

Coming Home: Are Remittances in the ASEAN+3 Another Victim of the Pandemic?¹

December 2, 2020

I. Introduction

1. **Migrant workers and the remittances they send home play an important economic role in several ASEAN+3 members.**² Of course not all migrants remit part of their earnings home, but for those who do, the main reasons are usually related to altruistic, insurance and/or investment motives (Rapoport and Docquier, 2006). Remittances can have a substantial impact at the household level because they contribute to the disposable income of migrants and their families back home, help improve living standards, and alleviate poverty.

2. **At a macroeconomic level, remittance-receiving economies benefit from the inflows as they have traditionally represented a very stable form of external financing.** That said, their long-term impact is less clear. Whether remittances have a positive impact on long-run economic growth depends on how much are invested versus consumed, how they impact labor supply, human capital development, and entrepreneurship, whether there are Dutch disease-like concerns, the quality of institutions in remittance-receiving economies, and their impact on government finances ([Chami and others, 2008](#) and [Chami and others, 2018](#)).

3. **The IMF defines remittances to include cash and noncash items that flow through both formal and informal channels.** They may be regarded as a form of “*periodic, unrequited, nonmarket transfers between residents of different countries*” ([Chami and others, 2008](#)). According to the [IMF’s Balance of Payments Manual](#) (see Appendix I), remittances “*represent household income from foreign economies arising mainly from the temporary or permanent movement of people to those economies.*” In particular, **personal remittances** consist of:

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² This note focuses on cross-border migration and cross-border remittances. For several of the ASEAN+3 economies, domestic migration and remittances—oftentimes from rural to urban areas—play an important economic role as well. Some, but not all, of the note’s findings translate to domestic remittances.

- **personal transfers**—transfers in cash or in kind from resident households of one economy to resident households of another—as recorded under the secondary income account of an economy’s balance of payments; and
- **compensation of employees**—income earned by workers in economies where they are not resident or by residents employed by nonresident entities such as embassies, international organizations, or nonresident companies—as recorded under the primary income account of an economy’s balance of payments.

4. **Given the welfare-enhancing properties of remittances, the economic and social impact from a fall in remittances due to the COVID-19 pandemic could be substantial.** The ongoing pandemic has greatly impacted the regional and global economy, including via migration and remittances. From a health perspective, migrant workers have been directly affected by COVID-19 infections, including deaths; in an employment context, they have been hard hit by layoffs and forced repatriations, as well as fewer deployment opportunities. Remittances have thus dropped in many economies, and their outlook remains weak, likely until vaccines become widely available. Our aim is to provide an overview of the importance of remittances for the ASEAN+3 region, understand how remittances have been affected by the COVID-19 crisis, and assess what this situation means for remittance-receiving economies going forward.

II. Migration and Remittances in the ASEAN+3

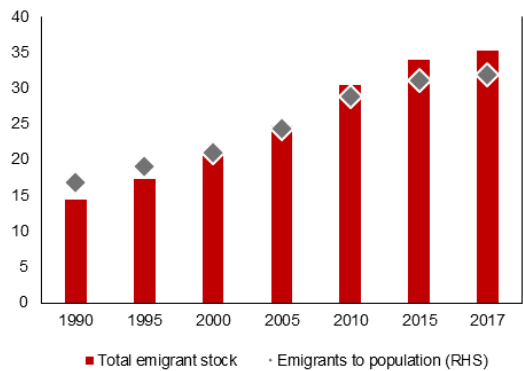
5. **Migration from economies within the ASEAN+3 region has been steadily increasing in recent decades.** The stock has increased from about 14.5 million emigrants in 1990 to more than 35 million in 2017 (Figure 1).³ This increase has even outstripped population growth, and the share of emigrants in the entire ASEAN+3 population has risen from 0.8 percent in 1990 to 1.6 percent in 2017. According to United Nations data, the stock of emigrants from Lao PDR was almost as large as 20 percent of the population in 2017, close to 15 percent for Hong Kong, China (hereafter “Hong Kong”) and more than 10 percent for Brunei Darussalam (hereafter “Brunei”). Several other economies, including (in order to size) Cambodia, Malaysia, Singapore, Myanmar, the Philippines and Korea, report an emigrant stock equaling around 5 percent or more of their respective populations (Figure 2).

6. **The top destinations for migrants from ASEAN+3 economies have been both intra- and extra-regional.** Within the region, Thailand has been a major destination, in particular for migrants from the CLM (Cambodia, Lao PDR, and Myanmar) region, and has received more than 65 percent of these migrants (see Appendix II). Other popular intra-regional migration routes have been from Malaysia to Singapore, from Indonesia and Brunei to Malaysia, between China and Hong Kong, and from several ASEAN+3 economies to Japan. Outside the region, the most popular destination has been the United States, followed by Saudi Arabia, Canada and Australia (Appendix II). In short, most migrants and migrant workers tend to move to higher-income economies than their respective economies of origin, in search of work opportunities and higher earning potential. That said, some

³ Not all international migrants are also considered migrant workers. The International Labour Organization (ILO) refers to “international migrants” as persons who are foreign born; “migrant workers” are a subset thereof, referring to international migrants who are either employed or unemployed in their current country of residence (ILO, 2018). The ILO estimates that around 70 percent of all international migrants of working age are migrant workers. In addition, unregistered or illegal migrant workers and refugees might not be included in the migration count.

