



Developments in China's balance of payments and implications for the RMB

March 2019

China's dwindling current account surplus received a lot of attention in 2018. In the first quarter, China recorded the first current account deficit in 17 years. The fall in the surplus follows a large capital outflow between 2014 and 2016, stoked by the devaluation of the renminbi (RMB). The threat of a full-blown trade war between the US and China, coupled with a cooling domestic economy, led to renewed weakness in the currency. In the midst of this turbulence, investors are allocating more and more funds to China, especially to China's onshore bond market. These developments are all, directly or indirectly, related to the balance of payments of China.

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In this paper, we look at the key developments in the balance of payments and what effect these developments could have on the value of the RMB. For investors, the inclusion of China in various global benchmark indices means that the currency will not just have a second-round effect on returns through global risk sentiment, but will directly affect the value of RMB denominated assets. Thus, it is important to understand the drivers that could move the currency in either direction. Specifically, we are trying to find the answers to the following questions:

- What is causing the fall in the current account surplus?
- What does the falling surplus tell us about China's economy?
- Has the capital outflow from China picked up again?
- How is the composition of the capital account changing?
- What are the options for the People's Bank of China (PBoC) to defend the RMB?

The message from the falling current accounts surplus

Fluctuations in China's current account surplus over the last 20 years have been truly spectacular. The surplus increased from 1.3% of GDP in 2001 to over 10% in 2007 (Figure 1). After a sharp fall following the global financial crisis, the surplus stabilised at around 2%. However, in Q1 2018, the current account fell into deficit for the first time since 2001. While the deficit could have partially been explained by seasonality, the subsequent quarters have shown that this was not a blip. The rolling four-quarter surplus was just 0.4% in Q4 2018.

Figure 1: China's current account surplus has evaporated

China current account balance, %GDP



Source: Schroders, Thomson Reuters Datastream. Data as at Q4 2018

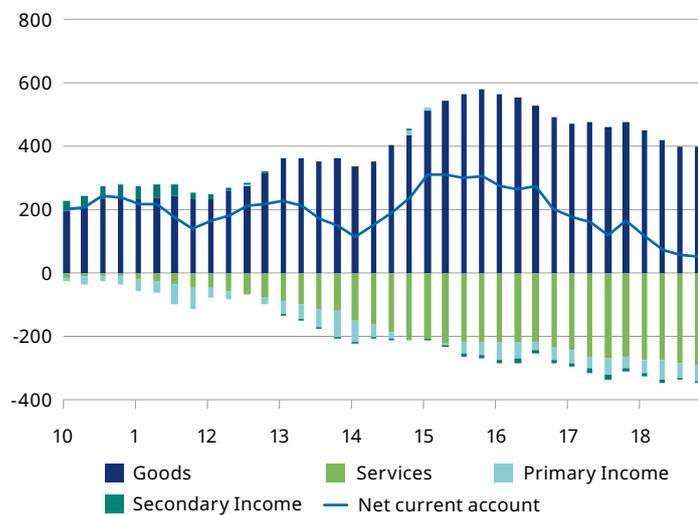
If the trend continues, the annual current account could fall into deficit in the not too distant future. At the broader economy level, the shrinking surplus reflects the changing balance between savings and investments. The boxed section on the right explains how extremely high savings rate has kept China's current account positive despite high level of investments. As consumption is slowly rising, China faces the possibility of having to import savings, a marked shift from the current paradigm of exporting its savings to the rest of the world.

For the RMB, the current account surplus has acted as a buffer against the movements in the capital account, making it easier to manage the currency. Without that buffer, the RMB and potentially domestic interest rates are likely to become more volatile. Paradoxically, while a current account deficit would increase the vulnerability to renewed capital outflow, it could be a necessary condition for continued internationalisation of the RMB and eventual acclamation of reserve currency status.

The evolution of China's balance of payments

In absolute terms, the four-quarter sum of the current account has fallen from \$307 billion in Q2 2015 to just \$50 billion in Q3 2018 (Figure 3). The largest detractor has been the goods surplus, which has fallen from \$542 billion to \$397 billion. The services deficit has also increased, from \$222 billion to \$289 billion. The primary and secondary income deficits have remained relatively stable.

Figure 3: Lower goods surplus and higher services deficit
China current account balance, billions USD, 4-quarter sum



Source: Schroders, Thomson Reuters Datastream. Data as at Q4 2018

It is all about savings and investments

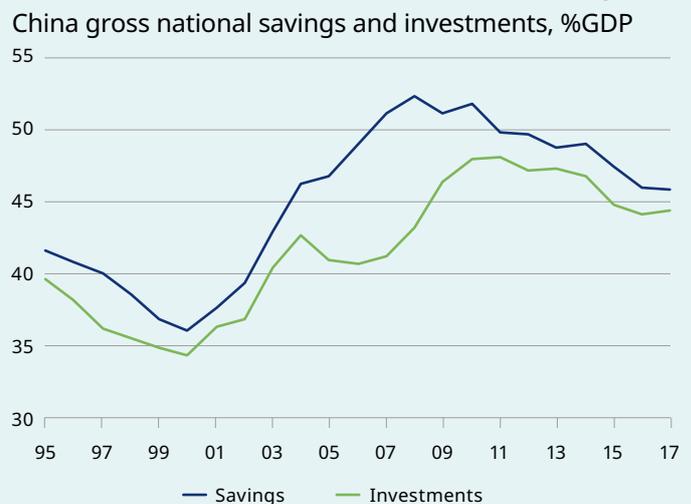
The main culprit behind China's persistent current account surplus has been an abnormally high gross national savings rate*. Figure 2 shows that after falling in the late 1990s, the savings rate surged between 2000 and 2008, peaking at 52% of GDP. Historically, the high savings rate mainly reflects the preference of Chinese households to save a large proportion of disposable income and relatively low social spending by the public sector.

