



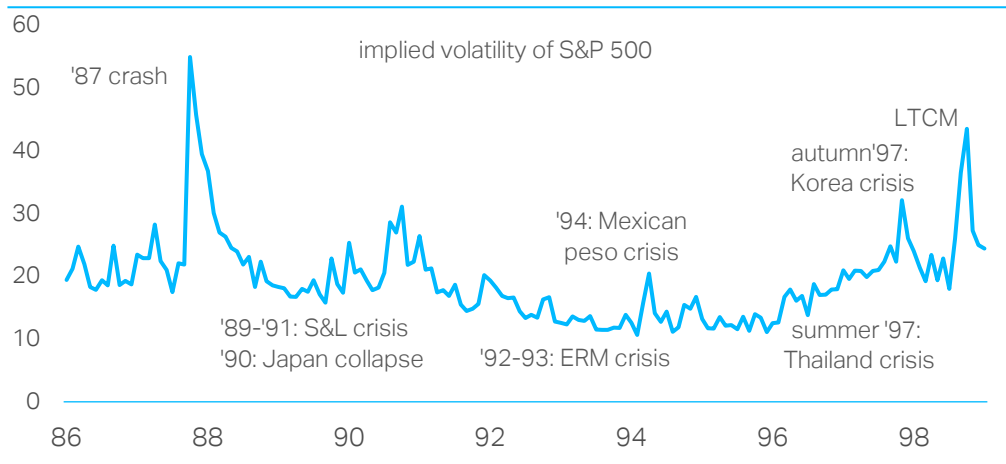
Macro Picture

USD-OMINOES

Dario Perkins

US monetary tightening is widening global risk premiums, affecting a wide range of asset prices – tech stocks, EM borrowing costs and even European periphery bonds. The US dollar has also strengthened recently, a move which – if it went further – could have important implications for global financial markets.

Chart 1: Fed tightening can get messy



Source: Bloomberg, TS Lombard

RISK RETURNS

Global risk premiums are widening in 2018, reflecting US monetary tightening and a murkier macroeconomic environment. This turbulence has now spread to currency markets, where renewed dollar strength is causing problems for a number of emerging economies. There are obvious parallels with past Fed tightening cycles.

DOLLAR DAMAGE

With the news flow shifting in favour of continued dollar strength, the US currency is rapidly becoming a source of risk for the dollarized global economy. USD strength damages world trade and tightens financial conditions, in the extreme causing periods of market panic and 'risk off'. EMs with large dollar debts are most vulnerable.

COORDINATION FAILURE

There is a co-ordination failure at the heart of the Dollar Standard. The Federal Reserve will not adjust its interest rate path until it sees its policies having a material impact on the US economy. As past experience shows – the mid/late 1990s and more recently 2015 – by then it is often too late for some of the more vulnerable parts of the world.

USD-OMINOES

The mood music has totally changed. Things that investors ignored in 2017 – Trump’s trade policies, richly valued tech stocks producing no actual earnings, Italy being Italy – have suddenly started to matter in 2018. This partly reflects the [murkier global macroeconomic outlook](#), but it is hard to ignore the impact of monetary tightening. Whenever the Federal Reserve raises interest rates significantly, things start to go wrong in the rest of the world, particularly when said tightening follows a long period of stimulus. Investors suddenly want more compensation for holding risk and the repercussions of this shift are being felt as widely as Argentina, Turkey and even Italy. Equities are struggling, credit spreads have widened and now an increasing number of EMs are under pressure. While we should not exaggerate the scale of these moves to date, the recent appreciation in the US dollar adds a new and potentially more damaging element.

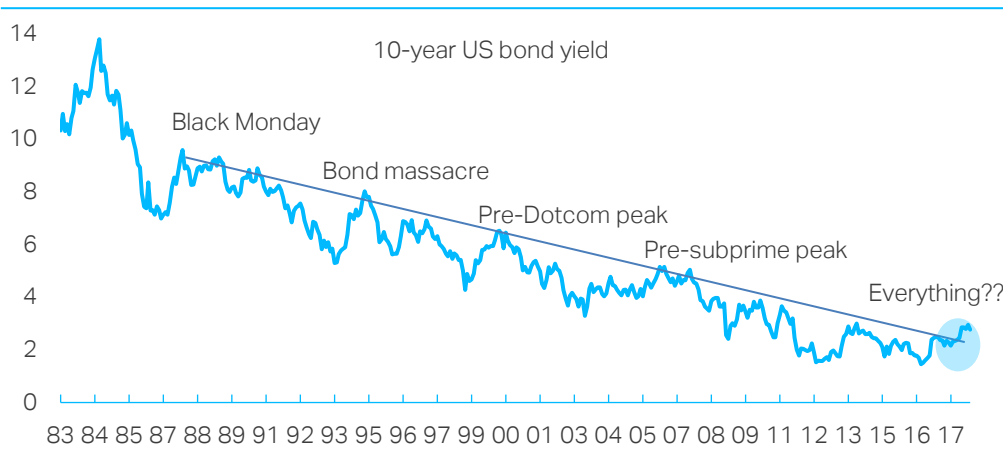
The global economy doesn’t seem to cope well with an appreciating dollar. Recent research has shown that the trade-weighted US currency is now an important barometer of risk appetite and lending capacity in an increasingly dollarized world. There is now considerable evidence that a rising dollar is bad news for financial markets, affecting the global economy in at least three ways: (i) it reduces world trade volumes since most countries (excluding the euro area) invoice in USD; (ii) it discourages risk taking and hurts sentiment, since the balance sheets of dollar borrowers deteriorate and international banks are less willing/able to provide cross-border lending, and (iii) it disrupts global value chains. Some emerging economies are particularly exposed, having funded themselves with large amounts of dollar-denominated debt since 2008. While we do not expect a crisis of 1998 proportions – most EMs now have floating exchange rates and better defences – [additional market turbulence and contagion](#) are likely.

