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Foreign Direct Investments in Asia: Trends and Prospects

Prepared by

Steven G. Cochrane
Steve.Cochrane@moodys.com
Chief APAC Economist

Shahana Mukherjee
Shahana.Mukherjee@moodys.com
Economist

Contact Us

Email
help@economy.com

U.S./Canada
+1.866.275.3266

EMEA
+44.20.7772.5454 (London)
+420.224.222.929 (Prague)

Asia/Pacific
+852.3551.3077

All Others
+1.610.235.5299

Web
www.economy.com
www.moodysanalytics.com

Introduction

Foreign direct investment has long been an integral catalyst for economic development for recipient countries in Asia. However, the recent trade frictions between the U.S. and China, which began in 2018, have dented global investor sentiment and China's appeal as a global manufacturing hub. This is a significant development that has altered the region's trade dynamics, with potential implications for long-term investment flows.

This paper provides an overview of long-term trends in FDI flows to Asia and examines how investment flows have changed since the onset of the U.S-China trade war. We find that while FDI flows remain concentrated among the developed markets, Asian countries are rising in prominence and China was the second-largest recipient of global FDI flows after the U.S. in 2018.

Interestingly, while China receives large volumes of global FDI flows, the relative importance of FDI (as a percent of GDP) in China has declined since 2002 and is currently below the regional average. In comparison, Southeast Asian countries such as Vietnam and Indonesia have emerged as important destinations for FDI in the region.

Further, we find some early indications that the trade war has impacted short-term FDI flows to Asia. While FDI flows to China have moderated since 2018, flows to Vietnam, Indonesia and Malaysia have gained momentum, supported by increased investments from China and the U.S.

Moreover, our newly constructed FDI index indicates that, given current capacities with respect to important long-term determinants of FDI, Thailand, Malaysia, Indonesia and Vietnam, in addition to China, are relatively well-positioned to attract more FDI in the region in the near term.

This paper provides important insights into regional investment dynamics at a time when growth in the larger Asian economies, such as China and India, has moderated. In doing so, it underscores the growing relevance of relatively smaller Southeast Asian countries, such as Vietnam, Indonesia and Malaysia, as potential destinations for longer-term investment, given their existing competencies and capacity to mitigate supply chain disruptions.

Foreign Direct Investments in Asia: Trends and Prospects

BY STEVEN G. COCHRANE AND SHAHANA MUKHERJEE

Foreign direct investment flows remain concentrated among developed countries, with the U.S. being the top recipient in 2018. China is the second largest recipient of global FDI and attracts the major share of flows to Asia, but the relative size of FDI, as a share of GDP, in China has declined since 2002. In contrast, Vietnam and Indonesia have emerged as important destinations for FDI in the region, as they have progressively attracted more FDI.

There are some early indications that the U.S.-China trade war has slowed regional FDI, as FDI flows to China have moderated since the onset of the trade war, whereas flows to Vietnam and Indonesia have gained momentum. Our newly constructed FDI index indicates that China, Thailand and Malaysia are relatively well positioned in Asia to attract more FDI in the near term.

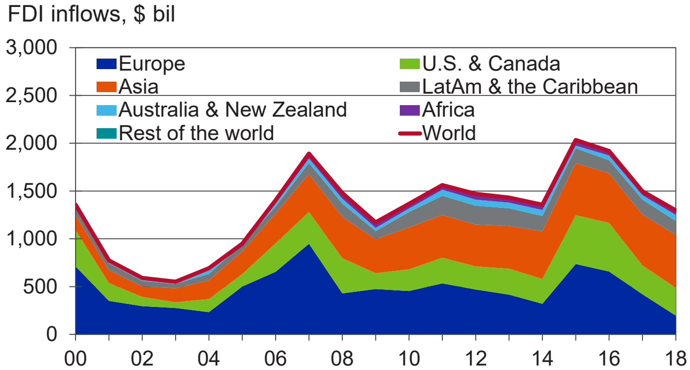
Introduction

Foreign direct investments are composed of cross-border flows of long-term capital and are an integral catalyst for development in recipient countries. Over time, FDI has assumed an increasingly important role in driving economic growth, especially in developing countries which have progressively opened their borders and integrated with world markets. While long-term investment decisions depend on various factors such as resource endowments, the recipient countries' position in global supply chains, and institutional and regulatory quality, short-term factors can lead to shifts in these trends.

The U.S.'s imposition of higher tariffs on imports from China has not only affected the latter's appeal as a global manufacturing hub but also altered the trade dynamics for countries affected by China's position in global value chains. The U.S.-China trade war, coupled with slowing demand in China and weaker conditions elsewhere, has already weighed heavily on global trade and dented market sentiment, with possible implications for long-term investment decisions.

Chart 1: Global Flows Have Weakened

FDI inflows, $ bil



Sources: UNCTAD, Moody's Analytics

This paper presents an overview of global trends in FDI flows, with a specific emphasis on inward flows. This paper is divided into five sections. The first section provides an overview of long-term trends in global FDI. The second section examines trends in FDI flows to Asia. Section 3 extends the analysis to examine how FDI flows to the main recipient economies in Asia have changed since the onset of the U.S.-China trade war. Section 4 introduces an FDI index to identify countries within Asia that are relatively better positioned to attract more FDI flows in the years ahead. Section 5 summarizes the key findings.

