The View | US Economy

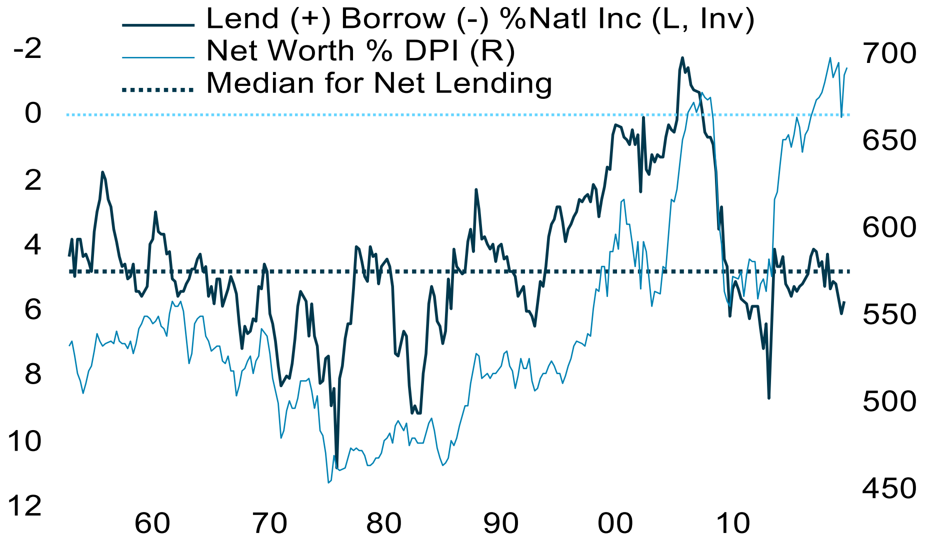
GLOBAL FRACTURES

RECOVERY BUILT WITH EXCESS LIQUIDITY CREATES NEW RECESSION TRIGGERS

Steven Blitz

- Risk for households shifts to assets from liabilities
- NFCs shift capital structure to foreign direct investment and debt
- Private firms return, so too does the risk to them
- Foreign sector lends to firms rather than Treasury - until now
- Banks less leveraged with a very high percent of loans to corporates
- Broker/Dealers constrained from calming a panicked market
- Equity markets are the lynchpin for growth
- Lesson for the Fed - extraordinary low rates and regulation produced unintended behaviour and reduced financial sector intermediation. Monetary policy is consequently locked into low rates and high liquidity levels (e.g. current balance sheet expansion)

Fig. 1: HH Net Worth & Net Lending Position



Source: Refinitiv Datastream, TS Lombard

Context

In our December 2018 View "Chickens home to roost in 2019" we forecast that 2019 would be a year in which the US economy would slow, skirt a recession, and that the Fed would act to keep the cycle alive. As we begin to forecast 2020 and beyond we will be producing a series of connected reports on our overarching theme Global Fractures. This report is the first in that series.

Future notes in the series will address:

- The unwinding of globalisation into regional trading blocs as a result of US-China trade war
- The failure of monetary policy as a growth driver and the continuing folly of DM central bank inflation targeting
- Major global financial imbalances arising from policy in the euro area and Japan
- The destructive deflationary power of negative interest rates
- Risks of a big bear market in equities if/when the necessary fiscal policy response turns out to be 'too little, too late'
- Populism as a result of globalisation leaving many people 'behind' but leading to denial and delay of the required economic adjustments

Contents

Summary

Households and business used this decade-long expansion built on an unprecedented surge of central bank liquidity to restructure balance sheets rather than boost leveraged capital spending. The failure of leveraged spending to ignite was not the outcome the Fed was looking for and yet is still looking for. It also seems impervious to the fact that its actions created a very different set of reactions that can trigger a recession, reactions that its models surely underestimate.

Looking at the major sectors of the economy, we see **households** have become lenders of the first order even as net worth soared relative to income, a historic divergence of trends (see Fig. 1 on the front page). They ended up with an outsized exposure to capital market volatility that is unlikely to be sufficiently offset by rising real estate values, as has occurred during past upswing cycles. It is difficult to overstate the change to **bank** balance sheets from before the recession. They are far less leveraged by design, but their exposure to corporate credit as a percent of loans is at its highest level since the 1969-75 period. Sustained record-low interest rates encouraged **nonfinancial corporations** to swap equities for bonds in their capital structure. In addition, the long run of low rates reflected a period of low growth, and capital grew more slowly than during any prior expansion. All of this gave rise to a sharp drop-off in the **net worth of public companies** to the extent that the net worth of **private nonfinancial firms now** exceeds that of publicly quoted entities. And the **foreign sector**, faced with declining Treasury issuance (until 2017), took the dollars created by the US current account deficit significantly to ramp up direct lending and investment in US firms, publicly quoted and private. One result is that US firms are, to a record degree, reliant on foreign investors for short-term debt. Further, the ability of market makers such as **broker/dealers** to steady unstable markets has been severely constrained by regulation.

