

## Box 7

### Currency swap lines and international currency status

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International currency status is often bestowed with an “exorbitant privilege” and lower external financing costs. Yet another aspect of international currency status is that it may also come with an “exorbitant duty” and additional responsibilities. In particular, central banks issuing international currencies might be faced with requests for currency swap lines from other central banks when the availability of international liquidity dries up, as the experience from the global financial crisis suggests.<sup>70</sup> However, providing such currency swap lines is not a duty for central banks issuing international currencies, but remains an option, which they consider in full independence and in line with their respective domestic mandates.<sup>71</sup>

The direction of causality between currency swap lines and international currency usage is unclear. On the one hand, some empirical studies show that international currency use helps predict whether countries received swap lines from either the Federal Reserve System or the ECB. For instance, it has been shown that the Federal Reserve was more likely to extend swap lines to countries with large US dollar liquidity shortages, large international financial centres and emerging market countries with which US banks had large exposures.<sup>72</sup> On the other hand, there is also evidence, albeit limited, that

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<sup>70</sup> In this regard, some considered that the swaps put in place during the global financial crisis were “the international dimension of non-standard monetary moves” (Papadia, F and Välimäki, T., *Central banking in turbulent times*, Oxford University Press, 2019) and that swap agreements among central banks were a potential stabilising element increasing the resilience of the international monetary system (Bahaj, S. and Reis, R. (2018), op. cit.).

<sup>71</sup> To the extent that global funding stresses spill over to domestic financial markets, impair the transmission of monetary policy or pose a material risk to domestic financial institutions, currency swap lines can be seen as a monetary policy tool to preserve financial stability. See the article entitled “Experience with foreign currency liquidity-providing central bank swaps”, *Monthly Bulletin*, ECB, Frankfurt am Main, August 2014.

<sup>72</sup> See Allen, B., *International Liquidity and the Financial Crisis*, Cambridge University Press, 2012 and Aizenman, J. and Pasricha, G. K., “Selective Swap Arrangements and the Global Financial Crisis: Analysis and Interpretation”, *NBER Working Paper*, No 14821, March 2009.

causality could flow in the other direction, i.e. that currency swap lines might foster international currency use. Some studies show that swap lines encouraged inflows from recipient countries' banks into assets denominated in the source country's currency.<sup>73</sup> Moreover, Gopinath and Stein (2018a and b)<sup>74</sup> show that in theory there are feedback loops between bank funding and trade invoicing, as well as between bank funding and foreign exchange reserves. This suggests that – at least conceptually – providing currency swap lines might help to foster the international use of a currency, since they can be seen as a backstop for bank funding denominated in the international currency. Other studies, however, provide empirical evidence that negative policy interventions designed to discourage international use of a currency have actually been more effective than positive interventions to encourage its use, suggesting therefore that actively promoting the global use of a currency with currency swap lines may not be effective.<sup>75</sup>

Historically, swap lines were provided for three main purposes. First, for the purposes of foreign exchange policy: for instance, as early as 1962 the Federal Reserve established reciprocal currency arrangements to forestall potential official runs on the US gold stock by third countries.<sup>76</sup> Second, for trade policy purposes: swap lines have been granted by reserve currency issuers to facilitate cross-border trade transactions with other countries (for instance, this was initially one motivation for the People's Bank of China to develop its currency swap network). A third purpose is to offer liquidity support on third markets in the presence of serious market dysfunctions.

This latter purpose was particularly evident during the global financial crisis, when there was a build-up in risky short-term funding in US dollars among European banks preceding the swap lines that were ultimately provided during the crisis. To address pressures in global money markets, the Federal Reserve, together with other major central banks (i.e. the Bank of Canada, the Bank of England, the Bank of Japan, the ECB and the Swiss National Bank) established currency swap lines, which were converted to standing arrangements in October 2013. Moreover, at the height of the financial crisis the Federal Reserve provided temporary swap lines to four emerging market economies (in Asia and Latin America). The ECB has participated in the network of currency swap lines among major central banks since the onset of the global financial crisis and, similarly to the Federal Reserve, established currency swap lines with additional economies, albeit with a different regional focus centred on the euro area neighbourhood.<sup>77</sup>

The left panel of **Chart A** shows that the share of the US dollar in international debt securities continued to increase after the conversion of dollar swap lines to standing arrangements in 2013. However, it is unclear whether this means that the swap lines in question bolstered the role of the US

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<sup>73</sup> See Bahaj, S. and Reis, R. (2018), op. cit.. However, it is not clear whether this correlation could also stem from other factors, such as negative interest rates in the euro area and Japan and the ring-fencing of US entities.

