CHAPTER 1

Open Economies, Closed Economies and a Case Study

Roderick Macdonald, Prosper Bernard, and Michel Plaisent

Abstract National leaders currently praise the advantages of free trade while simultaneously pursuing self-sufficiency and consumption of local produce. Theoretical and empirical economic research of the past 150 years returned mixed results regarding both free trade and foreign investment. This book uses a case study methodology to answer the question: can an economy open to trade and foreign direct investment increase the prosperity of the nation? The case study will contrast the economy of the Philippines from 1965 to 1994 with the economy of Vietnam from 1990 to 2014.

Keywords Autarkeia · Economic nationalism · Isolationism · Open economy · Closed economy · Free trade · Foreign direct investment · Quotas · Tariffs · Prosperity

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Introduction

> We will: champion open economies… (Excerpt from G7 leaders' statement on February 19, 2021)

Any such statement is the result of a discussion among the leaders of the G7 countries, and is at once a commitment among the leaders, a message to their constituents and a message to the other nations of the world. How sincere they are and how faithful they will be to the statement may be open to debate, but what exactly is an open economy, and why would it be proposed as a good thing? An open economy is one that permits the free movement of goods and services, capital and labour across its borders—in other words, entering and leaving the nation. In practice, the free movement of labour is usually left aside except for some very exceptional cases such as the European Union.

This book will not deal extensively with the mobility of labour. Although this is an important issue, the data available tend to be heavily skewed towards political migration (fleeing persecution, for example) and irregular economic migration. A separate study and different skills would be required to investigate this question.

Although the openness of borders to the movement of capital is less discussed, politics and policies are factors that may dampen or facilitate both international trade and foreign investment. Recent years have seen the rise of populist politicians in many countries, and many proclaim economic nationalism as part of their political platforms. Even some supposedly non-populist politicians are doing so. The essence of economic nationalism is that a nation would be better off by limiting international trade as well as foreign ownership of business assets with the country's borders. Although this is contrary to the notions of liberal economics, it is also true that a nation could isolate itself while simultaneously allowing free rein to competition within its borders, intervening only to protect ownership, enforce contracts and do whatever else is necessary to enhance the freedom of the market where markets are appropriate (free markets in garbage disposal, education and health services—as we shall perhaps see with the management of the Covid-19 pandemic around the globe—do not seem to serve economies well). In any case, the discourse against international trade has increased, especially based on three arguments:

1. Foreign competition causes unemployment (rather than poor domestic policy—or poor implementation—for re-training and re-purposing the unemployed).
2. Domestic security precludes the participation of unreliable businesses in critical infrastructure (thus Taiwan's proximity to China and prominence in microprocessor fabrication would be a danger for the U.S.A.).
3. Much international trade is not truly free in any case, either because some nations manipulate their currency to keep their exports artificially cheap, or because some nations make access to their domestic markets conditional on ceding intellectual property.

The Covid-19 pandemic has strengthened the second argument as most nations had to import critical medical equipment. Although it is unrealistic to imagine most countries to be able to produce state-of-the-art medical equipment, the argument does hold sway in the United States of America.

In addition, some leaders—including some behind the G7 statement above—maintain an open economy discourse while enacting policies that at least partially close their national economies, or at least for some potential trading partners.

This debate between isolationism versus international trade may likely lead to regional trade blocs mostly decoupled from China, and perhaps one organised around China. This is mostly a political and media debate that partly confuses two issues: the issue of whether China is a desirable trading partner and the issue of whether it is desirable to have any trading partner. There is also some tendency to blend this debate into issues of geopolitical power and strategy.

The geopolitical and China issues will be put aside in this book. Instead, this book examines whether permitting the free movement of capital, goods and services across borders be good for the economy within those borders. There is a possible philosophical—ethical—response about the state respecting the rights and freedom of the individual, but this book will not enter into that area. This book only considers the pragmatic issue of whether an open economy is advantageous for prosperity of the nation. It proceeds using a case study about free trade and mobility of capital, the latter particularly in the form of foreign direct investment.

This case study approach differs from most of the work done on international trade and foreign direct investment as to methodology. It also

differs in the question asked: can international trade and foreign direct investment be beneficial to the host nation? The questions about the causes of trade and investment and about the patterns of trade and investment targeted by most research carried out since David Ricardo's time are not addressed. These are separate questions, although not totally irrelevant to the question of universal advantage. For example, foreign direct investment is in great part motivated by profitability, and this may lead to a race to the bottom by host nations or regions competing for foreign investment, with ultimate advantage to the investor and perhaps the home nation, but not to the host nation. This and similar issues are excluded to focus solely on the possibility that international trade and foreign direct investment be beneficial to the host nation.

Of course, no country's government objects to the arrival of foreign capital, but it may limit access to foreign loans, and limit the degree of ownership available for foreign investment. If a foreign investor can provide 100% of funds for a project in a given country, but has no management control over the use of those funds, few foreigners will invest in that country. Most countries would be happy to allow businesses within their borders to export, as long as domestic markets are sufficiently served. However, it is difficult to export if you do not allow imports, and this unwanted competition for domestic businesses leads some governments to close down international trade. These realities are taken for granted in the question asked: Are international trade (including openness to imports) and foreign direct investment (with proportionate foreign ownership of the means of production) beneficial to the host nation?

The case study consists in a comparison of the historical experiences of two countries: Vietnam and the Philippines. Vietnam exemplifies a nation achieving increasing prosperity due to an economy open to trade and to capital. The Philippines exemplifies a nation mired in stagnation because its economy is closed to trade and to capital.

However, the contrast between the two economies is not that simple. Different time periods are involved. In addition, the openness and closedness of each economy is relative—neither is perfectly autarkic nor perfectly open to trade and capital.