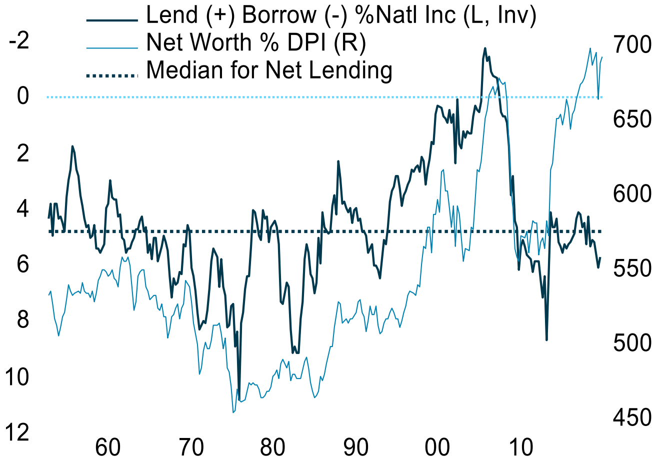
These balance sheet changes mean new potential triggers for recessionary behaviour have been created. Downturns in real economic activity have since the late-80s started with a credit crunch of some size. Credit flows still count, but balance sheets today are much more reactive to investor appetite for equity market risk and foreign capital inflows. Understanding how capital market volatility impacts balance sheet structures and the knock-on effect on spending behaviour is consequently most critical in determining the risk of recession to the US economy. Older benchmarks, such as credit flows to consumers, no longer need apply.

In sum, the Fed's extreme interest rate position was designed to boost borrowing to spend but ended up creating very different behaviour -- and their regulatory position has reduced the financial sector's capacity for intermediation. The equity market has become a lynchpin of the US economy to an unprecedented degree, especially as it relates to consumer spending. Compounding this risk, or perhaps because of it, Fed liquidity is increasingly responsible for the market's overshoot. In the wake of all this, and negative yields elsewhere, the foreign sector has again become a critical source of capital for US firms. Signs of weakness (economy and/or the dollar) could reverse these flows, and borrowers are at risk for replacing foreign investors. Banks, with more exposure to corporate credit in their loan book than they have had in over 40 years, may be unwilling to add to it. Topping it all off, broker-dealers no longer have the balance sheet, by regulatory design, to mitigate market disruptions when the flow goes in one direction, notably on the offer side. We have also seen this in the funding markets, as banks, despite excess reserves, were unable to redeploy these assets into the repo market. The consequence, as the Fed is now finding out, is an obligation for policy to keep rates low and the balance sheet large.

Households: Becoming lenders of the first order

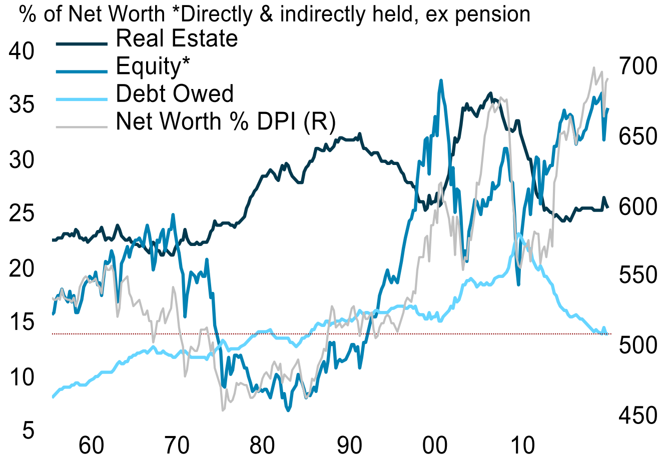
The big change in household behaviour through this cycle is the sharp break from the post war pattern of increased borrowing when net worth is soaring. Instead, households are net lenders to an unprecedented degree when net worth is on the rise (see Fig. 1). What underlies this change for the most part is that increased wealth did not translate to a concurrent rise in mortgage debt to buy real estate. Debt outstanding has not been this low relative to net worth since the early 1980s. There are any number of reasons why, including demographics and the latent upturn in millennial home-buying perhaps tied to lower real wages and high student debt burdens, but the reasons pale relative to the impact of the sensitivities of households to changes in capital market pricing. Rather than be stifled by the loss of credit availability, especially for mortgages, household spending patterns are now more sensitized to the impact of the value of their capital market assets, namely equities as we saw in last December and January.

Fig. 1: HH Net Worth & Net Lending Position



Source: Refinitiv Datastream, TS Lombard

Fig. 2: Select HH Assets and Liabs vs Net Worth

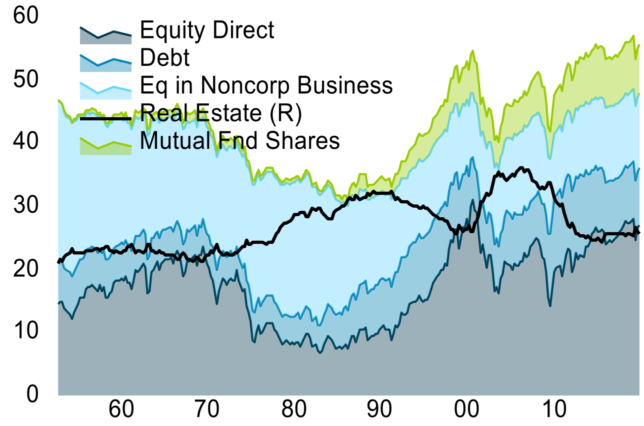


Source: Refinitiv Datastream, TS Lombard

The greater impact of equities on consumer spending is more readily understood when we break down the allocation of household capital investments (see Fig. 2). Equity directly held (we are not including mutual funds or equity exposure in pensions, regardless of type), has been running above the allocation to real estate since late 2013, the longest such stretch in the post-war period. Relative to that history, the total household allocation to capital investments as a percent of net worth matches up with the period from 1955 to 1968, after which, perhaps coincidentally, inflation soared, and US productivity growth began its long slide.