Similarly to savings, investments also picked up in the early 2000s, just not as fast. In 2007, investments were 41% of GDP, meaning that the difference between savings and investments, or the current account surplus, was 10% of GDP. The excess savings were consequently exported abroad via build up of FX reserves.

In 2008, the world economy fell into severe recession. China's export driven growth model sputtered as the demand for Chinese goods plummeted. To counter the slump, China undertook a massive fiscal stimulus programme, all together RMB4 trillion or 12% of GDP. The stimulus spending came mainly in the form of infrastructure investment and marked a major regime change. Instead of being exported abroad, a large portion of savings was utilised domestically in financing investments. As a result, investments increased from 42% to 48% of GDP and the current account surplus fell from 10% to 2% of GDP.

The savings rate has been falling slowly but steadily since 2010, driven by the rising share of consumption in GDP. The vanishing current account surplus thus indicates that, while the pool of domestic savings is still relatively large (46% of GDP), it is now close to fully utilised in financing investments. Should the savings rate continue to fall and Chinese authorities continue to rely on investments to spur growth, China would have to start importing savings from the rest of the world. This would implicitly mean running a current account deficit.

Figure 2: Falling savings rate and high level of investments leads to lower current account surplus



Source: Schroders, IMF, Thomson Reuters Datastream. Data as of end of 2017

* Gross national saving is defined as GDP minus final consumption

Narrowing goods balance – both cyclical and structural drivers

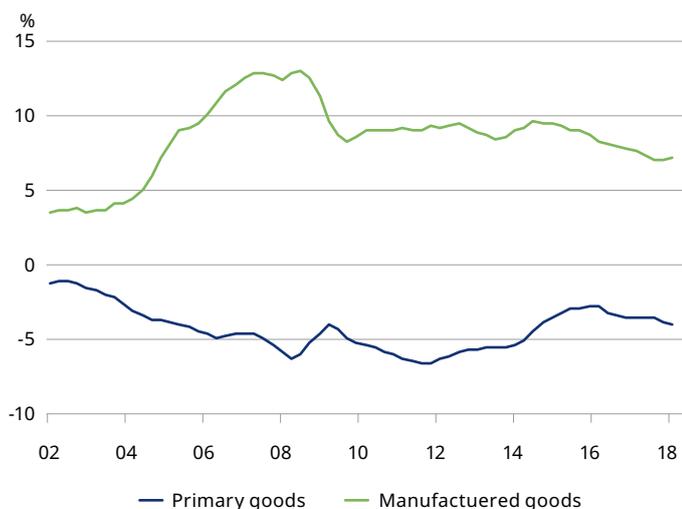
The two main components of the goods balance are primary and manufactured goods. China's primary goods balance has been consistently negative as the country is a net commodity importer (Figure 4, blue line). The balance is also sensitive to movements in commodity prices. The sharp fall in commodities prices between 2014 and 2016 halved the deficit from 6% to 3% of GDP, while the rebound since 2016 has widened it to 4% of GDP. Importantly, the crude oil price has become an important swing factor, as China's crude imports have increased two and a half times over the last ten years. The significance is illustrated by the annual oil import bill, which more than doubled between November 2016 and November 2018, accounting for a 0.7% swing in the current account surplus.

To counter the primary goods deficit, China runs a large manufactured goods surplus (Figure 4, green line). Similarly to the overall current account surplus, the manufactured goods surplus fell in 2008 and 2009, owing to a collapse in global demand. After recovering in 2010 and 2011, the surplus remained remarkably stable at around 8% of GDP. However, since China was growing much faster than the rest of world, its share in global merchandised exports still kept increasing, rising to close to 14% in 2015 (Figure 5).

A notable shift happened in 2016 when China's share of world exports finally started to fall along with its manufactured goods surplus. The slowdown in global growth led to a slump in exports and imports, but exports fell more. Since early 2017, the surplus has been growing slowly in absolute terms, but has continued to decline as a percentage of GDP, falling from 9.2% in Q2 2015 to 6.8% in Q4 2018.

