INTERNATIONAL CREDIT TO EMERGING MARKET ECONOMIES DURING THE COVID-19 CRISIS

Stefan AVDJIEV

Adviser for Financial Stability
Bank for International Settlements

Bat-el BERGER

Principal Data Scientist
Bank for International Settlements

Hyun Song SHIN

Economic Adviser and Head of Research
Bank for International Settlements

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As the Covid-19 pandemic swept through the globe in the first half of 2020, international bank lending to emerging market economies (EMEs) held up surprisingly well, especially when compared to the 2015 EME stress period and the 2008 great financial crisis (GFC). The authors use the international financial statistics (IFS) of the Bank for International Settlements (BIS) to shed light on what made the Covid-19 episode different from previous stress periods. In contrast to the GFC, the banking sector was not the epicentre of the financial stress during the Covid-19 stress in March 2020. Traditional vulnerability indicators, such as the share of short-term international lending, did not send meaningful signals during the Covid-19 stress period. By contrast, the financial channel of exchange rates had a significant impact on international lending during the same period. The importance of the latter channel has increased considerably over the past decade against the backdrop of rapidly mounting US dollar debt in EMEs.

As the Covid-19 pandemic swept through the globe in the first half of 2020, international credit to emerging market economies (EMEs) held up surprisingly well. This stood in sharp contrast to the steep declines observed during the 2015 EME stress period (EME SP) and the 2008 great financial crisis (GFC). Notably, international bank lending, which was at the epicentre of the previous two stress episodes, held up remarkably well during the 2020 Covid-induced stress.

In this article, we use the BIS international banking statistics (IBS) and the BIS global liquidity indicators (GLIs) in order to shed light on what made the Covid-19 episode different from previous stress periods. We show that traditional vulnerability indicators, such as the share of short-term claims in international bank lending, did not send meaningful signals during the Covid-19 stress period. By contrast, the financial channel of exchange rates had a significant impact on international lending during the same period. We argue that the importance of the latter channel has increased considerably over the past decade largely due to the rapid build-up of US dollar debt in EMEs that has taken place after the GFC.

Our findings highlight the importance of the unprecedented policy measures employed by the Federal Reserve. Among other things, they prevented a sharp appreciation of the US dollar. This limited the adverse effect that a US dollar appreciation would have had on global financial conditions through the financial channel of exchange rates.

1 Data Sources

We base our analysis on the BIS IBS and the BIS GLIs. The BIS IBS consist of two main data sets: the locational banking statistics (LBS) and the consolidated banking statistics (CBS).[1] The locational banking statistics (LBS), as the name suggests, organise their information according to the residence of reporting banks. Compilation of the LBS is consistent with balance of payments principles. Under this broad heading, this data set offers two main perspectives: positions by residence of the reporting bank and by nationality of the reporting bank, meaning the jurisdiction of the bank's headquarters. So, for instance, the locational banking statistics by residence would shed light on the cross-border claims of banks doing business in Japan on borrowers in the rest of the world. An example of the locational banking statistics by nationality is the cross-border claims of Japanese banks (i.e. banks whose headquarters are in Japan), located anywhere in the world, on borrowers in the rest of the world. In both cases, LBS by residence and by nationality, positions are unconsolidated in the sense that the claims between offices of the same banking organisation (intrabank positions) are not netted out. By contrast, the intragroup positions in the BIS CBS are netted out. The CBS also have a breakdown in two main perspectives: claims on an immediate counterparty (IC) basis, or on a guarantor (G) basis. To illustrate the difference between the two (IC and G) statistical perspectives, consider an example in which a Korean bank extends a loan to a borrower China, and the loan is guaranteed by a Japanese bank. On an IC basis, the loan will be recorded as a claim of Korean banks on China. On a G basis, the loans will be reported as a claim of Korean banks on Japan.

