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Capital inflows and domestic credit: The South African "exception"

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Abstract

Empirical evidence shows that episodes of elevated net capital flows into emerging economies often coincide with strong, above-trend domestic private credit growth in the recipient economy, though the impact varies and appears influenced by the depth of the host country's financial sector. In South Africa, though, the latest phase of strong capital inflows had no impact on credit, which has been subdued for the past decade. The lack of external funding needs by the SA banking sector, tighter bank regulations, the under-performance of the rand versus EM peers and the lack of "excess" capital inflows relative to financing requirements probably all account for this exception. A positive implication is that it reduces threats of losing monetary policy autonomy; nor has the wave of capital inflows posed risks to domestic financial stability. There is a possibility, however, that the South African "exception" is transient, and hence, policy responses – including the use of macro-prudential tools – may still be needed in future phases of strong capital inflows.

Introduction[1]

The role of net foreign capital inflows into shaping the cost and growth of domestic credit in recipient economies has received a lot of attention in the past decade, especially when a mix of near-zero policy rates and "unconventional" tools in large advanced economies (AEs) "pushed" vast amount of capital towards higher-yielding (mostly emerging) markets. At the height of these flows, in the early 2010s, some emerging-market (EM) central banks feared loss of monetary policy autonomy, while economists like Rey (2015) claimed that the impact of global credit cycles was such that many countries faced a policy "dilemma" (either impose capital controls, or lose monetary policy autonomy even amid FX flexibility).

There is empirical evidence of a link between net capital inflows and average EM credit cycles over the past few decades. However, since the Global Financial Crisis (GFC), South Africa appears to be an "exception", witnessing relatively strong net capital (especially portfolio) inflows but very subdued domestic credit growth. This note seeks to identify the causes for such an apparent exception, which appear mostly related to the structure of the domestic financial sector, the influence of new banking regulations, the type of inflows received and the structure of the SA balance of payments. Finally the note investigates the implications for domestic monetary and financial stability policies.

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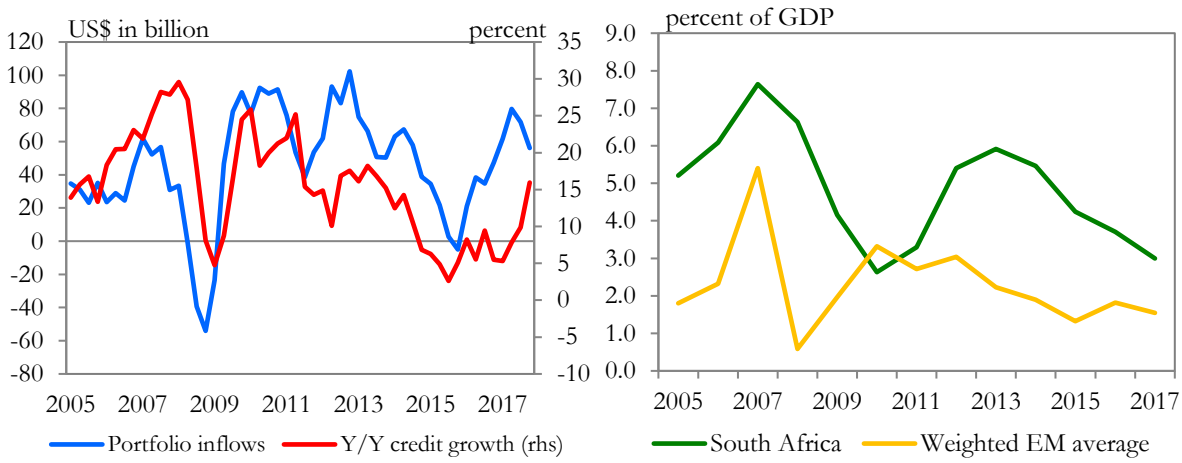
Net capital inflows appear to feed into EM domestic credit

Since many EMs liberalized their capital markets in the early 1990s, there have been three major phases of strong cross-border capital flows into EMs. These were the mid-1990s (up to the Asian financial crisis), the mid-2000s (up to the GFC) and the early 2010s (the height of quantitative easing in AEs). In all cases, net flows (mostly consisting of portfolio flows and cross-border bank lending)[2] reflected a mix of "push" factors (loose monetary conditions in the US at the start of the period, high appetite for risk) and "pull" ones (cyclical improvement in EM fundamentals).

