



ZAIS Insights

August 2020

Bernhard Eschweiler, PhD
Senior Economic Advisor

Bernhard advises ZAIS on macroeconomic risks and prospects related to credit markets and is a regular contributor to ZAIS Insights.

Banks are in better shape to weather the Corona fallout

Banks are in better shape to weather the Corona Fallout

- Banks reduced balance sheet risk and leverage, and raised capital buffers, while retaining profitability
- Housing market resilience also supports banks' financial position
- Banks expected to perform better under stress than during the financial crisis

Bank credit spreads have, so far, moved in parallel with corporate credit spreads during the Corona crisis (see Chart 1). This is probably due to the overwhelming force of Fed asset purchases, which blurs the differences in credit fundamentals.

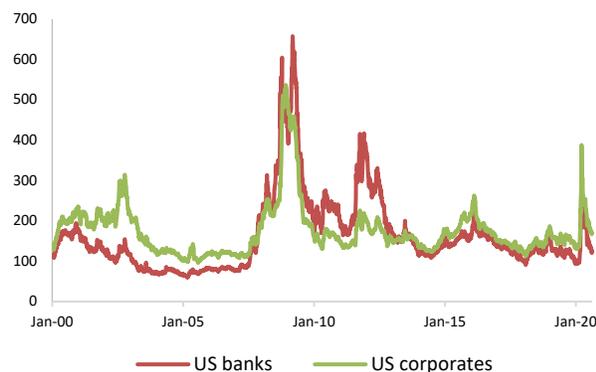
We do not expect another total shutdown, yet we worry that the economic fallout from the Corona crisis is far from over. The Fed may be able to prevent a financial meltdown, but liquidity is not the perfect solution for solvency problems. Indeed, we fear that

more testing times may lie ahead for credit markets.

How will bank credit-spreads perform if stress returns to the system? In the dot-com crisis, the corporate sector was the trouble spot and underperformed, while banks were the problem in the financial crisis and underperformed (see Chart 1).

Chart 1: US high-grade credit spreads

Basis points over Treasuries



Source: JPMorgan⁷

This time, neither banks nor corporates are the cause of the crisis and perhaps Fed liquidity will continue to prevent a credit-market meltdown. In any event, we believe banks are in better shape to withstand the economic fallout from the Corona crisis than they were during the financial crisis.

Bank balance sheets are much stronger

The main reason for our confidence in the banking sector is the strengthening of banks' balance sheets (see Table).

- The share of risky assets, especially risky property loans like revolving home equity loans, has been reduced.
- Cash and interest-bearing balances at the Fed plus Treasury and Agency securities account for 35% of total assets.

- On the funding side, higher-interest-bearing borrowings have been reduced, while deposits at lower or zero interest rates have been increased and the loan/deposit ratio has dropped from over 100% to just 60%.
- The share of other assets and liabilities, which include trading and derivative activities, has declined.
- Finally, the share of equity has nearly tripled over the last 20 years.

Balance sheet items of large US banks

% of total assets

	Dot-com crisis	Financial crisis	Corona crisis
Total loans	59.8	58.7	49.0
Commercial & industrial loans	15.6	11.9	12.7
Commercial real estate loans	9.9	10.4	6.4
Residential real estate loans	16.4	22.8	12.4
Revolving home equity loans	2.4	6.0	1.6
Consumer loans	11.4	9.0	9.6
Securities	17.6	18.4	24.5
Treasuries & Agencies	11.8	10.7	20.4
Cash & Fed balances	4.9	3.0	14.6
Loans to other banks	2.3	1.1	+0.0
Other assets	15.3	18.7	11.9
Deposits	61.3	56.9	80.7
Loans % of deposits	97.5	103.2	60.7
Debt borrowings	18.7	17.9	5.6
Other liabilities	15.9	18.7	2.4
Equity	4.0	6.5	11.3
Debt % of equity	467.5	275.4	49.6

Source: Board of governors of the Federal Reserve System²

Yet bank earnings are not much lower

The reduction in risk-taking and leverage – the Table shows the debt/equity ratio dropped nearly tenfold over the last 20 years – has happened in an environment of falling net interest margins. Yet the return on assets has recovered to levels not much lower than before the financial crisis (see Chart 2). The return on equity did not recover to the highs of the 1990s and early 2000s, but that is no surprise given the much higher capital ratios.

