

South African Reserve Bank Occasional Bulletin of Economic Notes OBEN/17/02

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The end of global reserve accumulation – and its implications

February 2016

Jean-François Mercier

Abstract

Fast accumulation of official FX reserves by the world's central banks has gradually tapered off in recent years, and reversed modestly in 2015. Weaker export proceeds among commodity exporters, capital account deterioration and shifting policy choices have been the key factors behind reduced accumulation. Such a background is unlikely to change in the next couple of years, suggesting that relatively stability in global reserves looks most likely. Such a pattern could help reduce the size and durability of global external imbalances relative to the past decade, as well as result in more accurate pricing of government debt relative to other assets, and limit risks of excessive credit creation. However, it may also make it more difficult to attract capital inflows for a country like South Africa, which is dependent on portfolio flows for the funding of its external deficit and whose bond market is highly influenced by changes in US bond yields.

Introduction

From the early 2000s to the last couple of years, many central banks – mostly in the emerging world but also in the developed world, and for a diverse set of reasons – embarked on a significant accumulation of official foreign exchange reserves. This process has stalled in the past few quarters, and in fact, there have been numerous media reports of some countries (in particular China) intervening in the FX market by selling reserves. In this note, we look at the key factors that drove both the acceleration and the slowdown in reserve accumulation, and conclude that the next few years should, instead, usher in a period of more stable global reserves. In light of the macroeconomic impact of ample reserve accumulation in recent years, we then point out how this potential new paradigm could result in reduced global current account imbalances (both in size and duration); a re-pricing of government bonds versus other assets; and more muted money supply and credit growth in specific countries. Finally, we look at the potential indirect impact for a small, open economy like South Africa, which is neither the source nor the recipient of large reserve flows but has been dependent on international capital inflows in the last decade or so.

The end of global accumulation

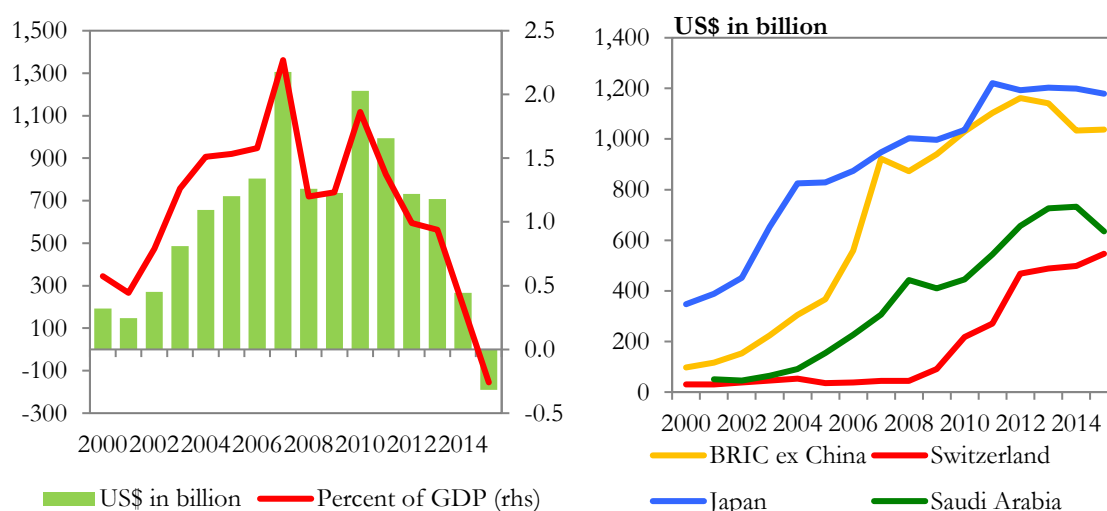
A long era of official reserve accumulation has gradually come to an end. According to the IMF's Composition of Foreign Exchange Reserves (COFER) data, the overall level of world FX reserves peaked at US\$11,98 trillion in 2Q 2014, having risen from as low as US\$1,64 trillion 15 years earlier, an average increase of 14,1 per cent a year. However, five quarters later (the latest data available), they have fallen by US\$780 billion, or by roughly 6½ per cent. Admittedly, a large part of that decline probably reflected the appreciation of the US dollar versus other major currencies over the period, which reduced the dollar value of non-dollar assets. However, if we adjust the change in reserves for exchange rate moves based on the currency composition of reserves (as published by COFER)¹, the