Figures 1 and 2: EM portfolio inflows and average year-on-year growth in private-sector credit (left) and net capital inflows as a percentage of GDP (right)



Using data from the Institute of International Finance (IIF), we find out that net capital inflows into EMs, and especially non-resident portfolio inflows, tend to lead the growth rate of domestic credit to the private non-financial sector in this group of countries (see Figure 1).[3] This is not entirely surprising: After all, capital flows are partly driven by "pull" factors that include healthy macroeconomic dynamics, and these are generally associated with strong credit growth. But, as Figure 1 shows, pickups in credit growth tend to follow, rather than lead, surges in portfolio inflows. Furthermore, looking at BIS data on "credit gaps" (the deviation of private credit-to-GDP ratios from HP filter trends) one finds that on average, periods of strong capital inflows coincide with either a shift to (the 2000s), or a widening in (the 2010s) positive credit gaps. This would suggest that at least part of that strong credit growth is exogenously driven, and reflective of strong external capital flows into these economies.

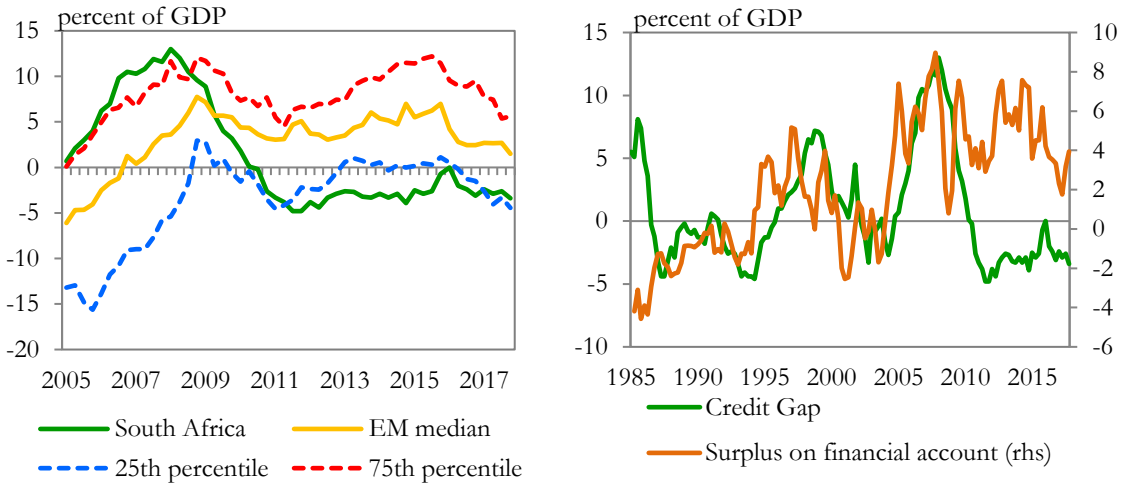
The South African exception… which was not always one

When foreign capital flows strongly into EM, it also flows into South Africa. Indeed, as IIF data show, SA on balance receives higher net inflows, as a percentage of GDP, than its EM peers (see Figure 2). In particular, non-resident portfolio inflows to SA almost always exceed the EM norm, even as it mirrors its direction. However, at least since the GFC, South Africa's credit cycle has largely "decoupled" from its EM peers. Private-sector credit growth – deflated by the CPI – averaged only a meagre 1.0% a year since the end of the 2008-09 recession, and its credit gap (which up to 2008 was significantly above the EM median) has been negative since 2010, and mostly below the 25th percentile of the EM sample (see Figure 3).[4] The only other large EMs to have seen no increase, or a decline in private-sector leveraging over that period