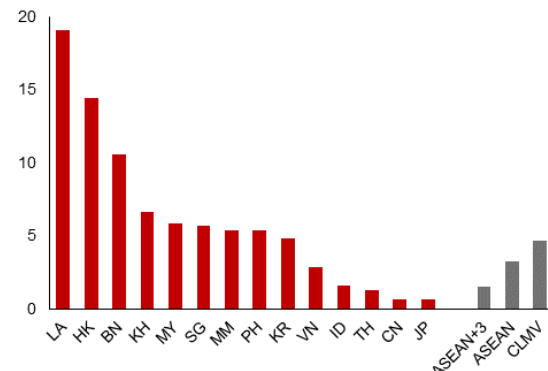
migrants also move for other than economic reasons, including social or political motives; other factors that determine the choice of destination seem to be cultural and geographic proximity.⁴

Figure 1. ASEAN+3: Emigration, 1990-2017
(Millions; Percent)



Sources: [United Nations \(2017\)](#); and AMRO staff calculations.

Figure 2. ASEAN+3: Emigration stock, 2017
(Percent of total population)



Sources: [United Nations \(2017\)](#); and AMRO staff calculations.
Note: BN = Brunei Darussalam; CN = People's Republic of China; HK = Hong Kong; ID = Indonesia; JP = Japan; KH = Cambodia; KR = Korea; LA = Lao PDR; MY = Malaysia; MM = Myanmar; PH = Philippines; SG = Singapore; TH = Thailand; and VN = Vietnam.

7. Personal remittances received from migrant workers have been an important source of income for several economies in the region. In particular, remittance inflows were larger than five percent of GDP in the Philippines, Vietnam and Cambodia in 2019 (Figure 3).⁵ Leveraging on their [high literacy rates](#) and [proficiency in English](#), Filipino workers have been able to seek better paying jobs overseas, while large Vietnamese communities have emerged in the United States, the result of migration since the 1970s. Job opportunities in Thailand have attracted cross-border labor from the Indochina region, notably CLM. Not surprisingly then, the main remittance corridors resemble those for migration (Figure 4). Although higher-income Hong Kong, Japan and Korea are less economically-dependent on inbound remittance flows, the transfer values in US dollars per capita terms are comparable to some of their less developed counterparts in the region.⁶

8. The importance of remittance receipts, especially for the ASEAN region, has increased over the years. Remittance inflows have been steadily rising and, in particular for the ASEAN-4 economies (Indonesia, Malaysia, the Philippines, and Thailand), they overtook net foreign direct investment in 2015 as the largest source of financial inflows

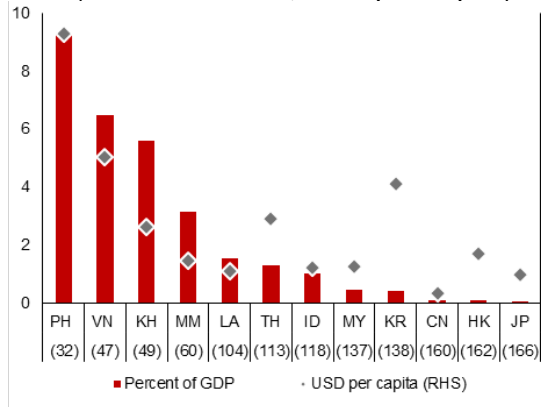
⁴ For example, these economies may share a border, common culture, similar languages or historical roots, notably, Malaysia and Singapore, Thailand and Lao PDR, or China and Hong Kong.

⁵ Informal channels of remittance transfer are estimated to make up a sizeable share of total remittances, and any data—which have to rely on formal transfers—therefore underestimate the total size of remittances. Informal channels include the physical carrying of cash or noncash items across borders, particularly in cases where transaction costs for formal transfers are high, financial inclusion is low, and whenever it is relatively easier to move between the migrant origin and destination economies, for example between neighboring economies.

⁶ We use the World Bank's annual data on personal remittances received, which are staff estimates based on IMF balance of payments data or, whenever possible, the IMF's balance of payments data, which are available at a quarterly frequency but for a smaller set of economies.

(Figure 5). In 2019, the CLMV (Cambodia, Lao PDR, Myanmar, and Vietnam) economies attracted USD 22.6 billion in foreign direct investments while income transfers by their migrant workers were marginally lower, with inflows of about USD 21.2 billion received (Figure 6).

