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Consumer Morsel

How will rising rates affect consumer debt?

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Key talking points

- We estimate that on average, debt repayments will increase by somewhere between $450 and $510 per household (or 0.3%-0.35% of disposable income) this year as a result of rising interest rates.
- For this year, the impact on consumers is limited since the majority of consumer debt, including mortgages and auto loans, is subject to fixed rates.
- That said, the bigger worry comes when more existing loans mature and new loans take place under higher interest rates.

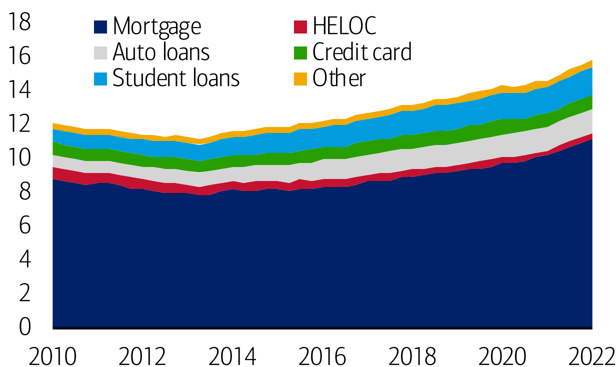
As the Federal Reserve continues to hike rates, there is a growing concern about the impact of rising rates on the consumer balance sheet. Below we do a deep dive into the three major types of consumer debt to estimate the increase in the cost of servicing debt from higher interest rates.

A tale of two mortgages

According to the New York Fed, household debt reached $15.8tn by the end of 1Q 2022. That equates to around $123,000 for every US household. Of this debt, mortgages account for 70%. In order to understand the impact of higher rates on mortgage repayments, we divide mortgages into fixed-rate mortgages (FRMs) and adjustable-rate mortgages (ARMs).

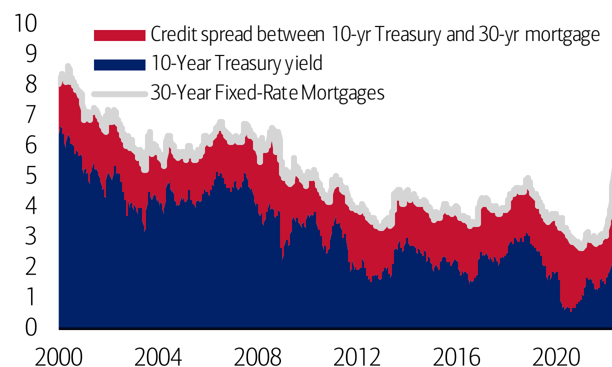
For FRMs, consumers with existing mortgages are paying at a pre-determined rate and therefore will not be impacted by rising interest rates until their fixing expires. Only new loans ('originations'), which we ball-park project to be around $2000bn for this year, will be affected by higher rates. The $2000bn in origination will take place throughout the year under various interest rates but for simplicity we assume the entire amount will face the same increase in mortgage rates.

Exhibit 1: Household debt balance by major types of loans ($tn)
Household debt reached $15.6tn by end-2021 with mortgage making up the majority of the total



Source: New York Fed

Exhibit 2: 10yr yields and credit spread between 10-yr treasury and 30-yr mortgage rates (%)
Spreads between the 10-yr Treasury and 30-yr Mortgage have risen significantly to 220bp in recent weeks



Source: Federal Reserve Board, Freddie Mac

What will be the rate attached to these new loans? You can view the 30-yr mortgage rate as the sum of the 10-yr Treasury yield (the relatively secure US government asset) and a credit spread. At the time of writing, the 10-yr Treasury yield is around 2.9% and is projected by BofA Global Research to climb to around 3.25% in 3Q and 4Q of this year. Meanwhile spreads have also risen significantly this year to around 230bp (Exhibit 2). The average spread between the 30-year mortgage rate and the 10-year Treasury yield is roughly 175 bps over the last 30 years. We therefore assume two scenarios for the mortgage spread this year: a 50bp narrowing to return to the historical average by year-end and a 60bp widening to match the highest level for the past 30

years. This suggests to us that a reasonable forecast is that mortgage rates will be 190bp-230bp higher on average in 2022 than in 2021.

Using this forecast, it implies consumers undertaking new borrowing will face between $38-46bn more ($2000bn x 1.9% and $2000bn x 2.3%) in additional payments, or a total across US households of $300-$360 per household (there are ~128mn households in the US) for FRMs.

Meanwhile the impact from ARMs will likely be minimal largely due to their decreasing prevalence. As Exhibit 3 shows, as of March 2022 the share of ARMs in outstanding mortgages was just 1%, which was a drastic decline from 12% right before the Global Financial Crisis. Note that for ARMs, repayments for the first few years are also under a fixed-rate and therefore the floating balance within ARMs is even smaller. Specifically, the current outstanding balance for ARMs that are already in their floating period is just around $26bn.