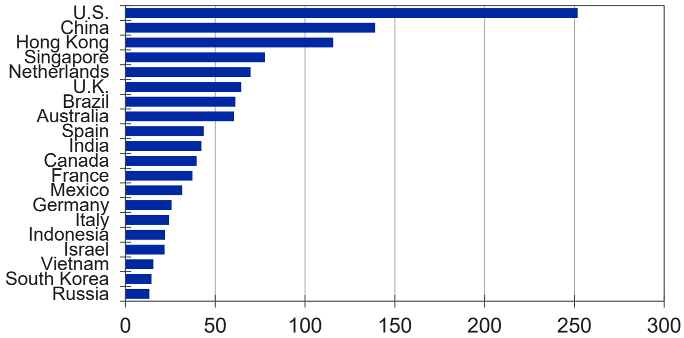
FDI: Global trends

This section summarizes long-term trends in regional FDI and identifies the main recipients of FDI. Global FDI has risen over the long term, peaking in 2015 at $1.9 trillion, supported by high growth and strong corporate performance in many parts of the world.[1] Since then, however, FDI has fallen as the pace of global growth has slowed (see Chart 1). There are cyclical patterns as well, as FDI fell during the 2001 recession in the U.S. and Europe, and during the global finan-

1 World FDI flows, as seen in Chart 1, exclude the offshore financial centres in the Caribbean.

Chart 2: U.S. Receives the Most Inflows

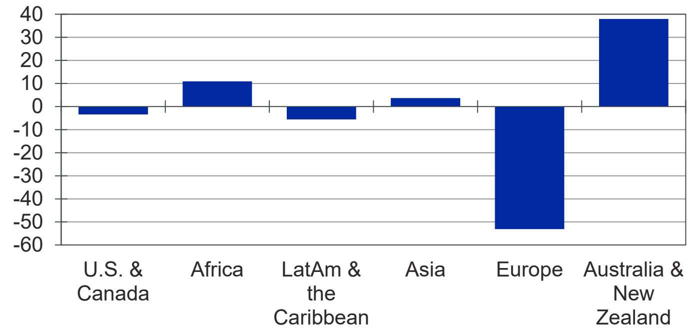
FDI inflows, $ bil, 2018



Sources: UNCTAD, Moody's Analytics

Chart 3: U.S. Tax Reform Hurt Europe

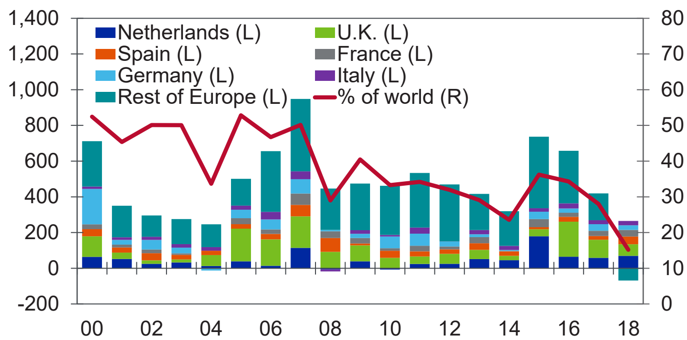
FDI inflows, 2018, % change yr ago



Sources: UNCTAD, Moody's Analytics

Chart 4: Europe's Appeal Is Fading…

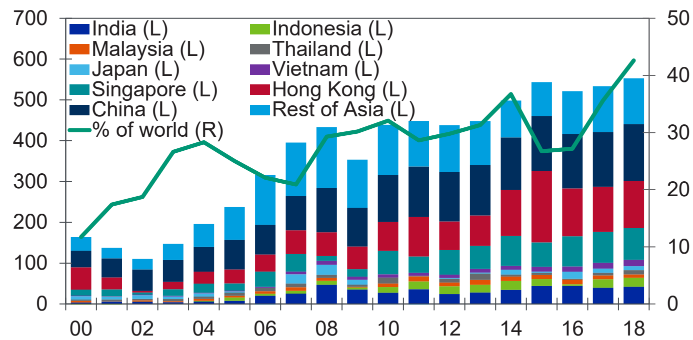
FDI inflows, $ bil, % of world FDI



Sources: UNCTAD, Moody's Analytics

Chart 5:…While Asia Powers Ahead

FDI inflows, $ bil, % of world FDI



Sources: UNCTAD, Moody's Analytics

cial crisis.[2] In recent years, FDI flows have declined, following a brief but significant expansion in 2015 driven by a sharp increase in cross-border mergers and acquisitions. The most recent decline was caused by onetime large repatriations of accumulated foreign earnings by U.S.-owned multinational enterprises, or MNEs, following U.S. tax reforms in late 2017.[3]

Developed countries have been the largest recipients of FDI, with Europe and the U.S. and Canada receiving the major share of total flows between 2000 and 2018 (see Chart 2). The U.S. was the top recipient in 2018. However, FDI to these regions was also among the most affected by the recent repatriation of foreign earnings by MNEs (see Chart 3).

Within Europe, flows are concentrated in the U.K., the Netherlands, Germany and Spain (see Chart 4). Flows to the Netherlands relative to its economy are particularly notable. However, Europe's share of global flows has declined over time.

Asia has recently replaced Europe as the main destination for global FDI since 2017. China, Singapore, Hong Kong SAR, India and Indonesia are important destinations. While China was the top recipient in Asia and the second largest globally in 2018 (see Chart 5), markets such as Indonesia and India are ahead of China in terms of FDI inflows as a share of GDP (see Chart 6).[4] Further, ASEAN countries such as Malaysia and Vietnam have been rising in prominence in recent years.

In comparison, flows to Latin America and the Caribbean and Africa have increased at a relatively modest pace (see Charts 7 and 8). Brazil is among the top recipients of FDI relative to its domestic market size. While inflows to Latin America and the Caribbean decreased in 2018, as the region's economic recovery has slowed, flows to African countries rose over the same period, as the region continued to receive resource-oriented foreign investments, supported by a notable increase in FDI flows to South Africa.