¹ For the 42 per cent of total reserves that are unallocated (i.e. reporting central banks do not provide the currency composition to the IMF), we assume a similar composition to the allocated ones, that is, as of 2Q 2015, 64 per cent US dollars, 20 per cent euros, 5 per cent sterling, 4 per cent yen, 2 per cent for both Canadian and Australian dollars, and 3 per cent other currencies.

broad message remains the same: Following a gradual pickup in the 2000s and a temporary lull at the height of the Global Financial Crisis, reserve accumulation tapered off from 2011 onwards and reversed marginally in the first three quarters of 2015. Expressing reserve accumulation as a share of world GDP, one gets a similar bell-shaped curve, with a high of 2,3 per cent of GDP in 2007 (see Figure 1).

Much has been written about the key role played by China in the global accumulation of reserves over the past two decades and, of late, their decline. Indeed, from US\$80 billion in 1Q 96, Chinese reserves surged to a peak of US\$ 3,99 trillion by June 2014, before subsequently falling by US\$ 663 billion by December 2015. And it was not all valuation effects: For instance, Barclays estimated that between September 2014 and August 2015, the People's Bank of China intervened to the tune of US\$167 billion, most of it in July-August 2015.² But the tapering, or partial reversal, of reserve accumulation has not been limited to China. Other large emerging countries (Russia in 2014, Brazil and Indonesia from mid- to late 2014) also experienced declines in reserves; the drop was even more pronounced for some oil exporters, in particular Saudi Arabia (see Figure 2). Among more advanced economies, we have seen a plateauing of Japanese reserves since 2011, and a much reduced pace of accumulation by traditional large reserve holders like Switzerland, South Korea, Taiwan and Hong Kong.

Figures 1 and 2: Estimated global accumulation of official FX reserves (left) and official reserve levels in selected countries (right)



Note: The data on Figure 1 are adjusted for valuation effects.

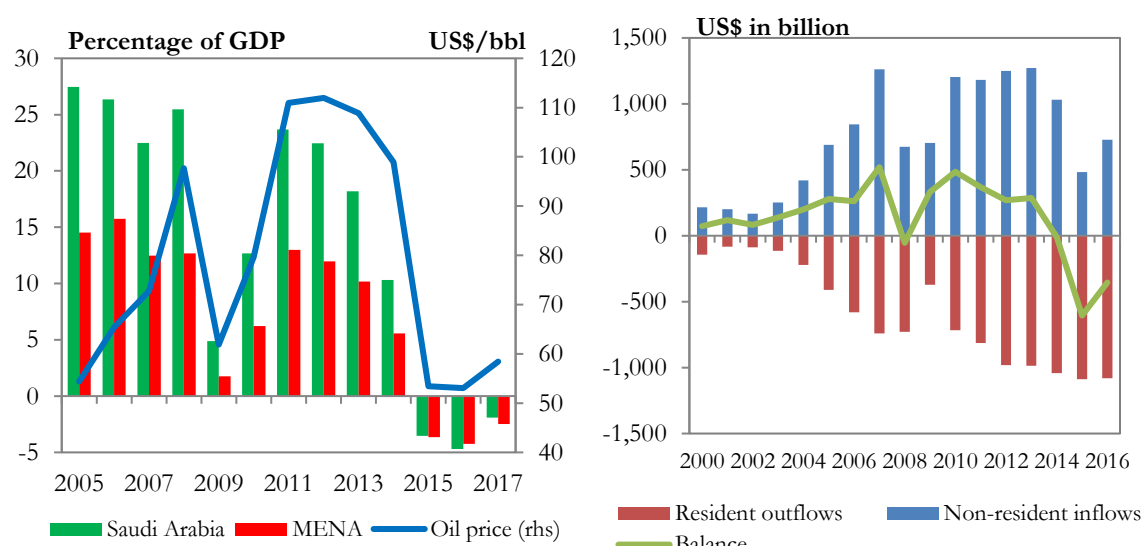
² See "China: The heavy cost of intervention", Emerging Markets Research, Barclays, 3 September 2015. In addition, the December decline in Chinese official reserves (US\$108 billion) does not appear to be related to valuation effects, as the US dollar was relatively stable on the month.

