Monthly Market Update

November 2019

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Wells Fargo Securities, LLC

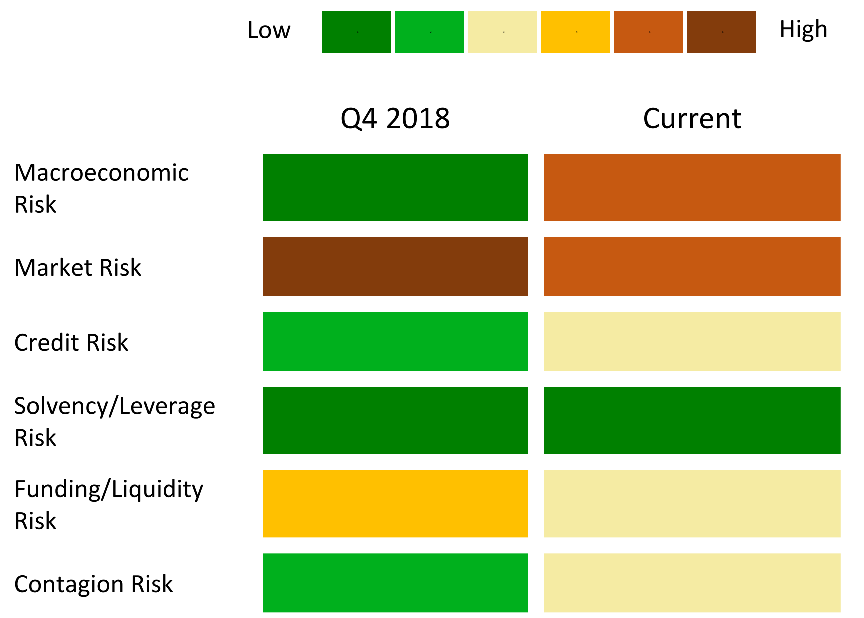
November 20, 2019

Summary and Economic Signals

Summary

- GDP growth: *You've Come a Long Way Baby*
- The U.S. vs. G8 GDP growth: *Slip Slidin' Away*
- Through the looking glass on negative yields
- The Fed has adjusted its outlook
- Powell tells Congress he's standing firm…for now
- Recession probability falling
- Yield curve flattens in response
- What happened in September?
- Treasuries "cheap" vs OIS
- Agency callable spreads have tightened
- Corporate spreads remain tight