FDI in Asia: Long-term trends

FDI flows to Asia have grown in magnitude over time but remain concentrated in the East and Southeast Asia economies, such as China, Singapore, Hong Kong, India

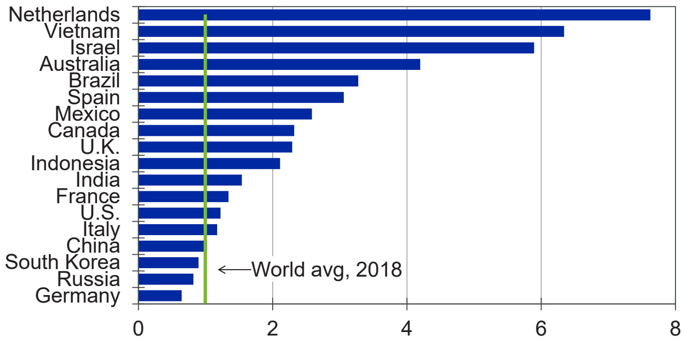
2 All reported statistics on FDI flows are not seasonally adjusted unless otherwise stated.

3 World Investment Report (2019), U.N. Conference on Trade and Development (UNCTAD). https://unctad.org/en/pages/PublicationWebflyer.aspx?publicationid=2460

4 World average FDI, as a share of GDP, refers to a GDP-weighted average. Chart 6 excludes Hong Kong and Singapore, which are markets with high shares of FDI relative to GDP (ranging between 24% and 40% of GDP since 2010), as they are key financial centres in Asia through which large volumes of capital flows are intermediated, and consequently, FDI expressed as a share of domestic GDP may not be an accurate representation of the relative importance of FDI in these economies.

Chart 6: Smaller Countries Attract More

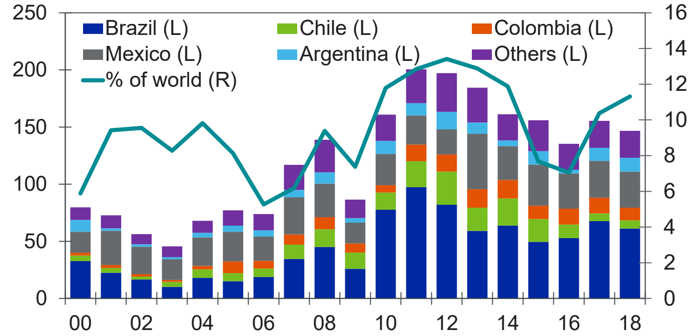
FDI inflows as a % of GDP, 2018



Sources: UNCTAD, Moody's Analytics

Chart 7: Slower Recovery Hurts LatAm

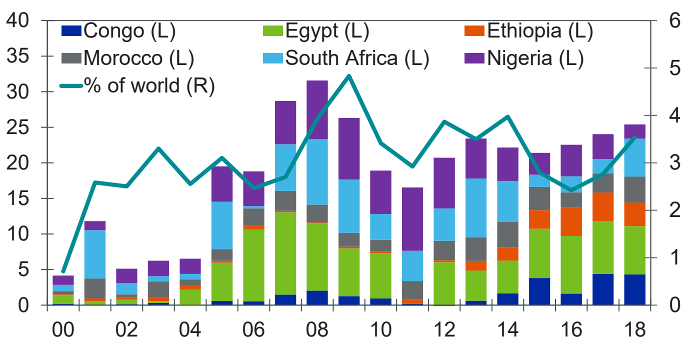
FDI inflows, $ bil, % of world FDI



Sources: UNCTAD, Moody's Analytics

Chart 8: Resources Bolster Africa

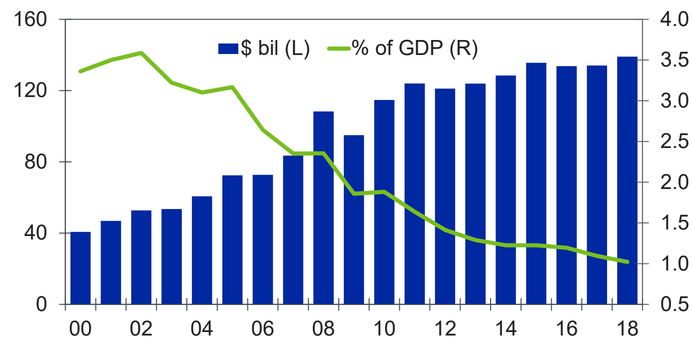
FDI inflows, $ bil, % of world FDI



Sources: UNCTAD, Moody's Analytics

Chart 9: China Is an Interesting Case

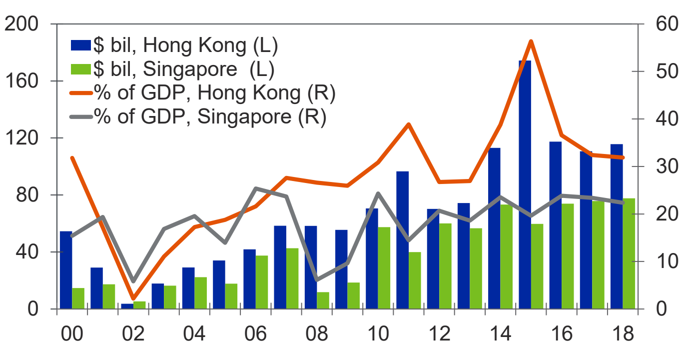
FDI inflows



Sources: UNCTAD, Moody's Analytics

Chart 10: Services Dominate HK, Singapore

FDI inflows



Sources: UNCTAD, Moody's Analytics

and Indonesia.[5] A country-level distribution highlights that China is the largest recipient of FDI, attracting 25% of all regional flows in 2018.[6] While FDI flows into China have risen since 2009, FDI inflows as a percent of GDP have steadily declined, suggesting that the importance of FDI in China has weakened over time, relative to the size of the domestic market (see Chart 9). Moreover, despite the trade frictions between the U.S. and China and the global downturn in FDI, flows to China continued to rise in 2018, reaching an all-time high of $139 billion.[7]

Hong Kong and Singapore also are important destinations for foreign investments in Asia, together attracting 35% of FDI inflows to Asia. Flows to these economies are composed of substantial investments in services and service sector operations[8] (see Chart 10). India is another important destination in Asia; it accounts for 8% of total regional FDI flows, and FDI in India continues to rise as a share of GDP (see Chart 11).[9]

ASEAN countries, particularly Indonesia, Malaysia and Vietnam, have attracted a larger share of regional FDI flows. However, there is a notable divergence in their long-

5 In comparison, the central and western parts of Asia have received relatively lower FDI over the years, with a cumulative average regional share of 11% since 2015.

