts from the loss of International Support Measures (ISMs) on the “smooth” and “sustainable” transition after graduating, especially in the context of new challenges arising from the ongoing COVID-19 pandemic and rising trade tensions. Second, it examines the extent of these economies diversification and identifies impediments to structural transformation. Third, it reflects on possible pathways to structural

transformation and recommends strategies for building productive capacity and resilience to external shocks, highlighting the role of regional cooperation in this regard. Fourth, it identifies areas needing capacity building support from the international community, including the United Nations Sustainable Development System (UNSDS), in particular the Economic and Social Commission for Asia and the Pacific (ESCAP). The paper takes the view that “smooth” and “sustainable” graduation critically depends on acquiring productive capacity for dynamic structural transformation of the economy.

**Keywords:** structural transformation, LDC graduation, Coronavirus disease, COVID-19 impacts, least developed countries.

**JEL classification numbers:** O11, O14, O57, P52.

# Executive Summary

## Progress towards graduation and challenges

Cambodia, Lao PDR and Myanmar (CML) has made considerable progress towards meeting the criteria for graduating out of their Least Developed Countries (LDCs) status. However, following graduation, they may face some adverse conditions, even though International Support Measures (ISMs) are generally phased out gradually, and some institutions and countries provide “smooth transition” support in line with relevant UN resolutions so that the countries’ development efforts are not disrupted by graduation. The loss of ISMs in the area of aid is unlikely to have much impact as their aid dependence from traditional sources (e.g., Development Assistance Committee -DCA- of the OECD) has been generally declining, replaced by new sources (e.g. South-South cooperation).

The loss of trade-related ISMs is likely to have more significant adverse impacts. For example, according to estimates of the World Trade Organization (WTO), graduating LDCs are expected to face a trade-weighted average tariff increase of 4.2 percentage points in preference-granting markets (difference between LDC duty rate and the next best alternative rate). This is likely to cause reductions of market access for Lao PDR by 1.45% and Myanmar by 3.83%. Additionally, the on-going pandemic and escalating US-China trade tension may change the circumstance and derail their smooth graduation prospect. Therefore, it is critical to align transitional efforts with national development goals and plans, and a more detailed analysis of the consequences of

graduation is needed in order to prepare a smooth transition strategy.

Two major global turbulences – the COVID-19 pandemic and the US-China trade tensions – are risking CLM’s development progress, including their prospects for graduation from the LDC status, as the world economy has plunged into the worst recession in 2020 since the Great Depression of the 1930s. The IMF estimates that the global economy shrunk by -4.4% in 2020. Assessing their actual impacts depends on various factors, compounded by uncertainty, such as availability of an effective and affordable vaccine or the approach of the new US administration towards China and multilateral trade (e.g. WTO).

Hence, the CLM need to adjust their policies and development plans to prepare and implement adequate transition strategies to mitigate potential adverse impacts of graduation in a difficult and uncertain global environment. They must ensure a smooth transition that allows for further progress using the momentum of graduation. Doing so successfully will require a boost in productive capacity through, for instance, investment to upgrade education and training quality and the implementation of effective strategies aimed at structural transformation. Failure to do so could also disrupt progress toward achieving United Nations Agenda 2030 for Sustainable Development Goals (SDGs).

CML’s vulnerability to shocks may impact the prospect for LDC graduation. This highlights the need for structural transformation.

## Structural transformation and diversification

Cambodia, Lao PDR and Myanmar have been three fasted growing economies in Southeast Asia in recent decades. They all experienced rapid growth following market liberalizing reforms. However, they failed to sustain the momentum and achieve desired structural transformation. The changes in sectoral GDP shares did not accompany commensurate declines in sectoral employment shares, indicating low level productivity across their economies. Additionally, the rise in industry's GDP share was not driven by manufacturing, implying failure to inject dynamism into the economy

In both Lao PDR and Myanmar, the resource sector dominates, while in Cambodia manufacturing activities are concentrated in few labour-intensive products, notably ready-made garments and textiles. Additionally, the manufacturing sector, especially in Myanmar, is dominated by small and micro enterprises, lacking dynamism or backward-forward linkages. Although the GDP share of agriculture declined, agriculture still remains the major employer. While the service sector consists of low-level activities, the informality of employment is very high. The rate of informal employment is around 90% in Cambodia, 75% in Lao PDR and 84% in Myanmar as found by the ILO in 2019.

Cambodia, Lao PDR and Myanmar suffer from substantial deficits in human capital (e.g., low educational attainment and quality creating skills shortages) and a shallow financial sector. While the former manifests in low levels of labour productivity and skill intensity, the later results in low rates of saving and capital formation as well as inadequate infrastructure, e.g., poor quality of roads and low access to electricity and low information & communication technology).

Most significantly, CLM lack state capabilities as measured by their ability to enhance fiscal space. Both in Lao PDR and Myanmar tax/GDP and revenue/GDP ratios are on

downward trends. While Cambodia has done well in raising tax/GDP and revenue/GDP ratios, they are still below the average for lower middle-income countries – around 18% (predicted value around 21.5%). Moreover, Cambodia's rise in tax-GDP ratio has come at the expense of declines in tax progressivity as most of it has been due to indirect taxes such as value added tax, which has implications for inequality. State capability is critical for the State's role in guiding desired structural transformation and achieving sustainable development goals (SDGs).

These capacity deficits or impediments are reflected in low productivity and lack of diversification. As a result, they are experiencing declines in their growth momentum – annual economic growth rates in Cambodia and Lao PDR have been declining since the 2008-2009 global financial crisis. Myanmar could not sustain its growth spurt following its liberalizing reforms in 2011. Their economies are expected to decline due to the pandemic, and the recovery can be hampered in an uncertain global environment, exacerbated by growing trade tensions. They may not benefit significantly from regional free trade agreements due to lack of product diversification and deficits in human capital and infrastructure.

Being resource rich, both Lao PDR and Myanmar also suffer from the Dutch disease syndrome adversely affecting their manufacturing sector's competitiveness. High degree of dollarization prevents them from effectively using exchange rate policy to offset the Dutch disease phenomenon. A very high degree of dollarization also constrains Cambodia's ability to use monetary policy to support industrialization and impacts fiscal space due to loss in seigniorage.

CLM had economic complexity or productive capacity below the world's average: Cambodia (-0.36), Laos (-0.43) and Myanmar (-0.38). Their economic complexity is closer to the Bangladesh's economy (-0.31) and well below those of Vietnam (0.5) and Thailand



(1.14). CLM's economic complexity or productive capacity has not changed substantially in the period from 2005 to 2016. Cambodia and Myanmar had similar levels of productive capacity from 2005 to 2012, after which Cambodia's capacity has increased slightly compared with that of Myanmar. The productive capacity of Lao PDR has remained at about the same level throughout the period of the analysis. On the other hand, Vietnam's economic complexity has increased by 0.5 and that of Thailand by around 0.4.

CLM produce products with complexity that range from -4 to 1; thus, from four standard deviations of the global distribution below the global average to one standard deviation above global average. This indicates a low complexity of the products exported. The average of Lao PDR's distribution is around -2, while for Cambodia and Myanmar is around -1.5; marginally higher than for Laos. The distribution of Myanmar indicates a more fragmented complexity of production, with the traditional sectors lagging behind, somehow detached from the more complex sectors of the economy. A similar pattern is seen in Cambodia but less pronounced. The distribution of Vietnam and Thailand shows a more complex production with the average product complexity of Thailand approaching the global average.

Choosing products for diversification is fraught with risk, especially in an uncertain global economic condition. A common-sense approach would dictate that a country should first accumulate new capabilities which might include labour with sector-specific skills; transport and logistics services experienced in moving specific types of goods, such as bulk and refrigerated commodities; government regulation, such as phytosanitary standards and testing for food products; and clusters of suppliers and supporting businesses. When a country has a fairly large set of capabilities, it can quite easily add new sectors to its product portfolio by adapting existing capabilities.

Considering export opportunity for each potential new product category, this paper identifies 93 product categories (SITC) for Cambodia, 93 product categories for Lao PDR and 95 product categories for Myanmar, based on UN COMTRADE data for the year 2016 (the latest). These product categories have above average product complexity in the respective country's economy; thus, promoting an increase in average complexity of the economy.

However, a number of caveats apply. First, many of the product categories are common on the list for all three countries. This is not unexpected given the fact that these three countries share many characteristics in terms of their productive capacity and product-mix. Nevertheless, actual products within each product category vary among the countries.

Second, the long list of product categories is a reflection of CLM's low level (or lack) of diversification, and hence higher opportunities for diversification. From a policy perspective, a country with a less diversified product-mix may have many opportunities to diversify by emulating developed countries without having to invest heavily in R&D or skill-intensive innovations. As it exhausts the 'low-hanging fruit', it will have fewer potential new products and hence emulations have to be replaced with innovations.

Finally, the analysis does not consider the specific circumstances of the country, such as climate, geography, or factor endowments, etc. Thus, the list for a country may show a type of agricultural product, for example, that is not suitable for the actual condition of the country. Therefore, the next step would be to take these long lists and create a shortlist of products based on other criteria, such as alignment with other national goals, such as SDGs; climate, soil conditions, ecosystems and socio-economic circumstances; availability of required infrastructure, including clean and affordable energy; desire to enter a specific industry such as electronics.

The short listing, therefore, would require substantial knowledge of the country reality and aspirations, and hence engagements with policymakers of respective countries.

### Pathways to structural transformation

Agriculture still remains a dominant sector, employing a large proportion of labour force. Poverty is also higher in rural areas. Thus, structural transformation cannot ignore the agricultural sector and the rural economy. Agriculture plays a crucial role in driving industrialization by supplying wage goods (food) and inputs. The rural economy is also the vital source of domestic demand for manufactured products. Strengthening the linkage between agro-rural economy and domestic manufacturing is critically important for balanced and stable job-rich growth and structural transformation. Such development strategies have the maximum impact on sustained poverty reduction, and assume particular significance in light of heightened uncertainty in the global economy.

“Servicification” also offers an avenue to prosperity, as a complementary tool to industrializing strategy. In an era when the production process is broken up and involves multiples locations, services connecting complementary process and locations play an important role. Fostering pre- and post-manufacturing services presents Lao PDR, with a small labour force, a better chance to plug itself into transnational production networks and make progress with industrialization. These manufacturing related services require relatively less labour input, and hence fit better with Lao PDR’s small population size, whereas transportation logistics may also enhance the benefit of Lao PDRs position as a land in-between globally large manufacturing bases.

### Regional cooperation to address impediments to structural transformation

Cambodia, Lao PDR and Myanmar need to address impediments to structural transformation. They need to have comprehensive agriculture, industry, financial, infrastructure, and educational policies to tackle the issues of low productivity, skill shortages, poor infrastructure, access to credit.

The establishment of special economic zones (SEZs) is a key element of these countries’ industrialization plan. However, so far, they have not attracted much diversified foreign investment except from China and Thailand. They are yet to develop greater linkages with the domestic economy in supply chains as well as markets, thus remaining as enclaves and failing to deliver development benefits. The challenge for them is to avoid competing with each other for foreign investment and markets for similar or same products as all three countries are roughly at the same level of development with almost identical resource endowments.

It would be far better if Cambodia, Lao PDR and Myanmar work together in a complementary manner in developing their overall industrial strategies, including common standards and norms pertaining to the environment and labour rights. This is particularly important for SEZs. Cooperation among them will also be important for creating industrial clusters, economic corridors and growth poles. Economic cooperation among countries with shared borders has long been recognized as contributing to the creation of larger markets for national producers and consumers and encouraging scale economies by reducing barriers to trade and movements of capital and labour, which is particularly relevant for landlocked countries like Lao PDR.

The “Greater Mekong Sub-Region Economic Cooperation”, originally initiated by ECAFE (ESCAP’s predecessor) in 1956, and later boosted by the ADB in 1992, provides an excellent platform for a comprehensive approach with attention to balanced development of the entire region, rather than through independent development pursued by each country. However, policy coordination and harmonization among the countries in the region have been very slow, and need greater political commitment. Therefore, an assessment of achievements of the current Greater Mekong Subregion (GMS) Strategic Framework for 2012–2022 should be undertaken with a view to developing the next 10-year programme aimed at mutually complementary structural transformation. Regional cooperation is also needed for capacity building.

## Capacity building

CML need capacity building support in the following areas:

- Domestic resource mobilization
- Macroeconomic management
- Trade diversification and sustainable business
- Social protection and inclusion
- Connectivity
- Renewable and affordable energy
- National statistical system

# 1. Introduction

Cambodia, Lao People's Democratic Republic (Lao PDR) and Myanmar, collectively referred to as CLM, are categorized as least development countries (LDCs) by the United Nations and as lower middle-income countries by the World Bank. They are also in transition to a more market-oriented economy. The Lao PDR, a landlocked country, was first to initiate market liberalizing reforms in 1986, followed by Cambodia in the late 1980s and Myanmar in 2011. They joined the regional economic bloc, Association of South East Asian Nations (ASEAN) and the World Trade Organization (WTO). These initiatives were successful in attracting foreign direct investment (FDI) and expanding trade, resulting rapid economic growth.

Lao PDR and Myanmar are expected to be recommended for graduation from the LDC category, meeting the eligibility criteria for graduation for the second time in 2021. Cambodia may also meet the criteria for graduation in the near future. Achieving such an important development milestone can be celebrated as a key stage in a country's history and can provide a boost to national and international sentiment. The enhanced country profile may attract more foreign investment, although a country's LDC status is not a factor in credit rating agencies' considerations.

However, for graduated countries, it also means that they are going to lose International Support Measures (ISMs) for LDCs, especially in the areas of trade (e.g., preferential access to developed country markets, aid for trade) and development cooperation (e.g., grants & concessional loans, technical assistance). Graduation could also entail some costs of compliance with the WTO agreements such as

with the agreement on trade-related aspects of intellectual property rights (TRIPs). Therefore, following graduation from their LDC status, countries may face some adverse conditions, even though ISMs are generally phased out gradually, and some institutions and countries provide "smooth transition" support in line with relevant UN resolutions. Smooth transition to graduation means that the countries' development efforts are not disrupted by graduation. Therefore, it is critical to align transitional efforts with national development goals and plans, and a more detailed analysis of the consequences of graduation is needed in order to prepare a smooth transition strategy.

The on-going COVID-19 pandemic is an added challenge. Although CLM seems to have contained the pandemic relatively successfully, the slowdown in global trade, falling commodity prices, disruptions in global value chains (GVC), as well as declining remittances and tourism have significantly impacted them. As a result, CLM economies are expected to contract or slowdown in 2020. The prospect for a recovery remains uncertain and hinges on a number of factors, such as availability of an effective and affordable vaccine as well as reliable treatments, macroeconomic conditions, especially the level of public debt, arising from the need to support their economies during the pandemic, and the prospect for the global economy. Their predicaments are further exacerbated by existing poor health systems, limited fiscal space, vulnerability to natural disasters and weak state capabilities. The potential loss of ISMs will seriously hurt graduating LDCs in this difficult time.

## Box 1: United Nations and the World Bank’s classifications of countries

Category created in 1971, the UN defines LDCs as “low-income countries confronting severe structural impediments to sustainable development”. They are highly vulnerable to economic and environmental shocks and have low levels of human assets. The Committee for Development Policy (CDP) is mandated by the UN General Assembly (UNGA) and the Economic and Social Council (ECOSOC) to review the list of LDCs every three years and to make recommendations on the inclusion and graduation of eligible countries using the following criteria: (a) Income: Gross National Income (GNI) per capita; (b) human assets; (c) economic and environmental vulnerability.

GNI per capita provides information on the income status and the overall level of resources available to a country. The inclusion threshold is set at the three-year average of the level of GNI per capita. At the 2021 review it is set at US\$1,018.

Low levels of human assets indicate major structural impediments to sustainable development. A country’s level of human capital is assessed by Human Assets Index (HAI) which combines a country’s achievements in health and education. Since 2015 the CDP uses absolute thresholds for the HAI to determine inclusion and graduation eligibility. The inclusion threshold has been set at 60.

A country’s structural vulnerability to economic and environmental shocks is measured by Economic and Environmental Vulnerability Index (EVI) which combines eight indicators: share of agriculture, forestry, fisheries in GDP; remoteness and landlockedness; merchandise export concentration; instability of exports of goods and services; share of population in low elevated coastal zones; share of population

living in drylands; instability of agricultural production; victims of disasters. Since 2015 the CDP uses absolute thresholds for the EVI to determine inclusion and graduation eligibility. The inclusion threshold has been set at 36.

There are currently 46 countries on the list of LDCs after recent graduation of Vanuatu in December 2020. The CDP reviews the list every three years.

The World Bank’s classification of countries into four income groups — high, upper-middle, lower-middle, and low — is much narrower, based on only GNI per capita, which can change with economic growth, inflation, exchange rates, and population. The classification thresholds are adjusted for inflation annually using the Special Drawing Rights (SDR) deflator.

The classification is updated each year on July 1st. For the current 2021 fiscal year, low-income economies are defined as those with a GNI per capita (calculated using the World Bank Atlas method) of US\$1,035 or less in 2019; lower middle-income economies are those with a GNI per capita between US\$1,036 and US\$4,045; upper middle-income economies are those with a GNI per capita between US\$4,046 and US\$12,535; high-income economies are those with a GNI per capita of US\$12,536 or more.

Due to the higher GNI graduation threshold and the multidimensional development concept used for identifying LDCs, a country can simultaneously be in LDC and middle-income categories. As of 2018, 19 LDCs are middle-income countries. On the other hand, a country can graduate from the LDC category based on its HAI and EVI scores, even if it remains a low-income country.

Graduation from the LDC category should not be confused with graduation from access to

financing from multilateral development banks. Graduation from access to highly concessional financing from the World Bank Group's International Development Association (IDA) is triggered when a country's per capita income reaches a certain level (updated annually; US\$1,185 in the fiscal year 2021), after which an assessment of creditworthiness is undertaken. This threshold is different from the LDC graduation threshold and is not applied to small island developing States with a population of 1.5 million or less (small islands economies exception). Graduation from access to financing from the World Bank

Group's International Bank for Reconstruction and Development (IBRD) is also dependent on per capita income. Regional development banks follow similar systems. Graduation from ODA eligibility occurs when a country is found by the Organization for Economic Cooperation and Development (OECD) to have exceeded the World Bank's high-income country threshold for three consecutive years. Some middle-income countries, such as Nigeria and Pakistan, are also IDA eligible, and are referred to as "blend" countries as they are also eligible for loans from the IBRD.

*Sources:* United Nations Department of Economic and Social Affairs (DESA), available from [www.un.org/development/desa/dpad/least-developed-country-category/ldc-criteria.html](http://www.un.org/development/desa/dpad/least-developed-country-category/ldc-criteria.html) (accessed 5 October 2020) and the World Bank, available from <https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups> (accessed 5 October 2020).

Trade, especially participation in the GVC, has been an important vehicle for many developing countries' – including CLM – economic uplifting and poverty reduction during the past two-three decades. However, trade has been slowing long before the COVID-19 pandemic, and never recovered the pre-2008-2009 global financial crisis (GFC) level. Trade received a jolt from the escalating US-China trade tensions since 2018 with the US imposing tariffs on some imports from China.<sup>1</sup> COVID-19 has dealt an almost fatal blow to global trade through disruptions to GVCs and subsequent declines in demand.

Hence, the CLM need to adjust their policies and development plans to prepare and implement adequate transition strategies to mitigate potential adverse impacts of graduation in a difficult and uncertain global environment.

They must ensure a smooth transition that allows for further progress using the momentum of graduation. Doing so successfully will require a boost in productive capacity through, for instance, investment to upgrade education and training quality and the implementation of effective strategies aimed at structural transformation. Failure to do so could also disrupt progress toward achieving United Nations Agenda 2030 for Sustainable Development Goals (SDGs).

This paper, therefore, will summarize potential impacts from the loss of ISMs after graduating from the LDC status, based on the CDP's *ex-ante* impact assessments for Lao PDR and Myanmar and other available research findings. The paper takes the view that "smooth graduation" critically depends on acquiring productive capacity for dynamic structural transformation of the economy. Therefore, the paper will assess progress made by CLM in structural transformation. The assessment will draw on respective countries'

<sup>1</sup> US-China trade tensions first surfaced in 2012 after the US trade deficit with China rose to an all-time high of US\$295.5

billion, accounting for three-quarters of the growth in the US trade deficit for 2011.

Voluntary National Review (VNR) of progress on the Istanbul Programme of Action (IPOA) for LDCs as well as other available research reports.<sup>2</sup> Particular attention will be given to how external shocks, such as the on-going pandemic and rising US-China trade tensions, are likely to affect CLM's progress towards LDC graduation and post-graduation development trajectory. It will reflect on possible pathways to structural transformation and recommend strategies for building productive capacity and resilience to external shocks. It will identify areas needing capacity building support from the international community, including the United Nations Sustainable Development System (UNSDS), in particular the Economic and Social Commission for Asia and the Pacific (ESCAP). The rest of the paper is organized as follows:

- Section 2 will provide a brief evaluation of CLM's progress with regard to each of the three LDC graduation criteria. It will also summarize possible post-graduation challenges arising from the withdrawal of ISMs.
- Section 3 will assess how the COVID-19

pandemic induced GVC disruptions and recession, as well as the rising US-China trade tensions are affecting CLM's development progress and prospects for smooth graduation.

- Section 4 will examine CLM's economic growth experiences and progress in structural transformation. It will also identify constraints to structural transformation.
- Section 5 will reflect on CLM's economic complexity and product diversification. This will also include identification of possible products and sectors that these countries could prioritize for diversification.
- Section 6 will discuss some common policy challenges that would require harnessing sectoral complementarities – particularly between agriculture and manufacturing – and regional cooperation.
- Section 7 will identify areas that would require capacity building support from the international community, including the UNSDS, in particular ESCAP.

<sup>2</sup> The IPOA aims to enable at least half the LDCs to graduate.

## 2. Progress towards graduation and post-graduation challenges

As mentioned in the introduction, all three countries have made good progress towards graduation out of the LDC category as can be seen from table 1 and figure 1.<sup>3</sup>

### 2.1 CAMBODIA: GOOD PROGRESS IN HAI AND EVI, BUT COVID-19 ELEVATED VULNERABILITY

Cambodia was included in the LDC group in 1991. At the 2015 review, Cambodia was found ineligible for graduation from its LDC status, even though in 2015, the World Bank upgraded Cambodia's status from low income to lower-middle income Country (LMIC). While the HAI threshold was met, its EVI was high,

and GNI per capita was still below the threshold (figure 2). Cambodia was just below the GNI per capita threshold at the time of the last triennial review in 2018, but, if recent growth rates continue, the country is likely to be close to or over the threshold by the next review. At that time, if its score on HAI is still above the threshold, it could meet the criteria for graduation for the first time in 2021. As Cambodia made a good progress, especially in HAI and EVI, it is likely to meet pre-eligibility criteria by 2021, and hence the country may graduate from the LDC category as early as 2027. However, the on-going pandemic has heightened its economic vulnerability, and its EVI may be elevated by the forthcoming triennial review.

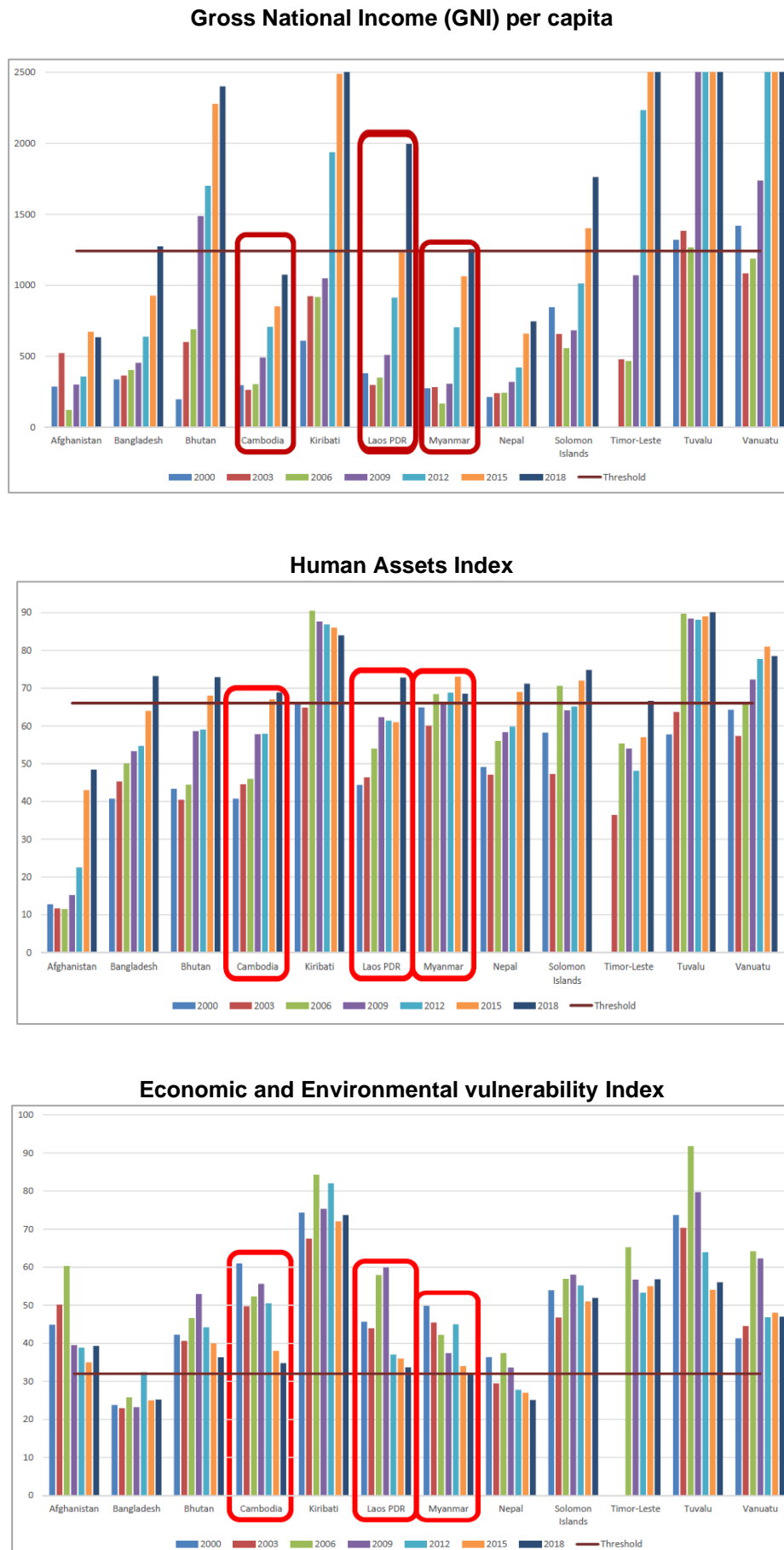
**Table 1: Lao PDR and Myanmar meet graduation criteria in 2018**

Country	GNI per capita (average: 2016-18)	Human assets index (HAI)	Economic and Environmental vulnerability Index (EVI)	Have the criteria been met?	Year likely to be recommend for graduation
Cambodia	\$1223	68.9	34.8		
Lao PDR	\$2270	72.8	33.7	Yes	2021
Myanmar	\$1236	68.5	31.7	Yes	2021
Graduation threshold	≥\$1242, or income only ≥\$2460	≥66	≤ 32		

<sup>3</sup> For an evaluation of Istanbul Programme of Action for Least Developed Countries 2011-2020, see Razzaque (2020).

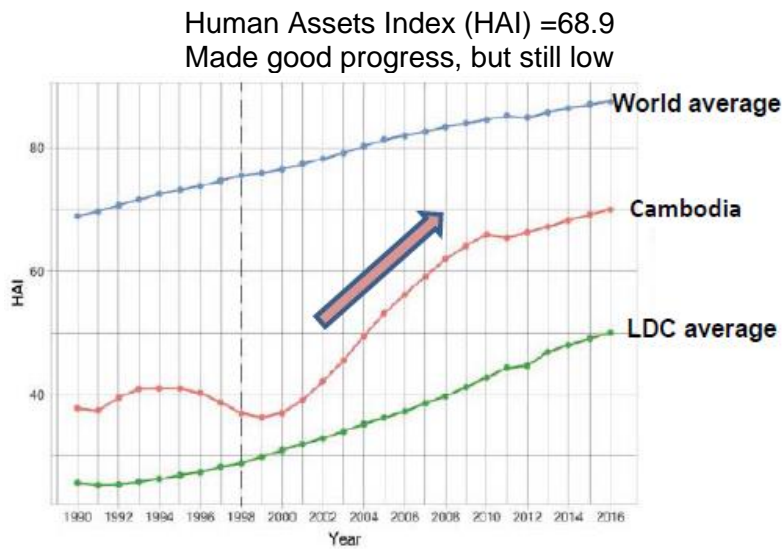
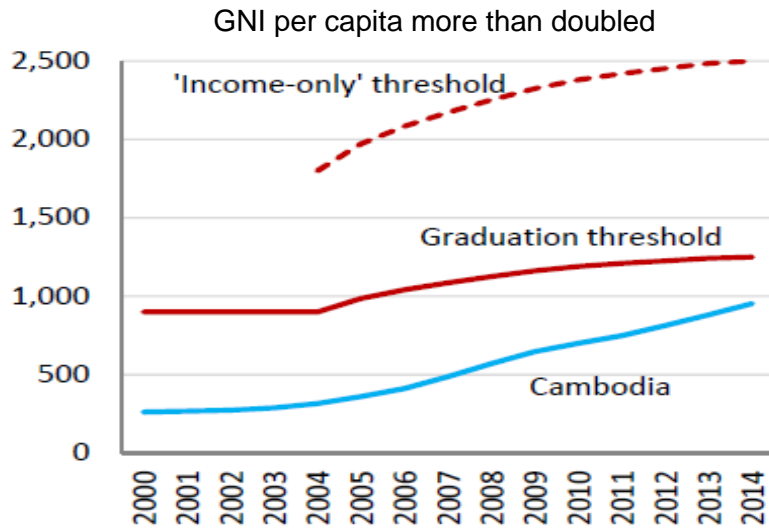


**Figure 1: Comparative progress towards graduation (2000-2018)**

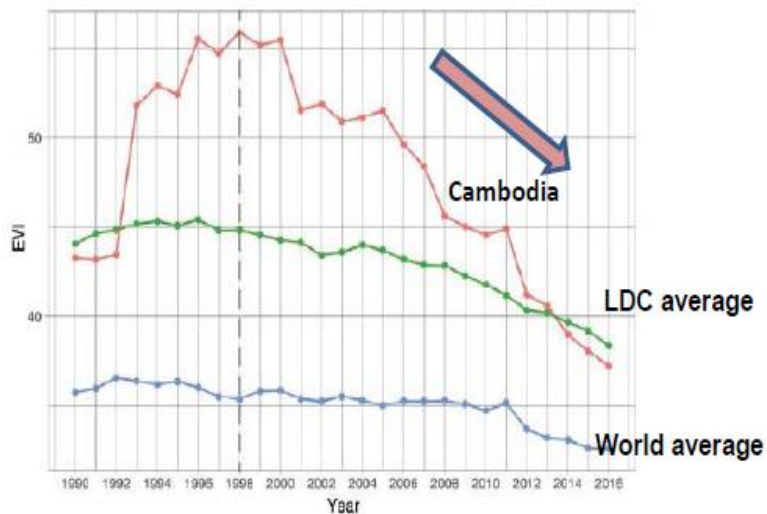


Source: Paddison (2018).

**Figure 2: Cambodia's graduation progress**



Economic and Environmental Vulnerability Index EVI=34.8 declined substantially



Source: Paddison, 2018.

