

Vietnam: The East Asian Model Redux

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Four East Asian Tiger economies (Hong Kong, Singapore, South Korea, and Taiwan) crafted a growth template that several Southeast Asian countries have successfully adapted, none more successfully than Vietnam. Its economic performance since the late 1990s has been keyed to economic openness, a focus on export-led industrialization, dismantling of rural collectives, incentives for investors from abroad, investment in physical and human assets, increased participation in the regional economy, and integration with thriving cross-Pacific global value chains (GVCs).¹ Among the late starting low-income economies, Vietnam is arguably the only one that approaches the performance of the East Asian Tigers during their heyday in the last quarter of the twentieth century. For that reason, and because its resource endowment approximates that of many least-developed countries (LDCs) currently attempting to ascend the income ladder, Vietnam's development over the past 25 years deserves close attention because it shows how the East Asian model can be made to deliver results in the global environment prevailing in the twenty-first century. Vietnam is not out of the woods just yet. There are constraints, institutional hurdles, and problems to be tackled if Vietnam is to sidestep the middle-income trap. And for its trade to flourish and the complexity of its exports to increase, global value chains for electronics, auto parts, garments, and resource-based commodities would need to stabilize and possibly grow.²

GROWTH, TRADE, AND FOREIGN DIRECT INVESTMENT SINCE 2000

Vietnam's per capita GDP in 2000 was US\$390; poverty (below \$1.90 per day, 2011 PPP) was widespread (37 percent in 2002);³ and exports accounted for 54 percent of GDP, with petroleum and agricultural and aquacultural commodities heading the list (approximately half of the total). From the turn of the century, Vietnam's growth averaged 6.6 percent, propelled by high domestic (peaked at 40 percent of

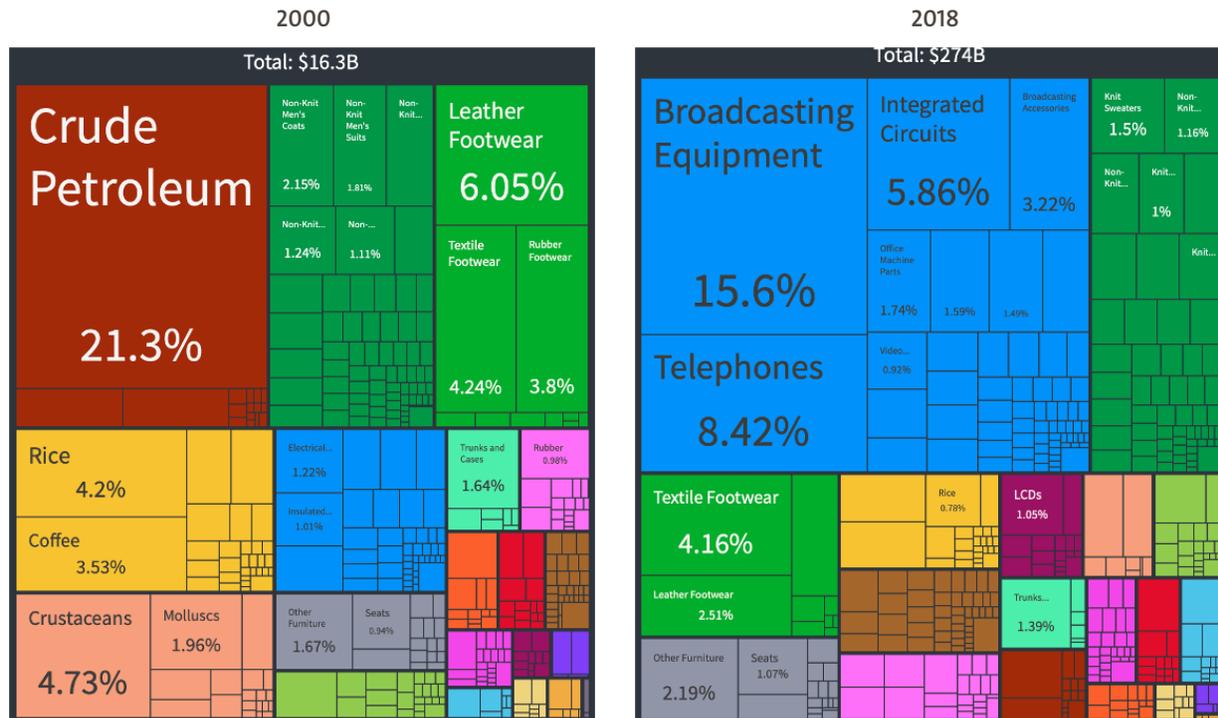
1 WEF (2018) The story of Vietnam's economic miracle. <https://www.weforum.org/agenda/2018/09/how-vietnam-became-an-economic-miracle/>; C. Hollweg et al. (2017) <http://documents.worldbank.org/curated/en/808541488967692813/pdf/113225-PUB-PUBLIC-PUBDATE-3-6-17.pdf>.

2 The volume of trade mediated by GVCs peaked in 2008 and after dipping a few percentage points, stagnated through 2019. World Bank WDR 2020. <https://openknowledge.worldbank.org/handle/10986/32437>; Following the Covid Pandemic and the ongoing tensions with China, GVCs are in flux. J. Zhan et al. (2020) GVC transformations 2030. <https://voxeu.org/article/global-value-chain-transformation-decade-ahead>; A. Seric and D. Winkler (2020) Covid 19 could spur automation and reverse globalization. <https://voxeu.org/article/covid-19-could-spur-automation-and-reverse-globalisation-some-extent>; OECD (2021) GVCs. <https://www.oecd.org/coronavirus/policy-responses/global-value-chains-efficiency-and-risks-in-the-context-of-covid-19-67c75fdc/>

3 <https://data.worldbank.org/indicator/SI.POV.DDAY?locations=VN>

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Figure 1. Composition of Vietnam’s exports in 2000 and 2018



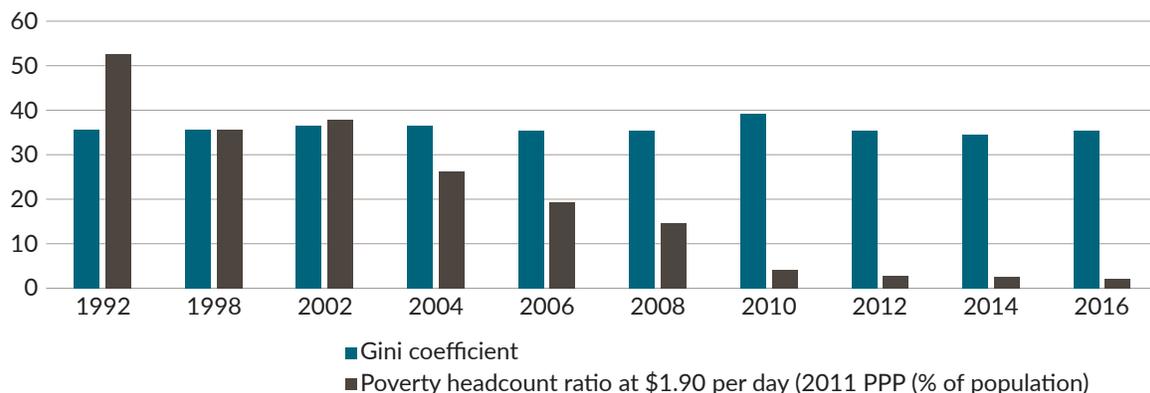
Sources:
<https://oec.world/en/profile/country/vnm/>
<https://oec.world/en/profile/country/vnm?yearSelector1=exportGrowthYear24>

GDP in 2007) and foreign investment and upward spiraling exports. Vietnam’s export/GDP in 2019 was 107 percent thanks to diversification into labor-intensive and increasingly high-tech manufactured products. Vietnam exported goods and services worth \$16 billion in 2000 rising to \$274 billion in 2018 (\$283 billion in 2020) over 80 percent of which were processed or assembled manufactures (Figure 1). Exports of services, primarily tourism, rose from \$5.64 billion in 2009 to \$16.5 billion in 2019. The tourism sector contributed 9.1 percent of GDP in 2019.⁴