Time period. The economies of both have been among the fastest growing in the world in the first two decades of this century. The comparison, however, is not between the two nations in the twenty-first century. The comparison is between the Philippines in the 35 years from 1960

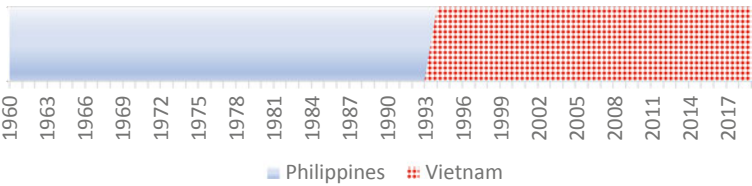

Fig. 1.1 Comparison years

until 1994 and Vietnam in the 25 years from the end of the US embargo on that country (1994–2018; since both the initial and final year are counted, that is 25 years of data) as presented in Fig. 1.1.

The World Bank provides data for the Philippines from 1960. Although the Penn World Table and the Maddison project each provide data for earlier dates, they are limited in scope. The Groningen Growth and Development Centre database provides useful data from 1950 that is also limited in scope, and excludes Vietnam. The starting date of 1960 also diminishes the impact of the Second World War and excludes a brief but catastrophic period of free trade between the Philippines and the United States of America. The Philippines, after this experience, closed the doors to imports and foreign ownership, and only partially opened the doors to the import of some goods not produced domestically in the subsequent decades. The country began to allow foreign ownership in some industries in the mid-1990s, with the effects becoming manifest thereafter.

In contrast, Vietnam has been relatively open to trade and foreign investment since 1994 until the present. This is somewhat of simplification, but serves to explain the time limits of the comparison.

GDP per capita increased about 40% in the Philippines during the chosen time period. The same statistic more than *tripled* in Vietnam—in fewer years. For precision's sake and perhaps beyond the margin of error in national accounting, 1.39 times over 35 years compared to 3.62 times in 25 years, using constant 2010 US dollars.

Relative openness. Although Vietnam has aggressively pursued openness to trade and capital, it remains a communist state and as such has a large number of state-owned enterprises protected from competition, be it domestic or foreign-owned. The Philippines, on the other hand, has allowed importation of some products and services since the

1960s, but most domestic businesses have been protected from foreign competition. It should be noted that much of the economy consists in non-tradeable goods and services (buildings constructed, personal services, etc.). Foreign ownership was restricted in virtually all industries until the mid-1990s.

In spite of this incomplete openness for both countries and the different time periods covered, the case study seems to provide a clear contrast in openness and consequent prosperity. There is no absolutely closed economy. The Philippines is as near to closed economy as can be found while excluding catastrophic extreme cases such as North Korea. And the Philippines performed poorly in the last half of the twentieth century. Vietnam, although a significant fraction of the economy is closed to any competition to state-owned enterprise, does provide an example of aggressive pursuit of a frontier open to trade and to capital. And Vietnam has been a top performer in terms of economic results.

Unfortunately, as soon as we widen the geographic scope just slightly, the differing results become less striking. Figure 1.2 shows that the Philippines underperformed by far compared to reference countries. However, although Vietnam outperformed most reference countries, it was slightly bested by the narrowest reference group of Asia Pacific countries members of the International Bank for Reconstruction and Development (IBRD) or the International Development Association (IDA). This somewhat superior performance poses a difficulty, because this difference is explained by the Asian Tigers: East Asian countries showing remarkable performance gains in the latter half of the twentieth century. We can add China to Hong Kong, Japan, Korea, Singapore and Taiwan (this last omitted in World Bank statistics). Among these countries, Japan, Korea and Taiwan did not pursue open economic policies, while China has pursued a mixed policy, protecting some private industries besides state-owned enterprises.

The Question

The question as to the link between openness to trade and capital on the one hand and prosperity on the other is not easily formulated in a way that permits a meaningful answer.

Adam Smith and David Ricardo provided insights as to how openness to trade can increase prosperity. Smith argued that international

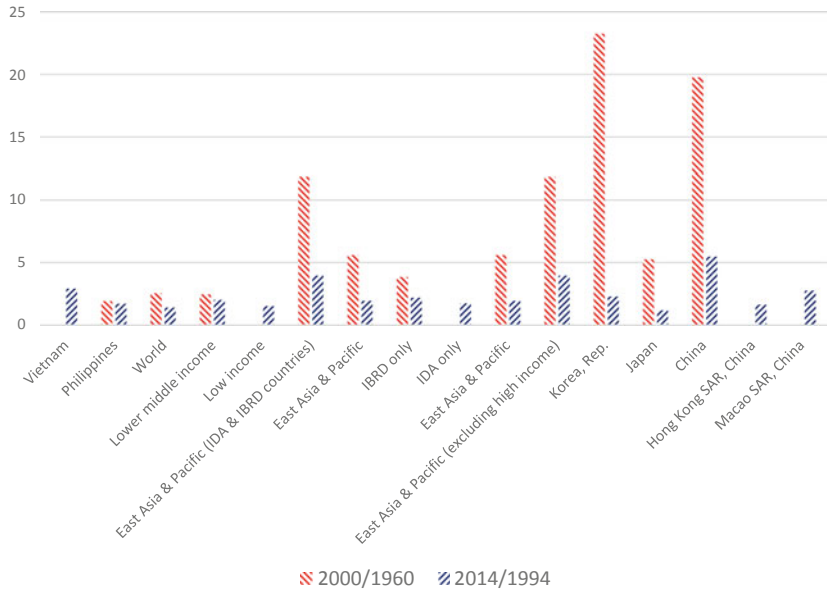

Fig. 1.2 GDP per capita change compared. The patterned columns represent the ratio of end year to start year values. IDA and IBRD countries: members of the International Bank for Reconstruction and Development and the International Development Association (*Source* Author's calculations based on World Bank national accounts data, and OECD National Accounts data files)

trade allows us to benefit from the strengths of our trading partners. Ricardo offered the argument that even an economy superior to all others across all industries still can benefit from trade if productivity varies across industries. These are insights, not mathematical or natural laws and not hypotheses to be tested. As economics became mathematised towards the end of the nineteenth century, their insights were translated into models that could be tested against reality (the empirical stream of literature) or refined either by varying additional assumptions (the mainstream theoretical literature) or sometimes by using modelling and simulations with more variables and assumptions than the human brain can comfortably manage. Both theoretical and empirical work, however, confront the fact that economies and national economic policies manifest more 'independent' variables than any model conceived. There is always one more

factor to take into consideration. Some may argue that this is a question of time, as machine learning takes over the task of designing hyper-complex models. However, is this why the economic planning of the USSR failed—because the technology of the day was unable to manage sufficiently complex input–output tables, not because economic reality is more complex than input–output tables?