OFR Financial System Vulnerabilities Monitor



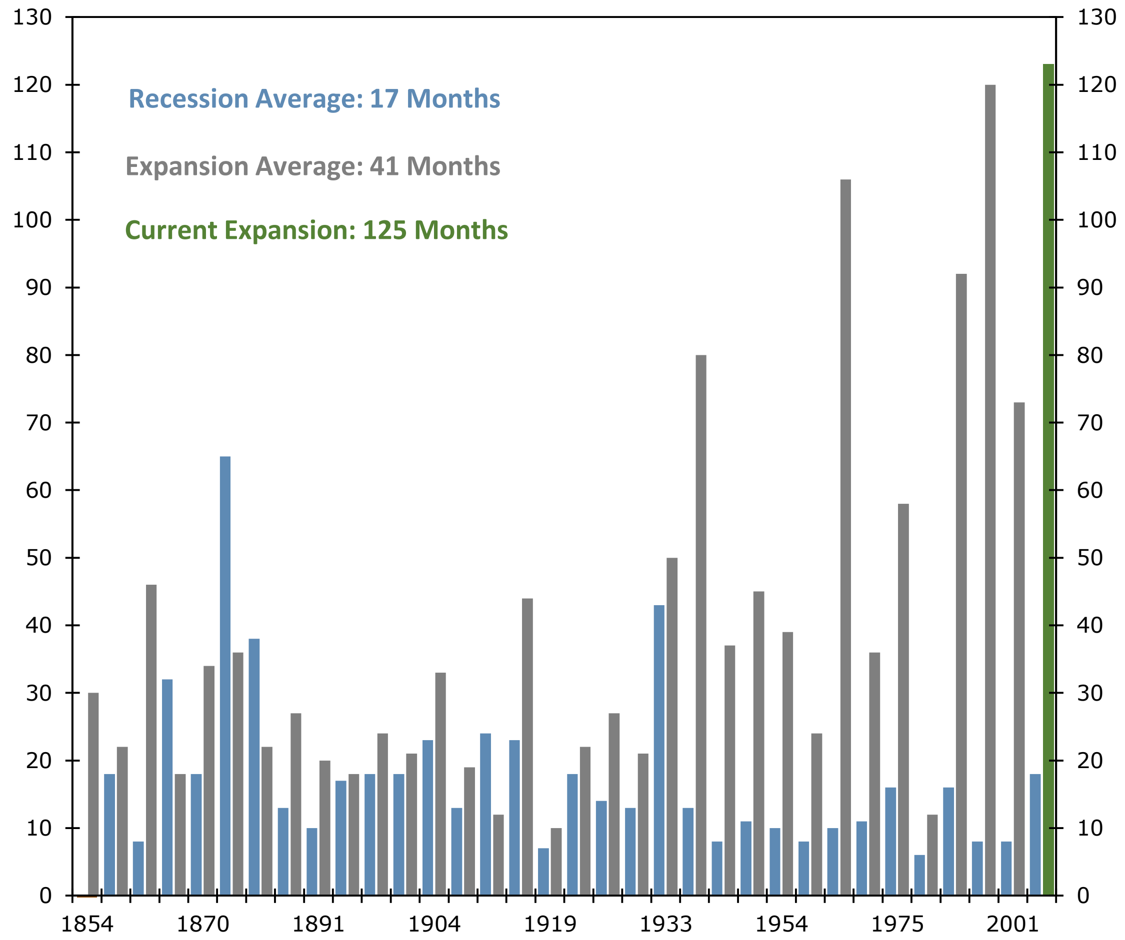
Source: Office of Financial Research, Wells Fargo Securities, LLC

US GDP Growth: You've Come A Long Way Baby

The Cycle Continues

- **The longest period of consistent growth in U.S. history is looking to find a bit more traction.**
- **But to support this growth, the FOMC has signaled the need for further stimulus…**

Expansion



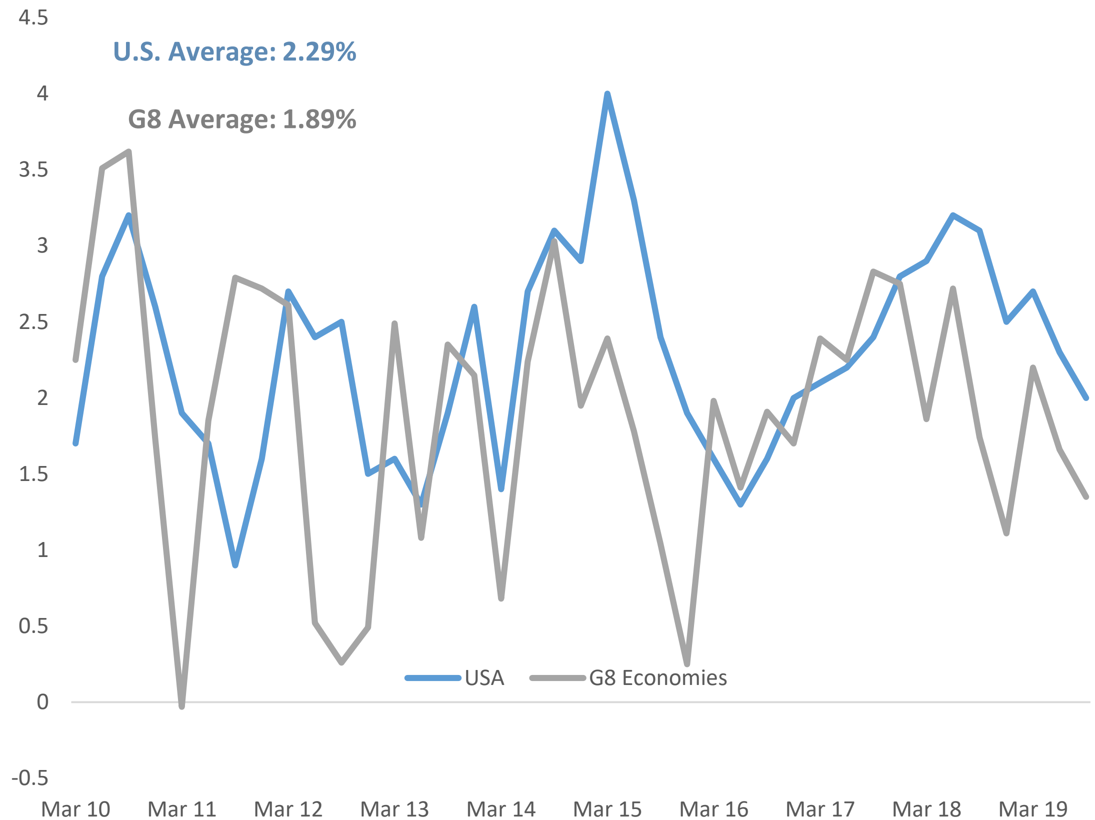
Source: NBER, Wells Fargo Securities, LLC