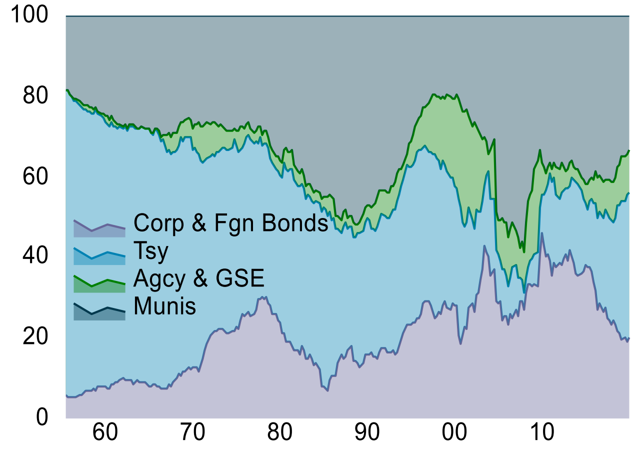
One big difference between the 1955-68 period and now is the allocation of household investment to noncorporate businesses, family-owned operations for the most part. Then it was about on par with holdings of listed equities, each running at around 20% of net worth. In the current cycle, listed equities, directly held, are a little over 25% of net worth and much higher if we add in mutual fund investments (see Fig. 3). The long slide in investment in non-corporate firms finally stabilized as a percent of net worth beginning in the early 1990s and has since fluctuated at around 12% of net worth. Households are also holding a record share of their net worth in debt. Early in this cycle, households were buying corporate debt but since 2014 there has been a marked shift away from corporates to Treasury debt (see Fig. 4).

Fig. 3: Allocation of Select HH Investments



Source: Refinitiv Datastream, TS Lombard

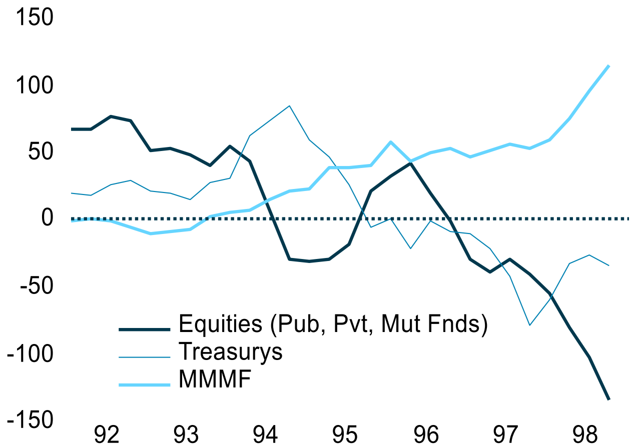
Fig. 4: Allocation Of HH Ownership of Debt



Source: Refinitiv Datastream, TS Lombard

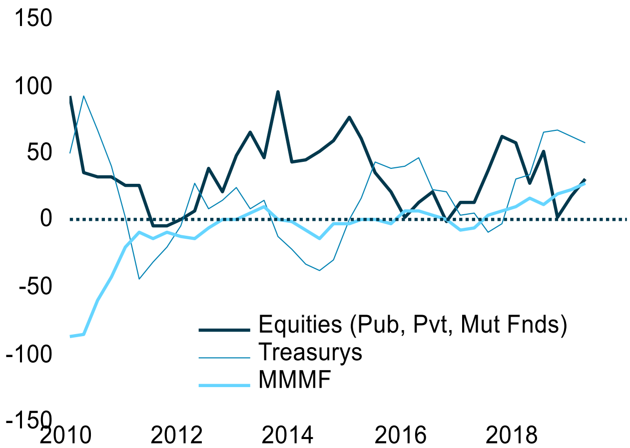
Staying with the equity story, one key difference with the late 1990s, the one time the market value of household equity holdings were even higher than today (as a % of net worth) is that then households were never a sustained net buyer to the extent for as long of a period, and later became even greater large net sellers (see Figs. 5a and 5b). By being much more active net buyers in this cycle we see the hand of Fed policy pushing the direction of household investments, motivated by the search for yield. Money market mutual funds also garnered a large inflow of household assets in the late 1990s, but the pace is decidedly slower now because of the narrower scope of available funds – namely the Fed and SEC managed to effectively eliminate all but government-only funds by introducing daily NAV pricing.