By 2020, and a steady dribble of reforms later, Vietnam had morphed into a lower-middle-income economy with a per capita GDP of \$2,786. Just 1.9 percent of the population was living in poverty by 2018,⁵ and the Gini coefficient remained relatively stable in the 35 percent range throughout the period (Figure 2). Over 30 million people were affected by a fall in poverty. This signal achievement was enabled by a succession of reforms starting with the transition to a socialist market economy (in 1986), the abolition of price controls, the withdrawal of the ban on private businesses, and the distribution of land to farm households (discussed below). Complementing these reforms were others specifically aimed at reducing the poverty of ethnic minorities mainly residing in the highland areas (the epicenter of poverty) through the provision of land, improved housing, farm equipment, and extension services. Hunger and poverty eradication programs followed along with health insurance and education

4 <https://knoema.com/atlas/Viet-Nam/topics/Tourism/Travel-and-Tourism-Total-Contribution-to-GDP/Contribution-of-travel-and-tourism-to-GDP-percent-of-GDP>
 5 The percentage of the population below the \$3.2 PPP poverty line was down to 6 percent. <https://www.worldbank.org/en/country/vietnam/overview>

Figure 2. Vietnam: Gini coefficient and poverty headcount



Source: World Development Indicators. World Bank (2021)

programs and investment in transport, water (including irrigation), electricity, and sanitation infrastructures.⁶ These investments alone would not have sufficed to reduce poverty levels, but they were accompanied by rapid growth of the economy led by the manufacturing sector, which created millions of urban jobs.⁷ As Dollar and Kraay (2016)⁸ have documented, “growth is good for the poor.” It is indispensable for poverty reduction.

The development of manufacturing capabilities was paralleled by equally remarkable gains on the agricultural front. By the early 2000s, Vietnam had become the second largest coffee exporter and the leading exporter of processed cashews. It ranked third among rice exporters, and it dominates the market for pepper.⁹ Moreover, Vietnam is also a major supplier of wood and aquaculture products, and of tropical fruit. The production of agricultural and manufactured exports directly employs 5 million Vietnamese workers, with another 7 million employed in activities supplying firms linked to exporters.¹⁰

Among the East Asian countries, Vietnam response to the threat from COVID-19, informed by its experience with the SARS virus, was rapid and has been largely successful in containing infections and mortality from the disease. Consequently, its economy recovered more quickly than its Southeast Asian neighbors (Figure 3). Vietnam, much like the rest of the world, is not out of the woods with new

6 <https://www.un.org/development/desa/dspd/wp-content/uploads/sites/22/2019/03/Reducing-rural-poverty-in-Vietnam-Issues-Policies-Challenges.pdf>; <http://documents1.worldbank.org/curated/en/206981522843253122/pdf/124916-WP-PULIC-PI61323-VietnamPovertyUpdateReportENG.pdf>; <https://asiasociety.org/korea/poverty-reduction-viet-nam-success-lessons-and-role-world-community>; https://www.elibrary.imf.org/view/IMF002/07815-9781451840261/07815-9781451840261/07815-9781451840261_A001.xml?redirect=true; <https://oxfamlibrary.openrepository.com/bitstream/handle/10546/112471/fp2p-cs-what-has-made-vietnam-poverty-reduction-success-story-140608-en.pdf?sequence=1&isAllowed=y>

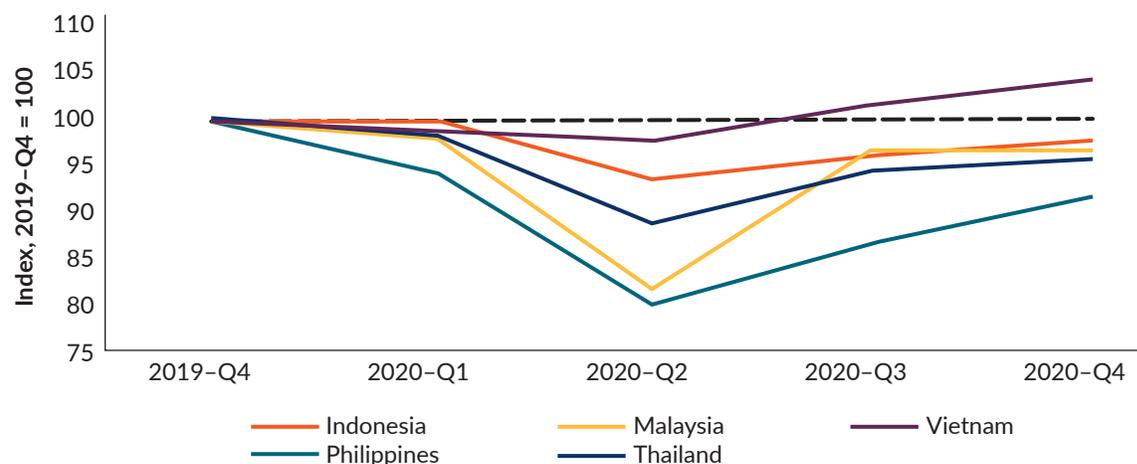
7 Poverty reduction remains a work in progress, with poverty persisting among the minorities. Malnutrition is an issue; a quarter of women suffering from anemia and a quarter of children under the age of five show symptoms of stunting. <https://globalnutritionreport.org/resources/nutrition-profiles/asia/south-eastern-asia/viet-nam/>; <https://www.unicef.org/vietnam/nutrition>

8 https://papers.ssrn.com/sol3/papers.cfm?abstract_id=632656

9 <https://www.yahoo.com/now/world-pepper-market-2020-historic-145912603.html>

10 D. Dollar (2019) <https://www.brookings.edu/blog/order-from-chaos/2019/04/15/how-global-value-chains-open-opportunities-for-developing-countries/>

Figure 3. GDP growth: Selected Southeast Asian economies



Source: World Bank (2021) Uneven recovery. <https://www.worldbank.org/en/region/eap/publication/uneven-recovery-east-asia-and-pacific-economic-update-april-2021>

variants of concern causing scattered infections in several cities.¹¹ Since the onset of the pandemic through early August 2021, Vietnam had recorded 233,000 cases and 4,145 deaths.¹²

Growth spillovers from neighboring countries have contributed to Vietnam's export-led rise,¹³ as has its integration into globe-spanning value chains and the foreign direct investment (FDI) associated with the integration. Countries that share a neighborhood with rapidly growing economies are better positioned to improve their own performance through increased trade. Vietnam has been fortunate in that its closest neighbors—China, Korea, Japan, and a few of the Southeast Asian nations—are among the most dynamic and fastest growing economies in the world. Thus, as borne out by analysis using gravity models,¹⁴ Vietnam's trade relations have been strongly influenced by the GDP, level of development, openness, and proximity of countries in East Asia, as well as by its trade agreements with these countries. A third of Vietnam's exports are absorbed by China (the principal trading partner and fastest growing economy in the region), Japan, and Korea. Another 6 percent of its exports are to Hong Kong, Thailand, and Malaysia. Furthermore, over 70 percent of Vietnam's imports were from these six economies. Trade with and FDI from more developed countries also contribute to technology transfer, frequently embodied in imports of capital goods, which can come bundled with disembodied