Chart 2: US bank returns and margins

Percent



Source: Federal Reserve Bank of New York³

Importantly, there were no signs of fatigue before the Corona crisis. The average return on equity averaged a bit over 10% in both 2018 and 2019, the highest levels since the period before the financial crisis.⁴

Banks are preparing for large loan losses

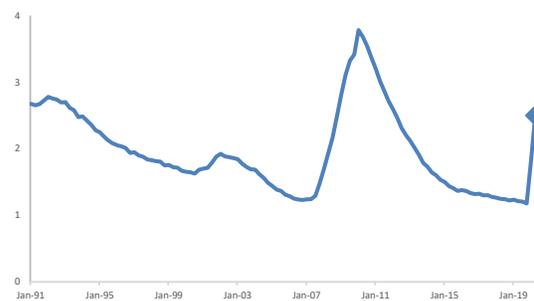
The lockdown forced banks to close branches and many employees worked from home, but banking activity did not drop like overall economic activity. The four largest US commercial banks, which account together for more than 40% of banking assets, reported on balance flat revenues in the second quarter relative to a year ago.⁵

Earnings, however, fell as banks raised their loan loss reserves. In the first quarter, loan-loss reserves rose from 1.2% to 1.8% of total

loans (see Chart 3) and we estimate based on individual bank reports that overall loan-loss reserves rose to 2.5% in the second quarter. We believe banks will continue to provision in the second half with loan-loss reserves coming close to 4% of total loans at the end of the year – similar to the peak during the financial crisis and worth about \$400 billion.

Chart 3: US bank loan-loss reserves

Percent of total loans



Source: Federal Reserve Bank of New York⁶

Yet Fed expects banks to remain strong

The Fed's recent stress test projects for the worst-case Corona scenarios total loan losses of up to \$700 billion.⁷ Capital ratios are set to decline under these scenarios, but the Fed expects most banks to remain well capitalized and only a few banks to approach minimum capital levels.

The crisis is not over and conditions could deteriorate again, but the Fed's worst-case scenarios have so far not materialized. Especially on the financial side, the Fed's worst-case scenarios are much darker, such as a 50% decline in equity prices until year end, a 25% drop in house prices and a sustained widening of BBB credit spreads to over 500 basis points.⁸

Housing market resilience helps banks

On the housing side, the share of mortgage loans in forbearance has surged above 8%,

but is already declining (see Chart 4). Meanwhile, mortgage purchase applications have bounced back strongly after an initial dip in March and April.

Chart 4: US mortgage loans

Index 03/06/2020=100 (lhs) & % of loans (rhs)

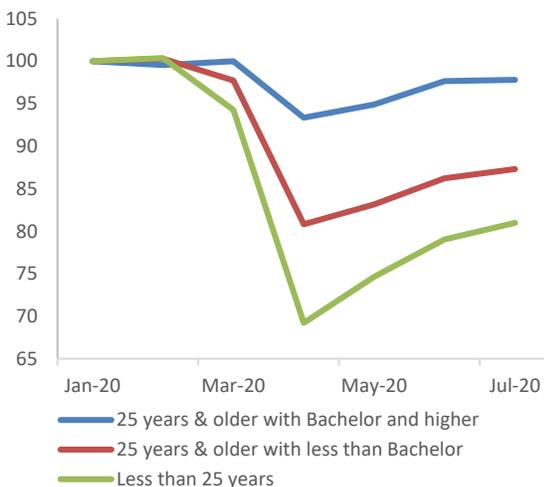


Source: Mortgage Bankers Association⁹

We believe that the housing sector is overall in good shape without building excesses as before the financial crisis, and with lower household-debt-income ratios and more high-quality borrowers.¹⁰ Indeed, the employment situation of the main constituency of home buyers, namely people 25 years or older with a bachelor degree or higher, has been least negatively impacted by the Corona crisis (see Chart 5).

