Outlook for US regional banks

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What is the banking sector response to the SVB collapse and associated deposit outflows? Cutting lending and selling mortgages
Largest 2-week decline in deposits

Source: Federal Reserve Board, Haver Analytics, Apollo Chief Economist.
Largest 2-week decline in bank holdings of mortgages

Source: Federal Reserve Board, Haver Analytics, Apollo Chief Economist.
2-week change in bank holdings of Treasuries

Source: Federal Reserve Board, Haver Analytics, Apollo Chief Economist.
Largest 2-week decline in bank lending

Source: Federal Reserve Board, Haver Analytics, Apollo Chief Economist.
Largest 2-week decline in lending to corporates

Source: Federal Reserve Board, Haver Analytics, Apollo Chief Economist.
Largest 2-week decline in real estate lending

Source: Federal Reserve Board, Haver Analytics, Apollo Chief Economist.
Largest 2-week decline in lending to multifamily construction

Source: Federal Reserve Board, Haver Analytics, Apollo Chief Economist.
Some decline in auto loan lending

Source: Federal Reserve Board, Haver Analytics, Apollo Chief Economist.
The FHLB system issued $247bn in debt in March, significantly higher than in 2008.
Overview
More than $900bn in deposits have left the banks since the Fed began to raise interest rates, the biggest outflow on record
$600bn inflows into money market funds during this Fed hiking cycle
Primary method of bank account access:
More and more households use mobile and online banking

Source: FDIC, Apollo Chief Economist. Note: The data shows the sum of households using mobile and online banking, some respondents may use both.
IG and HY primary issuance slowly coming back

Source: Bloomberg, Apollo Chief Economist. Note: Data from NIM <GO>, IG excludes government and financials issuance.
US capital markets slowly starting to come back after SVB went under

Source: Pitchbook LCD, S&P Capital IQ, Bloomberg, Apollo Chief Economist. (Note: Jan-Feb number here the average of the sum of those two months.)
Lagged effects of Fed hikes combined with tighter credit conditions will create a sharper slowdown in the economy.
The Fed funds rate effectively pushed 1.5%-points higher after SVB because of tighter financial conditions combined with tighter lending standards.

Source: Bloomberg, Apollo Chief Economist. Note: Two regression models with the Fed funds rate on the left-hand side were run to quantify the effect from tighter financial conditions and tighter lending standards, and the estimated coefficients show 0.5% higher Fed funds rate from tighter financial conditions and 1% higher Fed funds rate from tighter lending standards.
Impact on GDP if the ongoing banking crisis continues

<table>
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<th>% difference from baseline GDP forecast</th>
<th>VIX</th>
<th>Credit Risk</th>
<th>Monetary Policy</th>
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Source: Bloomberg, Apollo Chief Economist. Note: The chart shows difference in baseline forecast adding a 150bps shock to Fed funds rate and 30 bps to credit risk and a two standard deviation shock to VIX, all starting in 1Q23. VIX is currently two standard deviations from its mean since 2010.
QE added $12trn to global liquidity since 2019

G7 + China QE since 2019

Source: Bloomberg, Apollo Chief Economist
Bank funding pressures: Deposits and market-based measures
Deposits in small and large banks

Source: Federal Reserve Board, Haver Analytics, Apollo Chief Economist.
Bank funding costs remain high: FRA-OIS spread remains elevated

FRA-OIS spread at levels seen in March 2020

IG OAS spreads for banks remain elevated

Fed Discount Window borrowing higher than in 2008

Source: Federal Reserve Board, Haver Analytics, Apollo Chief Economist.
$350bn has been moved into money market funds since SVB went under.
Record-high volatility in fixed income markets

Successive days of +/-20 bps moves in 2-year rates

Source: Bloomberg, Apollo Chief Economist
What is happening with deposits in regional banks?
Small banks account for roughly a third of all deposits in the banking sector

Source: Federal Reserve Board, Haver Analytics, Apollo Chief Economist.
Small banks account for about 1/3 of total deposits in the banking sector and the share has been rising since the 2008 financial crisis.
Share of total bank deposits that are uninsured: 43%
Share of insured deposits, by bank size

Source: Federal Reserve Board, Haver Analytics, Apollo Chief Economist.
Share of insured deposits, by bank size

Insured deposits as a % of total deposits assets

By Bank Assets

Source: FDIC, Haver Analytics, Apollo Chief Economist. As of Q4 2022
Share of insured deposits, by bank size

Source: FDIC, Haver Analytics, Apollo Chief Economist. As of Q4 2022
Deposit to asset ratio for large and small banks

Source: Federal Reserve Board, Haver Analytics, Apollo Chief Economist.
25% of all bank deposits pay zero interest rate

Source: FDIC, Apollo Chief Economist.
Weekly data for bank lending by small and large banks
Weekly data for overall bank lending

Loans & Leases: Bank Credit

- Small Domestic Commercial Banks
- Large Domestic Commercial Banks (RHS)

Source: Federal Reserve Board, Haver Analytics, Apollo Chief Economist.
Weekly data for lending to consumers by small and large banks
Weekly data for real estate lending by small and large banks

Real Estate Loans: Bank Credit

- Small Domestic Commercial Banks
- Large Domestic Commercial Banks (RHS)

Source: Federal Reserve Board, Haver Analytics, Apollo Chief Economist.
Weekly data for commercial real estate lending by small and large banks

Source: Federal Reserve Board, Haver Analytics, Apollo Chief Economist.
Weekly data for residential real estate lending by small and large banks

Source: Federal Reserve Board, Haver Analytics, Apollo Chief Economist.
Weekly data for commercial and industrial lending by small and large banks