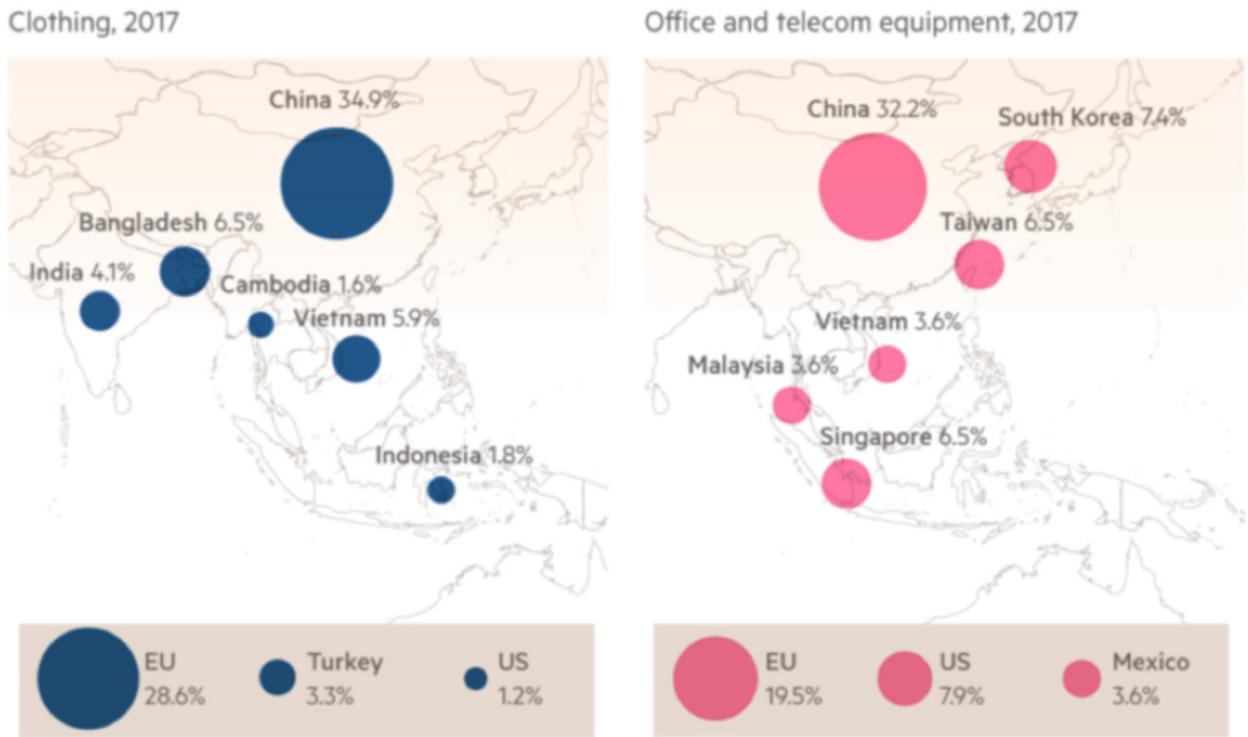
11 The resurgence of infections caused by the Delta variant in the second quarter of 2021 has resulted in a surge in infections with the authorities redoubling their efforts to check the spread. <https://www.worldometers.info/coronavirus/country/viet-nam/>

12 <https://www.vietnam-briefing.com/news/vietnam-business-operations-and-the-coronavirus-updates.html/>

13 P. Antras and De Gortari (2017) <https://www.nber.org/papers/w23456>; W. Easterly and R. Levine (1995). Africa's growth tragedy. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=569226; J. Vilarubia (2006) Neighborhood effects in economic growth. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=938084

14 S. Narayan and T.T. Nguyen (2016) Does the trade gravity model depend on trading partners? <https://www.sciencedirect.com/science/article/abs/pii/S105905601500129X>; D.T.T. Binh et al. (2011) Applying gravity model to analyze trade activities of Vietnam. <https://www.freit.org/WorkingPapers/Papers/TradePatterns/FREIT639.pdf>; H. Nguyen (2014) Determinants of Vietnam's exports. https://www.researchgate.net/publication/272300326_Determinants_of_Vietnam%27s_Exports_Application_of_the_Gravity_Model

Figure 4. Share in world exports of clothing and electronic and telecom equipment



Source: World Trade Organization
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technology and tacit knowledge.¹⁵ In 2019, Korea was the largest investor in Vietnam followed by Hong Kong (China), Japan, and China, in that order.¹⁶

With GVCs channeling anywhere between one-half and two-thirds of world trade,¹⁷ their contribution to development has received increasing attention, especially now that they appear to be consolidating and becoming more regionalized.¹⁸ Vietnam's integration into a few GVCs (e.g., electronics, telecoms, garments, as shown in Figure 4) was aided by its low labor costs and by its location adjacent to one of the principal hubs (China),¹⁹ well-serviced surface transport routes, and several of the most active South-east Asian participants in the global trade network (Malaysia, Thailand, and Indonesia).²⁰ Vietnam's share of the global export market grew by almost 10 percent per annum between 2006 and 2014, and

15 D. Coe and E. Helpman (1995) International R&D spillovers. <https://www.sciencedirect.com/science/article/pii/001429219400100E>; J. Eaton and S. Kortum (1999) International technology diffusion. <https://www.jstor.org/stable/2648766?seq=1>; B.M. Hoekman et al. (2004) Technology transfer to developing countries. <http://documents1.worldbank.org/curated/en/737591468762912473/pdf/wps3332.pdf>

16 <https://www.vietnam-briefing.com/news/fdi-in-vietnam-investment-by-sector.html/>

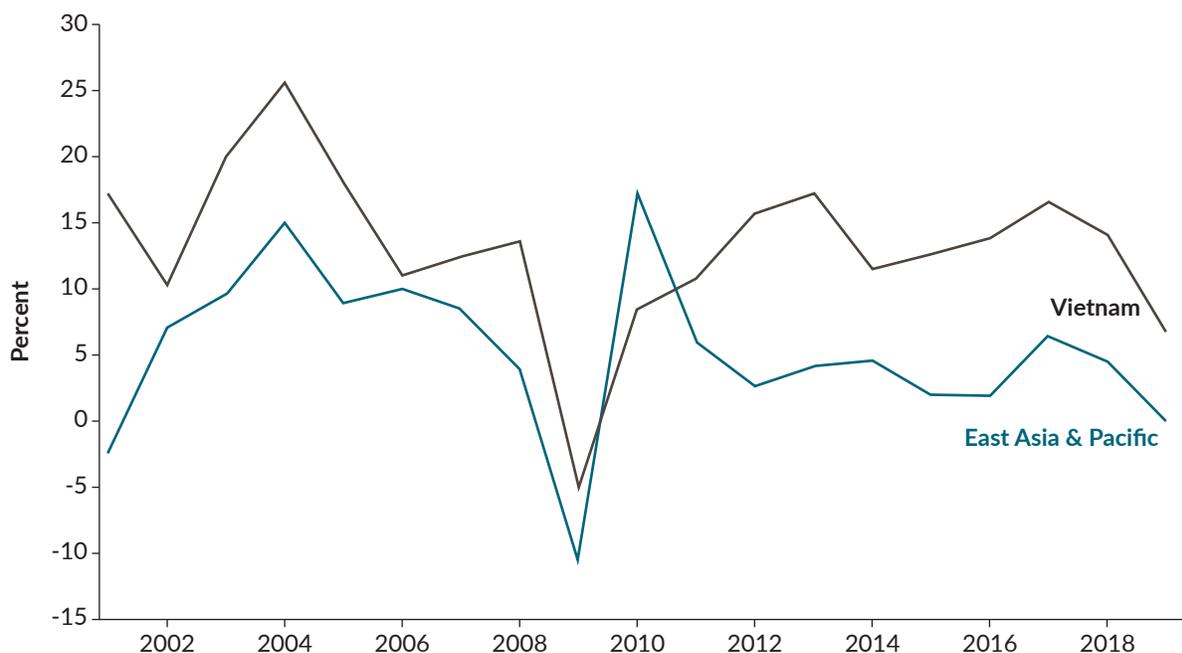
17 World Bank (2019) <https://www.worldbank.org/en/publication/wdr2020>; WITA (2019) <https://www.wita.org/atp-research/global-value-chain/>

18 Boffa (2018) <https://voxeu.org/article/value-chain-activity-age-changing-trade-alliances>; On conceptual aspects and determinants of GVC participation, see P. Antras (2019) <https://www.nber.org/papers/w26539>

19 Li, Meng and Wang (2019) <https://www.oecd.org/dev/Global-Value-Chain-Development-Report-2019-Technological-Innovation-Supply-Chain-Trade-and-Workers-in-a-Globalized-World.pdf>

20 World Bank (2019) <https://www.worldbank.org/en/publication/wdr2020>

Figure 5. Growth of Vietnam’s exports vs. exports from East Asia and Pacific region: 2000–2019



Source: WDI (2020). <https://data.worldbank.org/indicator/NE.EXP.GNFS.KD.ZG?end=2019&locations=VN-Z4&start=2001>

it was the 20th ranked exporter in 2019.²¹ As noted earlier, FDI from neighboring countries and Western ones enabled Vietnam’s industrialization and the buildup of agricultural production with export potential. This, in turn, was made possible by policies largely engineered by Vietnamese themselves.

