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PERSPECTIVE

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The Importance of Export Diversification for Developing ASEAN Economies

*Phi Minh Hong**

Southeast Asia is one of the developing regions most dependent on exports, and has the most diversified range of exports. This picture taken on January 11, 2017 shows Vietnamese employees in the painting shop at the Ford automotive plant in the northern province of Hai Duong. Vietnam now boasts one of Southeast Asia's fastest growing economies driven by exports. Picture: Hoang Dinh Nam, AFP.

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EXECUTIVE SUMMARY

- Southeast Asian economies have a higher degree of export diversification than those in other developing regions. The region's upper-middle-income (UMI) economies diversify their export partners and products more than the lower-middle-income (LMI) ones, except for Vietnam, which has succeeded in expanding exports across products and destinations.

- The more countries diversify their exports, the less volatile their export earnings are and the more sustainable their economic growth. Export diversification reduces an economy's vulnerability to adverse external shocks.

- Since the Covid-19 crisis involves both demand and supply shocks, export diversification should be combined with supply side policies to enhance economic resilience.

- In order to grow exports, UMI economies should increase the intensive margin of exports by concentrating on more sophisticated products.

- LMI economies should develop new export products and markets by reducing the export share of resource-based products and expanding manufacturing exports in which they have comparative advantage.

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INTRODUCTION

What can developing economies do to stimulate economic growth and catch up with the richer ones? The export-led growth hypothesis suggests export expansion as the way.[1] Typically, developing economies specialise in producing and trading goods in which they have a comparative advantage: mainly commodities and primary goods. However, this model leads to greater exposure to external adverse shocks, such as those due to trade instability and foreign demand variations. Contrary to the traditional model of trade, the Newly Industrialised Countries (NICs) of East Asia in the early 1970s had successful experiences in enlarging the production and trade of a variety of goods. They therefore enjoyed rapid growth in value-added manufacturing and GDP growth, thus highlighting the importance of export diversification.

This Perspective examines export diversification in ASEAN member states, minus Brunei and Singapore which have higher per capita income than the rest.

EXPORT DIVERSIFICATION IN ASEAN DEVELOPING ECONOMIES

Literature on the subject shows an inverted U-shaped pattern of export diversification in relation to the development level.[2] Countries with lower income per capita tend to diversify, meaning that their exports are spread more equally across products or across destinations, and the motivation to specialise can become the leading economic force when they reach relatively high per capita income levels. Diversification is particularly important early in the development process of lower-income economies. This present study focuses essentially on the export diversification strategies of developing economies and identify lessons that can be drawn from these experiences.

Southeast Asia is one of the developing regions in the world that is most dependent on exports, and has the most diversified exports.[3] It is worth first comparing the degree of export diversification[4] in ASEAN to China, and to East Asian Pacific developing economies excluding China (EAP).[5] In Figure 1, exports from ASEAN developing economies are highly diversified in both products and trading partners, with the average of 0.027 and 0.08 over the period 1995-2019. These degrees of export diversification are six times higher in product diversification and 3.5 times in partners than in EAP developing economies.

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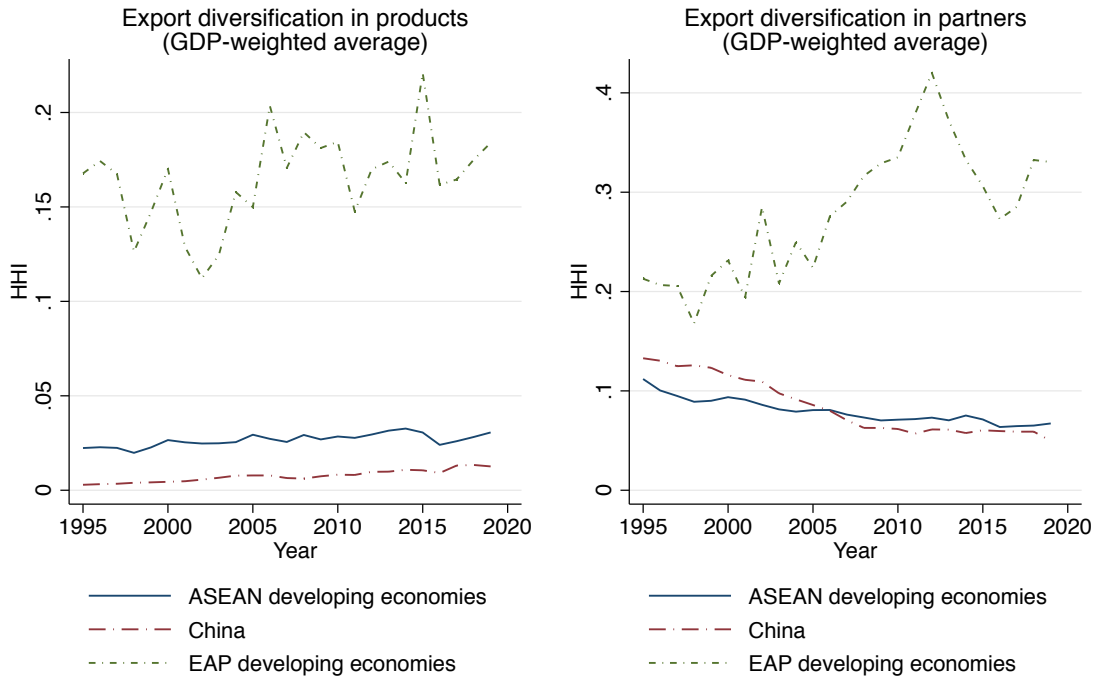
Figure 1. Average export diversification