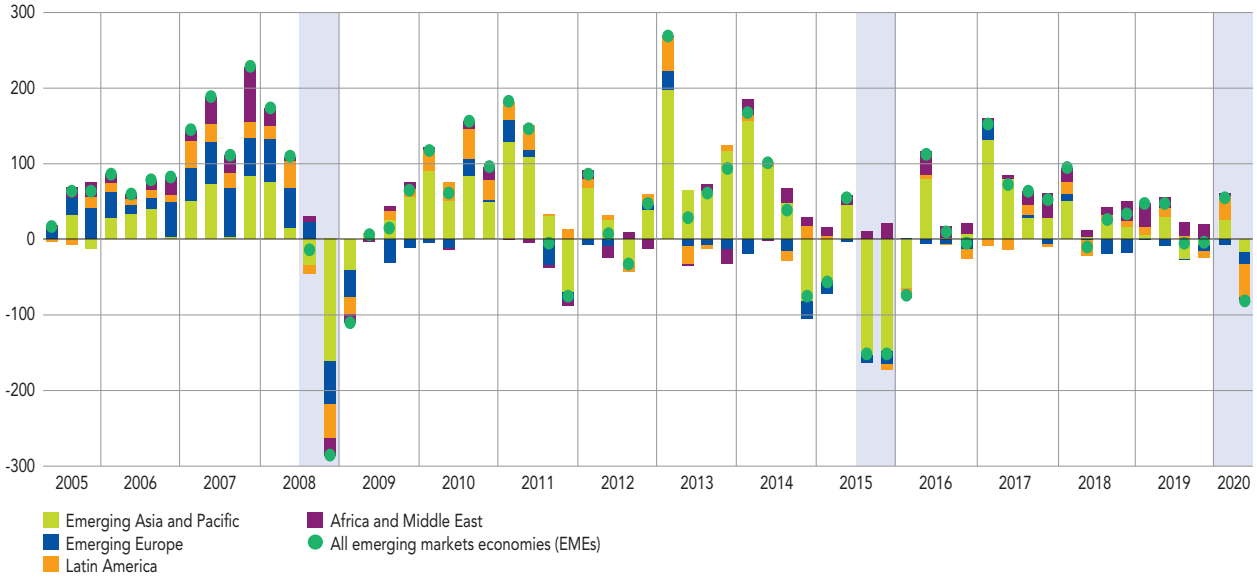
In this article, we will look mainly at cross-border claims from the LBS and international claims from the CBS. Cross-border claims are claims between residents and non-residents in the sense of the balance of payments accounts. For example, a claim booked by a bank in Japan on a counterparty residing outside Japan would be classified as a cross-border claim. International claims are the sum of cross-border claims and local claims in foreign currency. For example, the international claims of Japanese banks on counterparties in Korea include cross-border claims from Japanese banks outside Korea to borrowers in Korea, plus local lending in Korea by Japanese banks in any currency other than the Korean won.

Together, the LBS and CBS can offer complementary views on banking trends. When they are combined in a judicious manner, the two sets of statistics can be very informative. Nevertheless, there are also some caveats. Numbers from LBS and CBS cannot be compared one-to-one. This is due mainly to three wedges. Two of those wedges have already been mentioned above: (i) whereas the positions reported in the CBS are consolidated, those reported in the LBS are not, and (ii) the cross-border claims available in the LBS are defined differently from the international claims in the CBS. Finally, more countries report LBS than CBS. It is important to keep these three distinctions in mind, especially when comparing data from the same lender or on the same borrower.

We use the BIS GLIs in order to obtain information on total US dollar-denominated credit to EME residents. These series capture credit to non-bank borrowers from domestic as well as foreign sources. Total credit is defined as the sum of bank loans to non-banks and debt securities issuance by non-banks (BIS, 2015).

C1 Cross-border claims on emerging market economies (EMEs), by counterparty region

a) Quarterly adjusted changes
(USD billions)



Source: Bank for International Settlements (BIS) – locational banking statistics by residence.
Notes: Cross-border claims on emerging market economies are adjusted for breaks in series and exchange rate fluctuations. The year-on-year growth rates are calculated based on the adjusted changes for the last four quarters.
The shaded areas highlight periods of financial market distress: the great financial crisis (GFC) in 2008, the EME market unrest in 2015 and the Covid-19 pandemic in 2020.