## Box 2: Experiences of graduating countries

In the first three decades after the UN created the LDC category in 1971, only one country—diamond-rich Botswana—outgrew that status in 1994. Since then, four more countries graduated – Cabo Verde in 2007, Maldives in 2011, Samoa in 2014, and Equatorial Guinea in 2017. This box briefly reviews the post-graduation experiences of the LDC graduates and the impact of COVID-19 on their growth.

### Botswana

As the first graduating country from the LDC group in 1994, Botswana has been one of the fastest growing economies for several decades – enabling it to enlist itself in the upper middle-income country group in 2005. Its GNI per capita stands at US\$ 6,845. Growth in Botswana was spearheaded by mining (particularly diamond extraction) in the 1970s and 1980s, while services have emerged to become an important sector since the 1990s.

High rates of growth reduced poverty from 30% in 2003 to less than 16% in 2017; but inequality remains quite high. Gini coefficient, a measure of inequality, rose steeply from 0.542 in 1985 to 0.647 in 2002 and then declined to 0.533 in 2015, which is still very high.

Botswana's HAI stands at 79, with improvements particularly in health-related indicators such as the under-five mortality rate, which improved from 86 per 1000 live births to 36 between 2000 and 2018. Life-expectancy fell from 61.2 years in 1987 to 50.3 years in 2001, but rose to 68.8 years in 2017.

Education expenditure is among the highest in the world and includes the provision of nearly universal free primary education but has not created a skilled workforce. The World Bank's Human Capital Index (HCI) scores Botswana at 0.42, suggesting that a Botswana child born

today will only be 42% as productive when she grows up as she could have been if she had enjoyed complete education and health. The purpose of the HCI is to promote attention and action to improving the level and quality of government investments in child health, nutrition, and education given their strong links to labour productivity and economic competitiveness.

Botswana did not succeed much in structural transformation. With concentration of diamonds in merchandise exports, along with geographical constraints placed by small size and landlockedness, Botswana scores poorly in EVI (45.5), making it vulnerable to external shocks.

Botswana's economy faces an unprecedented challenge due to the COVID-19 pandemic, only a year after weakening global demand for diamonds and severe droughts led to a slowdown in growth to 3% in 2019 (from 4.5% in 2018). The economy is expected to contract by at least -9.1% in 2020 as COVID-19's impact on global demand, travel restrictions and social distancing measures constrain output in key production and export sectors, including the diamond industry and tourism. Both external and fiscal pressures will become accentuated in 2020, with the overall deficit set to double (from 4% of GDP last year).

### Cabo Verde

Cabo Verde graduated in 2007 by meeting the GNI per capita threshold and the HAI threshold. Cabo Verde is characterized by heavy dependence on external financing — notably ODA and remittances — and a high level of structural vulnerability. Consequently, concern about the effects of its graduation centred on the potential loss of ODA, which averaged 18% of its GNI in the 10 years before its graduation. While ODA has fallen since graduation, it has remained relatively high at 14% of GNI.

The continued growth achieved by Cabo Verde

since its graduation is a result of policy measures taken during the graduating process. For instance, the tourism sector saw a range of sectoral and investment policies that attracted productive investment and boosted growth years before it graduated. However, progress in economic and environmental vulnerability has remained slow – EVI stands at 35.9, 2.9 points above the required score of below 32.

Remittances supplement investment and expenditure in the social sector. The involvement of the diaspora in national policy making is important. Its Ministry of Diaspora Affairs focuses on incentivizing remittance inflows through formal channels and seeks to facilitate diaspora investment.

Cabo Verde's main trade partner is the EU, from which the Government succeeded in obtaining a 3-year extension of its eligibility under the Everything But Arms (EBA) initiative, followed by an additional 2-year transition period until 1 January 2012. In late 2013, Cabo Verde became one of the first 10 countries to qualify for the EU's enhanced GSP+ trade regime, which is available to vulnerable countries that have ratified and implemented international conventions relating to human and labour rights, environment and "good governance".

In 2007, Cabo Verde signed a Special Partnership Agreement — a cooperation facilitation framework covering a broad set of issues, from stability and regional integration to development and poverty reduction. It also concluded a Mobility Agreement with five EU member States (France, Luxembourg, Netherlands, Portugal and Spain) allowing temporary and circular migration by Cabo Verdeans. Cabo Verde also approached multilateral agencies, including the World Bank and the African Development Bank, to ensure that it retained partial access to concessional financing through classification as a "blend"

country. It also benefited from an additional 3-year transitional period for access to the European Investment Fund (EIF), with a further 2-year extension subject to approval by the EIF Board.

While growth of the tourism sector provided a means of reducing Cabo Verde's dependence on aid and remittances, it was adversely affected by weak recoveries from the GFC in key partner countries (notably in the EU). Although it recovered strongly following the euro crisis in 2015, the pandemic has been a serious setback as real GDP in 2020 is projected to contract by as much as -7%.

## Equatorial Guinea

Graduated in 2017 through the income only criteria, Equatorial Guinea remains highly dependent on oil. In 2018, oil and gas represented nearly 50% of GDP, 95% of export revenues, and 85% of budgetary revenues. With depletion of its existing oil reserves along with low levels of investment, real GDP has contracted every year since 2013.

Equatorial Guinea's progress on the Human Assets Index (HAI) remains slow, increasing only by 0.7 points, from 57.4 during graduation to 58.1 in 2019. Gross secondary enrolment ratio remains unchanged at 26 per cent, but the under-five mortality rate has improved from 96 to 89 per 1000 live births.

Equatorial Guinea's Economic Vulnerability Index (EVI) remains below the threshold of 32. While its score in instability of exports of goods and services has improved, it is not a result of fundamental change in the economy but rather a statistical outcome (changing time period to calculate the index). Likewise, three years following its graduation, the country's productive capacity index (PCI) is lower than the LDC group's average (45) at 42.9 and significantly falls behind in the human capital component of PCI.

The COVID-19 pandemic has worsened the economic situation in Equatorial Guinea, which is struggling to recover from the recession caused by the 2014 fall in oil prices and the decline in the yields of the oil and gas wells in operation. The fall in oil prices in early 2020, caused by a contraction in global demand and an excess supply, combined with the general decline in economic activity due to the confinement is expected to have a strong negative impact on the country's economy and accentuate the recession in 2020 and 2021. Real GDP in 2020 could contract by -11.3%.

## Maldives

Maldives has continued to experience relatively robust economic performance and significant progress in terms of human capital accumulation since its graduation from the LDC category in 2011. However, it remains heavily dependent on tourism and highly vulnerable to shocks, as indicated by the persistently high level of its EVI.

Like Cabo Verde, Maldives benefited from a 3-year extension of trade preferences under the EBA initiative, until the beginning of 2014. However, it ceased to be eligible for GSP preferences at the beginning of 2014 (as a result of its classification by the World Bank as an upper-middle-income country for three consecutive years), compounding the effect of its loss of preferential treatment. While the country's fishery industry survived the loss of trade preferences in the EU market and Japan, this has certainly contributed to the sector's declining importance, notably in the case of the tuna industry.

The graduation of Maldives from the LDC category was instrumental in the negotiation of General Assembly resolution 65/286, which extended travel benefits (for example, to attend meetings of the UN and WTO) for a period of three years after graduation. The

country also retained full access to EIF funds until 2013, and partial funding on a project-by-project basis for an additional two years, until the end of 2015.

While the success of Maldives' smooth transition strategy to date has been somewhat mixed, the 2015 CDP monitoring report found no sign of significant reversal in socioeconomic progress since the country's graduation in January 2011.

The World Bank predicts that the Maldives will be the South Asian nation hardest hit by the Covid-19 pandemic, given that 70% of the country's GDP flows from tourism and tourism related sectors, such as transport, communication, hospitality and retails. In April, the Government forecasted fall in GDP between -11.5% and -29.7%.

## Samoa

Since Samoa graduated in 2014, and the conclusions that can be drawn about the transition process are limited. Like Cabo Verde and Maldives, Samoa continues to enjoy duty-free quota-free treatment under the EBA initiative for a period of three years; and a similar transition period has been negotiated, at least for some key products, with other trading partners. China has agreed to extend zero tariff treatment on noni juice and other agro-processing products until 2017. A similar arrangement with Japan for noni juice, fish exports and organic products such as honey, vanilla and cocoa is also negotiated.

Samoa also continues to enjoy access to concessional borrowing from multilateral financial institutions, and to receive technical assistance and financial support to attend UN Nations meetings. As in other cases, the country has also been granted a 3-year transition period by the EIF.

The COVID-19 pandemic hitting Samoa on the heel of measles outbreak in 2019 that led to 83 deaths, is expected to have significant adverse impacts on the economy as its tourism sector and remittance flows collapsed. There is a risk that the

economic toll of COVID-19 may eclipse the downturn of 2009, and the economy may contract by as much as -10%. In 2018 and 2019, the ADB and International Monetary Fund (IMF) have declared Samoa to have a “high risk of debt distress”. The economic effects of the measles outbreak and the COVID-19 pandemic have heightened that risk. In July 2020, the ADB projects that Samoa’s fiscal balance will fall from an estimated 2.7% of GDP in 2019 to -7.3% in 2020 and -9.9% in 2021. Samoa’s vulnerability to natural disasters and climate change impacts increases the possibility of further shocks.

The sudden loss of special measures is not a *fait accompli*. Countries must prepare and undertake negotiations with its major trading and development partners for the continuation of some critical support measures. They should also have strategies to find new

avenues to grow.

However, the landscape for the upcoming graduating countries is likely to be significantly different due to the impacts of the on-going pandemic and the US-China trade tensions. COVID-19 has highlighted the underlying vulnerabilities of these highly undiversified resource and tourism dependent economies. Their income is subject to the vagaries of international price swings, and volatility does not lend itself to stability of macroeconomic fundamentals conducive to capital formation and job creation. If high incomes are not consciously converted into human assets and strong institutions, structural impediments cannot be overcome, which defeats the purpose of graduation.

Therefore, diversification of the economy, both in terms of products and export destinations will be crucial for smooth graduation. This will require careful planning and significant efforts in enhancing their productive capacity.

Sources: UNCTAD, 2016; DESA for LDC Profiles; World Bank country profiles.

## Challenges

Despite achieving good progress in enhancing productive capacity in the areas of human capital and infrastructure, especially in transportation, under the IPOA, there still remain significant challenges, such as poor access to electricity and information & communication technology (ICT). The quality of education is still poor, while there are persistent skill gaps, and high drop outs at the secondary level. Thus, labour productivity is low across all sectors.

Since Cambodia’s nearest competitors, such as Bangladesh, Lao PDR and Myanmar, are likely to graduate from LDC status ahead of Cambodia, the country is unlikely to be disproportionately affected by the withdrawal of preferential treatments for market access. However, Cambodia is already facing weakened export demand and declining profits for its crucial garments-textiles sector. The European Union’s (EU) decision in February 2020 to partially withdraw the duty-free quota-free access under the “Everything But Arms” (EBA) scheme due to “serious and systematic concerns related to human rights” has become effective in August 2020.<sup>4</sup>

<sup>4</sup> According to the EU, “(t)he withdrawal of preferential access to the EU market concerns approximately 20% of Cambodia’s exports to the EU. Cambodia may still export those products to the EU but they will be subject to general tariffs applicable to any other member of the WTO. The

remaining 80% of Cambodia’s exports continue to enjoy preferential (duty-free, quota-free) access to the EU market. The Commission, together with the European External Action Service (EEAS), will continue its enhanced engagement with Cambodia. The EU will keep on monitoring the situation in the country, with a particular

In December 2019, the International Monetary Fund (IMF) warned that the withdrawal of the EU's trade preferences under the EBA scheme from Cambodia would cause a decline of exports to the EU of about 13%, and a 3 percentage point decline in GDP growth, without prejudice to other indirect effects.<sup>5</sup> According to the European Institute for Asian Studies (EIAS), 43% of garment workers (nearly 225,000 people) plus 20% of workers in footwear factories (more than 20,000 people) would become unemployed (Cao, 2018).

However, other observers believe that the EU decision should not have a huge impact on the country's economy as it affects only 20% of the country's total exports to EU. Tariff on US\$1.1 billion worth of Cambodian exports to European countries will cost about US\$120 million, which is less than 0.5% of the GDP or around 1% of the national revenue.<sup>6</sup> Furthermore, Cambodia's access to its second largest export market, the US,<sup>7</sup> may not be significantly affected post-LDC graduation as they have bilateral trade and investment agreements. The US and Cambodia are signatories to a 2006 Trade and Investment Framework Agreement (TIFA). However, the US-China trade tensions may change the situation.

Cambodia's aid dependence is higher with over 30% financing government expenditures. However, Cambodia's upgrading to LMIC status may have already affected its access to concessional development financing regardless of its LDC graduation (World Bank 2017b). Its aid dependence has declined from

the recent peak of around 11% to 6% of GDP (figure 3a), and the country has been receiving fewer amounts of grants since 2011 (figure 3b). It is now more dependent on aid flows from China (figure 3c), which does not depend on its LDC status. The high flow of Official Development Assistance (ODA) from development partners is unlikely to continue in the long term as donors are increasingly under fiscal pressure, especially after the COVID-19 induced recession and debt blow outs. Moreover, development partners seem to have shifted their focus and support towards the African continent.

## 2.2 Lao PDR: LIKELY TO MEET AT LEAST TWO CRITERIA, BUT VULNERABILITY REMAINS HIGH

The Lao PDR was listed as a LDC 1971 when the category was first introduced. The country made progress in some areas of the IPOA's priority areas which has enabled it to meet two of the three LDC graduation criteria for the first time during the triennial review in 2018. If the present trend prevails, Lao PDR is likely to meet at least two of the three criteria for the second time in 2021 triennial review at which the CDP may recommend Lao PDR for graduation in 2024. As can be seen from figure 4, it should meet the GNI per capita and HAI threshold by 2021. At 33.7, Laos' EVI was above the threshold (32) even during the last review in 2018, and though its prospect based on the current trend (figure 5) appeared good, it may not meet the threshold as its economic vulnerability has been heightened by the ongoing pandemic.

focus on current restrictions in the areas of freedom of expression and civil and political rights, as well as land disputes and labour rights in the context of the ongoing reforms.”

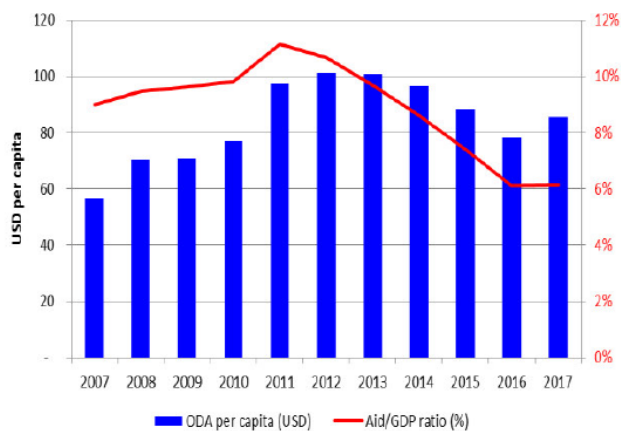
[https://ec.europa.eu/commission/presscorner/detail/en/IP\\_20\\_1469](https://ec.europa.eu/commission/presscorner/detail/en/IP_20_1469) (20/09/2020)

5 IMF, Cambodia Article IV Consultation, IMF Country Report No. 19/387, (December 2019).

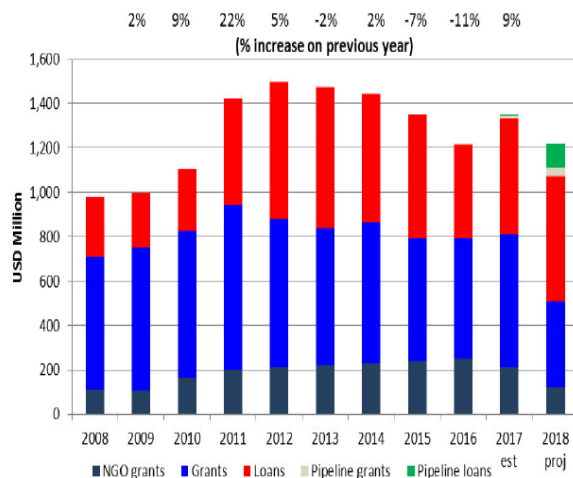
6 See <https://panpacificagency.com/news/southeast/02/20/dialogue-unlike-eba-the-coronavirus-could-have-serious-impact-on-the-cambodias-economy/> (21/09/202).

7 The US is Cambodia's largest single-country export destination, with approximately 20% of Cambodia's total exports going to the United States – primarily garment and footwear products.

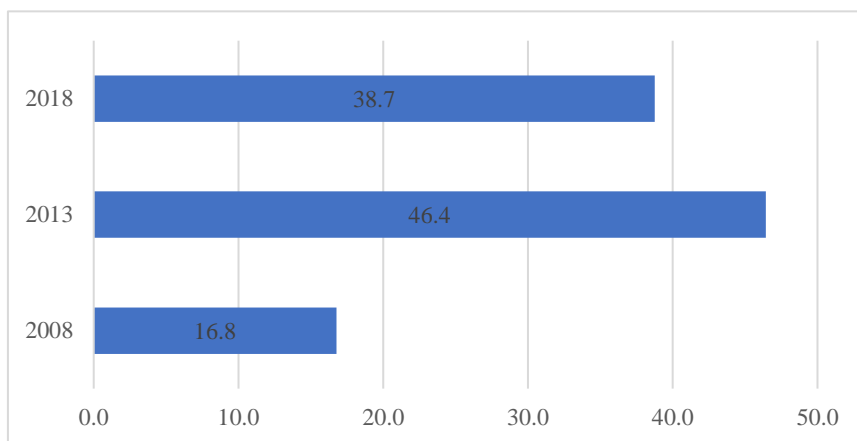
**Figure 3a: ODA to Cambodia declining**



**Figure 3b: Grants to Cambodia falling**

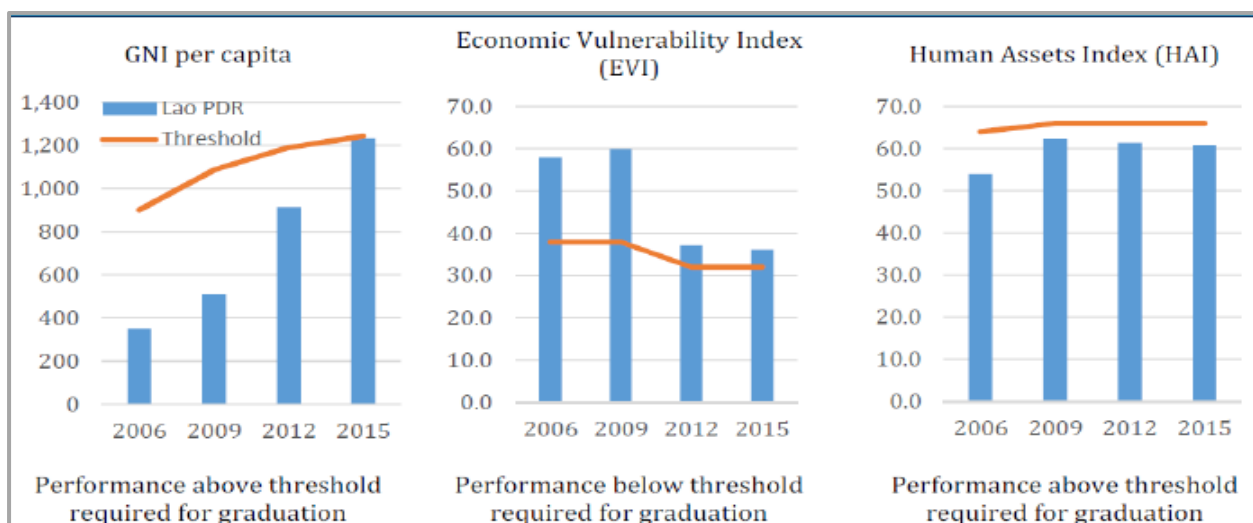


**Figure 3c: China dominates in bilateral aid to Cambodia**



Source: Royal Government of Cambodia, 2018.

**Figure 4: Lao PDR's graduation progress**



Source: World Bank, 2017c.

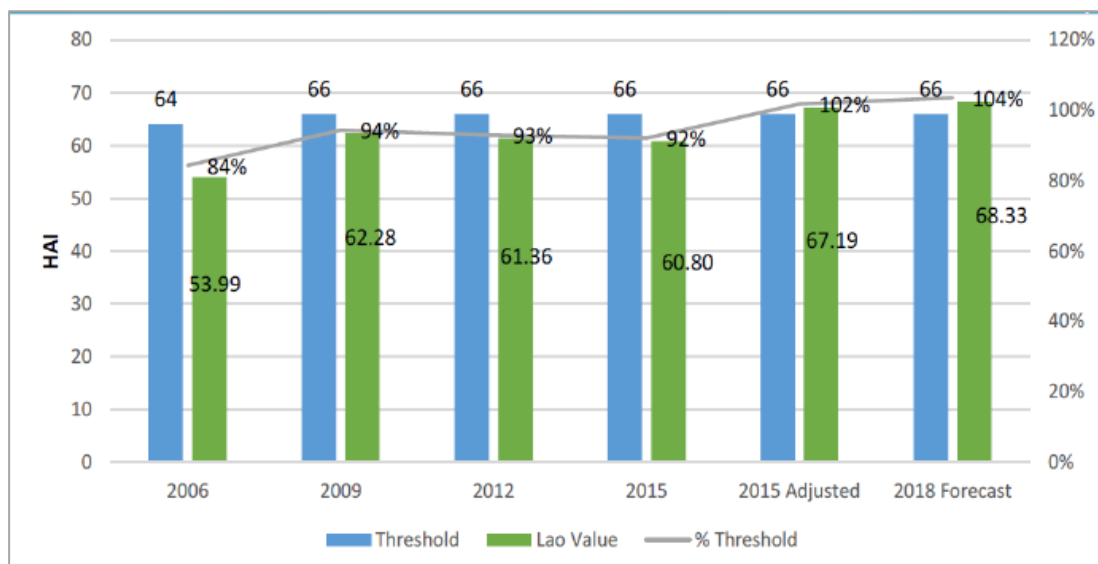


## Challenges

Despite the progress, challenges still remain. The labour productivity of Lao PDR across sectors is still low, especially in agriculture.

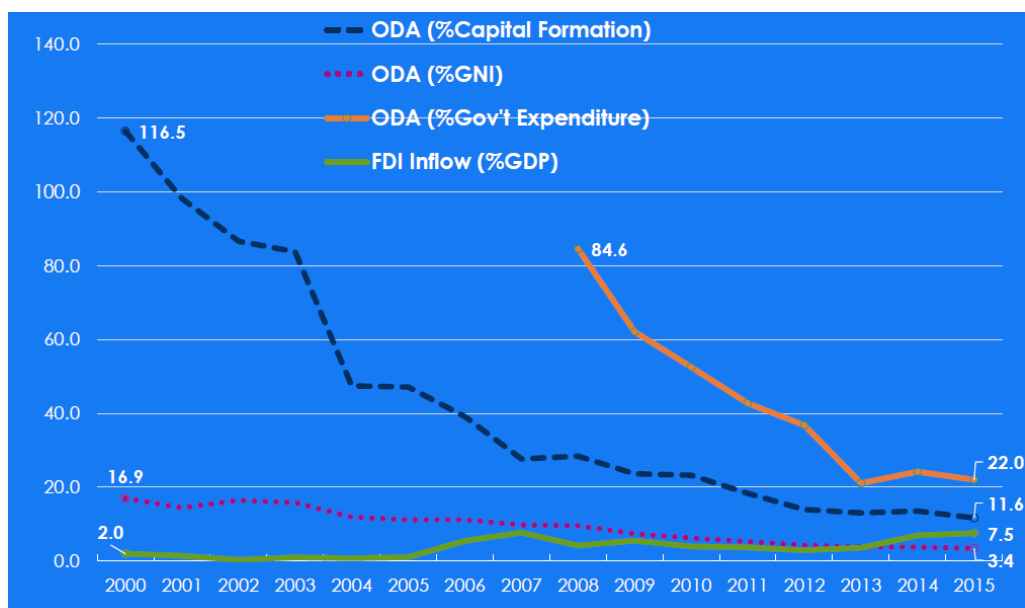
The CDP's *ex ante* analysis show limited likely impacts of gradual withdrawal of ISMs post-graduation given its structure and concentration of exports, and the already declining trend in ODA (figure 6).

**Figure 5: Lao PDR's prospect of meeting HAI threshold**



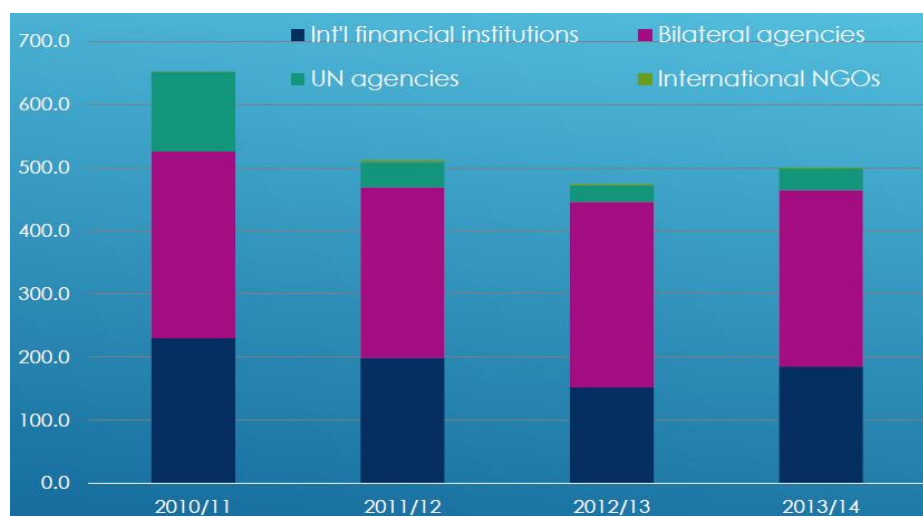
Source: World Bank, 2017c.

**Figure 6a: The relative importance of ODA for Lao PDR has been rapidly declining**



Source: World Development Indicators.

**Figure 6b: ODA to Lao PDR from all sources has been trending downward (US\$ million)**



Source: UNDP, 2017.

Notes: Of US\$2,369.9 million, ODA to Lao PDR disbursed over 2010-2011 and 2014-2015 (up to May 2015 only): 54.5% bilateral; 34.7% multilateral; 10% UN agencies; and < 1% NGOs.

Most Lao PDR's exports do not rely on LDC preferential treatment. Its exports are dominated by mineral products and electricity, and the main destinations of its exports are neighbouring countries. More than 80% of Lao PDR's exports went to Thailand, China, and Viet Nam, and the country's exports to China has been growing rapidly. None of these rely on LDC preferential treatment. Garments, which benefitted from GSP, mainly to EU market, has been shrinking in importance, down from nearly 40% in total exports in early 2000s to 4.2% by 2016.

However, the International Trade Centre (ITC) estimates that Lao PDR could face a trade loss of US\$102 million with its envisaged graduation from the status of LDC in 2024, corresponding to 1.2% of its projected exports in that same year, based on projections of trade and tariffs, and accounting for a geographical shift of exports that will ease Lao PDR's exposure to tariff changes by the time of graduation. At the same time, the ITC analysis also suggests that Lao PDR's export products affected by the tariff increase have an unrealized trade potential worth US\$29

million in the same group of markets and US\$776 million in other markets. Therefore, the ITC suggests three strategies for Lao exporters to mitigate the trade losses: first, attaining the EU's GSP+ rather than the standard GSP could reduce the trade loss by 70%. Second, targeted trade promotion to remove market frictions will help sectors that currently do not exhaust their export potential in certain markets – this is the case for rice exports to the EU and food product exports to Japan. Third, export diversification could help focusing resources on alternative products and markets that offer room to increase exports and thereby compensate the graduation-induced losses (Decreux and Spies, 2020).

### 2.3 MYANMAR: PANDEMIC AND POLITICAL UNCERTAINTY MAY DERAIL GRADUATION

Myanmar was classified as a LDC in 1987. The country began preparation to graduate as part of its reform process initiated in 2011, and met one criterion, HAI, at the 2015 review. It

met HAI and EVI criteria at the 2108 review. Therefore, Myanmar is likely to be recommended to graduate from its LDCs status by the CDP if it meets the criteria for the second time at the 2021 graduation review.

However, the COVID-19 pandemic and political uncertainty following recent developments may derail the graduation progress. Myanmar's economy continues to suffer from the COVID-19 pandemic, with growth estimated to have slowed sharply to 1.7% in FY19/20, down from 6.8% in the previous year.<sup>8</sup> Myanmar may face sanctions from the US and EU if the country does not restore democracy sooner. This may rattle foreign investors, whose interest in Myanmar has already cooled due to the Rohingya issue, and put at risk billions of dollars in investments.<sup>9</sup>

## Challenges

The findings of the CDP's ex-ante assessment are summarized below:

### Trade

- most current exports will not be affected; however, graduation will affect tariffs (and in some cases rules of origin) applied to exports to some countries, particularly those in the EU;
- market access of services exports is not likely to be affected significantly;
- efforts to diversify exports, particularly of manufactured goods and agro-processing products to the EU and other markets that provide preferential market access to LDCs may be affected;
- will not affect Myanmar's special and differential (S&D) treatment under ASEAN

Free Trade Area;

- will not affect Myanmar's S&D treatment provisions under the WTO agreements;
- access to certain trade-related capacity-building, training and technical assistance mechanisms will be restricted after applicable smooth transition periods; but will continue to be supported by several partners in trade-related capacity-building, training and technical assistance through mechanisms that do not depend on LDC status.

### Development cooperation

- Expected to have only limited impacts on development cooperation, including South-South cooperation and cooperation with regional partners.

### Participation in international organizations and processes

- will result in higher mandatory contributions by Myanmar to UN system budgets, including the regular budget, peacekeeping, and the budgets of two of the three agencies that adopt class-based systems of contribution (ITU and WIPO);
- no longer have access to LDC-specific support for travel to attend international meetings;
- no longer benefit from more flexible reporting requirements under the UNFCCC;
- but can request for exceptions and extension.

In short, the loss of ISMs after graduation from LDC status is not expected to have much significant impacts on Myanmar's

8 [www.worldbank.org/en/news/press-release/2020/12/15/myanmars-economy-hit-hard-by-second-wave-of-covid-19-report#:~:text=YANGON%2C%20December%2016%2C%202020%20%E2%80%936.8%20percent%20the%20previ](http://www.worldbank.org/en/news/press-release/2020/12/15/myanmars-economy-hit-hard-by-second-wave-of-covid-19-report#:~:text=YANGON%2C%20December%2016%2C%202020%20%E2%80%936.8%20percent%20the%20previ)

ous%20year (accessed 17 February 2021).

9 [www.bbc.com/news/business-55897836](http://www.bbc.com/news/business-55897836) (accessed 17 February 2021).

development trajectory, according to the CDP's ex-ante assessment.