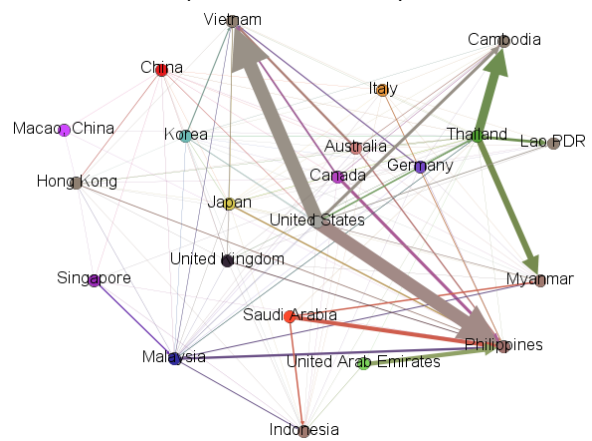
Figure 3. ASEAN+3: Remittance Receipts in 2019
(Percent of GDP; USD per capita)



Sources: The World Bank; United Nations; and AMRO staff calculations.

Note: Numbers in parentheses refer to 2019 global rankings for respective economies in terms of percent of remittances to GDP. Remittance data for Brunei Darussalam and Singapore are not available. CN = People's Republic of China; HK = Hong Kong; ID = Indonesia; JP = Japan; KH = Cambodia; KR = Korea; LA = Lao PDR; MY = Malaysia; MM = Myanmar; PH = Philippines; TH = Thailand; and VN = Vietnam.

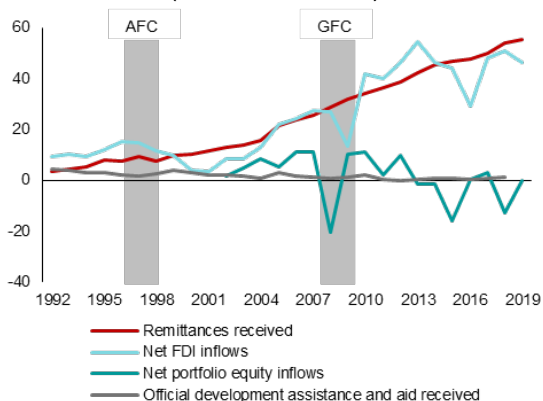
Figure 4. ASEAN+3: Bilateral Remittance Network
(Percent of GDP)



Sources: [The World Bank Bilateral Remittance Matrix 2018](#); and AMRO staff calculations.

Note: The network shows remittances received by ASEAN+3 economies from top 15 source economies (including those from the region). The lines refer to personal remittance flows from the source economies to recipient economies. The thickness of the lines are scaled according to the value of remittance flows as percentage of recipient economy's GDP.

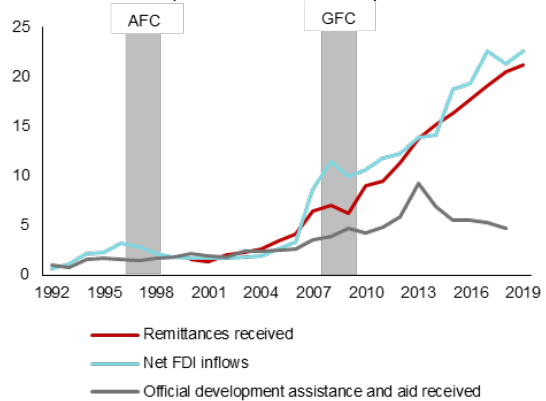
Figure 5. ASEAN-4: Remittances and other Financial Inflows
(Billions of USD)



Sources: The World Bank; and AMRO staff calculations.

Note: AFC = Asian financial crisis; GFC = Global financial crisis.

Figure 6. CLMV: Remittances and other Financial Inflows
(Billions of USD)



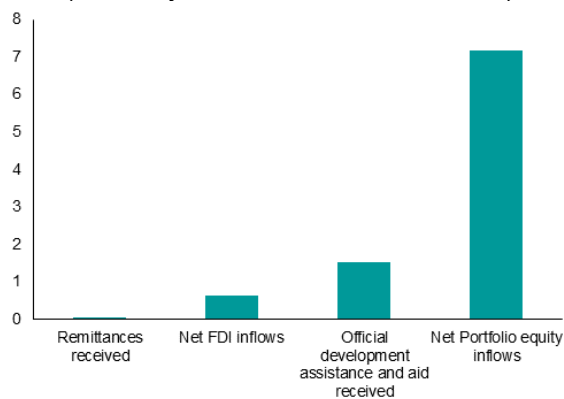
Sources: The World Bank; and AMRO staff calculations.

Note: AFC = Asian financial crisis; GFC = Global financial crisis.

III. The Cyclicity of Remittances

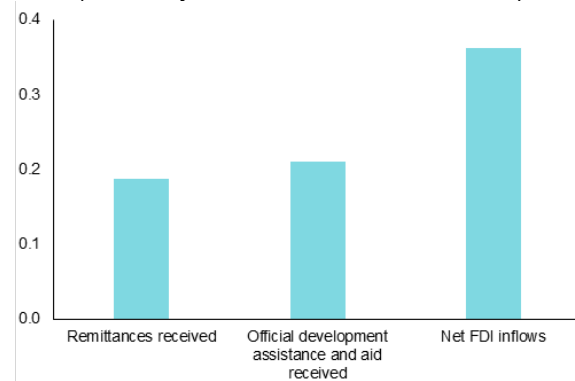
9. **Remittances provide a very stable form of financing, including during past crises, while other forms of capital flows can evaporate during economic recessions.** Even during periods when recessions occurred alongside oil price crashes, remittance streams remained less volatile than foreign direct investments and portfolio asset flows. Indeed, the volatility of remittances was the lowest among different financial inflows for both the ASEAN-4 and CLMV regions between 2001 and 2019 (Figures 7 and 8). Even during the Asian and global financial crises, remittances were quite stable in many receiving economies (see shaded periods in Figures 5 and 6) and thus acted as a shock absorber.