Examination of cases has the same limitation in that invariants in the cases become variables if we try to generalise. We cannot hope to answer the question as to whether an open economy always brings greater prosperity unless the answer is negative. One negative result disproves the'always'. A positive result does not prove 'always'; nor does a case pairing a successful open economy with a failed closed economy as in this book. Myriad economic policies, different factor endowments, neighbouring economies and random logistic advantages are just some of the variables than can affect outcomes in addition to the degree to which an economy is open.

Furthermore, there is no fully open economy. Almost all national economies limit immigration and residency. Most national economies limit foreign ownership in strategically critical industries, thus indirectly discouraging some avenues of foreign direct investment. Other movements of funds may also be limited to control narcotics and terror (albeit often half-heartedly). Food and health items are usually subject to sanitary or safety controls even if no trade barrier is intended.

Still, we can perhaps answer the question as to whether a more open economy *can* facilitate prosperity. This does not mean that closing the frontier to trade and foreign ownership, at least temporarily, might not also facilitate prosperity, as Chang (2003) and Shin and Chang (2003, noting particularly section 4.2) and Studwell (2013) have argued.

An open economy can offer a solution to the conundrum that poorer nations face in the pursuit of prosperity. Prosperity comes from productive human work. Human work is more productive when it is well-tooled and organised. Theoretically, a poor country could provide organisation (although logistics and meagre business experience in fact limit even organisation), but it cannot afford expensive tools and machinery. Foreign funding of machinery can resolve this problem. Since individual workers are more productive, there is room for them to earn higher wages, and thus afford purchasing a higher volume of produce. Access to foreign markets amplifies this effect. More affluent foreign clients can pay higher prices, increasing the currency measure of the national product. Human

work is productive only if there are sufficiently solvent clients with the capacity of giving it high value. It would seem then that an economy open to foreign investment and open to trade is a solution. This includes importing. Imports can supply superior and/or cheaper materials, parts and design, all important for the international competitiveness of the exporting firms. Also, being able to export usually involves reciprocity with trade partners.

What Has Economics Research Taught Us About the Link Between Openness and Prosperity?

Research on Capital Mobility in the Form of Foreign Direct Investment

Economists would expect that foreign investment arriving in an economy would lead to growth by boosting the value produced by the workers in that economy. In addition to the immediate effect of multiplying the productivity of workers, foreign direct investment (FDI) can also involve the transfer both of technology (in the form of better machines and new processes and operator training) and management know-how.[1] This depends on the definition of FDI as distinct to indirect or portfolio foreign investment. Total ownership probably is linked to transfer of knowledge, a minority position less so, although even a 10% participation constitutes FDI (UNCTAD 2007) in most data sources.

The benefit of additional investment increasing productivity should always hold for all forms of FDI. Contrary to this expectation, not all empirical studies have found a positive relationship between FDI and economic growth, although most have.[2] Lasbrey et al. (2018) reviewed 35 empirical studies carried out between 1980 and 2018, of which 22 found a positive relation. Among the 13 that did not find a positive relation, 9 were limited in scope either in length of time, or in number of countries. Four studies did have a large data set: 88 countries from 1960 to 1992 (Bosworth and Collins 1999), 75 countries from 1938 to 1990 (Kentor 1998), 47 countries from 1970 to 2000 (Schneider 2005), 62 countries over 1975–2000 (Jyun 2008). There are many more empirical studies, but these 35 are representative of the range of results obtained: mostly a positive relation, but mixed results are frequent enough to raise questions.

The reason is that numerous other factors influence economic performance. For example, if foreign direct investment does not lead to increased gross capital formation because domestic investors withdraw,

then there will be little or no change in economic performance. Pervasive poor-quality projects—perhaps because of systematic fraud—would also dilute any effect of foreign direct investment. Quality of institutions, preparedness of human capital, logistics and many other factors affect the FDI-prosperity relationship. Although some of these factors affect investment performance and thus should be linked to decreased FDI, in practice they remain a source of noise in detecting the relation between foreign investment and economic growth.

International Trade Theory and Empirical Work

Since the mid-nineteenth century, as economics drifted towards quantitative analysis, the theory of international trade has focussed on the patterns and causes of trade. The Heckscher–Ohlin approach before World War II as well as the more recent work of Bhagwati and many others involves mathematical modelling and thus requires (or perhaps renders explicit) multiple assumptions that often do not hold in reality.[3] Scientific progress revolved around the loosening or variation of assumptions and has led to ever more complex models and sophisticated analyses without arriving at the holy grail of prediction.

The 'new' trade theory of the last two decades of the twentieth century attempts to explain the non-random structure of international trade after recalling that businesses engage in trading, not nations nor governments. Just as the industrial organisation school of economics begins with the observation that a significant portion of national economies are structured (not a random distribution of an infinite number of buyers and sellers of identical products), the new trade theory observes than there are businesses that dominate significant portions of international trade, and seeks explanations. Although new trade theory did not primarily address the question of whether free trade is beneficial to the host nation, both the original observation and the explanations (increasing returns and scale, for example) have implications for the benefits vs drawbacks of free international trade: under conditions of universal free trade, some industries will be dominated by a small number of firms, and these may well be located in a smaller number of countries. Contrary to the inclination of most economists publishing in this stream of literature, this could be construed into an argument for economic nationalism to defend against foreign domination.

Trade and Growth

There are also abundant streams of literature on economic growth and on economic development and, within these, examination of the impact of trade. However, problems arise similar to those in the 'FDI and growth' stream. Straightforward efforts to correlate growth to trade meet with mixed results (see the lack of evident correlation, for example, in Fig. 1.3). This led to two developments: in methodology and in theory. Methodological developments involved recourse to different mathematical tools to analyse the data, in part to discount the effect of myriad other variables that affect growth. 'Ceteris paribus' posed a serious problem. Theoretical developments involved questioning the very meaning of prosperity and openness to trade. What does openness to trade mean? Is it a characteristic of the policy and laws that regulate trade? Or is it rather an observable fact: a high volume of trade, Higher exports/GDP, Higher trade/GDP or Higher imports/GDP? Should we take into account distance or logistic factors that make trade between countries more costly? Again, what does prosperity mean? Even if we exclude issue like environmental effects, the distribution of wealth and other developmental considerations, prosperity can be problematic to measure. Should we use gross domestic product (GDP) or gross national income (GNI) per capita? Should we first correct our statistics by taking purchasing power parity into account? Or should we eschew prosperity as the dependent variable and look at productivity of labour?