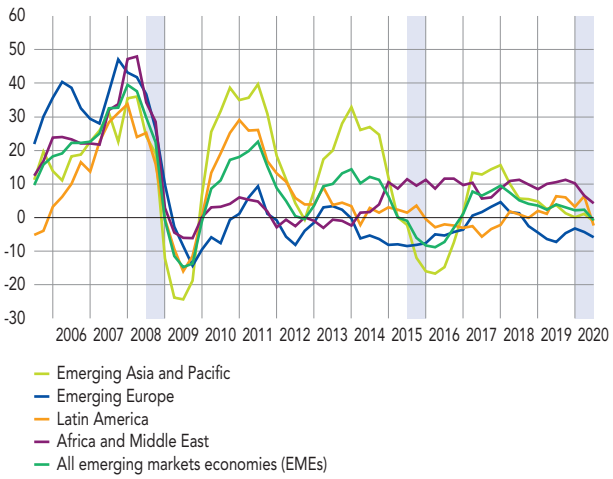
2 International credit dynamics: Covid-19 versus previous stress episodes

The BIS Locational Banking Statistics (LBS) reveal that cross-border bank lending to EMEs during the initial phase of the Covid-19 pandemic was much more stable than during the 2008 GFC and during the 2015 EME SP. Cross-border bank claims on EMEs fell by only about 30 billion USD (-1%) during the first half of 2020 (*see Chart 1a*). This compares with contractions of about 300 billion USD in the second half of 2015 (-8%) and in the last six months of 2008 (-11%). The decline in the annual growth rate of international lending to EMEs during the first half of 2020 (from +2% to -1%) was also much milder than the corresponding declines during the EME SP (from -1% to -9%) and the 2008 GFC (from +30% to -1%; *see Chart 1b*).

The overall figures for cross-border bank lending to EMEs conceal considerable heterogeneity among EME regions. Claims on Latin America and the Caribbean fell by 12 billion USD during H1 2020, while those on emerging

C1 Cross-border claims on emerging market economies, by counterparty region (continued)

b) Year-on-year growth
(%)



Source: Bank for International Settlements (BIS) – locational banking statistics by residence.
Notes: Cross-border claims on emerging market economies are adjusted for breaks in series and exchange rate fluctuations. The year-on-year growth rates are calculated based on the adjusted changes for the last four quarters.
The shaded areas highlight periods of financial market distress: the great financial crisis (GFC) in 2008, the EME market unrest in 2015 and the Covid-19 pandemic in 2020.

1 The description of the BIS LBS and the BIS CBS in this section draws heavily from Avdjiev et al. (2018).

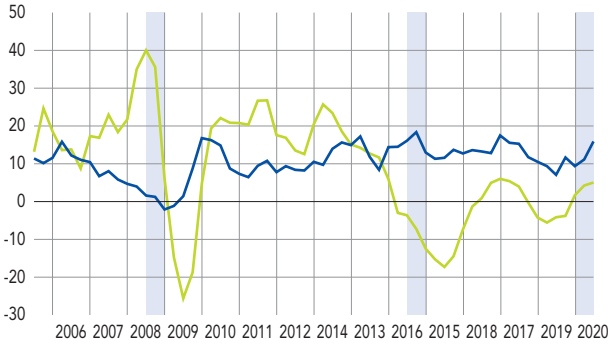
Europe declined by 23 billion USD). Meanwhile, cross-border lending to emerging Asia actually rose slightly (by 8 billion USD). By contrast, claims on the region had contracted by nearly 300 billion USD (-16%) during the 2015 EME SP and almost 200 billion USD (-21%) during the GFC. Correspondingly, the annual growth rate of lending to the region (-1% as of mid-2020) during the Covid-19 period held up much better than during the previous two crisis periods (-16% as of end-2015 and -12% as of end-2008).