[2] Since 1990, cross-border portfolio and bank lending flows are positively correlated with each other (0.54), exacerbated the cycle of overall capital flows.
[3] We use aggregate EM credit data for the BIS and IIF capital flow data for the largest 25 EMs (ex China).
[4] We use a sample of 16 large EM countries for which the BIS calculates credit gaps.

were Argentina (which hardly experienced any capital inflows), Hungary (where rising defaults forced the private sector to deleverage) and India (where banks' asset quality, bad-debt and profitability indicators have deteriorated over the past decade).

Figures 3 and 4: Credit gaps for South Africa relative to EM sample (left) and SA financial account balance and credit gap (right)



However, this was not always the case: After South Africa opened up its capital markets post democratization, the mid- to late 1990s phase of world capital inflows coincided with a rise in the country's financial account surplus, which resulted – with a lag – in a positive credit gap (see Figure 4). Furthermore, this rise in the credit gap occurred even though SA economic growth, in the late 1990s, remained subdued by global standards. A similar pattern occurred in the early 2000s, leading to a phase of high SA household leveraging and strong asset (especially property) price increases. While many factors probably contributed to stronger credit growth, a simple test suggests that the financial account surplus may have Granger-caused credit growth over 1990-2010, though not the other way round. Hence, we cannot reject the hypothesis that capital flows influenced domestic credit at the time, though since 2010 this clearly is not the case.

How the linkages work – and what the literature says

One can understand intuitively how capital inflows driven in part by "push" factors (and therefore not just by the fundamentals of the recipient economy) can trigger an "excess" of liquidity, and how in turn such cheap and abundant liquidity fuels domestic private-sector leveraging. In practice, there are several channels through which the transmission can take place. In the event of portfolio inflows being well in excess of the country's funding needs, local banks can become flush with dollar deposits,[5] which they then either lend to domestic borrowers or "transform" into local-currency loans. Furthermore, as Borio et al. (2011) pointed out, large AE-based multinational banks also play a key transmission role: Amid cheap domestic financing costs and attractive offshore business opportunities, they either lend directly to the non-financial private sector in EM countries, or they lend to these countries' banks, which then use these liabilities to fund domestic loans. A third channel relates to inter-company loans – generally, from a parent multinational to its EM-based subsidiary.[6]

[5] For example, a US-based fund purchasing SA rand-denominated bonds on an unhedged basis may exchange dollars for rand with an SA bank, increasing the dollar deposits on the liability side of that bank's balance-sheet. We refer to "dollars" as the majority (though not all) of cross-border capital flows into EM are dollar-denominated.

[6] In the balance of payments, these inter-company loans are classified as FDI debt flows. Sometimes, as Shin (2013) highlights, they are in effect a "carry trade" that results in FX mismatches.

There is a fair amount of literature (especially since the GFC) regarding these linkages, and generally authors do find some evidence of net capital inflows influencing domestic credit. However, they also find that the impact is highly unequal across countries and dependent on both the type of inflows and the structure of the financial sector in the recipient economy. Furceri et al. (2011) identified 268 episodes of unusually large capital inflows from 1970 to 2009 across the world, and found that they increase credit-to-GDP ratios by (on average) up to four percentage points.[7] They observed, however, that flexible exchange rate policies and counter-cyclical fiscal policies dampened the impact on credit gaps.