Fig 5a: Select Lending % Total Net HH Lending



Source: Refinitiv Datastream, TS Lombard

Fig 5b: Select Lending % Total Net HH Lending

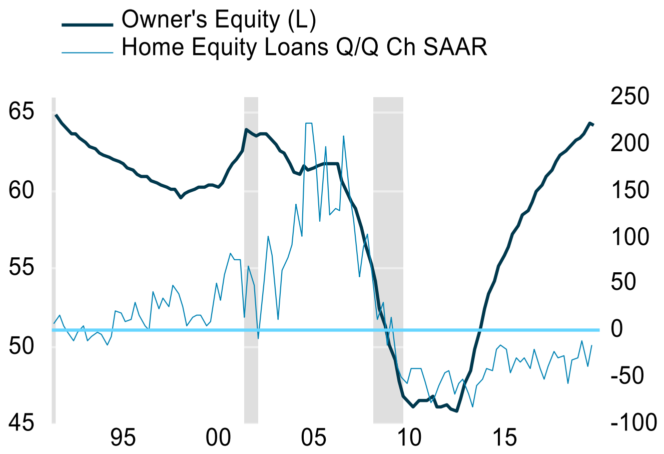


Source: Refinitiv Datastream, TS Lombard

Looking in detail at the borrowing side, the aversion to debt is in evidence. Home equity loans, a type of borrowing that gained favour after President Reagan eliminated the tax deductibility of interest costs except for mortgage interest, is still being wound down (see Fig. 6). There was, early in this cycle, a belief at the FOMC that as household equity in their real estate was slowly restored the borrowing to spend off that equity would return as well. As illustrated in the chart below, this borrowing has not returned. One could say that low rates and lower tax rates have made the cost of borrowing directly to finance, for example, cars, more attractive. A fair enough point. But as illustrated in the chart below (see Fig. 7), revolving (credit card) and nonrevolving debt (car loans mostly) dropped sharply after the recession relative to disposable personal income and have yet to revive even as the employment/population recovered. Consumers, for any number of cyclical and secular reasons, have no appetite to borrow to spend as they once did.

In sum, household behaviour has changed. Whether it is permanent or not is irrelevant to the cyclical issues at hand. Low interest rates have moved household to place savings in higher yielding assets, such as equities, rather than leverage their balance sheet. The upshot is that household finances are much more sensitive to a downdraft in capital market values, equities mainly, than being choked off from credit.

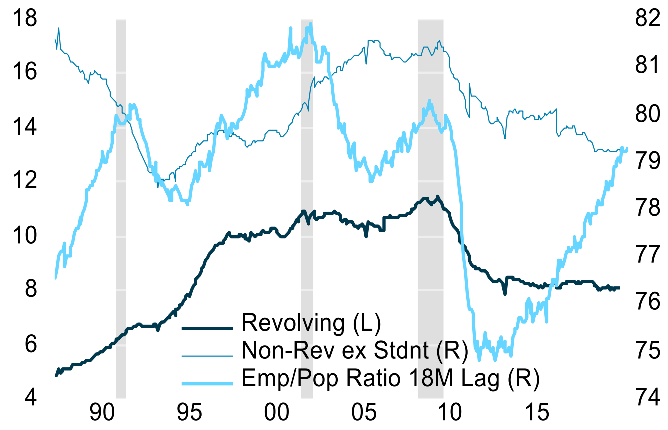
Fig. 6: Owners Equity % of HH Real Estate



Source: Refinitiv Datastream, TS Lombard

Fig. 7: Consumer Debt ex Student

Expressed as a percent of DPI ex Gvt Transfers

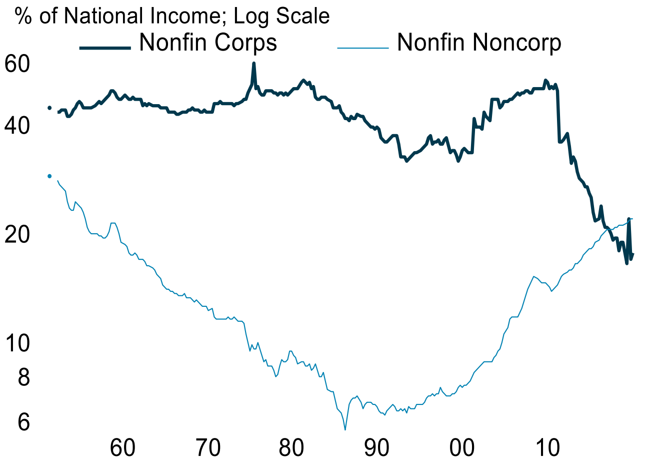


Source: Refinitiv Datastream, TS Lombard

Nonfinancial corporations (NFC) shrink capital, add foreign investments

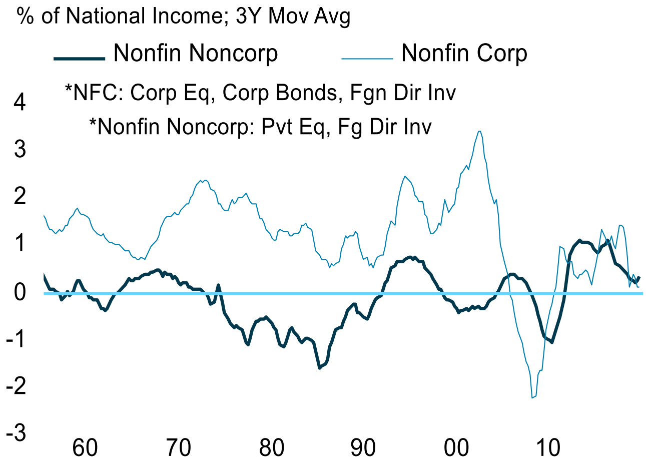
Firms took this long period of what they likely see as the lowest bond yields to ever be seen and decided the equity versus debt debate by reducing equity outstanding and net worth consequently collapsed relative to national income (see Fig. 8). NFC net worth, without the real estate business counted in, crossed below the net worth of noncorporate nonfinancial businesses (NCNF), similarly adjusted. We purposely take mortgages and real estate out of the net worth calculations because the real estate business works with a very different capital structure and does not have the same role in setting the economy's trend path. We see with businesses, as with households, how the Fed's yield repression created unintended consequences rather than the intended result (leveraged buying of physical capital). Low real rates also signal a lower return outlook and, as such, NFC capital grew much more slowly relative to national income (see Fig. 9).