The BIS GLIs reveal that total USD credit to EMEs (another key international credit metric) held up well during the first half of 2020. USD bond issuance remained much stronger than bank lending in all EME regions. This development can be viewed as an extension of the "second phase of global liquidity" – the post-GFC shift in financial intermediation from banks to capital markets, especially through the issuance of fixed income instruments (Shin,2013). Chart 2 shows the growth rate of US dollar-denominated bank loans (green lines) and bonds (blue lines) for the three EME regions in which foreign currency credit is predominantly denominated in US dollar.[2] Despite the financial turbulence caused by the pandemic, the growth rate of US dollar-denominated bonds increased sharply in all EME regions, with the exception of emerging Europe (where the euro plays a larger role than the dollar). It appears that the surge in bond issuance was mainly driven by large non-financial corporates, which took advantage of central banks' corporate bond purchase facilities in order to not only meet their liquidity shortfalls, but to also build up their cash buffers (Goel and Serena, 2020).

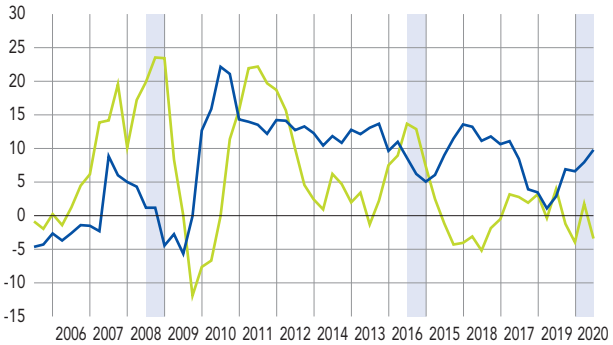
Although the loan component of US dollar credit to EMEs was not as strong as its bond counterpart, its annual growth rates also remained considerably above its 2008 GFC and 2015 EME SP levels.[3] This pattern was most pronounced in emerging Asia (*see Chart 2a*). The growth rates of bank lending to Africa and the Middle East and Latin America during the Covid-19 turmoil were a bit lower than during the 2015 EME SP (which had little impact on these two regions). Nevertheless, in both cases the 2020 growth rates were considerably higher than their 2008 GFC counterparts.

C2 Dollar credit to non-bank borrowers in selected EME regions
(%, year-on-year growth)

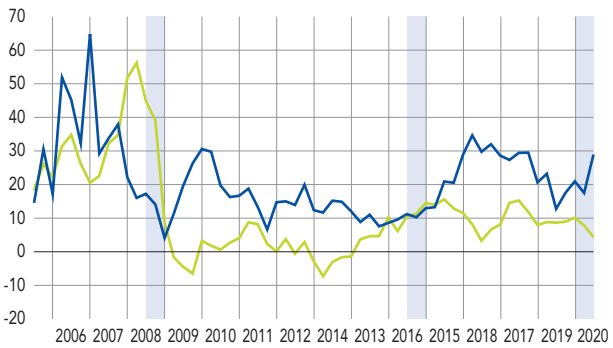
a) Emerging Asia and Pacific



b) Latin America



c) Africa and Middle East



Source: Bank for International Settlements (BIS) – global liquidity indicators.
Note: The shaded areas highlight periods of distress: the Great Financial Crisis (GFC) in 2008, the EME (emerging market economies) market unrest in 2015 and the Covid-19 pandemic in 2020.

3 Drivers of cross-border lending to EMEs during the Covid-19 period

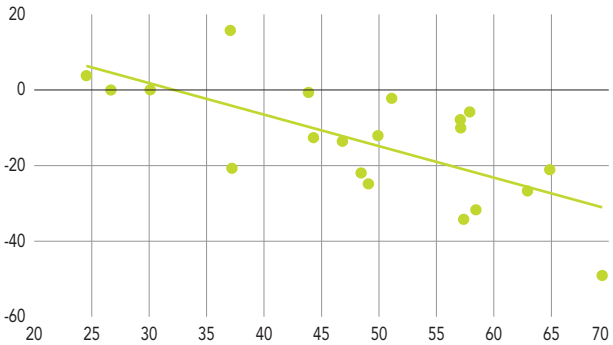
Existing research has identified several factors related to the country-level variation in cross-border bank claims on EMEs during the Covid-19 stress period (Hardy and Takats, 2020). More concretely, cross-border lending held up better for EMEs with higher levels of economic activity, lower pre-existing financial vulnerabilities and stricter lockdown measures. Moreover, lending was more stable for EMEs that tended to borrow primarily from banking systems that were better capitalised and had extended more credit commitments.