VIETNAM’S OUTWARD-ORIENTED DEVELOPMENT STRATEGY

To jumpstart diversified export-led growth, Vietnam needed foreign capital and expertise and to connect its manufacturers with GVCs. Hence, the authorities adopted a policy agenda prioritizing: (i) FDI in productive activities by improving the business environment, creating market-friendly institutions and offering tax incentives; (ii) international trade agreements; (iii) infrastructure building; (iv) agricultural exports and tourism to supplement the exports of manufactures; and (v) human capital. These mutually reinforcing policies quickly bore fruit. Foreign investors flocked to Vietnam, manufacturing activities expanded, and Vietnam’s integration into GVCs began in earnest. Since 2000, the growth of Vietnam’s exports has exceeded that of the East Asia Region (Figure 5). The competitiveness of Vietnam’s exports and GVC integration have steadily broadened global market penetration. Its GVC integration is evident from backward integration, which increased from 20.9 to 36.3 between 1995 and 2011, while forward integration rose from 13.1 percent to 16 percent. Domestic value added in gross exports increased annually by 16.6 percent per annum over the same period (Hollweg et al. 2017, p.4).²²

²¹ C.H. Hollweg et al. (2017). Overview. <http://documents1.worldbank.org/curated/ru/808541488967692813/pdf/113225-PUB-PUBLIC-PUBDATE-3-6-17.pdf>. Vietnam’s participation in GVCs is discussed at length in C.H. Hollweg et al. (2017) Vietnam at a Crossroads. World Bank. <http://documents1.worldbank.org/curated/ru/808541488967692813/pdf/113225-PUB-PUBLIC-PUBDATE-3-6-17.pdf>

²² <http://documents.worldbank.org/curated/en/808541488967692813/Vietnam-at-a-crossroads-engaging-in-the-next-generation-of-global-value-chains>

Business environment facilitating FDI

East Asian experience indicates that investment by multinational corporations (MNCs) that builds export-oriented domestic production capacity has generally preceded integration with GVCs. The first order of business for Vietnam was to create the legal scaffolding of the business environment to render it supportive of FDI and private sector development. This was done through a series of legislative actions (UNCTAD 2008).²³ A law on foreign investment, and low or zero tariffs on imported inputs plus fiscal incentives,²⁴ attracted MNCs looking for a Southeast Asian platform to assemble garments, footwear, and consumer electronics. An enterprise law stimulated private sector development and permitted partnerships, limited liability companies (LLCs), and shareholding companies. Other laws addressed corporate governance, reduced administrative burdens²⁵ and the number of strategic sectors reserved for state-owned enterprises (SOEs),²⁶ and unified the regulation of both state and private enterprises. Additional incentives have backstopped these laws.²⁷ SMEs received their due in early 2018 when a law was passed that created a legal framework for increased support from both the private sector and government agencies.²⁸

In response, the volume of FDI rose sharply. From an average of under \$4 billion per annum between 2000 and 2006 (3.5–4.0 percent of GDP), it rose to an average of \$6 billion from 2007 through 2019 (between 5 percent and 9 percent of GDP, as shown in Figure 6).²⁹ Accession to the World Trade Organization in 2007 encouraged investors and helped channel some of the FDI into transport and tourist infrastructures, trade zones, and commercial real estate that eased emerging bottlenecks (Tran 2009).³⁰ Given the focus on production for export, 59 percent of the FDI was in the manufacturing sector with Korea the lead investor followed by Japan.³¹ Samsung is the single largest investor, having ploughed \$17 billion into six factories. Smartphones and other equipment produced by Samsung account for 28 percent of Vietnam's GDP (in 2018).³² LG Display has investment valued at over \$3 billion in the port

23 https://unctad.org/en/Docs/iteipc200710_en.pdf

24 <https://asiaperspective.net/2020/02/26/lucrative-vietnamese-tax-incentives-foreign-investors/>

25 https://www.bakermckenzie.com/-/media/files/insight/publications/2016/10/2016-doing-business-in-vietnam/bk_vietnam-doingbusiness_oct16.pdf?la=en; These laws define the current investment regime in Vietnam. <https://www.cliffordchance.com/content/dam/cliffordchance/briefings/2018/07/vietnam-foreign-investment.pdf>

26 In Vietnam's case, limiting the scope of SOE activity has helped carve out space for private firms. However, SOEs remain a major, albeit inefficient, force in the economy, having been merged into large conglomerates with a presence in virtually all parts of the economy. L. Baccini et al. (2019) find that five years after Vietnam's accession to the World Trade Organization, the productivity differential between privately owned firms and SOEs increased and the productivity-related gains from trade would have been two-thirds higher if the SOEs had been replaced by private companies. <https://voxeu.org/article/globalisation-and-state-capitalism>. The process of equitization is making slow progress because political support for SOEs remains firm and "equitized SOEs still lack appropriate corporate governance protocols and continue to operate under the mandate of state-owned enterprises." <https://www.vietnam-briefing.com/news/decline-state-owned-enterprises-vietnam.html/>; The case of the SOE Vinatex highlights the emergence of an equitized, hybrid, quasi private corporation that remains subject to the influence of the state. Mai (2017) <https://www.rieti.go.jp/jp/publications/dp/17e121.pdf>

27 <https://www.vietnam-briefing.com/news/tax-incentives-foreign-investment-vietnam.html/>; <https://www2.deloitte.com/content/dam/Deloitte/vn/Documents/tax/vn-tax-vietnam-doing-business-2020.pdf>

28 OECD (2019) http://www.oecd.org/dev/asia-pacific/saeco-2019-Viet_Nam.pdf

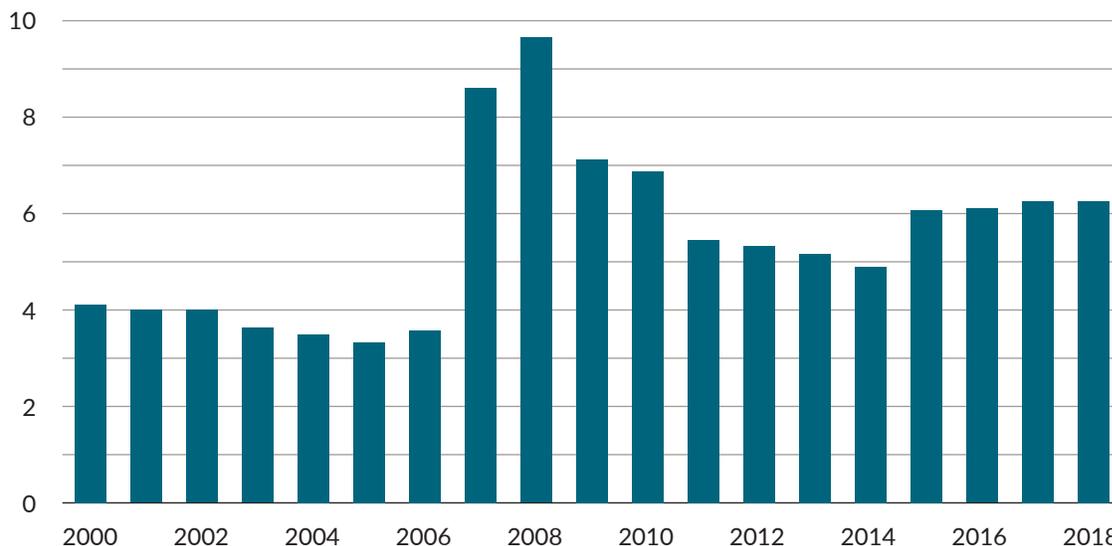
29 <https://vietnaminsider.vn/global-trade-and-fdi-turn-vietnam-into-one-of-the-most-open-economies/>

30 <https://www.jstor.org/stable/41317019?seq=1>

31 China would be counted as the second largest investor if the FDI from China is lumped together with investment from Hong Kong and the British Virgin Islands.

32 Samsung is preparing to shift its operations from China to Vietnam and Mexico. In the process, Vietnam will become Samsung's largest export base. <https://www.vir.com.vn/vietnam-might-become-largest-manufacturing-facility-of-samsung-79172.html>; <http://www.businesskorea.co.kr/news/articleView.html?idxno=29966>

Figure 6. FDI in Vietnam (as percent of GDP 2000–2018)



Source: https://www.theglobaleconomy.com/Vietnam/Foreign_Direct_Investment/

city of Haiphong.³³ Intel is another major investor. In 2010, Intel opened \$1 billion chip assembly and testing facility in Ho Chi Minh City, its largest, employing thousands and generating \$3.6 billion in export revenue. Between 2019 and 2020, Intel invested an additional \$475 million to enlarge the facility’s capacity to assemble 5G products and core processors.³⁴ Vietnam’s rapid and effective response to the COVID crisis has induced Intel to consider a further round of investment.³⁵

In 2007, Vietnam was ranked 104th on the Doing Business index, with the survey identifying a number of serious constraints. Using the indicators as a guide, the government has whittled away at the problems and Vietnam brought its ranking up to 70th in the 2020 Doing Business survey.³⁶ Vietnam’s ranking on the World Economic Forum’s Competitiveness Index mirrors this change—it was 77th in 2006, rising by 10 points to 67th place in 2019.³⁷ The Bloomberg Innovation index ranked Vietnam 55th in 2021 flanked by Chile and Uruguay.³⁸