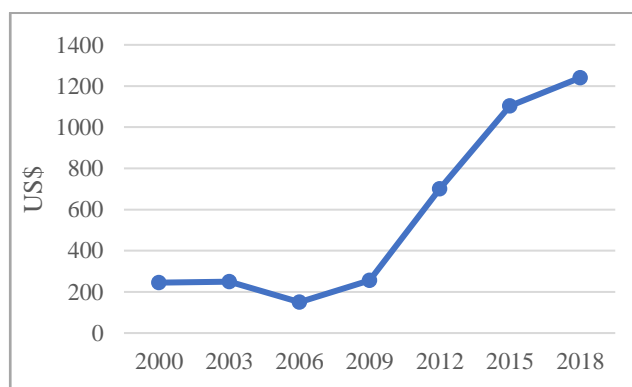
## 2.4 SUMMING UP: ON TRACK TO GRADUATION, BUT UNCERTAINTY REMAINS, STATE'S PARAMOUNT ROLE

CLM are well on track to graduate out of their LDC status given the pace of progress in graduation criteria. The removal of IMS is not expected to impact their development trajectory significantly as the CDP *ex-ante* show. However, other studies do report likely

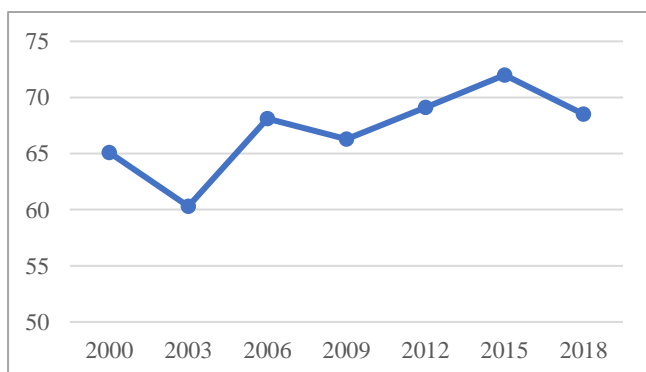
adverse impacts, especially from the loss of trade preference. For example, according to one WTO (2020) estimate, graduating LDCs are expected to face a trade-weighted average tariff increase of 4.2 percentage points in preference-granting markets (difference between LDC duty rate and the next best alternative rate). This is likely to cause reductions of market access for Lao PDR by 1.45% and Myanmar by 3.83%. Additionally, the on-going pandemic and escalating US-China trade tension may change the circumstance and derail their smooth graduation prospect.

**Figure 7: Myanmar's graduation progress**

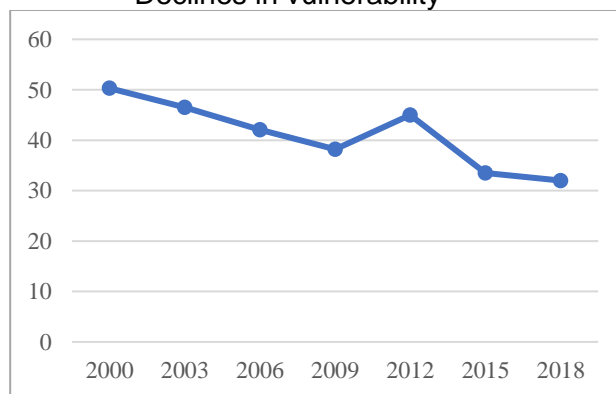
Rapid growth closes the GNI per capita threshold gap



Fluctuating improvements in HAI



Declines in vulnerability



Source: Paddison, 2018.

### Box 3: Resources for graduation and a smooth transition out of the LDC category

**Gradjet:** an online tool managed by the Secretariat of the CDP that helps government officials navigate the path to graduation and also contains background information, expert views, contacts, and information on the experiences of countries that have graduated or are in the process of graduating. Available from [www.gradjet.org](http://www.gradjet.org).

**LDCs at a glance:** fact sheets on countries that have graduated or are in the process of graduating. Available from [www.un.org/development/desa/dpad/least-developed-country-category/ldcs-at-a-glance.html](http://www.un.org/development/desa/dpad/least-developed-country-category/ldcs-at-a-glance.html).

**LDC Portal** (Support Measures Portal for Least Developed Countries): an online portal maintained by the secretariat of the CDP which contains information on LDC-specific international support measures, including any smooth transition mechanisms. The portal was created to improve the capacity of LDCs to access and benefit from the international support measures adopted by the international development community. Available from [www.un.org/ldcportal/](http://www.un.org/ldcportal/).

Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries and Small Island Developing States (UN-OHRLLS), “A

Guide to Least Developed Country Graduation”. Available from [http://unohrlls.org/custom-content/uploads/2017/11/UN\\_Graduation\\_Booklet\\_2017\\_LowRes.pdf](http://unohrlls.org/custom-content/uploads/2017/11/UN_Graduation_Booklet_2017_LowRes.pdf).

United Nations Conference on Trade and Development (UNCTAD), *The Least Developed Countries Report 2016 – The path to graduation and beyond: making the most of the process*, addresses graduation and smooth transition, including the experience of graduates. Available from [http://unctad.org/en/PublicationsLibrary/ldc2016\\_en.pdf](http://unctad.org/en/PublicationsLibrary/ldc2016_en.pdf).

Committee for Development Policy, “Strengthening smooth transition from the least developed country category”, *CDP Background Paper No. 14*, ST/ESA/2012/CDP/14 (February 2012). Available from [www.un.org/development/desa/dpad/publication/cdp-background-paper-no-14/](http://www.un.org/development/desa/dpad/publication/cdp-background-paper-no-14/).

**General Assembly Resolutions 59/209** of 20 December 2004 (Smooth transition strategy for countries graduating from the list of least developed countries) and **Resolution 67/221** of 21 December 2012 (Smooth transition for countries graduating from the list of least developed countries).

LDC graduation cannot be a *be-all and end-all* goal. Graduation is just a milestone, *albeit* an important one, in a country’s sustainable development journey. Thus, the concept of smooth transition emphasizes a graduating country’s ability to maintain its sustainable development trajectory. This means a country must continue to diversify and build new comparative advantages in order to reduce its vulnerability so that its development gains are

protected even after reaching its graduation milestone. This paramount challenge cannot be left to markets alone, and the State has to play not only a guiding or enabling role, but also entrepreneurial role.

The State may use different instruments to perform its roles. Evans (1995) distinguishes four different types of state interventions used to promote new productive capacity:

1. *custodial* – interventions involving the creation and enforcement of rules and regulations;
2. *midwifery* – to induce domestic entrepreneurs to make investments in target sectors using a variety of policies that reduce the risk and uncertainty of such investments; and
3. *husbandry* – to support firms in strategic sectors and to assure their consolidation and technological growth.
4. *direct participation* – involvement in productive activities, usually through the creation of public enterprises;

Improving productive capacities and creating new comparative advantages also require availability of quality infrastructure and skilled labour force. The role of the state in this regard is very important and has been

acknowledged by mainstream economists (see, for example, World Bank, 1997). Many empirical studies support the idea that public investment in infrastructure, health and education has a “crowding-in effect” and stimulates private capital via complementarities (Shapiro and Taylor, 1990). Improving the skills of workers is required to avoid bottlenecks in the development of new productive areas.

Therefore, building productive capacity and creating new comparative advantages is inextricably linked to State capabilities. While Section 4 analyses CLM’s productive capacity and diversification challenges, Section 5 discusses how development partners, including ESCAP, can assist CLM in addressing key challenges in building State capabilities.

# 3. COVID-19 and US-China trade tensions challenges

The LDC graduating countries are confronting new challenges not faced by previously graduated countries. The global reach of the on-going pandemic and uncertainty surrounding are having serious health and economic consequences. The world GDP is expected to fall sharply due to COVID-19 health crisis, and the subsequent global disruptions to aggregate supply and aggregate demand. According to the World Bank's latest (January 2021) estimates, the global economy has contracted in 2020 by -4.3%; the US economy by -3.6%; the EU by -7.4% and Japan by -5.3%; the Chinese economy slowed from 6.1% growth in 2019 to 2.0% in 2021.<sup>10</sup>

However, sectoral impacts vary significantly, some, for example, the digital sector benefiting, and the tourism sector taking a hard hit. Prospects for recovery will depend on various factors, including the likelihood of new virus outbreaks, finding and administering effective and affordable vaccines, the impact on consumer and business confidence, and the extent to which government aid for jobs and businesses can boost demand.

Besides direct impacts due to lockdowns and other containment measures, developing countries are affected through declines in remittances, tourisms and export demands. Relief and recovery measures have added to their debt burden which was already too high prior to the pandemic. Thus, their fiscal space

is severely curtailed, limiting their capacity to address impediments to development and structural transformation.

The pandemic has also increased the volatility of capital flows, with net capital outflows. Flight to safety pushed the yield of the benchmark 10-year US Treasury below 1% for the first time ever on March 4<sup>th</sup> to a low of 0.68 on 2<sup>nd</sup> June 2, while spreads on higher-risk debt have widened (IMF, 2020a). Markets remain highly volatile, with the VIX volatility index tripling in March.<sup>11</sup> While this is an important transmission channel for many economies, CLM are relatively insulated due to their shallow capital markets. However, they are likely to see significant changes in foreign direct investment (FDI) flows.

The escalating US-China trade tensions have added another layer of challenge to global trade which never recovered the shock of the GFC, exacerbated by the rise in protectionism. An analysis at the WTO, early 2020, has revealed that the US-China trade conflict has led to a sizeable reduction in trade between the US and China in 2019 and accompanied considerable trade diversion to imports from other regions, leading to a reorganization of value chains in East Asia (Bekkers and Schroeter, 2020). One study finds that the biggest losers are East Asian countries with aggregate income loss of about -0.43% (Freund and others, 2020). The biggest impact of the trade conflict is provoked

10 See, Global Economic Prospects 2021, available at [www.worldbank.org/en/publication/global-economic-prospects](http://www.worldbank.org/en/publication/global-economic-prospects) (accessed 17 February 2021).

11 See [www.bloomberg.com/news/articles/2020-03-09/traders-are-wagering-the-vix-hits-triple-digits-on-tuesday](http://www.bloomberg.com/news/articles/2020-03-09/traders-are-wagering-the-vix-hits-triple-digits-on-tuesday) (accessed 08 February 2020).

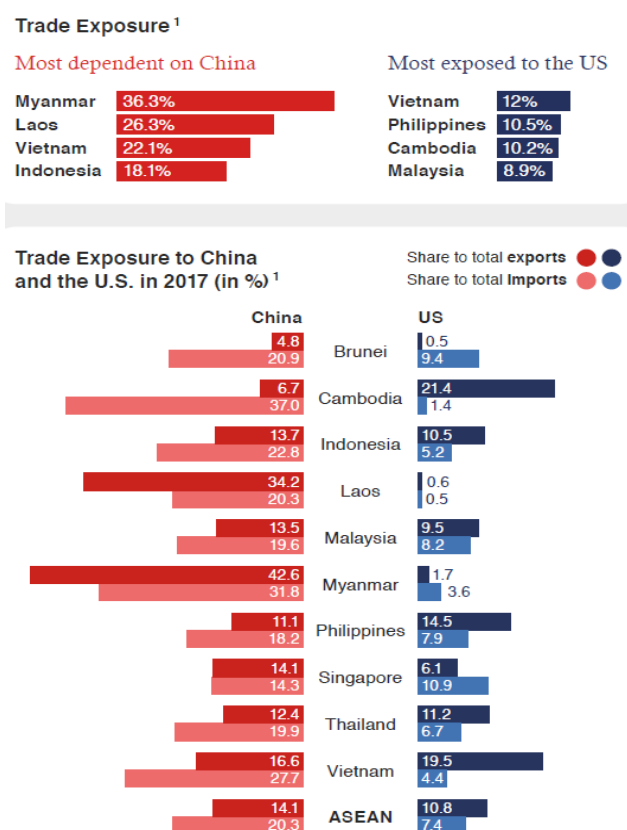
by rising uncertainty about trade policy. A study at the World Bank in late 2019 has found that in the absence of the “trade war” Asian stocks would have experienced half the decline, or they would have registered gains (de Nicola, Kessler and Nguyen, 2019).

However, the process of production relocations away from China started long before the escalation of US-China trade tensions, partly reflecting rising labour costs in China. This process has accelerated since 2018 owing to the US-China trade dispute, and the COVID-19 pandemic will further hasten this process as nations and multinational corporations (MNCs) place security and resilience ahead of efficiency for risk mitigation (Nomura, 2020). Nonetheless, the process of relocations away from China will result in both winners and losers. The likely winners among the Asian emerging markets are those with a large domestic market and better business environment, from production relocation. The losers will be those that supply intermediate goods to China as

part of the GVC that ends in China. Countries like CLM may not benefit immediately from the relocation of production by MNCs from China as they lack necessary infrastructure and legal framework.

While the slowing of the global economy and trade will impact export dependent developing countries in general, countries with exposure to China are likely to be more vulnerable. It is estimated that the US-China trade war could wipe out about 0.2-0.3% of ASEAN’s GDP (ISEAS, 2019). The direct impacts of the trade war on CLM will depend on their exposure to US and China (figure 8). Among the ASEAN countries, Myanmar has the highest exposure to China, followed by Lao PDR with 36.3% and 26.3% of their respective total trade. Myanmar and Lao PDR also receive substantial investment from China, especially in its infrastructure and energy sectors under China’s BRI. Cambodia is almost equally exposed to both the US and China, with 37% of its total imports coming from China and 21.4% of its total exports going to the US.

Figure 8: ASEAN’s exposure to China and the US

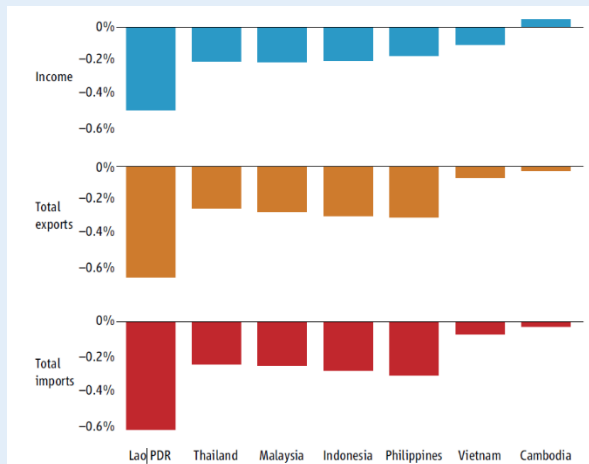


Source: ISEAS, 2019.

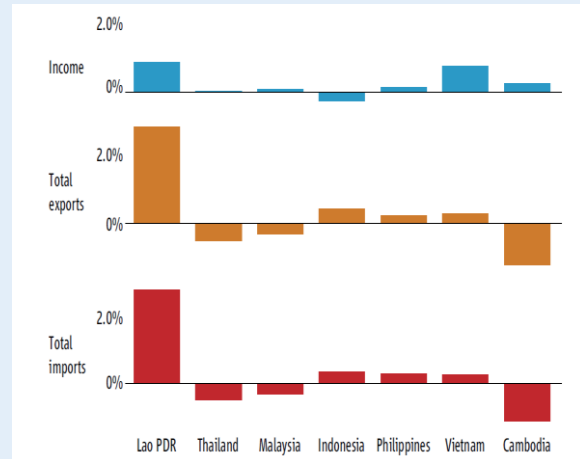


## Box 4: Impacts of US-China trade tensions on East Asia

“Managed trade” scenario as compared to the “trade policy status quo” scenario for East Asian developing countries (%)



“Multilateral liberalization” scenario compared to the “managed trade” scenario for East Asian developing countries (%)



If China achieves the import targets through an MFN reduction of tariffs and nontariff barriers, there are two contrasting effects on East Asian developing countries. On the one hand, discrimination that favours US producers is reduced. On the other hand, the preferential access that these countries have in the Chinese market thanks to the ASEAN-China trade agreements is in part eroded. Still, this exercise shows that three countries (Lao PDR, Vietnam, and the Philippines) would have larger exports (between 2.9% for Lao PDR and 0.25% of the Philippines) and larger real income (between 0.9% for Lao

PDR and 0.1% for the Philippines) under the multilateral liberalization relative to managed trade. Cambodia, Thailand, and Malaysia would see their export contract, but still, achieve higher real income under multilateral liberalization due to positive terms of trade effect.

Exports of goods and services account for about 34% of GDP, significantly less than neighbours such as Vietnam and Cambodia, World Bank data show. This means the nation is relatively shielded from the global trade slowdown triggered by the US-China spat.

Source: World Bank, 2020e

### 3.1 COVID-19 REVERSES PROGRESS IN POVERTY REDUCTION

#### Cambodia: Economic contraction pushing poverty level up

The government expects that the economy will contract by 1.9% in 2020 due to the pandemic. The World Bank has estimated that Cambodia’s economy is likely to shrink

between 1% and 2.9% in 2020, making it the worst performance in a quarter of a century (World Bank, 2020a). According to the World Bank, the coronavirus crisis will put 1.76 million jobs at risk as a result of losses in tourism, manufacturing and construction, which together account for more than 70% of growth and 40% of employment. According to the ADB, the current crisis could push an

additional 1.3 million Cambodians or 8% of the population into poverty.<sup>12</sup>

The negative economic impacts of the pandemic are recorded across tourism, construction and business services, with limited impact on insurance, financial, telecoms and computer-related services. Cambodia has experienced a staggering decline in tourist numbers, with a 90% drop in air passenger volume in April and a 99.5% decline in monthly revenue from ticket sales to the famed Angkor Wat.<sup>13</sup> Within manufacturing, particularly hit are garment exports; there is falling demand from retailers in Europe and the US coupled with reduced access to inputs from China. The Garment Manufacturing Association in Cambodia reported that, as of 4 May, 180 garment factories suspended operations in Cambodia, with 60 more shutdowns in the pipeline. More than 150,000 workers were temporarily suspended without clear indication on the resumption of work. As mentioned earlier, the withdrawal of Cambodia from the EBA initiative is further affecting Cambodian exports to the EU.

The World Bank (2020a) apprehends that financial sector vulnerabilities, such as high credit concentration, related party lending risks, lack of consolidated cross-border supervision and gaps in implementation of risk-based supervision could exacerbate the COVID-19 shock. The concentration of FDI inflows in a few sectors (e.g., banking, construction and real estate) combined with bank lending primarily in construction and real estate creates an additional source of risk.

The pandemic has also affected government revenue base and foreign exchange reserves.

According to the World Bank, the overall fiscal deficit (including grants) is likely to widen to 9.0% of GDP in 2020, down from a surplus of 0.5% in 2019. The country's foreign exchange reserves are expected to decline to US\$16.8 billion (6.8 months of prospective imports) in 2020, down from US\$18.7 billion (7.6 months of prospective imports).

### **Lao PDR: Slowest growth in three decades impacting poverty**

The COVID-19-induced global economic downturn has affected Lao PDR through multiple channels including tourism, trade, investment, commodity prices, exchange rates, and lower remittances. The World Bank (2020c) has presented a range of growth estimates for 2020 under two scenarios regarding (i) the duration and depth of outbreaks and lockdown in Lao PDR, (ii) the magnitude and effectiveness of economic relief policies, and (iii) the depth and duration of the global downturn. In the more favourable scenario, the Lao PDR's economy is expected to grow at 1%, while in the downside scenario, the economy could contract by 1.8% in 2020. In either case, this will be the slowest growth rate since 1990.

The COVID-19 crisis has affected mostly labour-intensive sectors and those linked to global and regional value chains. Tourism-related sectors, including transport, food, and accommodation services and the retail trade – which account for 11% of total employment and 22% of employment in urban areas – have been hard hit, causing widespread job losses. Between 96,000 and 214,000 additional people are projected to fall into poverty as a result of the pandemic as within the first few months of the outbreak more than

12 [www.dw.com/en/cambodia-coronavirus-poverty/a-54552715](http://www.dw.com/en/cambodia-coronavirus-poverty/a-54552715) (accessed 29 September 2020).

13 [www.eastasiaforum.org/2020/06/12/cambodias-covid-19-success-and-economic-challenges/](http://www.eastasiaforum.org/2020/06/12/cambodias-covid-19-success-and-economic-challenges/) (accessed 6 October 2020).

100,000 migrant workers returned, resulting in an estimated reduction of up to US\$125 million in remittances.

Investment is also expected to moderate. SMEs are particularly vulnerable in the current crisis. Supply chain disruptions have caused delays in delivering inputs to manufacturing industries and the construction sector. Export-oriented industries have also been significantly hit by lower external demand.

The COVID-19 crisis has exacerbated considerable pre-existing financial sector vulnerabilities. For example, the capital adequacy ratio significantly declined – from 18% in 2018 to 12% in 2019. The significant slowdown in economic activities due to the COVID-19 impact is likely to result in a higher level of non-performing loans, which in turn would further weaken banks' balance sheets and constrain credit growth.

The COVID-19 shock has further aggravated the long-standing structural vulnerabilities in the economy. The country has a legacy of weak macroeconomic management, resulting in limited fiscal and foreign currency buffers even before the global pandemic. The level of international reserves is at a multi-year low. The gap between the official and parallel market exchange rates has increased and is higher than historical norms. Despite lower public expenditure, weak revenue collection has resulted in an elevated fiscal deficit. The fiscal deficit is expected to rise to 7.5 to 8.8% of GDP and public debt to 65 to 68% of GDP in 2020, leaving the country at high risk of debt distress. Limited fiscal space and the mounting pressure of deficit financing and debt servicing will limit the ability of the government to stimulate the economy, exacerbating the downturn.

### Myanmar: Economic contraction pushing poor households to deeper poverty

The COVID-19 pandemic has interrupted Myanmar's economy as every other economy in the world. The World Bank (2020d) has projected a decline in GDP growth to 0.5% in fiscal year 2019/20 as the global economy contracts in 2020. The impacts of the crisis are transmitted through external and domestic channels and are not evenly distributed across sectors: tourism-related services and transportation activities are highly exposed to the pandemic, while the agriculture and ICT sectors have proven relatively resilient. In fact, there has been an increase in the ICT sector activity driven by e-commerce. Precautionary behaviour and travel bans continue to negatively impact wholesale and retail trade, tourism-related services, and transportation; and the service sector (which represents 42% of the economy) growth rate is expected to fall. Industrial production (36% of the economy) is also expected to contract by 0.2% in FY2019/20 as lockdown measures restrict access to labour, the closure of the overland border with China disrupts the supply of industrial inputs. The sector is also affected due to reduced domestic and international consumer demand.

Slowing economic growth will reverse Myanmar's recent progress in poverty reduction while deepening the poverty of households that are already poor. Urban residents are highly exposed to both the health risks and economic effects of COVID-19. Declines in remittances directly reduced household income. Many poor households are especially exposed to the effects of the COVID-19 crisis due to job insecurity, employment in the informal sector, and low savings.

Increased government expenditures for emergency COVID response and falling revenue due to reduced economic activities are having adverse impacts on government's fiscal capacity to pursue its development programmes. The World Bank expects budget deficit to rise from about 4% in FY2018/19 to 7-8% in FY2019/20. Sharp slowdown in exports could widen the current account deficit to 4.5% of GDP according to the World Bank's baseline scenario, putting pressure on foreign exchange reserves and the kyat. While falls in oil prices are good news for Myanmar – a net oil importer, the decline in prices of natural gas – Myanmar's second largest export product – has significant implications for Myanmar's trade balance. Additionally, the lower gas prices are expected to lower fiscal revenues from gas and oil by FY2020/21 to about half the levels before the crisis.

### 3.2 TRADE TENSIONS' UNCERTAIN IMPACTS

#### Cambodia: May benefit in the short run

Cambodia may benefit from the trade war in the short run, but suffer in the long run.<sup>14</sup> Struggling to export its products to the American market due to high tariff imposition, China will be looking for a new production base. Cambodia will be an alternative destination for Chinese investors due to a good relationship between the two nations. Thus, more Chinese investment will be flowing into the Kingdom, raising the competitive advantage and economic growth of Cambodia. This would consequently increase the export volume of Cambodia to

the US.

The Chinese exporters may also try to re-export to the US from Cambodia. Since the US imposed punitive tariffs on China in 2018, China's exports to Cambodia have steadily increased. In the first half of 2019 shipments rose 30.7% year on year to US\$3.77 billion, according to China's General Administration of Customs.<sup>15</sup>

However, this could soon change for Cambodia. In June 2019, the US inspected and fined a number of companies based in the Sihanoukville Special Economic Zone (SSEZ) for evading tariffs by re-routing goods through Cambodia.<sup>16</sup> Also recall that the US imposed high duties on Vietnamese steel in 2017, due to its majority makeup of Chinese materials. The US believed that China was exporting its products through Vietnam. This could potentially be a similar case for Cambodia, if the US deems that Cambodian products consist of mostly Chinese materials – specifically garment products. The US-China trade tensions may also jeopardise the exploratory discussions on a Bilateral Investment Treaty (BIT) between the US and Cambodia and it may not come to fruition.

China has not only become Cambodia's significant trading partner, it is also the major source of FDI with about 75% of all approved FDI flows coming from China. China is also Cambodia's major bilateral donor, importer of rice and the largest origin of foreign tourists. Therefore, a sharp slowdown in the Chinese economy could dampen Cambodia's growth prospects.

14 [www.khmertimeskh.com/628070/the-us-china-trade-war-impact-on-cambodia/](http://www.khmertimeskh.com/628070/the-us-china-trade-war-impact-on-cambodia/) (accessed 21 September 2020).

15 [www.scmp.com/news/china/diplomacy/article/3027242/are-chinese-companies-using-cambodia-evade-us-](http://www.scmp.com/news/china/diplomacy/article/3027242/are-chinese-companies-using-cambodia-evade-us-tariffs)

[tariffs](#) (accessed 21 September 2020).

16 [www.project-syndicate.org/commentary/trump-trade-war-china-has-cambodia-backdoor-by-sam-rainsy-2019-07?barrier=accesspaylog](http://www.project-syndicate.org/commentary/trump-trade-war-china-has-cambodia-backdoor-by-sam-rainsy-2019-07?barrier=accesspaylog) (accessed on 21 September 2020).

On the other hand, the US-China trade agreement is likely to benefit Cambodia, according to the World Bank (2020e). Its CGE modelling shows that Cambodia's real income will increase by 0.03 due to positive terms of trade effect.

### Lao PDR: May experience largest real income loss

With exports of goods and services accounting for about 34% of GDP, Lao PDR – significantly less than neighbours such as Vietnam and Cambodia – it is relatively shielded from the global trade slowdown triggered by the US-China spat. Chinese FDI has climbed since the trade war began as firms seek alternative manufacturing sites to avoid US tariffs.<sup>17</sup> The ISEAS analysis shows that Lao PDR's exports of manufactures product to the US may increase (ISEAS, 2019). The ADB analysis finds that Lao PDR is likely to gain 0.4% of GDP from the US-China trade tensions because it produces and export goods that compete with products from economies affected by the tariffs (Abiad and others, 2018).

On the other hand, the World Bank analysis finds that Lao PDR would experience the largest losses in terms of real income (– 0.49%) because of trade diversion away from China, while Cambodia is the only economy in East Asia that is positively affected by the China-U.S. first phase agreement with a real income increase by 0.03 due to positive terms of trade effect (World Bank, 2020e). China

being the country's largest trading partner and the main source of FDI, slowdowns in the Chinese economy due to the trade war can have significant impact on Lao PDR.

### Myanmar: Faces heightened uncertainty

As mentioned earlier, Myanmar has the highest exposure among ASEAN countries with 36.3% of its total trade with China. Myanmar also receives substantial investment from China, especially in its infrastructure and energy sector, especially under China's BRI. The Chinese influence in Myanmar economy is 12 times bigger than Americans (Teimouri and Raeissadat, 2019). Therefore, economic slowdowns in China due to trade tensions are likely to have spill over impacts on Myanmar. In fact, Myanmar's finance minister has warned about the likely adverse impact on the economy in late 2019.<sup>18</sup>

On the other hand, Myanmar can also gain as China and other countries may strategically decide to shift some of their manufacturing from China to Myanmar to avoid US tariffs.<sup>19</sup> China has already signed an agreement with Myanmar to import Myanmar cattle as it looks to replace imports from the US (Teimouri and Raeissadat, 2019).<sup>20</sup> Myanmar also expects to attract more investment as manufacturers seeking to relocate production from China to skirt US tariffs encounter capacity constraints in Vietnam.<sup>21</sup> However, this may not materialize much as the country continues to

17 See [www.thestar.com.my/news/regional/2019/11/25/laos-says-its-set-to-benefit-from-the-us-china-trade-war](http://www.thestar.com.my/news/regional/2019/11/25/laos-says-its-set-to-benefit-from-the-us-china-trade-war) (accessed 1 October 2020).

18 See [www.mmtimes.com/news/brace-trade-war-impact-myanmar-finance-minister-warns.html](http://www.mmtimes.com/news/brace-trade-war-impact-myanmar-finance-minister-warns.html) (accessed 14 September 2020).

19 See [www.bangkokpost.com/business/1791874/myanmar-expects-factory-investment-to-jump-on-us-china-tension](http://www.bangkokpost.com/business/1791874/myanmar-expects-factory-investment-to-jump-on-us-china-tension) (accessed 14 September 2020) and

[www.japantimes.co.jp/news/2019/06/27/business/dodge-u-s-trade-war-chinese-exporters-shift-production-myanmar-low-cost-nations/](http://www.japantimes.co.jp/news/2019/06/27/business/dodge-u-s-trade-war-chinese-exporters-shift-production-myanmar-low-cost-nations/) (accessed 14 September 2020).

20 Also see <https://opendevelopmentmekong.net/news/in-trade-war-with-us-china-may-import-myanmar-cattle/> (accessed 14 September 2020).

21 See [www.bangkokpost.com/business/1791874/myanmar-expects-factory-investment-to-jump-on-us-china-tension](http://www.bangkokpost.com/business/1791874/myanmar-expects-factory-investment-to-jump-on-us-china-tension) (accessed 07 October 2020).

face traditional obstacles such as insufficient supplies of electricity and industrial land.

Myanmar also risks being caught up in the geopolitical rivalry between the US and China, especially when the US has taken a more assertive stance against Myanmar on the Rohingya issue. It may also face steep sanctions from the US and EU if the democratically elected government is not re-installed. The US has also warned Myanmar about possible debt trap from China’s BRI projects in the country.<sup>22</sup>

### 3.3 SUMMING UP: COVID-19 AND TRADE TENSIONS RISKING DEVELOPMENT PROGRESS

Two major global turbulences – the COVID-19 pandemic and the US-China trade tensions – are risking CLM’s development progress, including their prospects for graduation from the LDC status, as the world economy is projected to fall in a deep recession in 2020. Assessing their actual impacts depends on various factors, compounded by uncertainty, such as availability of an effective and affordable vaccine or the approach of the new US administration towards China and

multilateral trade (e.g. WTO). Nonetheless, we can use a simple measure – such as the gap in GDP growth between the rate observed for the “damaged” year and the rate averaged for the three previous years – to reflect on CLM’s vulnerability. This is presented in table 2. The sign and magnitude of the index for a country with regard to a given shock indicates the degree of the country’s vulnerability.

As can be seen, the pandemic has made CLM more vulnerable than the escalating trade tensions. The milder and mixed effect of the US-China trade tensions can be explained as follows. First, the impact of the trade war on the global economy is not as devastating as that of the pandemic. Second, while the trade tension has caused a slowdown in global demand, it has also created positive trade creation impacts, as some multinational and Chinese companies have decided to shift some of their activities out of China. Cambodia is the most vulnerable to these two shocks, followed by Lao PDR. Such vulnerability to growth can be traced to the lack of diversification of their economies and may impact the prospect for LDC graduation. This highlights the need for structural transformation.

**Table 2:** Vulnerability of CLM to the COVID-19 pandemic and the US-China trade war

Country	Annual GDP growth (%)				Vulnerability		
	Pre-trade war 2016-2018 average	2019	Pre-pandemic 2017-2019 average	2020 (forecast)	Trade war	COVID-19	Combined
Cambodia	7.2	7.1	7.2	-1.6	-0.1	-8.8	-8.9
Lao PDR	6.7	5.0	6.1	0.7	-1.7	-5.4	-7.1
Myanmar	6.3	6.8	6.6	1.8	0.5	-4.8	-4.3

Sources: ADB, 2020. Available from <https://data.adb.org/dataset/gdp-growth-asia-and-pacificasiandevlopment-outlook>; and IMF, 2020. Available from [www.imf.org/external/datamapper/NGDP\\_RPCH@WEO/OEMDC/ADVEC/WEOWORLD](http://www.imf.org/external/datamapper/NGDP_RPCH@WEO/OEMDC/ADVEC/WEOWORLD).