G8 GDP Growth: Slip Slidin' Away

Lower For Longer

- **Weaker GDP growth around the world has been referenced many times by the FOMC as a downside risk to U.S. growth.**
- **The U.S. appears to be following a similar path but at a slightly higher absolute level.**

U.S. vs. G8 *Real* GDP Growth



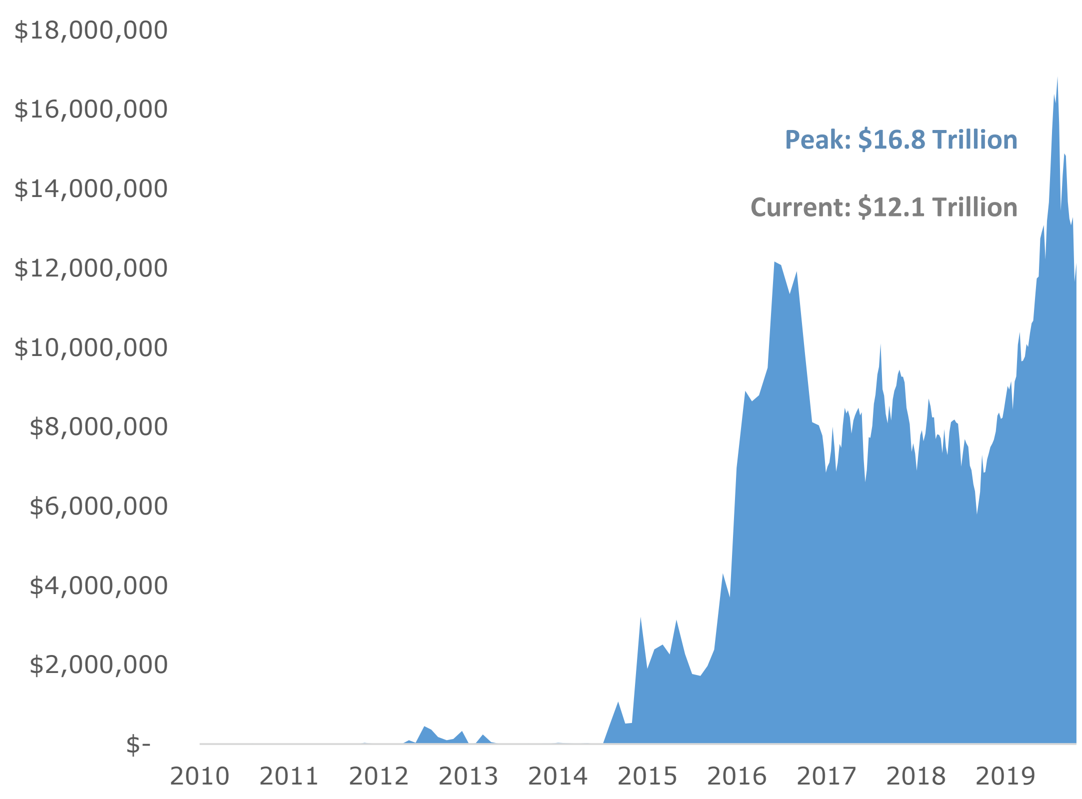
Source: Bloomberg, Wells Fargo Securities, LLC

Global Rates: Through The Looking Glass

Negative Rates Support GDP?