6 China's share in regional FDI has remained relatively stable and ranged between 25% and 27% since 2008.

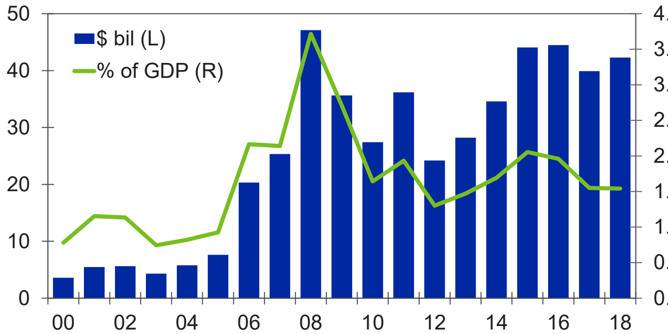
7 All currencies are in U.S. dollars unless otherwise noted.

8 Service sector operations refer to investments in regional headquarters and finance functions that facilitate indirect FDI flows. For more information, see the U.N. World Investment Report (2019). As stated earlier, we remain cautious in interpreting the relative size of FDI flows into these economies.

9 The correlation between FDI flows and their size relative to GDP between 2000 and 2018 stood at 0.79 for India, compared with -0.97 for China.

Chart 11: India Becoming More Attractive

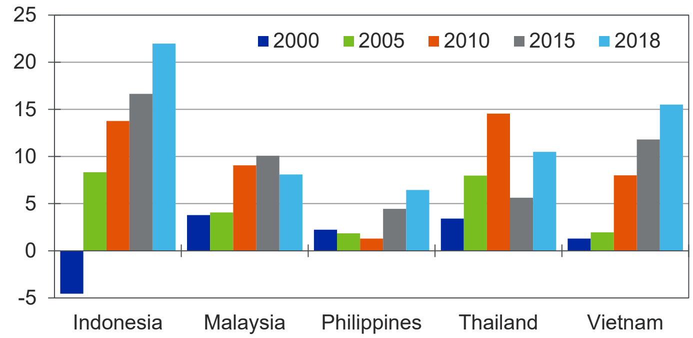
FDI inflows



Sources: UNCTAD, Moody's Analytics

Chart 12: Variable Flows to ASEAN

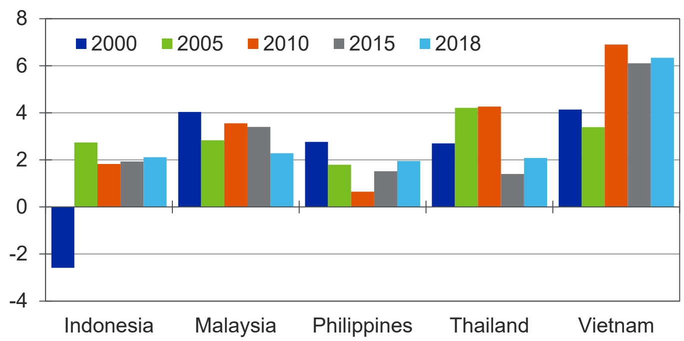
FDI inflows, $ bil



Sources: UNCTAD, Moody's Analytics

Chart 13: Vietnam Leads the Way

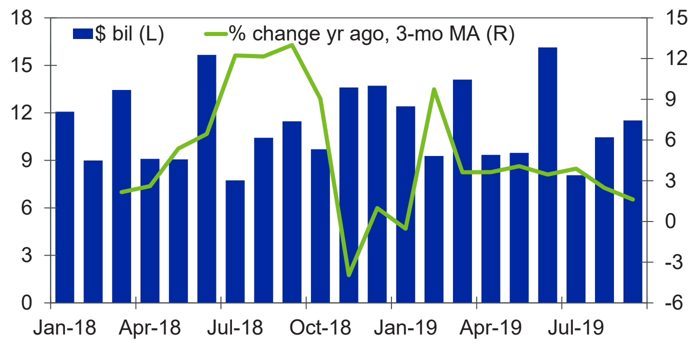
FDI inflows as a % of GDP



Sources: UNCTAD, Moody's Analytics

Chart 14: Flows to China Lose Momentum…

FDI inflows, NSA



Sources: Dept. of Foreign Investment Admin., Ministry of Commerce, Moody's Analytics

term trends. FDI growth has been the fastest in Indonesia and Vietnam, and while there is a meaningful increase in both markets, it has assumed a larger role in the Vietnam economy (see Charts 12 and 13). In contrast, the relative size of FDI flows to other ASEAN countries like Thailand has varied over time.

FDI in Asia: Recent trends

As noted, global FDI flows have declined in recent years. Though the long-term trend has slowed due to factors such as falling rates of return on investments, increased national regulatory restrictions, and structural changes in international production, the trade war between the U.S. and China has emerged since 2018 as a weight on global investment, with potential implications for longer-term investment decisions.[10]

The U.S.-China trade war has steadily escalated since 2018. The economic costs of the dispute have been significant, reducing bilateral trade flows and also slowing total global trade.[11] Since the onset of the U.S.-China trade war and the subsequent shift in global trade patterns,[12] FDI flows to China have risen but growth has moderated. In comparison, FDI flows to Vietnam and Indonesia have accelerated, supported by increased investments from China, whereas flows to Malaysia and India have also been on the rise.