<sup>74</sup> See Gopinath, G and Stein, J., "Trade Invoicing, Bank Funding, and Central Bank Reserve Holdings", *AEA Papers and Proceedings*, Vol. 108, May 2018 and Gopinath, G and Stein, J., "Banking, Trade, and the Making of a Dominant Currency", *NBER Working Paper*, No 24485, April 2018. However, in this study it is not clear what the ultimate direction of the causality is, and central bank swap lines are not explicitly taken into account.

<sup>75</sup> See, for example, Eichengreen, Chițu, B. L. and Mehl, A., "Stability or Upheaval? The Currency Composition of International Reserves in the Long Run", *IMF Economic Review*, Vol. 64(2), 2016, pp. 354-380.

<sup>76</sup> In fact, the US Treasury had established swap lines with foreign monetary authorities on an ad hoc basis as early as 1936 to provide short-term bridge loans in anticipation of financing from other sources. For more details, see Bordo, M., Humpage, O. and Schwartz, A., "The Evolution of the Federal Reserve Swap Lines since 1962", *NBER Working Paper*, No 20755, 2014.

<sup>77</sup> See ECB, "Experience with foreign currency liquidity-providing central bank swaps", *Monthly Bulletin*, ECB, Frankfurt am Main, August 2014.

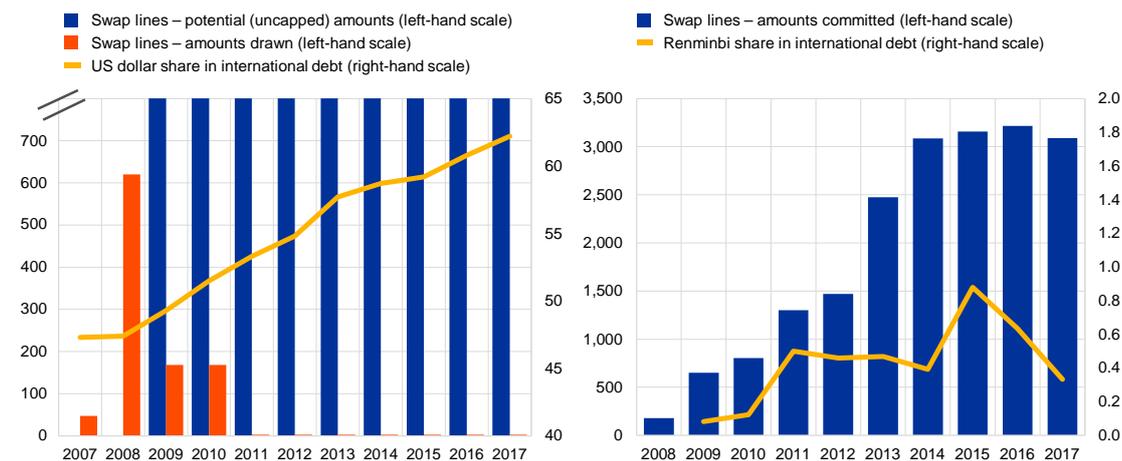
dollar as an international financing currency, as their effect could have been confounded by other factors.

## Chart A

Evidence on the link between currency swap lines and international currency status

Federal Reserve currency swap lines and international role of the US dollar (left panel) and People's Bank of China currency swap lines and international role of the renminbi (right panel)

(left panel: USD billions and percentages; right panel: CNY billions and percentages)



Sources: ECB calculations, BIS, Federal Reserve System and People's Bank of China.  
Note: US dollar shares in international debt statistics, narrow measure, at constant exchange rates.

The PBoC, for its part, had concluded 37 swap line agreements by the end of 2017 with various countries. It has repeatedly stated that these agreements aim to foster use of the renminbi in the medium-term, e.g. because regulators in recipient countries might be more inclined to allow banks and firms to carry out business denominated in renminbi or because recipient central banks might more easily act as lenders of last resort in renminbi after activation of the currency swap lines.<sup>78</sup> The right panel of **Chart A**, which plots the share of the renminbi in international debt and the size of the People's Bank of China's swap lines, suggests, however, that these efforts have still not led to a material increase in the international use of the renminbi in international debt markets (see **Box 1** for further evidence on the global role of the renminbi).