- **The rise in global debt with negative yields is designed to support growth, but do we really understand how negative rates impact economic behavior?**

Growth in Worldwide Negative Yielding Debt



Source: Bloomberg, Wells Fargo Securities, LLC, iStockPhoto

Fed Policy: Running to Stand Still

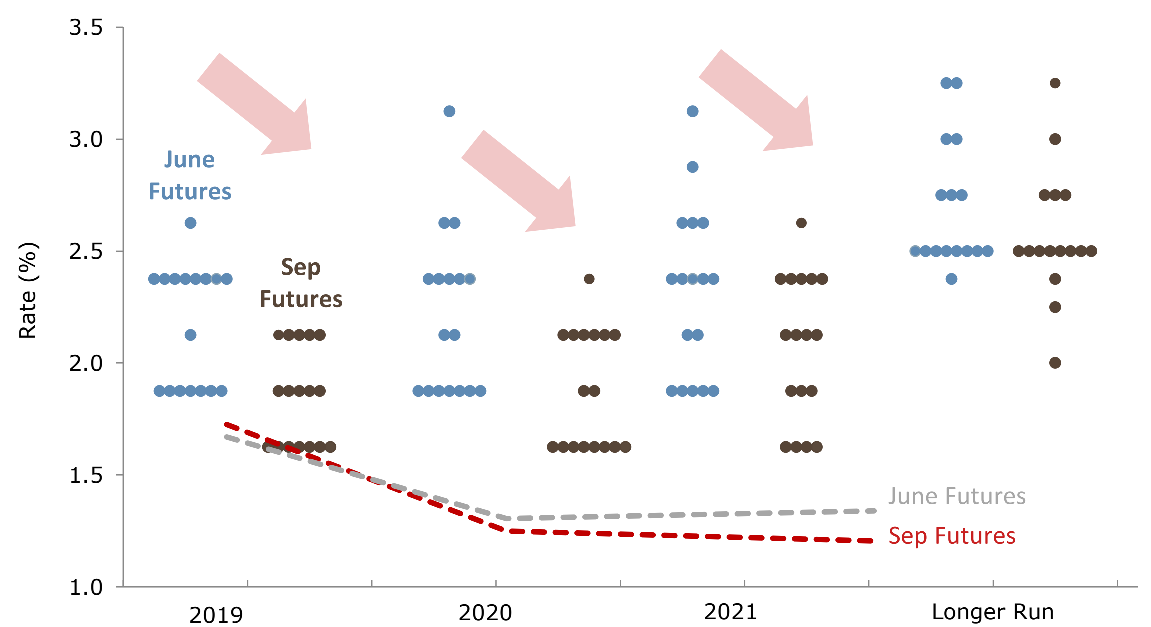
"Over the past year, weakness in global growth, trade developments, and muted inflation pressures have prompted the FOMC to adjust its assessment of the appropriate path of interest rates."

Jerome Powell, November 2019

Further Stimulus Needed

- **The September Dot Plot shows that members of the FOMC have shifted their view on the appropriate level of short-term rates to keep the economy from stalling.**