Chart 5: US employment situation

Index Jan-2020 = 100



Source: St. Louis Federal Reserve¹¹

Thus, we expect that resilient house prices will protect banks from larger losses even as defaults increase. So far, house prices have held up well and households expect house prices to continue to rise according to the latest survey by the NY Fed.¹²

Banks are less exposed to corporates

In our view, corporate defaults are likely to hurt the banking sector more than housing-related defaults. Still, we think the banking sector is in a position to withstand such stress.

First, the share of industrial and commercial as well as commercial real estate loans in banks' balance sheets is lower (see Table again) and bank loans also make up just about 13% of total corporate debt.¹³

Second, banks have much stronger means to absorb default shocks from the corporate sector thanks to more resilient earnings and high reserves and capital endowments.

Finally, we believe that banks remain systemically important from a policy perspective and think banks are likely to receive blanket fiscal and monetary support if stress threatens the functioning of the financial system.

More information

As always, we are available to discuss our views with you. Please contact your Client Relations representative at +1 732 978 9722 or zais.clientrelations@zaisgroup.com

¹ JPMorgan JULI Credit Market Index.
<https://markets.jpmorgan.com/#dataquery>

² Board of Governors of the Federal Reserve System; Assets and Liabilities of Commercial Banks in the United States - H.8. The data points are March 2001 for the dot-com crisis, December 2007 for the financial crisis and June 2020 for the current crisis.
<https://www.federalreserve.gov/releases/h8/current/>

³ Same as footnote 3.

⁴ Federal Reserve Bank of New York - Research and Statistics Group; Quarterly Trends for Consolidated U.S. Banking Organizations – Q2 2020;
https://www.newyorkfed.org/research/banking_research/quarterly_trends.html

⁵ JPMorgan:
<https://www.jpmorganchase.com/corporate/investor-relations/document/b766e467-5bf6-4da0-8eae-1fbd8b1810b0.pdf>

Bank of America:
<http://investor.bankofamerica.com/static-files/d70d6be8-5738-443c-8db7-6fbbb0d6e51b>

<https://www.citigroup.com/citi/investor/data/p200714a.pdf?ieNocache=359>

Citi:
<https://www.citigroup.com/citi/investor/data/p200714a.pdf?ieNocache=359>

Wells Fargo:
<https://www08.wellsfargomedia.com/assets/pdf/about/investor-relations/earnings/second-quarter-2020-earnings-supplement.pdf>

⁶ Same as footnote 3. Last observation for 2020-Q2 is ZAIS estimate.

⁷ <https://www.federalreserve.gov/newsevents/pressreleases/bcreg20200625c.htm>

⁸ Same as footnote 5.

⁹ <https://www.mba.org/news-research-and-resources/research-and-economics/single-family-research/weekly-applications-survey>

<https://www.mba.org/news-research-and-resources/newsroom>

¹⁰ Single-home permits are about half the level as before the financial crisis (U.S. Census Bureau and U.S. Department of Housing and Urban Development, New Private Housing Units Authorized by Building Permits - in Structures with 1 Unit [PERMIT1], retrieved from FRED, Federal Reserve Bank of St. Louis;
<https://fred.stlouisfed.org/series/PERMIT1>, August 2, 2020).

The household debt-income ratio has dropped from 134% before the financial crisis to 97% in the first quarter of this year (Board of Governors of the Federal

Reserve System (US), Households and Nonprofit Organizations; Debt Securities and Loans; Liability, Level [TCMILBSHNO], retrieved from FRED, Federal Reserve Bank of St. Louis;
<https://fred.stlouisfed.org/series/TCMILBSHNO>, July 18, 2020. U.S. Bureau of Economic Analysis, Disposable Personal Income [DPI], retrieved from FRED, Federal Reserve Bank of St. Louis;
<https://fred.stlouisfed.org/series/DPI>, August 2, 2020.

Top-rated mortgages (credit score of 760+) account for roughly 2/3 of all new mortgages. Federal Reserve Bank of New York - Research and Statistics Group; Quarterly Report on Household Debt and Credit – Q1 2020.
https://www.newyorkfed.org/medialibrary/interactive/s/householdcredit/data/pdf/HHDC_2020Q1.pdf

¹¹ U.S. Bureau of Labor Statistics, Employment Level [CE16OV], retrieved from FRED, Federal Reserve Bank of St. Louis;
<https://fred.stlouisfed.org/series/CE16OV>, August 16, 2020.