Figure 7. ASEAN-4: Remittances and other Financial Inflows
(Volatility between 2001 and 2019)



Sources: The World Bank; and AMRO staff calculations.
Note: Volatility is calculated by the standard deviation of the year-on-year changes from 2001 to 2019.

Figure 8. CLMV: Remittances and other Financial Inflows
(Volatility between 2001 and 2019)



Sources: The World Bank; and AMRO staff calculations.
Note: Volatility is calculated by the standard deviation of the year-on-year changes from 2001 to 2019.

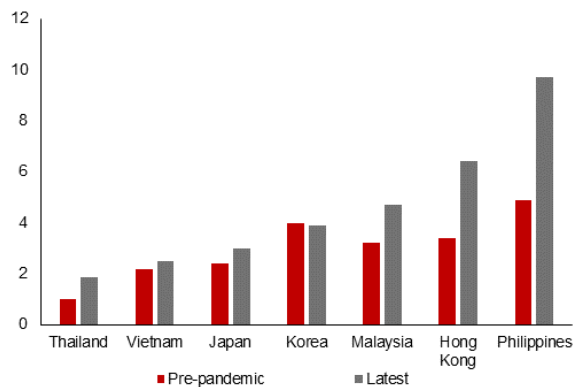
10. **We do not find remittances in the ASEAN+3 region to be strongly counter-cyclical, on average, above and beyond the divergence in long-run income differentials.** The results of a simple regression model that takes into account several factors correlated with the level of remittances show that there is only weak evidence in terms of (1) the counter-cyclicity of remittances with respect to migrant home economies; and (2) pro-cyclicity with respect to the host economy, with lower remittances likely during cyclical downturns in the latter (Appendix III). Rather, the long-run income differentials between migrant origin and destination economies, as well as changes in exchange rates, are most strongly correlated with the level of remittances. That said, these relationships may differ across economies. More broadly, our model—using the IMF's October 2020 global WEO assumptions—reveals that remittances for the ASEAN+3 region would drop sharply in 2020 for most economies before rebounding in 2021.

11. **The current COVID-19 crisis has arguably led to structural breaks in several variables and could result in unforeseen outcomes.** In particular, the pandemic is exceptional in that it has impacted virtually every country in the world simultaneously, including major migrant origin and destination economies. The nature of this Covid crisis differs significantly from other crises in that it originated from a public health emergency and governments had to deliberately slow or shut down economic activity in order to save lives. Regression results based on historical data thus have to be considered carefully given that there has been little precedent.

IV. Remittances in the COVID-19 Pandemic and Beyond

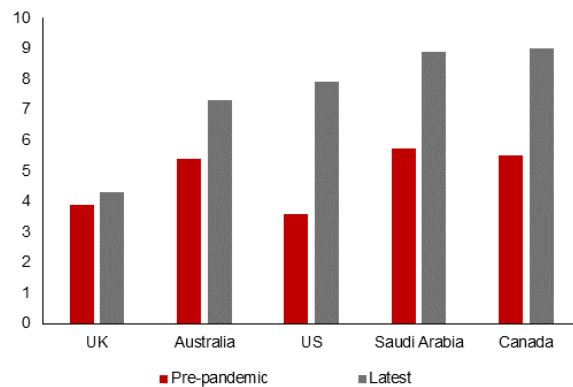
12. **The ongoing COVID-19 pandemic has inflicted widespread job losses, including on many migrant workers.** The widespread shutdown in economic activity has led businesses to shed jobs at the fastest pace since the global financial crisis (GFC). Unemployment rates have spiked up within the ASEAN+3 region, markedly so in Hong Kong, Malaysia and the Philippines (Figure 9). Similar observations can be made in some of the main migrant destination economies outside the region (Figure 10). While foreign workers in some economies and industries contribute to essential economic and health-related activity, others have been the first to be let go, either because businesses and governments chose to preserve local jobs, or because entire industries have had to shut down. According to [ILO \(2020\)](#), many overseas workers either have had to return home or have been forced to stop work because of massive lay-offs and furloughs, resulting in a sharp decline in earnings and, consequently, remittances. In addition, with fewer available jobs and many borders closed, new deployment has become more difficult.⁷

Figure 9. Selected ASEAN+3: Unemployment Rate
(Percent, seasonally-adjusted)



Sources: National authorities via Haver Analytics; and AMRO staff calculations.
Note: Pre-pandemic data refer to January 2020 for Japan, Korea, Hong Kong and Malaysia; and to Q4 2019 for the Philippines and Vietnam. The latest data refer to August 2020 for Malaysia and Thailand; September 2020 for Japan, Hong Kong and Korea; and Q3 2020 for the Philippines and Vietnam.