The critical question is how much further the dollar will appreciate. We thought the end of ECB QE would propel the euro exchange rate higher, which would have taken some of the pressure off the US currency. But with European politics getting messy again and macro data outside the United States missing market expectations by a wide margin, it would be brave to bet against further gains in the US currency. This could be bad news for markets, particularly as we know the Federal Reserve typically has a high tolerance for exchange rate swings. In fact, American officials usually downplay the wider impact of their policies, missing powerful spillovers (both ways) between the US and the rest of the world. This coordination failure, which is at the heart of the post-1971 Dollar Standard, means the Federal Reserve will only alter its plans once they have a tangible impact on domestic conditions. By then, it could be too late for the more vulnerable parts of the world.

1. RISK RETURNS

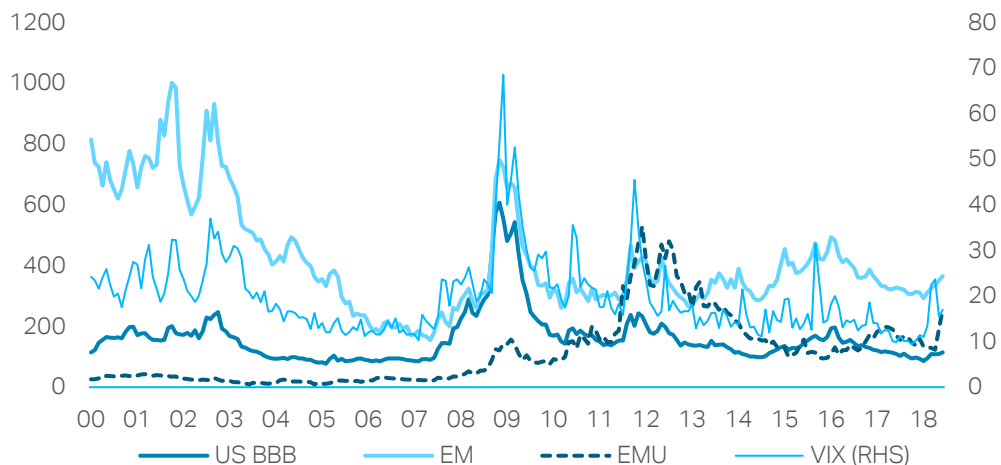
Meltup seems a long time ago. The euphoria of the start of the year has been replaced by growing investor apprehension and a sudden rebuilding of risk premiums across a wide range of asset markets. What started as a surge in the VIX and the unwinding of various low-volatility trading strategies, is now becoming more widespread. Corporate spreads have widened, tech companies with speculative long-term returns have struggled (see [Elon Musk's Twitter breakdown](#)) and a number of emerging economies are under sustained pressure. Euro-area periphery bonds have also plunged recently, with Italy's latest political fiasco reigniting fears about EMU breakdown.

Chart 2: It's happening again?



Source: Bloomberg, TS Lombard

Chart 3: Contagion starts

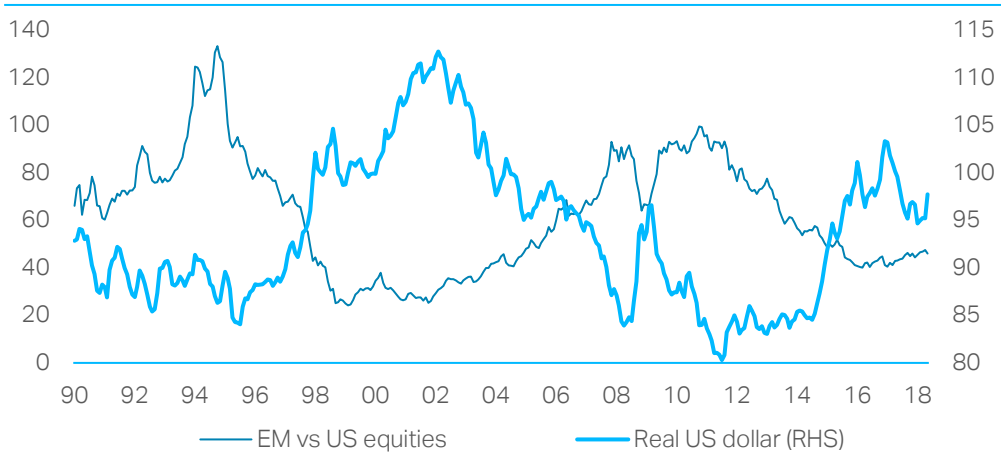


Source: Bloomberg

What explains this change in the mood? The global macroeconomic outlook has become more challenging, with [scattered signs of a slowdown in the global economy](#) amid continued anxiety about inflation. The recent spike in oil prices isn't helping. Geopolitical risks have also increased, with rising international trade tensions and renewed scepticism about the survival of the euro. But looking at the long and lengthening list of countries now under pressure – Argentina, Turkey, Indonesia, Italy, Brazil – it's hard to avoid a common link. Monetary tightening, particular by the Federal Reserve, is an obvious starting point. Whenever the Americans tighten monetary policy, particularly after long periods of stimulus, the impact on wider market sentiment and risk premiums can be profound. After

all, the return on US Treasuries is the closest thing the world has to a risk-free interest rate. And the Federal Reserve is the closest thing we have to the 'world's central bank'.