Separately, Buch et al. (2018) analysed the transmission of monetary policy shocks in AEs to credit developments in EMs, and highlighted the important role of the balance-sheet structure of the recipient countries' banks: Banks with higher reliance on wholesale and short-term funding will exhibit stronger transmission mechanisms, as will those with riskier domestic loan portfolios. Similarly, Baskaya et al. (2017), looking at the specific case of Turkey, found that banks with higher "non-core" funding (i.e. a lower reliance on domestic deposits) provide larger domestic loan volumes, at lower costs, than other banks in periods of strong capital inflows. Bräuning and Ivashina (2017) focused on the particular role of cross-border bank loans, and found that such loans are generally positively correlated with loan growth by the recipients' economy banks – and with the cost of such loans.[8]

Unlikely explanations for South Africa's recent "exception"…

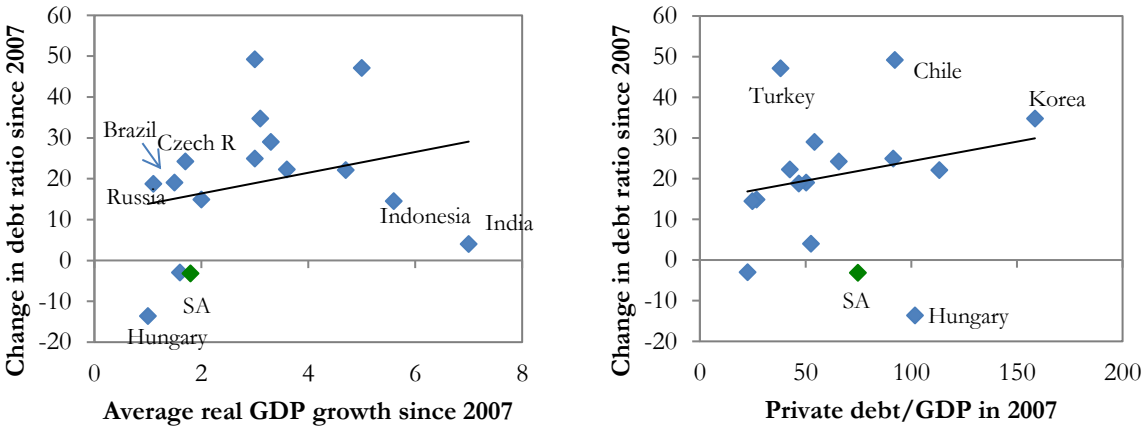
In light of international comparisons and the above literature review, we look at possible explanations for why South Africa failed to see net capital inflows trigger domestic credit growth in the past cycle. An obvious explanation might be the relatively weak performance of SA's economy since the GFC: Even if banks are flush with foreign liquidity, they might not lend if domestic growth (and therefore profit) prospects are poor. However, this is not really backed by observations: Since 2007, countries like Brazil, Russia, Mexico and the Czech Republic saw similar trend growth to SA and significant leveraging (much more than, for instance, fast-growing countries like India or Indonesia – see Figure 5).

One could also expect the initial level of private debt to GDP to affect the transmission: If the country already suffers from a "debt overhang", banks may be more unwilling to lend and corporates/households to borrow, even amid high inflows of foreign liquidity. However, the evidence is also inconclusive (see Figure 6). Amid the countries that saw a boost in leverage in the past decade were some which had lower (Poland, Colombia, the Czech Republic) or significantly higher (Korea, Chile, Thailand, Malaysia) private debt/GDP ratios than SA in 2007. Similarly, the performance of a country's current account over the past decade does not seem to play a role, and nor does the structure of its exports (commodity versus manufactured goods).

[7] The impact is about four percentage points for equity portfolio and debt flows, while for FDI flows it is not statistically significant.

[8] In effect, they found that a rise in cross-border loans to a particular EM country can lower the lending spread charged by that country's banks to its clients.