June – September Dot Plot Comparison



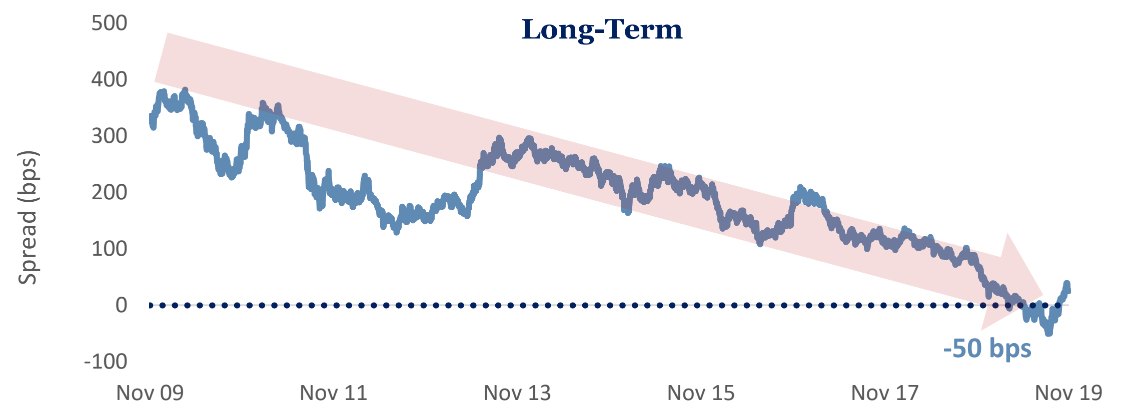
Source: Federal Reserve, Wells Fargo Securities, LLC

Curve flatter after Powell Testimony

Long-Term Curve Trends

- The long-term trend of a flatter curve remains intact, reflecting the overall outlook on growth and inflation.
- Curve inversion as a recession warning signal has subsided.

3M – 10Y Treasury Curve Basis



2019 Curve Trends

- The inversion that began in earnest earlier in 2019 has reversed.
- Chair Powell's recent testimony, however, reversed the near-term steepening trend.

Source: Bloomberg, Wells Fargo Securities, LLC

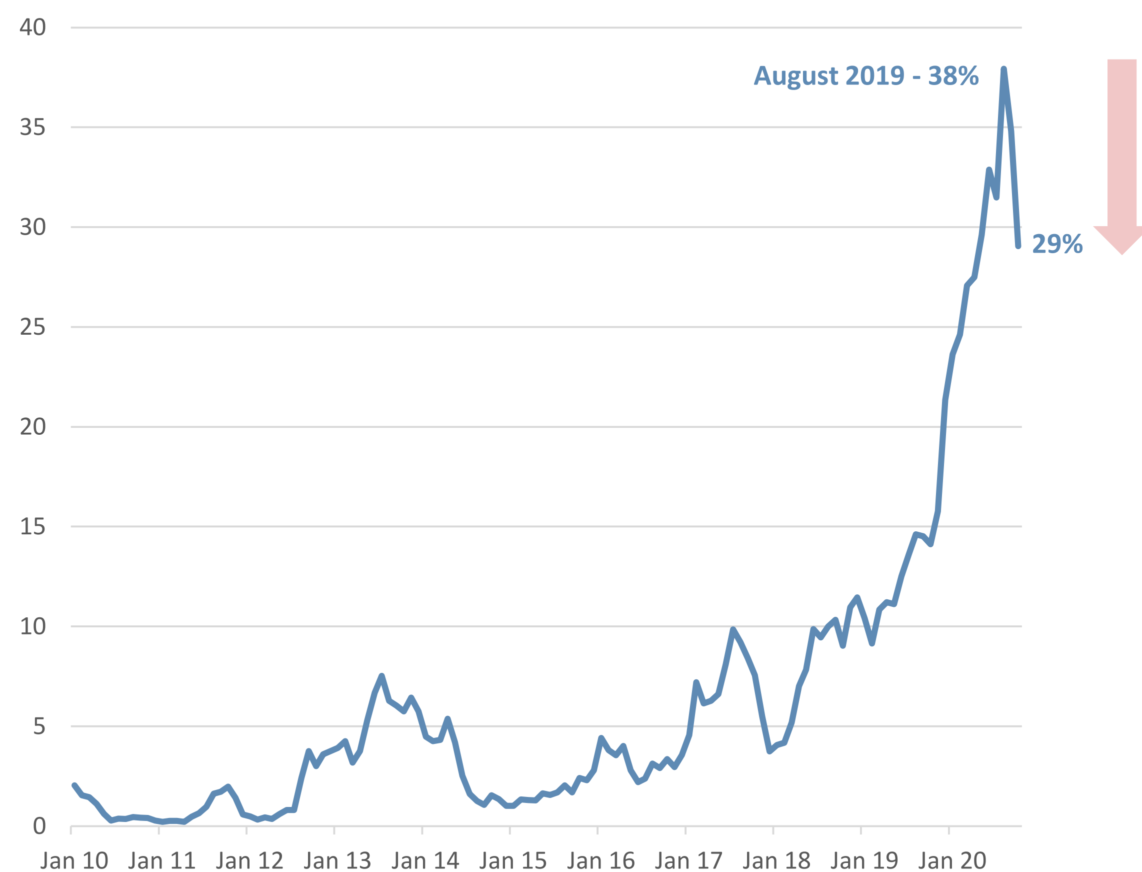
Recession Likelihood Elevated But Falling