China has continued to attract FDI through 2019, but yearly growth has moderated (see Chart 14).[13] Moreover, the number of newly approved FDI projects in China has declined sharply in 2019, with the average annual growth in projects falling by 33% since January (see Chart 15). These trends suggest growing uncertainty among foreign investors regarding China's near-term outlook, amid a slowing domestic economy and persistent trade tensions.

In other parts of Asia, preliminary estimates indicate that FDI patterns are likely to have diverged. There are signs of recovery in FDI flows to India following the sharp decline

10 See the U.N. World Investment Report (2019) for more information on factors driving long-term trends in global FDI.

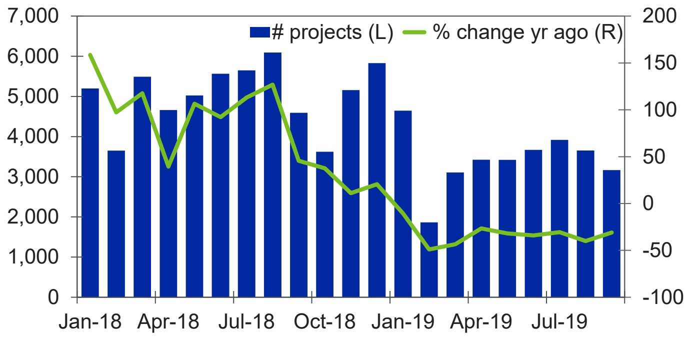
11 See Moody's Analytics research articles "Trade Troubles on the Farm" and "Surprise Trade War Winners: Brazil Soy Farmers" for a discussion on the effects of the U.S.-China trade war.

12 The statistics reported in this section are contingent on data availability and based on data obtained from the IFS (IMF) database and various national statistical agencies, as the UNCTAD database (our primary data source) exclusively reports annual statistics on aggregate FDI flows, which are available up until 2018. However, it is worth noting that the statistics reported in this section are directly comparable to data, and other aggregates, obtained from the UNCTAD database.

13 The sharp decline in annual FDI growth in November 2018 (seen in Chart 14) is due to a high base effect following a brief but sharp rise in FDI inflows to China in November 2017.

Chart 15:…Led by Fewer New Projects

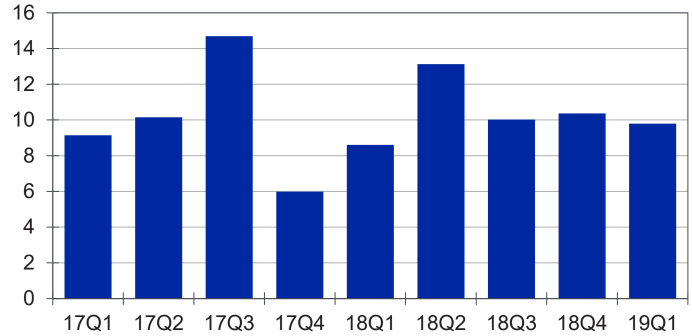
Newly approved projects



Sources: Dept. of Foreign Investment Admin., Ministry of Commerce, Moody's Analytics

Chart 16: Flows to India Stabilize

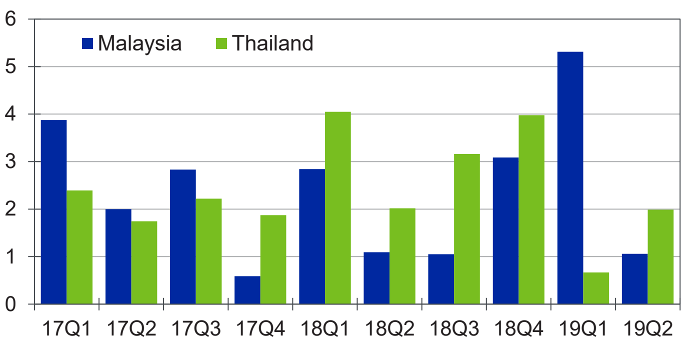
FDI inflows, NSA, $ bil



Sources: IMF, Moody's Analytics

Chart 17: Stronger Flows to Malaysia…

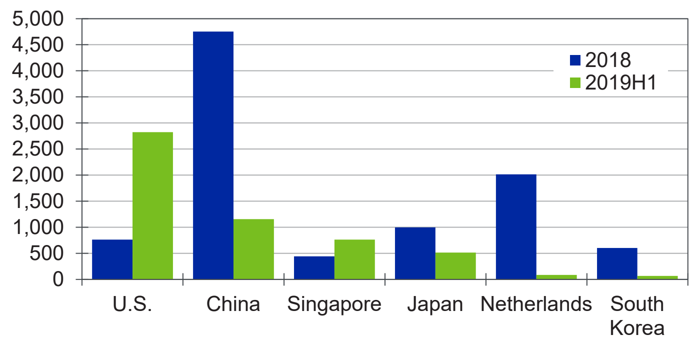
FDI inflows, NSA, $ bil



Sources: Malaysian Investment Develop. Authority, Bank of Thailand, Moody's Analytics

Chart 18:…As U.S. Grows Malaysia Presence

FDI inflows to Malaysia by source country, $ mil



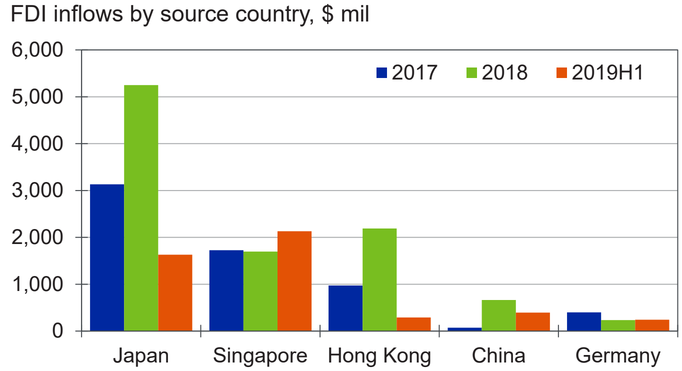
Sources: Malaysian Investment Development Authority, Moody's Analytics

towards the end of 2017 (see Chart 16).[14] In comparison, initial estimates indicate that Malaysia continued to be an attractive destination for FDI in the first half of 2019, led by a nearly fourfold increase in investments by the U.S. FDI flows to Thailand are on track to decline this year, with smaller investments from most of the main source countries (see Charts 17-19).