Fig. 8: Nonfin Bus Net Worth ex real estate



Source: Refinitiv Datastream, TS Lombard

Fig 9: LT funding flows*: NFC vs Nonfin NonCorp

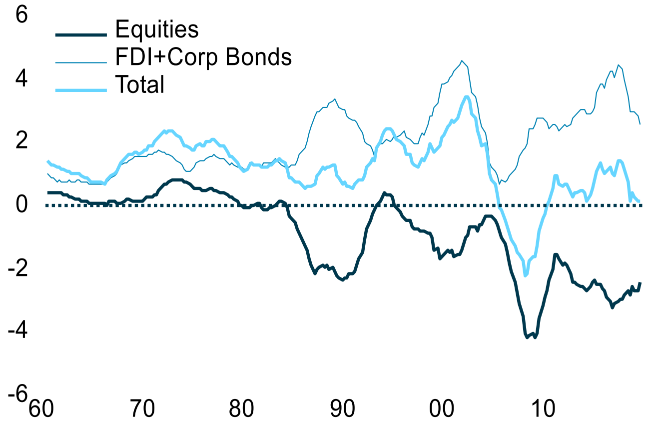


Source: Refinitiv Datastream, TS Lombard

How NFCs reset their capital structure and moved from using foreign direct investment and bonds to fund capital expenditures is illustrated in the chart below. On a three-year moving average basis, the quarterly net change in net corporate bond issuance and foreign direct investment reached a peak of 4.3% of national income at the end of 2017, a number last reached in 2001. Unlike then, however, the net decline in equities has accelerated to around 2.7% of national income (see Fig. 10). As a result, total capital growth slowed markedly. To underscore the point that bond issuance was used for capital structure rather than buying physical assets, the chart below shows how net issuance since the recession has run far ahead of the financing gap – capital expenditures minus internally generated funds (see Fig. 11). The sharp drop and rebound in 2018 reflects the repatriation of offshore funds, that being done the relationship is getting back to "normal", at least until the business cycle itself permeates the data.

Fig. 10: Shift in Capital: Equities vs FDI+Bonds

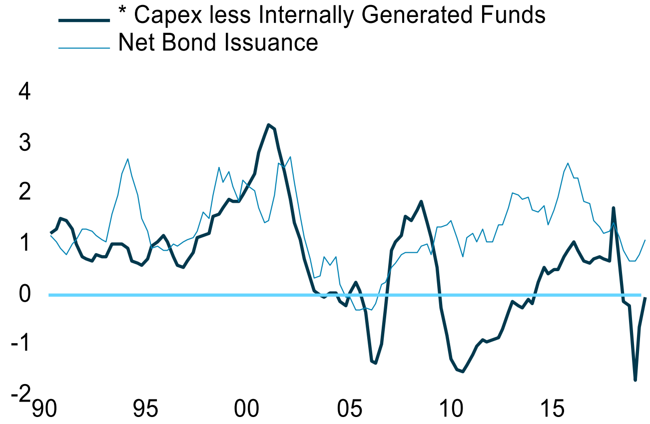
Q/Q Net Ch, 3Y Mov Avg; % of National Inc



Source: Refinitiv Datastream, TS Lombard

Fig. 11: NFC Bond Issuance vs Financing Gap*

% of Final Sls Dom Prod



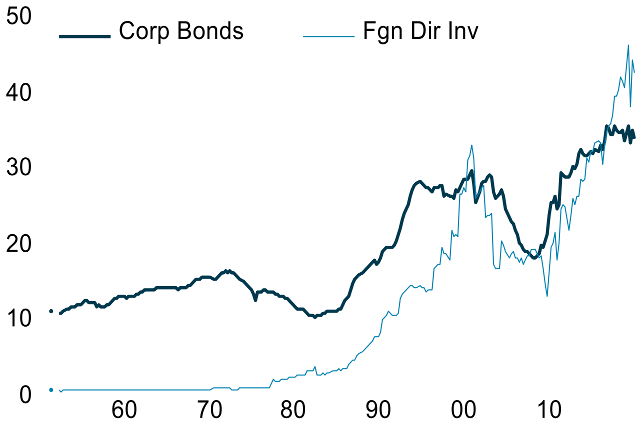
Source: Refinitiv Datastream, TS Lombard

A major counterpart to reduced net equity issuance came from the inflow of foreign capital. The rise in bond issuance added to capital by helping to boost cash levels rather than fund capex, and outstanding bonds to total liabilities remains fairly constant. We illustrated the jump in importance of foreign direct investment in the chart below (see Fig. 12). Total foreign investment (direct investments, loans, and bonds) in NFCs is at a record 14% of total NFC liabilities (see Fig. 13). Foreign holdings of outstanding US corporate bonds grew sharply during the 2002-07 recovery, rising from 40% of outstanding to spiking at 97% just before the last recession. The level has since settled back to around 66%, which is record across a cycle.

Perhaps the main limit on using bonds to fund corporate capital structures fully is that the new tax law limits deductibility of interest payments to 30% of adjusted taxable income. Interest above that cap can, however, be carried forward, with no limit. If earnings growth accelerates enough over time, interest payments carried forward could become deductible, assuming the level of debt outstanding has not grown. At some point, the Fed hopes firms will use the funds raised to expand capex. The central bank, all central banks, should recognize that very low real interests, and most especially negative real rates, are not a signal to spend more but are, in fact, signals to spend less as low rates argue for a lower growth trajectory. We see this is the much slower pace of capital expansion by NFCs during this expansion (Figures 9 and10).