ARM rates are usually pegged to short-term rates such as Secured Overnight Financing Rate (SOFR) and London Interbank Offered Rate (LIBOR). We use the BofA Global Research 2-yr Treasury yield forecast as a proxy for these. We estimate on this basis that there will be around a 250bp increase in an average ARM rates this year. Coupled with the small outstanding of $26bn, this means another $0.65bn in additional repayments for consumers, or just $5 per household.

The bottom line is that most of the impact from higher interest rates will be felt through new originations and the total additional repayments by consumer will amount to roughly $40-47bn, or $300-364 per household. This works out to between 0.2% and 0.3% of total disposable income.

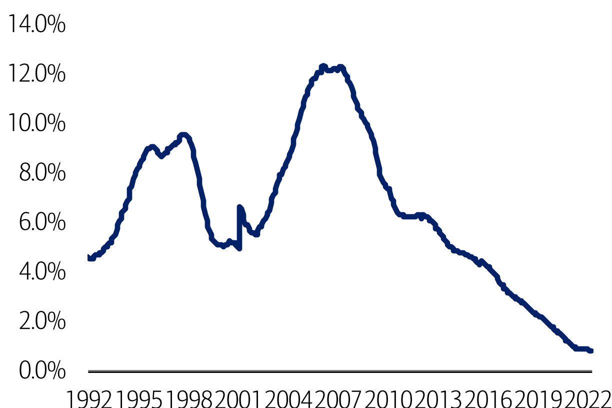
Auto loans: will the engine slow down?

New Auto loans saw a noticeable jump in 2021 as surging car prices pushed up borrowing. According to data from the NY Fed Consumer Credit Panel, auto loan origination totaled $734bn in 2021 (about $5734 per household), a 19% jump from the prior year (Exhibit 4). Similar to mortgages, auto loans are also subject to fixed interest rates. According to data from Experian, as of 4Q 2021, a majority of auto loans are fixed-rate medium-term loans, while only 8.5% of loans have terms under 48 months. This means that once again, only new originations will be impacted by higher rates.

The total amount of new auto loan originations will be determined by two factors: the number of new loans originated, and the average amount per loan that people are borrowing. The average amount per loan is highly influenced by auto prices and we pencil-in a high single-digit % yoy growth for used and new car prices this year. Meanwhile we assume the number of new originations will stay roughly flat from the prior year since BofA Global Research forecast for auto sales is also flat on a % yoy basis.

Exhibit 3: Share of ARMs in outstanding mortgages (%)

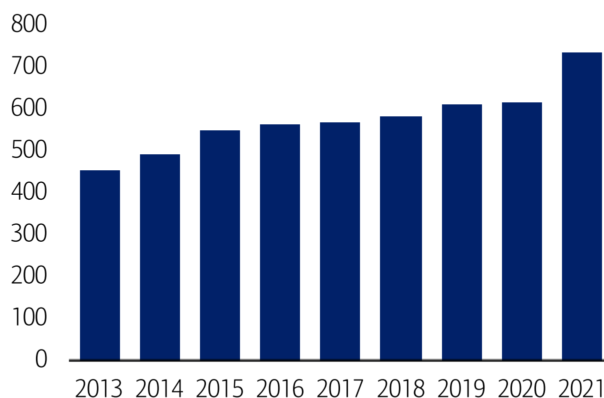
As of Mar '22 the share of ARMs in outstanding mortgages was just 1%



Source: BofA Global Research

Exhibit 4: Auto loan origination ($bn)

Auto loan origination totaled $734bn in 2021, a 19% jump from 2020



Source: New York Fed

Considering these factors together, we estimate that new auto loan originations should grow by another 5-8% this year to around $785bn. Loan rates for both new cars and used cars are generally equal to the sum of the 2-yr Treasury yield plus a credit spread. The latter was around 190bp as of April (for simplicity, we use the average of new cars and used car loan rates as auto loan rate). Assuming spreads slowly widen to 300bp, which was the average for the last business cycle, the BofA Global Research forecast for the 2-yr rate would imply an average increase of 100bp for auto loans this year.

We also ignore the fact that some loans will be paid off by consumers and estimate that consumer as a whole will face an additional $8bn ($785bn x 1.0%) in auto loan repayment. This would translate into roughly $63 in additional payment per household.