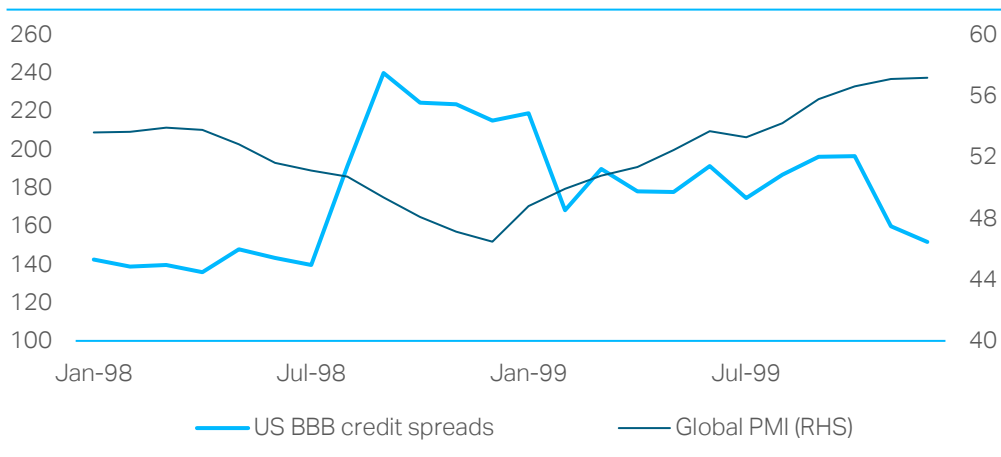
Chart 4: Rising USD hurts EMs



Source: Federal Reserve, Bloomberg, TS Lombard

Consider what happened in the 1990s. In 1994, the Federal Reserve surprised markets by raising interest rates earlier and faster than investors expected. Bond yields surged and markets suddenly became extremely volatile. As the Fed continued to raise interest rates through the mid-1990s, a number of emerging economies – particularly those that had been borrowing heavily in US dollars – suffered serious financial crises. The situation became particularly acute in 1998, when much of Asia crashed, Russia defaulted on its foreign debt and the US hedge fund LTCM collapsed, triggering fears of violent contagion and a global recession. US corporate spreads surged and indicators of economic sentiment plunged, including the newly created global PMI survey (Chart 5). There are some commentators, including Paul Krugman, who are worried about something similar happening in the near future. The continued appreciation of the US dollar isn't helping.

Chart 5: 1998 global growth scare



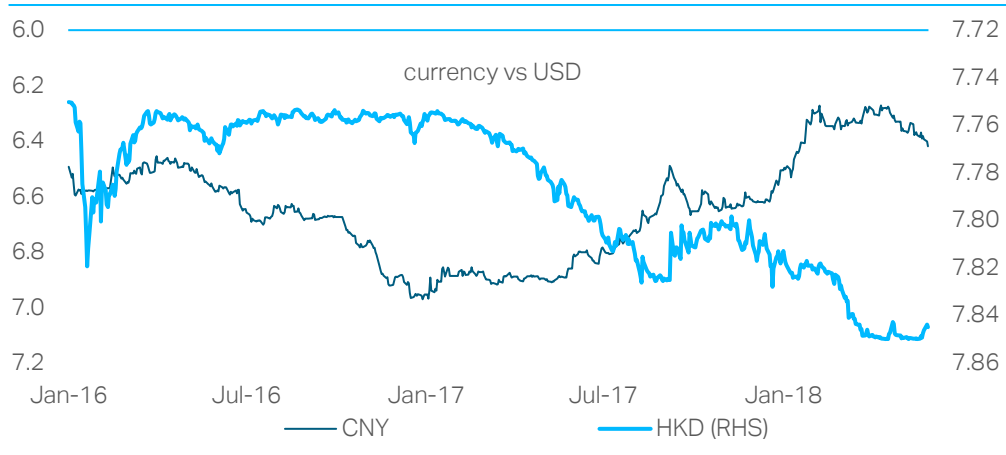
Source: Bloomberg, Markit, TS Lombard

Canary in Hong Kong

The first signs of stress appeared in Hong Kong, with the HKD slipping to the bottom of its currency peg for the first time since 1983. The conspiracy theorists were out quickly to declare the imminent death of the currency regime or worse that [Hong Kong's banks were covering up a much larger USD liquidity problem in China](#) (notice the divergence between