Source: Federal Reserve Board, Haver Analytics, Apollo Chief Economist.
Divergence between small bank and large bank lending growth over the past year

Source: Federal Reserve Board, Haver Analytics, Apollo Chief Economist.
Lending to consumers has been growing faster for smaller banks

Source: Federal Reserve Board, Haver Analytics, Apollo Chief Economist.
Real estate lending has been growing faster for smaller banks
Commercial real estate lending has been growing faster for smaller banks.
Residential real estate lending has been growing faster for smaller banks.
Lending to corporates among small and large banks

Source: Federal Reserve Board, Haver Analytics, Apollo Chief Economist.
Small banks lend to small businesses
Banks with less than $250bn in assets account for 50% of commercial and industrial lending

Source: FDIC, Apollo Chief Economist. Data as of Q3 2022
US banks by asset size:
The importance of regional banks for the US economy
Tighter credit conditions are coming:
Banks “to the right” of SVB are likely to start reorganizing their balance sheets.
Top 50 US banks by assets

Source: Federal Reserve Board, Haver Analytics, Apollo Chief Economist. As of Q4 2022.
Balance sheet growth of US banks, ranked by fastest growth in percent

Source: FDIC, Apollo Chief Economist.
Small bank assets as a share of total banking sector assets

Source: Federal Reserve Board, Haver Analytics, Apollo Chief Economist.
Share of lending by smaller banks

Small domestic commercial bank loans and leases, as a share of all commercial bank loans

Source: Federal Reserve Board, Haver Analytics, Apollo Chief Economist.
During the pandemic, banks shifted from lending to holding securities.
Share of securities in the banking sector held by small banks

Source: Federal Reserve Board, Haver Analytics, Apollo Chief Economist.
Small banks hold $1trn in Treasuries

Government Securities: Bank Credit

Source: Federal Reserve Board, Haver Analytics, Apollo Chief Economist.
Securities held by FDIC-insured banks

Source: FDIC, Bloomberg, Apollo Chief Economist.
Deposits as a share of GDP now below trend

Source: Federal Reserve Board, BEA, Haver Analytics, Apollo Chief Economist
Regional banks’ asset concentration in CRE
High concentration of commercial real estate in small banks

Source: Federal Reserve Board, Haver Analytics, Apollo Chief Economist. Note: Data covers average from December 2022 to February 2023.
Small banks account for almost 70% of all commercial real estate loans outstanding.
Banks with total assets between $100mn and $10bn are more exposed to CRE loans
Nearly $92 bn of nonbank office debt is set to mature this year
US Office vacancy rate rising
Price per square foot for US offices falling

Source: RCA, Bloomberg, Apollo Chief Economist
CMBS spreads compared with HY spreads

Source: Bloomberg, Apollo Chief Economist.
Available US office space rising

Source: Savills US Markets, Bloomberg, Apollo Chief Economist.
Measures of banking sector liquidity and capital ratios
Liquidity ratio, by bank assets: Largest banks have most liquidity
Source: FDIC, Apollo Chief Economist. Note: As per FDIC, large banks are defined as institutions with total assets of $10 billion or more and small banks have total assets under $10 billion.
Tier 1 risk-based capital ratio for larger banks

Large banks: Tier 1 Risk-Based Capital Ratio

Source: FDIC, Apollo Chief Economist. Note: As per FDIC, large banks are defined as institutions with total assets of $10 billion or more and small banks have total assets under $10 billion.
Reserves for loan losses

Source: FDIC, Haver Analytics, Apollo Chief Economist.
Loan delinquency rates for large and small banks

Source: Federal Reserve Board, Haver Analytics, Apollo Chief Economist.
Unrealized Gains (Losses) on investment securities for banks, as of 2022Q4

Source: FDIC, Apollo Chief Economist.
Community banks
90% of all banks in the US are community banks

Source: FDIC, Apollo Chief Economist.
CRE loans make up a significant share of community banks’ assets

Commercial Real Estate Loans as a % of Total Assets

- Community Banks
- All Other Banks

Source: FDIC, Apollo Chief Economist.
Net interest margin higher for community banks

Source: FDIC, Apollo Chief Economist.
Fed funds rate versus national average interest rate on checking accounts
Interest rate on checking accounts versus the Fed funds rate

Source: FRB, RateWatch, Haver Analytics, Apollo Chief Economist.
CD rates have slowly increased as the Fed has raised interest rates.
Monitoring repo spreads for stresses in money markets

Source: Haver Analytics, Bloomberg, Apollo Chief Economist
The average efficiency ratio for community banks is around 61% compared with 55% for noncommunity banks.

Source: Haver Analytics, Bloomberg, Apollo Chief Economist. A bank’s efficiency ratio is defined as the ratio of a bank’s non-interest expense to revenues. Higher efficiency ratios indicate less efficient banks.
Share of bank lending lower in the US

Credit to Nonfinancial Private Sector: Banks

Source: BIS, Haver Analytics, Apollo Chief Economist.
Residential construction spending elevated

Source: Census Bureau, Haver Analytics, Apollo Chief Economist.
Torsten Slok joined Apollo in August 2020 as Chief Economist and he leads Apollo's macroeconomic and market analysis across the platform.

Prior to joining, Mr. Slok worked for 15 years as Chief Economist at Deutsche Bank where his team was top ranked in the annual Institutional Investor survey for a decade. Prior to joining Deutsche Bank Mr. Slok worked at the IMF in Washington, DC and at the OECD in Paris.

Mr. Slok has a Ph.D in Economics and has studied at the University of Copenhagen and Princeton University.