Figure 10. Selected Migrant Destination Economies: Unemployment Rate
(Percent, seasonally-adjusted)



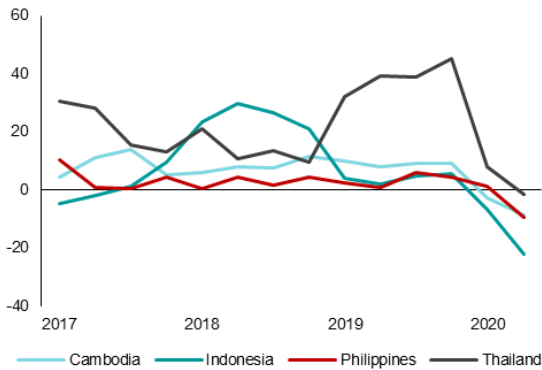
Sources: National authorities via Haver Analytics; and AMRO staff calculations.
Note: Pre-pandemic data refer to January 2020 for Australia, Canada, UK and US; and to Q4 2019 for Saudi Arabia. The latest data refer to July 2020 for UK; September 2020 for Australia, Canada and US; and Q2 2020 for Saudi Arabia.

13. **In several regional economies, remittance receipts unsurprisingly dropped in the first half of 2020.** After growing at 8.8 and 4.4 percent year-over-year respectively in 2019, personal remittances to Cambodia and Indonesia started to fall in the first quarter of 2020 and subsequently deepened to –8.7 and 22.0 percent respectively in the second quarter (Figure 11). In the Philippines and Thailand, overseas earnings transfers rose by 3.5 and 38.8 percent respectively last year but reversed to –9.3 and –1.3 percent year-over-year in Q2 this year when both economies came under strong economic pressure in the wake of

⁷ In the Philippines, almost 250,000 overseas foreign workers were repatriated between February 2020 and November 8, 2020 according to the Department of Foreign Affairs ([DFA, 2020](#)). The International Organization for Migration ([IOM, 2020a](#)) estimates that more than 473,000 Filipinos in total returned home between February and October. Only 682,000 overseas foreign workers were deployed from the Philippines from January to September, a mere 40 percent of the 1.72 million deployed in the same time period last year, according to the Department of Labor and Employment ([Pazzibugan and Corrales, 2020](#)). Elsewhere, the IOM estimates that 450 Cambodians returned from Thailand each day between March and October, for a total of more than 118,000 ([IOM, 2020a](#)); while more than 200,000 Lao PDR migrants returned from Thailand since the start of the outbreak until September ([IOM, 2020b](#)).

stringent containment measures implemented by authorities. This development stands in sharp contrast to the remittance flows during the GFC when inbound earning transfers by overseas employees were resilient despite migrant destination economies going into recession, because economic activity continued despite the downturn (Figure 12).

Figure 11. Selected ASEAN: Quarterly Remittance Inflows (Percent year-on-year)



Source: International Monetary Fund.

Figure 12. Selected ASEAN: Quarterly Remittance Inflows (Index, t = 100)



Sources: International Monetary Fund; and AMRO staff calculations. Note: Selected ASEAN includes Indonesia, the Philippines and Thailand. The first quarter of each crisis (t) comprises Q3 2007 (GFC) and Q1 2020 (Covid Crisis).

14. **Additional information points to a more recent rebound in remittances, but this effect might be partly transitory or artificial.** As higher frequency data for the Philippines (Figure 13) or economies in other regions, such as in Latin America ([Noe-Bustamente, 2020](#)), show, remittance inflows have started to recover after the strong initial drop during the April-May period. This trend is broadly in line with the rebound in activity across many economies worldwide. It could have been buoyed by migrants who were able to keep their jobs and send more money back home to support heavily-affected families, or supported by beneficiaries of government stimulus checks in some migrant destination economies ([Caron and Tiongson, 2020](#)). In addition, it could be attributable to higher savings rates as a result of social distancing measures that have reduced opportunities for domestic spending, and restrictions on travel, including otherwise regular visits home.

15. **However, the rebound might hide ongoing weaknesses for several reasons.**

First, the pandemic has led to a boom in the use of digital services, and online money transfers could be one beneficiary of this trend. Instead of relying on informal remitting channels, migrants might have had to rely increasingly on more formal channels while borders have remained closed. These transactions would show up as an increase in official remittance data, even when total actual flows may not have increased, or may have even decreased.⁸ Second, migrants who have had to repatriate because of the crisis might have sent all of their savings home because they did not anticipate returning to their host economies, which would have led to a temporary boost in remittances.

⁸ Increased usage of formal channels, if it continues after the pandemic and is adequately regulated, could have several benefits in the medium- to long-term. It could support convenient, low-risk, and quick transfers, provide more complete data on remittances as the basis for future policymaking, and foster financial inclusion. The latter has been shown to be associated with economic growth gains and reductions in poverty and inequality ([IMF, 2018](#)).