Figures 5 and 6: Change in private debt ratio since 2007 vs average annual real GDP growth (left) and vs debt ratio in 2007 (right) for selected EM economies



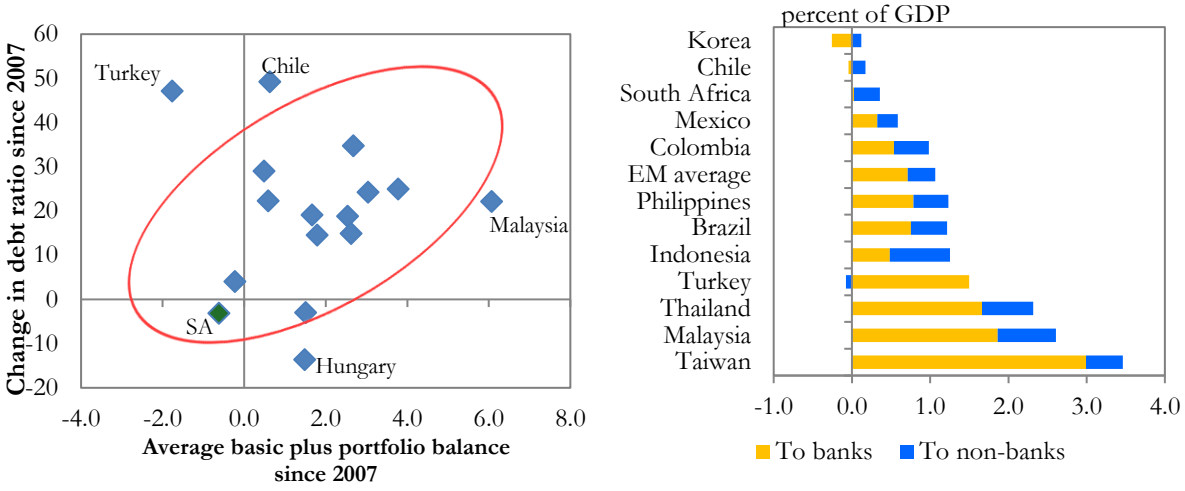
…And the ones which may have more merit

It is difficult to pinpoint exactly which factor is more likely to explain the South African "exception" of recent years, but the following ones may each have contributed:

- **The absence of "excess" portfolio inflows.** We argued above that the response of domestic credit to capital inflows occurred in both current account deficit and surplus countries. But that response did seem stronger in countries where the sum of net portfolio inflows and the "basic balance" (current account plus net FDI) is deeper into positive territory (see Figure 7).[9] One could argue these countries do face "excess" portfolio inflows, above those that are needed to fund a current account deficit and are not already covered by FDI. This is not the case in South Africa, where portfolio inflows fail (on average) to fully cover a large current account deficit and an FDI balance that is now also in deficit.
- **The low level of cross-border bank loans.** Both actual observations and economic literature highlight the positive correlation between portfolio flows and cross-border bank lending. However, locational banking statistics from the BIS show that between 2010 and 2014, at the height of QE policies and capital "push" towards EM, South Africa received unusually low levels of cross-border bank loans relative to its GDP, and most of these flows, unlike in the majority of EMs, went to non-banks (see Figure 8).
- **The structure of SA banks' balance-sheets.** South African banks have never been highly dependent on foreign resources to fund their loan book; they have remained well-capitalized for most of the past decade and their deposit-to-loan ratios are high (96% on average in 2008-17). BIS data show limited cross-border lending to SA banks, and this is confirmed by BA900 data, which show that FX liabilities have only risen moderately in recent years, to 7.3% of the overall balance-sheet in March 2018. Furthermore, their FX assets have also risen, and at 10.9% exceed FX liabilities – seemingly confirming that SA banks do not "need" FX funding to finance their domestic loans, but instead use them to increase offshore investments.

[9] The remaining element of the balance of payments (excluding the change in official reserves) is "other investments", which include among other trade finance and other types of bank loans.