In this section, we examine a couple of additional potential determinants of cross-border lending to EMEs during the Covid-19 episode. The first one is the share of short-term international lending to a given EME, which has been linked with contractions in international credit during several previous crises episodes (Avdjiev, Berger and Shin, 2018). The second potential determinant we examine is the US dollar exchange rate, which has been shown to be a key driver of international credit flows through the financial channel of exchange rates (Bruno and Shin,2015b; Hofmann et al., 2019; and Avdjiev et al., 2019b).

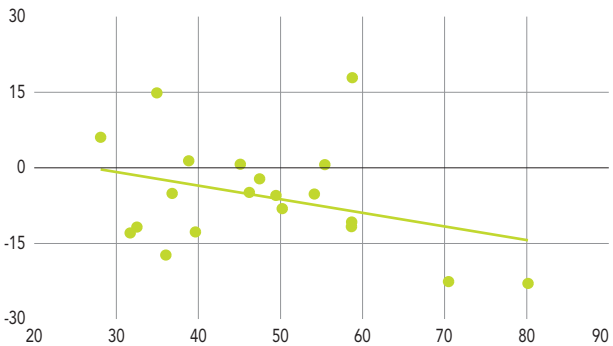
The share of short-term international lending was not nearly as important factor during the Covid-19 episode as during the previous two stress episodes (*see Chart 3*). There was a strong negative correlation between the share of short-term lending on the eve of the GFC and the contraction in international banking lending during the GFC (*see Chart 3a*). The same pattern held, albeit to a lesser extent, during the EME SP in 2015 (*see Chart 3b*). By contrast, there was no such negative relationship during the Covid-19 crisis episode (*see Chart 3c*).

C3 Short term claims share versus international lending during selected stress periods, for the top 20 borrowing EMEs

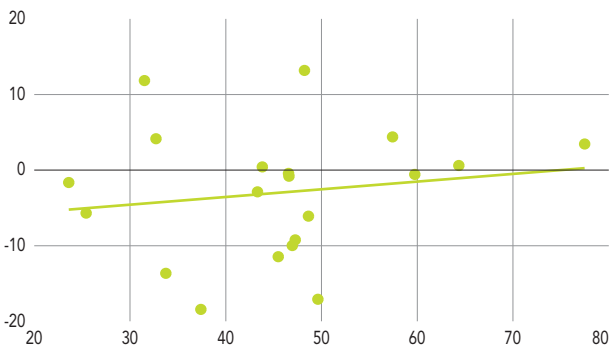
a) Great financial crisis
(%, x-axes: share of short-term credit at end-June 2008, y-axes: change in international claims in H2 2008)



b) 2015 EME stress period
(%, x-axes: share of short-term credit at end-June 2015, y-axes: change in international claims in H2 2015)



c) Covid-19 crisis
(%, x-axes: share of short-term credit at end-December 2019, y-axes: change in international claims in H1 2020)



Source: Bank for International Settlements (BIS) – consolidated banking statistics on an immediate counterparty basis (CBS/IC).
Note: The top 20 borrowing emerging market economies (EMEs) selection is based on largest EME counterparties for cross-border claims at end-June 2020: United Arab Emirates, Brazil, Chile, China, Czech Republic, Hungary, Indonesia, India, South Korea, Mexico, Malaysia, Poland, Qatar, Russia, Saudi Arabia, Thailand, Turkey, Taiwan, Vietnam and South Africa.