U.S. Bureau of Labor Statistics, Employment Level - Bachelor's Degree and Higher, 25 Yrs. & Over [LNS12027662], retrieved from FRED, Federal Reserve Bank of St. Louis;
<https://fred.stlouisfed.org/series/LNS12027662>, August 16, 2020.

U.S. Bureau of Labor Statistics, Employment Level - 25-54 Yrs. [LNS12000060], retrieved from FRED, Federal Reserve Bank of St. Louis;
<https://fred.stlouisfed.org/series/LNS12000060>, August 16, 2020.

U.S. Bureau of Labor Statistics, Employment Level - 55 Yrs. & Over [LNS12024230], retrieved from FRED, Federal Reserve Bank of St. Louis;
<https://fred.stlouisfed.org/series/LNS12024230>, August 16, 2020.

¹² S&P Dow Jones Indices LLC, S&P/Case-Shiller U.S. National Home Price Index [CSUSHPISA], retrieved from FRED, Federal Reserve Bank of St. Louis;
<https://fred.stlouisfed.org/series/CSUSHPISA>, August 8, 2020.

Home Price Change Expectations; SURVEY OF CONSUMER EXPECTATIONS (AUG 2020);
<https://www.newyorkfed.org/microeconomics/sce#indicators/inflation-expectations/g3>

¹³ Board of Governors of the Federal Reserve System (US), Nonfinancial Corporate Business; Debt Securities and Loans; Liability, Level [BCNSDODNS], retrieved from FRED, Federal Reserve Bank of St. Louis;
<https://fred.stlouisfed.org/series/BCNSDODNS>, July 18, 2020.

U.S. Bureau of Economic Analysis, Net value added of nonfinancial corporate business: Net operating surplus [W326RC1Q027SBEA], retrieved from FRED, Federal Reserve Bank of St. Louis; <https://fred.stlouisfed.org/series/W326RC1Q027SBEA>, July 21, 2020.

U.S. Bureau of Economic Analysis, Gross value added of nonfinancial corporate business [A455RC1Q027SBEA], retrieved from FRED, Federal Reserve Bank of St. Louis; <https://fred.stlouisfed.org/series/A455RC1Q027SBEA>, July 24, 2020.

Important Information

Confidentiality

The information presented herein has been prepared and provided by and is confidential and proprietary to ZAIS Group, LLC, ZAIS Group (UK) Limited and their affiliates and subsidiaries (collectively, "ZAIS"). Accordingly, this material is not to be reproduced in whole or in part or used for any purpose except as authorized by ZAIS, is to be treated as strictly confidential and is not to be disclosed directly or indirectly to any party other than the recipient. By accepting receipt of this document, the recipient agrees to comply with this restriction and confirms its understanding of the limitations set forth in these disclaimers.

Source of Information

Unless otherwise noted, the source of information for the charts, graphs, and other materials contained herein is ZAIS. The charts, tables, and graphs contained in this document are not intended to be used to assist the reader in determining which securities to buy or sell or when to buy or sell securities. Additional information is available upon request.

Nature of Information Provided

This information has been prepared solely for informational purposes and is not an offer to buy or sell or a solicitation of an offer to buy or sell any security or instrument or to participate in any trading strategy which may or may not be made available. Any such offer of securities would, if made, be made pursuant to definitive final private offering documents, which would contain material information not contained herein (including certain risks) or material that differs from the information contained herein and to which current and prospective investors are referred. Any decision to invest should be made solely in reliance upon such private offering documents. In the event of any such offering, this information shall be deemed superseded, amended and supplemented in its entirety by such private offering documents. Information contained herein does not purport to be complete and is subject to the same qualifications and assumptions, and should be considered by investors only in the light of the same warnings, lack of

assurances and representations and other precautionary matters, as disclosed in an applicable private offering memorandum and subscription agreement. No representation or warranty can be given with respect to the terms of any offer of securities conforming to the terms hereof. There is no guarantee that the strategies set forth herein will be successful. The information should only be considered current as at the date specified herein and is subject to change at any time and without notice. Statements made herein that are not attributed to a third party source reflect the views and opinions of ZAIS.