These questions would have lesser importance had the simple correlation of trade and wealth not failed, and they will inform the case study of the following chapters, that will examine both de facto and de iure indicators of openness to trade as well as various indicators of prosperity.

Empirical and Theoretical Work on Economic Openness

Efforts to link either trade or financial openness to growth and prosperity have led to a debate as to what precisely constitutes economic openness. The rise of web sites proposing indices of economic data has spread to this area, and several authors and organisations propose indices of economic openness or 'globalisation'. These indices measure different things and in fact have different purposes in spite of similarities.

For example, the Legatum Institute compiles an index of economic openness under the direction of Dr. Stephen Brien. This index tries to capture freedom of markets from government manipulation more than

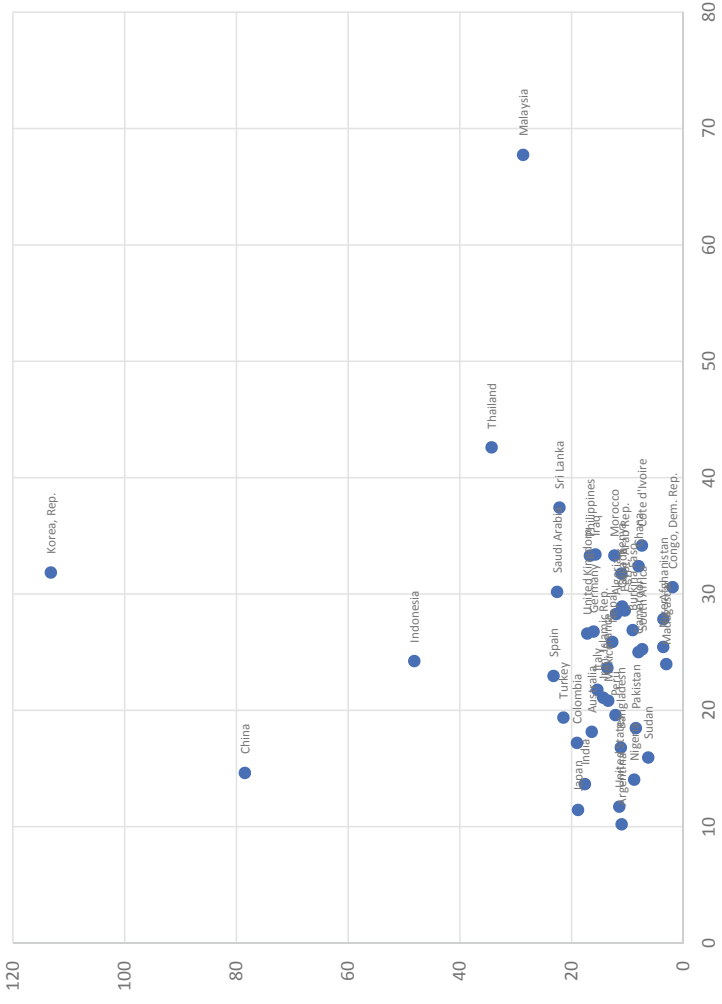

Fig. 1.3 GDP per capita growth versus imports. The vertical axis measures ratio GDP per capita 2017 over GDP per capita in 1970 in current US dollars. The ratio is *not* a percentage. The current US dollar was used as a unit because constant currency unit statistics are not available for all countries and all years. The horizontal axis measures average imports as a percentage of GDP (*Data source* World Bank national accounts data, and OECD National Accounts data files)

openness to foreign trade, capital and labour, as can be seen from its methodology disclosure (Legatum Institute 2020). The index fails to capture the manipulation of the Philippine economy by non-government interests, and Vietnam scores lower than the Philippines (= more manipulation in the opinion of Legatum), as might be expected for a communist regime. Although the index has its use, it is ineffective in contrasting how the economies of Vietnam and the Philippines welcome world trade and finance. It will not be used for the present case.

The KOF Swiss Economic Institute (Konjunkturforschungsstelle) publishes a globalisation index, and includes economic sub-indices.

One of the strengths of the case described in this book is the contrast between the Philippines and Vietnam. However, the KOF globalisation index for economic openness does not point to a strong contrast between the two countries. While this might be superficially explained by pointing out that the KOF index has been calculated since 1970 only, and so omits important years of economic nationalism in the Philippines, there is some other additional problem. We would expect the Philippines to be mostly closed and Vietnam mostly open today, but although the index ranks the Philippines in the bottom half at 104th place out of 203 countries, Vietnam obtains little difference in ranking at 95th place. The de jure rankings are even closer and reversed, with the Philippines placing 97th and Vietnam, 100th. Intuitively we think of de iure openness when we ask if a country is open to international trade, although the impact of this openness must be achieved through de facto trade. It also seems unlikely that Vietnam has a higher openness score than the Philippines from 1970 to 1994, years of war and then embargo imposed by the United States of America, particularly since the Marcos regime in the Philippines was seeking funding from abroad.

The reason the KOF index reveals far less contrast between the two economies might be diversity of trading partners, but hard data show this is not the case.

The KOF index estimates ‘trade globalisation de facto’ by combining trade (measured by imports and exports) normalised by GDP, with diversity of trading partners (roughly the number of different national destinations of exports and sources of imports). A 2006 paper by Kim and Park (2006) showed that the correlation of trade and growth becomes far stronger when diversity of trade partners is taken into account. Arguably, then, the diversity of trading partners is a dimension of openness. For

that matter, diversity of exports and imports would also be dimensions of openness; the Observatory of Economic Complexity has the link between prosperity and diversity of merchandise exports (and, very recently, services) as its premise.