2 For the fourth EME region, emerging Europe, foreign currency credit is primarily denominated in euros: *https://www.bis.org/*

3 In the context of the GLIs, USD bank loans include both cross-border loans and loans extended locally.

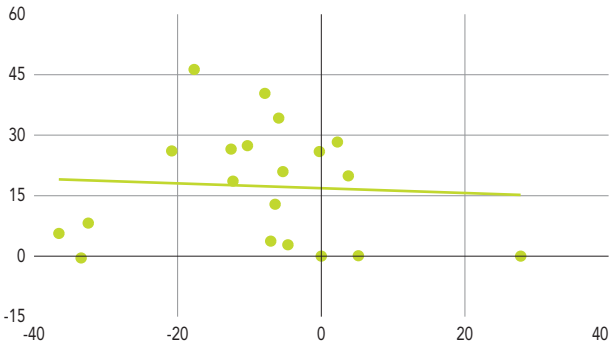
The US dollar exchange rate was a key determinant of cross-border lending to EMEs during the Covid-19 stress period (*see Chart 4*). More concretely, the more an EME's currency depreciated against the US dollar, the higher was the decline in cross-border lending to that EME during the first half of 2020 (*see Chart 4c*). Furthermore, the above negative relationship appears to have strengthened relative to the 2015 EME SP (*see Chart 4b*) and the 2008 GFC (*see Chart 4a*).

The above negative relationships are manifestations of the financial channel of exchange rates (Bruno and Shin, 2015a; Hofmann et al., 2019; and Avdjiev et al., 2019a). When there is the potential for valuation mismatches on borrowers' balance sheets arising from exchange rate fluctuations, a weaker dollar strengthens the balance sheets of dollar borrowers, whose liabilities fall relative to assets. From the standpoint of creditors, the stronger credit position of the borrowers reduces tail risk in the credit portfolio and creates spare capacity for additional credit extension even with a fixed exposure limit as given by a value-at-risk constraint or an economic capital constraint.

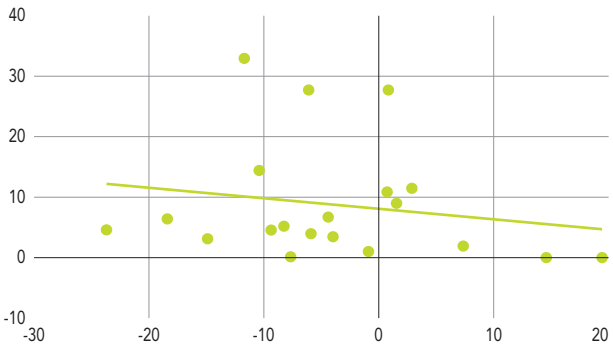
There is evidence that the financial channel of exchange rates has a significant impact not only on financial conditions, but also on macroeconomic outcomes. Hofmann and Park (2020) find that an appreciation in the broad dollar index reduces growth in EMEs and that this effect is amplified in economies with high dollar debt. Avdjiev et al. (2019b) show that a US dollar appreciation is associated not only with a reduction in cross-border bank lending flows, but also with a decline in real investment in EMEs.

C4 USD exchange rate and cross-border bank lending during selected stress periods, for the top 20 borrowing EMEs
(%, x-axes: change in cross-border claims, y-axes: change in exchange rate)