Figure 4: The fall in the manufactured goods balance is likely structural

China primary and manufactured goods balance, %GDP



Source: Schroders, Thomson Reuters Datastream. Data as at Q4 2018

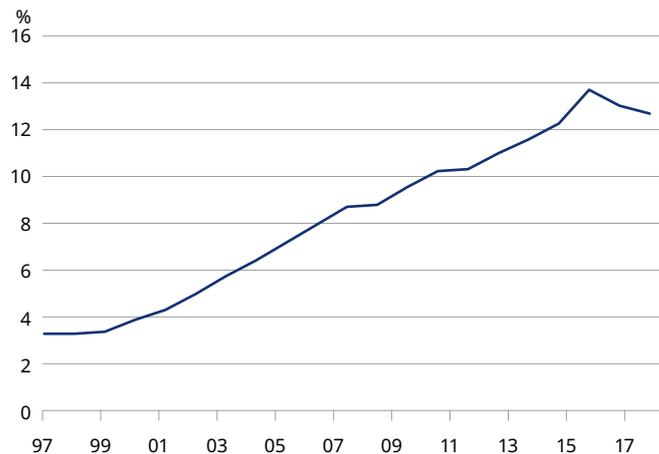
While the fluctuations in the primary goods balance can broadly be explained by the cyclical element of commodity prices, the shrinking manufactured goods surplus seems to be pointing to a structural change. The falling share in world exports highlights how China is losing competitiveness compared to other fast-growing Asian countries, such as India and Vietnam. Higher cost of production, especially in low value-added goods, forces manufacturers to shift production to countries with relatively lower labour costs, thus reducing the surplus.

Finally, the falling surplus indicates that the RMB is no longer undervalued or artificially depressed. To the extent that these things can be judged, a current account which is hovering between a small surplus and a small deficit suggests the currency to be "fair value"; the level which balances the current account.

Chinese spending more on tourism

The clearest evidence of falling savings rate can be found on the services side of the current account. In 2009, the services account was close to balance. A decade later the annual services deficit stands at \$289 billion. The majority of the adjustment has come through the increase in outbound tourism. Figure 6, overleaf, shows how the travel services account fell into deficit in 2009, dropped sharply in 2014 and has grinded lower since. It now accounts for the majority of the services deficit. Given that the number of outbound trips is still relatively small when compared to China's population, a further increase in tourism could lead to an even larger services deficit.

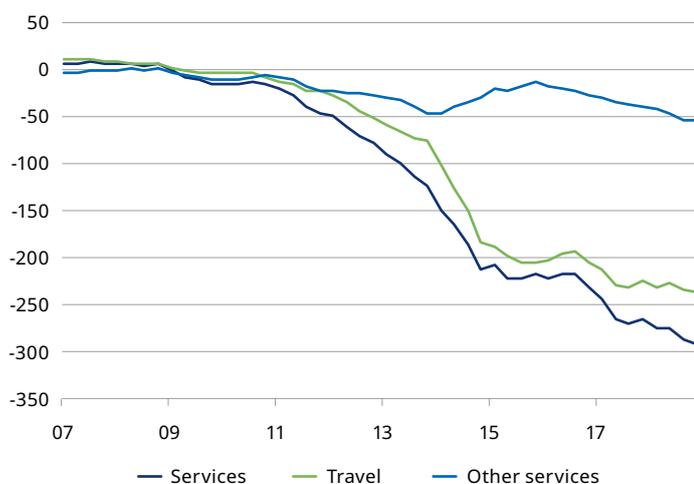
Figure 5: China's share of global exports is falling since 2015



Source: World Bank. Figure shows China's share of global merchandised exports Data as of end of 2017

Figure 6: Rapidly increasing travel services deficit

China current account services, billions USD, 4-quarter sum



Source: Schroders, Thomson Reuters Datastream. Data as at Q4 2018

However, there seem to be some issues with the measurement of tourism spending. It is possible that at least part of the travel services deficit is actually disguised capital outflow. In 2015, China's State Administration of Foreign Exchange (SAFE) changed the methodology for calculating the spending on international travel services. Instead of using secondary sources and estimating tourism related spending, it switched to utilising actual bank card transactions data.

Importantly, the change in the methodology occurred at the time when capital outflow just started to pick up. It has been widely reported that Chinese tourists are using UnionPay bank cards for cash-back deals where goods or services purchased abroad either do not exist or have much lower value. These fictitious transactions enable cardholders to bypass relatively strict rules for moving the RMB abroad and can possibly explain part of the extremely sharp increase in the travel services deficit.

This type of spending should clearly be recorded in the financial account as capital outflow, rather than in the current account as an import of travel services. A 2017 paper¹ estimates that the cumulative effect of mismeasurement of tourism spending could be as large as 1% of GDP. That would put the actual current account surplus at about 1.4% of GDP as of Q4 2018, assuming a similar measurement error has persisted.

¹ Anna Wong, "China's Current Account: External Rebalancing or Capital Flight?", International Finance Discussion Papers, Board of Governors of the Federal Reserve System, June 2017.

Structural forces should continue to push current account lower

In the short term, a slowing economy and cheaper oil could support the current account by reducing the import bill. If oil stays at \$60 per barrel, for example, it could shave around 0.3 percentage points of GDP off the import side of the ledger.