Underlying reasons are probably here to stay

Reasons for tapering the pace of reserve accumulation tend to vary across countries. In the case of oil exporters, the sharp decline in the oil price curtailed, or even removed their ability to accumulate FX assets. Economic and financial sanctions played a similar role in Russia in 2014. Among many other emerging markets, falling terms of trade and/or worsening private capital inflows (as trend growth and other fundamentals deteriorated) similarly weighed on the balance of payments. In China, the liberalization of the capital account, the repayment of FX loans by domestic corporates and a policy goal of re-balancing the economy towards a consumer-driven model (implying greater tolerance for real exchange rate appreciation) probably played the key role. Policy considerations also appeared to explain the end of reserve accumulation in Japan (as the BoJ was able to weaken the yen more effectively via purchases of domestic bonds than via FX intervention) and Switzerland (where the SNB expressed its reluctance to see its balance-sheet grow further relative to the country's GDP, and removed a cap on the franc).

What is common among these different factors, however, is that they seem unlikely to fade away quickly. Barring an unlikely return to the commodity “super-cycle”, it is unlikely that commodity exporters will suddenly experience a sharp improvement in their current account, or a surge in FDI inflows into their resource sector. It is interesting to note, for instance, that the IMF expects current account deficits to persist in Saudi Arabia, and the whole MENA region, in 2016-17 (see Figure 3).³ Among other EM countries, the combination of prospective gradual tightening in the US and the lack of a strong rebound in EM growth may preclude the repeat of the large-scale portfolio flows into EM that were the norm in recent years. Already, in 2015, the Institute of International Finance projected that net capital flows to emerging markets would be negative for the first time since 2008 (see Figure 4).⁴ Finally, policy considerations – such as economic rebalancing in China or concerns related to the cost of elevated reserve holdings in other countries – seem likely to persist.

Figures 3 and 4: Oil price and current account in Saudi Arabia / MENA (left) and capital flows to and from emerging markets (right)



Sources: IMF, Bloomberg and IIF

³ The IMF's forecast is based on an average oil price assumption of US\$50.36/bbl in 2016; thereafter, the oil price is assumed to be unchanged in real terms over the medium term.

⁴ See “Capital Flows to Emerging Markets”, Institute of International Finance, October 1, 2015

Is there a risk of rapid reserve “de-cumulation”?

While the odds of renewed, high reserve accumulation are low, are we at risk of the opposite happening – i.e. a sharp drawdown in global official reserves? As discussed above, China probably intervened heavily in July/August, and again in December. Yet authorities also have made it clear they did not seek significant FX depreciation, at least not on a trade-weighted basis. This should reduce an incentive for private capital outflows. Furthermore, China’s capital account is only being liberalized gradually, and recent developments suggest that in the event of sizable capital outflows, the authorities would not hesitate to delay, or even temporarily reverse, liberalization. Equally, authorities may step up the liberalization of capital *inflows* as an alternative to selling reserves.

Other emerging countries may at times resort to FX sales to limit the scale of currency depreciation, or even deal with shortages of foreign exchange in local capital markets.⁵ But it is hard to see a broad-based shift towards aggressive FX intervention in the EM world, especially at a time when international institutions (the IMF, the G-20) highlight the benefits of currency adjustment as a shock absorber. Furthermore, not all EM economies have reserves in excess of generally-accepted metrics, and in 2015, some central banks have either been increasing reserves (India), or rebuilding them (Russia). Other countries, in particular MENA oil exporters, have low levels of external debt and may resort to increased FX-denominated bond issuance to fund external shortfalls.⁶ As for the more advanced economies which are large reserve holders (Japan, Korea, Switzerland, Hong Kong, Singapore), their current account remain in surplus, reducing the risk they may be forced to sell reserves aggressively in the near future. Overall, rather than large-scale “de-cumulation”, a slower, even at times minimal, pace of global reserves accumulation may be the more likely scenario in coming years.

Accumulation coincided with large global current account imbalances

If one compares the degree of global reserve accumulation to a measure of current account dispersion among the world’s economies, the correlation seems clear: At the peak of accumulation, many countries’ surpluses or deficits were unusually large (see Figure 5). There is, admittedly, a question of causality: Were reserve flows large because some countries experienced unusually large surpluses; or did FX intervention – by preventing the upward adjustment of exchange rates – perpetuate surpluses at unusually high levels? At first, the buildup of large current account surpluses in selective economies had other causes than reserve management policy: These included the commodity super-cycle (oil exporters, Russia, Chile); persistently high levels of ex ante precautionary savings (emerging Asia); or the impact of global trade liberalization, which benefited low labour-cost countries (China, Vietnam).