22 See <https://economictimes.indiatimes.com/news/defence/ugly-face-us-and-china-trade-barbs-in->

[myanmar-as-south-china-sea-rift-deepens/articleshow/77048372.cms](https://myanmar-as-south-china-sea-rift-deepens/articleshow/77048372.cms) (accessed 07 October 2020); also see Han (2018).

# 4. Economic growth and structural transformation

CLM are the fastest growing Southeast Asian economies, averaging between 6% and 7% annually, in recent years. The growth has also accompanied changes in sectoral GDP shares, with drops in agriculture's share and rises in the shares of industry and services. With rapid growth, there have been significant drops in poverty. However, the growth momentum has stalled, and the changes in sectoral GDP shares did not accompany commensurate declines in sectoral employment shares, indicating low level productivity across their economies. Additionally, the rise in industry's GDP share was not driven by manufacturing, implying failure to inject dynamism into the economy.

Therefore, the growth was not propelled by factors – such as progressive shifts of resources (particularly labour) from low productivity sectors (e.g., agriculture) to higher productivity sectors (e.g., manufacturing) and upgrading of activities within each sector to lift sectoral productivity – seen historically in labour surplus countries, especially in newly industrializing economies in East Asia. This section examines growth and structural change experiences of CLM with a view to identifying impediments to structural transformation.

## 4.1 CAMBODIA: FROM BATTLEFIELD TO MARKET PLACE, LACKS DIVERSIFICATION

### Rapid growth reduces poverty significantly

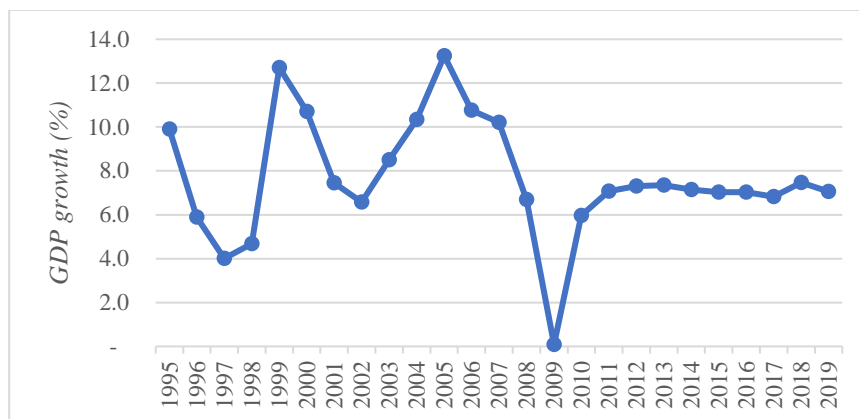
Cambodia has successfully transformed itself “from battlefield to marketplace”.<sup>23</sup> In just 20 years, Cambodia has transited from a post-conflict, aid-dependent, LDC to an economy with the fastest pace of GDP growth in Southeast Asia.

Coming out of years of war and conflict, Cambodia had volatile growth experiences until 2010, particularly during external shocks. For example, Cambodia witnessed sharp economic slowdowns during the 1997 Asian financial crisis (AFC), the early 2000s' dot-com crash and the 2008-9 GFC. But it has done remarkably well in sustaining average annual GDP growth of around 7% since recovering from its worst peacetime growth experience in 2009 (figure 9a). This has seen its per capita GDP rapidly rise from US\$325 in 2000 to US\$1,643 in 2019 – a five-fold increase in only two decades – placing the country into the lower-middle income category of the World Bank. As a result, the poverty rate dropped sharply from 53.2% (national poverty line) in 2004 to 13.5 per in 2014 (figure 9b). Cambodia aspires to attain upper middle-income status by 2030.

23 See <https://knowledge.wharton.upenn.edu/article/>

[cambodia-from-battlefield-to-global-marketplace/](#) (accessed on 14 September 2020).

**Figure 9a:** Cambodia stabilizes growth, but losing momentum



Source: World Development Indicators.

**Figure 9b:** Cambodia witnesses rapid drop in poverty



Source: World Bank, 2014.

However, it seems that Cambodia is unable to break the 7% annual growth ceiling. Moreover, the COVID-19 pandemic has significantly impacted the economy. The World Bank expects the economy to contract by 1.0 to 2.0% in 2020, once again revealing its extreme vulnerability to shocks. The COVID-19 blow comes on the heels of the European Commission’s decision to scale back its EBA preferential trade arrangement with Cambodia due to human rights concerns.

Cambodia’s growth rate hit all time high of 13.3% in 2006 due to rapid expansion of construction activities and the garment sector as well as tourism. But its clothing sector began facing sharper competition after Vietnam’s accession to the WTO in 2007. The scheduled removal in 2009 of safeguard

measures against China clothing exports to the US also affected Cambodia’s clothing sector.

These expose structural weaknesses of Cambodia’s economy, such as low productivity, narrow manufacturing base (or a lack of product diversification), over-reliance on few countries for market access, investment and tourist inflows. Therefore, coming out from the pandemic-induced recession, Cambodia has to focus on the pace and nature of structural transformation as there is a close link between growth and structural transformation.

### Stalled structural transformation

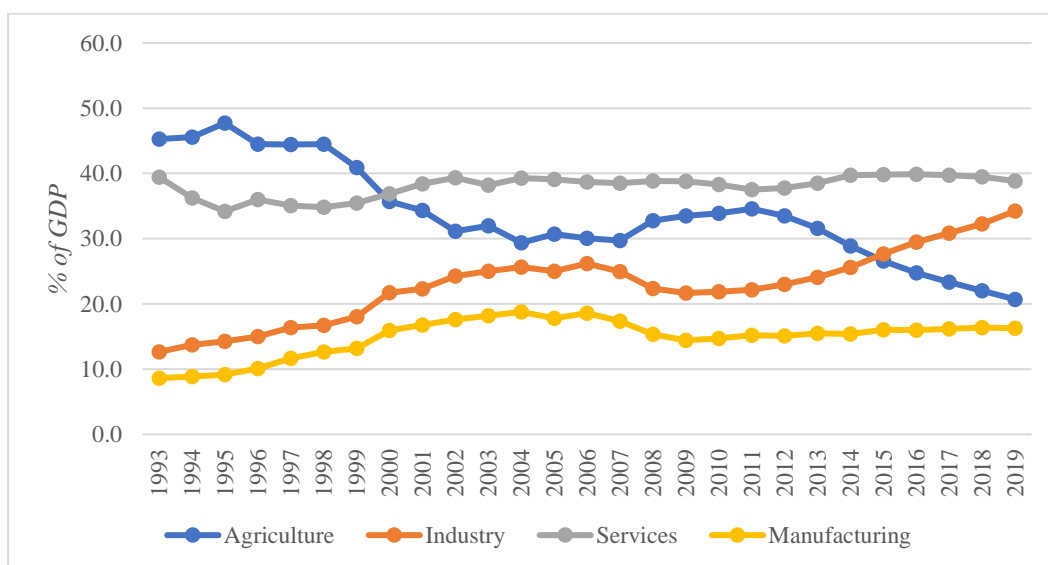
Cambodia’s economic structure has shifted only marginally over the past two decades



(figure 10a). The share of agriculture in GDP declined from around 48% in 1995 to 21% in 2019 but increased during 2008-2011 as Cambodia's manufacturing exports (mainly garments and foot wears) suffered due to economic downturns in its main export markets – the US and the EU in the wake of the GFC, resulting in declines in manufacturing's share.

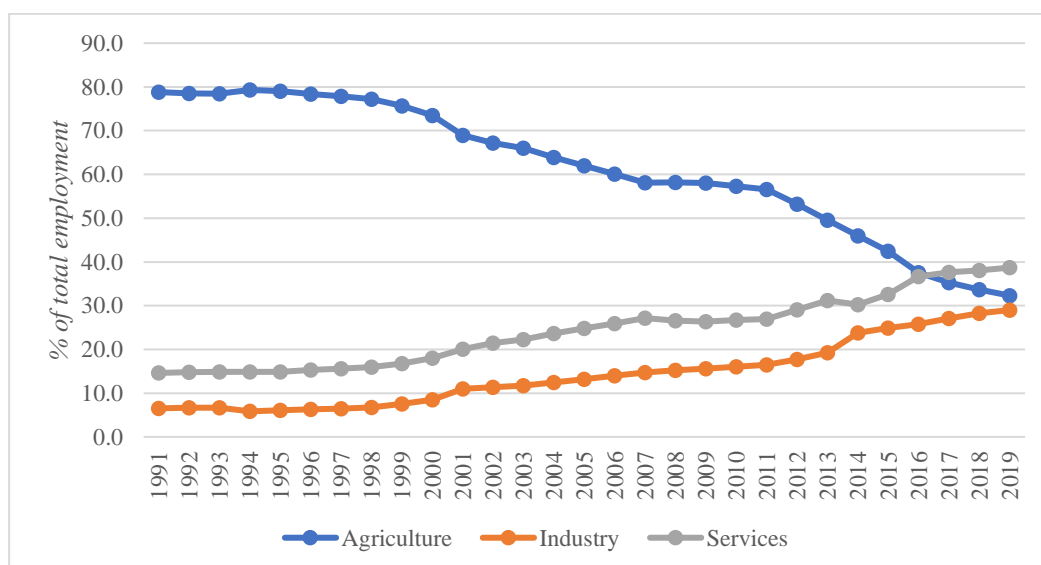
Since 2011 when the share of agriculture started declining again, it was the construction sector that gained, resulting in the rise of industry's share from 22% in 2010 to 34% of GDP in 2019. The share of construction in GDP has doubled, from 6% in 2011 to 13% 2017. The share of most other services sectors has remained constant in the past few decades (with the exception of tourism, which has also increased dramatically).

Figure 10a: Cambodia's manufacturing struggles to grow



Source: World Bank, 2020. Available from <https://data.worldbank.org/indicator/NV.IND.MANF.ZS?locations=MM> (accessed 14 September 2020).

Figure 10b: Cambodia's agricultural employment drops sharply



Source: World Bank, 2020. Available from <https://data.worldbank.org/indicator/NV.IND.MANF.ZS?locations=MM> (accessed 14 September 2020).

The share of the manufacturing sector remained stagnant at around 16% of GDP after first increasing from around 10% in 1995 to about 19% of GDP in 2004, and then declining during 2006-2009. That is, the manufacturing sector could not fully recover from the GFC shock. There was a brief recovery during post-GFC phase (2010-2015), and now it has entered into a phase where manufacturing's share is stagnant (figure 10a).

The share of agricultural employment dropped rapidly from over 70% in 2000 to about 32% in 2019 (figure 10b). However, the share of manufacturing employment did not rise as rapidly as reported in a recent study (about 14% in 2013) (te Velde, 2019). Also there have not been major movements in the skilled share of employment – confining in movements from one type of unskilled to another type of unskilled workers. It also found that while employment in services and clerical workers has increased, there has not been a marked change in professional, technical and managerial occupations. Thus, it seems that there have not been much movements of resources from low- to high-productivity sectors and occupations – one of the main features of dynamic structural transformation.

Furthermore, Cambodia's manufacturing sector remains very narrow (figure 11), dominated by ready-made garments, textiles and foot-wear, accounting for about 75% of the country's total manufacturing output, and 70% of total merchandise exports in 2018 (World Bank, 2019). Garment manufacturing alone constitutes more than half of total manufacturing output, while agricultural processing industries and household goods manufacturing remain low-key.

Moreover, activities within the manufacturing sector, particularly in garments, are not well diversified. For example, although the top five

garment products exported in 1997 represented 57% of total garment exports declined to 36% in 2017, the composition of Cambodia's top garment exports has not changed significantly since then – four of the top five garment products in 2017 were also the top five garment products exported in 2000 (World Bank, 2019).

### Barriers to structural transformation

Cambodia's prospects for diversification and upgrading are challenging because of its over dependence on a few markets. According to the ADB (2014a) Cambodia's export concentration is the third highest in the ASEAN, as measured by the Herfindahl-Hirschmann Index (figure 11). Despite an impressive growth performance in recent decades, Cambodia's exports remained heavily dependent on the EU (39%, 2018) and the US (31%, 2018) markets, making the sector vulnerable to the external environment. While Cambodia has been able to attract a few pioneer producers of bicycles, electrical appliances (e.g., Minibea), and auto parts (e.g., Denso, Sumi Wiring System), it has so far been unable to form industrial clusters in these value chains, and export diversification remains limited. Furthermore, there are signs that FDI into the manufacturing sector has slowed significantly in recent years (World Bank, 2019).

From the demand side the main barriers to the expansion and diversification of manufacturing is the lack of scale due to a small domestic market. Most of the Cambodia's industrial/ manufacturing establishments are SMEs. In 2011 almost 91% of industrial enterprises were micro-establishments and only 1.5% were medium or large accounting for 35% of industrial employment (Chhair and Ung, 2016).

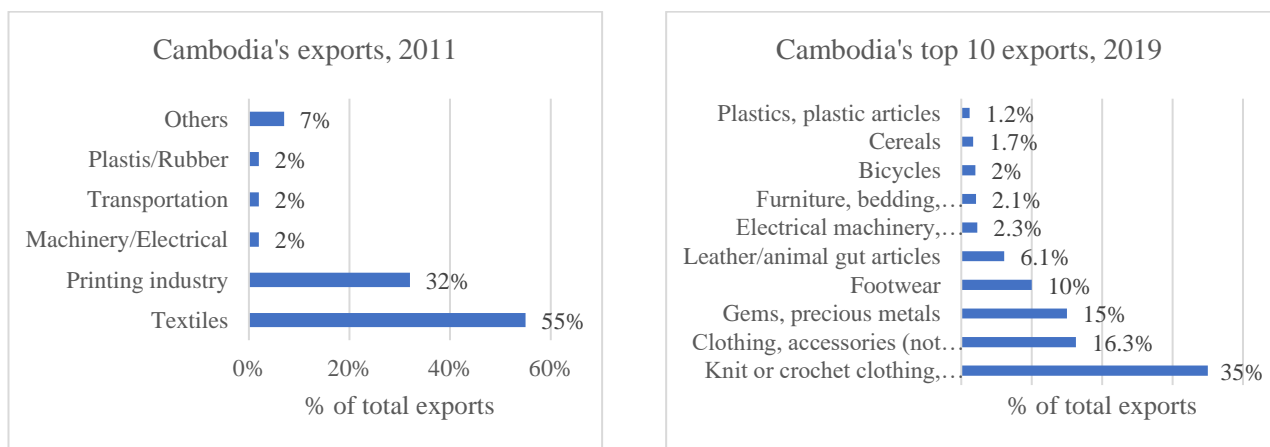
From the supply side the main barrier is low productivity (figure 13). For example,

productivity in the garment and footwear sector, the main manufacturing, grew by a modest 0.16% annually during the period 2007-2014 (World Bank, 2017a). The level of productivity of Cambodian workers is lower by around 20% than that of workers in Vietnam (World Bank, 2019). Key factors causing this are the low level of basic education of workers in Cambodia and the limited quality of general education to produce a skilled labour force, and low enrolment in the Technical and Vocational Education and Training Centres. Low levels of human and physical capital manifest themselves in low productivity.

Cambodia performs below comparator countries on human capital accumulation.

Cambodia's score on the Human Capital Index (HCI) of the World Bank – which demonstrates gaps in health, early childhood nutrition, education, and skills that constrain the productivity of the future labour force – is lower than both comparator countries and countries at a similar level of development. Overall, Cambodia ranks 100<sup>th</sup> out of 157 countries on the HCI, far behind countries such as Vietnam and Thailand. Cambodia has an overall HCI value of 0.49, meaning that—based on the status of health and education outcomes—a child born today will be 49% as productive when she grows up as she could have been if she enjoyed complete education, good health, and a well-nourished childhood.

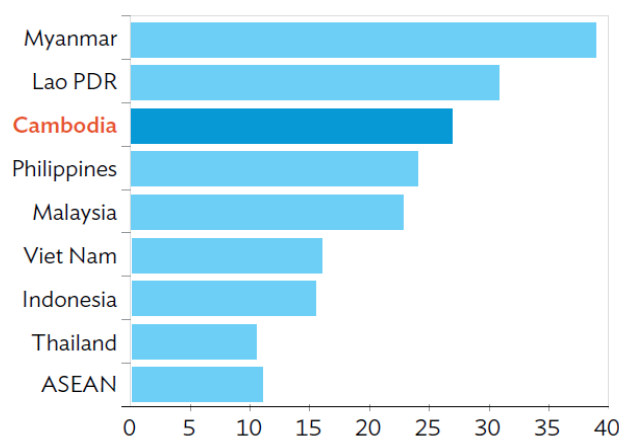
**Figure 11: Composition of Cambodia's exports did not change much**



Sources: OECD, 2013.

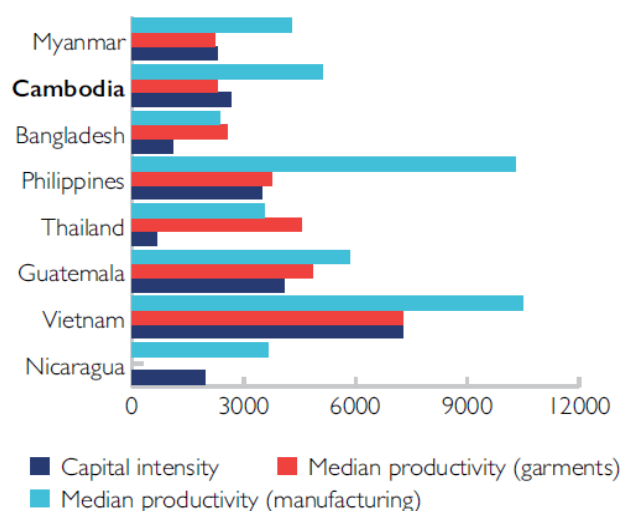
Source: World's Top Exports, 2020. Available at [www.worldstopexports.com/cambodias-top-10-exports/](http://www.worldstopexports.com/cambodias-top-10-exports/).

**Figure 12: Index of Export Concentration in ASEAN Countries, 2013**



Source: ADB, 2014a.

Figure 13: Firm-level productivity and capital intensity in selected countries, 2016



Source: World Bank, 2017b.

The low level of HCI manifests in the lack of sufficient local entrepreneurships. This hinders development of backward linkages with foreign owned firms or FDI dominant sectors, such as garments. Sufficient number of supporting industries for light manufacturing are also missing due to the lack of competitive local entrepreneurs. One study finds that there are no significant backward linkages for the manufacturing sector due to the lack of strong domestic industries to form linkages with multinationals (UNDP, 2014). It also observed negative forward linkage for the overall manufacturing sector as the sector only engages at the last stage in the GVC. There is also a significant technology gap between foreign and domestic firms.

Cambodia also has a lower rate of fixed capital formation compared to its neighbours, such as Thailand and Vietnam during their boom years (World Bank, 2018). Its gross fixed capital formation has been less than 24% of GDP vis-à-vis Thailand's around 32% during 1977-98 and Vietnam's about 30% during 1994-2011. China's gross fixed capital formation was about 35% of GDP during 1978-17 and in the Republic of Korea, it was

around 33% during 1997-2000. The country's low savings rate has been the main contributory factor to its low capital formation, making Cambodia dependent on FDI for its industrialization or structural transformation.

Besides low income, nascent and underdeveloped financial sector limits Cambodia's ability to mobilize domestic savings for investment. Low savings may be attributed to Cambodians' continued reluctance to save in their own currency, a legacy from the civil conflict of the 1970s, when the riel was abolished. Most Cambodians still prefer to keep savings in dollars, even though interest rates for riel deposits are generally double or triple the rates offered on dollar accounts. Converting riels to gold, jewellery, or dollars is still considered a safe way of maintaining value (ADB, 2014a). Opportunities for different institutions such as commercial banks, mutual funds, or investment trusts in which to invest savings are limited. Cambodia also does not yet have a well-functioning capital market or a domestic debt market to facilitate raising of long-term funds, or to provide opportunity for the public to invest their long-term savings. Limited access to finance and financial services continues to be a problem for most

private firms in Cambodia, and particularly constrains the business development of SMEs.

Inadequate investment results in shortages of electricity, poor infrastructure and uncompetitive logistics, which act as significant barriers to industrialization. The electricity costs are more than twice as much in Cambodia than in Vietnam and Thailand despite recent cost reductions. Over 40% of businesses surveyed for the 2012 Investment Climate Assessment cited the quality of electricity supply among their top three business constraints (ADB, 2014a). Transport and warehousing costs are also higher in Cambodia than in Thailand and Vietnam. An inadequate supply of infrastructure is consistently ranked among the top five constraints voiced by business executives (WEF, 2013).

Cambodia's external competitiveness is expected to be eroded if the country maintains the pegged exchange rate policy, if and when further dollar appreciation occurs. In the absence of an independent exchange rate regime, the overvaluation of real effective exchange rate, therefore, calls for policies to improve productivity and competitiveness.

Many countries have sought to reduce the level of dollarization, but drastic attempts to do this have more often than not produced negative results. Current thinking is that a gradual process of de-dollarization is the best strategy. At a broad level, continued macroeconomic stability and a deepening of the financial system will provide the best conditions for raising confidence in the riel.

Higher reserve requirements are now being imposed on foreign currency deposits than on riel deposits. Other specific policies for Cambodia could include (1) devising a deposit insurance scheme with higher coverage on riel deposits, (2) requiring that prices be denominated in the riel, (3) requiring that official accounting and financial reporting use

the riel, (4) making it easier and less costly to clear checks in the riel than the dollar, (5) encouraging the payment of wages in the riel in the private sector and among international organizations (to follow current practice in the public sector), and (6) setting the minimum wage in the riel instead of in the dollar.

## 4.2 LAO PDR: SUCCESSFUL TRANSITION, RAPID POVERTY REDUCTION, RESOURCE DEPENDENCE

### Resource sector-driven growth reduces poverty

Lao PDR is richly endowed with natural resources such as copper, gold, tin, gypsum, gemstones and timber, and these resources, particularly copper, remain the primary driver of GDP and exports. Lao PDR has prioritized the development of an additional resource, electricity, through substantial investment in hydropower facilities, making use of its vast river network and access to the Mekong River Basin as well as its sparsely populated territory. Electricity now accounts for around 30% of exports.

Lao PDR became a member of the World Trade Organization (WTO) in 2013, following the move of neighbouring China (2001), Cambodia (2004) and Viet Nam (2007). In September 2015, it was one of the first WTO members to ratify its Trade Facilitation Agreement, which contains provisions for expediting the movement, release and clearance of goods, and includes co-operation and capacity building components.

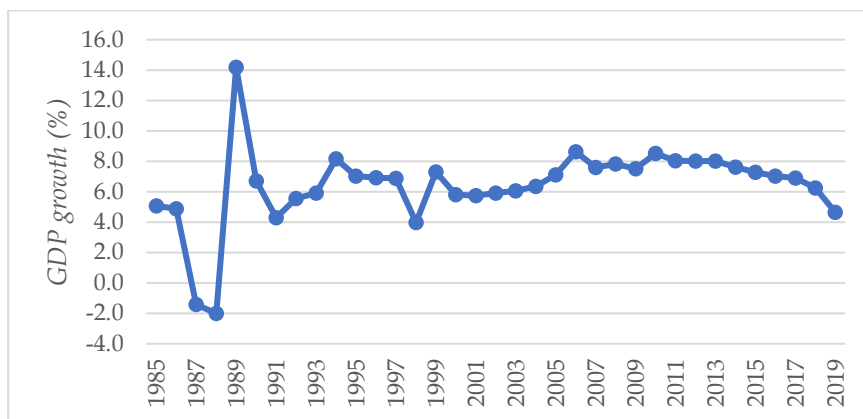
Immediately after making the move to transit to a market-oriented economy in 1986 at the Lao People's Revolutionary Party (LPRP) Fourth Congress, Lao PDR suffered a 'transition' recession, with annual GDP growth falling from around 5% to -1.2% in 1987 and -2.0% in 1988, when GDP per capita fell from US\$642 in 1985 to US\$149 in 1988. However,

unlike the transition economies of East Europe and Central Asia, the Lao PDR economy quickly recovered, with GDP growth shooting to 14% in 1989, but falling in 1990 and 1991 to around 6% and 4% respectively. Lao maintained an annual growth rate of 6.7% during 1992-1997, raising GDP per capita to US\$248 in 1998. Since recovering from the impact of the 1997-98 AFC, when annual GDP growth fell to 4%, the Lao economy grew at an average annual rate of 7% during 2000-2010, peaking at 8.6% in 2006. Much of this growth has been driven by booming copper prices and FDI in hydropower and mining activities. FDI inflows peaked in 2015 at US\$ 1.1 billion (OECD, 2018). The rapid growth resulted more than four-fold rise in GDP per capita to US\$1,140 in 2010. Thus, the poverty rate (national poverty line) declined from

around 40% in 1997 to around 25% in 2010 – from 30% (\$1.90 day poverty line) to around 20% (figure 14b).

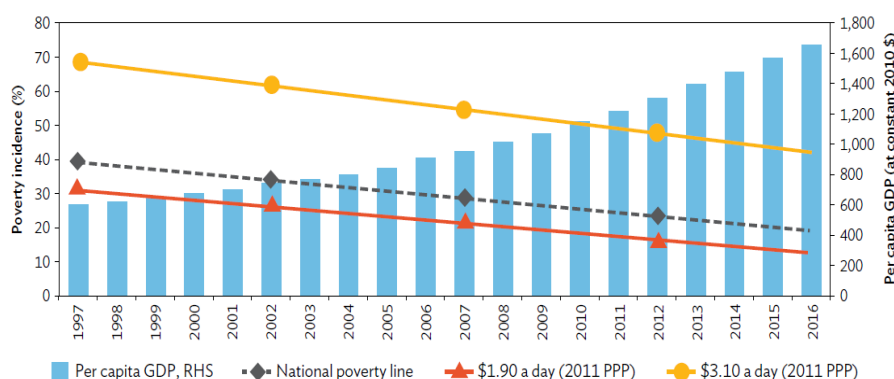
Although GDP per capita continued to rise reaching to US\$2,542 in 2018, the economy seems to be losing steam. The annual growth rate continued to decline since 2011, experiencing its steepest fall from 6.2% in 2018 to 4.7% in 2019 before the COVID-19 pandemic. This also meant slowing of poverty reduction. As noted earlier, the World Bank projects GDP growth to fall between 1 and -1.8% due to the pandemic, mainly because of declines in international tourism, slowdown in Lao PDR’s main trading partners – China and Thailand and adverse impacts on remittance flows (World Bank, 2020b).

Figure 14a: Lao PDR’s economy losing steam



Source: World Development Indicators, 2020.

Figure 14b: Lao PDR’s rapid gains in poverty reduction



GDP = gross domestic product, PPP = purchasing power parity, RHS = right-hand side.  
 Source: World Bank. World Development Indicators. <http://data.worldbank.org/data-catalog/world-development-indicators> (accessed August 2017).

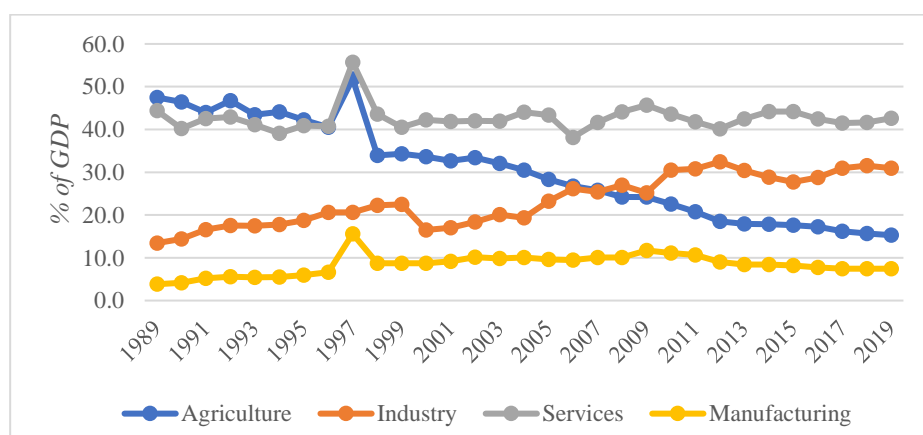
Source: ADB, 2017.

Lao PDR's failure to achieve dynamic structural transformation is the main cause for the economy slowing over the past decade. Growth continues to be driven by the mining and electricity sectors, which account for less than 1% of jobs. On the other hand, growth in the agricultural and manufacturing sectors has been sluggish, and the manufacturing sector's share in GDP remains smaller than the group averages for LDCs and LLDCs. In addition, the concentration of Lao PDR's exports renders the country highly vulnerable to changes in commodities prices.

### Little progress in structural transformation

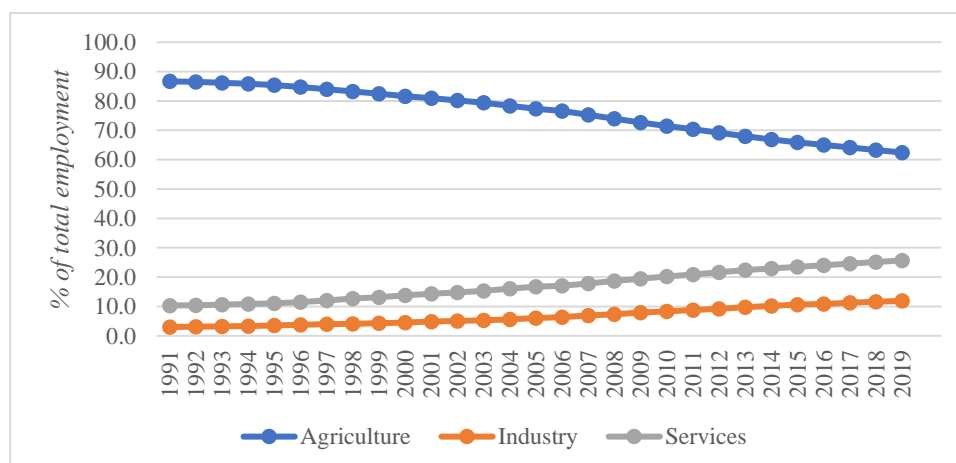
With rapid and sustained growth, the share of agriculture in GDP declined while that of services and industry increased (figure 15a). However, this structural change has had little impact in changing the composition of employment (figure 15b). While the GDP share of agriculture fell from 47% in 1989 to 15% in 2019, agriculture still accounts for over 62% of total employment, implying low productivity in agriculture. The service sector's share hovered around 40%, while its employment share rose from around 10% to about 25%. This, too implies low productivity in the service sector.

Figure 15a: Lao PDR's agriculture shrinks, but manufacturing does not gain



Source: World Development Indicators, 2020.

Figure 15b: Lao PDR is still predominantly an agricultural economy

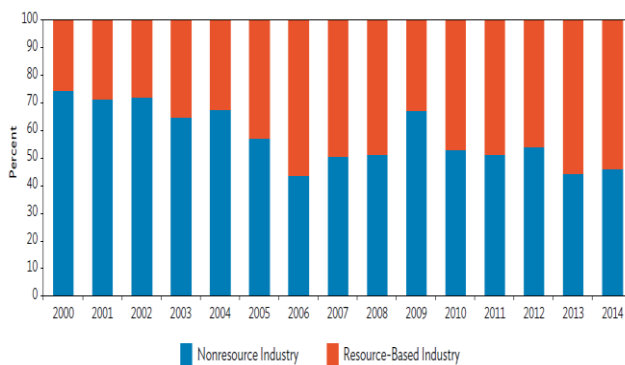


Source: World Development Indicators, 2020.

With about 31% of GDP share, the industry sector remains dominated by resource-based products (mining and electricity) (figure 16a), unable to provide job opportunities. Its share in total employment increased only to 12%. More worryingly, manufacturing's GDP share fell from 11.7% in 2009 to 7.5% in 2019 – the period when the GDP growth fell continuously. That is, the growth in the resource sector was unable to maintain the overall growth momentum. Lao PDR displays the classic case of “Dutch disease” – the share of non-resource industries in industry value added declining from over 70% in 2000 to around 45% in 2019 (figure 16b).