Fig. 12: Source of Non-Equity Capital for NFC

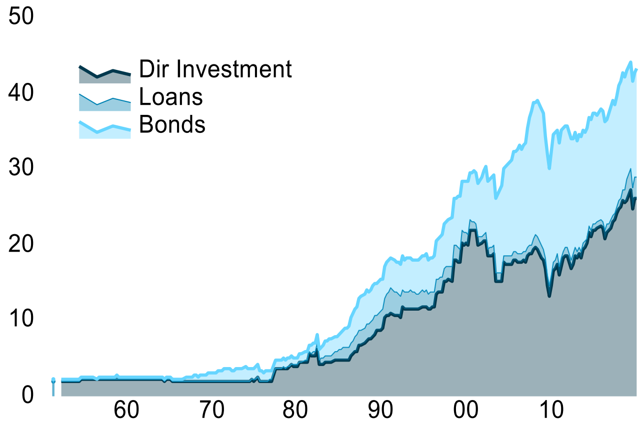
% of NFC Net Worth



Source: Refinitiv Datastream, TS Lombard

Fig. 13: Fgn Investment in US Corps (ex Equities)

% of Total NFC Liabilities



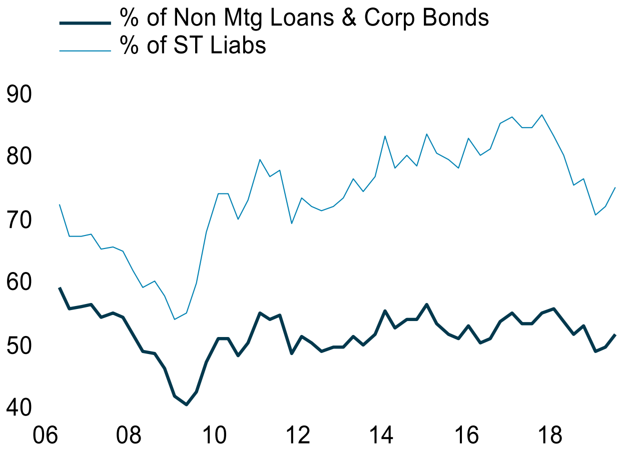
Source: Refinitiv Datastream, TS Lombard

Central banks seem to have forgotten, or perhaps never understood, that capital spending and interest rates do not have a monotonic relationship from negative infinity to positive infinity. It is, in fact, curve-linear, looking like an upside down smile. Because economies have almost always operated in the middle part of that smile, it is easier for models to assume a flat relationship. This view fails when the economy moves to the corner of the smile, which is where the economy has been operating since the 2008-09 recession. The US did begin to move away from the corner but looks like it may be slipping back, Europe never left the far end of its smile.

If the debt being raised is used to change capital structure, there should be no increased leverage and, at least in the aggregate, that is the case. As we illustrate in the chart below (Fig. 14), the ratio of liquid assets to all debt except mortgages has been relatively trendless since the recession ended. The ratio of liquid assets to short-term debt has in fact risen through this cycle and has only recently dropped down. These two lines reflect increased debt boosting cash balances (capital re-structuring) and firms have been taking advantage of the low yields to extend the maturity of their debt. **Where there is potential for problems is that bank loans are only 42% of loans to NFCs**. We saw this before as the prior cycle was coming to an end, but the difference this time is that foreign sources (mostly through CLOs) are almost as large a creditor to NFCs for loans (31%) as banks. Roll-over risk, consequently, becomes a legitimate concern (see Fig. 15).

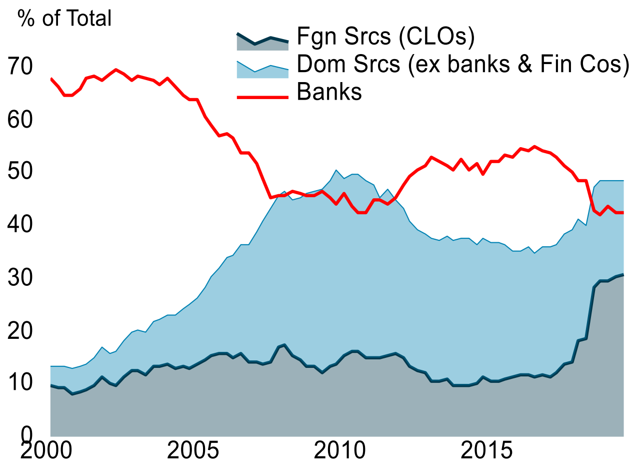
In sum, NFCs took the extended period of low rates to reset their capital structure, increasing their reliance on foreign capital and debt. Should an economic/market disruption occur, rollover risk is a legitimate concern especially given the exposure to foreign sources. The Fed's intent that firms would use extraordinarily low rates to finance capital spending never materialized.

Fig. 14: NFC Liquid Assets



Source: Refinitiv Datastream, TS Lombard

Fig. 15: Srcs of NFC Short-Term Debt (ex gvt)



Source: Refinitiv Datastream, TS Lombard

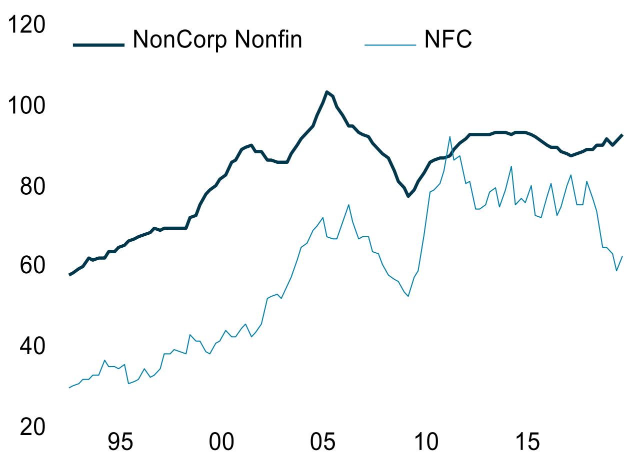
Nonfinancial non-corporations (NCNF): The return of private firms

NCNFs greatly expanded during this recovery (see Fig. 16), marking the return of the private firm and the risk exposure to these entities as well. We eliminate the mortgage and real estate exposure (liabilities and assets) inside the reported NCNF balance sheet because we are illustrating the growth of privately funded firms engaged in production of goods and services, many of which are hi-tech, and some are public firms that have gone private. These privately held firms are also presumed to have greater impact on the economy's trajectory than real estate partnerships.