Contraction *Less* Likely, Not *Unlikely*

- **The peak of 12-month forward recession probabilities occurred in August, 2019 immediately after the Fed began its easing plan.**

- **This should not suggest the economy is in the clear. The three previous times the indicator hit this point were in 1989, 2000, and 2007**

New York Fed 12-Month Forward Recession Probability



Source: Federal Reserve Bank of New York, Wells Fargo Securities, LLC

So what happened in September 2019?

Overnight repo market average rates spiked to 5.25%

- Other unsecured markets followed
  - Money funds
  - O/N CP

Why is this a concern?

- Confidence in the ability of the Fed to control short-term rates can severely impact market pricing, functioning, and activity.

Secured Overnight Financing Rate (SOFR)

Source: Bloomberg, Wells Fargo Securities, LLC

The Fed's Balance Sheet: A Primer

The Fed's Balance Sheet Must Balance

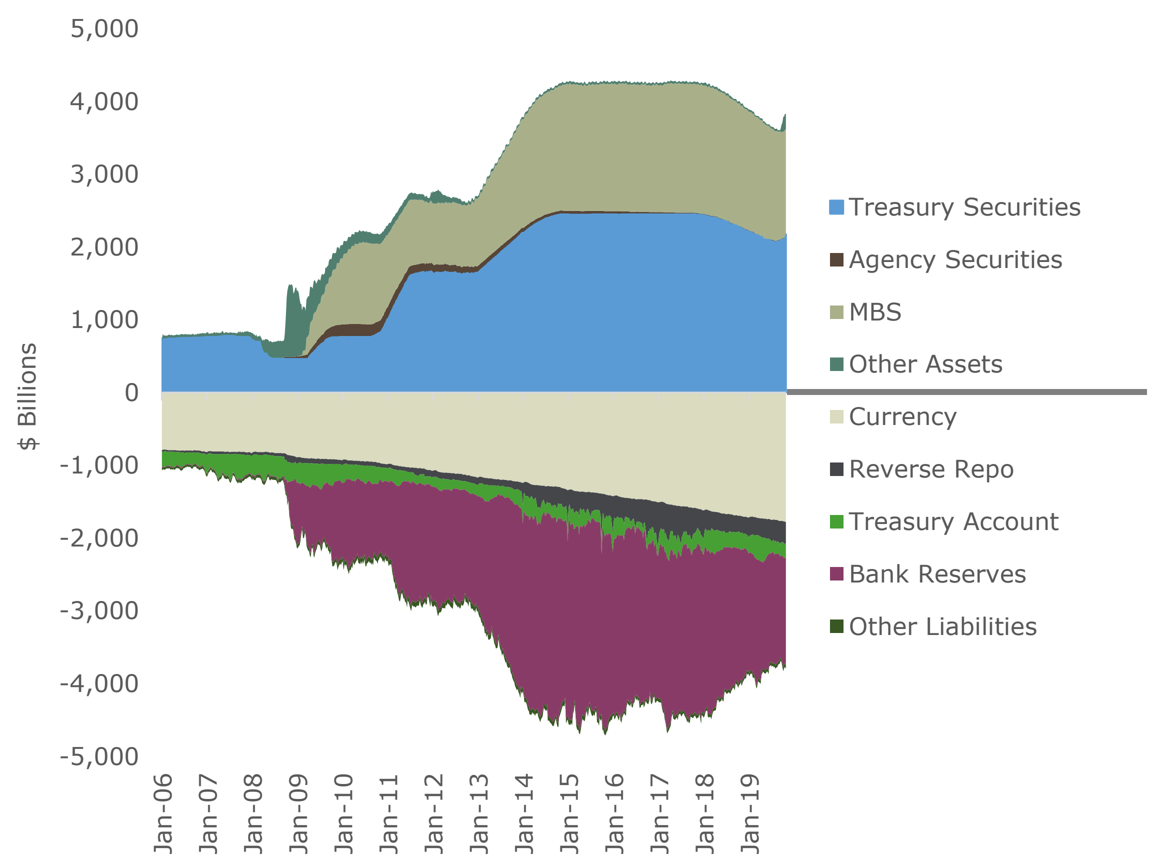
As the Fed has allowed securities to mature off of the asset side of its balance sheet, reserve liabilities must also decline.