The increasing volumes of FDI inflows into the resource sector and export revenues due to the rise of mining products, especially copper, resulted in the rise in Lao PDR's real effective exchange rate (REER) (figure 17), disadvantaging the non-resource industries, such as manufacturing (ADB, 2017). Empirical evidence suggests that while the nominal effective exchange rate (NEER) in 2000–2015 depreciated by about 11.9%, REER appreciated by 26.5% (ADB, 2017). Econometric studies also confirm that Lao PDR and Myanmar suffer from the Dutch Disease as evidenced by the crowding-out effect of resource production on manufacturing activity (Taguchi and Khinsamone, 2018).

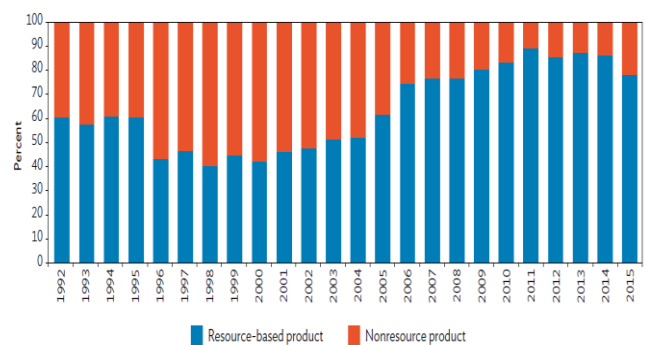
**Figure 16a:** Resource-based activities dominate Lao PDR's industrial sector



Note: Nonresource industry = manufacturing and construction, resource-based industry = mining and electricity.

Source: ADB, 2017.

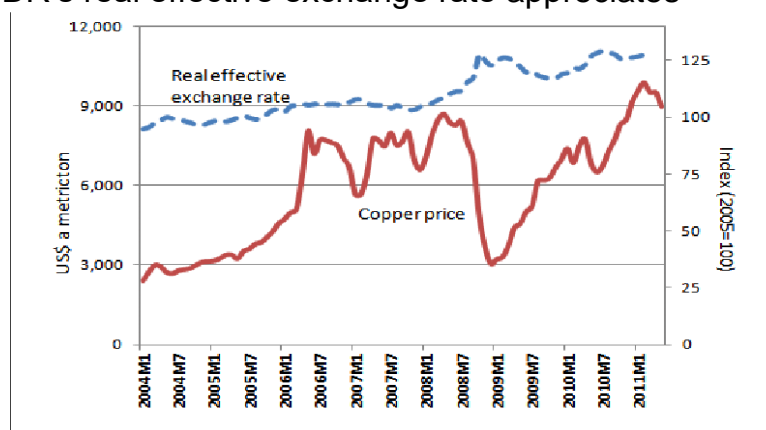
**Figure 16b:** Lao PDR suffers from “Dutch disease”



Note: The classification of resource-based products is based on the categories in Lall (2000): (i) primary products; (ii) resource-based manufactures: agro-based products; (iii) resource-based manufactures: non-agro-based products; and (iv) electricity.

Source: ADB, 2017.

**Figure 17:** Lao PDR's real effective exchange rate appreciates



Source: Lord, 2011.

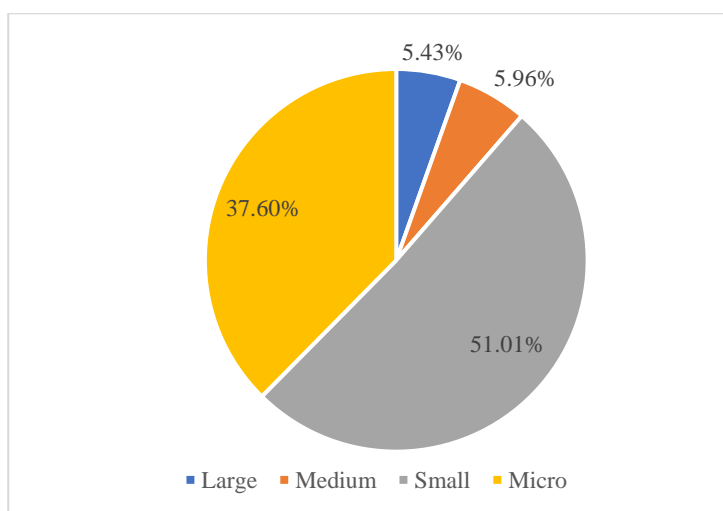


Lao PDR's manufacturing sector is dominated by small and micro enterprises, accounting for nearly 90% of total manufacturing enterprises (18a). Thus, their technology intensity is also very low, and they are generally composed of unorganized businesses, whose competitiveness is rather low (Keola, 2015). Low-technology beverages, food, furniture & wood products, and garments & textiles account for more than half of the MVA (figure 18b).

### Barriers to structural transformation

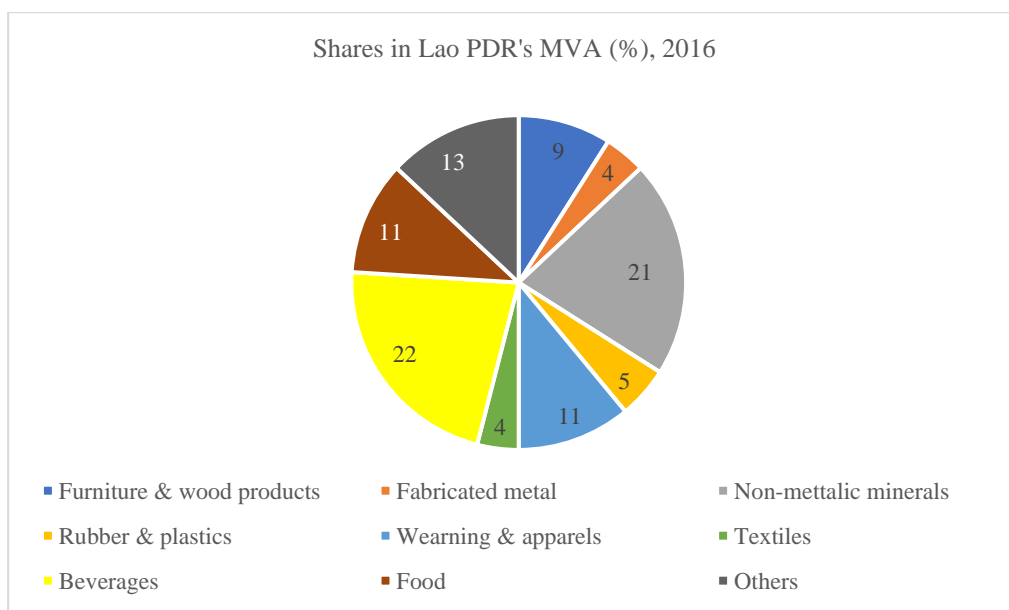
Major challenges to accelerate Lao PDR's structural transformation are: (i) low productive capacity with highly concentrated production and export structure, (ii) low level of human capital and quality of education, and (iii) inadequate and poor infrastructure.

Figure 18a: Small and micro enterprises dominate Lao PDR's manufacturing



Source: DIH and UNIDO, 2016 and National Manufacturing Establishment Survey.

Figure 18b: Lao PDR's low-tech manufacturing



Source: DIH and UNIDO, 2016 and National Manufacturing Establishment Survey.

The Lao PDR's exports are highly concentrated on low value-added products. The resource exports have dominated the country's exports, while private investment has not been expanded potentially limiting the scope for expansion in the productive capacity of the economy.

Most of the Lao PDR's workers have low levels of education and lack the skills needed to produce high value-added and diverse products. The computations based on the Lao PDR Expenditure and Consumption Survey 2012–2013 show that 44% of the population did not complete primary school, and 88% of the population did not finish secondary school at the national level. The low level of education and poor quality of human capital stock are also manifested in low labour productivity.

The majority of entrepreneurs have cited an inadequately educated workforce as the top constraint in expanding business (WEF, 2016b). Overall, the Lao PDR ranks 106<sup>th</sup> out of 130 countries with respect to human capital for workers in the age range of 24–64 years. This rank is even lower in the case of the ease of finding skilled employees, which stands at 113<sup>rd</sup>. Lao PDR's skills deficits are also reflected in its low ranking (104 out of 139 countries, WEF, 2016c) on the Networked Readiness Index (NRI), which impedes its ability to leverage global information and communication technology (ICT) revolution for socio-economic development.

The Global Competitiveness Report 2016–2017 (WEF, 2016a) shows that the fifth most problematic factor for doing business in the Lao PDR is poor infrastructure (7.8%), which also impacts the competitiveness of exports. The World Bank's Logistics Performance Index, a summary measure of the quality of trade and transport related infrastructure,

ranks the Lao PDR 152<sup>nd</sup> out of 160 countries in the world in 2016 (World Bank 2016a). Even though the road network in the last 2 decades has expanded significantly from 14,000 km in 1990 to 44,005 km by 2012, many areas in remote parts of the country still have no dry or wet season access.

Despite being a major producer of hydro-electricity in the region, lack of uninterrupted electricity as a major constraint in expanding businesses. About 14% of electricity supply is lost due mainly to poor and inefficient transmission and distribution networks, and access to electricity is not widely and evenly available in all the regions. Telecommunications and the internet infrastructure needed for a knowledge economy are also weak and would require substantial improvement to meet the goal of inclusive growth.

To build up its industrial base, the government has prioritized the attraction of FDI and the development of Special Economic Zones (SEZs) since the early 2000s. Yet currently only two SEZs appear to be active, and investments remains concentrated in low value-added activities outsourced from neighbouring countries. As a landlocked country with significant infrastructure gaps, Lao PDR is heavily dependent on its neighbours for trade, with China, Thailand and Viet Nam accounting for almost 90% of total trade in 2016.

In the last decade, the Lao PDR has made significant improvement in macroeconomic stability and in de-dollarization of the economy. The government has taken measures to promote the kip's usage and restoring public confidence in the domestic currency. However, dollarization remained about 52% by 2016.<sup>24</sup>

24 The use of foreign currency as a means for domestic

payments is not legally permitted in Lao PDR; but most foreign exchange transactions are in cash.

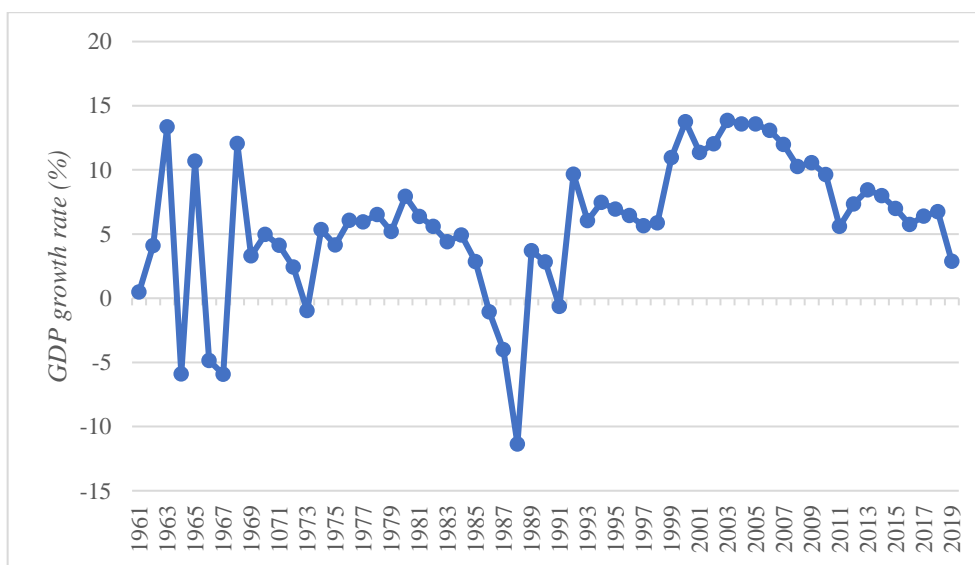
With a highly dollarized economy the central bank does not have the flexibility to enforce the monetary and exchange rate policies, and found it hard to manipulate the exchange rate adjustments in response to external shocks. Consequently, increased capital inflows continued to exert pressure on the domestic currency to appreciate. Moreover, the higher proportion of foreign currencies in the domestic economy combined with lending directed to SOEs further undermined the proper and effective use of monetary policy.

### 4.3 MYANMAR: GROWTH AND POVERTY REDUCTION VULNERABILITY, RESOURCE CURSE

#### Growth momentum and poverty reduction stall

Myanmar, a resource-rich country,<sup>25</sup> recorded its best economic growth performance – averaging 9.8% per year – since the turn of the century after four decades of economic doldrums (figure 19). This followed a decade of recovery in the 1990s from declines in the 1980s when annual economic growth fell from 7.9% in 1980 to -11.4% in 1988. Myanmar experienced extreme volatility in the 1960s – growth plummeting from 13.4% in 1963 to -9.3% in 1964, and then recovering sharply to 10.7% in 1965, only to turn negative again to -4.9% in 1966 and -5.9% in 1967. The 1970s was reasonably stable with an average growth of 4.4%; but then the 1980s was a lost decade. Therefore, seen from a historical perspective, it seems that the new millennium has ushered in a new phase for Myanmar, as the poverty rate declined sharply from 48% to 25% between 2005 and 2017.<sup>26</sup>

Figure 19: Myanmar’s growth plunges despite market reforms



Source: World Development Indicators, 2020.

25 Myanmar produces 70-90% of the world’s jade, and ranks fourth globally for ruby production; see Economic Intelligence Unit available from <http://country.eiu.com/article.aspx?articleid=131825711>

5&Country=Myanmar&topic=Economy (accessed 10 September 2020).

26 According to the national poverty line.

However, the recent two decades of high growth conceals the structural weaknesses of Myanmar's economy. From its peak of 13.8% in 2000, the annual growth rate declined almost continuously to reach 5.6% in 2011 when Myanmar undertook some key initiatives to transition to a more open market-oriented economy. This was followed by two consecutive years of growth recovery reaching to 8.4% in 2013, which raised guarded optimism attributed to liberalizing and opening of the economy.<sup>27</sup>

But despite liberalizing reforms such as unification of exchange rates, privatization of state-owned enterprises (SOEs), and deregulation of financial sector, as well as encouraging public-private partnerships (PPPs) and FDI, Myanmar has not been able to sustain its growth trajectory as the annual growth rate fell precipitously to 2.9% in 2019 before the COVID-19 pandemic mainly due to falling prices of natural gas, oil and other primary commodities. Natural gas comprised 40% of exports and 20% of government revenues in fiscal year 2018/19, according to the IMF (2020b). It earned US\$430 million less from gas export in the first 11 months of the 2018/19 fiscal year compared to the same period in the last fiscal year.<sup>28</sup> Myanmar's oil and gas revenue is forecast to decrease in 2020/21,<sup>29</sup> and the World Bank (2020d) has revised Myanmar's 2019/20 fiscal year growth forecast downward to just 0.5% as the pandemic has hit all sectors.

Myanmar's growth experiences, thus, display a classic case of resource-rich economies that

failed to achieve substantive structural transformation. Its episodic growth spurts owe more to discoveries of new sources of natural resources which fizzle out over time than to internal dynamism that comes from structural transformation. For example, its growth recovery in the 1990s was due to discoveries of off-shore gas fields in the Andaman Sea and elsewhere. Similarly, the growth spurt in the early 2000s can be attributed to the full-scale production and exports of natural gas achieved by 2002, pushing the share of natural gas in total exports to about 49% in 2008 from 5.4% in 2000. During the same period, the share of the natural resource exports jumped from 31.8% to 69.4% (Kubo, 2014). However, the rising trends in resource sector's share in Myanmar's exports have been eroding manufacturing's competitiveness activity (Taguchi and Khinsamone, 2018).

As the World Bank (2016b, p. 19) noted, "dependence on natural-resource exports has often led to chronic currency overvaluation, making other export-oriented sectors less competitive and retarding their growth, a syndrome known as 'Dutch disease'". Myanmar experienced sharp increase in REER since the beginning of 2000 (figure 20) adversely affecting the competitiveness of its tradable sectors, especially manufacturing. The exchange rate reform in 2012 did not result in significant declines in REER. The kyat appreciated strongly compared with regional peers, rising by 4.4% during Jan-May 2020, and REER appreciated 2.7% during Jan-Feb 2020 (World Bank, 2020d). Thus,

27 For example, reflecting its guarded optimism following the 2011 reform initiatives, the McKinsey Global Institute (MGI) titled its 2013 report, Myanmar's Moment. It observed, "By developing a diversified set of sectors, Myanmar has the potential to more than quadruple the size of its economy to over \$200 billion by 2030" MGI (2013, p. 1). The Asian Development (ADB, 2012, p. vii) also expressed a very similar sentiment in its 2102 report, Myanmar in Transition: Opportunities and Challenges. "Myanmar is emerging from five decades of isolation – both economically and politically. With its rich natural

resources and strategic location, the country shows good potential for growth. Myanmar could become one of the next rising stars in Asia if it can successfully leverage its rich endowments—such as its natural resources, labor force, and geographic advantage—for economic development and growth".

28 <https://elevenmyanmar.com/news/myanmar-earns-about-us35-b-from-natural-gas-export> (10/09/2020).

29 [www.mmtimes.com/news/myanmar-oil-and-gas-revenue-forecast-decrease-2020-21.html](http://www.mmtimes.com/news/myanmar-oil-and-gas-revenue-forecast-decrease-2020-21.html) (10/09/2020).

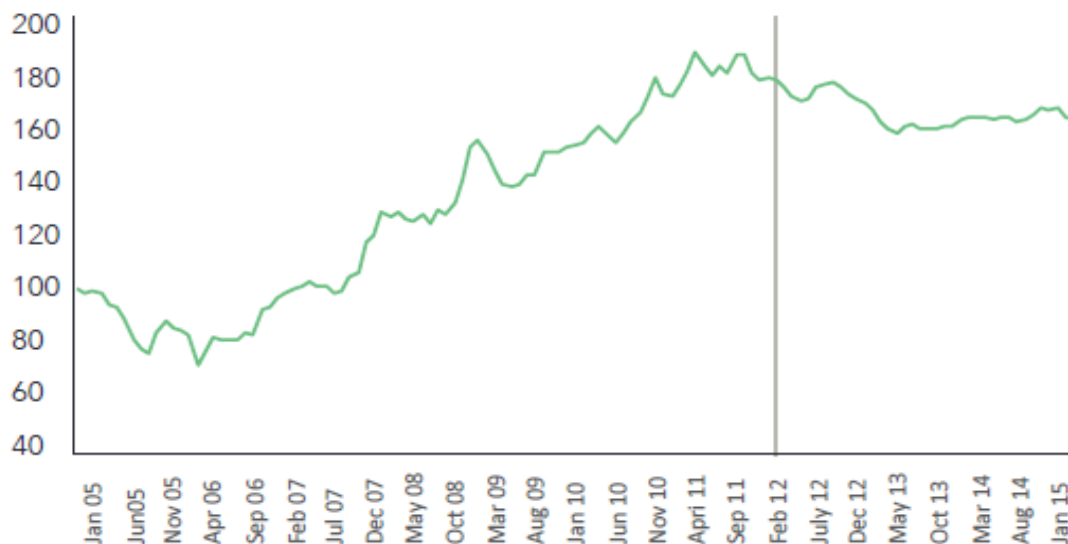
Myanmar faces the typical problem of natural-resource rich countries: when natural resource prices are high, foreign exchange flows in and drives up the exchange rate, making it difficult for both factories and farms to compete with foreign imports. This puts many enterprises out of business and lowers the income of farmers.

### Structural transformation distorted by natural resource

It is evident that the composition of the economy has changed considerably over time (figure 21). Agriculture’s contribution to GDP has dropped dramatically since 1995, while the industrial sector (including manufacturing, mining and construction) has quadrupled its share. The manufacturing share alone has more than trebled from 2000 to 2018. The share of agriculture correspondingly fell from around 57% to slightly over 21%.

However, this gives a somewhat misleading impression about the true nature of structural transformation in Myanmar for a number of reasons. First, as acknowledged by the government, Myanmar’s current industry is highly focused on limited sectors such as agriculture, natural resources and some labour-intensive manufacturing industries.<sup>30</sup> Agricultural activities still remain the largest occupation, though the share of the working-age population working in agriculture dropped from more than 66% in 1991 to 42% in 2013, while the manufacturing share of employment remains low, increasing marginally from 7.1% in 1991 to just over 10% in 2013 (Gelb, Calabrese and Tang, 2017). The large divergence between sectoral output and employment shares indicates economy-wide low productivity.

Figure 20: Myanmar’s real effective exchange rate appreciates sharply

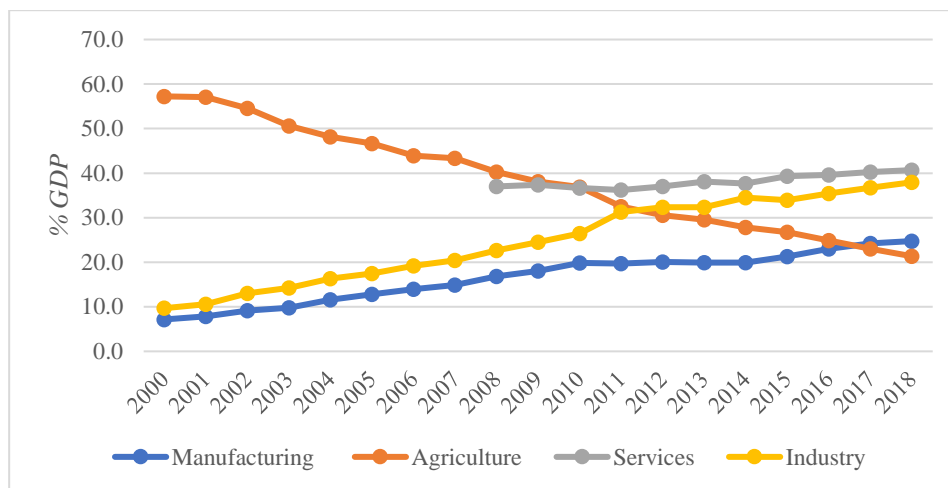


Source: World Bank, 2016b.

30 Ministry of Industry, The Republic of the Union of Myanmar, Strategic Directions for Industrial Development Summary of Industrial Development

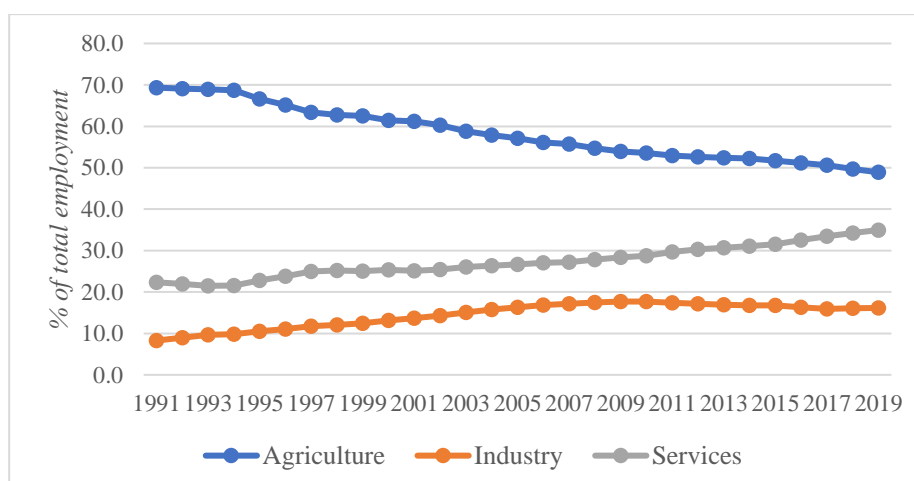
Strategy 2017, p. 4. Available from [www.charltonsmyanmar.com/myanmar-economy/smes-in-myanmar/](http://www.charltonsmyanmar.com/myanmar-economy/smes-in-myanmar/) (10/09/2020).

Figure 21a: Myanmar’s structural transformation expands manufacturing



Source: World Bank, 2020. Available from <https://data.worldbank.org/indicator/NV.IND.MANF.ZS?locations=MM> (accessed 14 September 2020).

Figure 21b: Myanmar’s declines in agricultural employment does not benefit industry



Source: World Bank, 2020. Available from <https://data.worldbank.org/indicator/NV.IND.MANF.ZS?locations=MM> (accessed 14 September 2020).

Second, the majority of manufacturing are labour-intensive, low-technology industries engaged in relatively low value-added activities like textiles/ garments.<sup>31</sup> Approximately 99.4% of all businesses in Myanmar are classified as SMEs, accounting for nearly 95% of employment and about 53% of GDP.<sup>32</sup> The manufacturing sector is dominated by micro and small enterprises, lacking dynamism and significant backward and forward linkages. The 2016 World Bank

Economic Survey revealed that 38% of registered SMEs were small and low-growth firms, with 5-19 employees and growth rates between 0-10% per annum (Totten, Lwin and van Roosmalen, 2019). These figures are roughly similar to ESCAP’s 2014 Business Survey, which found only about 7% of firms were large with 250 or more employees (ESCAP, 2014b). As the ADB (2014b, p. 88) observed, “SMEs in Myanmar tend to be technologically backward and their

31 Ministry of Industry, op cit., p. 4

32 [www.charltonsmyanmar.com/myanmar-economy/smes-](http://www.charltonsmyanmar.com/myanmar-economy/smes-)

productivity and quality standards are low. They use obsolete machines and equipment for production, some dating back to the colonial period, which badly constrains productivity enhancement and quality upgrading”. Myanmar’s SMEs are less likely to innovate than their counterparts in other neighbouring countries, and this seems particularly true of medium sized firms. ESCAP’s 2014 Business Survey revealed that firms spend little on innovation, possibly due to their small size, preventing economies of scale and hence for them fixed costs related to innovation may be prohibitive. The ESCAP survey also found that investment in new products to enter export markets was also weak.

Third, the commodity structure of Myanmar’s exports remains heavily dominated by commodities and primary products. Gas exports remain large, at over 37% of the total (albeit down from a high of 59% in 2008, at a time when gas prices were high), while garment products account for a paltry 11%. Rice exports are subsumed in the “other products” category, accounts for less than 2% of Myanmar’s exports.

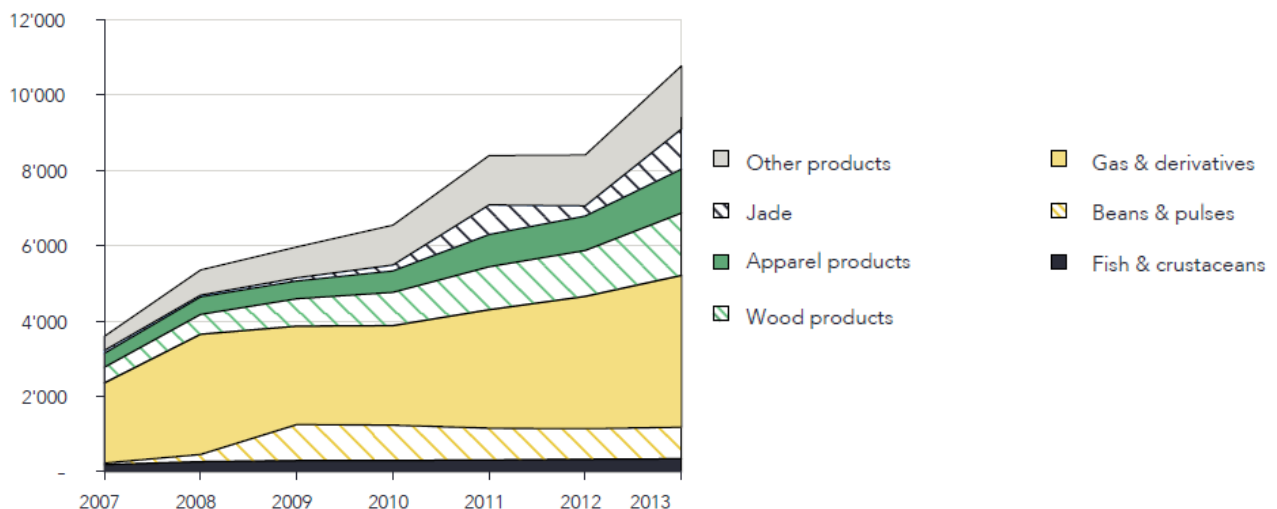
The narrow production base is reinforced by FDI heavily concentrated in the extractive industries. The manufacturing sector attracted only 13% of FDI in 2018 (figure 23).

**Table 3:** Size of Myanmar’s manufacturing establishments

Size by no. of workers	2007
Micro <10	96%
Small 10-15	3%
Medium	1%
Large	1%

Source: Thein, 2012.

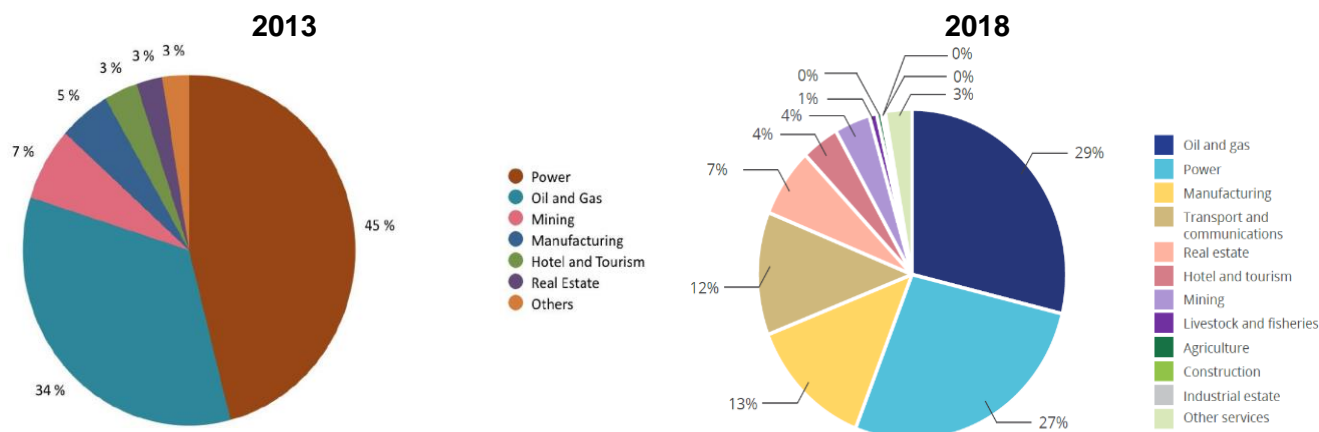
**Figure 22:** Myanmar’s exports remain dominated by primary products



Source: World Bank (2016b).

Note: in US\$ million.

**Figure 23: Power and extractive industries dominated FDI in Myanmar**



Source: Abe, 2014.

Source: EuroCham Myanmar, 2019.

Based on stylized facts, Rodrik (2008) has shown that economic development requires diversification; growth accelerations are associated with structural changes in the direction of manufacturing; and rapidly growing countries are those with large manufacturing sectors (Rodrik, 2008). Myanmar lacks all three; absence of product diversification, limited range of manufacturing activities and dominance of micro and small enterprises imply serious deficits in Myanmar’s productive capacity.

Harvard Emeritus Professor Dwight Perkins,<sup>33</sup> writing in 2012, believed that there was no “technical reason” why Myanmar could not achieve a GDP growth rate of 8% a year or more for several decades. Based on historical evidence, according to him, this would depend on a “robust industrial development strategy” (Perkins, 2012, p. 6).

### Barriers to structural transformation

Perkins identified “conventional” and “non-conventional” challenges for Myanmar. The conventional challenges involved: maintaining an appropriate exchange rate, building

adequate infrastructure, removing many regulatory barriers (and making the regulations that remain in place transparent), improving the human resource base, and providing finance for productive enterprises. The unconventional challenges involve socio-political issues such as ethnic conflict, the role of the military in the economy and the fear of foreign domination.

