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Beware of the Q Trap

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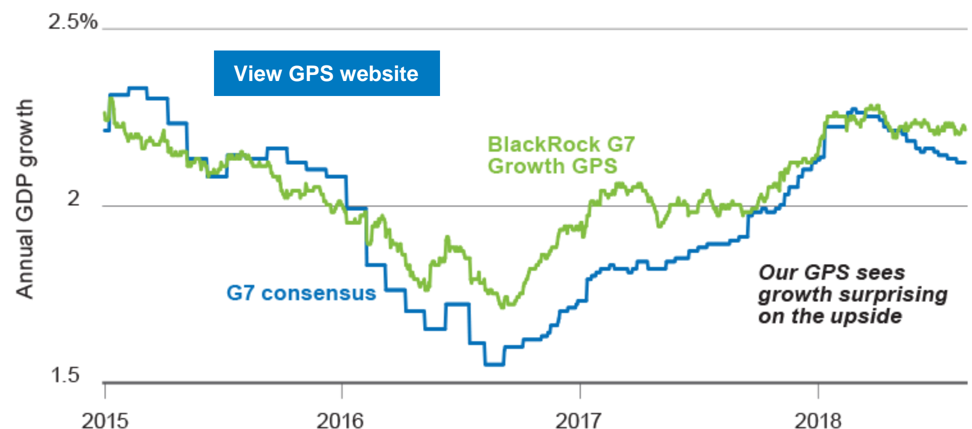
Renewed volatility in risk assets has contrasted with a bright growth outlook: The BlackRock Growth GPS suggests potential upside surprises to the consensus. Some market participants believe trouble spots such as Turkey are due to quantitative tightening (QT) – G3 central banks shrinking their balance sheets, either actual (Federal Reserve) or expected. This view holds that earlier quantitative easing (QE) inflated asset values and artificially compressed market volatility. In a mirror image, QT's drain of liquidity from the financial system should put pressure on risk assets. The narrative seems intuitive, yet we believe the reality is more complicated and warn against the Q Trap – becoming trapped into thinking it's about QE going into reverse. Highlights:

- We don't see QT as QE in reverse. QE was the only game in town when interest rates hit zero and crisis-hit balance sheets in the private sector retrenched. Global financial conditions were under severe strain in 2008-2009. That's no longer the case. Private sector credit growth is solid. "Liquidity" on this measure is not contracting. The Fed's well-telegraphed and steady policy normalisation has also limited QT's impact – as would our expectation for the Fed to stop shrinking its balance sheet next year.
- QE's influence on risk assets may not have been as large as many assume: Risk assets have not enjoyed a non-stop ride higher, with emerging markets (EM) in particular suffering periodic hits. We believe QE's success worked both via the portfolio rebalancing channel and by signalling a commitment to low rates for longer. Together they put extra downward pressure on interest rates and helped revive risk appetite. And QE was just one factor behind low rates: Global savings seeking the perceived safety of G3 bonds have also squeezed the term premium, in our view.
- Financial conditions have tightened modestly and could tighten more for other reasons. What matters more are interest rates, not central bank balance sheets. Low G3 rates still support risk taking, even as the Fed lifts rates closer to neutral levels. Yet higher US rates are creating competition for capital while sparking US dollar strength. What's key is how risk appetite will hold up: Ongoing or greater macro uncertainty could prompt investors to demand higher risk premia across asset classes.

Economic snapshot

BlackRock Growth GPS vs. G7 consensus, 2015-2018



Sources: BlackRock Investment Institute, with data from Bloomberg and Consensus Economics, August 2018. Notes: The GPS in green shows where the 12-month consensus forecast may stand in three months' time for G7 economies. The blue line shows the current 12-month economic consensus forecast as measured by Consensus Economics.

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Distinguishing between Q and T

The Fed's QT is as unprecedented as was QE. No central bank has attempted to run assets off its balance sheet on such a scale. This makes the Fed an easy scapegoat for each bout of market turbulence. This year's market volatility – from the VIX spike to Turkey's troubles – has stoked the narrative that QT is to blame: If Fed QE inflated asset values and flooded the market with liquidity, then QT should do the opposite. While intuitive, this story misses some important aspects of Q's role in financial conditions – and that a reduction in Q (quantity) does not necessarily lead to a T (tightening) of financial conditions.