Incremental reform has delivered good results, but the reform agenda is far from exhausted. Domestic value added in garments and footwear remains relatively low—in the 40–45 percent range—and in electronics and telecom equipment it is even lower with few backward linkages to domestic firms. MNCs continue to rely on their traditional subcontractors, many of which have established production

33 <https://www.reuters.com/article/us-vietnam-lg-display/lg-display-raises-investment-at-vietnam-factory-by-750-million-to-3-25-billion-media-idUSKBN2A80HK>

34 <https://www.intel.com/content/www/us/en/newsroom/news/invests-additional-475-million-vietnam.html#gs.3zlh6i>

35 <https://www.vir.com.vn/intel-vietnam-mulling-to-increase-investment-in-ho-chi-minh-city-78775.html>

36 <https://www.doingbusiness.org/en/reports/global-reports/doing-business-2020>; Vietnam was 67th ranked on the WEF’s Competitiveness Index. However, airport connectivity and liner shipping connectivity rankings were 22nd and 19th respectively. http://www3.weforum.org/docs/WEF_TheGlobalCompetitivenessReport2019.pdf

37 <https://www.weforum.org/agenda/2018/09/how-vietnam-became-an-economic-miracle/>; WEF (2019) http://www3.weforum.org/docs/WEF_TheGlobalCompetitivenessReport2019.pdf

38 <https://www.bloomberg.com/news/articles/2021-02-03/south-korea-leads-world-in-innovation-u-s-drops-out-of-top-10>

facilities in Vietnam, although with encouragement from the government, they are attempting to enlarge the base of local suppliers by way of backward linkages facilitated by technical assistance. Labor productivity in Vietnam, while improving, lags well behind that of its Southeast Asian neighbors and a redoubling of efforts to catch up is desirable.³⁹

Starting a business in Vietnam can be a slow process even though the number of procedures has been reduced from over a hundred a few years ago to eight. Foreign firms must prepare all paperwork in Vietnamese and this documentation needs to be authenticated and notarized. Urban industrialization causes air and water pollution, with the fossil fuel-based power generating sector, motorbikes, production of plastics/chemical, electronic products, and footwear the principal culprits, and garments close behind.⁴⁰ Air pollution has emerged as a serious concern; Hanoi and Ho Chi Minh City are now among the world's 15 most polluted cities.⁴¹ The tax system is complex, and businesses are required to make a number of payments each year. Furthermore, the state of Vietnamese banking is such that most firms prefer conducting transactions in cash even though these are cumbersome and inefficient.⁴² Corruption remains an issue and the laxity of environmental safeguards is a matter of concern. For countries at Vietnam's level of development, this is par for the course, and Vietnam's readiness to address the hurdles that remain distinguishes it from some other emerging economies. Moreover, the government continues to actively pursue trade agreements to deepen Vietnam's integration in value chains.

Trade agreements

Vietnam's participation in GVCs was furthered by its entry into a large number of trade agreements—multilateral, regional, and bilateral—starting with induction into the Association of Southeast Asian Nations (ASEAN). It also entered into bilateral trade agreements with 72 countries and established trade relations with 165 countries (Figure 7). Adoption of the ASEAN Free Trade Agreement and a normalization of ties with the United States strengthened trading links both regional and trans-Pacific. Accession to the WTO in 2007 was the next major step.⁴³ Over the past decade, Vietnam has signed or negotiated 12 bilateral and multilateral free trade agreements (FTAs) with Japan, the Republic of Korea, the EU (the EU-Vietnam Free Trade Agreement was signed in June 2019). Vietnam signed the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) in December 2018, and it went into effect in January 2019.⁴⁴ This could raise Vietnam's exports by another \$4 billion over the course of a decade. A Regional Comprehensive Economic Partnership (RCEP) was signed on November 15, 2020. It will encompass 30 percent of the world's population and according to a simulation exercise add \$500 billion to world trade by 2030 and \$209 billion to world incomes (Petrie and Plummer 2020).⁴⁵

39 <https://vietnamnews.vn/economy/534756/viet-nams-labour-productivity-needs-to-catch-up-with-asean.html>; McKinsey (2012) https://www.mckinsey.com/~media/McKinsey/Featured%20Insights/Asia%20Pacific/Sustaining%20growth%20in%20Vietnam/MGI_Sustaining_growth_in_Vietnam_Full_Report.ashx; <https://vietnamnet.vn/en/business/8-reasons-behind-gap-in-vietnam-s-productivity-level-and-regional-peers-556851.html>

40 <https://projects.worldbank.org/en/projects-operations/project-detail/P113151>; <https://www.reuters.com/article/us-vietnam-pollution/vietnam-pollution-fight-hits-supplier-to-global-fashion-brands-idUSKBN1A60GO>

41 <https://thediplomat.com/2020/03/vietnams-big-air-pollution-challenge/>; <https://www.vietnam-briefing.com/news/air-pollution-vietnam-affects-business-environment.html/>

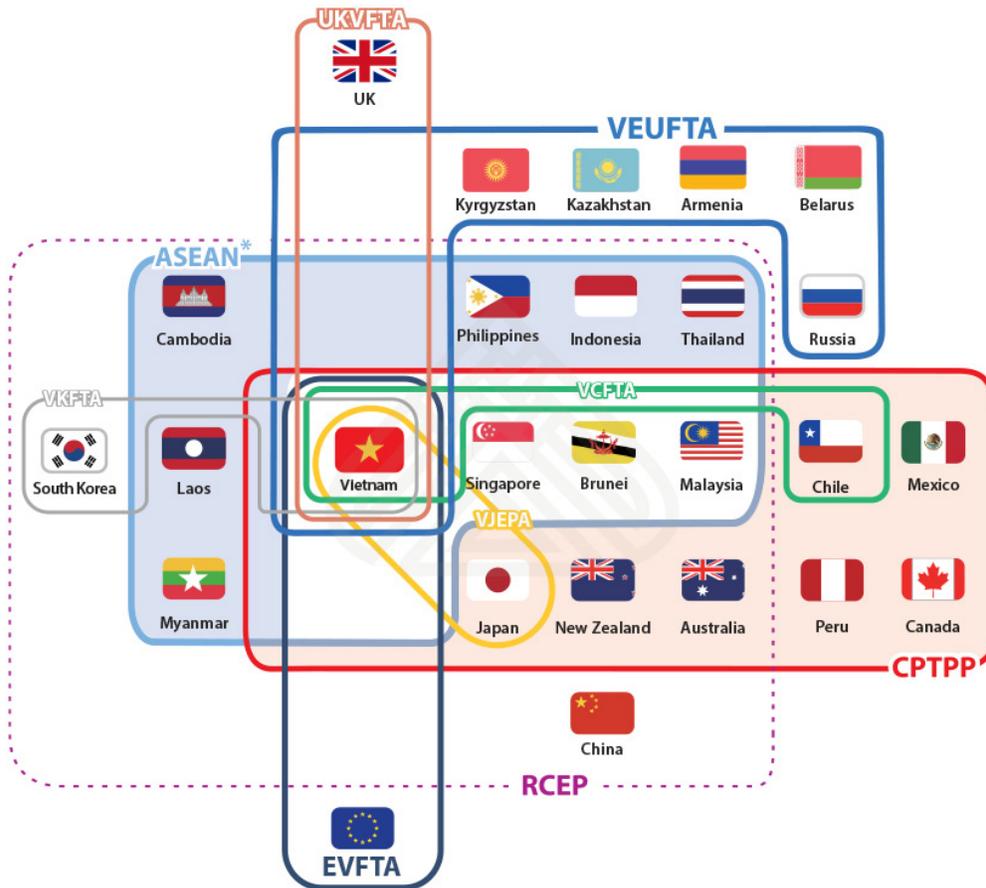
42 <https://www.tmf-group.com/en/news-insights/articles/2019/february/top-challenges-business-vietnam/>

43 Binh Tran Nam (2007) <https://www.jstor.org/stable/27913343?seq=1>

44 <https://www.dfat.gov.au/trade/agreements/in-force/cptpp/comprehensive-and-progressive-agreement-for-trans-pacific-partnership>

45 P. Petrie and M. Plummer (2020) RCEP. <https://www.brookings.edu/blog/order-from-chaos/2020/11/16/rcep-a-new-trade-agreement-that-will-shape-global-economics-and-politics/>