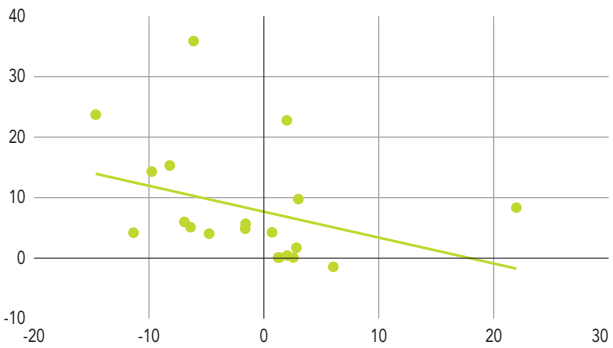
a) Great financial crisis, H2 2008



b) 2015 EME stress period, H2 2015



c) Covid-19 crisis, H1 2020



Source: Bank for International Settlements (BIS) – nominal exchange rate statistics and locational banking statistics by residence.
Note: The top 20 borrowing emerging market economies (EMEs) selection is based on largest EME counterparties for cross-border claims at end-June 2020: United Arab Emirates, Brazil, Chile, China, Czech Republic, Hungary, Indonesia, India, South Korea, Mexico, Malaysia, Poland, Qatar, Russia, Saudi Arabia, Thailand, Turkey, Taiwan, Vietnam and South Africa.

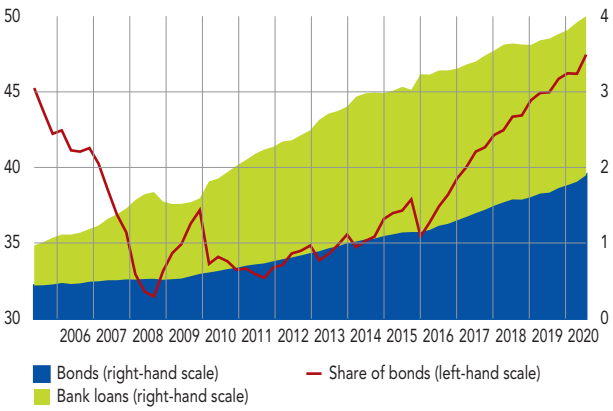
The strength of the financial channel of exchange rates has increased over time. As discussed above, the relationship between the US dollar exchange rate and cross-border lending to EMEs was much stronger during the Covid-19 crisis than during the 2015 EME SP and the 2008 GFC. This is most likely due to the fact that the amount of US dollar debt in EMEs has increased rapidly over the past decade and stood at approximately 4 trillion USD on the eve of the Covid-19 stress period (*see Chart 5*). This is likely to have exacerbated the currency mismatches on the balance sheets of EME borrowers, which has in turn strengthened the financial channel of exchange rates.

Against the above backdrop, the policy response of advanced economy central banks played a crucial role in alleviating the financial strains on EMEs. Most notably, when pressure in offshore dollar markets became extremely high in March 2020, the Federal Reserve decided to reactivate and expand its dollar liquidity swap lines with several other central banks (Federal Reserve Board, 2020). This most likely prevented a steep appreciation of the US dollar, which could have resulted in sharp contractions in international bank lending to EMEs through the financial channel of exchange rates.

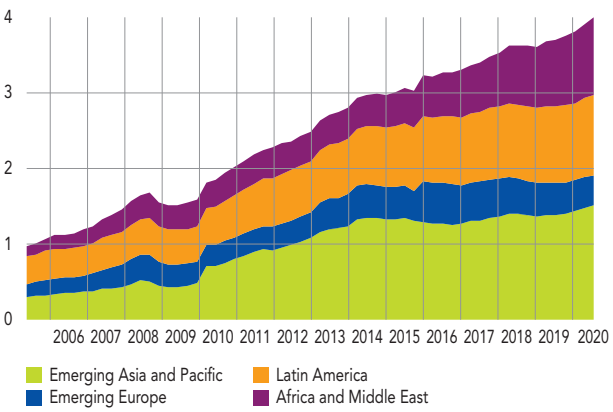
Several additional factors made the Covid-19 episodes different from previous stress periods (Aguilar and Cantú, 2020). First, the fact that EMEs were at a low point in the business cycle allowed them to loosen monetary policy. On top of that, the aggressive monetary easing in advanced economies gave EMEs even more space to cut interest rates. Last but not least, structural changes in EMEs improved inflation anchoring and limited exchange rate pass-through.

C5 US dollar-denominated credit to non-banks in emerging market economies (EMEs)

a) By instrument
(left-hand scale: %, right-hand scale: amounts outstanding in USD trillions)



b) By counterparty region
(USD trillions)



Source: Bank for International Settlements (BIS) – global liquidity indicators.

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