The reforms initiated in 2011 sought to address many of these conventional and non-conventional challenges, but they still persist.

For example, Myanmar has floated its currency, but the large influx of foreign exchange from natural resource exports creates a constant market pressure to revalue upward the kyat, which is further exacerbated by large-scale foreign investments. Continued over-reliance on non-manufacturing sectors exposes Myanmar to macroeconomic risks from volatile commodities prices, together with chronic currency overvaluation (World Bank, 2016b).

The ADB (2012) evaluating Myanmar’s potentials immediately after its opening up listed the following as key obstacles: weak

33 Professor Perkins, who was Chairman of the Department of Economics (Harvard U), Director of the Harvard Institute for International Development, and Director of

the Harvard Asia Center, has written extensively on strategies for achieving sustained growth in developing economies in general and in East and Southeast Asia in particular.



macroeconomic management, insufficient fiscal space and inefficient domestic resource mobilization, limited access to finance, deficient infrastructure, inadequate social services that hamper human capital development, and limited industrial diversification. These are still the key constraints after about a decade of transition to a more market-oriented economy.

Despite some measures to encourage use of local currency, US\$ is still used quite widely, especially in the tourism sector.<sup>34</sup> Dollarization reduces the effectiveness of monetary and exchange rate policies as well as “seigniorage” fiscal space. The peculiar nature of dollarization also impedes structural transformation. While Myanmar allows foreign currency deposits, it restricts foreign currency loans. Although such practices can avoid exchange rate risk associated with dollarization and hence banking sector’s fragility, it also stifles credit growth or ability of banks to finance business, contributing to the financial sector’s shallowness.

Despite substantial investment, infrastructure costs remain quite high and quality low compared to most ASEAN countries. Myanmar’s logistics infrastructure (ports and their hinterland connections) ranked 137<sup>th</sup> out of 160 countries in the 2014 Logistics Performance Indicator (LPI), the lowest among ASEAN countries. It is also less connected with global shipping-liner networks than Bangladesh or Vietnam (World Bank, 2016b). The McKinsey Global Institute (MGI, 2013) estimated that Myanmar would need US\$650 billion total investment of which US\$320 billion for infrastructure by 2030 to support to support its growth potential.

Myanmar also suffers from human capital and

R&D resource deficits with one of the lowest averages of schooling in the world at just 4 years (MGI, 2013). Nearly half of those who enter primary school do not stay through the full five years, and then only about 60% of those who do stay go on to complete middle school. In 2014, Myanmar had the lowest net secondary enrolment rates in ASEAN, at 49% compared with an average for the region of 70%, and only about 10% of the students who enter the school system complete high school (MGI, 2018). For those who do make it to the university, the quality of education is generally poor. Myanmar’s teacher-to-pupil ratio is around one teacher for every 28 primary school students, much higher than 1 to 20 in Vietnam, 1 to 17 in Indonesia and Thailand, and 1 to 12 in Malaysia. The World Bank 2015 enterprise survey found that only 6% of Myanmar companies invest in formal internal training programmes, compared with an ASEAN average of 24%.<sup>35</sup> Thus, the OECD (2014) identified skills gap as a key stumbling block for Myanmar’s structural transformation.

Infrastructure and human capital deficits are manifested in low labour productivity, presenting as almost a binding constraint for Myanmar’s structural transformation. The average labour productivity in Myanmar is less than half of benchmark Asian countries (MGI, 2018).

Output per worker in manufacturing is about 70% of that in Vietnam, 20% of that in China and Thailand, and less than 15% of that in Malaysia (MGI, 2018). Output per worker in agriculture is about half of that in Thailand and Indonesia. This means that the unit labour cost in Myanmar is high even though nominal wages are low, eroding its competitiveness vis-à-vis ASEAN partners.<sup>36</sup>

34 The use of foreign currency as a means for domestic payments is not legally permitted in Myanmar; but most foreign exchange transactions are in cash. See [www.bbc.com/news/business-34578090](http://www.bbc.com/news/business-34578090) (accessed 07

October 2020).

35 Cited in MGI, 2018.

36 Unit labour costs are often viewed as a broad measure of (international) price competitiveness. They are defined

ESCAP's 2014 Business Survey has revealed that besides corruption, the lack of skilled labour and of technology, difficulties in accessing to financing and electricity supply are often cited as a bottleneck to any activity (ESCAP, 2014b). SMEs find it more difficult, due to higher transaction costs and lower revenue associated with smaller loans (Totten, 2019).

On the demand side, Myanmar's domestic market for most consumer items is quite small, and does not offer economies of scale for large manufacturing activities. Only 4% of Myanmar's population can be classified as belonging to the "consumer class", with incomes of more than US\$10 a day at purchasing power parity, while globally 35% belongs to this fast-growing class, of which 40% live in Asia (MGI, 2013). As mentioned earlier, the lack of scale also acts as a barrier to innovation as the fixed cost of R&D is prohibitively high.

#### 4.4 IMPEDIMENTS TO STRUCTURAL TRANSFORMATION

All three countries face some common impediments. They include: low levels of human capital and shallow financial sectors. While the former manifests in low levels of labour productivity and skill intensity (figures 13 & 24), the later results in low rates of saving and capital formation (figure 25) as well as inadequate infrastructure, e.g., low access to electricity and poor quality of roads (figure 26).

The saving-investment gap is filled by FDI, ODA and external borrowings (figure 27). However, FDI has been volatile and concentrated in garments (in Cambodia) and resource sectors (in Lao PDR and Myanmar). On the other hand, ODA has been declining in Cambodia and Lao PDR; and in the case of Myanmar, ODA hovered around 2% of GDP. Lao PDR's external debt, though has declined substantially, still remains quite high at around 90% of GNI. Cambodia's external debt is on a rising trend since the 2008-2009 GFC and in 2017 was over 57% of GNI, much higher than the level generally regarded as the safe threshold (about 40% of GDP) by the IMF. Myanmar's external debt declined significantly and remained at around 25% of GNI since 2010.

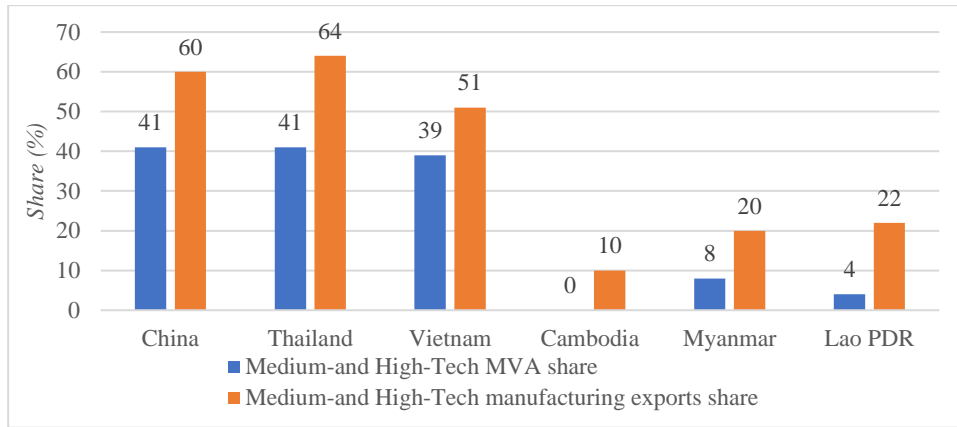
Being resource rich, both Lao PDR and Myanmar also suffer from the Dutch disease syndrome adversely affecting their manufacturing sector's competitiveness. High degree of dollarization prevents them from effectively using exchange rate policy to offset the Dutch disease phenomenon. A very high degree of dollarization constrains Cambodia's ability to use monetary policy to support industrialization and impacts fiscal space due to loss in seigniorage.

Most significantly, CLM lack state capabilities as measured by their ability to enhance fiscal space. Both in Lao PDR and Myanmar tax/GDP and revenue/GDP ratios are on downward trends (figure 28). While Cambodia has done well in raising tax/GDP and revenue/GDP ratios, they are still below the average for a LMIC – around 18% and the predicted value is around 21.5% (Rao, 2018).

as the average cost of labour per unit of output produced. They can be expressed as the ratio of total labour

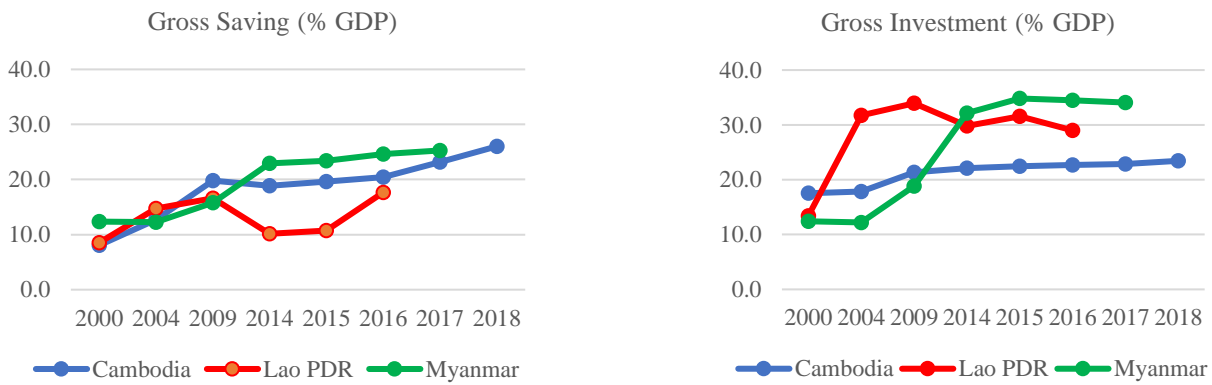
compensation per hour worked to output per hour worked (labour productivity).

Figure 24: CLM's low tech-intensity manufacturing



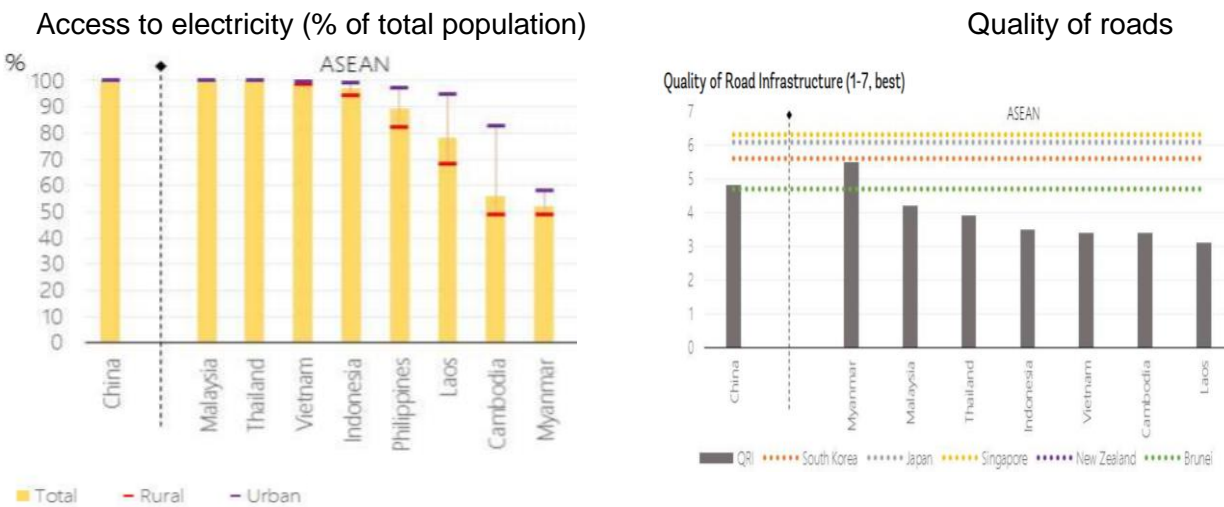
Source: UNIDO, 2020. Available at <https://stat.unido.org/database/>.

Figure 25: CLM's saving-investment efforts improved, but not enough



Sources: ADB Key Indicators, 2020; and World Development Indicators, 2020.

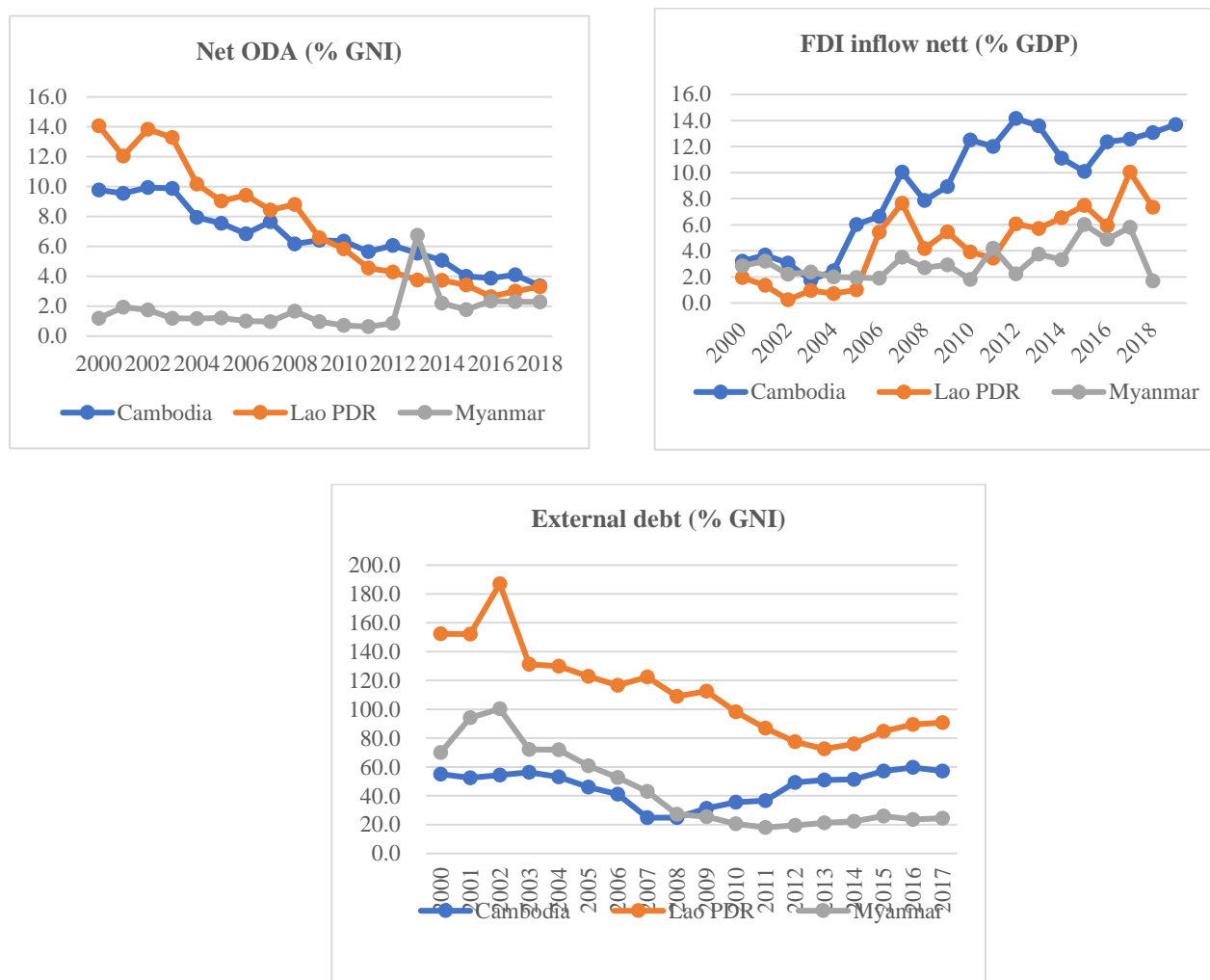
Figure 26: CLM's poor infrastructure



Source: World Bank, 2017d.

Source: World Bank, 2017d.

Figure 27: ODA declining; FDI rising, but unstable and external debt creeping up



Source: ADB, Key Indicators, 2020.

A study at the IMF reveals that countries with higher tax revenue-to-GDP also tend to have stronger protection of property rights, higher quality of government policies and regulation, and greater government transparency and accountability (Gaspar, Jaramillo and Wingender, 2016). Besley and Persson (2011, 2013, 2014a, 2014b) emphasize the broader concept of state capacity to stand for a range of capabilities that are needed for the state to function effectively. State capacity incorporates investment by the government in building three key dimensions: (i) fiscal capacity, by increasing collection of taxes, especially broad-based taxes, through

stronger tax enforcement; (ii) legal capacity, which refers to market-supporting regulation, enforcement of contracts, and protection of property rights; and (iii) collective capacity by augmenting markets, mostly by supplying public goods.

Barro (1990) discusses how the economy can be made more productive when tax revenues are spent on public goods and investments. Barro and Sala-i-Martin (1992) show that well-designed tax systems can raise the GDP growth rate. Ebeke and Ehrhart (2011) find that the instability of tax revenue leads to the instability in public investment and reduces the level of public investment.

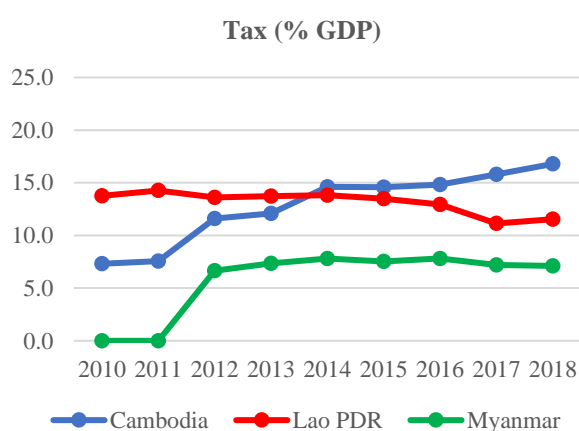
**Table 4:** Different stages of dollarization in CLM

Degree of dollarization <sup>a</sup>	Cambodia	Lao PDR	Myanmar
Financial dollarization	Yes	Yes	Yes
Payment dollarization	Yes	Yes	Yes
Real dollarization	Yes		

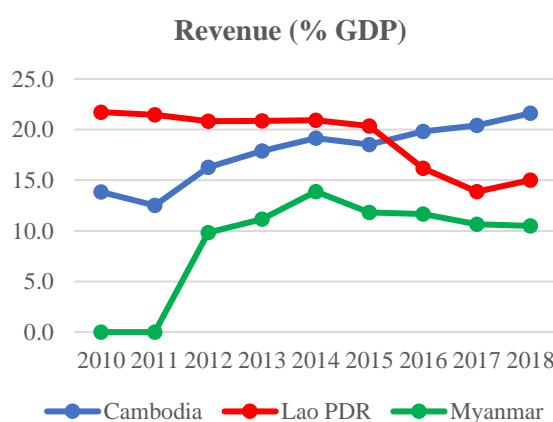
Source: Talaengsatya, 2019.

Note: <sup>a</sup> Financial dollarization: financial contracts are denoted in foreign currency. Payment dollarization: widespread use of foreign currency for domestic transactions. Real dollarization: domestic prices and wages are quoted in foreign currency, but payments can be in foreign or local currency. The use of foreign exchange as a means for domestic payments is not legally permitted in Lao PDR and Myanmar; but most foreign exchange transactions are in cash.

**Figure 28:** CLM’s weak state capability

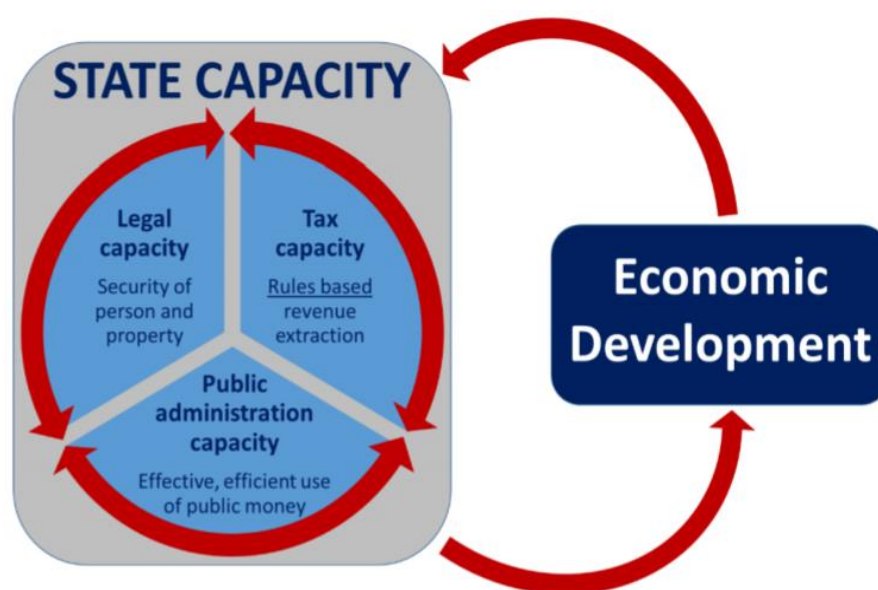


Source: ADB Key Indicators, 2020.



Source: ADB Key Indicators, 2020.

**Figure 29:** Complementarities in State Capacity



Source: Gaspar, Jaramillo and Wingender, 2016.

## 4.5 SUMMING UP: RAPID GROWTH DID NOT TRANSLATE INTO STRUCTURAL TRANSFORMATION

Cambodia, Lao PDR and Myanmar have been three fasted growing economies in Southeast Asia in recent decades. They all experienced rapid growth following market liberalizing reforms. However, they failed to sustain the momentum and achieve desired structural transformation. In both Lao PDR and Myanmar, the resource sector dominates, while in Cambodia manufacturing activities are concentrated in few labour-intensive products, notably ready-made garments and textiles. Additionally, the manufacturing sector, especially in Myanmar, is dominated by small and micro enterprises, lacking dynamism or backward-forward linkages. Although the GDP share of agriculture declined, agriculture still remains the major employer. While the service sector consists of low-level activities, the informality of employment is very high.<sup>37</sup> The rate of informal employment is around 90% in Cambodia, 75% in Lao PDR and 84% in Myanmar as found by an ILO survey in 2019 (ASEAN, 2019).

Cambodia, Lao PDR and Myanmar suffer from substantial deficits in human capital (e.g., low educational attainment and quality creating skills shortages) and a shallow financial sector. While the former manifests in low levels of labour productivity and skill intensity, the later results in low rates of saving and capital formation as well as inadequate infrastructure, e.g., poor quality of roads and low access to electricity and low information & communication technology).

Most significantly, CLM lack state capabilities as measured by their ability to enhance fiscal space. Both in Lao PDR and Myanmar tax/GDP and revenue/GDP ratios are on downward trends. While Cambodia has done well in raising tax/GDP and revenue/GDP ratios, they are still below the average for lower middle-income countries – around 18% (predicted value around 21.5%). Moreover, Cambodia's rise in tax-GDP ratio has come at the expense of declines in tax progressivity as most of it has been due to indirect taxes such as value added tax, which has implications for inequality. State capability is critical for the State's role in guiding desired structural transformation and achieving sustainable development goals (SDGs).

These capacity deficits or impediments are reflected in low productivity and lack of diversification. As a result, they are experiencing declines in their growth momentum – annual economic growth rates in Cambodia and Lao PDR have been declining since the 2008-2009 global financial crisis. Myanmar could not sustain its growth spurt following its liberalizing reforms in 2011. Their economies are expected to decline due to the pandemic, and the recovery can be hampered in an uncertain global environment, exacerbated by growing trade tensions. They may not benefit significantly from regional free trade agreements due to lack of product diversification and deficits in human capital and infrastructure.

Being resource rich, both Lao PDR and Myanmar also suffer from the Dutch disease syndrome adversely affecting their manufacturing sector's competitiveness. High degree of dollarization prevents them from effectively using exchange rate policy to offset

37 The concept of informal employment is related to but is not identical with employment in the informal sector. One can be in informal employment outside the informal sector, and similarly, one can be formally employed

inside the informal sector. It refers to the nature employment condition or industrial relation, i.e., whether there exists any formal employment contract with specified employment and pay conditions.

the Dutch disease phenomenon. A very high degree of dollarization also constrains Cambodia's ability to use monetary policy to

support industrialization and impacts fiscal space due to loss in seigniorage.

# 5. Productive capacity and product diversification<sup>38</sup>

A country's productive capacity is closely linked to the range of products it exports. CLM's low productive capacity is reflected in the fact that their exports are highly concentrated in a limited range of low-tech, low value added, labour-intensive products. Empirical evidence suggests that what a country exports matters for its future economic growth. It also shows that a country's development path is determined by its *capacity* to accumulate the *capabilities* required to produce varied and high value-added products (Hausmann, Hwang, and Rodrick, 2007).<sup>39</sup> Therefore, this section examines CLM's progress in productive capacity, or the extent of their product diversification.

## 5.1 PRODUCTIVE CAPACITY: LOW AND BELOW WORLD AVERAGE

A country's productive capacity is reflected in the range of sophisticated (high skill, high tech) products it produces. In other words, a country's productive capacity and economic

complexity go hand in hand. Therefore, a country's productive capacity can be assessed by the "economic complexity index" (ECI). This paper uses the method of reflections proposed by Hidalgo and Hausmann (2009),<sup>40</sup> modified by Freire (2017) to make it better applicable for LDCs,<sup>41</sup> to calculate ECI (also called "productive capacity index", PCapI). The ECI value of zero indicates the global average of economic complexity in a particular year, and the value of 1 indicates the standard deviation of the distribution of economic complexities of all countries. Countries with economic complexity below the global average have a negative ECI. Country may have increased their complexity in the period covered in the analysis, but if that increase was lower than the increase of the global average, its ECI is shown as declining.

As shown in figure 30a, CLM had economic complexity or productive capacity below the world's average in 2016: Cambodia (-0.36), Laos (-0.43) and Myanmar (-0.38). Their economic complexity is closer to the

38 This section is based on substantial contributions by Dr Clovis Freire, Economic Affairs Officer, Science, Technology and Innovation Policy Section in the Division on Technology and Logistics of UNCTAD.

39 Capacity refers to resources (or tools) required to perform a task. On the other hand, capability is a wider concept which includes both ability and resources. A country can be perfectly able (i.e., has the required skills), but may not have required resources (i.e., capacity) to produce it. Similarly, a country may have required resources (i.e., capacity), but no ability (i.e. required skills). A poor

country is generally both resource and skills (ability) constrained, and hence is regarded as lacking capabilities. However, capabilities and capacities are used interchangeably.

40 See Appendix B for a brief explanation of methodologies.

41 The main issue is that the method uses export data as proxy for production, but exports from poorer and less populous countries are very volatile. Freire modified the method and developed a new dataset to be able to estimate the levels of productive capacities of those countries.



Bangladesh's economy (-0.31) and well below those of Vietnam (0.5) and Thailand (1.14). CLM's economic complexity or productive capacity has not changed substantially in the period from 2005 to 2016. Cambodia and Myanmar had similar levels of productive capacity from 2005 to 2012, after which Cambodia's capacity has increased slightly compared with that of Myanmar. The productive capacity of Lao PDR has remained at about the same level throughout the period of the analysis. Bangladesh has also not made much gains in productive capacity or economic complexity from 2005 to 2016 when compared with the global average. On the other hand, Vietnam's economic complexity has increased by 0.5 and that of Thailand by around 0.4.

## 5.2 PRODUCT COMPLEXITY: LOW AND FRAGMENTED

This paper also presents the “product complexity index” (PComI) as proposed by Freire (2017). While ECI shows an aggregated view of how complex different sectors of an economy are, an analysis of the distribution of the PComI in each country can show the range of complexity that is present in the economies for production. Figure 30b shows the distribution of product complexity in CLM and comparator countries in 2016. In the graph, zero indicates the average product complexity considering all products exported in that year by these economies, while 1 indicates the standard deviation of that distribution.

As can be seen, CLM produce products with complexity that range from -4 to 1; thus, from four standard deviations of the global distribution below the global average to one standard deviation above global average. This indicates a low complexity of the products exported in 2016. The average of Lao PDR's distribution is around -2, while for Cambodia and Myanmar is around -1.5;

marginally higher than that for Laos. The distribution of Myanmar shows a double hump, which indicates a more fragmented complexity of production, with the traditional sectors lagging behind, somehow detached from the more complex sectors of the economy. A similar pattern is also seen in Cambodia but less pronounced. The distribution of product complexity of Bangladesh shows a production within a smaller range than that in CLM (from -3 to 1). Bangladesh's average product complexity is also higher (-1). The distribution of Vietnam and Thailand shows a more complex production with the average product complexity of Thailand approaching the global average.

## 5.3 EVOLUTION OF PRODUCT COMPLEXITY: SMALL GAINS NOT FAST ENOUGH

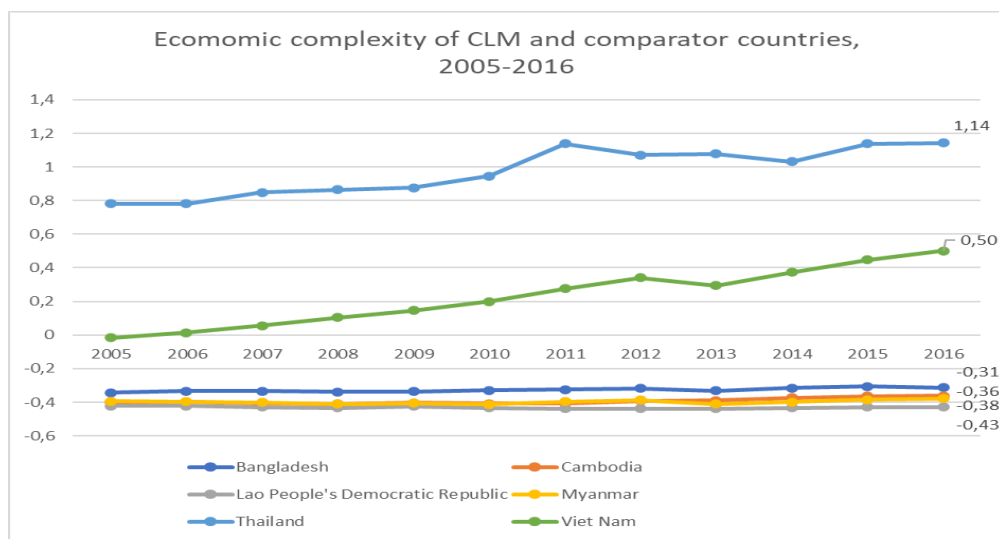
Figure 30c presents distribution of product complexity of each of these countries in 2005 and 2016 to get an impression about their progress. As can be seen, the distribution of product complexity of CLM has moved towards more complex products in the period from 2005 to 2016, but the gains were not sufficient to increase substantially the average complexity of their production. That indicates that they have made gains and have increased the complexity of many of their sectors, but that increase was not, on average, faster than the increase in average product complexity considering the global export market. On average, other countries were able to make faster progress, such as the comparator countries – Bangladesh, Thailand and Vietnam.

Cambodia made the most progress compared to Lao PDR and Myanmar. Its export shares of food, beverages, and tobacco as well as of rubber, wood, paper and publishing declined substantially, while there has been some

diversification into other products, such as handbags and suitcases, which is growing quickly from a low base due to tariff-free access to the US travel goods market under its GSP since July 1, 2016 (ADB, 2014a). Bicycles are now Cambodia's second largest export item, after garments. Cambodia exported almost half a million bicycles to the EU, worth about 109 million euro in the first

quarter of 2020, which is over 9 million euro more than the same period last year.<sup>42</sup> Other products that made some progress are light manufactured goods, including automobile and electronics components, helped by Cambodia's location next to Thailand, a major producer of trucks, cars, disk drives, and other electronic components.