Figure 7. Vietnam FTAs



Source: Vietnam Briefing March 31, 2021. <https://www.vietnam-briefing.com/news/vietnam-free-trade-agreements-opportunities-for-your-business.html/>

Deep trade agreements⁴⁶ such as the Japan–Vietnam Economic Partnership Agreement, the Korea–Vietnam FTA, and the ASEAN–Australia–New Zealand FTA, could be particularly advantageous because they reduce the costs of trade.⁴⁷ In addition to tariffs, they cover policies affecting trade in goods and services as well as behind-the-border regulations governing competition policy, intellectual property, and public procurement, and safety, packaging, and labelling requirements.⁴⁸ Moreover, a bilateral investment treaty with enforceable provisions alongside an FTA can both increase the use of imported inputs and give rise to forward linkages.⁴⁹ According to Laget et al. (2018), “adding a provision to a PTA boosts domestic value added of intermediate goods and services exports (in other words, forward GVC

46 Deep trade agreements include provisions enhancing transparency, limiting the discretion of governments to make arbitrary changes, and underscoring mechanisms to enforce rules governing environmental and labor regulations and consumer welfare. A. Fernandez et al (2021). The economics of deep trade agreements. <https://voxeu.org/article/economics-deep-trade-agreements-new-ebook>

47 Hollweg et al. (2017) <http://documents.worldbank.org/curated/en/808541488967692813/pdf/113225-PUB-PUBLIC-PUB-DATE-3-6-17.pdf>; Wignaraja (2012) <https://voxeu.org/article/deep-integration-free-trade-agreements-china-and-india>; World Bank (2019) <https://www.worldbank.org/en/publication/wdr2020>

48 UNCTAD (2015) https://unctad.org/en/PublicationsLibrary/ditctncd2015d1_en.pdf

49 Boffa et al. (2018) <https://voxeu.org/article/value-chain-activity-age-changing-trade-alliances>

linkages) by 0.48%, while an additional provision in a PTA increases foreign value added of intermediate goods and services exports (backward GVC linkages) by 0.38%.”⁵⁰

Vietnam’s experience validates findings reported by the World Bank that deeper agreements augment FDI and on average, “increase goods trade by more than 35 percent, services trade by more than 15 percent, and GVC integration by more than 10 percent”.⁵¹

Infrastructure

Connecting to value chains requires infrastructure to enable production, to bring goods to gateways, and to ship goods out of the country. Vietnam was proactive in this regard, in recent years spending twice the global average on infrastructure—taking a page from the Tiger’s book.⁵² The construction of a large number of storage reservoirs laid the foundations for a nationwide irrigation system that facilitated the production of rice, coffee, and other cash crops. The availability of water, complemented by liberal application of fertilizer, is responsible for the high yields obtained by coffee growers.⁵³ Construction of trunk and rural roads and the improvement of inland waterways⁵⁴—supported by official development assistance—eased transport bottlenecks and ensured that the expanding farm and industrial output could be delivered to gateway ports and airports.⁵⁵ By investing in these gateways and by augmenting logistics capabilities (which is continuing), Vietnam further tightened its linkages with GVCs aided by improving logistics performance indicators (LPIs); Vietnam LPI ranking in 2018 was 39th.⁵⁶ A concentration of industrial activity around a small number of hubs/gateways (Ho Chi Minh City, Hanoi, Haiphong) has helped contain transport expenses and supports the rapid growth of exports⁵⁷—12.5 percent per annum between 2000 and 2018.⁵⁸ But in spite of the attention given to transport and logistics, their share of GDP is still a high 20 percent,⁵⁹ and by further improving the quality of infrastructure, trade related expenses could be shaved.⁶⁰

Another facet of infrastructure development in Vietnam is the creation of numerous industrial zones, with 249 in operation. These zones are in close proximity to the principal trunk routes, seaports, and airports. Management and regulation of parks tends to be uneven with well-run parks providing

50 Laget et al. (2018) <https://voxeu.org/article/trade-agreements-and-global-production>

51 <https://www.worldbank.org/en/topic/regional-integration/brief/regional-trade-agreements>

52 <http://blogs.worldbank.org/voices/accelerating-vietnams-path-prosperity>; 97% of households had access to electricity by 2013. K. Ko (2014) Evolution of infrastructure investment in Korea. https://s-space.snu.ac.kr/bitstream/10371/91913/1/06_Kilkon%20Ko.pdf; ADB (2014) <https://www.adb.org/sites/default/files/publication/100117/comparative-infrastructure-development-kor-tha.pdf>

53 The active storage of 440 cubic meters per person will need to be substantially augmented to meet future requirements. ADB (2009) <https://www.adb.org/sites/default/files/publication/29806/water-vital-vietnam-future.pdf>

54 https://www.worldbank.org/content/dam/Worldbank/document/EAP/Vietnam/IWT_Policy_Note_EN.pdf; <http://documents1.worldbank.org/curated/en/800501468320727668/pdf/Facilitating-trade-through-competitive-low-carbon-transport-the-case-for-Vietnams-inland-and-coastal-waterways.pdf>

55 <https://blogs.worldbank.org/voices/accelerating-vietnams-path-prosperity>

56 <https://lpi.worldbank.org/international/global/2018>

57 Another factor containing internal transport and logistics costs for exporters is that almost 40 percent of trade is channeled through air gateways (mostly high value electronics) while that through sea gateways has fallen from 79 percent in 2011 to 56 percent in 2016.

58 <http://wdi.worldbank.org/table/4.9>

59 The OECD country average is 8 percent. See L.C. Blancas et al. (2014) Efficient Logistics. World Bank. <http://documents1.worldbank.org/curated/en/646871468132885170/pdf/Efficient-logistics-a-key-to-Vietnams-competitiveness.pdf>; World Bank (2019) <https://openknowledge.worldbank.org/handle/10986/33139>

60 <https://www.vietnam-briefing.com/news/infrastructure-vietnam.html/> Vietnam’s infrastructure ranking was 77th according to the WEF Competitiveness report 2019. http://www3.weforum.org/docs/WEF_TheGlobalCompetitivenessReport2019.pdf

investors with essentials such as “warehouses, sources of electricity and water, wastewater treatment plants, garbage disposals, fire prevention systems, improved telecommunications, access to banks and post offices, logistic services, and internal roads.” Some 8,000 projects have been initiated by foreign firms in the zones, with \$145 billion committed a testimony to the attractiveness of the zone plus associated infrastructure package for the FDI that has integrated Vietnam into GVCs.⁶¹

The government has attached special importance to electrification as a means of transforming the economy.⁶² Starting from low levels in the 1990s, rural household electrification has reached the 100 percent mark, and tariff collection rates from consumers are equally high. The electrification has been financed by donor funding, bank loans, and bond flotation. Although the transmission grid infrastructure is in public hands, the government has established a competitive power market, private sector participation (through build, operate, and transfer arrangement and arrangements with independent power producers) and competition among power generators. The big challenge is how to meet the rapidly increasing demand in a sustainable manner through investment in renewables and the national grid financed in large part from private sources.⁶³

Agriculture

The turnaround of agriculture commenced with the drastic scaling back of agricultural collectives, and the distribution of land to farmers with 50-year usufruct rights. In addition, the government opened sparsely populated upland areas suited for growing coffee. By removing price controls on agricultural products and permitting farmers to freely market their products, the government incentivized production. Yields were boosted through investment in irrigation infrastructure and extension that disseminated higher-yielding varieties of grain and cash crops. Trade liberalization added to the favorable changes for the rice industry and instead of importing rice to meet domestic demand, Vietnam began exporting 3–4 million tons per annum. The production and export of coffee was stimulated by the transfer of technology, inputs, and seed capital from the remnants of state farms to newly established small farmers.⁶⁴ Strong global demand for Robusta coffee⁶⁵ and high prices⁶⁶ spurred planting, brought into existence a network of collectors and aggregators, and drew MNCs such as Nestle to

61 <https://www.vietnam-briefing.com/news/vietnam-industrial-zones-how-to-pick-location-for-your-business.html/>

62 G. Altinay and E. Karagol (2005) Electricity consumption and economic growth. <https://www.sciencedirect.com/science/article/pii/S0140988305000782>; K. Lee et al. (2020) Does household electrification supercharge economic development. <https://www.aeaweb.org/articles?id=10.1257/jep.34.1.122> World Bank (2018) <https://www.worldbank.org/en/news/feature/2018/04/18/access-energy-sustainable-development-goal-7>; D.I. Stern et al. (2017) https://energyeconomicgrowth.org/sites/eeg.opml.co.uk/files/2018-02/1.1.Stern_0.pdf