QE was an emergency policy response to help ease the severe shock to financial conditions after interest rates neared the zero threshold during the worst of the global financial crisis in 2008. The primary purpose of QE was to put additional downward pressure on interest rates. The asset purchases helped push investors into riskier assets from perceived safe assets, pressing down risk premia as a result – the so-called portfolio rebalancing channel. QE also reinforced the credibility of forward guidance, helping entrench low-for-longer expectations on interest rates. All this helped bolster investor risk appetite. QE's stimulative effects have been reflected in proxy estimates of "shadow" policy rates falling well below zero across the G3.

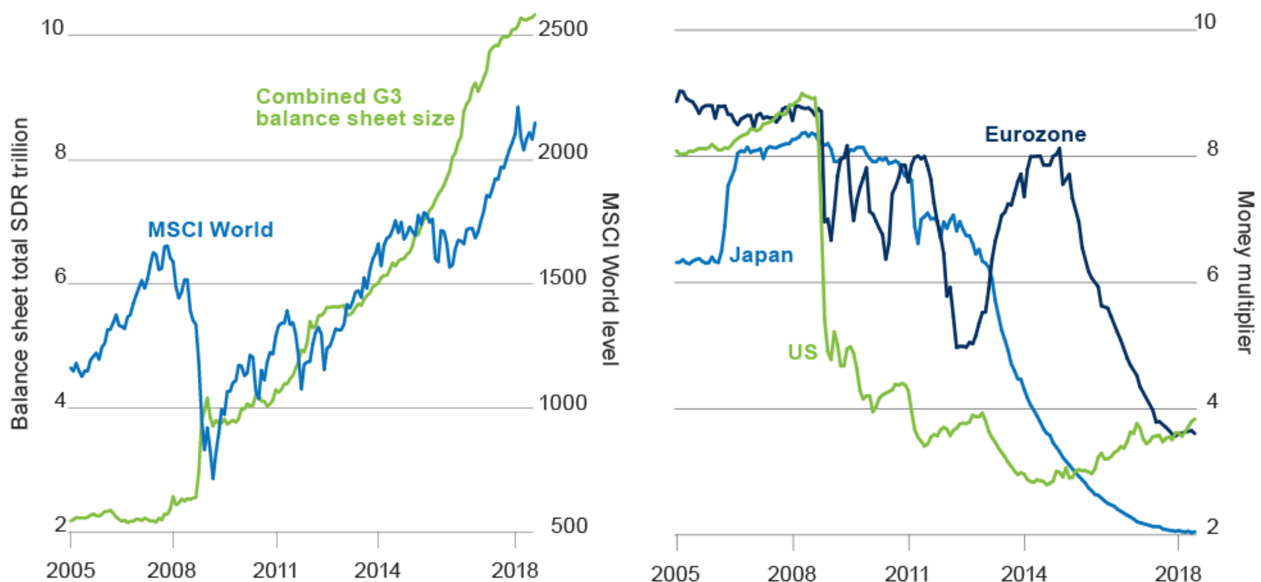
The performance of risk assets was not driven by QE alone but also by changing views on the interest rate outlook. Some risk assets had a bumpy ride even during QE programmes. See the *Central banks and money* chart on the left below. The MSCI World has not enjoyed a one-way ride higher with G3 QE. EM assets have been buffeted repeatedly during the QE period. And in the past few years, global equities have been buoyant even as the pace of G3 QE tailed off. The US dollar's ups and downs over the past decade have sometimes been blamed on QE or QT, depending on the context. And yet an August 2018 Fed paper found that QE did not cause larger global spillovers – or did not have a larger exchange rate impact – than conventional policy, suggesting that QE doesn't work through an independent or different channel.

QT is occurring amid solid private sector balance sheet expansion via credit creation. The private sector's ability to expand credit goes beyond central bank balance sheets and has much bigger economic consequences. See the chart at right below. The US money multiplier – the ratio of broad money (M2 – mainly short-term, cash-like deposits) to central bank base money (bank reserves and currency) – measures the rate at which the private sector is creating money per unit of the monetary base. The money multiplier is accelerating, as the green line in the right chart shows, implying that broad money is increasing even as QT unfolds.