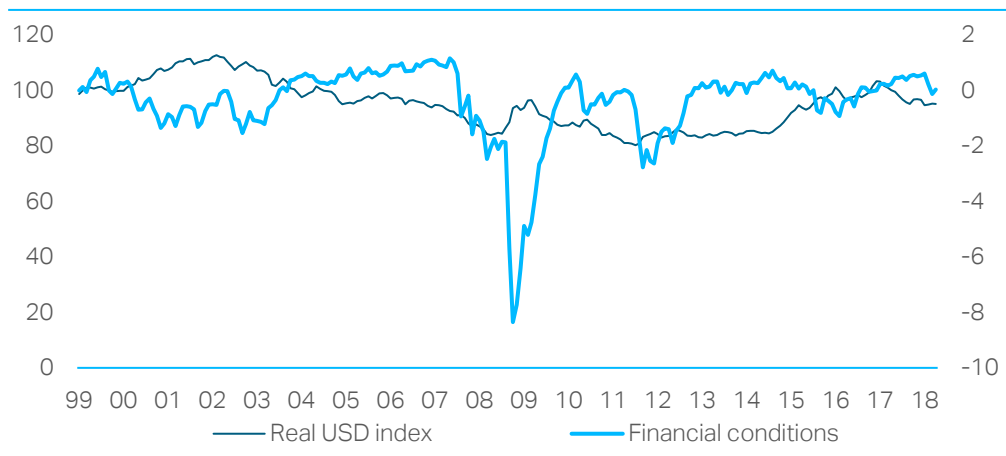
the HKD and the RMB, Chart 6). As it turned out, much of this analysis was unnecessarily alarmist – investors were [arbitraging the wide divergence between LIBOR and HIBOR](#). Yet by maintaining a currency peg and importing extremely loose US monetary policy into an economy with overheating property and credit markets, Hong Kong was also an extreme version of a wider problem in the global economy. And with the Federal Reserve tightening policy, it wasn't long before other parts of the world came under pressure.

Chart 6: Hong Kong currency pressures



Source: Bloomberg

Chart 7 : Strong dollar tightens financial conditions



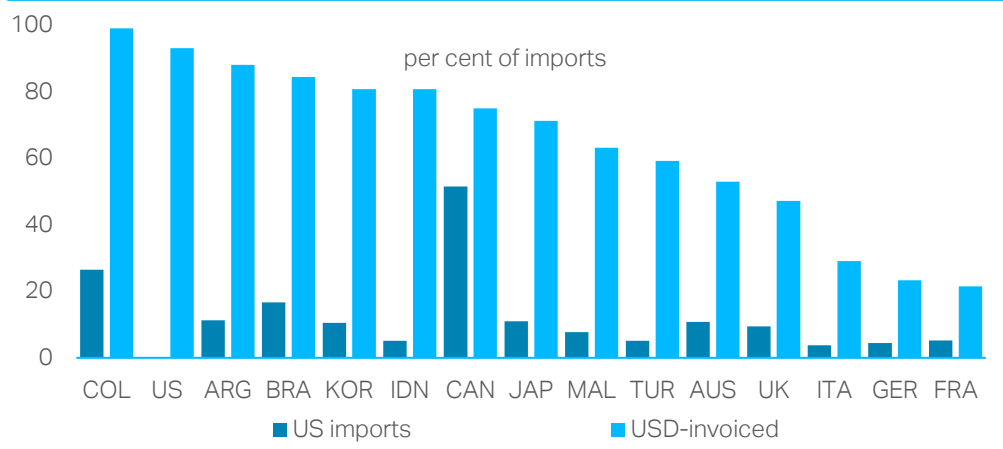
Source: TS Lombard

2. DOLLAR DAMAGE

As the world's major reserve currency, the US dollar obviously has a special role in the global economy – which makes the Federal Reserve the world's most influential central bank. Yet economic researchers have only recently begun to understand just how important swings in America's currency can be for the wider global financial system. Crucially, much of this analysis contradicts what economists usually think about exchange rates, especially the traditional 'currency war' narrative. Far from a stronger US dollar boosting export competitiveness in the rest of the world, lifting non-US demand, there is clear evidence that an appreciation in the US currency is highly destructive, both for the

US and elsewhere. Conversely, long periods of dollar weakness – as in the aftermath of subprime – provide global stimulus, even in countries that don't need it.

Chart 8: USD invoicing

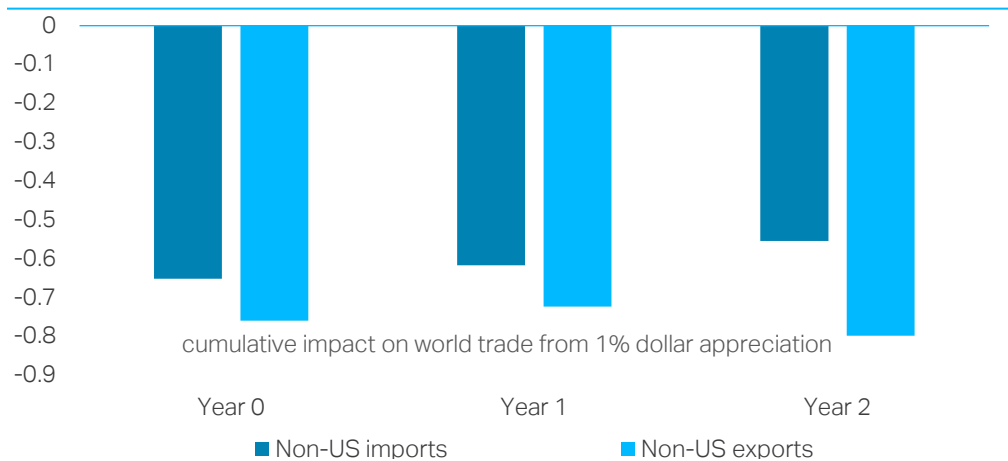


Source: Gopinath and Stein (2017), TS Lombard

The impact of the USD works through three main channels:

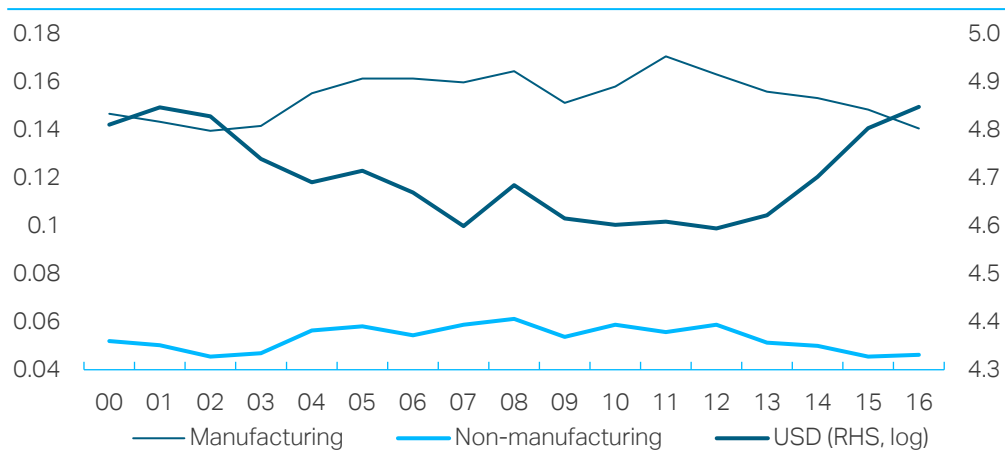
1. **Dollar invoicing:** Economists traditionally assumed, when currencies move, exporters would keep their domestic prices unchanged and allow their export prices to swing. Their goods become cheaper or more expensive overseas and consumers responds accordingly (the Mundell-Fleming model). But the latest research suggests this is not the case. Most international trade takes place in just a handful of ('dominant') currencies, particularly the US dollar. This gives America's exchange rate a special role in world trade. For example, [Boz et al](#) find that a 1% appreciation in the USD reduces trade volumes between countries in the rest of the world by around 0.6-0.8% within one year. So dollar strength is likely to depress world trade. The main exception is the euro area, where most invoicing is done in euros (Chart 8).
2. **Risk taking:** The dollar is an increasingly important funding currency, with USD-denominated debt surging since the global financial crisis. Avdiiev, Bruno, Koch and Shin find that dollar weakness is strongly associated with rising cross-border bank lending and higher real investment rates, particularly among the emerging economies. An appreciation in the dollar hurts borrowers' balance sheets, reducing both the global demand and supply of dollar credit. They show that these effects can more than offset the traditional negative impact that comes from any improvement in net trade (i.e. a depreciation in the domestic currency versus the dollar).
3. **Global value chains:** Related to the risk taking channel, dollar strength has a powerful impact on global value chains. Consider an auto manufacturer that makes engines in Japan, ships them to Canada (where the cars undergo further assembly), before sending the cars to be finished in Mexico. This process involves large inventories of engines, semi-finished autos and finished autos. These are assets which the company needs to finance and the longer the value chain the greater the financing needs. With global value chains expanding rapidly over the past two decades, the dollar has become even more important as an international funding currency, strengthening the link between swings in the US exchange rate and global activity.

Chart 9: Dollar appreciation hurts global trade



Source: [Boz, Gopinath and Moller \(2017\)](#)

Chart 10: Global inventories and the USD

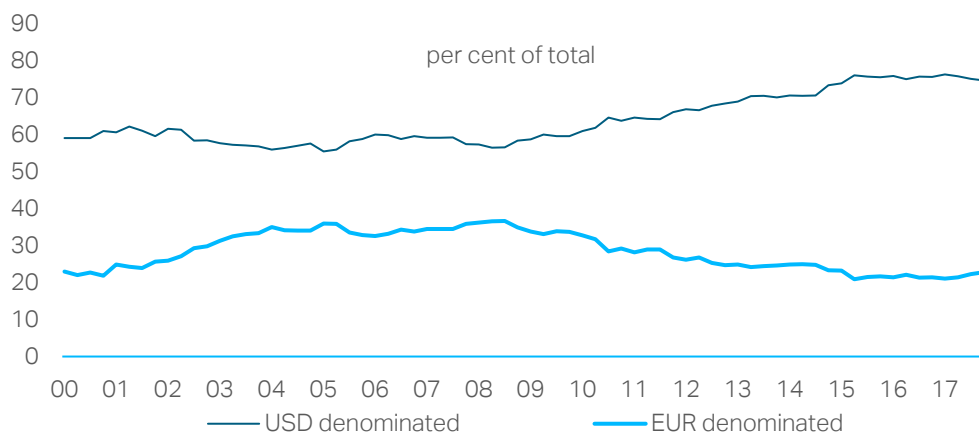


Source: [Bruno, Kim and Shin \(2018\)](#)

The Dollar Standard

These three effects interact, producing the modern dollarized system. Because countries invoice their trade in dollars, they also need to borrow in the same currency. In fact, the extra demand for safe dollar assets depresses dollar interest rates, making the USD a cheaper funding currency. So America's dominance in trade and finance is naturally connected, a system that dates back to 1944 and the post-war decision to put the dollar at the centre of international trade and commerce. This was originally the Bretton Woods system, which included fixed exchange rates and full convertibility into gold. But as the world's demand for dollars ballooned, producing a rapidly expanding offshore 'Eurodollar system', the original arrangements became unsustainable. President Nixon suspended gold convertibility in 1971, giving way to the modern Dollar Standard.