63 <https://www.worldbank.org/en/news/press-release/2020/02/13/new-strategy-to-help-vietnam-scale-up-and-better-utilize-solar-power>; https://www.worldbank.org/content/dam/Worldbank/document/TrungSon_Hydropower_Brochure_EN.pdf; <https://www.worldbank.org/en/news/press-release/2019/01/24/private-capital-is-key-to-vietnams-future-energy-development>; Wind and solar account for a tenth of the total power generated. Although investment in solar power has risen steeply, curtailment remains an issue because the grid cannot accommodate the supply of intermittent power. <https://www.eco-business.com/news/renewables-are-booming-in-vietnam-will-the-upswing-last/>; <https://thediplomat.com/2021/01/whats-driving-vietnams-renewable-energy-boom/>

64 World Bank (2004) <https://documents.worldbank.org/en/publication/documents-reports/documentdetail/512761468349797191/vietnam-coffee-sector-report>

65 Vietnam primarily produces Robusta coffee, which can be grown at lower elevations, delivers higher yields than Arabica coffee, is more disease and pest resistant, contains twice as much caffeine, is more suitable for making instant coffee, and can be blended with Arabica beans, a process that deepens the flavor of the end product and is particularly suited for making espresso drinks.

66 The failure of Brazil’s coffee harvest in 1994 provided additional stimulus to growers in Vietnam.

Vietnam. The domestic production and mechanized processing of other cash crops such as cashews⁶⁷ (some imported from Cote d'Ivoire, Mozambique, and other African countries)⁶⁸ and pepper followed much the same trajectory.⁶⁹ The resumption of private farming, revival of a market-based system, and the readiness of multinationals to integrate Vietnam into their value chains was incentivized by rising and assured supplies of produce. Over time, value addition through processing has increased but remains low as, for instance, in the case of coffee, very little of which is consumed locally. Ninety percent of the export volume is comprised of green beans, with the roasting, marketing, and branding largely done by MNCs in Europe and North America.⁷⁰ Vietnamese companies such as Vinacafe, Trung Nguyen, and Intimex are beginning to establish a domestic presence and in the coming years could challenge Nestle and others such as the Indonesian Kapal Api Group in the Asia-Pacific market for instant coffee.⁷¹ These privately owned (e.g., the VinGroup, HAGL, FLC Group, Hoa Phat, Vinhomes)⁷² and other state-owned conglomerates are likely to be in the forefront of Vietnam's development in the future, playing a role like that of large (superstar) firms in Korea, China, other Southeast Asian countries, and Europe.⁷³

The intensification of agriculture is constrained by access to credit, workforce skills, and the limited pace of mechanization.⁷⁴ Furthermore, it has not been devoid of negative externalities, which will need to be contained and agricultural practices made more sustainable with climate change adding to the urgency.⁷⁵ The spread of farming in the highlands is responsible for erosion and soil degradation⁷⁶ while the increased use of agrichemicals and fertilizers is polluting the watercourses, contributing to the emergence of resistant strains among pests, and destroying natural predators.⁷⁷ Aquaculture (in rice fields and ponds)⁷⁸ and coastal fisheries are valuable source of nutrition and exports, however,

67 While some of the operations such as gathering the nuts, separating the seeds, and removing the outer shell are done by hand and require cheap labor, processing is being automated. <https://asia.nikkei.com/Business/Food-Beverage/Vietnam-is-the-un-disputed-king-of-global-cashew-nut-producers>; Local production of cashew peeling machines, dryers, moisture meters, color separators, sterilizers, and packagers, has increased local content. <https://www.danielmachine.com/news/general-news/secret-of-cashew-nut-processing-in-vietnam-en-1113.html>

68 <http://ven.vn/cashew-exports-tough-nut-to-crack-due-to-global-fluctuations-42139.html>; <https://www.globaltrademag.com/featuring-the-strong-processing-industry-vietnam-and-india-dominate-global-raw-cashew-nut-market/>

69 D.T. Duong (2020) Sustainable development for Vietnam agriculture. https://www.researchgate.net/publication/342528702_Sustainable_development_for_Vietnam_agriculture

70 "Tariffs in importing countries tend to increase as the product becomes more refined, with higher taxes on soluble coffee than on green beans, discouraging the development of a local processing industry in exporting countries". <http://www.ico.org/documents/icc-107-7e-tariffs-trade.pdf>. Non-tariff barriers include product quality standards, food hygiene and safety standards, environment standards, and labor standards.

71 <https://www.bloomberg.com/news/articles/2019-12-28/nestle-faces-new-coffee-rival-as-vietnam-targets-instant-market>

72 <https://www.ft.com/content/84323c32-9799-11e9-9573-ee5cbb98ed36> ;Of the 715,000 registered enterprises in Vietnam in 2019, 99 percent were privately owned. <https://www.eastasiaforum.org/2020/06/04/the-paradoxes-of-private-sector-development-in-vietnam/>

73 C. Gaubert and O. Itshoki (2020) Superstar firms and the comparative advantage of countries. VoxEu. <https://voxeu.org/article/superstar-firms-and-comparative-advantage-countries>; C. Freund and M.D. Pierola (2016) The origin and dynamics of export superstars. <https://publications.iadb.org/publications/english/document/The-Origins-and-Dynamics-of-Export-Superstars.pdf>

74 Duong (2020) https://www.researchgate.net/publication/342528702_Sustainable_development_for_Vietnam_agriculture

75 A World Bank project is contributing to spread of sustainable farming. <https://www.worldbank.org/en/results/2016/04/15/vietnam-sustainable-farming-increases-productivity-and-improves-the-environmentdeforestation>,

76 <http://www.un-csam.org/Activities%20Files/A0711/02vn.pdf>

77 Untreated wastewater from industries in Ho Chi Minh City that is discharged into Dong Nai River may be reducing rice yields and contaminating the rice grown in the delta with heavy metals. <https://www.intechopen.com/books/international-perspectives-on-water-quality-management-and-pollutant-control/impact-of-industrial-water-pollution-on-rice-production-in-vietnam>

78 J. Lazard and P. Cacot (1997) Aquaculture systems in Vietnam. https://www.researchgate.net/publication/289149113_Aquaculture_systems_in_Vietnam_an_overview_challenges_and_prospects_for_research

these too have given rise to problems of pollution from fish waste and sludge, chemicals used to treat ponds, and antibiotics used to control fish diseases. Shrimp fishery has eaten into mangrove forests (destroying passive defenses against rising sea levels) and released pollutants into coastal waters.⁷⁹ Overfishing⁸⁰ in coastal waters is leading to a diminution of the catch and damage to the environment⁸¹ caused by the use poisons and dynamite for example.⁸²

Going forward, Vietnam will need to cope with flooding in the Mekong Delta Region, which produces half of the rice crop, as the sea level rises. Increasing salinity and warming is already an issue and is shaving yields.⁸³ Mekong river water management will also be a challenge as the multiple dams built by China upstream affect and reduce the flow of water and sediment and result in the retreat of the deltaic region.⁸⁴ Experts quoted by *The Economist* (2020) maintain that “all the environmental indicators are in the red,” the “Mekong is at the breaking point,” and “the Mekong River basin as it has been known for thousands of years will not be the same in the future.”⁸⁵

Human capital

Following the example of the Asian Tiger economies and China, Vietnam has given due attention to workforce development and, in particular, to improving the quality of human capital by attracting some of the most talented graduates into the teaching profession and enhancing their pedagogical skills through training.