16. **While virus hotspots have largely moved outside of the ASEAN+3 region, continuing outbreaks and stop-go economic activity in key remittance source economies, as well as travel restrictions, paint a grim picture for the months ahead.**

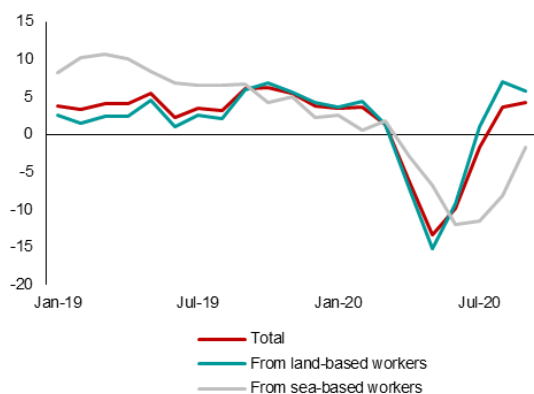
Going forward, remittance receipts could remain sluggish if economic conditions in key sources outside and within the region need time to recover and resurgences in infections continue. In addition, ongoing travel restrictions suggest that migrant deployment and re-migration will likely remain depressed for some time to come and might even have a more permanent dampening effect on remittances.

17. **Recent encouraging news on efficacious vaccines provides hope that migration and remittances will rebound, even though wide deployment will take some time.** The eventual recovery in important remittance-source economies will benefit migrant workers' job prospects, deployment or re-migration, and thus increase remittances. At the same time, the global economic landscape has changed and the scarring experienced by many economies may be permanent. Consequently, re-migration may not be fully possible given that: (1) labor markets around the world will take time to recover; (2) the structural shift in the way companies do business and individuals work will likely require different skillsets; and (3) lost deployment opportunities will not be immediately offset.

V. Conclusion

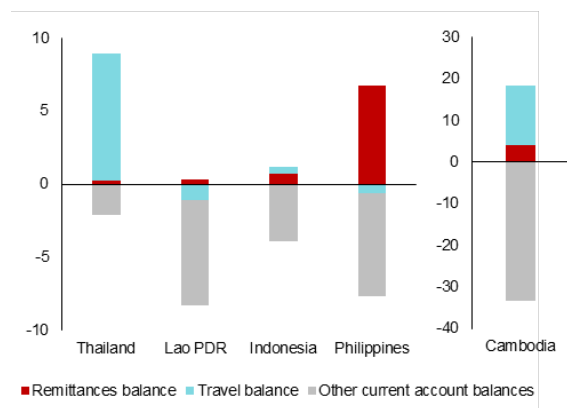
18. **Subdued remittance receipts owing to the COVID-19 pandemic could have significant implications for households and the overall economy in remittance-receiving economies.** Lower remittance inflows translate to lost household incomes and depress consumer confidence, and could intensify economic hardship as well as increase poverty. If the loss of such flows becomes protracted, already weak domestic consumption could be aggravated and in the longer term, accentuate household debt problems in recipient economies. Domestic labor markets might struggle to absorb returning migrants. Additionally, the weakness in remittances—which represent an important source of foreign exchange and help finance trade imbalances for some economies—adds to the deterioration in goods trade and the drying-up of tourist receipts, raising the risk of widening current account deficits (Figure 14). Finally, tax revenues, especially from consumption taxes, could drop, in line with remittance receipts.

Figure 13. The Philippines: Monthly Cash Remittance Receipts
(Percent year-on-year, 3 month moving average)



Sources: Bangko Sentral ng Pilipinas; and AMRO staff calculations.

Figure 14. Selected ASEAN: Share of Remittances Balance in Current Account
(Percent of GDP, 2019)



Sources: International Monetary Fund; and AMRO staff calculations. Note: Data for Lao PDR refers to 2018.

19. **Migrant worker remittances have become another victim of the COVID-19 pandemic for many ASEAN+3 economies.** Where these remittances have been a resilient form of external financing in the past, the unprecedented nature of the pandemic has led to a sharp drop in their receipt, with potentially significant implications for receiving economies, both at the household level as well as for the overall economy. While migrant workers will eventually return to work and remittances are expected to normalize when vaccines become widely available, policy should, in the meantime, focus on the following:

- In remittance-receiving economies, especially for those that depend significantly on such receipts, the drop in remittances will have to be taken into account when designing and continuing economic support policies. Considerations could include expanding the coverage of social safety nets to include returning migrant workers and their families. Policies to strengthen domestic labor markets to absorb and integrate returning workers could be key, including in the medium-term. Governments should support the up- and re-skilling of returning and prospective migrant workers to align skills with the demands of post-pandemic economies.
- Host economies that rely on a foreign worker labor force should regulate recruitment and employment practices and extend employment protection to foreign workers, to ensure that they do not face additional hardships, such as higher susceptibility to COVID-19 infections due to their living arrangements, or being stranded without a valid work visa as a result of travel restrictions. In addition, host economies should ensure fair, equal, and, as far as possible, free or subsidized access to vaccines for migrant workers.
- Finally, regional and global economies can help to ensure that transaction costs for remitting funds to home economies are affordably low and that appropriate regulations are enacted to facilitate efficient and safe transfers, particularly as more foreign workers move to digital transfer options.