Source: Author's calculation from BACI

At the country level, the evolution of export diversification indices is heterogeneous. The upper-middle-income economies (UMI) (Indonesia, Malaysia and Thailand) have consistently had higher degrees of export diversification in products and partners since 1995 (Figure 2). For the lower-middle-income economies (LMI) (Cambodia, Laos, Myanmar, Philippines, Viet Nam), these indices are relatively lower; they have just joined the stage of export diversification and can be referred to as latecomer countries in the export diversification process.[6]

On average, over the period 1995-2019, Thailand had the highest degree of export diversification in products and partners, followed by Indonesia (Figure 3). Although their export diversification indices in products were lower than China, the four countries (Thailand, Indonesia, Malaysia and Vietnam) succeeded in diversifying their export destinations more than their neighbours did.

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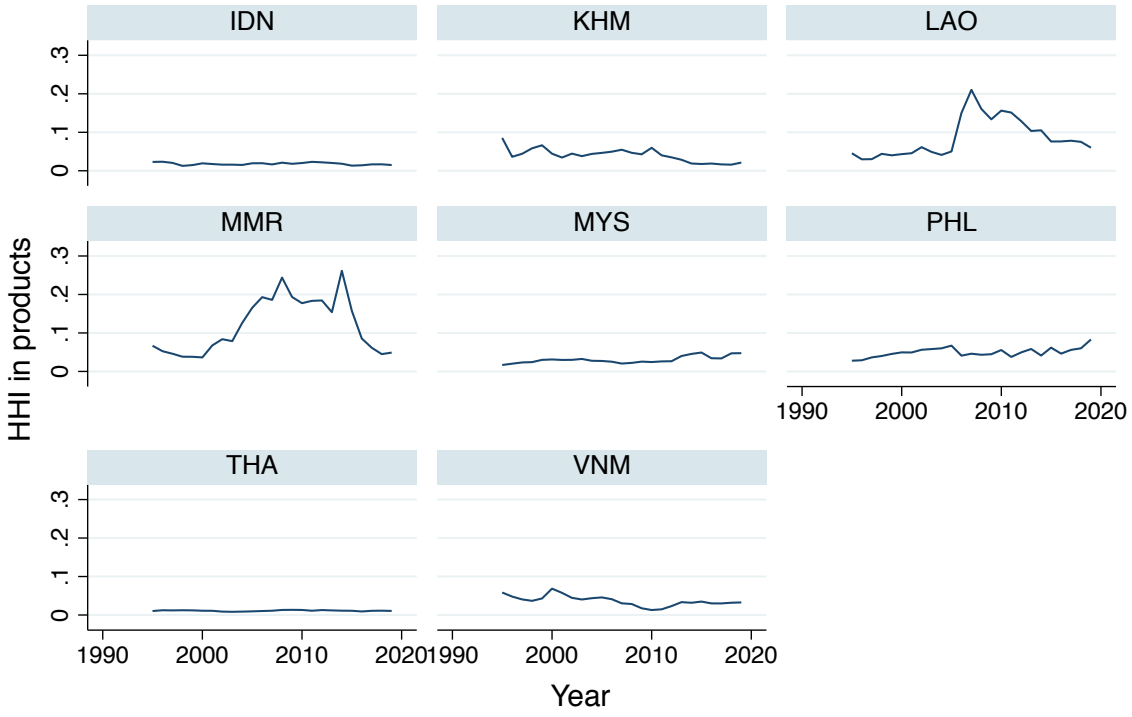
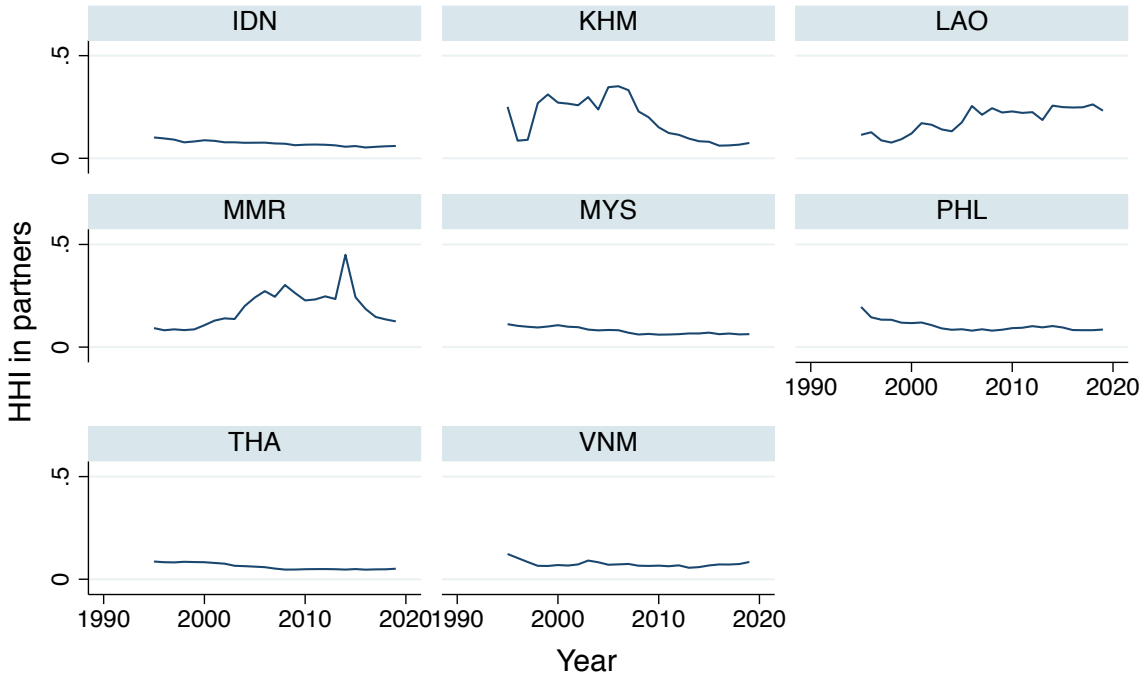
Figure 2. Export diversification indices for ASEAN developing economies, 1995-2019