Figure 1.4 Concentration of trade partners presents the concentration—the non-dispersion—of trading partners. The metadata of the world bank statistic states that a 'country with trade (export or import) that is concentrated in a very few markets will have an index value close to 1. Similarly, a country with a perfectly diversified trade portfolio will have an index close to zero' (World Bank 2020). Vietnam has a lower score than the Philippines, and indeed approaches the score of Singapore, a country with extremely diversified trading partners. Diversity of trading partners should increase the contrast between Vietnam and the Philippines, not diminish it. Given the data on trade partner dispersal, as well as exports and import data, relatively similar KOF (economic) globalisation scores do not seem to be appropriate indicators for openness in the case comparing the Philippines and Vietnam and will not be used.

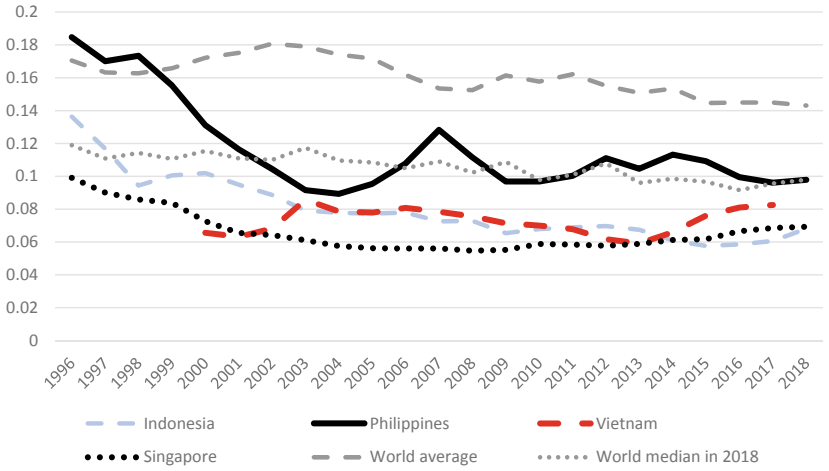

Fig. 1.4 Concentration of trade partners. Individual points are the Hirschman Herfindahl Market concentration index for the given country and year. Higher values indicate fewer trading markets, lower values indicate greater dispersion of trading partners (*Data source* The World Integrated Trade Solution [WITS])

In any case, this book takes a simpler approach. The contrast between the two cases is based upon the observed difference in levels of international trade and international financing in the two countries, de facto and de iure.

Gräbner et al. (2020) provides a general overview of efforts to measure economic openness, covering about 50 variables from 18 different sources. The results reinforce the impressions from the literature streams on trade and growth and on FDI and growth: changing the indicator of openness impacts the relation between openness and prosperity as much as changing the indicator of trade, FDI, or indeed the choice of starting and ending years of measurement. This does not necessarily mean such research is pointless, but it does reinforce the utility of examining specific cases.

The Evolution of the Volume of Foreign Direct Investment and of International Trade

Business investment in multiple countries has increased, as measured by foreign direct investment inflow in current US dollars and as a percentage of world GDP. However, this trend is far more sensitive to the economic and financial context than is GDP. The curve skyrocketed upwards in the years preceding the global financial crisis and then plummeted. It also fluttered with the telecom and dot.com busts of the turn of the century and dropped with the onset of the US–China trade war. See Fig. 1.5 World FDI inflows in current US dollars and Fig. 1.6 FDI net inflows as a percentage of GDP.

World exports of both goods and services (in current US dollars) have also increased for 55 years from 1960, with a momentary hesitation from 2000 to 2001 (see Fig. 1.7 World exports and Fig. 1.8 World exports as a percentage of GDP). It then dropped in 2015 and 2016, increased to 19.6 trillion by 2018, then began to drop again. Thus, the statistic for world exports has decreased in value several times since 2014. This downward drift predates the US–China trade war initiated by the Donald Trump administration.

However, this should not be interpreted as a trend to decreasing international trade anterior to that trade war. The statistic has decreased in value primarily because of decrease in the price of crude petroleum. This price affects trade volume through at least three channels. The price of petroleum impacts the cost of transport, and thus the dispersion of trade

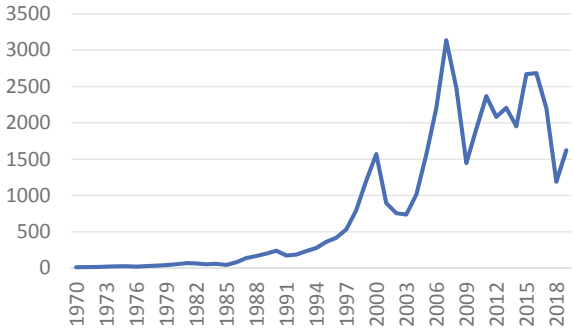

Fig. 1.5 World FDI inflows in current US dollars (*Data sources* International Monetary Fund, Balance of Payments database, supplemented by data from the United Nations Conference on Trade and Development and official national sources)

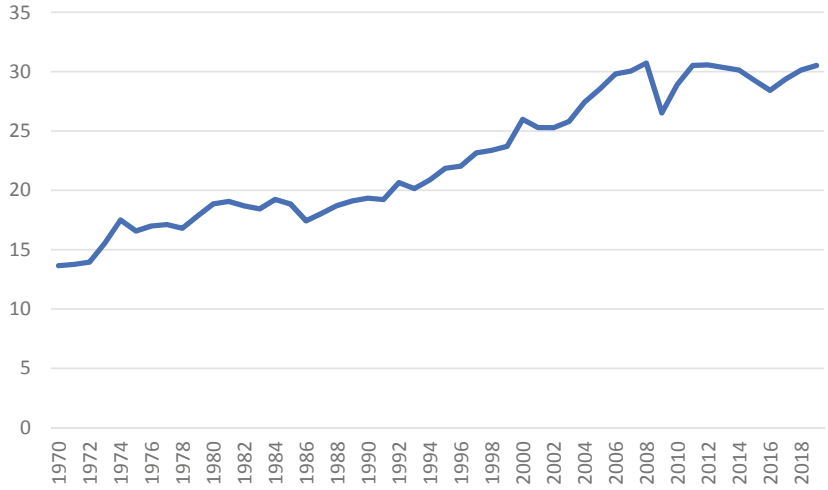

Fig. 1.6 FDI net inflows as a percentage of GDP (*Data sources* World Bank national accounts data, and OECD National Accounts data files)