However, faced with these rising current account surpluses, many countries then opted for aggressive reserve accumulation *rather than* allowing sizable currency appreciation. The rationale differed across countries, ranging from commitment to pegged exchange rates (GCC countries), to export-oriented growth strategies (China and other countries in emerging Asia), to concerns about deflation risks (Japan, Switzerland, Israel). Nonetheless, the common theme was a reluctance to allow the balance of payments to adjust via FX appreciation, suggesting that global current account imbalances lasted longer than would have been the case without reserve accumulation. If that was indeed the case, one would now expect to see global exchange rates being more responsive to

⁵ This can happen, for example, if a current account-deficit country faces portfolio outflows and is unable – for reasons of loss of creditworthiness or strains in its banking sector – to borrow dollars offshore in order to fund net importers and repay exiting investors.

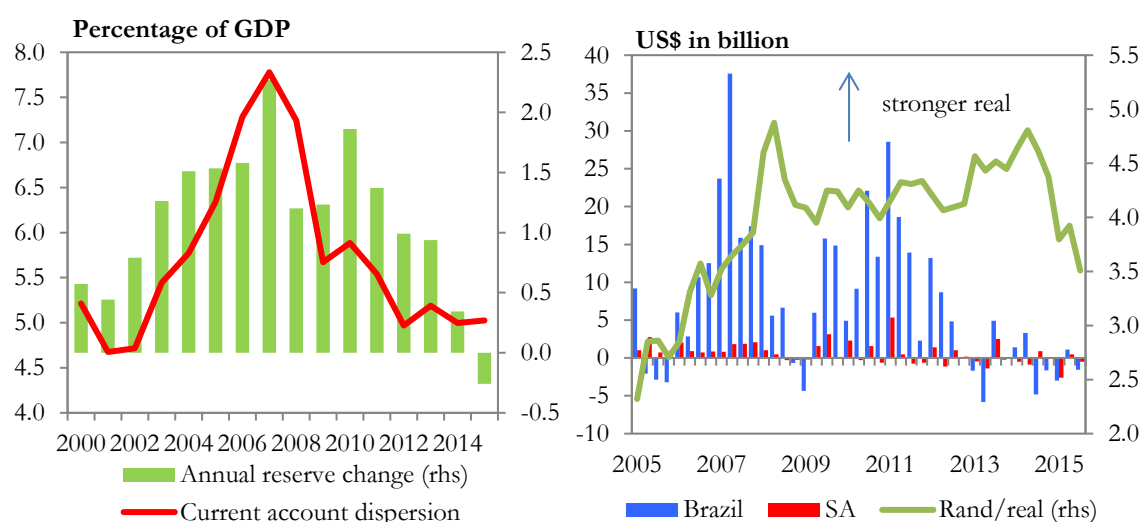
⁶ See “Saudi Arabia to tap global bond markets as oil fall hits finances”, Financial Times, 10 November 2015

current account imbalances, and for these imbalances to be more transient, than in the past decade or so.

What was the role of private capital flows?

Admittedly, the above analysis does not take private capital flows into consideration. If reserve accumulation is merely a perfect substitute for private flows, its impact on macroeconomic variables should be neutral. Under that view, absent intervention by a surplus-country central bank, there would be private capital outflows of a similar amount. It is difficult to fully discard this hypothesis: After all, private cross-border flows reached unusually high levels in the mid- to late 2000s, well in excess of official reserve flows. There were also instances when heavy intervention seemed to have little impact on the exchange rate: For example, between 2010 and 2012, Brazilian intervention exceeded that of the SA Reserve Bank, even after adjusting for the relative economic size of the two countries, yet the real outperformed the rand (see Figure 6). It seemed that even as the Central Bank of Brazil (BCB) bought dollars to limit appreciation, more capital flowed in, in anticipation of eventual appreciation.

Figures 5 and 6: Dispersion of current account balances vs. global reserve accumulation (left) and quarterly changes in FX reserves in Brazil and South Africa vs. rand/real exchange rate (right)



Note: Our measure of global current account dispersion is the standard deviation of current account balances in all countries with a nominal GDP in excess of US\$50 billion at least once over the past three years, excluding oil exporters (to remove “outliers”).