a. Export diversification in products, 1995-2019



b. Export diversification in partners, 1995-2019



Source: Author's calculation from BACI
Note: IDN=Indonesia, KHM=Cambodia, LAO=Laos, MMR=Myanmar, MYS=Malaysia, PHL=The Philippines, THA=Thailand, VNM=Vietnam

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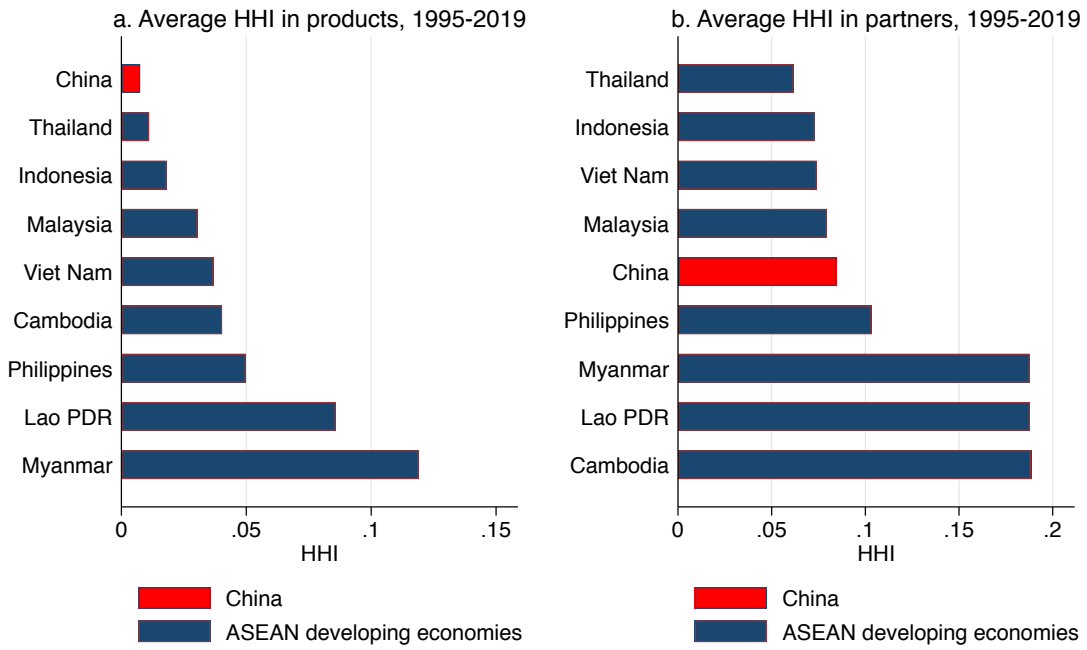
Figure 3. Export diversification index in products and partners over 1995-2019, by economy



Source: Author's calculation from BACI

ECONOMIC BENEFITS OF EXPORT DIVERSIFICATION

For small economies, export diversification can ensure sustainable economic growth by mitigating fluctuations in export earnings. By specialising in a more concentrated export portfolio, particularly in the case of commodities, a country's export revenues fluctuate significantly with a large change in commodities price (about 30%-50% on a monthly basis). By contrast, a more balanced flow of export revenues can be the result of a more diversified export basket.[7] For countries whose exports were highly concentrated in 2009-2019 (high HHI), such as Laos and Myanmar, their exports in the same period were largely volatile (Figure 4).[8] The UMI countries and Vietnam, which have succeeded in diversifying their exports (low HHI), have had less volatile export earnings.