A rebound in the money multiplier in a period of central bank balance sheet reduction was also evident in the eurozone (2012-2013) and Japan (2006). These episodes show how the sizable withdrawal of central bank liquidity can be managed without major side-effects. In these cases, excess reserves were effectively drained once financial conditions normalised. That's why it's important to distinguish between central bank liquidity – mainly reserves that are only exchanged between banks and the central bank – from other types of liquidity. Shrinking the Q of a central bank's balance sheet does not necessarily lead to T.

Central banks and money

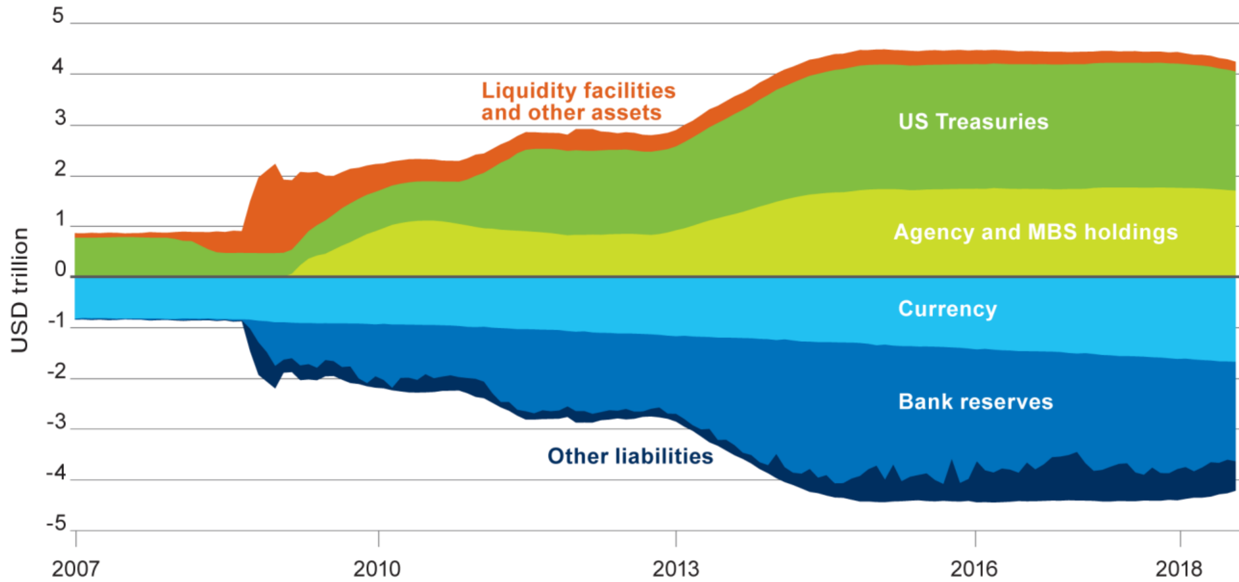
G3 central bank balance sheets vs. MSCI World and G3 money multipliers, 2005-2018



Past performance is not a reliable indicator of current or future results . It is not possible to invest directly in an index. Sources: BlackRock Investment Institute, Federal Reserve, European Central Bank, Bank of Japan and MSCI, with data from Thomson Reuters, August 2018. Notes: The chart shows the combined size of the balance sheets of the Federal Reserve, European Central Bank and Bank of Japan (in IMF SDRs to smooth out the US dollar impact) and the MSCI World (in US dollars) in absolute levels.

Bigger balances

Breakdown of Fed's balance sheet, 2007-2018



Sources: BlackRock Investment Institute and Federal Reserve, with data from Thomson Reuters, August 2018. Notes: The chart shows the breakdown of the Fed's total assets and liabilities.

Maintaining rate control

Of G3 central banks, the Fed has progressed the furthest in "normalising" monetary policy. After raising rates by 150 basis points since the end of 2015, it started to reduce its balance sheet late last year. Yet controlling the policy rate – the effective federal funds rate – is more complicated than it was pre-crisis. The Fed may need a much larger supply of reserves than previously assumed to maintain control of its main policy rate. See the *Bigger balances* chart above. The composition may also change: The Fed intends to run off its holdings of mortgage-backed securities and go back to holding mostly US Treasuries – and we expect a greater share of Treasury bills.