Among other Asian countries, preliminary data indicate that FDI flows to Vietnam and Indonesia have increased in recent months. Vietnam has continued to enjoy rising FDI through September, with foreign investment worth $26.2 billion.[15] Hong Kong was the top investor in Vietnam and may well reflect investments made by international units of Chinese companies that are based in Hong Kong.[16] South Korea, Singapore and Japan are the next largest investors (see Chart 20). Investment directly from China accounts for an additional 12% of total FDI in Vietnam so far this year.

Chart 19: Thailand Is Not Faring As Well

FDI inflows by source country, $ mil



Sources: Bank of Thailand, Moody's Analytics

Indonesia also has received high volumes of foreign investment so far in 2019, with estimated total FDI worth $20.8 billion through September.[17] Singapore remained the top investor in Indonesia, accounting for 24% of total FDI flows, followed by China, Japan, the Netherlands and Hong Kong,

14 All reported statistics on FDI flows are not seasonally adjusted, unless otherwise stated.

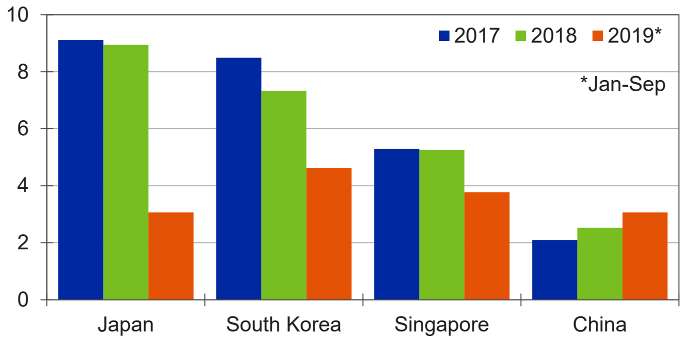
15 This refers to total registered foreign capital in 2019. As of September, realized, or actual, FDI to Vietnam is estimated at $14.2 billion, which represents an annual increase of 7.3% compared with the same period in 2018. (Ministry of Planning and Investment, Vietnam). http://www.mpi.gov.vn/en/Pages/tinbai.aspx?idTin=44262&idcm=122

16 Hong Kong accounted for 23% of total foreign investment in Vietnam between January and September 2019.

17 Indonesian Investment Coordinating Board (BKPM). https://www2.bkpm.go.id/en/statistic/foreign-direct-investment-fdi

Chart 20: China's Rising Flows to Vietnam

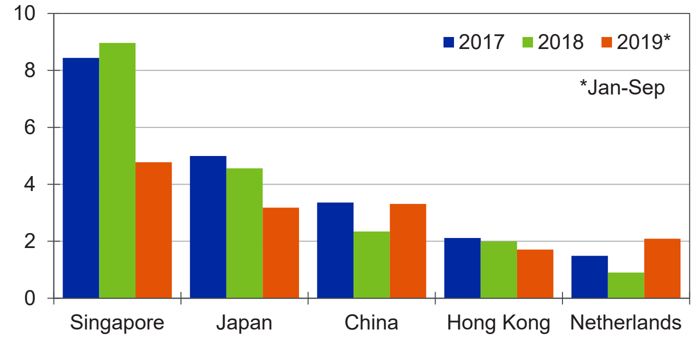
Total registered capital into Vietnam by source country, $ bil



Sources: General Statistics Office of Vietnam, Moody's Analytics

Chart 21: Indonesia's Intraregional Inflows

FDI inflows by source country, $ bil



Sources: Indonesian Investment Coordinating Board (BKPM), Moody's Analytics

which collectively accounted for 51% of FDI flows to the region in 2019 (see Chart 21). The latest numbers also indicate some change in the relative importance of countries investing in Indonesia. While flows from Singapore have been considerably lower in 2019 than in previous years, there is a pickup in FDI flows from China and the Netherlands. Further, not only have flows from China recovered from the decline in 2018, but total flows in the first three quarters of 2019 have almost reached 2017 levels and are well positioned to exceed them by the end of the year. These trends indicate that the recent pickup in FDI inflows to countries like Indonesia and Vietnam is being supported by increased investments from China.

Which countries are likely to attract more FDI?

While part of the change in FDI flows in some parts of Asia in 2018 may be due to the disruption in global supply chains caused by the U.S.-China trade war, long-term investment decisions are based on various factors, including market size, relative factor costs, infrastructure development, and quality of institutions. One of the main reasons why China has received large volumes of foreign capital was the availability of low-cost labour, with a commitment to develop a strong manufacturing base, and rising demand in developed economies for high-quality, low-cost goods. However, manufacturing sector wages in China have rapidly increased in recent years and raised production costs, whereas labour costs in other parts of Asia such as Vietnam and India have stayed low (see Chart 22). Low wages, a conducive business environment, and a commitment to a strong manufacturing base will allow other countries to follow in China's footsteps, as long as global protectionism does not limit their ability to export.