Asking for credit

Consumer credit card balances saw a dramatic decrease during the pandemic as consumers paid down debt with increased savings. Between 4Q 2019 and 1Q 2021, US credit card balances dropped by 17% to $0.77tn but have since climbed back up to $0.84tn as of 1Q 2022. We assume that credit card balances will grow slightly above trend this year, given resilient consumer demand, particularly for services, as well as elevated inflation. This would leave the annual average of consumer credit card debt at around $0.9tn. Credit card interest rates for each customer move closely with the "bank prime rate", which in turn is linked to the fed funds rate. Based on BofA Global Research's forecast for the fed funds rate, it would imply an average increase of 1.2ppt for credit card interest rate for this year. As a result, we estimate an additional $10.8bn ($900bn x 1.2%) credit card payments for the consumer, which is equivalent to around $84 per household.

Bottom line: no meaningful impact this year

Our estimations above suggest that on average, household debt repayments will increase by somewhere between $450 and $510 (or 0.3%-0.35% of disposable income) this year due to rising interest rates.

This only creates a modest extra pull on the consumers pocket in the short-term, but they will eventually face stiffer headwinds as more existing loans mature and new originations take place under higher interest rates. It is also worth adding that the impact will not be felt uniformly – households seeking to borrow or those whose fixed rates expires will face the higher interest rates first.

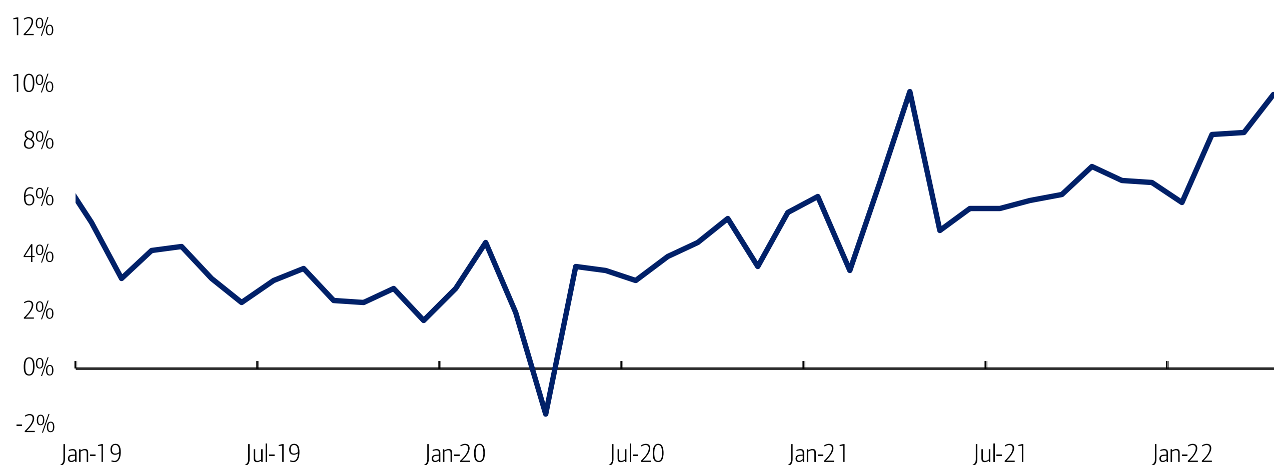
Exhibit 5: Estimation of additional payments to different types of consumer debt due to rate hikes
The biggest impact from rising rates will be felt through higher mortgage rates on new originations

	Aggregate ($bn)	Per household
Mortgage	$40-47	$300-$364
Auto loan	$8	$63
Credit card loan	$11	$84
Total	$58-66	$450-510
Share of disposable income	0.3-0.35%	

Source: BofA Global Research

Still, it is worth putting this fairly modest overall increase into context with a proxy of after-tax payroll wage growth based on Bank of America proprietary data. The proxy is derived by anonymizing and aggregating direct deposit data from Bank of America consumer deposit accounts in the US. For the month of April, after-tax wages' 3-month moving average (ma) were up 8.7% yoy[1]. On this basis a rise in extra debt costs would be more than covered by the rises in pay we have seen for the 'average' consumer to date.

Exhibit 6: After-tax wages and salaries, based on Bank of America aggregated consumer deposit data (% yoy. 3-month moving average)
After tax wages continued to increase on a yoy basis amid a red hot labor market



Source: Bank of America Internal Data

[1] Please see Methodology section for more details.

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Methodology

Selected Bank of America ("BAC") transaction data is used to inform the macroeconomic views expressed in this report and should be considered in the context of other economic indicators and publicly available information. In certain instances, the data may provide directional and/or predictive value. The data used is not comprehensive; it is based on aggregated and anonymized selections of Bank of America data and may reflect a degree of selection bias and limitations on the data available.

The payroll and tax direct deposit data based on the BAC internal data is derived by anonymizing and aggregating direct deposit data from Bank of America consumer deposit accounts in the US and analyzing that data at a highly aggregated level. Additional information about the methodology used to aggregate the data is available upon request.

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