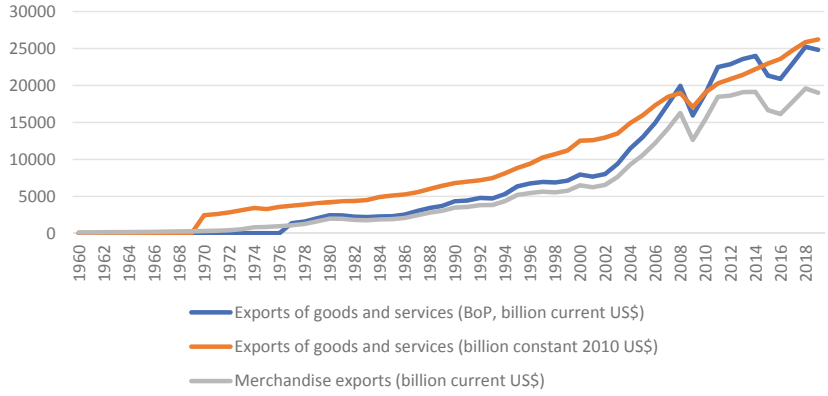

Fig. 1.7 World exports (*Data sources* World Bank national accounts data, and OECD National Accounts data files, International Monetary Fund, Balance of Payments Statistics Yearbook and data files, World Trade Organisation)

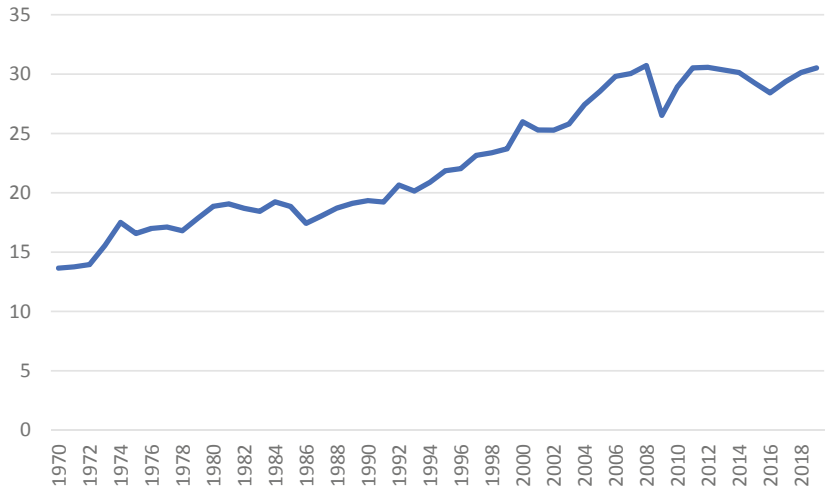

Fig. 1.8 World exports as a percentage of GDP (*Data sources* World Bank national accounts data, and OECD National Accounts data files)

across geographic distance, with lower prices increasing long distance trade and higher prices decreasing long distance trade (2018 Nanovsky). A second effect of oil prices is to decrease the dollar value portion of international trade representing oil even though the physical quantity of oil (in millions of barrels) increases or remains constant. A third effect is to (indirectly) reduce the price of other commodities by reducing energy costs and increasing supply of other commodities. Thus, these two latter effects decrease the statistic for world exports to a significant degree. Beyond these three channels, if less money is spent on oil, one could argue that more money would be available to spend on other items, increasing demand for them and thus maintaining the level of world exports. The data provide a simpler answer. The total dollar volume of world exports increased during both the 1970s (302 billion to 1.6 trillion in current US dollars) and the 2000–2014 (6.5 trillion current US dollars in 2000, 16.3 in 2008, 19.1 in 2014), both periods of increasing oil prices. The drop in world exports from 2014 to 2016 coincides with a decreasing price of oil.

Thus, world trade has been increasing since 1960, the earliest year on the World Bank database, and indeed has been growing since the end of the second World War. The US–China trade war will displace some international trade from China to other countries, but may also repatriate some activities back into the United States and thereby reduce trade statistics. The pandemic which was declared in 2020 has had a strong impact reducing international trade, and indeed has affected patterns of domestic trade in many countries.

At the same time, Fig. 1.7 and even Fig. 1.8 may be interpreted incorrectly. They both used gross export figures. Much of international trade involves global value chains (transactions of businesses in a sequence of countries, each adding some value) and thus added value traded over two or more national borders, that is to say, shipped internationally and counted several times (WTO 2009).[4] Each figure reports the volume of international shipments, not the amount of value added shipped. Table 1.1 illustrates the difference. Figure 1.9 presents world domestic value added shipped internationally as a percentage of world GDP. The percentages and especially the growth rate are far lower than in Fig. 1.8. This does not contradict the observed change in the nature of trade, nor does it mean that the reported figures are false. It does lead us to revisit the relation between trade and the generation of value added.

Table 1.1 Global value chains and national accounting

Country	*Import*	*Value added*	*Export*	*Accumulated Exports*
1	0	10	10	10
2	10	10	20	30
3	20	10	40	70
4	40	10	50	120
5	50	10	60	180
6	60	10	70	250