Appendix I. Remittances in the Balance of Payments

Appendix Table 1: Components Required for Compiling Remittance Items and Their Source

Item	Source and description
1. Compensation of employees	Primary income account, standard component
2. Personal transfers	Secondary income account, standard component
3. Travel and transport related to employment of border, seasonal, and other short-term workers	Goods and services account, supplementary item
4. Taxes and social contributions related to employment of border, seasonal, and other short-term workers	Secondary income account, supplementary item
5. Compensation of employees less expenses related to border, seasonal, and other short-term workers	Primary income account (for compensation of employees), standard component Goods and services account (for travel and transport expenses) and secondary income account (for taxes and social contributions), supplementary items
6. Capital transfers between households	Capital account, supplementary item
7. Social benefits	Secondary income account, supplementary item
8. Current transfers to NPISHs	Secondary income account, supplementary item
9. Capital transfers to NPISHs	Capital account, supplementary item
Important relationships are: "Net" compensation of employees (#5): #1 minus the sum of #3 and #4 Personal remittances: #2 plus #5 plus #6 Total remittances: #2 plus #5 plus #6 plus #7 Total remittances plus transfers to NPISHs: #2 plus #5 plus #6 plus #7 plus #8 plus #9.	

Source: [IMF Balance of Payments and International Investment Position Manual](#), Appendix 5, Table A5.1

Appendix Table 2: Tabular Presentation of the Definitions of Remittances

Total Remittances and Transfers to NPISHs: a+b+c+d+e+f

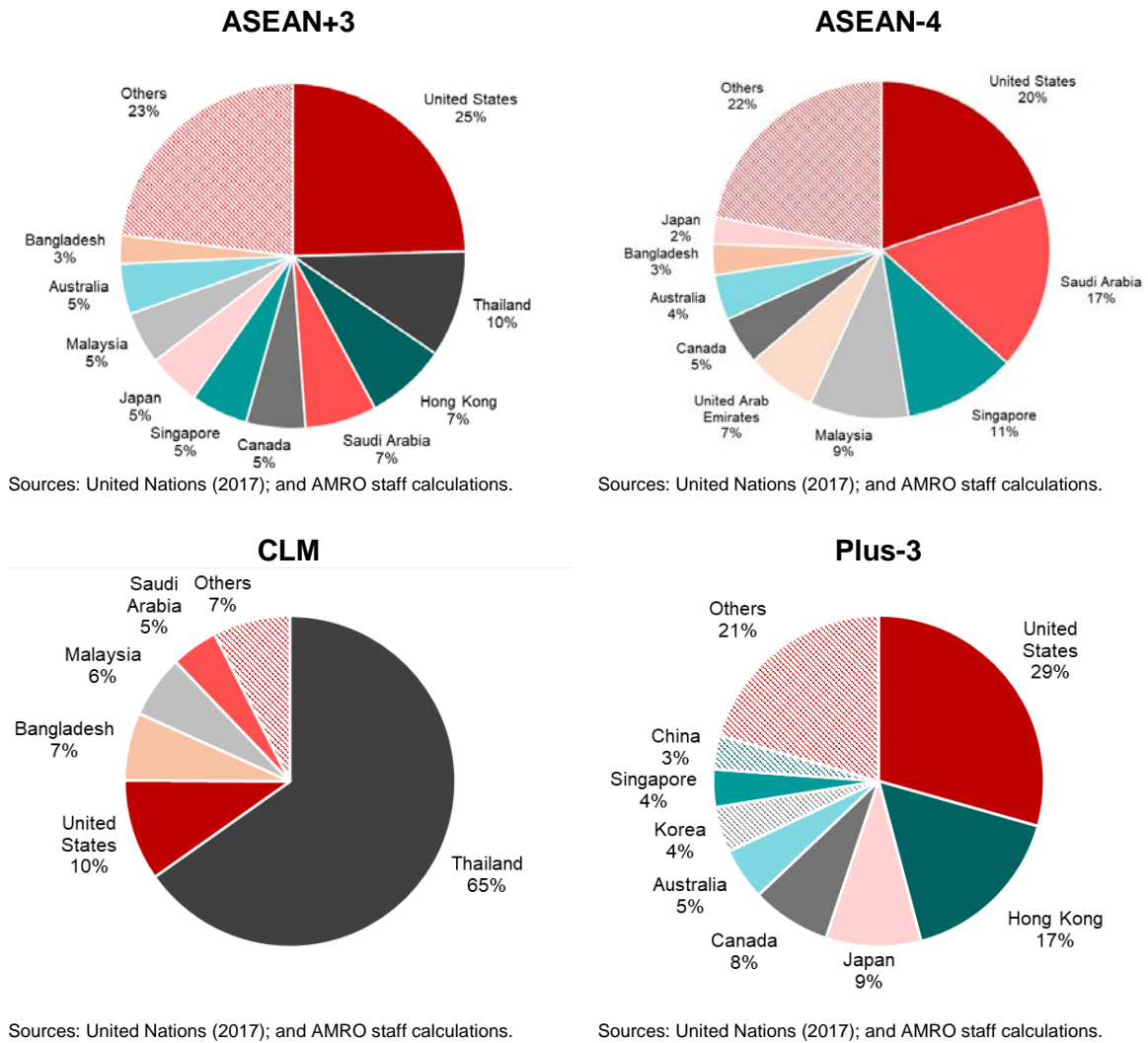
Total Remittances: a+b+c+d				e	f
Personal Remittances: a+b+c			d	Current transfers to NPISHs	Capital transfers to NPISHs
a	b	c	Social benefits		
Personal transfers (part of current transfers)	Compensation of employees less taxes, social contributions, transport, and travel	Capital transfers between households	Social benefits		

Note: Personal transfers is a standard item; other items are supplementary.