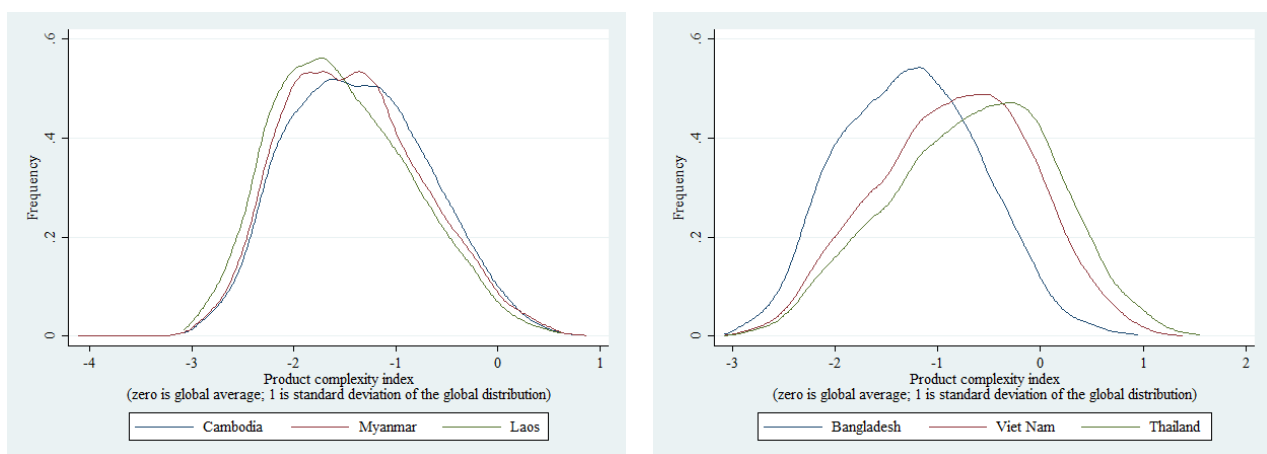
Figure 30a: CLM's productive capacity (ECI) remains low, and below world average



Sources: UN COMTRADE data and the methodology proposed by Freire, 2017.

Note: Data are from UN COMTRADE covering the years from 2005 to 2016. For the analysis, HS-6 digit import data were used with a cut-off of \$10,000 (to remove small value trade transactions between countries, which could indicate error in reporting or repatriation of goods). The analysis covers 220 economies, but the results reported are those related to the CLM and comparators. Data were further disaggregated using the method proposed by Freire (2017). The index of complexity of products was also calculated following Freire's (2017) methodology.

Figure 30b: Low complexity of CLM's export products

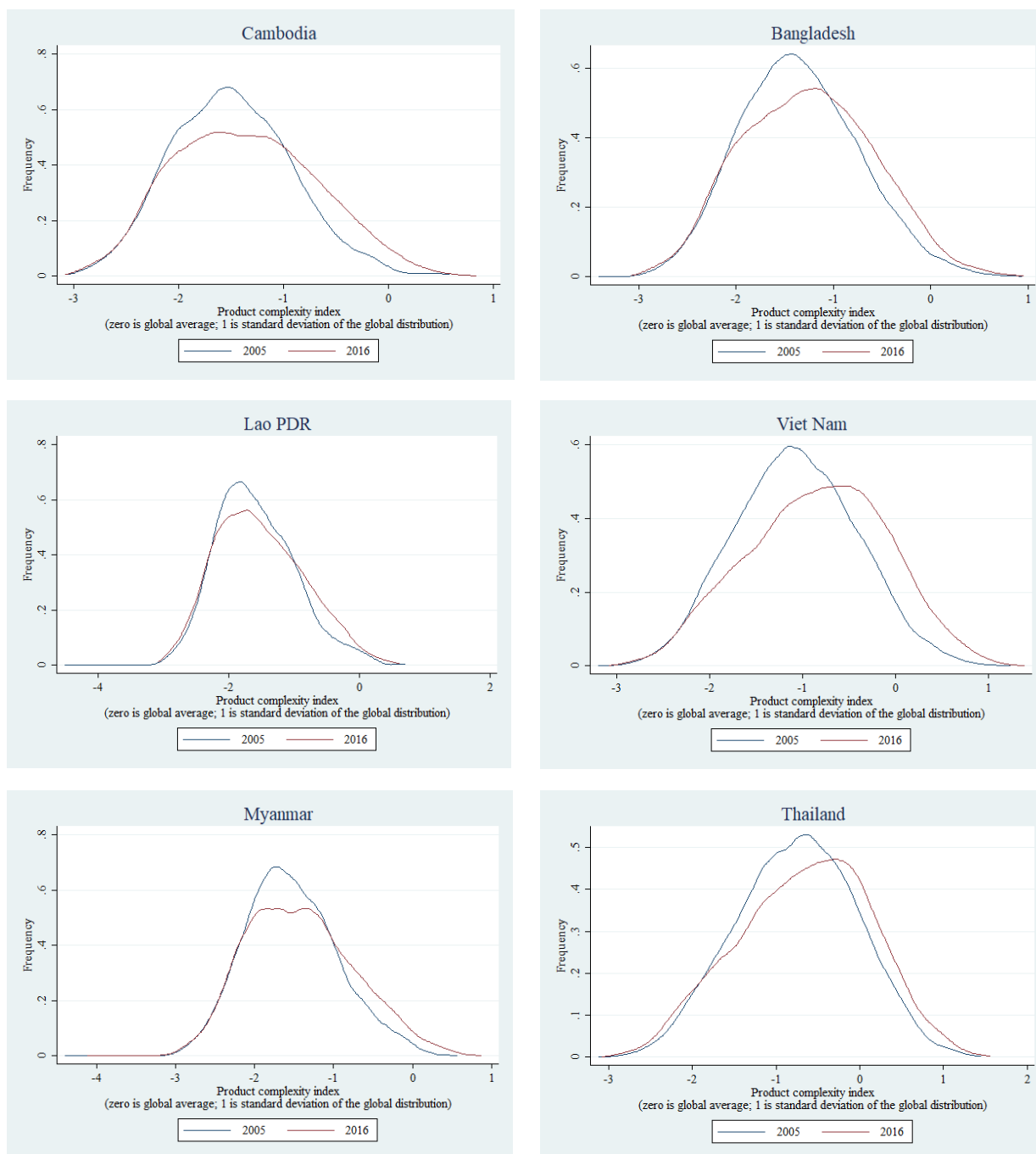


Source: UN COMTRADE data and the methodology proposed by Freire, 2017.

42 See [www.bike-eu.com/market/nieuws/2020/05/cambodia-sees-q1-surge-in-bicycle-exports-to-meet-increased-demand-10137916#:~:text=According%20to%20](http://www.bike-eu.com/market/nieuws/2020/05/cambodia-sees-q1-surge-in-bicycle-exports-to-meet-increased-demand-10137916#:~:text=According%20to%20)

Cambodia's%20Chamber%20of,the%20same%20period%20last%20year.%E2%80%9D (accessed 19 September 2020).

Figure 30c: CLM's products have become more complex, but gains were small



Source: UN COMTRADE data and the methodology proposed by Freire, 2017.

However, Cambodia's manufacturing still suffers from low level of technological sophistication and low value segmentation. The garment sector – relying on cut, make and trim (CMT)-oriented operations – catches only the lowest value-added in the production process. The production of construction materials, electronics, machinery, engines, and chemical products is still small. While

there has been rapid growth in limited manufacturing GVCs, particularly garments and footwear, the country has not yet transitioned to the next stage of GVC participation of advanced manufacturing and services. Within garments, there has not been much upgrading of products over the past two decades, and also there has been little diversification into other GVC sectors outside

of garments and footwear. Cambodia’s export basket contains products that employ fewer skilled workers than the products exported by comparator countries. It has also made less progress toward more skill-intensive products over the past decade than comparator countries. Cambodia’s position in the value chain—primarily in assembly type—increased the share of manufacturing in total domestic value added in exports, with high backward integration (imports of inputs), and limited innovation activities.

## 5.4 FINDING PRODUCTS TO DIVERSIFY: OPPORTUNITIES FOR “LOW HANGING FRUIT”

Choosing products for diversification is fraught with risk, especially in an uncertain global economic condition. A common-sense approach would dictate that a country should first accumulate new capabilities which might include labour with sector-specific skills; transport and logistics services experienced in moving specific types of goods, such as bulk and refrigerated commodities. Government regulation, such as phytosanitary standards and testing for food products; and clusters of suppliers and supporting businesses play a critical role. When a country has a fairly large set of capabilities, it can quite easily add new sectors to its product portfolio by adapting existing capabilities.

However, according to Hausmann and Rodrik (2006), Hausmann and Klinger (2007) and Hidalgo and Hausmann (2009), diversification is a path-dependent process. What product-mix a country will produce in the future is determined by not only its initial conditions in terms of capabilities, such as availability of trained manpower or quality of institutions, but also products it produces today, largely due to

“learning by doing effects”.

Therefore, a number of approaches are suggested in the literature. The most common approach is to diversify into products in which a country has export competitiveness measured by revealed comparative advantage (RCA). The RCA is the ratio of a product’s share in a country’s total exports relative to the share of that country’s total exports in global exports. An RCA above 1 suggests that the country has a comparative advantage in that product.

A second approach would be to identify goods from the existing product-mix that are closely connected to a greater number of other goods as they are more likely to generate further diversification than those that are not. The “product space” analysis developed by Hidalgo and others (2007) suggests that higher-value goods tend to be “closer” to the range of other goods than lower-value goods, thus allowing for further diversification.

A third approach is to use the “export opportunity measure” (XOP) as suggested by Freire (2013) which includes demand incentives in addition to the supply capacity consideration of the product space analysis in terms of what a country is able to export. The basic assumption is that new products with higher demand (i.e., export) potential are more likely to be selected by entrepreneurs, other things being equal. The XOP is calculated for a new entrant by multiplying the export share of the product in the global market in the current year (in this case, 2016) with the increase in the export share of the product in the global market over the previous year.<sup>43</sup>

XOP is designed to measure the degree to which the potential new exports of one country match the expanding import markets of

43  $XOP_{ci} = \sum_d \sum_i \left( \frac{m_{it}^d}{M^t} - \frac{m_{it}^d}{M^{t-1}} \right) \times M^{t-1}$  where M is total imports of all products by all countries, mid is import of product i in country d, t0 is previous year (in this case 2015) and t1 is current year (in this case 2016). Only sectors (product categories) which experienced an increase between 2015 and 2016 are

included. Imports data are used because they are better data. Theoretically, total imports of a product globally should be equal to total exports of that same product globally. The methodology can also identify potential export markets for each identified potential product.

another. A higher degree of export opportunity for potential new products indicates more favourable prospects for trade expansion towards the new products given the past rate of growth of their import markets. This, however, does not mean that the firms in the exporting country would necessarily be able to take full advantage of this market growth, because they would compete with existing exporters and other potential newcomers. Nevertheless, a higher degree of export opportunity for potential new products indicates more favourable prospects for trade expansion.

Using the XOP, this paper identifies 93 product categories (SITC) for Cambodia, 93 product categories for Lao PDR and 95 product categories for Myanmar (see Appendix A for the list), based on UN COMTRADE data for the year 2016 (the latest).<sup>44</sup> These product categories have above average product complexity in the respective country's economy; thus, promoting an increase in average complexity of the economy. For each potential new product category, the opportunity for export (labelled "per centage of export opportunity")<sup>45</sup> is also presented.

A number of caveats apply. First, as can be seen, many of the product categories are common on the list for all three. This is not unexpected given the fact that these three countries share many characteristics in terms of their productive capacity and product-mix. Nevertheless, actual products within each product category vary among the countries.

Second, the long list of product categories is a reflection of CLM's low level (or lack) of diversification, and hence higher opportunities

for diversification. From a policy perspective, a country with a less diversified product-mix may have many opportunities to diversify by emulating developed countries without having to invest heavily in R&D or skill-intensive innovations. As it exhausts the "low-hanging fruit", it will have fewer potential new products and hence emulations have to be replaced with innovations.

Finally, the analysis does not consider the specific circumstances of the country, such as climate, geography, or factor endowments, etc. Thus, the list for a country may show a type of agricultural product, for example, that is not suitable for the actual condition of the country. Therefore, the next step would be to take these long lists and create a shortlist of products based on other criteria, such as:

- Alignment with other national goals, such as SDGs. Products that are highly dependent on mining and commercial farming may conflict with environmental sustainability, poverty eradication and reduction of inequality.
- Feasibility of high-yielding cash crops given climate, soil conditions, ecosystems and socio-economic circumstances. Promotion of such crops may paradoxically result in food insecurity, and cause environmental damages.
- Availability of required infrastructure (e.g. cut flower may require the existence of airport infrastructure)
- Availability of clean and affordable energy (e.g., some industries require lots of energy such as aluminium)

44 Some entries are similar. For example: (020120) Meat of bovine animals, fresh/chilled (excl. of 0201.10), bone-in, \$0-3 (020120) Meat of bovine animals, fresh/chilled (excl. of 0201.10), bone-in, \$3-12. The difference between these two is that the first corresponds to the product with the unit price up to \$3 and the other with unit price from \$3 to \$12. These ranges are calculated based on statistical analysis of the price unit distribution of the exports of the product, globally. A higher unit price range is usually associated with higher complexity; but this is just an empirical finding. The analysis

does not take into consideration the price unit range to calculate the product complexity.

45 Percentage of export opportunity is calculated as follows: Suppose a country was able to diversify to all products that have been identified with the methodology. Then suppose that the country was able to capture all the expected increase in the export market of that basket of new products. That would be the total export opportunities for that country considering the potential new products. The per centage in question is the per centage of that total.

- Desire to enter a specific industry such as electronics.

The short listing, therefore, would require substantial knowledge of the country reality and aspirations, and hence engagements with policymakers of respective countries.

## 5.5 LAO PDR: A SPECIAL CASE

With a very small population of only 6.8 million Lao PDR, is a labour-scarce country. The current size of Lao PDR's labour force (aged 15-64) is 4.2 million. It is projected to increase to 5.6 million in 2030, and to only 7 million in 2050. On the other hand, the size of the labour force in Cambodia is projected to increase from 10 million in 2015 to 12.5 million in 2030, and to 14.8 million in 2050. Myanmar will have a labour force of 41.7 million in 2030 and 43.1 million in 2050.

Therefore, Lao PDR cannot follow the diversification path of early industrializers in the region, which were largely labour surplus economies. Lao PDR is likely to face more intense competition from other labour surplus countries in low-end, assembly-type production than the early industrializers confronted, especially in a more globalized economy. Lao PDR cannot compete in the shifting labour-intensive activities for long with its small labour force —labour surplus countries Cambodia, Myanmar and Vietnam will have an edge.

This means, Lao PDR needs to leapfrog and create competitive advantage in high-value-added niche products. This is necessary to rapidly draw its large agricultural labour force to high-productivity, non-farming activities in the manufacturing and services sectors, and also to lift the productivity of the agriculture sector where the vast majority of the poor live and work. Creating backward and forward linkages among manufacturing, agriculture and services sectors by linking small and

medium-sized enterprises (SMEs) to the supply chain and production network is key. Improving access to low-cost finance is vital for SMEs.

“Servicification” also offers an avenue to prosperity, as a complementary tool to industrializing strategy. In an era when the production process is broken up and involves multiples locations, services connecting complementary process and locations play an important role. Fostering pre- and post-manufacturing services presents Lao PDR a better chance to plug itself into transnational production networks and make progress with industrialization. These manufacturing related services require relatively less labour input, and hence fit better with Lao PDR's small population size, whereas transportation logistics may also enhance the benefit of Lao PDR's position as a land in-between globally large manufacturing bases.

As highlighted earlier, Lao PDR's service sector accounts for about 40% of GDP (figure 15a). This large share could be due to relatively large share services to foreign population and tourists, and not all services are equally related to manufacturing. For instance, services in Lao PDR is dominated by wholesale and retail, with a GDP share larger than Thailand and Singapore. Wholesale and retail trade in Lao PDR are mostly small scale and local market oriented, and are therefore less relevant for manufacturing. On the other hand, the GDP shares of transport, finance, and real estate, which can be regarded as more relevant to manufacturing, are very low in Lao PDR. The GDP share of transport and storage is about 3%, approximately half that of Thailand and Singapore. The GDP share of financial intermediation is about a third to a fourth that of Thailand and Singapore. In brief, while share of services to GDP in Lao PDR is high, it less relevant for manufacturing services.

## Box 5: Servicification

The 21st century's industrialization is closely interlinked with so-called "servicification", in which factories and facilities (including goods, know-how, ideas, capital, investment, and people) are unbundled with the support of information and communication technology (ICT) in order to trade in raw materials, final goods, and services through disintegrated production processes, which constitutes a strong trade, investment, and services nexus.

While the intermediate input of services (e.g., accounting, professional business consulting) into the manufacturing production processes have been growing, the service elements of intra-firm activities add more weight. The value added by the

manufacturing industry in the developed countries has shifted either to "upstream" business activities (e.g., R&D, product design) or to "downstream" business activities (e.g., marketing, after-sales service). Modern servicification in the manufacturing industry is closely related to these developments.

Value added from the service sector is more important in manufacturing output than it was in the past. Furthermore, it is not surprising that aside from production and trade, existing services are more elaborate through the use of new technology such as ICT as the service economy advances. Value-added created at pre- and post-manufacturing process has increased significantly since 1990s

*Source:* Baldwin, Ito and Sato, 2014.

## 5.6 SUMMING UP: VARIED PATHWAYS TO STRUCTURAL TRANSFORMATION

This section extended the discussion of structural transformation from traditional pathways of movements across sectors (especially from agriculture to manufacturing) to movement between and within sectors. Thus, product diversification can happen within all sectors, including agriculture and services. This is particularly important for predominantly agricultural countries, such as CLM, as well as for countries which are not labour surplus, e.g., Lao PDR, which can consider "servicification" as a complementary tool for structural transformation.

As noted in UNCTAD (2014, p. 121, emphasis original) "Economic transformation requires not merely increasing the resources available for investment, but also ensuring enough of the **right** kinds of investment, using the **right** technologies in the **right** sectors to achieve:

- Diversification, by developing new industries and activities, and increasing value addition in existing industries and activities;
- Deepening, by creating forward and backward linkages with existing industries; and
- Upgrading of products and processes."

These require industry policy, supported by enabling macroeconomic, trade, financial, labour market, human resource and research & development (R&D) policies. However, industrial development has to be in tandem with rural and agricultural development as well as movement towards high value-added services. This means that balanced development of all sectors must be an integral part of industry policy.

Therefore, although a large part of industry policy deals with industries or manufacturing; but it is an integrated approach to break out of vicious circles of low income, low savings and poverty by simultaneously addressing interconnected imperfections in credit, labour and product markets, as well as inadequate infrastructure, skills, technology and aggregate demand while at the same time adapting and building resilience to climate change and external shocks. In short, it is for structural transformation towards a more inclusive and sustainable future. This fits with Warwick's broad definition of industry policy as "**any type of intervention** or government policy that attempts **to improve the business**

**environment** or to alter the structure of **economic activity** toward **sectors, technologies or tasks** that are expected to offer better prospects for economic growth or **societal welfare** than would occur in the absence of such intervention" (Warwick, 2013, p. 16, emphasis original).

However, this presupposes State capabilities, which are weak in CLM as in other LDCs. Building State capabilities need human and financial resources which CLM are lacking. The next section discusses how development partners, especially ESCAP, can support CLM in building State capabilities.



# 6. Policy priorities: Harnessing agriculture- manufacturing complementariness and regional cooperation

## 6.1 FARM-FIRM LINKAGES

Historical experiences suggest that structural transformation can be growth-enhancing or growth-reducing, depending on the inter-sectoral reallocation of labour. This is an important point relating to the multiple modes of structural transformation and direction between sectors, which may be regressive as well as progressive in the sense of productivity gains or losses. Structural change had been growth-enhancing in Asia because labour has transferred from low to higher productivity sectors, as manufacturing and agricultural sectors developed in tandem in contrast to the experiences in sub-Saharan Africa and Latin America.

Agriculture plays a crucial role in driving industrialization by supplying wage goods (food) and inputs. The rural economy is also the vital source of domestic demand for manufactured products. Strengthening the linkage between agro-rural economy and domestic manufacturing is critically important for balanced and stable job-rich growth and structural transformation. Such development strategies have the maximum impact on sustained poverty reduction, and assume particular significance in light of heightened uncertainty in the global economy.

Despite the recent high economic growth and economic reform efforts, all three countries –

Cambodia, Lao PDR and Myanmar – are still an agro-based economy. Being predominantly agro-based economies, Cambodia, Lao PDR and Myanmar cannot ignore their agriculture and rural economy. Foster and Verspagen (2016) find that structural transformation largely depends on labour productivity, and the rise in incomes. It is not necessary that agriculture sector needs to lose labour and resources in the process of structural transformation.

Therefore, policymakers must underpin the support for the agriculture sector with policies that create a national business, institutional, and regulatory environment that enables agro-value chain growth. Legal institutions that can enforce land-tenure rights and contract law, as well as facilitate dispute resolution, are required to build the trust needed to link **firms** and **farms** together into functioning value chains.

Furthermore, policymakers must establish a regulatory and institutional system that sets, enforces, and certifies food standards, ideally enabling businesses along agro-value chains to meet international standards and export to foreign markets where profits are highest. Testing, certification, and labelling facilities will need to be established near cultivation zones, and be complemented with improved infrastructure. Farmers will need to be provided with technical support to improve

their farming practices and adopt techniques to meet international standards. Governments will further need to implement a communications campaign to ensure that all farmers are aware of and comply with the new standards.

Policy priorities for agricultural and rural development should consider the following:

- *Enhancing agricultural productivity among smallholder farmers* by providing support at the household-level to increase the efficiency, productivity and modernization of small-farm production. Therefore, farmers should be encouraged to transition towards more high-valued production activities, namely through multi-cropping and the production of higher-value and modern high-yield crops, as well as of horticulture, livestock, poultry, and fisheries.
- *Providing input support for crop diversification.* Farmers also need support to access the credit that would allow them to invest in new machinery and higher-value inputs. Agriculture extension services should be enhanced, and specifically target vulnerable groups such as women or farmers in post-conflict zones, especially in the case of Myanmar.
- *Expanding irrigation and water management systems.* Skills training in irrigation systems—including their maintenance, operation, and construction, as well as the rehabilitation of canals—should be prioritized. Governments should also support investments in irrigation, both for small-scale projects to make water management more efficient, as well as for large-scale irrigation delivery systems (such as lining irrigation, drainage canals, and the associated structures of each). These projects will not only help increasing production yields, but will also create wage jobs in rural areas and demand for manufactured goods.
- *Supporting off-farm activities.* The development of a dynamic rural sector that ties together on-and off-farm activities is vital for structural transformation. Therefore, policy support is needed for the development of agro-value chains, consisting of interdependent enterprises that generate value throughout a food system, and have the potential to create many rural jobs.
- *Creating backward and forward linkages.* Beyond farming and other agriculture production, agro-value chains also involve both upstream activities – such as seed and fertilizer input supplies – and downstream activities – such as wholesale, retail, food processing, and food services. If the backward and forward linkages of agro-value chains are exploited properly, they can support economic growth across the rural economy, thus creating strong internal demand for manufactured goods needed to drive structural transformation.
- *Mitigating risk in the supply chain.* Policy support is also needed to increase the use of vertical integration to mitigate risk in the supply chain. This would create forward and backward linkages between small enterprises, farms and larger firms in the value chain. Interventions to improve cross-sectoral linkages in the supply chain may offer agro-

processing firms of varying sizes better prospects to exploit market opportunities through flexible business models and lower capital requirements. Financial support should be given to firms in the services and manufacturing sectors that support agro-business with on-the-job training of their rural workforce.

- *Enhancing training and skills base.* To support the integration of the rural economy into agricultural value chains, policies are needed to improve the skills and ease the financial constraints of rural people. People without formal schooling are employed largely in on-farm activities, while people with some education tend to work primarily in non-farm activities. Training support should be given to small business owners through extension services to increase their knowledge of markets, sustainable business practices, international production standards, facilitating client decisions, best practices implementation, and vertical integration opportunities. This training is especially important for agro-industries, which will need to adopt good practices and standards to increase their competitiveness and productivity. Community-based rural enterprises, such as cooperatives, are ideal recipients for this training support, as they are well equipped to distribute learning material. Cooperatives can also act as intermediaries to increase access to financial services, meaning that these organizations must also be able to access loans from a wider range of financial institutions.

- *Giving special attention to post-conflict areas.* Given the importance of land rights in accessing credit for investment, strong institutions that systematically register and enforce land tenure rights is crucial—especially in post-conflict zones in Myanmar. Post-conflict regions also suffer from a scarcity of access to capital and inputs, as well as an absence of the physical infrastructure needed to boost agricultural production. Markets in these areas are unlikely to emerge unaided, making it imperative that governments provide support to agricultural production by protecting land rights and otherwise help link producers to markets and financial institutions.

## 6.2 REGIONAL COOPERATION

Market dynamics and investment climate of Cambodia, Lao PDR and Myanmar are characterized by the early stages of industrialization, facing the following common challenges:

- Undiversified industrial structure, highly focusing on limited sectors such as agriculture, natural resources, and some labour-intensive manufacturing industries.
- Very weak business-enabling infrastructure, with most of the major supportive factors driving industrial development being absent or limited, such as, inter alia, poor logistics, electrical power infrastructures, limited human resources development and lack of skilled workers, insufficient access to finance, and others.
- Low productivity, with dominance of micro, small and medium-sized

enterprises (MSMEs), lacking backward and forward linkages.

- Fast growing medium-sized firms have the potential to be key drivers of economic development and structural transformation, but access to finance is an impediment.

Therefore, Cambodia, Lao PDR and Myanmar need to address these impediments in order to realize the potential of their manufacturing to support structural transformation. They need to have comprehensive agriculture, industry, financial, infrastructure, and educational policies to tackle the issues of low productivity, skill shortages, poor infrastructure, and access to credit.

The establishment of special economic zones (SEZs) is a key element of these countries' industrialization plan. However, so far, they have not attracted much diversified foreign investment except from China and Thailand. They are yet to develop greater linkages with the domestic economy in supply chains as well as markets, thus remaining as enclaves and failing to deliver development benefits. The challenge for them is to avoid competing with each other for foreign investment and markets for similar or same products as all three countries are roughly at the same level of development with almost identical resource endowments.

It would be far better if Cambodia, Lao PDR and Myanmar work together in a complementary manner in developing their overall industrial strategies, including

common standards and norms pertaining to the environment and labour rights. This is particularly important for SEZs. Cooperation among them will also be important for creating industrial clusters, economic corridors and growth poles. Economic cooperation among countries with shared borders has long been recognized as contributing to the creation of larger markets for national producers and consumers and encouraging scale economies by reducing barriers to trade and movements of capital and labour, which is particularly relevant for landlocked countries like Lao PDR.

The "Greater Mekong Sub-Region Economic Cooperation", originally initiated by ECAFE (ESCAP's predecessor) in 1956, and later boosted by the ADB in 1992, provides an excellent platform for a comprehensive approach with attention to balanced development of the entire region, rather than through independent development pursued by each country. However, policy coordination and harmonization among the countries in the region have been very slow, and need greater political commitment. Therefore, an assessment of achievements of the current Greater Mekong Subregion (GMS) Strategic Framework for 2012–2022 should be undertaken with a view to developing the next 10-year programme aimed at mutually complementary structural transformation. Regional cooperation is also needed for capacity building.

# 7. Building State capabilities: Areas needing capacity development supports

Since product diversification is path dependent on pre-existing capabilities, Hausmann and Rodrik (2006, p. 21) argue that “purely market-based structural transformations will be too slow as it will involve jumps that are fewer in number and shorter in distance than would be socially optimal”. There may not be enough incentives for the private sector to accumulate the required capabilities for new activities because of coordination failures.

There is also an additional constraint. CLM's commitment to Agenda 2030 for SDGs, means that their structural transformation has to be socially inclusive and environmentally sustainable. Left to market, the growth process is likely to widen inequality and jeopardize environment sustainability. CLM is already seeing rising inequality (Warr, 2019; Warr, Rasphone and Menon, 2015; Hansen and Gjonbalaj, 2019); and increasing environmental degradation, especially deforestation, and pollution. According to the Environmental Performance Index (EPI) for 2020, CLM ranked poorly – Cambodia at 139, Lao PDR at 130 and Myanmar at 179 out of 180 countries.<sup>46</sup>

Therefore, CLM need a ‘big push’ for structural transformation towards cleaner and resource efficient technologies, as well as radical measures to make the process pro-poor and inclusive. State has to play an active role to not only create an enabling regulatory and institutional environment, but also design integrated development strategies for investments in social and natural capital, infrastructure choices, employment opportunities, human capital formation and technological changes to achieve sustainable consumption and production patterns in line with the SDGs. The very adoption of internationally agreed Programmes of Action is a recognition of the critical role that States have to play in structural change in LDCs, and in other countries with special needs.

However, CLM have to achieve all these in an adverse economic condition in the midst of escalating trade tensions and a global pandemic which has severely affected their economies, and elevated their public debts. In the absence of a robust global recovery, which remains uncertain, CLM will have to find domestic and regional drivers of growth. While trying to recover quickly (so-called V-shaped

46 The EPI report ranks 180 countries on 24 performance indicators across 10 issue categories covering environmental health and ecosystem vitality. Available from <https://epi.yale.edu/downloads/epi2020report20200911.pdf> (accessed 13 October 2020). Also see [https://opendevdevelopmentcambodia.net/topics/pollution-and-](https://opendevdevelopmentcambodia.net/topics/pollution-and-waste/)

[waste/](https://opendevdevelopmentmekong.net/topics/environment-and-natural-resources/#:~:text=The%20Lao%20environment%20is%20changing,and%20the%20loss%20of%20biodiversity) (accessed 13 October 2020); <https://opendevdevelopmentmekong.net/topics/environment-and-natural-resources/#:~:text=The%20Lao%20environment%20is%20changing,and%20the%20loss%20of%20biodiversity> (accessed on 13 October 2020); and Raitzer, Samson and Nam, 2015.

recovery), they have to ensure that the recovery does not further worsen inequality and environmental degradation (or take a so-called K-shape).

Obviously, the task is huge, and the State cannot do it alone. Therefore, the State has to foster “strategic cooperation between the private and public sectors which, on the one hand, serves to elicit information on business opportunities and constraints and, on the other hand, generates policy initiatives in response” (Rodrik, 2004, p. 38). Its policy making has to be inclusive, involving organizations representing various sections of society and experts outside the government.

However, as highlighted in Section IV, CLM suffer from weak state capabilities. They would need significant support from development partners in building their State capabilities. This paper lists following areas where ESCAP can offer capacity building supports to CLM:

## 7.1 DOMESTIC RESOURCE MOBILIZATION

As noted earlier, State capability depends crucially on fiscal capacity of the state. Although Cambodia has done better than Lao PDR and Myanmar, all three need to improve their fiscal capacity or revenue raising measures. Indeed, it has been argued that one of the conditions for becoming a high-income country is the ability to collect taxes amounting to 25% to 35% of GDP.<sup>47</sup> The IMF (2013, p. 29) has estimated that if low-income and emerging market economies were to raise their tax effort by 10 per centage points, their revenues would increase by 3% of GDP.

The raising of tax revenue has acquired

additional urgency due to the COVID-19 induced increase in public debt. However, in strengthen tax efforts, policy makers should be mindful of the pandemic induced distress, especially of the SMEs, and hence balance with the need for recovery.

There is also the issue of tax progressivity in light of the rise in inequality in CLM. Therefore, countries trying to raise revenue must avoid those taxes which are likely to make the taxation system more regressive as it happened in the case of Cambodia (Hansen and Gjonbala, 2019). ESCAP (2014a) analyses various options for raising tax-GDP ratio, particularly in the Asia Pacific LDCs.