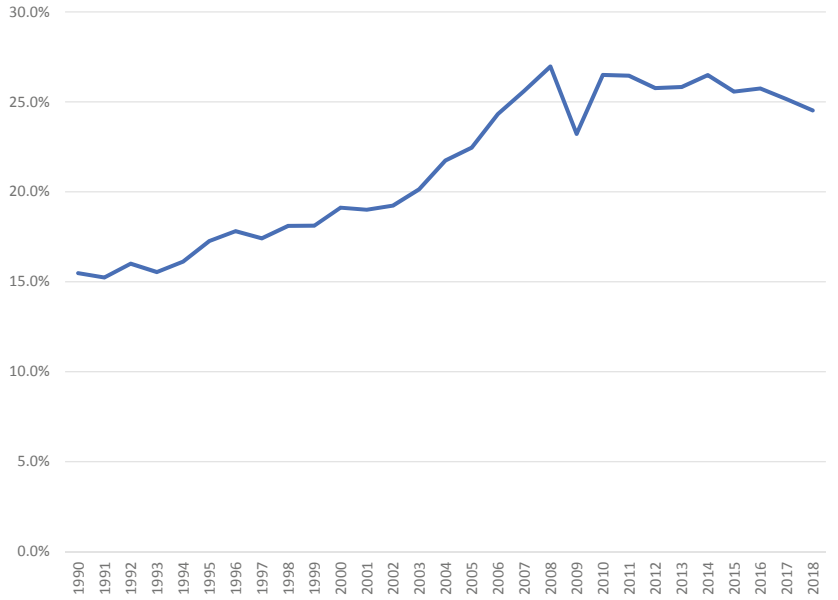

Fig. 1.9 Total domestic value added shipped internationally as a percentage of world GDP. Total domestic value added is the sum of direct and indirect domestic value. Using the Eora labels for statistics, VA_exp = DVA + DVX (*Data source* Author's calculations from EORA database, World Bank national accounts data, and OECD National Accounts data files)

Problems with the Philippines and Vietnam Case

Recent economic performance by the two countries provides a second problem. Both the Philippines and Vietnam have enjoyed rapid economic growth in the first two decades of the twenty-first century. Perhaps this seems to contradict any pro-trade and FDI message from the case. This is all the more so because the Philippines' openness to trade and FDI seemed to have faltered after initially opening up in the early 90s. The Fig. 1.10 shows that Vietnam is ever more open to trade, and the Philippines ever more closed. Surprising, Fig. 1.11 seems to show the Philippines and Vietnam growing at similar rates. Even more striking is Fig. 1.12, which suggests Vietnam performed only a little better, and with less severe downturns. Indeed, since recovering from the global financial crisis, the economy of the Philippines has been keeping pace with that of Vietnam. Unfortunately, the reason for this is demographic: Vietnam had a slightly larger population than the Philippines in 1999; in 2019 the

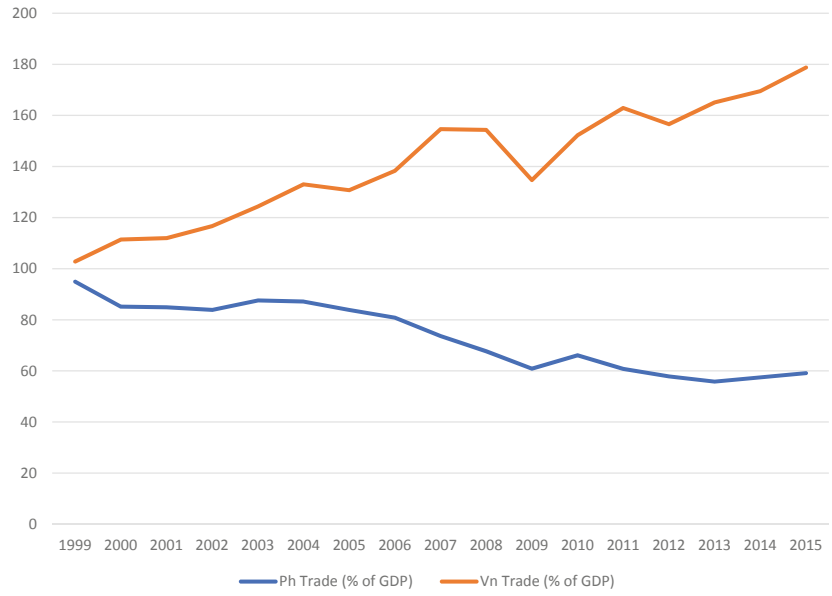

Fig. 1.10 Evolution of trade compared 1999–2015 (*Data Sources* World Bank national accounts data, and OECD National Accounts data files)

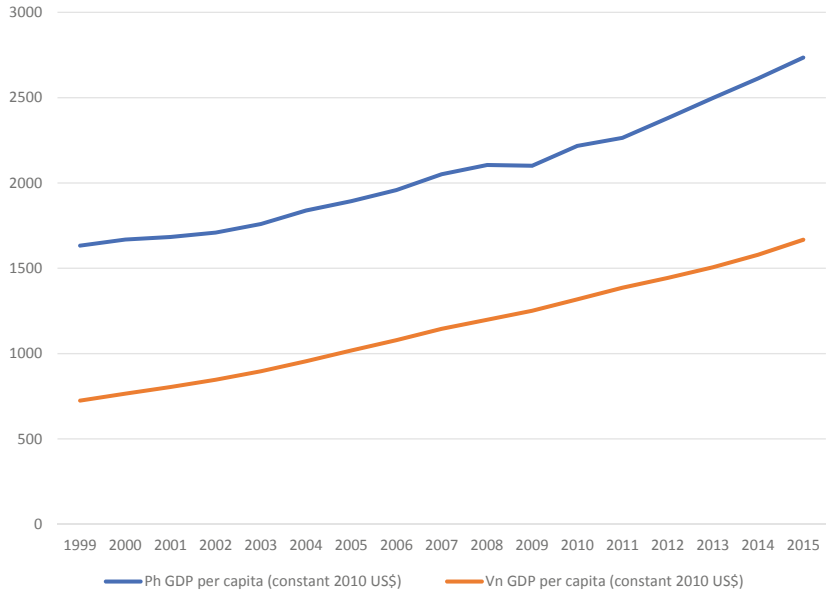

Fig. 1.11 Evolution of GDP per capita 1999–2019 (*Data sources* World Bank national accounts data, and OECD National Accounts data files)

Philippines was 10% larger. When arithmetic replaces visual inspection, the similarities disappear. Comparison CAGR prosperity indices (such as GDP per capita) for 1999–2019 shows that the economy of Vietnam clearly has outperformed that of the Philippines in the four most common prosperity indicators. Conceivably the best performing years for the Philippines were 2009–2014. Figure 1.13 shows the Philippines only approaches Vietnam in GDP per capita expressed in current international purchasing power parity dollars. As a consequence, recent impressive growth in the economy of the Philippines does not destroy the power of the case in this book. Chapter 4 will nonetheless return to this issue using the more detailed data of Chapters 2 (about the economy of Vietnam) and 3 (about the economy of the Philippines).