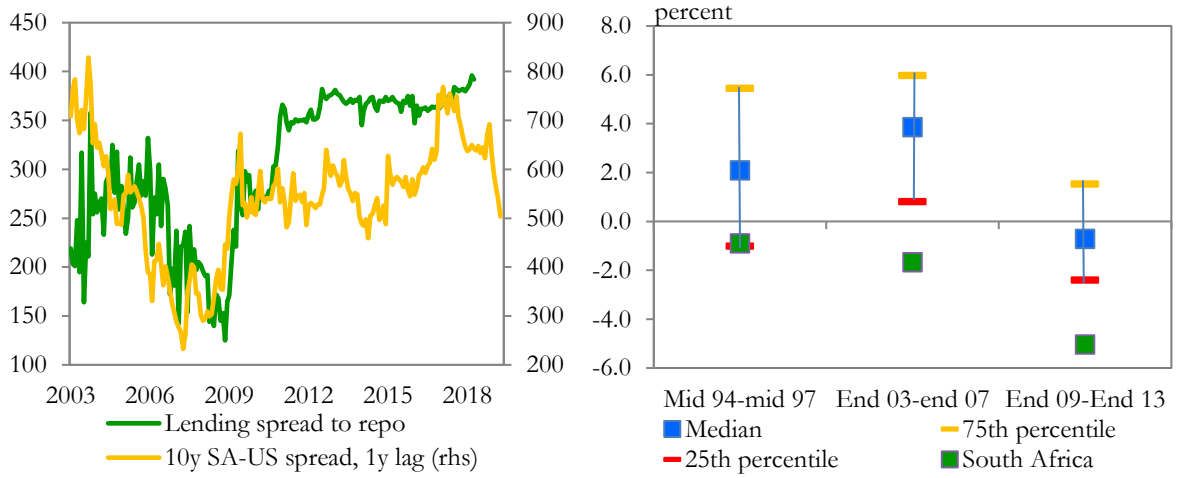
Figures 7 and 8: Change in debt ratios vs. average basic plus portfolio balances (left) and average 2010-14 cross-border bank loans to selective countries as a share of their annual GDP (right)



- **The impact of Basel III regulations.** As Bräuning and Ivashina (op. cit.) highlighted, capital inflows can affect the relative *cost* as well as the volume of domestic loans. In effect, cheaper FX capital can cheapen domestic borrowing. However, in SA, a positive correlation between the SA-US 10-year yield spread[10] and the bank lending spread over repo broke down after 2010 (see Figure 9). In effect, capital inflows kept *government* borrowing costs in check, but private borrowers did not seem to benefit. Possibly, banks perceived their customers as less credit-worthy; they also increased the share of unsecured, higher-rate loans in their portfolio. But Basel III regulations, which forced banks to improve their net stable funding ratios, probably played a role. On balance, spreads between lending and deposit rates did not move much, but the gap between repo and deposit rates narrowed – suggesting that banks "paid up" to attract a larger amount of term deposits, and subsequently passed on these costs to borrowers.
- **The type of capital inflows.** As indicated above, commercial bank loans were a small component of net capital inflows into SA in the early 2010s; as for portfolio flows, they mainly consisted of bond inflows, in contrast to the mid-2000s when equity flows dominated. Possibly, bond flows mainly affect the cost of government funding, while the impact of equity flows is broader-based.[11] In addition, as Blanchard et al. (2015) argue, equity (unlike bond) inflows can experience self-feeding momentum – effectively, as inflows lead both the price of equities and the exchange rate to appreciate, offshore investors anticipate extra capital gains and boost their purchases further. In such a model, equity inflows are more expansionary and more likely to stimulate domestic credit.
- **The lack of real exchange rate appreciation.** In the event (as often is the case) that strong net capital inflows lead to real FX appreciation in the recipient economy, borrowers with net FX liabilities will experience balance-sheet strengthening and be tempted to increase their offshore borrowing, while offshore lenders will see their return magnified by the currency's appreciation. However, in SA, the real effective exchange rate of the rand (REER) generally underperforms its peers, even in periods of strong capital inflows (see Figure 10). This may have acted as an additional "risk" constraint on both offshore lenders and SA borrowers.