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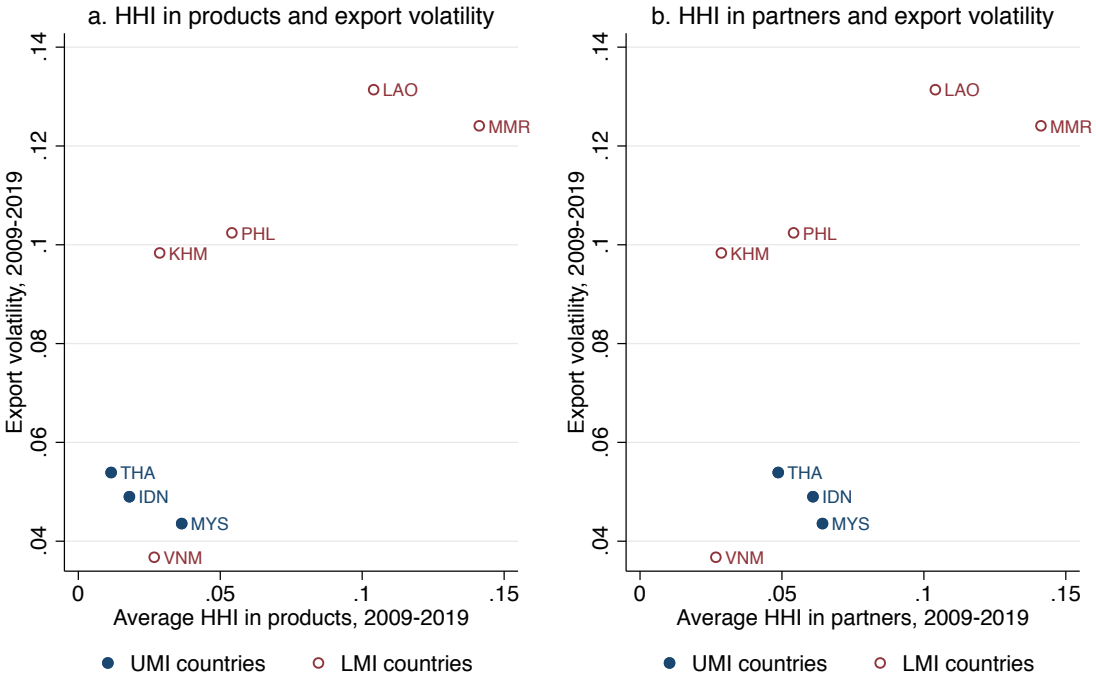
Figure 4. Relationship between export diversification and export earnings volatility



Source: Author's calculation from WTO data

Moreover, export diversification can make developing economies less susceptible to external shocks. From an economic standpoint, a country's vulnerability to external economic shocks is largely determined by its dependence on exports, since export earnings fund imports and contribute to investment and development. Production structures based primarily on export-led growth expose economies to external shocks more than those oriented towards domestic demand structures.[9] Hence, the effect of a shock is usually recorded by losses in export earnings, the size of which depends on the country's export composition and key trading partners. Focus on exporting a few commodities, especially primary commodities, and having only a few partners make a country more vulnerable to economic shocks.

Looking back to the 2007-2008 global financial crisis, export earnings then worsened drastically throughout all regions. Export revenues dropped by 22% in 2009. Interestingly, the lowest losses of 18% were registered for Asian developing economies, the most export-dependent region but also the region with a highly diversified export portfolio.[10] For developing ASEAN economies, the export growth was -16% in 2009.

During the Covid-19 pandemic, we have a similar picture of the export losses for the region. The recent statistics of UNCTADstat reveal that in 2020, the smallest export loss was recorded for Asian developing economies with a growth rate of -4.64% (against -20.3% for Africa and -9.7% for Latin America). For ASEAN developing economies, the reduction of export was also relatively low, about -1.2%.

At the country level, we compare the export growth rates of developing ASEAN economies in 2019, when the pandemic had not occurred, and in 2020, to examine their resilience to

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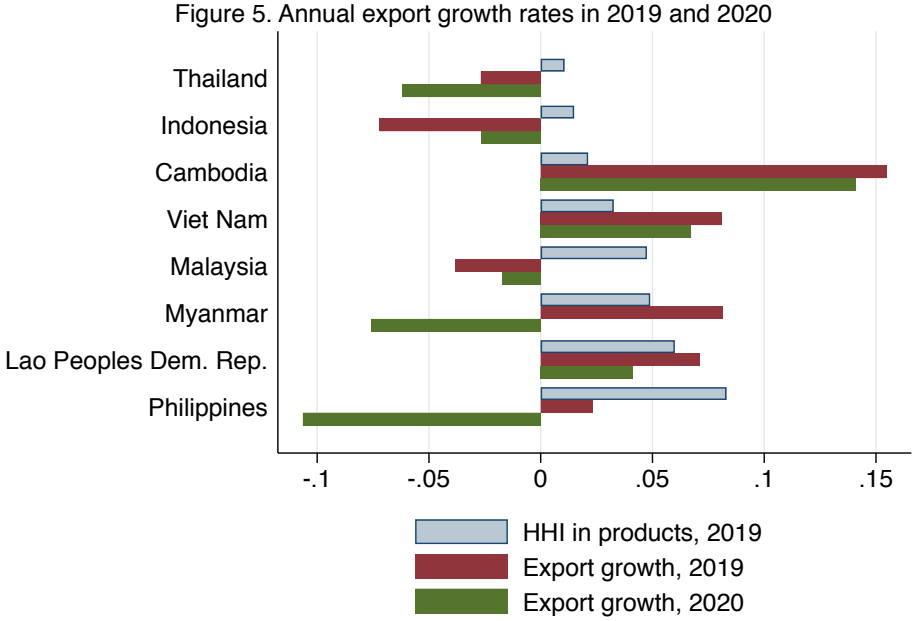
external shocks.[11] For most ASEAN developing economies, export diversification is associated with an improvement in their export growth rates (Figure 5). For countries who suffered losses in export earnings prior to the pandemic (Indonesia, Malaysia), these losses lessened in 2020. Latecomers such as Cambodia, Laos and Vietnam succeeded in keeping their positive export growth even during the pandemic crisis. However, it seems that the benefit of export diversification in reducing the adverse external shocks does not hold for all economies and requires further study for each individual economy. Two other LMI economies, Myanmar and The Philippines, despite an increase in exports earnings in 2019, suffered great losses in 2020. This might suggest that the export diversification process should be combined with other policies to mitigate the impact of the pandemic and hence increase their exports. This is because the Covid-19 crisis is related to both demand and supply shocks. While export diversification can reduce the adverse external shocks, policies related to the supply side, such as policies to control the disease (early reaction, quarantine based on possible exposure, improving healthcare capacity, etc.) or policies that help firms maintain their operations (tax deferment, financial aid, etc.), are necessary.