To reflect the potential for a country's ability to attract FDI, we have constructed an FDI Attractiveness Index based on a set of factors that are commonly regarded as determinants of long-term foreign investment, to assess which countries in Asia are best positioned to attract more FDI. Specifically, developing countries that receive more FDI are likely to have:

1. Competitive manufacturing wages
2. Developed trade logistics
3. Commitment to a strong manufacturing base
4. A conducive investment climate

The first factor, manufacturing wages, affects production costs and the rate of return on investments (Bellak et al., 2008). The second factor is an indicator of transportation costs, which represent the efficiency with which goods are transported within and across borders. Like labour costs, countries with more efficient logistics will have lower total production costs and potentially higher rates of return on investment. The third factor refers to the size of the domestic manufacturing industry. This is considered important, as a strong manufacturing base with better infrastructure is more conducive to large-scale production. The fourth factor refers to a country's overall investment climate and measures how the domestic regulatory environment supports business operations and is also considered a good indicator of FDI attractiveness (Anderson and Gonzalez, 2012).[18]

We find that China, Thailand and Malaysia offer the most conducive operating conditions and are relatively better positioned to attract more FDI in the region, followed by Indonesia and Vietnam. In comparison, while countries in the rest of South and Southeast Asia offer more competitive labour costs, they rank lower on institutional factors and are thus likely to be relatively less preferred destinations for FDI.

Data and methodology

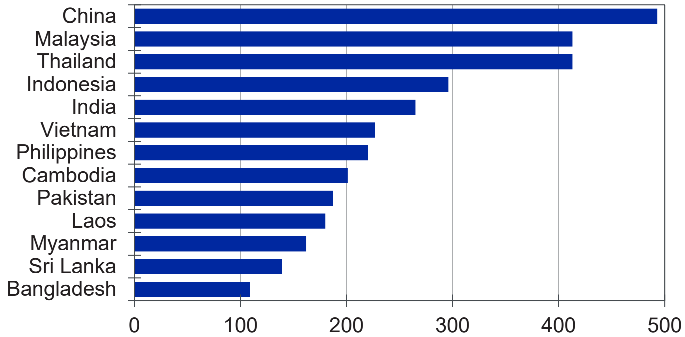
We rank countries along each of the four dimensions to assess which countries are more likely to attract FDI. For the first factor, we use the latest data on monthly manufacturing sector wages reported in the JETRO Survey (2018).[19] For the second factor, we use manufacturing value added expressed as a share of GDP as a measure of the size of the domestic manufacturing base. We use the Logistics Performance Index and Ease of Doing Business Index published by the World Bank as measures

18 The factors used to construct the FDI Attractiveness Index address important aspects relating to factor costs, infrastructure efficiency, and the regulatory environment. The index, however, does not take into account other factors such as population size, GDP growth, natural resource endowments, political stability, or the average educational attainment level of the labour force.

19 The JETRO Survey is an annual survey conducted by the Japan External Trade Organization on business conditions of Japanese-affiliated companies.

Chart 22: SE Asia Has Higher Wages…

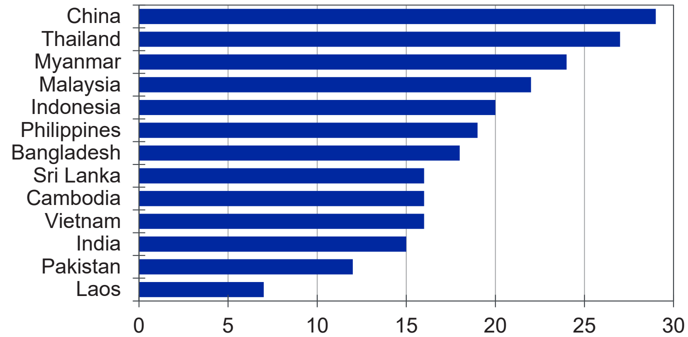
Base monthly manufacturing sector wages in 2018, US$



Sources: JETRO Survey (2018), Moody's Analytics

Chart 23:…A Large Manufacturing Base…

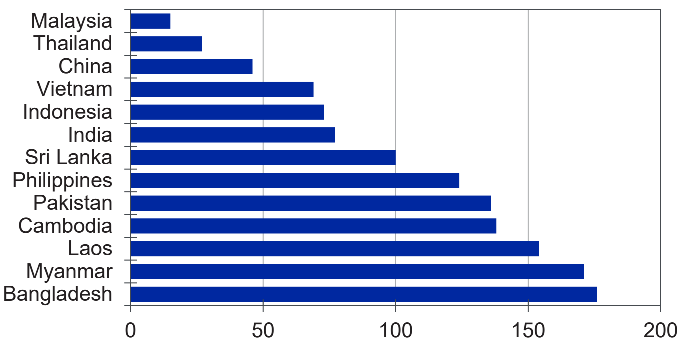
Manufacturing value added, % of GDP, 2018



Sources: World Bank, Moody's Analytics

Chart 24:…And Better Business Conditions

Ease of Doing Business Index, 2018



Sources: World Bank, Moody's Analytics

Table 1: FDI Attractiveness Index

	FDI Attractiveness Index
China	0.84
Thailand	0.84
Malaysia	0.63
Indonesia	0.31
Vietnam	0.25
South Korea	0.14
India	0.12
Philippines	-0.01
Sri Lanka	-0.21
Cambodia	-0.43
Bangladesh	-0.49
Myanmar	-0.50
Pakistan	-0.74
Laos	-0.75

Sources: World Bank (World Development Indicators), JETRO Survey, Moody's Analytics

of transportation costs and the overall investment climate, respectively. All data used in the construction of this index represent 2018 values and were obtained from the World Bank database, except for monthly manufacturing sector wages.

We rescale the data such that a higher value represents an improvement in cost or business operating conditions. Following this, we normalize each factor using the regional average and standard deviation to obtain a standardized score, or z-score. Finally, for each country, we calculate the unweighted average of the z-scores, corresponding to the four factors, to obtain the composite index. The index is then used to rank countries based of their overall suitability as FDI destinations, with a higher score indicative of better or more conducive operating conditions. The z-scores are summarized in Table 1.