Efforts are also needed for raising private savings and enhancing the effectiveness of financial intermediation for investment in desired sectors. Low-income countries tend to have little financial depth, hampered by informalities, weak savings institutions, absence of pension systems, inefficient (development) banks, small stock markets with low liquidity, and financial illiteracy. All such (non-financial) issues, many of which are related to market failures, affect financing for structural transformation (see Mavrotas, 2008 and ESCAP, 2015). In this regard micro finance institutions play a critical role in mobilizing savings of low-income individuals.

Developing countries are encouraged to seek public-private partnerships (PPPs) to finance their investment needs, especially in the area of infrastructure. However, most countries do have necessary administrative capabilities to design PPPs to ensure equity in access and to prevent contingent public liabilities. ESCAP has produced various capacity building resources, such as *Country Guidance for Public-Private Partnerships for Sustainable*

<sup>47</sup> Half a century ago Nicholas Kaldor argued that, if a country wishes to become 'developed' it needs to collect in taxes an amount greater than the 10-15% found in many developing countries. Similarly, Alison Martin and Arthur Lewis (1956)

held that "...the government of an under-developed country needs to be able to raise revenue of about 17 to 19 per cent of G.N.P....in order to give a not better than average standard of service."

*Development in Asia and the Pacific*,<sup>48</sup> *A Guidebook on Public-Private Partnership in Infrastructure*,<sup>49</sup> and e-Learning resources for policy makers.<sup>50</sup>

## 7.2 MACROECONOMIC MANAGEMENT

Macroeconomic management plays a critical role in accelerating structural transformation that is inclusive and environmentally sustainable (Chandrasekhar and Ghosh, 2013). However, CLM's ability to use fiscal policy for promoting inclusive and sustainable development is severely constrained by their limited fiscal space, further strained by COVID-19 induced rising debt. Significant dollarization also constrains their ability to effectively use monetary and exchange rate policies.

Therefore, CLM need capacity building in designing developmental macroeconomic policies that balance stabilization and developmental roles of macroeconomic policies. Such balance entails changing the way fiscal and monetary policies are designed and implemented and how issues of public debt or inflation are viewed. Policymakers need to analyse the composition of public expenditure and procurement programmes for their impacts on growth, employment,

income distribution and the environment, beyond the traditional concerns with debt and inflation. Similar analyses are also needed in the case of monetary policy. Such developmental fiscal and monetary policies would also need supportive exchange rate and capital account management policies (ESCAP, 2013).<sup>51</sup>

## 7.3 TRADE DIVERSIFICATION AND SUSTAINABLE BUSINESS DEVELOPMENT

Early development theorists emphasized structural transformation, and in particular industrialization, in a closed economy context, and focused on import substitution. They largely ignored the importance of dynamic private sector capabilities to drive the process. A trade-centric approach to development took hold since the 1980s with the spectacular success of the export-oriented newly industrializing economies of East Asia that emphasizes global integration. The fundamental assumption of the trade-centric development is that demand is perfectly elastic at the international price; the only constraint to growth is supply. Thus, trade liberalization, trade facilitation, trade agreements are the key policies, addressing export supply-side constraints. Since the

48 [www.unescap.org/sites/default/files/PPP%20and%20SDGs%20Draft%202020%20December.pdf](http://www.unescap.org/sites/default/files/PPP%20and%20SDGs%20Draft%202020%20December.pdf) (accessed 15 October 2020).

49 [www.unescap.org/sites/default/files/ppp\\_guidebook.pdf](http://www.unescap.org/sites/default/files/ppp_guidebook.pdf) (accessed 15 October 2020).

50 [www.unescap.org/our-work/transport/financing-and-private-sector-participation/public-private-partnership-course](http://www.unescap.org/our-work/transport/financing-and-private-sector-participation/public-private-partnership-course) (accessed 15 October 2020).

51 ESCAP produced a number of policy briefs on developmental macroeconomic policies for the purpose of capacity building. E.g., "Developmental macroeconomics"; "Forward-looking macroeconomic policies – re-examining inflation and debt limits"; "Coping with volatile capital flows in Asia and the Pacific"; "Policies for balanced development of LDCs"; "Macroeconomic policies in post-conflict resource rich countries"; "Governments can use sustainable public procurement to foster inclusive and sustainable development in Asia and the Pacific"; "Accelerating MDGs achievement in Asia and the Pacific: the role of public expenditure"; "Are tax incentives attracting more foreign direct investments in Asia and the Pacific?"; "Financing sustainable development and policy issues for capital

market development"; "Reducing resource dependence: What can Asia-Pacific resource rich countries do?"; "Smooth transition and graduation of least developed countries: coping with natural disasters and climate change"; "Combating COVID-19 in Asia and the Pacific: Measures, lessons and the way forward"; "Maintaining financial stability in Asia and the Pacific"; "Asia and the Pacific - Shaping future tax policies in a digital era"; "Industrial policy for structural transformation to reduce poverty in LDCs, LLDCs and SIDS"; "Structural transformation in Asia's landlocked developing countries"; "Structural transformation, backward and forward linkages and job creation in Asia-Pacific least developed countries"; "Fiscal space and national budgets for SDGs"; "Securing financial stability through macroprudential measures"; "Making effective use of fiscal space for sustainable development"; "Improving tax administration"; "Expanding the tax base"; "Prudent sovereign borrowing from financial markets"; "Leveraging private finance for sustainable development"; "Financing social protection"; "Taxing for shared prosperity"; available from [www.unescap.org/resource-series/mpfd-policy-briefs](http://www.unescap.org/resource-series/mpfd-policy-briefs).

2008-2009 GFC, the focus has shifted to global integration with emphasis on structural transformation (see Commission on Growth and Development, 2008; Lin, 2012; Spence, 2011; and Studwell, 2013).

However, in the wake of the GFC, ESCAP has emphasized **regional integration**, dubbed, “Growing Together” for an inclusive and sustainable Asia and the Pacific. ESCAP has also produced a number of learning materials for policy makers on trade facilitation, trade policy & integration, sustainable business development.<sup>52</sup>

## 7.4 SOCIAL PROTECTION AND INCLUSION

Structural transformation is disruptive and may cause unemployment due to mismatches in demand and supply of skills in the growing and declining sectors. Thus, there can be political resistance to change. Social protection plays a critical role in cushioning the pains and hence in creating political support for structural transformation. Social protection is also critical for reducing vulnerabilities arising from shocks. CLM's social protection coverage is very low, with social expenditure less than 1% of GDP – Cambodia (0.8%), Lao PDR (0.8%) and Myanmar (0.1%) – as against the Asian

average of 4.0% (ADB, 2019). The need for strengthening and widening social protection coverage has heightened in the wake of COVID-19 pandemic which has pushed hundreds of thousands of people to poverty.

ESCAP has developed Social Protection Toolbox to support member States and other stakeholders in the region to build inclusive social protection schemes. It contains:

- More than 100 good practices from around the world that show what others are doing to build inclusive legal frameworks, schemes for those in poverty, for persons with disabilities and universal schemes for all.
- E-learning guides that show how investing in inclusive social protection can accelerate progress towards the SDGs, why universal schemes are better at reaching the poor than targeted schemes, and what policy options to consider when designing inclusive schemes.
- An interactive assessment tool that will help policy makers identify coverage gaps in their respective countries and find out how to close them based on the steps other countries are taking to fill similar gaps.

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52 For example, Readiness Assessment Guide for Cross-border Paperless Trade; An update on Asia-Pacific economies' preferential trade agreements; Trade facilitation in times of pandemic: practices from South and South West Asia; Value chain development for deeper integration of East Asia and Latin America; Online Repository of Contributions to the Policy Hackathon on Model Provisions for Trade in Times of Crisis and Pandemic; Trade facilitation in times of pandemic: practices from the East and North- East Asia; Trade

facilitation in times of pandemic: practices from North and Central Asia; Negotiating strategies for LDCs to make the most of Aid for Trade; Enabling growth in the new economy: Industrial policy choices in a world of disruptive technological change; E-commerce provisions in RTAs: Implications for negotiations and capacity building; Removing obstacles to low value consignments trade for Asia-Pacific small and medium-sized enterprises; Maximizing Benefits of Mekong Value Chains for SMEs.



## Box 6: Building State capabilities: A pragmatic evolutionary way forward

In many developing countries the capability of the state to implement its policies and programmes is a key constraint to structural transformation. As Evans (1998) notes, a number of lessons can be learned from successful East Asian countries in addressing these key constraints.

1. *Institutional capacity develops over time through learning.* The technical capacities of Governments were not particularly advanced when East Asian developmental States embarked on their development process. They were built up over time, through policies of meritocratic recruitment, continuity of personnel and an incentive-based career structure commensurate with the private sector. Significantly, even in successful developmental States all the bureaucracy was not necessarily super-efficient. Policy learning was an integral aspect of the process of building developmental State capability.
2. *Focus on a small number of key agencies and institutions.* There was a deliberate strategy to build a few strategically important agencies instead of improving government effectiveness across the board and all at once. This is consistent with Rodrik's findings from his cross-country analysis of the relationship between institutions and growth that "large-scale institutional transformation is hardly a prerequisite for getting growth going. ... Countries do not need an extensive set of institutional reforms in order to start growing" (Rodrik, 2008, p. 191).

3. *There is no one-size-fits-all magic bullet.* One major lesson of efforts at institutional reform is that "institutional innovations do not travel well" (Rodrik, 2005, p. 994). Andrews and others (2015, p. 124) also found, "There are no easy or quick-fix solutions. Building state capability is an idiosyncratic process that looks different in each and every country; the specific institutional structures that come to have local legitimacy and effectiveness are highly dependent on a complex interplay of local context, history, politics and culture".

Therefore, CLM Governments should not imagine that they can simply take policies and institutions from successful developmental States – especially in East Asia – and transplant them for guaranteed success. In building developmental State capabilities in CLM, it is necessary to identify which principles and practices of the successful models provide a "good fit" with the circumstances of each of them. This is different from the wholesale transfer of best practice as in the case of onerous 'good governance' agenda. Again, what constitutes a "good fit" to particular country circumstances will change over time. Therefore, it is important to have a pragmatic and evolutionary approach in which policies and institutions are adapted to the level of development of both productive capacities and governance capabilities. A pragmatic evolutionary approach also implies that institutions should build on what exists within a country rather than identifying what does not exist, compared with some external norms of best practice.

## 7.5 CONNECTIVITY

CLM's productive capacity is seriously hampered by inadequate and low-quality infrastructure resulting in poor connectivity – both internally and within the region. Following on ESCAP's "Growing Together", the 2014 theme study was on "Regional Connectivity for Shared Prosperity". ESCAP regularly conducts sub-regional capacity building workshops on regional connectivity and has developed a number of capacity building resource material for policy makers. They include:

- Strengthening Subregional Connectivity in East and North-East Asia through Effective Economic Corridor Management
- Inclusive Use of Broadband Connectivity for Quality Education, Insights from Asia and the Pacific
- The State of Broadband: Tackling digital inequalities
- Enhancing Cybersecurity for Industry 4.0 in Asia and the Pacific

## 7.6 RENEWABLE AND AFFORDABLE ENERGY

Energy is the cornerstone of sustainable development. But energy shortages and access to affordable electricity are major

impediments to structural transformation in most LDCs, including CLM. ESCAP's mission on energy is to ensure access to affordable, reliable, sustainable, and modern energy for all in Asia and the Pacific in line with SDG7 targets, and to enhance energy security and connectivity through regional cooperation.

ESCAP provides platform for dialogue and knowledge sharing and implements programmes to foster the transition to a sustainable energy system by advancing energy access, renewable energy, and energy efficiency. Its *National Expert SDG Tool for Energy Planning (NEXSTEP)* and *Asia Pacific Energy Portal* can provide significant capacity building support to CLM's policy makers.

## 7.7 STATISTICAL SYSTEM

Reliable, timely and disaggregated data are vital for planning and policy making, as well as monitoring progress. Like any other LDCs, the statistical systems in CLM are weak. ESCAP regularly reviews statistical capacity of member States and has been providing capacity building support in the region since its inception. It should give priority to CLM in its capacity development and training programmes, especially at its training centre SIAP, based on the results of its latest reviews.

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# Appendix A: Potential new products

<b>Cambodia</b>	
<b>SITC category</b>	<b>Per centage of export opportunity</b>
1. Machinery & mech appliance etc	11.880980
2. Pharmaceutical products	8.231316
3. Optical, photo, technical, medical, etc apparatus	7.927646
4. Iron and steel	7.596345
5. Electrical, electronic equipment	5.888375
6. Vehicles other than railway, tramway	4.757749
7. Plastics and articles thereof	4.258469
8. Organic chemicals	4.168354
9. Paper & paperboard, articles of pulp, paper and board	3.370500
10. Articles of iron or steel	2.933513
11. Rubber and articles thereof	2.343584
12. Miscellaneous chemical products	1.964070
13. Pearls, precious stones, metals, coins, etc	1.631812
14. Meat and edible meat offal	1.626212
15. Inorganic chemicals, precious metal compound, isotopes	1.581843
16. Wood and articles of wood, wood charcoal	1.520132
17. Glass and glassware	1.417685
18. Stone, plaster, cement, asbestos, mica, etc articles	1.280741
19. Animal, vegetable fats and oils, cleavage products, etc	1.248176
20. Dairy products, eggs, honey, edible animal products	1.238382
21. Copper and articles thereof	1.192489
22. Tanning, dyeing extracts, tannins, derivs, pigments etc	1.136421
23. Tools, implements, cutlery, etc of base metal	1.038383
24. Aluminium and articles thereof	0.9385574
25. Vegetable, fruit, nut, etc food preparations	0.9158404
26. Ceramic products	0.8774670
27. Railway, tramway locomotives, rolling stock, equipment	0.6980905
28. Manmade staple fibres	0.6438020
29. Cereals	0.6378725
30. Furniture, lighting, signs, prefabricated buildings	0.6276750
31. Edible vegetables and certain roots and tubers	0.6207142
32. Cereal, flour, starch, milk preparations and products	0.5779182
33. Miscellaneous articles of base metal	0.5656056
34. Mineral fuels, oils, distillation products, etc	0.5498755
35. Wadding, felt, nonwovens, yarns, twine, cordage, etc	0.5497520
36. Meat, fish and seafood food preparations nes	0.5412639
37. Impregnated, coated or laminated textile fabric	0.5382314
38. Beverages, spirits and vinegar	0.5035487
39. Cotton	0.4911211
40. Milling products, malt, starches, inulin, wheat gluten	0.4564460
41. Soaps, lubricants, waxes, candles, modelling pastes	0.4265465
42. Fish, crustaceans, molluscs, aquatic invertebrates nes	0.4206919
43. Arms and ammunition, parts and accessories thereof	0.4173228
44. Essential oils, perfumes, cosmetics, toileteries	0.3885550
45. Salt, sulphur, earth, stone, plaster, lime and cement	0.3847864

46. Fertilizers	0.3677023
47. Sugars and sugar confectionery	0.3607628
48. Miscellaneous edible preparations	0.3471084
49. Manmade filaments	0.3423558
50. Cocoa and cocoa preparations	0.3415363
51. Carpets and other textile floor coverings	0.3241705
52. Lead and articles thereof	0.3155195
53. Live trees, plants, bulbs, roots, cut flowers etc	0.3108377
54. Miscellaneous manufactured articles	0.3077996
55. Clocks and watches and parts thereof	0.2866368
56. Raw hides and skins (other than furskins) and leather	0.2442350
57. Edible fruit, nuts, peel of citrus fruit, melons	0.2400809
58. Pulp of wood, fibrous cellulosic material, waste etc	0.2077236
59. Toys, games, sports requisites	0.1962336
60. Photographic or cinematographic goods	0.1838908
61. Articles of apparel, accessories, not knit or crochet	0.1810520
62. Knitted or crocheted fabric	0.1667513
63. Oil seed, oleagic fruits, grain, seed, fruit, etc, nes	0.1579643
64. Wool, animal hair, horsehair yarn and fabric thereof	0.1425837
65. Special woven or tufted fabric, lace, tapestry etc	0.1419643
66. Residues, wastes of food industry, animal fodder	0.1384351
67. Musical instruments, parts and accessories	0.1380530
68. Nickel and articles thereof	0.1320679
69. Other base metals, cermets, articles thereof	0.1242256
70. Albuminoids, modified starches, glues, enzymes	0.1181981
71. Lac, gums, resins, vegetable saps and extracts nes	0.1129691
72. Ores, slag and ash	0.1109917
73. Coffee, tea, mate and spices	0.1084564
74. Aircraft, spacecraft, and parts thereof	0.1074107
75. Other made textile articles, sets, worn clothing etc	0.0939960
76. Articles of apparel, accessories, knit or crochet	0.0880175
77. Tobacco and manufactured tobacco substitutes	0.0824160
78. Zinc and articles thereof	0.0791815
79. Cork and articles of cork	0.0710087
80. Tin and articles thereof	0.0604119
81. Printed books, newspapers, pictures etc	0.0574779
82. Footwear, gaiters and the like, parts thereof	0.0452373
83. Vegetable textile fibres nes, paper yarn, woven fabric	0.0377350
84. Explosives, pyrotechnics, matches, pyrophorics, etc	0.0327639
85. Products of animal origin, nes	0.0248732
86. Ships, boats and other floating structures	0.0143905
87. Furskins and artificial fur, manufactures thereof	0.0143142
88. Bird skin, feathers, artificial flowers, human hair	0.0130104
89. Articles of leather, animal gut, harness, travel goods	0.0072855
90. Manufactures of plaiting material, basketwork, etc.	0.0055036
91. Headgear and parts thereof	0.0048818
92. Umbrellas, walking-sticks, seat-sticks, whips, etc	0.0041372
93. Silk	0.0007833

## Lao PDR

SITC category	Per centage of export opportunity
1. Machinery & mech appliance etc	10.738290
2. Electrical, electronic equipment	7.329787
3. Iron and steel	6.553357
4. Optical, photo, technical, medical, etc apparatus	6.401551
5. Plastics and articles thereof	5.249447
6. Organic chemicals	4.081108
7. Pharmaceutical products	4.060447
8. Vehicles other than railway, tramway	3.825109
9. Paper & paperboard, articles of pulp, paper and board	3.768655
10. Articles of iron or steel	3.170583
11. Miscellaneous chemical products	1.896241
12. Aluminium and articles thereof	1.877782
13. Rubber and articles thereof	1.805866
14. Wood and articles of wood, wood charcoal	1.619796
15. Glass and glassware	1.534352
16. Furniture, lighting, signs, prefabricated buildings	1.418408
17. Meat and edible meat offal	1.257086
18. Pearls, precious stones, metals, coins, etc	1.234649
19. Tanning, dyeing extracts, tannins, derivs, pigments etc	1.233202
20. Animal, vegetable fats and oils, cleavage products, etc	1.196293
21. Inorganic chemicals, precious metal compound, isotopes	1.168149
22. Stone, plaster, cement, asbestos, mica, etc articles	1.097677
23. Beverages, spirits and vinegar	1.064479
24. Tools, implements, cutlery, etc of base metal	0.9701977
25. Vegetable, fruit, nut, etc food preparations	0.9648299
26. Copper and articles thereof	0.9553922
27. Edible fruit, nuts, peel of citrus fruit, melons	0.9142212
28. Meat, fish and seafood food preparations nes	0.9126284
29. Ceramic products	0.8947515
30. Articles of apparel, accessories, not knit or crochet	0.8419904
31. Wadding, felt, nonwovens, yarns, twine, cordage, etc	0.8289198
32. Knitted or crocheted fabric	0.7779049
33. Dairy products, eggs, honey, edible animal product nes	0.7614755
34. Miscellaneous articles of base metal	0.7518495
35. Toys, games, sports requisites	0.7434886
36. Cereal, flour, starch, milk preparations and products	0.7083145
37. Clocks and watches and parts thereof	0.6804355
38. Articles of apparel, accessories, knit or crochet	0.6490796
39. Railway, tramway locomotives, rolling stock, equipment	0.6275141
40. Cereals	0.6061038
41. Impregnated, coated or laminated textile fabric	0.5969640
42. Fish, crustaceans, molluscs, aquatic invertebrates nes	0.5950456
43. Cotton	0.5703584
44. Manmade staple fibres	0.5534348
45. Miscellaneous manufactured articles	0.5335569
46. Manmade filaments	0.5280585
47. Soaps, lubricants, waxes, candles, modelling pastes	0.4920358
48. Essential oils, perfumes, cosmetics, toileteries	0.4908956
49. Other made textile articles, sets, worn clothing etc	0.4343389
50. Mineral fuels, oils, distillation products, etc	0.4125627
51. Edible vegetables and certain roots and tubers	0.4120091
52. Articles of leather, animal gut, harness, travel goods	0.4023288
53. Miscellaneous edible preparations	0.3994986
54. Special woven or tufted fabric, lace, tapestry etc	0.3741058
55. Arms and ammunition, parts and accessories thereof	0.3561124
56. Milling products, malt, starches, inulin, wheat gluten	0.3346572
57. Carpets and other textile floor coverings	0.3261924
58. Raw hides and skins (other than furskins) and leather	0.3207046

59. Sugars and sugar confectionery	0.3188612
60. Lead and articles thereof	0.2874989
61. Live trees, plants, bulbs, roots, cut flowers etc	0.2820327
62. Fertilizers	0.2808494
63. Bird skin, feathers, artificial flowers, human hair	0.2774386
64. Albuminoids, modified starches, glues, enzymes	0.2705122
65. Footwear, gaiters and the like, parts thereof	0.1862232
66. Tin and articles thereof	0.1820521
67. Other base metals, cermets, articles thereof	0.1765349
68. Salt, sulphur, earth, stone, plaster, lime and cement	0.1753646
69. Zinc and articles thereof	0.1746098
70. Musical instruments, parts and accessories	0.1619563
71. Aircraft, spacecraft, and parts thereof	0.1476296
72. Oil seed, oleagic fruits, grain, seed, fruit, etc, nes	0.1473736
73. Residues, wastes of food industry, animal fodder	0.1320831
74. Pulp of wood, fibrous cellulosic material, waste etc	0.1307941
75. Cocoa and cocoa preparations	0.1262968
76. Nickel and articles thereof	0.1189618
77. Wool, animal hair, horsehair yarn and fabric thereof	0.1174088
78. Photographic or cinematographic goods	0.1144289
79. Printed books, newspapers, pictures etc	0.1106365
80. Lac, gums, resins, vegetable saps and extracts nes	0.1098694
81. Umbrellas, walking-sticks, seat-sticks, whips, etc	0.1061504
82. Ores, slag and ash	0.0977683
83. Cork and articles of cork	0.0890099
84. Explosives, pyrotechnics, matches, pyrophorics, etc	0.0839607
85. Tobacco and manufactured tobacco substitutes	0.0748836
86. Coffee, tea, mate and spices	0.0541630
87. Headgear and parts thereof	0.0495258
88. Furskins and artificial fur, manufactures thereof	0.0385039
89. Vegetable textile fibres nes, paper yarn, woven fabric	0.0333847
90. Products of animal origin, nes	0.0226000
91. Ships, boats and other floating structures	0.0104474
92. Manufactures of plaiting material, basketwork, etc.	0.0053009
93. Live animals	0.0006135

## Myanmar

SITC category	Per centage of export opportunity
1. Machinery & mech appliance etc	12.213380
2. Pharmaceutical products	7.002079
3. Iron and steel	6.959548
4. Optical, photo, technical, medical, etc apparatus	6.238803
5. Electrical, electronic equipment	6.046992
6. Organic chemicals	4.542073
7. Plastics and articles thereof	4.176049
8. Paper & paperboard, articles of pulp, paper and board	3.682286
9. Vehicles other than railway, tramway	3.363980
10. Articles of iron or steel	2.950768
11. Rubber and articles thereof	1.993885
12. Miscellaneous chemical products	1.851452
13. Copper and articles thereof	1.656593
14. Inorganic chemicals, precious metal compound, isotopes	1.641098
15. Pearls, precious stones, metals, coins, etc	1.591023
16. Glass and glassware	1.552119
17. Meat and edible meat offal	1.544555
18. Wood and articles of wood, wood charcoal	1.518246
19. Animal, vegetable fats and oils, cleavage products, etc	1.376925
20. Dairy products, eggs, honey, edible animal products	1.319587
21. Stone, plaster, cement, asbestos, mica, etc articles	1.246331
22. Tanning, dyeing extracts, tannins, dyes, pigments etc	1.055425
23. Tools, implements, cutlery, etc of base metal	0.9590775
24. Edible fruit, nuts, peel of citrus fruit, melons	0.9410968
25. Aluminium and articles thereof	0.9008551
26. Beverages, spirits and vinegar	0.8683749
27. Ceramic products	0.8476427
28. Fish, crustaceans, molluscs, aquatic invertebrates	0.8239167
29. Toys, games, sports requisites	0.7591816
30. Cereal, flour, starch, milk preparations and products	0.7043023
31. Furniture, lighting, signs, prefabricated buildings	0.6919923
32. Clocks and watches and parts thereof	0.6750081
33. Cereals	0.6677825
34. Manmade staple fibres	0.6104064
35. Mineral fuels, oils, distillation products, etc	0.5834516
36. Meat, fish and seafood food preparations	0.5823501
37. Vegetable, fruit, nut, etc food preparations	0.5659131
38. Miscellaneous articles of base metal	0.5574846
39. Edible vegetables and certain roots and tubers	0.5562341
40. Cotton	0.5530108
41. Wadding, felt, nonwovens, yarns, twine, cordage, etc	0.5516222
42. Impregnated, coated or laminated textile fabric	0.5491701
43. Carpets and other textile floor coverings	0.5341048
44. Manmade filaments	0.5332654
45. Essential oils, perfumes, cosmetics, toiletries	0.5274059
46. Railway, tramway locomotives, rolling stock, equipment	0.5144961
47. Milling products, malt, starches, inulin, wheat gluten	0.4956586
48. Live trees, plants, bulbs, roots, cut flowers etc	0.4259663
49. Miscellaneous manufactured articles	0.4253365
50. Arms and ammunition, parts and accessories thereof	0.4216005
51. Knitted or crocheted fabric	0.4171547
52. Miscellaneous edible preparations	0.3818782
53. Sugars and sugar confectionery	0.3559568
54. Other made textile articles, sets, worn clothing etc	0.3217420
55. Raw hides and skins (other than furskins) and leather	0.3072435
56. Cocoa and cocoa preparations	0.2974434
57. Soaps, lubricants, waxes, candles, modelling pastes	0.2796145

58. Articles of apparel, accessories, not knit or crochet	0.2579525
59. Articles of apparel, accessories, knit or crochet	0.2510095
60. Fertilizers	0.2467245
61. Salt, sulphur, earth, stone, plaster, lime and cement	0.2253166
62. Other base metals, cermets, articles thereof	0.2006283
63. Albuminoids, modified starches, glues, enzymes	0.1968487
64. Photographic or cinematographic goods	0.1908583
65. Residues, wastes of food industry, animal fodder	0.1835022
66. Special woven or tufted fabric, lace, tapestry etc	0.1814877
67. Tobacco and manufactured tobacco substitutes	0.1640182
68. Live animals	0.1622205
69. Oil seed, oleagic fruits, grain, seed, fruit, etc, nes	0.1596039
70. Wool, animal hair, horsehair yarn and fabric thereof	0.1592298
71. Pulp of wood, fibrous cellulosic material, waste etc	0.1529861
72. Ores, slag and ash	0.1468114
73. Nickel and articles thereof	0.1391628
74. Printed books, newspapers, pictures etc	0.1315494
75. Aircraft, spacecraft, and parts thereof	0.1297801
76. Musical instruments, parts and accessories	0.1252805
77. Lac, gums, resins, vegetable saps and extracts nes	0.1236255
78. Explosives, pyrotechnics, matches, pyrophorics, etc	0.0944729
79. Cork and articles of cork	0.0923195
80. Footwear, gaiters and the like, parts thereof	0.0828361
81. Umbrellas, walking-sticks, seat-sticks, whips, etc	0.0732270
82. Zinc and articles thereof	0.0728728
83. Vegetable textile fibres nes, paper yarn, woven fabric	0.0587816
84. Tin and articles thereof	0.0543007
85. Headgear and parts thereof	0.0517486
86. Lead and articles thereof	0.0421384
87. Products of animal origin, nes	0.0254296
88. Coffee, tea, mate and spices	0.0200402
89. Silk	0.0187548
90. Furskins and artificial fur, manufactures thereof	0.0184546
91. Articles of leather, animal gut, harness, travel goods	0.0180648
92. Bird skin, feathers, artificial flowers, human hair	0.0173251
93. Ships, boats and other floating structures	0.0147123
94. Manufactures of plaiting material, basketwork, etc.	0.0034168
95. Vegetable plaiting materials, vegetable products nes	0.0015718

# Appendix B: Methods of Reflections, Productive Capacity Index and Product Complexity Index

The method of reflections is based on the three following assumptions: (1) products require a specific set of non-tradable capabilities to be produced; (2) countries have some of these capabilities available, but not all of them; and (3) a country produces the goods for which the required set of capabilities is available in that country. The method is an iterative process linked to these three assumptions to find estimates of the capabilities of countries and the complexity of products that are consistent with each other. In the first iteration, it ranks countries in terms of product diversification based on its export product-mix. Countries that export more diversified products have higher productive capacities available to them. In the second iteration, it ranks products in terms of capabilities required to produce them by comparing average diversification of countries having a similar or the same export product-mix. For example, if two products (X and Y) are exported by N countries, but countries that export X have higher average diversification than countries that export Y then X is regarded as requiring higher capabilities to produce. In the third iteration, it identifies how common the product-mix of countries that export each product is. A more exclusive

product-mix indicates that the relevant countries have more capabilities available to them. For each country, a higher order reflection provides information regarding product-mix uniqueness (exclusivity) and diversification of production of other countries in the network connecting countries and products, used to infer the productive capacities available in that country.

The number of iterations depends on the structure of the network – i.e., the number of countries, products and how they are connected. The strategy used by Hidalgo and Hausmann (2009) and Hidalgo (2009) is to iterate the method enough times that the ranking of the higher variables appears to remain unchanged. That is, the iterative process continues until ranking of countries based on the higher measures of diversification stabilizes, and results in relevant values to differentiate the productive capacities of countries.

This strategy may, however, fail to provide useful information in some specific cases when applied to poorer economies that participate at the very end of the GVC and export a small number of products. For example, exports of complex electronic products of a country which participates only



in the assembly of its components at the finishing stage will be captured by the higher order reflection as highly complex; and hence may misleadingly imply that the country has high capabilities.

Therefore, Freire (2017) suggested some modifications that consider all the information in the iterations of the method of reflections. It assumes that (1) the higher the diversification, the higher the number of capabilities available in a country, and (2) the higher the number of countries that export a similar product-mix, the lower the range of capabilities available. Thus, if country A produces 100 products and country B produces 50 products then the productive capacity of A is higher than that of B on the assumption that each product requires a specific set of capabilities to be produced, and a country would produce the products for which it has the required set of capabilities. That is, an initial measure of productive capacity is directly proportional to the diversification.

Now if a country C has the same diversification level as country A, average uniqueness of their exports can be compared to distinguish between productive capabilities

of A and C. Fewer countries are capable to produce and export more unique products. Therefore, if C's export-mix is less unique (i.e., more similar to other countries' export-mix) than that of A then C is regarded as having lower productive capabilities.

We may have another country D which has the same level of diversification and average uniqueness of export-mix as A. In that case, the strategy is to look at the group of "similar" countries in terms of exports, and based on their level of diversification, estimate the level of capabilities of A and D. The higher the average diversification of countries with "similar" exports, the higher the capabilities of these countries.

By continuing this procedure, Freire derives the productive capacity index (PCapI) as directly proportional to the measures of diversification and inversely proportional to the measure of "similarities" (less uniqueness) of exports.

Product complexity index (PComI) of countries is calculated following a similar procedure as the calculation of PCapI. For details see Freire (2017).

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