Good control of the Covid-19 pandemic is a crucial factor for business operations. In a recent survey conducted by the United Nations Industrial Development Organization (UNIDO) for The Philippines, labour shortages due to social distancing have reduced production capacity in firms. Although the work-from-home arrangement has been considered a necessary adaptation measure, the production sector could not use this method due to the nature of its operations, hence the cuts in production.[12] Using cumulative confirmed Covid-19 cases from Our World in Data as a proxy to the effectiveness of government responses to the pandemic (Table 1), we observe that the increase in export earnings of Cambodia, Laos and Vietnam are associated with not only a high degree of export diversification but also effective measures in preventing the Covid-19, reflected by the low number of Covid-19 cases. By contrast, Myanmar and The Philippines, who experienced high losses in exports in 2020, have greater numbers of Covid-19 cases.

Figure 5. Annual export growth rates in 2019 and 2020



Source: Author's calculation from BACI and WTO data

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Table 1. Cumulative confirmed Covid-19 cases per million people on 31/12/2020

Countries	Cumulative confirmed Covid-19 cases, per million people
Laos	5.63
Vietnam	15.05
Cambodia	22.61
Thailand	102.62
Myanmar	2290.58
Indonesia	2717.13
Malaysia	3491.63
The Philippines	4326.15

Source: Our World in Data

HOW TO DIVERSIFY EXPORTS

A country can diversify its exports by either increasing the number of active export lines via new products and new markets (extensive margin diversification, EM) or increasing exports of the same products to the same markets (intensive margin diversification, IM). The question for ASEAN developing economies is not only how to diversify their exports, but also how to diversify their exports to take advantage of the benefits of diversification.

Recent studies show differences in the effect of export diversification on export growth between the UMI and the LMI economies. For the former, such as Thailand, Indonesia and Malaysia, increasing export diversification at the IM will have a negative impact on export growth. These economies should develop exports along the IM with a re-concentration of their exports towards more sophisticated existing products. A 1% increase in the degree of concentration at the IM raises export growth by 1.078%.[13]

The concentration of exports in more sophisticated existing products of more advanced economies shifts labour-intensive activities to the LMI economies. This allows them to diversify their exports via new products, which in turn will increase the export volume. For Asian LMI economies, including those in the ASEAN region, a 1% increase in the level of diversification at the EM increases exports by 0.681%. Enlarging new product exports is particularly important for the LMI economies who are in the early stages of export diversification to achieve sustainable export growth.

The implementation of this goal might depend on the specific situation of each economy. For example, in the case of Laos, although the export diversification at the EM has increased gradually since the late 1990s (Figure A2), resource-based products still take a large share of its total exports. According to the BACI database, mineral and metal exports account for 41% of Laos' total share in 2019 against 52% in 2010. Shifting from commodity exports with low-income values and high price volatility to manufactured product exports is necessary to ensure sustainable export growth. Moreover, a deep integration into Global Value Chains (GVC) can enable the country to move into new activities and to diversify exports. The GVC participation rate for Laos is still lower than that for ASEAN, suggesting the potential to increase its participation in GVCs.[14] Meanwhile, Vietnam has had successful experience in diversifying exports through GVCs. Vietnam improved its GVC participation index from 50.6% in 2005 to 55.6% in 2015 (only after Malaysia and

Singapore).[15] This is associated with the decrease in HHI in products from 0.46 in 2005 to 0.35 in 2015.

The developing economies, particularly those in the early stages of diversification, could develop products that are close to those in which they have comparative advantage.[16] Vietnam is one example that has markedly reduced the size of their agriculture sector and expanded production to manufacturing activities with high labour-intensity in which it has a comparative advantage. Its agricultural share of exports declined from its peak of 36.7% in 1985 to 3.3% in 2019 (Figure A3). Meanwhile, the export share of the manufacturing sector rose more than two-fold from 39% in 1985 to 94% in 2019. In the early years of the diversification process, Vietnam expanded its exports of labour-intensive products (textile, clothing). The export share of textile and clothing sectors grew sharply in the 1990s but slightly decreased since 2004. From the 2000s, Vietnam explored its new comparative advantage in the electronic and telecommunication equipment products through foreign direct investment (FDI) and its active participation in the Asian electronic regional network in which China plays a central role.[17] Exporting high value products that matched those of richer countries stimulated the country's export growth.[18] The growing share of electronic products in total exports since mid 2000s has become a growth engine of Vietnam even during the Covid-19 crisis (Figure A4). Recent statistics provided by the General Statistics Office of Viet Nam show that the annual export growth in Computers and Electronical products was 24% in 2020, and this contributed significantly to the positive growth of total exports.