Longer term, however, we have identified some clear headwinds in our above analysis. In trade, China is becoming less competitive as wages and other costs grow, even before we take into account global trade tensions. At the same time, a wealthier populace is demanding more imported goods and spending more on travel. Demographics are also a concern; China's population is aging rapidly. This will mean a structural decline in the savings rate as the elderly enter retirement. According to the IMF², the demographic change could reduce the household savings rate by as much as 6 percentage points by 2030. Government spending will also need to rise to cover the growing welfare bill, further depressing the savings rate.

With the savings rate on a downward path, the current account balance will crucially depend on investments. The IMF's forecast sees the current account surplus disappearing by 2023, but in their projections, China would avoid falling into deficit because investments are also expected to fall. However, if the authorities continue to rely on infrastructure investment to support the economy, a current account deficit could be unavoidable.

Capital account in the spotlight

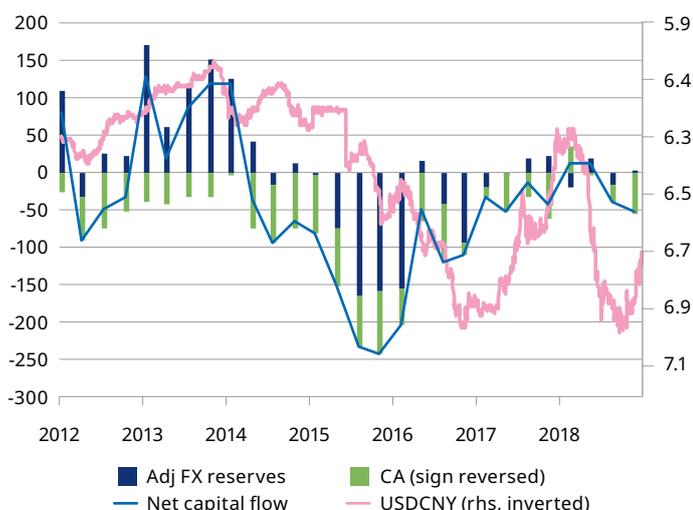
Despite the cautious approach that the authorities have taken in opening up China's capital account, the capital account flows are now firmly in the driving seat of the balance of payments. Recent experience shows that even sizeable foreign-exchange (FX) reserves are not enough to halt the fall in the currency if expectations become very one-sided.

Figure 7, overleaf, is a capital flow tracker, based on the change in the FX reserves (adjusted for the valuation effect of non-USD currencies) and the size of the quarterly current account balance (sign reversed). In 2015, the devaluation of the RMB sparked a large capital outflow from China, forcing the PBoC to spend almost \$1 trillion worth of FX reserves to defend the currency. The outflow finally ebbed in 2017 and in the first two quarters of 2018, China recorded its first net capital inflow since early 2014. Capital controls, such as serious limitations on outward direct investments and overseas non-strategic M&A, seem to have been relatively effective. However, renewed weakness of the RMB has turned the tide again with the capital outflow resuming in the second half of 2018. Granted, the outflow has been relatively modest so far.

² Zhang et al., "China's High Savings: Driver, Prospects, and Policies", IMF Working Paper 18/277, December 2018.

Figure 7: Estimated quarterly net capital flow

Billions USD



Source: Schroders, Thomson Reuters Datastream. Data as at Q4 2018. The change in FX reserves is adjusted for valuation of effects of non-USD currencies.

Since the full balance of payments data is released with a quarterly lag, the latest available capital account figures are as of Q3 2018. Figure 8 shows that the official (recorded) capital flow has been positive for seven straight quarters. The trend is less encouraging with the balance just above zero in Q3. What's more, the net errors and omissions account has remained firmly negative (Figure 9). That is why the capital flow tracker in Figure 7 showed only small capital inflow in the first half of 2018.

It seems that capital controls have been effective in clamping down on large institutional flows, but have not stopped households from shifting assets abroad. This correlates with suspicious tourism spending highlighted earlier. The net errors and omission balance worsened sharply in 2015, but interestingly, the account had already turned negative in 2009. This could mean that capital was seeping out years before the devaluation in 2015.

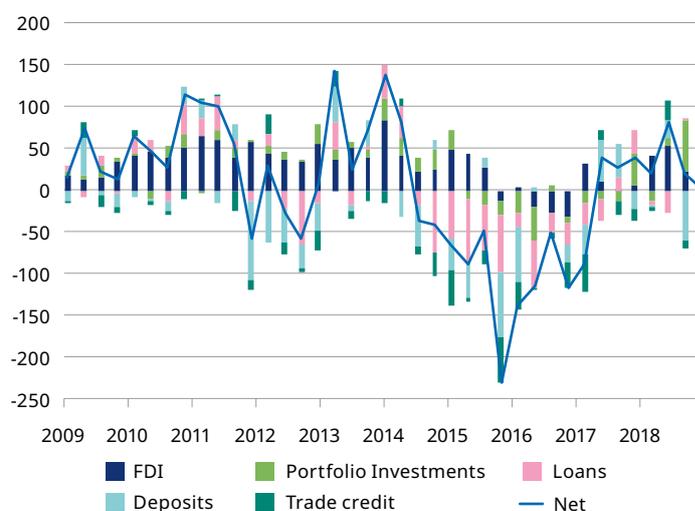
Foreign direct investment

Outward foreign direct investment (FDI) was an important contributor to capital outflow as it was used as a disguise to shift capital abroad. Since early 2017, the quarterly outward FDI has been around \$25bn, approximately three times less than at the peak of the outflow (Figure 10, overleaf). In a further improvement, inward FDI picked up in late 2017, returning to its pre-2015 level. However, the slowdown in China, alongside rising geopolitical tensions, has prompted foreigners to cut back on direct investments, illustrated by the sharp drop in the inward FDI in Q3 2018. This left the net FDI balance close to zero in Q3.