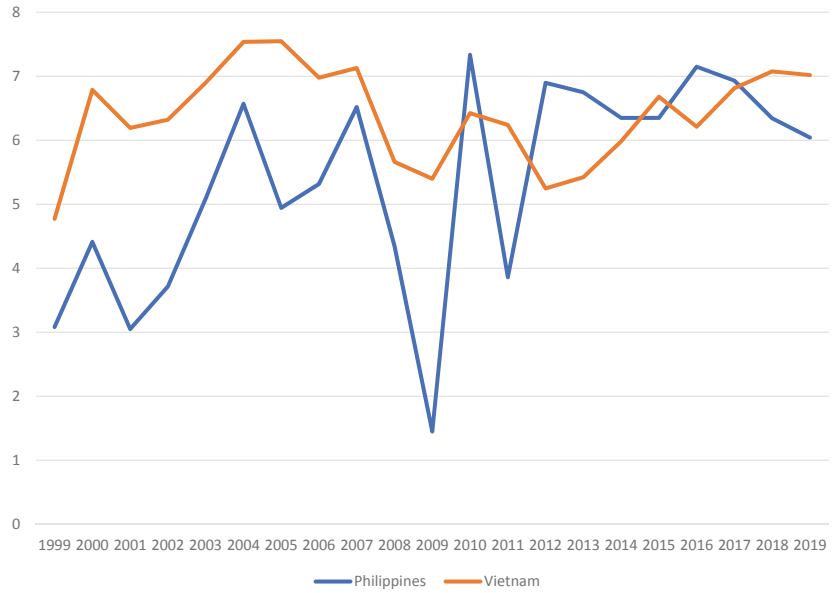

Fig. 1.12 GDP growth rates compared (*Data sources* World Bank national accounts data, and OECD National Accounts data files)

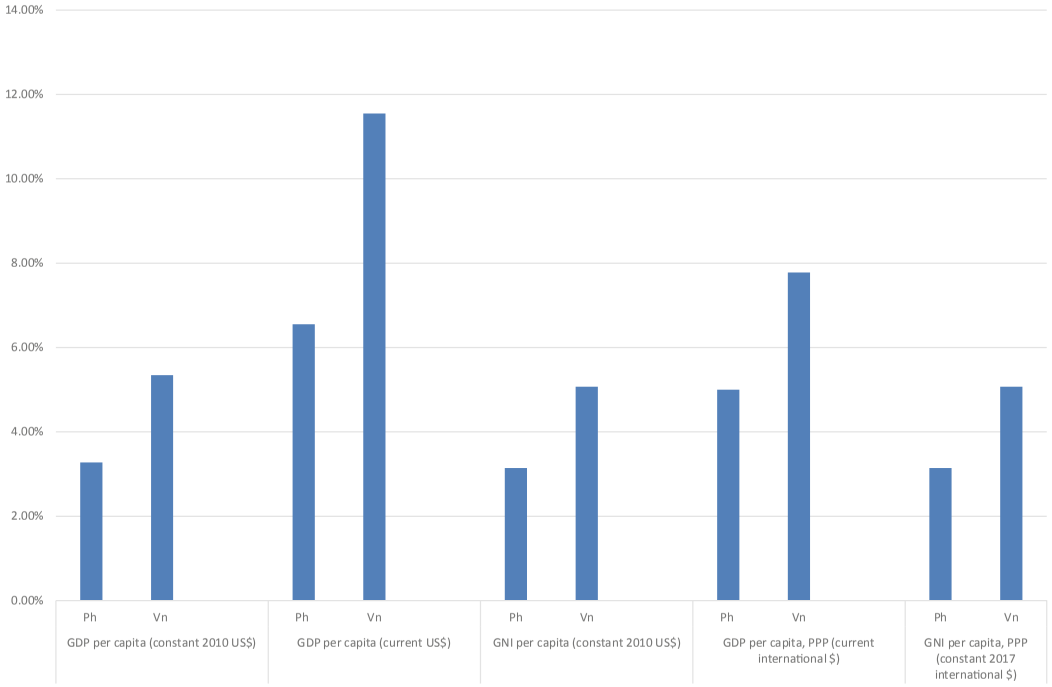

Fig. 1.13 CAGR of various prosperity indices over 2009–2014 for Philippines and Vietnam (*Data sources* Authors' calculations based on World Bank national accounts data, OECD National Accounts data files, the International Comparison Program of the World Bank, the World Development Indicators database, and the Eurostat-OECD PPP Programme)

Notes

1. There are exceptions, as some foreign investment projects may reserve proprietary knowledge technical work and upper management positions to home country employees.
2. Lejarraga and Ragoussis (2018) are far more confident that virtually all research shows FDI as positively impacting prosperity. See their Table 2. This stands in stark contrast with Alfaro and Charlton (2013).
3. There are abundant retrospectives of international trade theory such as De Feis (2016), Ethier (2013), Helpman (2006), Leamer and Levinsohn (1994), Mathur et al. (2017), Ruffin (2013), and Sen (2010). Regarding the difficulty in arriving at prediction, Bowen's (1989) review of Feneestra's Empirical Methods for International Trade mentions that 'Certainly, the 1960s and 1970s witnessed an explosion of research which found new patterns and puzzles and suggested that other causes of trade beside factor endowments were important. Of course using the standard model one could demonstrate other factors could cause trade, but the theoretical statements were difficult to translate into empirically testable hypothesis. Consequently, tests of trade theory locked with specified alternative hypotheses and the findings of such tests only serve to heightened frustration, not relieve it'.
4. Other consequences of this 'double counting' (Koopman 2012) are the volatility of trade statistics following any shock (OECD 2002) and danger of exaggerating the importance of imports from any given country and resulting trade imbalances as illustrated by the classic example of the import of iPhones from China into the U.S. (Xing and Detert 2010). This problem is partly addressed by the notion of trade in value added, for example, the OECD TIVA database.

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