Given our theme of looking for recessionary triggers, we are interested in the leverage of NCNF and the exposure of lenders. Looking at the chart below (see Fig. 17) we see that NCNF firms are historically less leveraged in terms of short-term asses to liabilities, and that holds true today. NCNF firms have, in fact, stayed relatively flat for this ratio throughout this cycle, averaging a little over 90%. While the cash position is strong, loans relative to net worth are high, not counting the surge and subsequent decline related to the last recession. Loans are, in fact, averaging around 9.5% of net worth excluding the real estate exposure (property, durable equipment, and mortgage assets and liabilities). More to the point, non-mortgage loans are running at near 14% of all outstanding non-mortgage loans, a historically very high level on a sustained basis (see Fig. 17).

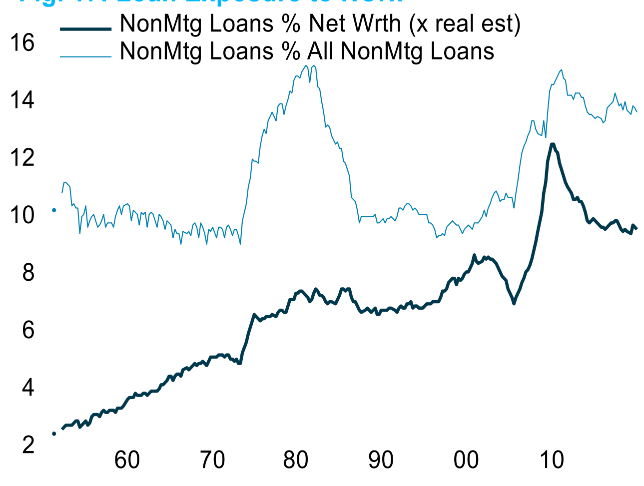
In sum, while NCNFs do not appear particularly overleveraged given their ratio of cash to short-term debt, but the level of loans relative to adjusted net worth is high. And more to the point, so too is exposure of lenders to these firms, in the aggregate.

Fig. 16: Ratio ST Liquidity to ST Debt



Source: Refinitiv Datastream, TS Lombard

Fig. 17: Loan Exposure to NCNF



Source: Refinitiv Datastream, TS Lombard

Banks: A new balance sheet --less leverage, more corporate credit

It is difficult to overstate just how much bank balance sheets have changed since during this cycle from before the recession, at least in the aggregate. Between liquidity requirements and the end of mortgage lending as a growth business, leverage is as low as it has been since the early 1960s and mortgage lending has not been this low a percentage of total bank since the early 1950s (see Fig. 18). Corporate lending, which has been on a long slide since the 1960s ended as the capital markets disintermediated banks out of being the prime source of loanable funds for the highest rated corporates, has made a comeback. Corporate loans are, in fact, at their highest percentage of outstanding loans since the early 1970s (see Fig. 19).

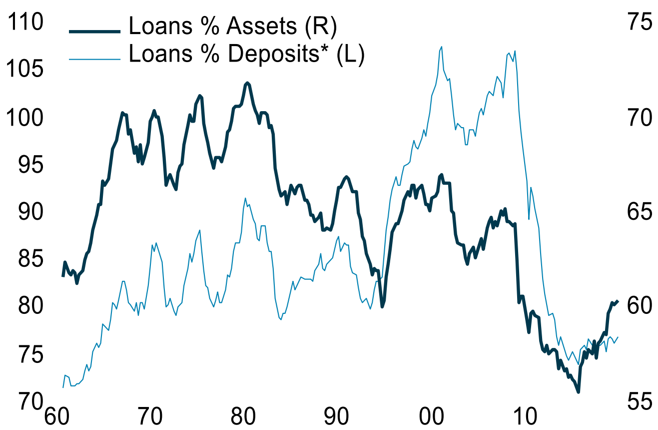
Bank leverage (loans-to-assets and loans-to-deposits, see Fig. 18) has not been this low since the early 1960s, when they were getting back to their footing before the Depression and World War II changed their balance sheet to holding more Treasuries than loans. The initial drop reflected the recession and various policies put in place, notably QE sopping up so much of bank assets. The continued low level reflects a number of factors, of which liquidity ratios demanding 8% to 14% of bank assets be held in cash equivalents is but one. Others are regulation mandated capital requirements for new loans and the simple lack of demand for borrowing. Corporate and household borrowing combined has been a flat percentage of GDP for most of this recovery. And the problem with that mix is that banks have had to switch their sites for loan growth from mortgages to corporations.

At present, some 31% of bank loans outstanding are with the corporate sector up from 20% when the recovery began (see Fig. 19). Mortgage loans are down to 52% of outstanding loans from a high of 67% before the last recession. The initial drop was tied to the rise in bankruptcies but by this point the issue for banks looking to build their loan book is that consumers aren't borrowing to buy homes to the same extent as they used to.