The choice of trading partner also matters. South-South trade has a more diversified export pattern than South-North trade.[19] The main explanation is that physical infrastructure and market access (i.e., lower transaction costs) have improved due to trade agreements between and within developing regions. Moreover, a country can import cheaper inputs (e.g., raw materials) from other developing countries through better market access, that allow it to produce and export goods with lower prices. This increases export diversification towards partners from the South. Therefore, expanding exports to other new developing markets is particularly important for LMI economies such as Laos, whose exports are highly concentrated in only three destinations—Thailand, China and Vietnam. In 2019, exports to these three developing markets account for 80% of Lao's total exports (BACI). Furthermore, as the experience of Vietnam in exporting electronical products shows, upgrading quality products and developing more sophisticated goods that are matched to that of richer countries can help a developing country increase its export destinations to include developed ones.

CONCLUSION

Recent studies and experiences of Asian developing economies, including those in ASEAN, show the important role export diversification plays in ensuring sustainable economic growth through reducing export earnings volatility and vulnerability.

Mere diversifying of exports to take advantage of the benefits of the diversification is in question. The UMI economies (such as Thailand, Indonesia and Malaysia) are suggested to increase exports at the IM with a re-concentration towards more sophisticated existing products. Meanwhile, the LMI economies in ASEAN should enlarge new products exports to new destinations by shifting from commodity exports to manufactured product exports

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in which they have comparative advantage, integrating actively into GVCs, then upgrading quality products and developing more sophisticated goods.

Trading with new developing markets is also important since South-South trade has a more diversified export pattern than South-North trade does.

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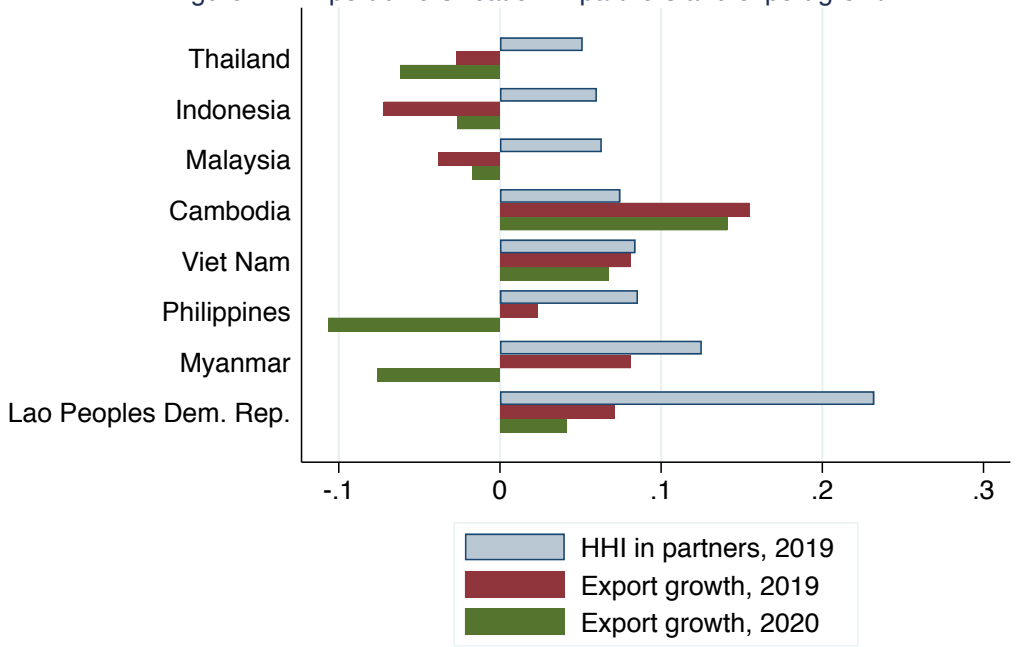
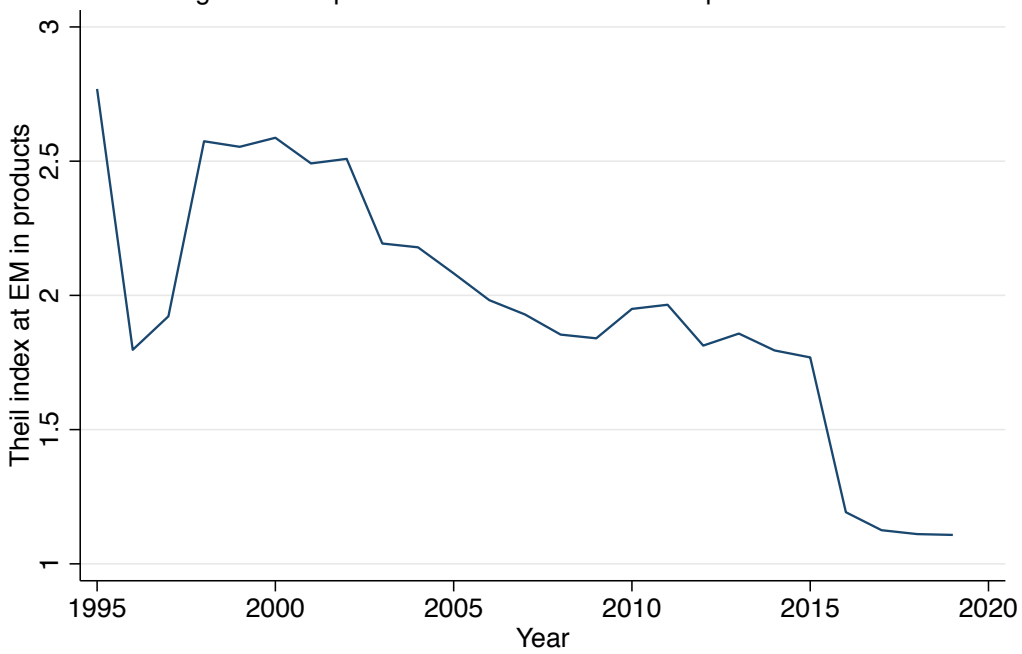
Appendix