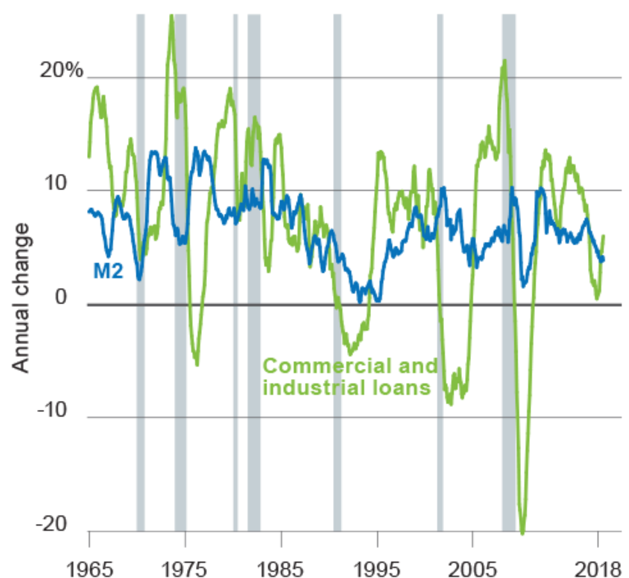
We expect the Fed's asset holdings to shrink from current levels near $4.3 trillion to between $3.3-3.9 trillion over the next year or so. Such a size would be about triple the Fed's balance sheet before the emergency actions to ease financial market strains in 2008 (see the orange in the chart above) and subsequent rounds of QE. The Fed stopping QT sooner than expected may alleviate some of the concerns tied to the QT story – namely that the Fed (and eventually other central banks) could make a policy mistake and miscalibrate the impact of its balance sheet reduction on the economy and financial markets.

The QT narrative ignores the role of private sector credit. The *Money and credit* chart shows the annual changes in US M2 and bank lending in commercial and industrial loans. Bank lending and broad money show a cyclical relationship. Yet bank lending – which totals about three times the Fed's balance sheet – appears to have a much stronger relationship with the economic cycle than M2, peaking before recessions and bottoming out in the months following a recession. Risk appetite matters in the creation of money – and why the Fed resorted to QE to counter the blow from the post-crisis deleveraging and prevent the Great Recession from becoming a bigger deflationary threat.

Lending is now running at a decent clip but is well below previous cyclical peaks. Strong nominal US growth, improved "animal spirits" (to use John Maynard Keynes' famous phrase) and low interest rates are all supporting the private sector's ability to create credit. We don't expect QT, in and of itself, to disrupt this dynamic.

Money and credit

US M2, bank lending and recession bands, 1965-2018



Sources: BlackRock Investment Institute and Federal Reserve, with data from Thomson Reuters, August 2018. Notes: The chart shows the annual change in US bank commercial and industrial loans and M2 money supply.

Self-creating money

The loose interaction between private sector money – sometimes referred to as endogenous money creation – and the central bank's influence over private credit creation has changed constantly over time. See the *Less sluggish money* chart that shows trends in the US money multiplier over nearly a century.

Similar to the years before the global financial crisis, money growth was charging higher in the late 1920s. The severe deleveraging during the Great Depression crushed the money multiplier and it took decades to recover. Starting in the mid-1950s, the long post-war boom powered money growth relative to central bank base money. The rise accelerated and peaked in the 1970s when inflation started to rear its head.

Money supply trends were once important indicators for how central banks thought about and managed the economy, setting policy through money growth targets. In the 1970s, the relationship between M2 and nominal GDP was so tight the Fed explicitly targeted money growth. But that led to a major policy mistake as the link had weakened and inflation shot up more than what would have been implied by money growth. By the late 1980s, it started to become clear money growth was less connected to nominal GDP growth than it had been in the past. Financial innovations such as securitisation meant that transactions were taking place that did not depend on deposit-like money captured by money supply measures. Our work finds that changes in US M2 led nominal GDP until the mid-1980s – and then that lead disappeared in the US and other major economies. As a former Bank of Canada Governor Gerald Bouey quipped: "We didn't abandon the money aggregates, they abandoned us".