Adult literacy in 1989 was already 88 percent; by 2018, it had climbed to 95 percent.⁸⁶ Mean years of schooling in 1990 was 3.9 years. By 2018, this had increased by 4.3 years with the Human Development Index value rising from 0.475 to 0.693.⁸⁷ Public spending on education doubled between the mid 1980s and 1990, and by the late 1990s it amounted to 15 percent of the total; a few years later, it climbed to 20 percent. This is the current level, and it amounts to 6 percent of GDP.⁸⁸ The sustained

79 World Bank (2019) <https://openknowledge.worldbank.org/bitstream/handle/10986/29243/122932-WP-P153343-PUBLIC-Vietnam-aquaculture-ENG.pdf?sequence=1&isAllowed=y>

80 Climate change is beginning to deplete fish stocks in warming and acidifying South China Sea waters. https://climateandsecurity.org/wp-content/uploads/2012/04/climate-change-and-vietnamese-fisheries-opportunities-for-conflict-prevention_briefer-263.pdf

81 <https://www.worldfishcenter.org/content/management-coastal-fisheries-vietnam>

82 <http://www.fao.org/3/a-ar478e.pdf>

83 C. Kontgis et al. (2019) Climate change impacts on rice productivity in the MRD. <https://www.sciencedirect.com/science/article/abs/pii/S014362281730454X>; <https://www.ifad.org/en/web/latest/story/asset/39015975>

84 T. Konishi. Climate change on the Vietnam Mekong delta. http://www.fao.org/fileadmin/templates/rome2007initiative/FAO_WB_TCIO_CC_Meeting_May_2011/TORUKO_1.PDF

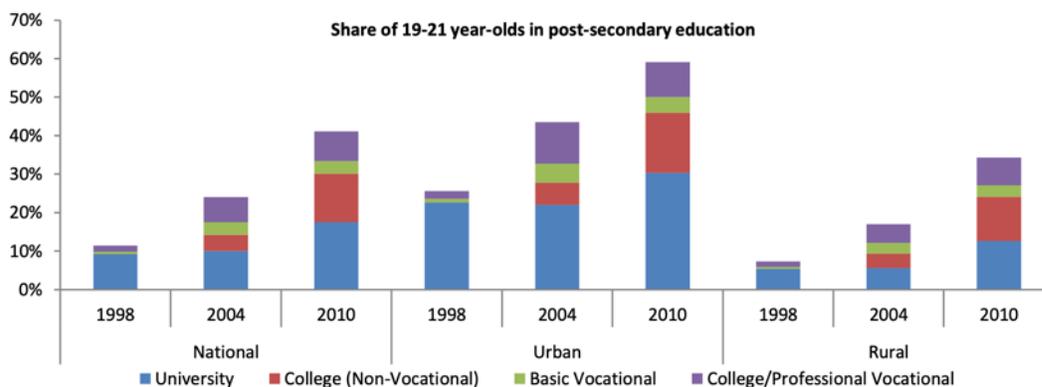
85 *The Economist* (May 16th, 2020, pp.29–30). Torrent to trickle. <https://www.economist.com/asia/2020/05/14/south-east-asias-biggest-river-is-drying-up>; <https://www.nationalgeographic.com/science/article/southeast-asia-most-critical-river-enters-uncharted-waters>; <https://www.washingtonpost.com/graphics/2020/world/the-mekong-river-basin-under-threat/>; <https://www.reuters.com/article/us-mekong-river/mekong-river-at-worrying-low-level-amid-calls-for-more-chinese-dam-data-idUSKBN2AC0K0>; The large number of dams constructed along the waterway are reducing the flow of sediment, which is leading to the erosion and subsidence of the delta region and reducing the diversity and abundance of fishery resources. E.J Anthony et al. 2015. Linking rapid erosion of the Mekong River delta to human activities. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4597184/>; B. Chellaney (2019). Damming the Mekong Basin to Environmental Hell. <https://www.project-syndicate.org/commentary/china-dams-mekong-basin-exacerbate-drought-by-brahma-chellaney-2019-08?barrier=accesspaylog>

86 <https://data.worldbank.org/indicator/SE.ADT.LITR.ZS?locations=VN>

87 UNDP (2019) Human Development Report. https://vietnam.un.org/sites/default/files/2019-12/2.%20Brief%20Viet%20Nam%20-%20HDI%20update_EN_06%20Dec.pdf

88 A. Baum (2019) Vietnam’s development success story. <https://www.imf.org/en/Publications/WP/Issues/2020/02/14/Vietnam-s-Development-Success-Story-and-the-Unfinished-SDG-Agenda-48966>

Figure 8. College and university enrollment



Source: World Bank (2014) <http://documents1.worldbank.org/curated/en/610301468176937722/pdf/829400AR0P13040Box0379879B00PUBLIC0.pdf>

focus on education has resulted in universal primary education with net enrollment showing near gender balance, and over 90 percent of 3–5-year-olds receive pre-schooling. Secondary and tertiary enrollment has also risen (Figure 8) but most of the staff in higher education institutions do not have advanced degrees.⁸⁹ Vietnam’s score on the Human Capital Index rose from 0.65 in 2010 to 0.69 in 2020.⁹⁰ Moreover, Vietnamese students received higher scores on PISA tests (in 2012, 2015) than students from neighboring countries and some high-income countries as well.⁹¹ Knowledge capital will figure prominently as the driver of productivity, diversification, and growth in the future—and the scope for improvement is large.⁹²

CONCLUSION

Vietnam’s economic progress since the turn of the century is the result of structural change, which has transferred workers from agriculture to more productive urban activities;⁹³ success at diversifying agricultural and industrial production, and with the help of FDI, integrating with GVCs and increasing exports of light manufactures and cash crops; the building of human capital and efforts to improve its quality; and the expansion of physical infrastructure including that associated with special economic zones. Thanks to growth of per capita GDP of almost 5 percent per annum since 2000, poverty has declined steeply and is now concentrated among rural ethnic communities. The middle class has expanded and now accounts for 13 percent of the population.⁹⁴ As noted earlier, Vietnam faces many challenges, environmental and others. The SOE sector looms large and is a drag on productivity.

89 <http://documents1.worldbank.org/curated/en/610301468176937722/pdf/829400AR0P13040Box0379879B00PUBLIC0.pdf>

90 <https://data.worldbank.org/indicator/HD.HCI.OVRL?locations=VN>

91 However, the validity of the test results has been challenged. See L. Crawford et al. (2019) PISA 2018. <https://www.cgdev.org/blog/pisa-2018-few-reactions-new-global-education-rankings>

92 The World Bank’s Vietnam Development Report for 2014 fleshes out the agenda; <http://documents1.worldbank.org/curated/en/610301468176937722/pdf/829400AR0P13040Box0379879B00PUBLIC0.pdf>

93 Almost two-thirds of the workforce were engaged in agricultural activities in 2000. By 2020, the share was down to 36 percent.

94 World Bank (2018) Climbing the Ladder. <http://documents1.worldbank.org/curated/en/206981522843253122/pdf/124916-WP-PULIC-P161323-VietnamPovertyUpdateReportENG.pdf>

Integration with GVCs could be a boon but reshoring and automation could dampen the growth of trade. Nonetheless, the outlook for Vietnam is brighter than for most developing countries.

The COVID-19 pandemic dealt a blow to the economy and temporarily depressed exports of garments and footwear. However, Vietnam, was remarkably sure-footed in its response and took the bold steps needed to control the outbreak. Its economy is also rebounding more rapidly because of its close trading relations with China and other East Asian economies that, by and large, have taken less of a battering from the pandemic.⁹⁵ Growth in 2021 is projected to exceed 6 percent.⁹⁶ By demonstrating resilience, Vietnam is likely to improve its standing with MNCs looking to reduce their dependence on China and to consolidate their value chains. And as global trade continues recovering in 2021 and beyond, its export-led growth is likely to continue.⁹⁷

For late-starting economies, Vietnam is the one to watch and learn from.

95 Recovery will undoubtedly be paced by global trade. <https://www.aa.com.tr/en/economy/vietnams-manufacturing-rebounds-as-virus-fears-ease-/1998678>; <https://www.mckinsey.com/-/media/McKinsey/Featured%20Insights/Asia%20Pacific/Emerging%20from%20the%20pandemic%20Vietnam%20must%20position%20itself%20for%20recovery/Emerging-from-the-pandemic-Vietnam-must-position-itself-for-recovery-vF.pdf>

96 <https://www.bloomberg.com/news/articles/2021-06-29/vietnam-s-economy-speeds-up-in-second-quarter-as-demand-revives>; E. Dabla-Norris and Y.S. Zhang (2021). Vietnam: Successfully navigating the pandemic. IMF. <https://www.imf.org/en/News/Articles/2021/03/09/na031021-vietnam-successfully-navigating-the-pandemic>; The IMF (2020) forecasts GDP growth of 2.4 percent in 2020 and 6.6 percent in 2021. <https://www.imf.org/en/News/Articles/2020/11/17/pr20342-vietnam-imf-staff-completes-2020-article-iv-mission>

97 <https://www.cfr.org/blog/vietnam-looks-be-winning-trumps-trade-war>



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