Looking ahead, the plans to fully open up various economic sectors to foreign investors could provide a tailwind for FDI. For example, in 2018 China announced that it would make it easier for foreign carmakers to set up factories in

Figure 8: Recorded net capital flow has been positive in the last seven last quarters...

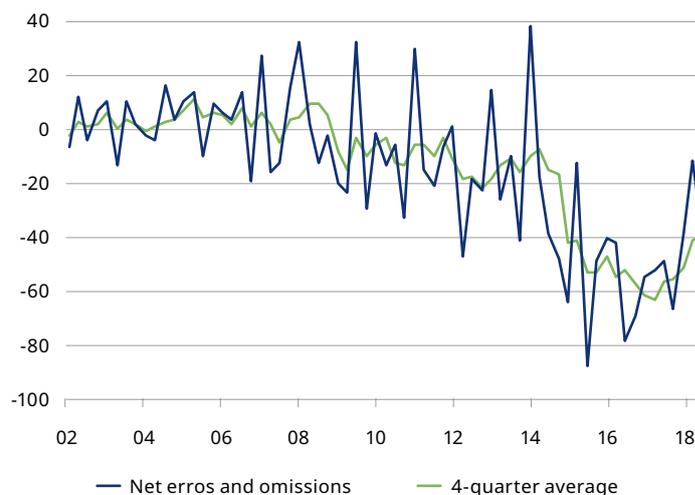
Billions USD



Source: Schroders, Thomson Reuters Datastream. Data as at Q3 2018

Figure 9: ...but a negative net errors and omissions account likely reflects unrecorded outflow

China net errors and omissions, billions USD



Source: Schroders, Thomson Reuters Datastream. Data as at Q3 2018

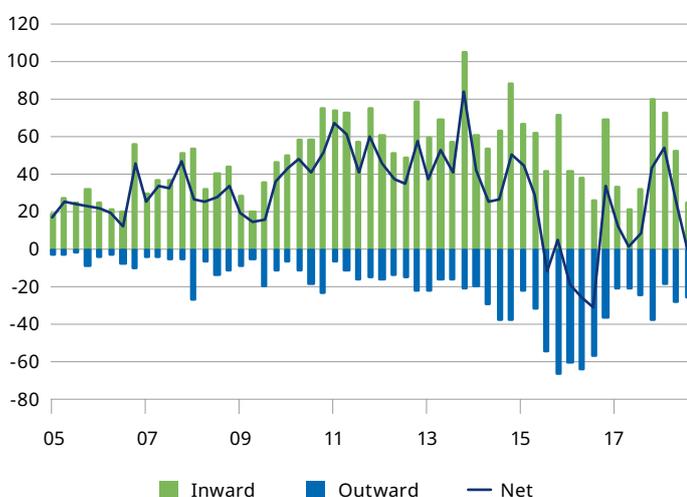
China. Previously, the rules forced carmakers to set up a joint venture with a local partner before building a factory. As direct investment is considered "sticky" money, it can be a safeguard against fluctuations in other, more volatile components of the capital account. Moreover, a sizeable FDI surplus can be viewed as a vote of confidence for the country and the currency. However, we should sound a note of caution over promises to open up; they have been made, and broken, before. As an example, China agreed to open up its market to foreign payment providers in 2014, but as of today, Visa and Mastercard are still awaiting access.

Portfolio investment

Historically, portfolio investment has played only a minor role in China's balance of payments, reflecting the desire to keep close tabs on speculative capital flows. This is now changing rapidly. After a small but persistent net inflow, the portfolio investment balance turned sharply negative in 2015 (Figure 11, left chart). Since the middle of 2017, it has staged a remarkable turnaround, as foreign portfolio inflow has skyrocketed, amounting to \$247 billion over the last five quarters. The domestic portfolio outflow has recently abated as well.