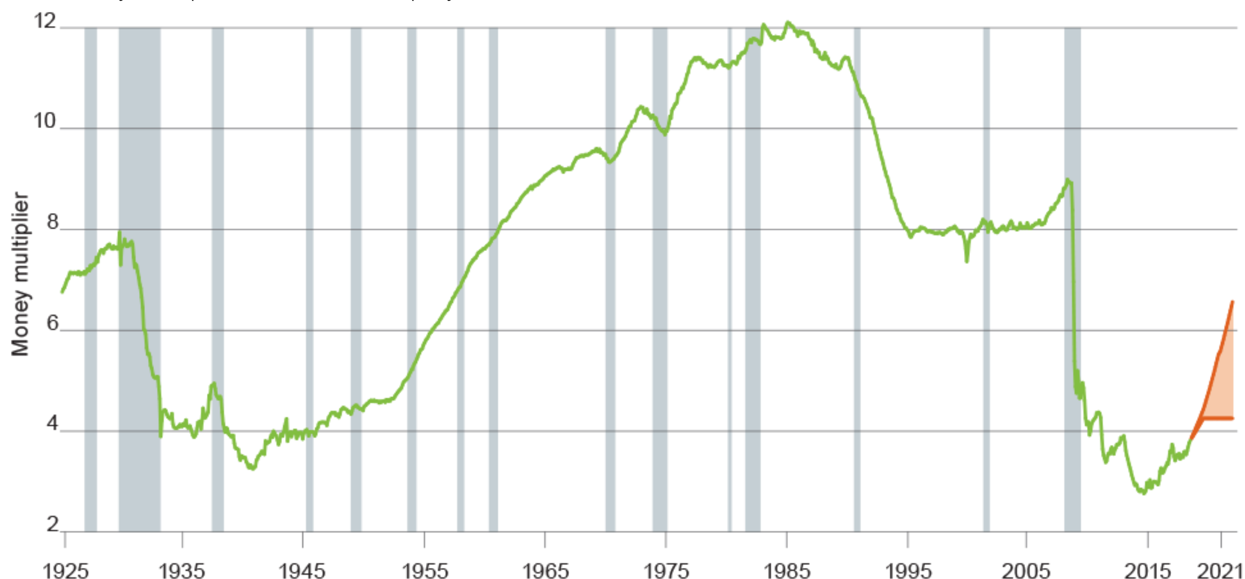
The 2008 collapse in the money multiplier was on par with the Great Depression. It then shrank further for mechanical reasons as the Fed boosted its balance sheet, the financial system deleveraged and risk appetite took more time to bounce back and drive private money growth. A rebounding money multiplier will offset a smaller monetary base: more private money for each dollar of the monetary base.

We project the money multiplier based on a few factors. We look at a range of outcomes for the monetary base tied to the Fed's future reserve needs and assume M2 maintains recent growth rates. We expect a further improvement in the money multiplier within the range in the orange band below. This assumes the Fed balance sheet reduction stops within the range we highlighted before. What's clear is that the Fed influences the backdrop in which private credit liquidity plays out – and animal spirits take over. This dynamic is not tied to the Fed's own balance sheet in any static fashion.

We have come a long way from the global financial crisis: Banks are better capitalised, more tightly regulated and less leveraged. Importantly, risk appetite has recovered across the private sector. Private credit creation should offset the Fed's actions to adjust its balance sheet back to something more normal, in our view.

Less sluggish money

US money multiplier and BlackRock projection with recession bands, 1925-2021



Sources: BlackRock Investment Institute, Federal Reserve and New York Fed, with data from Haver Analytics, August 2018. Notes: We show the money multiplier -- M2 divided by the monetary base -- and make a simple projection to 2021. Our projection assumes M2 keeps growing similarly to its trend in recent years. We then give a range of estimates of how the Fed's balance sheet may evolve in coming years, assuming that it will likely keep a larger balance sheet to maintain is current "floor" system of managing the fed funds rate. Our assumption is the Fed's balance sheet will ultimately range somewhere between $3.3 trillion and $3.9 trillion based on the June 2018 New York Fed survey of primary dealers.

The balance sheets that matter

The willingness of banks to lend and the desire of corporates and households to borrow are important parts of risk appetite. Yet so is the risk appetite in financial markets. We extended the concept of the money multiplier to the broad financial asset universe. To capture this, our financial multiplier tracks the total value of risk assets – here relative to the monetary base – and reflects the role of non-bank financing in today's financial system. See the *Revived risk taking* chart below and the divergence with the money multiplier starting in the 1990s. The financial multiplier tumbled post-crisis for the same reason as the money multiplier: a much larger Fed balance sheet and the sharp slide in asset values. Like its money counterpart, the financial multiplier shows a gradual recovery in demand for risk assets relative to the monetary base. These same broad trends hold for both money growth and risk asset valuations in the financial system.