However, we do not think this was always the case. Some emerging countries have a fairly limited private fund management industry or banking system; others have capital or prudential controls in place that limit the ability of the private sector to boost overseas assets. Even in industrial countries like Japan does one find indications of “home bias” among private investors. In such cases, the private sector is either unable or unwilling to fully substitute itself to official reserve managers. Furthermore, even if the private sector recycles current account surpluses overseas, it may only do so once the currency has appreciated enough to make offshore investments attractive – unlike official reserve managers, who are much less driven by profit and valuation considerations.

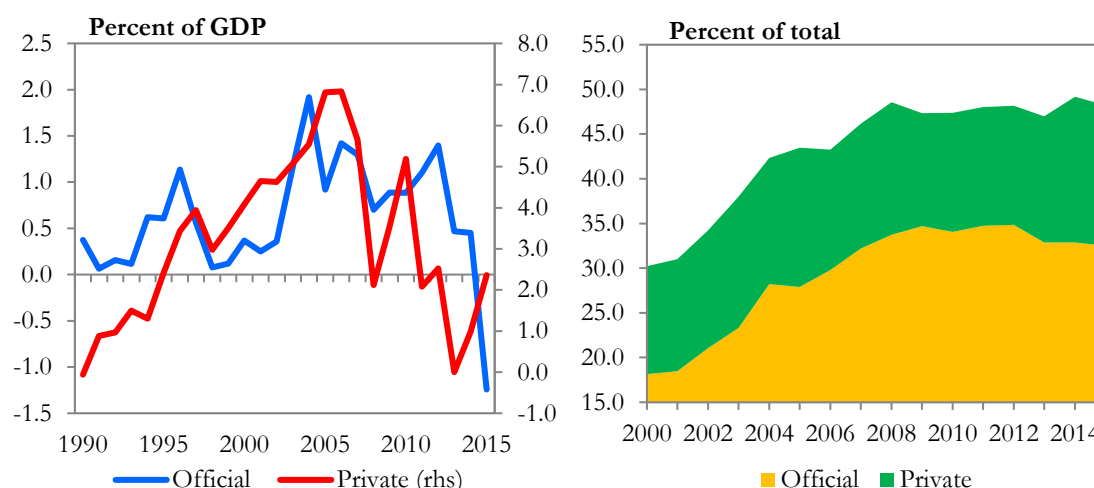
Finally, when looking at the situation of the *recipients* of reserve flows, there is no evidence that official purchasers of their financial assets displaced non-resident private purchasers. Rather, in the case of the United States – historically the biggest recipient of reserve inflows – the analysis of TIC

data since 1990 shows a positive correlation of 47 per cent between official and private foreign purchases of US securities (see Figure 7). Data from the Bank of England show a similar pattern in non-resident flows into UK government bonds. Overall, therefore, it would seem that in both cases, official reserve accumulation “crowded in” private non-resident flows into these markets, making it even easier to sustain relatively large current account deficits.

Potential implications for long-term interest rates and currencies

The end of official reserve accumulation may also impact the relative price of financial assets in the developed world – in particular, since official FX purchases were mostly invested in government bonds, one would expect, *ceteris paribus*, to see the latter under-perform other assets in the future. In light of the elevated share of US dollar reserves, the US Treasury market may be the most exposed. From 2000 to 2014, net annual foreign official purchases of US Treasuries contributed to a rise in foreign holdings of US Treasuries to 49,2 per cent of the outstanding stock by 2014, from 18,1 per cent in 2000 (Figure 8).

Figures 7 and 8: Net non-resident purchases of US securities (left) and foreign holdings of US Treasuries as a percentage of outstanding debt stock (right)



The negative effect could be compounded if the past correlation between official and private non-resident purchases continues to hold, and reduced official purchases (or sales) entice private offshore investors to also reduce their exposure to the US Treasury market. Even if this is not the case, and private non-resident investors “make up” for the lack of official purchases, they are more likely to buy other, higher-yielding assets than Treasuries.⁷ A 2012 Fed discussion paper estimated that a decline of US\$100 billion in official inflows into US Treasuries (in a given month) could push five-year US yields up by 40-60 basis points in the short run, and by 20 basis points once the response of private foreign investors to higher yields is factored in.⁸ Furthermore, other studies have shown that in the Eurozone too, the rise in non-resident purchases of government bonds in 2000-06 exerted meaningful downward pressure on yields.⁹

⁷ TIC data show that between 2005 and 2014, US Treasuries made up 66 per cent of official non-resident purchases of US securities, but only 46 per cent of private non-resident purchases.