Figure 10: Outward FDI is stable while inward FDI has fallen

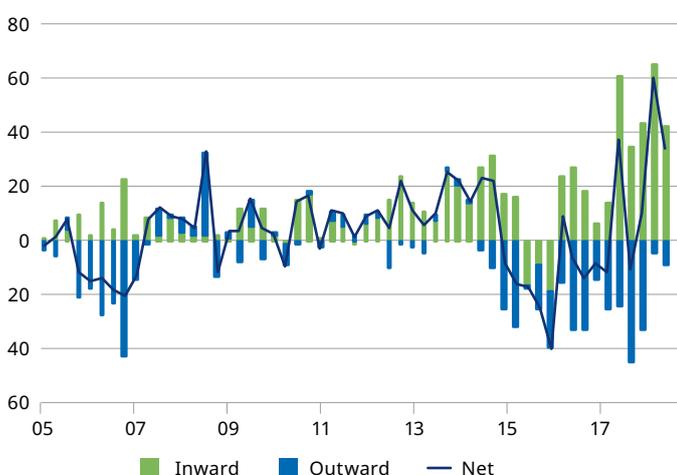
China FDI, billions USD



Source: Schroders, Thomson Reuters Datastream. Data as at Q3 2018

Figure 11: Record foreign portfolio inflow in 2018

China portfolio investment, billions USD



Source: Schroders, Thomson Reuters Datastream. Data as at Q3 2018

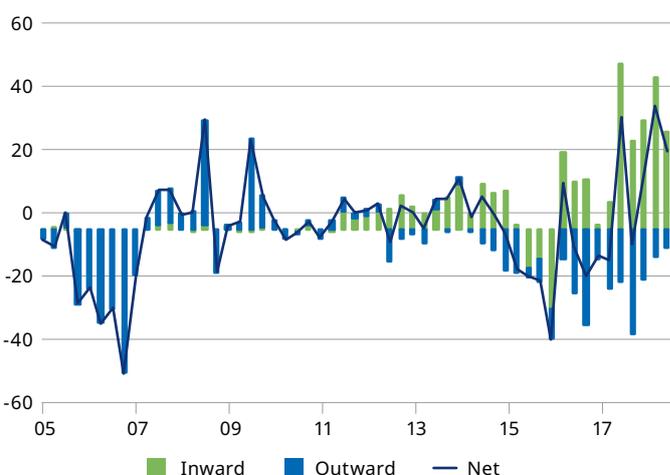
The largest contributor to foreign portfolio inflow has been inward bond investment (Figure 11, right chart), which has been buoyed by the introduction of a new bond trading platform in 2017. Bond Connect, as it is called, allows qualified overseas investors to purchase onshore Chinese bonds through Hong Kong. Importantly, there are no fixed quotas and no need for investors to identify the investment amount. Record inward bond investment indicates that institutional investors have been eager to use this new channel.

Foreign investors' appetite for Chinese bonds is part of a bigger shift. Despite being the world's second-largest economy, China has been largely absent in global financial market indices. In the last few years, China has been decisively opening up its capital markets to foreigners. To mark the progress, Chinese bonds and (onshore) equities are expected to be included in global benchmark indices over the next few years. The passive inflows from index inclusion alone could amount to \$435 billion in bonds and \$161 billion in equities between 2019 and 2025 (see the Appendix for details). Any active inflows would further add to that.

Other investment

Regardless of the emergence of portfolio investment flows, other investment remains a key driver of China's capital account. The three main components of other investment are FX loans, deposits and trade credit. On the liabilities' side, they constitute immediate foreign obligation (Figure 12, overleaf). Repayment of the FX loans between 2014 and 2016 was the single largest contributor to capital outflow. The outstanding FX loan balance fell from \$677 billion to \$284 billion. After bottoming at \$864 billion in 2016, the immediate foreign obligation has risen back to \$1.2 trillion. The increase has come mainly via non-resident RMB deposit holdings, but the outstanding FX loan balance has nudged higher as well.

China portfolio investment: debt securities, billions USD



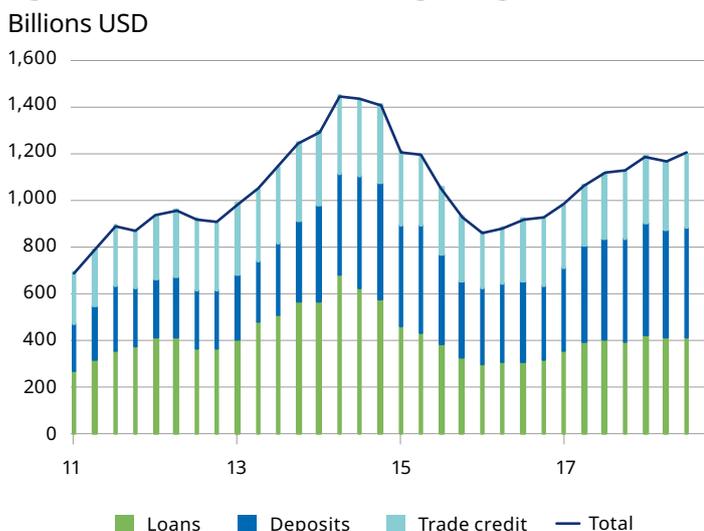
Other investment flows are often quite fickle and sensitive to interest rate and currency movements. Small changes in expectations can lead to large swings in either direction. A slowing economy, rising US dollar interest rates and renewed weakness in the RMB expose external borrowers to rollover risk. The borrowers could find themselves unable to extend the loans. Although the stock of liabilities is smaller than in 2015, external deleveraging could become a significant drag on the capital account.

The weak points remain

In sum, the resumption of capital outflow in the second half of 2018 indicates that the pressure on the RMB is still acute. The large errors and omissions element is driving the outflow, suggesting ongoing evasion of capital controls. Chinese authorities have taken pre-emptive steps that could help to fund a possible current account deficit and keep the RMB stable. Capital inflows resulting from the relaxation of foreign investment rules could bring in hundreds of billions of dollars, illustrated by the recent increase in inward bond investment. However, foreign investment flows are also, to some extent, dependent on the economic sentiment. By allowing more foreign participation in the local market, the authorities' ability to control currency movements will reduce.