As seen in Table 1, China, Thailand and Malaysia emerge as countries that are better positioned to attract more FDI in the region. A closer look at the individual factors highlights that while Malaysia and Thailand offer conducive operating conditions across a wide range of factors, China ranks high on logistics and a large manufacturing base, but faces higher labour costs in the region.[20] Other countries, including Indonesia, Vietnam and India, are also well positioned to attract more FDI in the region. While Vietnam scores higher on competitive labour costs, which are 54% lower than in China, and has a better investment climate, it has a relatively smaller manufacturing base (see Charts 22-24). Indonesia and India are also likely to be important, especially considering recent improvements in domestic policies, in addition to significantly lower manufacturing sector wages, which are 36% and 28% lower than the average wage in Thailand or Malaysia, respectively.[21]

Although countries in the rest of developing South and Southeast Asia score higher on labour costs and in some cases even have a reasonably large manufacturing base, weak institutional and regulatory quality tend to weigh on their overall suitability and are likely to deter a significant rise in long-term foreign investments.

Summary

Asia as a region has attracted the largest share of global FDI flows since 2017 and despite the ongoing U.S.-China trade war, the region is well positioned to continue being the top destination for foreign investments in the years ahead. Though China attracts the largest share of global FDI flows to Asia, the

20 See Table 1 in the Appendix for a ranking of individual factors.

21 These countries have recently introduced reforms such as relaxed foreign ownership limits and a cut in the corporate tax rate, among others, to attract more FDI.

relative importance of FDI in the economy has declined considerably over time and is currently below the regional average. In this regard, Vietnam and Indonesia have emerged as important destinations for FDI in the region and have progressively received more FDI as a percent of domestic GDP in recent years.

There are some early indications that the U.S.-China trade conflict has potentially impacted short-term FDI flows to Asia. Specifically, we find that growth in global FDI flows to China has moderated since 2018 with a notable decline in the number of newly approved projects, whereas FDI flows to Vietnam, Indonesia and Malaysia have gained momentum over the same period, supported by increased investments from China and the U.S.

We expect the recent trends in FDI flows to developing Asia to be stable and gain momentum in the years to come. FDI flows to countries such as Vietnam have accelerated in recent months, partly driven by increased investments from China amid ongoing uncertainty from the trade war. In the medium term, however, FDI flows to Vietnam and other countries such as Indonesia, Malaysia and India are likely to follow an upward trend, as these economies have distinct comparative advantages, offer a conducive investment climate, and have significant potential for growth. The recent downward trend observed in global FDI flows can potentially moderate some of this increase, but the larger expected impact is that of a sustained increase in FDI flows into various countries such as Malaysia, Indonesia and Vietnam and a rise in the region's significance as a destination for global FDI.

References

Aizenman, J., and I. Noy. 2006. "FDI and Trade—Two-Way Linkages?" *The Quarterly Review of Economics and Finance* 46 (3): 317-337.

Anderson, J., and A. Gonzalez. 2012. "Does Doing Business Matter for Foreign Direct Investment?" The World Bank.

Bellak, C., M. Leibrecht, and A. Riedl. 2008. "Labour Costs and FDI Flows Into Central and Eastern European Countries: A Survey of the Literature and Empirical Evidence." *Structural Change and Economic Dynamics* 19 (1): 17-37.

Survey on business conditions conducted by the Japan External Trade Organization. https://www.jetro.go.jp/en/reports/survey/

World Investment Report. 2019. U.N. Conference on Trade and Development (UNCTAD). https://unctad.org/en/pages/PublicationWebflyer.aspx?publicationid=2460

Appendix

Table 1: FDI Attractiveness Index—Factor Rankings*

Recipient country	Wages	Manufacturing value added	LPI	EDB Index
China	13	1	2	4
Thailand	11	2	3	3
Malaysia	11	5	5	2
Indonesia	10	6	7	6
Vietnam	8	9	4	5
South Korea	14	2	1	1
India	9	12	6	7
Philippines	7	7	8	9
Sri Lanka	2	9	10	8
Cambodia	6	9	11	11
Bangladesh	1	8	12	14
Myanmar	3	4	14	13
Pakistan	5	13	13	10
Laos	4	14	9	12

* For each factor, a lower numerical rank represents better operating conditions and is associated with a higher z-score for a given country.

Sources: World Bank (World Development Indicators), JETRO Survey, Moody's Analytics

About the Author

Steven G. Cochrane is chief APAC economist with Moody's Analytics. He leads the Asia economic analysis and forecasting activities of the Moody's Analytics research team, as well as the continual expansion of the company's international, national and subnational forecast models. In addition, Steve directs consulting projects for clients to help them understand the effects of regional economic developments on their business under baseline forecasts and alternative scenarios. Steve's expertise lies in providing clear insights into an area's or region's strengths, weaknesses and comparative advantages relative to macro or global economic trends. A highly regarded speaker, Steve has provided economic insights at hundreds of engagements during the past 20 years and has been featured on CNBC, ChannelNewsAsia, Bloomberg TV and Wall Street Radio. Through his research and presentations, Steve dissects how various components of the macro and regional economies shape patterns of growth. Steve holds a PhD from the University of Pennsylvania and is a Penn Institute for Urban Research Scholar. He also holds a master's degree from the University of Colorado at Denver and a bachelor's degree from the University of California at Davis. Dr. Cochrane is based out of the Moody's Analytics Singapore office.

Shahana Mukherjee is an economist at Moody's Analytics in Sydney. Shahana is responsible for covering national and metropolitan economies across the Asia-Pacific region. Her expertise lies in the area of applied macroeconomics and panel data analysis. She is a Fellow (PhD) in Economics from the Indian Institute of Management Bangalore, India. She has previously worked as an assistant professor of economics at the Meghnad Desai Academy of Economics in India.

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