⁸ See “Foreign holdings of US Treasuries and US Treasury yields”, by D. Beltran, M. Kretchmer, J. Marquez and C. Thomas, Federal Reserve International Finance Discussion Papers No. 1041, January 2012

⁹ See “Capital inflows and euro-area long-term interest rates”, by D. Carvalho and M. Fidora, ECB Working Paper No. 1798, June 2015

In fact, some commentators have described the prospect of further EM central bank sales of government bonds as akin to some form of “quantitative tightening” that could reverse some of the benefits of earlier Fed purchases of US Treasuries, and more than offset the impact of continued government bond purchases by the ECB and the BoJ.¹⁰ It may be too early to draw such a conclusion: EM FX intervention will not follow a straight pattern, and therefore, it may not have the “signaling” effect that pre-committed purchases (as in QE) had on bond yields. Nonetheless, at a time of likely Fed policy normalization, the end of reserve accumulation adds an upside risk to core government bond yields.

Whether it will have an impact on major currencies is debatable. To the extent that most reserve accumulation resulted in purchases of US bonds, and that these purchases “pulled in” private non-resident inflows as well, the end of accumulation should on balance be US dollar-negative. However, the period of strongest official inflows into US securities did not coincide with a particular strong dollar; and the mid-2014 to early 2015 dollar appreciation occurred despite the lack of strong central bank dollar accumulation. At best, the end of accumulation may be a factor limiting further US dollar appreciation in coming years versus other major currencies, in spite of growth and interest rate differentials that favour the dollar, on balance, versus the euro and the yen.

Reserve accumulation, credit and inflation

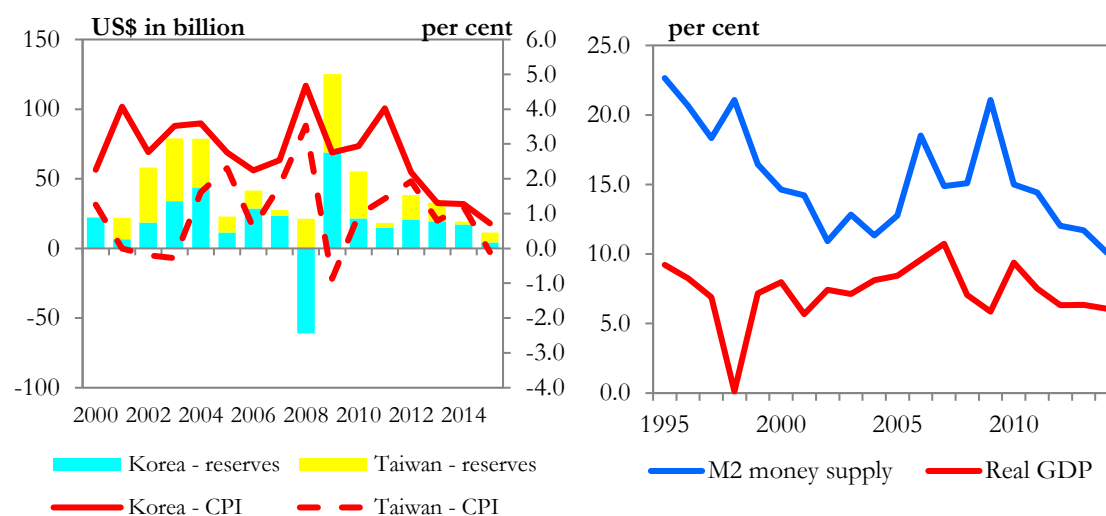
Another uncertainty is the implications that the end of reserve accumulation would have for domestic variables like inflation, money and credit, especially in emerging countries. To the extent that the buildup of reserves (in countries with current account surpluses) prevented FX appreciation, it removed a potential disinflationary force and may have, on balance, kept inflation artificially high. While other factors no doubt were at work, it is nonetheless interesting to note that in countries like Korea and Taiwan, reduced reserve accumulation (in 2014-15) coincided with stronger nominal exchange rate appreciation than in earlier years and a downtrend in consumer price inflation (see Figure 9).