In the near term, the PBoC is likely more worried about the behaviour of residents. The persistently negative net errors and omissions account raises questions over the true efficacy of capital controls. While the more obvious institutional channels of outflow can be closed, it is very hard to eliminate all of the possible loopholes. Recent evidence, for example the suspicious rise in the imports from Hong Kong (Figure 13), shows that the illicit capital outflow is picking up again. In addition, the sizable external liabilities balance looms over the capital account, providing potential fuel for the outflow.

Figure 12: China's immediate foreign obligation (liabilities)



Source: Schroders, Thomson Reuters Datastream. Data as at Q3 2018

The PBoC has limited options to deal with RMB depreciation

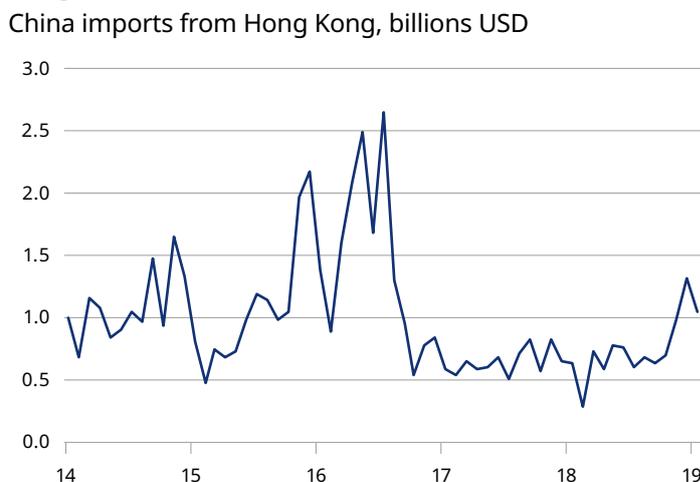
What does all this mean for the RMB? Since July 2018, the PBoC has taken multiple steps to support the currency. It reintroduced the counter-cyclical adjustment factor, used in guiding the daily RMB fix, and imposed a 20% reserve requirement for forward transactions. This, coupled with some progress in the US-China trade negotiations, has led to small rebound in the RMB. Should the capital outflow accelerate, the pressure on the RMB could intensify.

Importantly, any effort by the PBoC to defend the RMB would be constrained by the impossible trinity, which states that a country cannot simultaneously have free movement of capital, a fixed exchange rate and independent monetary policy. Instead, it must choose two objectives out of three. Given that, if the depreciation becomes too fast, the PBoC could:

- Use FX reserves to defend the currency
- Impose strict capital controls
- Hike interest rates to make holding the RMB more attractive
- Let the RMB float

China's FX reserves currently stand just above \$3 trillion. Although it might seem that substantial FX reserves could allow China to avoid the impossible trinity, it is likely not the case. According to the IMF's reserve adequacy framework, the reserves are not large enough to defend the RMB without capital controls. The main reason is that the domestic money supply at \$27 trillion is very large relative to reserves. With capital controls, the reserves would be more adequate. However, the issue with capital controls is twofold. First, it is extremely difficult, if not impossible to close all the channels of outflow. Second, very strict capital controls, including restrictions on foreign investors, would eliminate the possibility of the RMB attaining a reserve currency status.

Figure 13: Suspicious increase in imports from Hong Kong in late 2018



Source: Schroders, Thomson Reuters Datastream. Data as at January 2019

While hiking interest rates is an orthodox response to currency weakness, it might not be a feasible option. China's banking system has become increasingly dependent on non-retail deposit sources of funding. For the most part, banks have turned to other banks and financial institutions. To keep liquidity ample and support the economy, the PBoC has cut banks' reserve requirement ratio (RRR) by 650bps since 2014 and utilised various other monetary policy instruments. The latest round of policy easing since April 2018 has led to a sharp fall in interbank lending rates, especially at longer maturities (Figure 14, left chart).