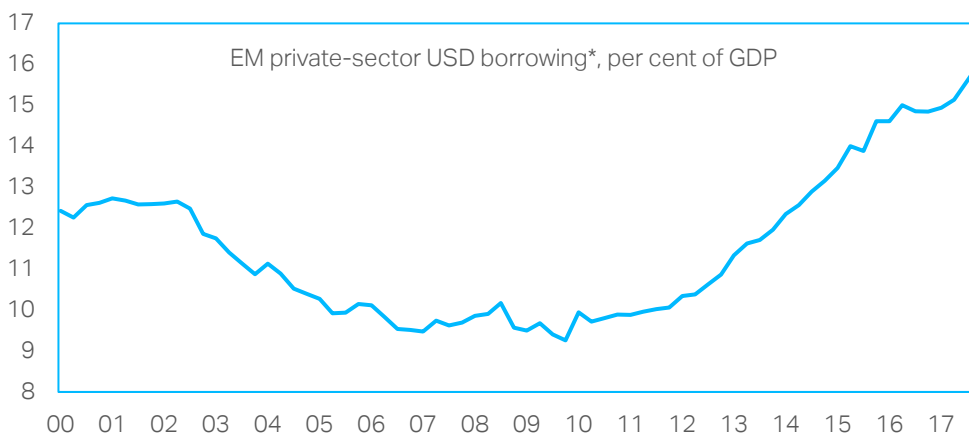
Chart 11: USD diominates cross-border lending



Source: BIS, TS Lombard

There are some people who believe the Dollar Standard is inherently unstable, pointing to the rapid rise in global leverage and a long sequence of boom-bust financial cycles. Every time the US authorities loosen monetary policy in order to deal with the economic fallout from one bubble, they create new problems elsewhere. The sequence is clear: Stock market crash (1987) - Savings and Loans crisis (early 1990s) – EM crash (1994-97) – LTCM (1998) – Dotcom (2000) – Subprime (2008). So what comes next? Some commentators believe these distortions have continued over the past decade thanks to the Federal Reserve’s efforts to revive the economy after 2008. Not only has the dollar’s role in global finance continued to grow in aggregate (Chart 11), but some emerging economies have also been heavy borrowers of dollar-denominated debt.

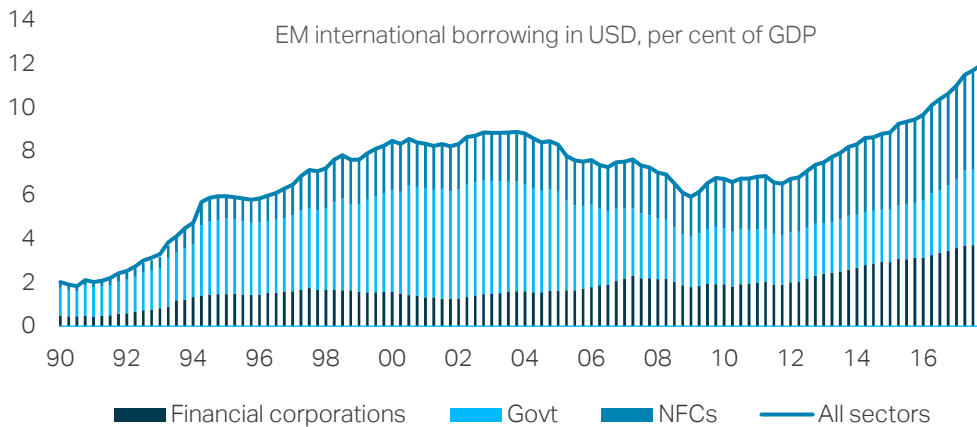
Chart 12: Offshore USD credit to EMs



Source: BIS, TS Lombard, *includes banks’ international borrowing

Chart 12 shows total EM dollar borrowing has increased sharply since 2009, an obvious parallel with the situation in the early 1990s. Yet, this time it has been EM private companies, not governments, which have been increasing their leverage (Chart 13). It is easy to see why a rising US currency causes problems. As the dollar rises, the value of their liabilities increases relative to their assets, leading to a deterioration in their net worth. International banks become less willing to lend. Obviously, some countries are much more vulnerable than others. Chart 14 breaks down the EM aggregate by nationality and finds that Argentina, Turkey, Chile and Mexico are most exposed. China, in contrast, still has relatively low levels of dollar-denominated debt and isn’t a big part of the story.