At the same time, reserve accumulation, if not fully sterilized via central bank monetary operations, will inflate the monetary base and – unless the money multiplier collapses – also boost broader money and credit aggregates. Some commentators have argued that, in Asia in particular, sizable reserve accumulation was not fully sterilized, and have pointed to correlations between reserves growth and monetary aggregates, as well as, more generally, the availability of external financing and domestic credit growth.¹¹ Recent history does indeed suggest that money growth was high, even taking account strong growth in the real economy, in Asia in the years of accumulation (see Figure 10). Thus, to the extent that a flat trend in global reserves equally dampens credit creation, it would reduce the risk of growing inflation risks and/or domestic asset price bubbles and financial instability in the “accumulator” countries.

¹⁰ See “The great accumulation is over: FX reserves have peaked, beware QT”, Deutsche Bank Markets Research, 1 September 2015, and “Will emerging economies cause global quantitative tightening?”, Gavyn Davies’ Blog, Financial Times, 14 September 2015

¹¹ See “The rise and fall of Asia FX reserves”, Bank of America-Merrill Lynch, Rates and FX Research, 03 August 2015; and “China: beyond peak reserves”, Emerging Market Macro and Strategy Outlook, Citi, 21 August 2015

Figures 9 and 10: Reserve accumulation and inflation in selected countries (left) and money supply and real GDP growth in East Asian countries (right)



Note: The columns on the left-hand chart indicate reserve accumulation, the lines inflation rates. Data on the right-hand chart are GDP-weighted averages for China, Hong Kong, Malaysia, Philippines, Singapore, Indonesia, Korea and Thailand.

Implications for South Africa would be indirect

The end of global reserve accumulation, if confirmed, would probably not have direct implications for the South African economy and markets. Because of its large current account deficit, South Africa was never able to accumulate reserves at the pace, say, of some of the larger emerging Asian economies, or of oil exporters. Equally, as the rand is not classified as a “reserve” currency, it is unlikely that domestic securities benefited in any significant way from reserve-related inflows. Nonetheless, the end of accumulation could have important indirect effects for South Africa, among which:

- A situation where global external imbalances are, on average, less pronounced than in the past, could make it difficult for SA to sustain the kind of large current account deficits it had around 2013-14. A deficit of 5,0-6,0 per cent of GDP would “stand out” even more against peers, potentially undermining South Africa’s creditworthiness. At the same time, reduced global cross-border capital flows could mean that SA financial assets are priced more on the back of domestic fundamentals than global risk appetite;
- Any move that pushes equilibrium US bond yields higher might be transmitted to the local bond market, in light of the historically strong correlation between US and SA longer-term yields. This could steepen (*ceteris paribus*) the domestic yield curve and increase refinancing and debt servicing costs for National Treasury and large state-owned enterprises. It may also negatively affect private fixed capital formation, to the extent that long-term yields are used to benchmark the viability of investment projects;
- On a more positive note, though, reduced global reserve accumulation may ease the pressure on SA to “keep pace with peers” and build a stronger reserve buffer (which carries costs for the fiscus). While South Africa’s reserves are relatively low by most agreed metrics, a situation where peers continued to accumulate reserves would have meant an ongoing *relative* deterioration of SA’s FX reserve position, with potential negative implications for creditworthiness.

Conclusion

While the outlook for global reserve accumulation remains contingent on many factors (the outlook for commodity prices, relative growth in emerging versus advanced economies, the pace of policy normalization in the US), it nonetheless appears likely that the fast buildup of reserves seen over the past decade or so is unlikely to be repeated near term. On balance, this may have positive implications for global financial stability, as large current account imbalances might not persist as long as in the past and currency movements could play a greater, quicker role in their resolution. More stable global reserves levels could also result in more accurate pricing of financial risk (especially for government bonds relative to other assets) and reduce the risk that incomplete sterilization of intervention feeds into excessive credit creation.

However, to the extent that cross-border capital flows also decline, it could make it more difficult for countries with large current account deficits and relatively fragile fundamentals to indirectly benefit from large global capital flows. South Africa risks falling into that category, as the changing patterns in global capital flows occurs at a time when domestic growth has slowed, public debt has risen as a share of GDP and the current account deficit remains relatively high. Pricing of the rand and SA financial assets may therefore become increasingly dependent on how global investors perceive these fundamentals, highlighting the importance of domestic policies that support growth and price/financial stability.