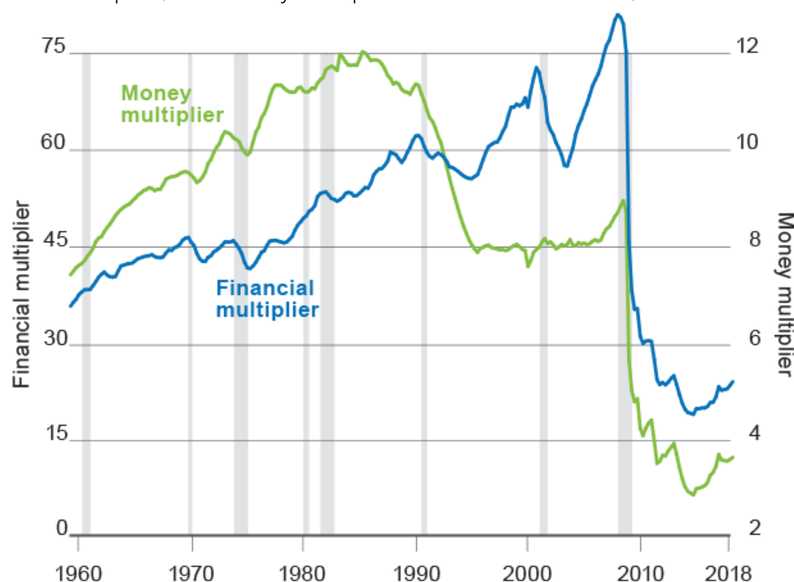
Yet higher interest rates and elevated macro uncertainty have led to a modest tightening of financial conditions. A further tightening could hurt risk appetite and the self-reinforcing improvement in private credit creation. Uncertainty combined with poor market liquidity could magnify risk asset selloffs: This has happened a few times this year, including the VIX spike in February, the Italian government bond selloff in May and the Turkish lira's slide in August. Market liquidity – or the ease with which investors can trade without affecting the price – has deteriorated in some markets, partly due to tighter financial regulation. Studies such as the San Francisco Fed's in February 2018 also show that Q changes can directly affect market liquidity. Higher US rates are creating increased competition for capital: Investors can earn decent returns in short-term US Treasuries.

We have argued that Q is not an important driver of the interest rate outlook at this juncture. Yet there are other "quantities" that matter. The debt issuance resulting from the US fiscal deficit can push long-term rates higher. Yet we see the rising stock of global savings and the ongoing demand for perceived safe assets as being a bigger and longer-running factor holding down long-term rates. EM stockpiles of FX reserves are one manifestation of this phenomenon in the two decades since the Asia crisis. These central banks mostly keep their reserves in relatively liquid G3 government bonds to manage their currencies and limit volatility – especially during periods of US dollar strength. We have spelled out how the US dollar can track the waxing and waning of investor risk appetite. That seems to have played out for most of this year as EM currencies came under pressure. We expect the US dollar to serve as a barometer of risk appetite, not as a metric of global liquidity conditions.

Bottom line: QT should not be viewed as the mirror image of QE. Doing so overlooks the ability of the private sector in creating credit and liquidity. US policy rates are rising, yet they are only approaching neutral levels and the resulting tightening of financial conditions is modest. How risk appetite evolves is more material to the outlook for financial conditions. The threat to risk assets is from this heightened uncertainty that confronts investors with a wider array of potential outcomes to the upside (US fiscal stimulus in the near term) and downside (trade tensions and overheating). As long as this uncertainty persists, we expect investors to manage this uneasy equilibrium by demanding higher risk premia across asset classes.

Revived risk taking

BlackRock US financial multiplier, the money multiplier and recession bands, 1960-2018



Source: BlackRock Investment Institute and Federal Reserve, with data from Thomson Reuters, August 2018. Notes: The financial multiplier is defined as the ratio between the market value of most financial assets – excluding assets such as securitisations or other intermediations to avoid double counting – and the monetary base.

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