Opinions

Certain information contained herein represents ZAIS's current reasonable opinion and is based on unaudited and forecast figures which have been derived from multiple sources and have not been subject to specific due diligence. The information has been provided in good faith but is not guaranteed and is subject to uncertainties beyond ZAIS's control and should not be relied upon for the purposes of any investment decision. ZAIS makes no representations or warranties and accepts no liability whether in contract, tort or otherwise for (1) the information not being full and complete, (2) the accuracy of any opinion, (3) the basis on which any comparison has been drawn or the facts selected to make such comparison and (4) the assumptions underlying any opinions. ZAIS does not undertake to update its opinions. No opinion of this nature can be, and this information does not purport to be, full, complete, comprehensive or to contain all relevant information. Statements made herein that are not attributed to a third party source reflect the views and opinions of ZAIS.

Forward-Looking Statements

These materials may contain statements that are not purely historical in nature but are "forward-looking statements". In some cases, you can identify forward-looking statements by terms such as "anticipate," "believe," "could," "estimate," "expect," "intend," "may," "plan," "potential," "should" and "would" or the negative of these terms or other comparable terminology. These forward-looking statements include, among other things, projections, forecasts, estimates or hypothetical calculations with respect to

income, yield or return, future performance targets, sample or pro forma portfolio structures or portfolio composition, scenario analysis, specific investment strategies or proposed or pro forma levels of diversification or sector investment. These forward-looking statements are based upon certain assumptions, some of which are described herein. Prospective investors are cautioned not to place undue reliance on such statements. No representation is made by ZAIS as to the accuracy, validity or relevance of any such forward-looking statement and the recipient agrees it is solely responsible for gathering its own information and undertaking its own projections, forecasts, estimates and hypothetical calculations. Actual events are difficult to predict, are beyond ZAIS's control, and may substantially differ from those assumed. All forward-looking statements included herein are based on information available on the date hereof or such date specified and ZAIS does not assume any duty to update any forward-looking statement contained herein. Some important factors which could cause actual results to differ materially from those in any forward-looking statements include, among others, the actual composition of the investment portfolio, any defaults to the investments, the timing of any defaults and subsequent recoveries, changes in interest rates, changes in currency rates and any weakening of the specific obligations included in the portfolio. Accordingly, there can be no assurance that estimated returns or projections can be realized, that forward-looking statements will materialize or that actual returns or results will not be materially lower or higher than those presented. The value of any investment, and the income from it, may fall as well as rise. Accordingly, there can be no assurances that an investor will receive back all or any

of the original capital invested. Further, the eligible investments may be leveraged and the portfolio of eligible investments may lack diversification thereby increasing the risk of loss.

ZAIS Group (UK) Limited. ZAIS Group (UK) Limited is a company registered in England with number 08908933 and whose registered office is c/o Dixon Wilson, 22 Chancery Lane, London WC2A 1LS, United Kingdom. ZAIS Group (UK) Limited is an appointed representative of Infinity Asset Management LLP, which is authorized and regulated by the Financial Conduct Authority in the United Kingdom. ZAIS Group (UK) Limited's status as an appointed representative of Infinity Asset Management LLP does not imply a certain level of skill or training. Investors will not benefit from the rules and regulations made under the Financial Services and Markets Act 2000 for the protection of investors, nor from the Financial Services Compensation Scheme in the United Kingdom. Nothing herein excludes any liability which ZAIS is not permitted to exclude by applicable law.

Regulatory Registrations and Authorizations. ZAIS Group, LLC's registrations with the Securities and Exchange Commission (the "SEC") and the Commodity Futures Trading Commission (the "CFTC"), and ZAIS Group (UK) Limited's status as an appointed representative of Infinity Asset Management LLP (which is authorized by the United Kingdom's Financial Conduct Authority ("FCA")), does not imply a certain level of skill or training.

Copyright © 2020 by ZAIS Group, LLC.