In sum, what could go wrong from the banking sector? Not so much with the banks themselves, except that their mandated risk averse stance could cause them to not help out corporate borrowers if their CLO sources of short-term funding fail to roll over. Further, the economy itself is not going to rebound at a particularly rapid pace when bank lending is so constrained.

Fig. 18: Leverage of US Depository Inst

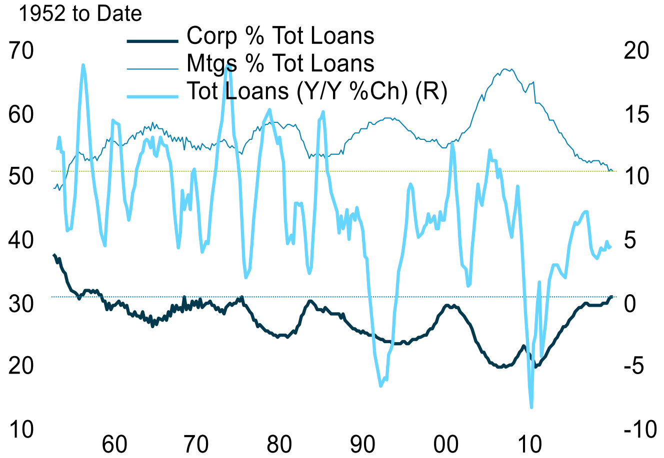
1972 to Date; *Time & Savings, Pvt Domestic Checking



Source: Refinitiv Datastream, TS Lombard

Fig. 19: Bank Loans Shift To Corps

1952 to Date



Source: Refinitiv Datastream, TS Lombard

Broker/Dealers: Extraordinary low leverage, insufficient to bring order to a one way market

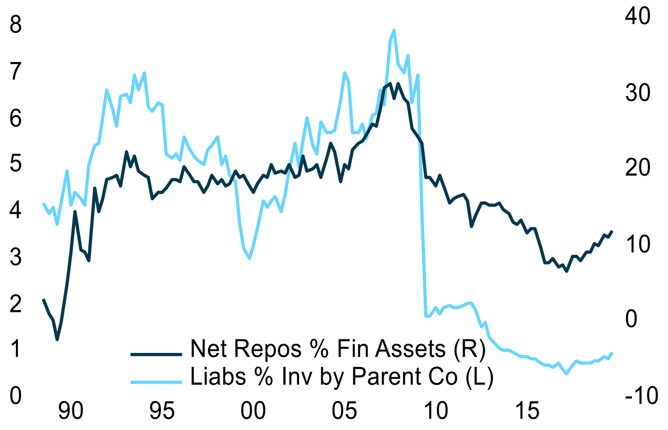
We noted in our summary that broker/dealers are far less leveraged than they were pre-recession, and this means the leverage to carry large Treasury auctions and generally bring order to markets just is not there. This drop in leverage, as with banks, is the result of regulatory design. We see this illustrated in the two charts below (Figs. 20 and 21). One measure of leverage is liabilities as a percentage of investment from parents. Recapitalization during the recession dropped this ratio, regulation has kept it low, and there is no evidence broker/dealers have an appetite to return to the leverage in place from the late 1980s until the last recession began. A second measure, net repos as a percent of financial assets and here too we see a similar story. This ratio has been on the rise since the end of 2016, but not enough to suggest there is anywhere sufficient to carry a large flood of inventory, as we have recently seen with repo rates blowing out in order to find the cash necessary for dealers to carry the unsold portion of recent Treasury auctions.

Another way of seeing the turn in broker/dealer positioning is the collapse of their assets relative to all debt outstanding while the debt to GDP ratio has remained constant since the recession ended (see Fig. 21). This in marked contrast from the years leading up to the last recession, when broker/dealer assets rose proportionally in line with total debt.

What this all means is that in the event of strong one way market, the dealer balance sheet is not there to absorb wholesale selling. This risk to market liquidity is not news but, as we saw in December, it exacerbates down moves. Circling back to households, those sharp drops can shake confidence and pull down spending. And it is households, over invested in an equity market held high by the promise of Fed liquidity, that are most likely to be the ones to be selling into an illiquid market.

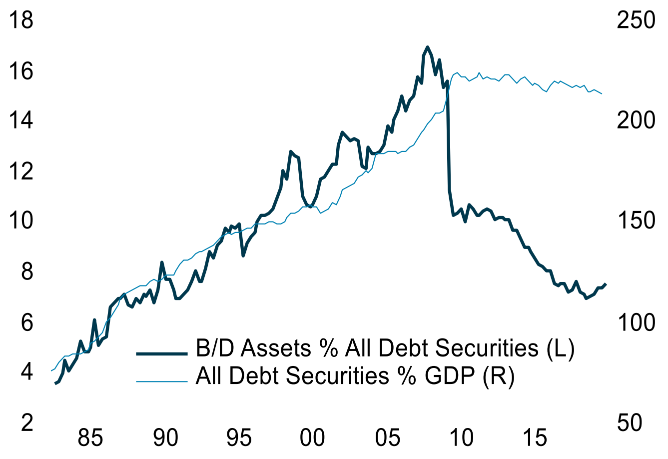
Fig. 20: Broker/Dealers Shrinking Leverage

1988 to 2019:Q2



Source: Refinitiv Datastream, TS Lombard

Fig. 21: Broker/Dealers Shrinking Relative to Mkt



Source: Refinitiv Datastream, TS Lombard

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