Figure A1. Export diversification in partners and export growth



Source: Author's calculation from BACI and WTO data

Figure A2. Export diversification at the EM in products for Laos



Source: Author's calculation from BACI

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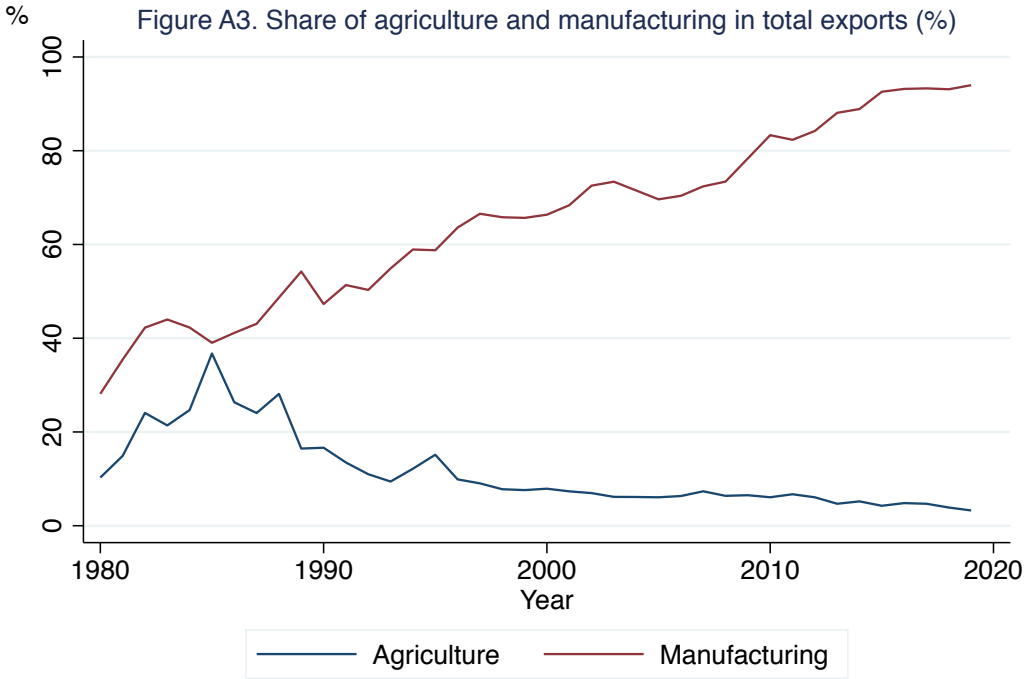
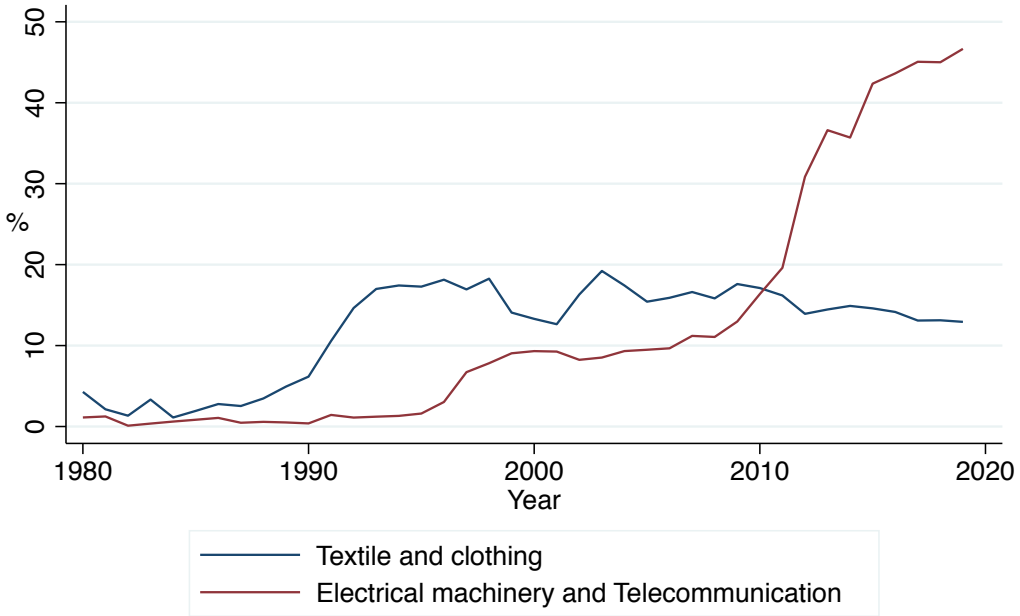
Figure A3. Share of agriculture and manufacturing in total exports (%)