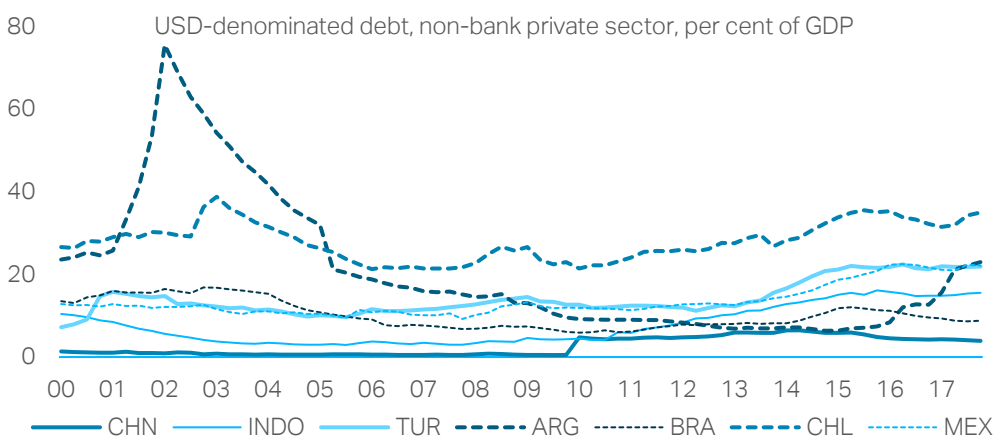
Chart 13: EM dollar borrowing by sector



Source: BIS, TS Lombard

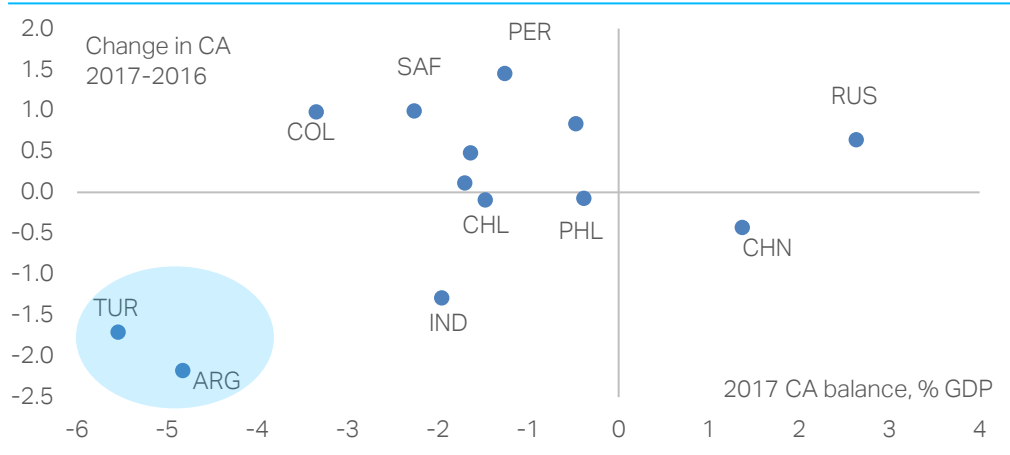
So is another EM crisis now inevitable? Clearly some countries face a difficult environment, particularly those with large and increasing current account deficits – these countries are the obvious targets for market vigilantes. But we should also remember that most EMs survived a much larger appreciation in the US dollar in 2015 without a 1990s style collapse. Flexible exchange rates acted as an important shock absorber, while most countries have also built up significant defences. Chart 16 shows FX reserves are now much higher relative to short-term debt, except in those countries that are already under pressure. But ultimately, of course, how bad things get for the emerging economies could depend on how much further the Federal Reserve raises interest rates and what this means for the value of the dollar.