[10] We use the SA-US government bond yield spread as a proxy for the cost of foreign borrowing, as this spread is typically highly influenced by global appetite for risk and the size of portfolio inflows.
[11] As equity prices rise, corporates experience a strengthening of their balance-sheets and a boost to confidence, which can entice them to borrow more aggressively. The impact of falling government bond yields is more indirect.

Figure 9 and 10: 10-year SA-US yield spread and bank lending to repo rate spread (left) and average annual performance of SA's REER versus EM sample in periods of strong capital inflows (right)



What are the policy implications for South Africa?

To the extent that South Africa's domestic credit cycle was not seemingly affected by unconventional policies in AEs and the resulting large cross-border capital flows, policy autonomy of the SA Reserve Bank probably remains greater than that of some EM peers. Up to now, SA has not really faced a "dilemma" between keeping its capital account open and preserving monetary autonomy. Hence, the need for some form of capital controls – such as "speedbumps" in the event of hot money inflows – is not obvious in South Africa, as monetary and fiscal authorities have indeed argued in recent years. Equally, the limited impact of global risk premiums and capital inflows on the cost of credit in the private sector (especially bank lending spreads) suggests, on balance, fewer impediments to the transmission of monetary policy decisions to the real economy.

From a financial stability point of view, the implications are equally positive. Because net capital inflows did not entice banks to change their funding or lending behaviour, South Africa's banking sector does not suffer from FX asset/liability mismatches, or from a high sensitivity to foreign interest rates.[12] Equally, FX borrowing by the non-financial corporate sector has remained moderate. Hence, the risks that higher US interest rates and/or a significantly stronger US dollar triggers a local credit crunch, or a sudden rise in corporate defaults, appear low. This also means that the exchange rate can continue to play its role as "shock absorber" in periods of weaker global growth and lower commodity prices – whereas countries with large FX liabilities could be exposed to a double contractionary effect. On the less positive side, South Africa's corporate sector has failed to benefit from what were possibly the loosest global financial conditions on record to invest into productive capacity, though that failure cannot reasonably be blamed on monetary policymakers, regulators or even the structure of the SA financial system. Fiscal policy would seem at least partly to blame, as it seems capital inflows mostly helped finance a structurally-large budget deficit, which to some extent "crowded out" private borrowing and investment.

Longer-term, though, vigilance is still required, for pre-GFC developments suggest one cannot dismiss out of hand the possibility of SA's credit cycle responding to a new wave of capital inflows in the future. Some of the potential causes of the South African "exception" (banks' responses to a changing regulatory environment, real exchange rate under-performance, bond-skewed capital inflows) are either transitory or may not recur to the same extent in the future. Already, the latest, short phase of buoyant net capital inflows

[12] Admittedly, there is still an indirect effect as foreign interest rates can affect the exchange rate of the rand and in turn, domestic monetary policy.

into EM (from mid-2016 to late 2017) showed some unusual developments in SA, for instance a strong pickup in offshore bank lending to non-financial corporations. It may well be that the next phase of strong capital inflows into EMs (whenever it occurs) has a meaningful impact on SA's credit cycle. If this is the case, macro-prudential tools may have to be used to complement monetary policy.

Conclusion

The linkages between net cross-border capital flows and domestic credit cycles are frequently observed yet complex to understand; furthermore, their magnitudes vary sharply across emerging economies. South Africa does appear to be one of the countries with the weakest linkages, at least in the latest phase of strong capital inflows, and this has helped banks and other corporates to maintain relatively healthy balance-sheets even as the domestic growth environment became more challenging. This said, some of the factors that seemed to account for these weak linkages may not recur in the future, meaning that SA policymakers should still strive to better understand the consequences of large-scale global capital mobility, and develop tools to deal with unwanted consequences.

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