Source: Author's calculation from CHELEM/CEPII

Figure A4. Share of Textile and Clothing, Electrical machinery and Telecommunication in total exports (%)



Source: Author's calculation from CHELEM/CEPII

[1] Wilbur, W. I., & Haque, M. Z. (1992). An investigation of the export expansion hypothesis. *The Journal of Development Studies*, *28*(2), 297-313.
Yamada, H. (1998). A note on the causality between export and productivity: an empirical re-examination. *Economics Letters*, *61*(1), 111-114.
Awokuse, T. O. (2003). Is the export-led growth hypothesis valid for Canada?. *Canadian Journal of Economics/Revue canadienne d'économique*, *36*(1), 126-136.
[2] Imbs, J., & Wacziarg, R. (2003). Stages of diversification. *American economic review*, *93*(1), 63-86.
[3] "Towards Human Resilience: Sustaining MDG Progress in an Age of Economic Uncertainty", Chapter 1. https://www.undp.org/content/undp/en/home/librarypage/poverty-reduction/inclusive_development/towards_human_resiliencesustainingmdgprogressinanageofeconomicun.html
[4] Export diversification is typically measured by the Herfindahl-Hirschman Index (HHI). A lower HHI indicates a higher degree of export diversification. The advantage of using HHI is that it allows us to analyse both export diversification in products, in which a country expands its variety of goods exported, and export diversification in partners, when a country exports its goods to various destinations. To compute the HHI, we use disaggregated data on bilateral trade flows from the Basis for the Analysis of International Trade (BACI) dataset compiled by the CEPII at the HS 6-digit product level. Original data are taken from countries' bilateral exports in value to all regions from 1995 to 2019.
[5] The export diversification for ASEAN and EAP developing countries at the region-level is weighted by GDP to account for country size.
[6] Koshy, M., Geoff, G., Gee, H., Sung, E. J., Schmittmann, J., & Yu, J. (2016). China's changing trade and the implications for the CLMV economies.
https://www.imf.org/external/pubs/ft/dp/2016/apd1601.pdf
[7] Samen, S., 2010, A Primer on Export Diversification: Key Concepts, Theoretical Underpinnings and Empirical Evidence. *Growth and Crisis Unit*. World Bank, Washington, DC.
[8] Export volatility is calculated as the standard deviation of annual exports growth rates based on World Trade Organisation (WTO) data.
[9] Foxley, A., 2009, Recovery: The Global Financial Crisis and Middle-income Countries. *Carnegie Endowment for International Peace.* Washington, DC.
[10] World Trade Report 2020, Trade in natural resources
https://www.wto.org/ENGLISH/res_e/booksp_e/anrep_e/world_trade_report10_e.pdf
[11] We classify the countries according to their degree of export diversification in products in 2019. Since the data on the HHI in 2020 have not been available, the degree of export diversification in 2019 could be a good approximation for 2020. For the ranking of export diversification in partners, see Figure A1 in Appendix.
[12] https://www.unido.org/sites/default/files/files/2021-03/UNIDO%20COVID19%20Assessment_Philippines_FINAL.pdf
[13] Mania, E., & Rieber, A. (2019). Product export diversification and sustainable economic growth in developing countries. *Structural Change and Economic Dynamics*, *51*, 138-151.
[14] https://www.asean.or.jp/ja/wp-content/uploads/sites/2/GVC_Laos_Paper-5_full_20210324-web.pdf
[15] https://english.thesaigontimes.vn/78676/vietnam's-participation-in-the-global-value-chain.html
[16] Hausmann, R., and Klinger, B. (2006). *Structural Transformation and Patterns of Comparative Advantage in the Product Space* (CID Working Papers No. 128). Cambridge, MA: Harvard University.
[17] Chaponnière, J. R., & Cling, J. P. (2009). Vietnam's export-led growth model and competition with China. *Économie internationale*, (2), 101-130.

[18] Hausmann, R., Hwang, J., and Rodrik, D. (2007). What You Export Matters. *Journal of Economic Growth*, *12*(1), 1-25.
Hummels, D., and Klenow, P. J. (2005). The Variety and Quality of a Nation's Exports. *American Economic Review*, *95*(3), 704–723.
[19] Tran, T. A. D., Phi, M. H., & Diaw, D. (2017). Export diversification and real exchange rate in emerging Latin America and Asia: A South–North vs. South-South decomposition. *The Journal of International Trade & Economic Development*, *26*(6), 649-676.

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