Source: [IMF Balance of Payments and International Investment Position Manual](#), Appendix 5, Table A5.2

Appendix II. Migrant Destination Economies

Appendix Figure 1: Total Migrant Stock by Destination, 2017



Appendix III. The Cyclicity of Remittances

We estimate a simple model to understand determinants of remittances on an aggregate level, broadly following [Chami and others \(2008\)](#) and Frankel (2011). We examine correlations among remittances, income differentials between migrants' origin and destination economies, the cyclical position of origin and destination economy, as well as exchange rate changes by estimating the following regression:

$$\begin{aligned}
 \log rem_{it} = & \alpha + \beta_1 \underbrace{\sum_{j=1}^n w_i^j \log(\bar{y}_{it}/\bar{y}_{it}^j)}_{\text{Income differential}} + \beta_2 \underbrace{\log(y_{it}/\bar{y}_{it})}_{\text{Cyclical position origin economy}} \\
 & + \beta_3 \underbrace{\sum_{j=1}^n w_i^j \log(y_{it}^j/\bar{y}_{it}^j)}_{\text{Cyclical position of destination economies}} + \beta_4 \underbrace{\sum_{j=1}^n w_i^j \Delta ner_{it}^j}_{\text{Nominal exchange rate changes}} + \gamma_i + \varepsilon_{it}
 \end{aligned}$$

We denote remittance-receiving economies (or migrants' economies of origin) by i and remittance-sending (or migrants' destination economies) by j . Remittances are either measured per capita or as a share of GDP. We weigh destination economies' data with w_i^j , the share of migrants from economy i in economy j in 2017 and focus on all destination economies that cumulatively make up at least 60 percent of economy i 's migrants. Shares are reweighted so that $\sum_{j=1}^n w_i^j = 1$. The long-run income differential between i and j is measured as the difference in the 5-year moving average per capita income in PPP valued dollars. The short-term cyclical position of both origin and destination economies is measured as the deviation of real GDP from its long-run trend. The change in the nominal exchange rate between economies i and j is measured by the change in the average annual nominal exchange rate between the local currency in economy i and the local currency in economy j . Our model includes economy fixed effects γ_i . The final dataset is an unbalanced panel based on annual data for the time period 1990-2019 for all ASEAN+3 member economies.

Across different specifications, our results suggest that the long-term income differential between migrant origin and destination economy and changes in the exchange rate are the main factors associated with the level of official remittances sent home. Somewhat counterintuitive, and contrary to what other studies have discovered, our findings suggest that a smaller income differential is correlated with higher levels of remittances (Appendix Table 3). This result could be attributable the importance of regional middle-income peers as destination economies; income convergence; or reverse causality as remittances can help to close income gaps.

The findings on short-term cyclical deviations for both origin and destination economy are less clear. Whenever results are statistically significant, we find that the migrant origin economy's cyclical position is positively associated with remittances, opposite of what would be expected if remittances were acting as shock absorbers, though possibly in line with

synchronized business cycles. The findings for the destination economy's cyclical position suggest pro-cyclicality, i.e. an improved cyclical position in the destination economy's income is associated with higher remittances and vice versa.

Appendix Table 3: Regression Results

Explanatory variables	Dependent variable					
	log of remittances per capita					log of remittances/GDP
	WDI data			IMF BoPS data		WDI data
	ASEAN+3		ASEAN	ASEAN+3		ASEAN+3
	(1)	(2)	(3)	(4)	(5)	(6)
Income differential	3.43 *** 0.80	3.36 *** 0.74	—	5.74 *** 1.23	4.04 *** 1.21	1.15 * 0.61
Cyclical position of origin economy	3.03 * 1.64	—	-1.96 2.22	5.09 * 2.53	1.62 2.89	1.11 1.54
Cyclical position of destination economy	1.94 1.44	—	6.79 ** 2.18	0.15 1.79	1.19 2.42	2.91 ** 1.21
Change in nominal exchange rate	-0.01 *** 0.00	-0.01 *** 0.00	-0.01 *** 0.00	-0.01 *** 0.00	-0.51 0.50	-0.01 *** 0.00
Constant	2.85 *** 0.08	2.84 *** 0.08	2.49 *** 0.00	10.80 *** 1.88	2.19 *** 0.11	-7.94 *** 0.06
Observations	314	322	314	210	177	314
Country fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
R ²	0.75	0.75	0.56	0.78	0.70	0.81

Sources: Haver Analytics; IMF WEO; World Bank's World Development Indicators.

Note: ***/**/* denotes statistical significance at the 1/5/10% level. Standard errors clustered at economy-level.

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