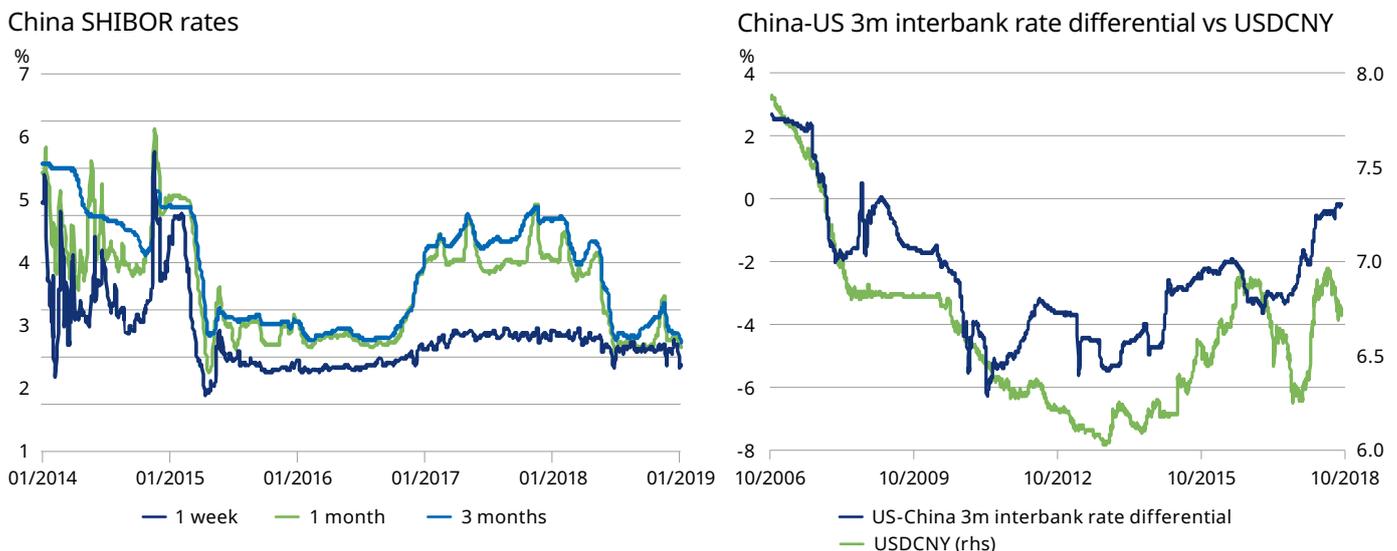
The right-hand chart of Figure 14 shows the three-month interbank rate differential between the US and China on the left-hand scale and the USDCNY exchange rate on the right-hand scale. Historically, there has been a strong correlation between the two. Thus it is not surprising that four rate hikes by the Federal Reserve (the Fed) and easing

by the PBoC led to RMB weakness in 2018. The differential is now in the cusp of turning positive for the first time since 2007. A further rise in US interest rates would put the PBoC in a complicated position. As we have written elsewhere, Chinese growth is much weaker than official GDP data would suggest³. The PBoC might not feel confident enough to follow the Fed, let alone hike more to defend the RMB.

This leaves the last option. If reserve sales and capital controls are not sufficient and interest rate hikes are out of question, the PBoC might be forced to give in to the impossible trinity and let the RMB float. Such a move would allow the currency to find the equilibrium level. Unfortunately for investors, it is impossible to tell beforehand where the equilibrium is, and the voyage of discovery would be a painful one for China. Again, at a time of weaker growth it is not something that can be undertaken lightly.

³ [Click here for link](#)

Figure 14: Strong correlation between US/China interbank rate differential and the RMB



Source: Schroders, Thomson Reuters Datastream. Data as at 20 February 2019

Conclusion

China's vanishing current account surplus indicates a major fundamental change - the large pool of domestic savings is now close to fully utilised in financing the high level of investments. The shift to a lower surplus is mainly facilitated by the weakness in manufactured goods exports and the increase in outbound tourism. While the cooling economy and lower oil price could slow the deterioration, structural drivers, such as an ageing population and rising wages, should continue to push the current account lower.

The potential current account deficit is negative for the RMB and the funding of that deficit is key for how negative it will prove. By finally opening up its financial markets to foreign investors, China has started to attract substantial institutional inflows. Higher foreign participation could be necessary a step in the RMB's internationalisation process and the inflows could finance at least a part of the potential current account deficit.

Worryingly, the weakness in the RMB resurrected domestic capital outflow in the latter half of 2018. The persistently negative errors and omissions account shows that Chinese residents continue to find ways to evade the capital controls. Looking ahead, China faces a tough choice between stabilising the currency and supporting the economy. Sizeable FX reserves can provide some relief, but are likely not large enough to act as an ultimate backstop. Given the lack of alternatives, the PBoC might be forced to let the RMB float if the pressure on the currency becomes too great.

Appendix

Potential passive inflow from index inclusion

Major indices	Passive AUM tracking (US\$bn)*	Estimated weight (upon full inclusion)	Estimated passive inflow (US\$bn)	Instrument	Note
Equity indices					
FTSE Russell EM All Cap Index Series (GEIS)	300	22%	66	China A-share	Quarterly rebalance, starting from June 2019. By 2020, China A-share % will be 5.6% of GEIS. By 2025, the weight will grow to 22%.
MSCI Emerging Market (MSCI EM)	500	19%	95	China A-share	Quarterly rebalance, starting from May 2018. By 2020, China A-share % will be 4.5% of MSCI EM. By 2025, the weight will grow to 19%.
Bond indices					
JP Morgan Government Bond Index EM (GBI-EM)	250	10% (capped)	25	CGB	Expected to announced in 2019
Bloomberg-Barclays Global Aggregate (Global Aggregate)	2500	5.49%	137	CGB and policy bank bonds	Announced to implement in April 2019. It takes a 20-mth period to complete, with 0.3% increment each month.
Citi World Government Bond Index (WGBI)	2000	5.70%	114	CGB	Expected to announced in late 2019 or 2020

Source: Index providers, Citi Research, Standard Chartered, Schroders estimation, as of November 2018.

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