Chart 14: USD offshore debt by borrower



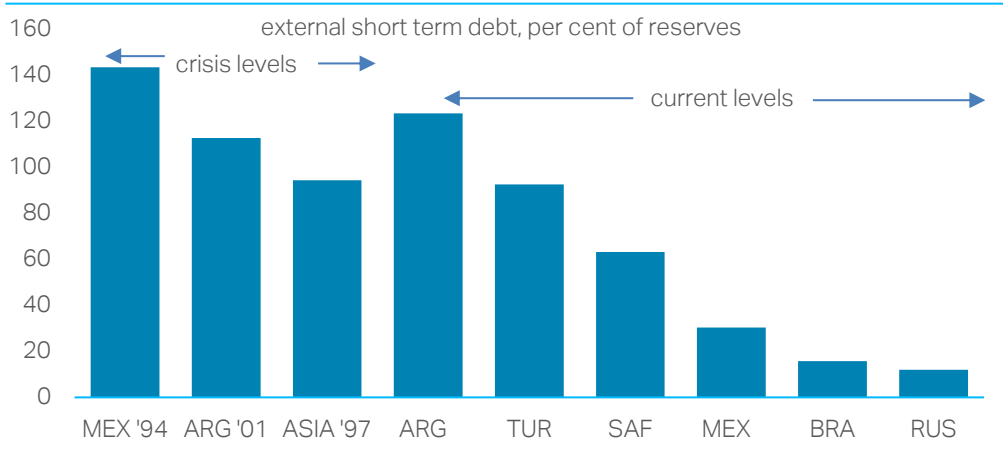
Source: BIS, IMF, TS Lombard

Chart 15 : EM current-account positions



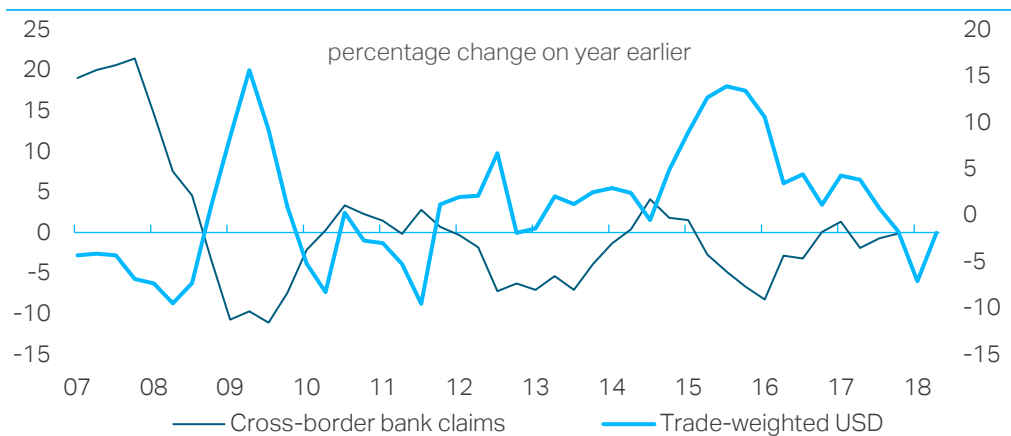
Source: IMF, TS Lombard

Chart 16: Most EMs less vulnerable than in the 1990s



Source: World Bank, TS Lombard

Chart 17: cross-border bank lending

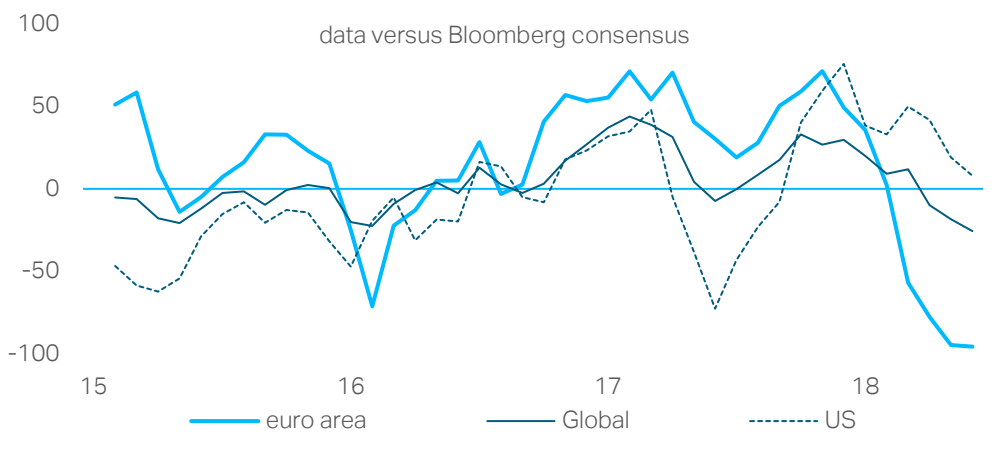


Source: BIS, Federal Reserve, TS Lombard

3. COORDINATION PROBLEM

We didn't expect the recent surge in the dollar. Our focus was on the euro, which the ECB has kept undervalued with its QE programme. Approaching the end of the scheme, we thought the euro would appreciate significantly, which would have taken some of the heat out of the dollar. This view worked well up until a few weeks ago, with the US currency depreciating even as President Trump passed his sizeable fiscal stimulus amid widespread talk of 'twin deficits'. But thanks to rising European political risk and weaker than expected macroeconomic data outside the United States, the currency arithmetic has shifted decidedly the other way. The strong USD may be the path of least resistance.

Chart 18: Macro data surprises

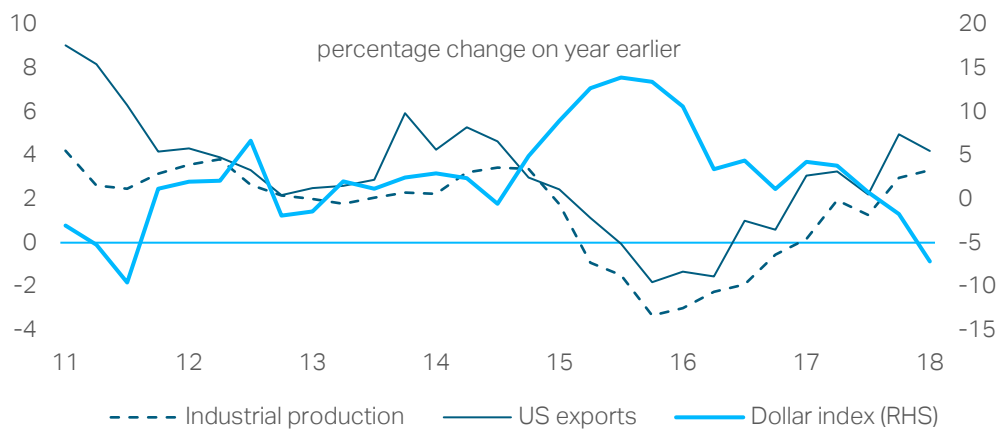


Source: Bloomberg

Perhaps the big worry for international investors is that US officials have a dangerously high tolerance for dollar strength. Viewing the United States as a 'closed economy' doesn't help because it means they ignore large and important spillovers (in both directions) between the US and the rest of the world. This is exactly what happened in 2014-15 when the Federal Reserve signaled its intention to raise interest rates despite global deflationary pressures and aggressive stimulus elsewhere. The natural result was a powerful surge in the exchange rate, an EM slowdown, 'risk off' for global markets, declining capex and a recession in US manufacturing. But it was only after this pain was felt domestically that the Federal Reserve altered its policy plans.

This is the coordination failure at the heart of the dollar standard. The world has a currency that is effectively global but it doesn't have a global central bank. As its mandate requires, the Federal Reserve will only ever act according to domestic self-interest. But its actions will continue to have much wider consequences for the global economy, with the dollar exchange rate the obvious transmission mechanism. For almost a decade after the global financial crisis, many countries enjoyed the benefits of American policy neglect, borrowing cheaply in dollars. Now they are starting to feel the nastier side of this system.

Chart 19 : The last time the Fed ignored the USD



Source: National sources, Federal Reserve

Bottom line

The complacency of 2017 is gone and investors everywhere are now obsessed with risk. This is partly because some notable threats have got worse – looming international trade wars and messier European politics – but it is also because investors no longer feel they can rely on central banks to put a floor under asset prices. The Federal Reserve is tightening policy and this is causing global risk premiums to blow out, continuing an old tradition. Further dollar appreciation would be dangerous because it amplifies this process, damaging global trade, international lending capacity and risk sentiment. Those countries that have been big dollar borrowers would obviously suffer most.

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