September 2019 was the market's way of indicating that reserves had fallen below the banking system's desired level.

Why is this a concern?

- **Confidence in the ability of the Fed to control short-term rates can severely impact market pricing, functioning, and activity.**

Federal Reserve Balance Sheet



Source: Bloomberg, Wells Fargo Securities, LLC

The Market Is Liquid…Until It's Not

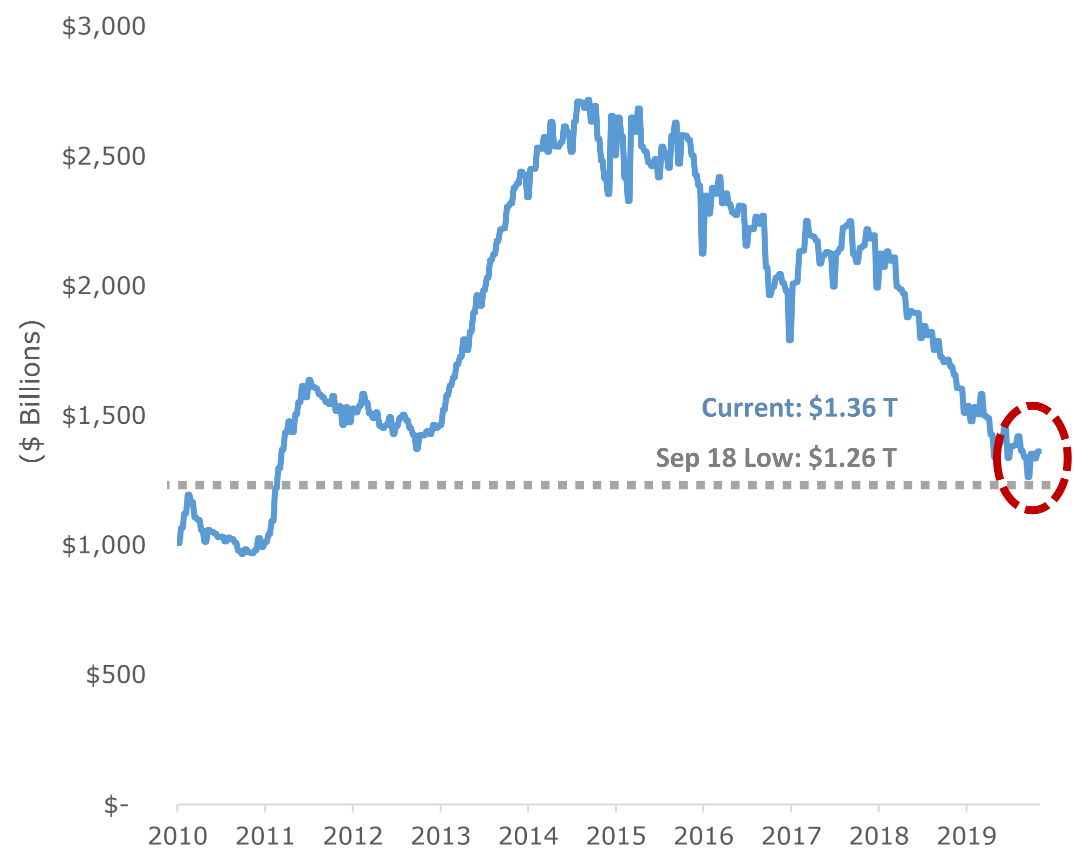
The September liquidity event was caused by a sharp reduction in excess reserves precipitated by:

- **Funding pressure at dealers**
- **Monthly/quarterly tax payments**
- **Related deposit/MMF outflows**

> "These actions are purely technical measures to support the effective implementation of monetary policy as we continue to learn about the appropriate level of reserves. "
>
> Jerome Powell, October 2019

Since mid-September, *excess* reserves have increased by more than $100 billion

Excess Reserves at U.S. Banks

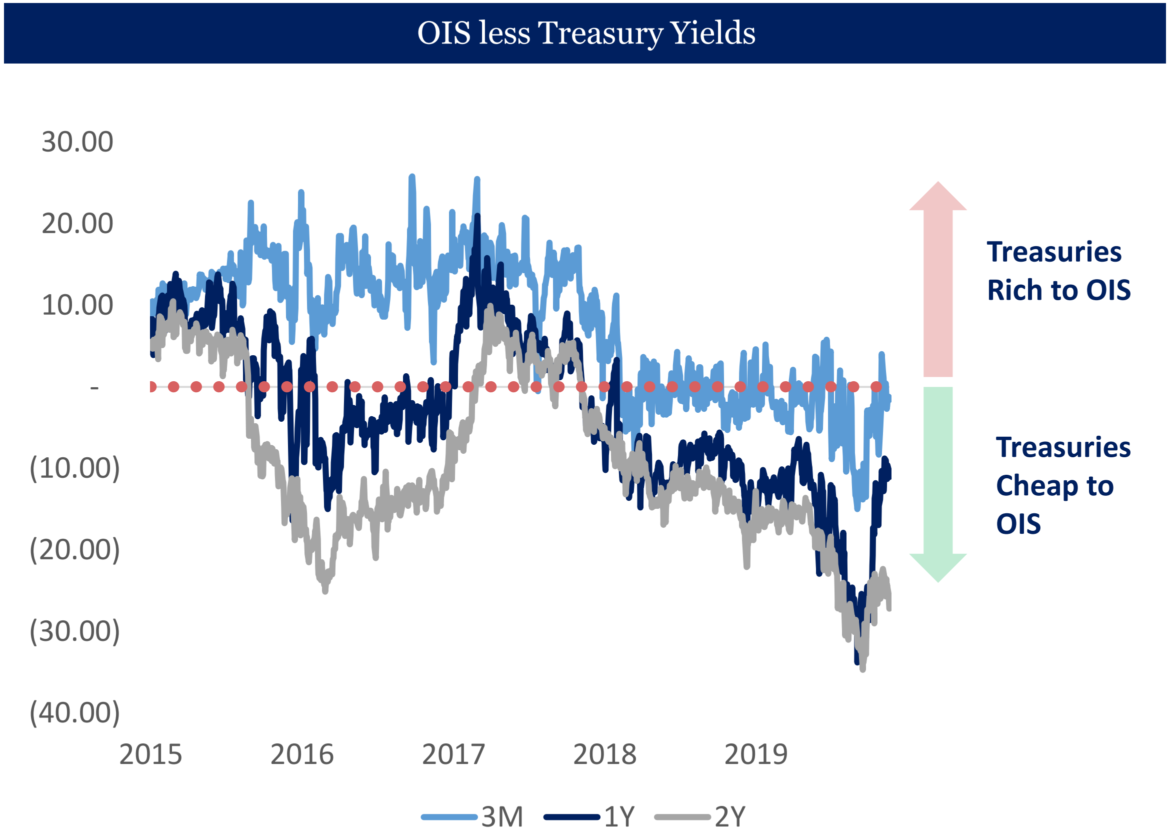


Source: Bloomberg, Wells Fargo Securities, LLC

Treasury Rates Still "Cheap vs. OIS"

Treasuries vs. OIS

- **OIS is a pure measure of market expectations for Fed policy rates over a specific period.**
- **If OIS is less than Treasuries, it suggests the Treasury market is inexpensive relative to market expectations for Fed funds.**
- **Currently, longer-dated Treasuries look "cheap" vs. OIS**

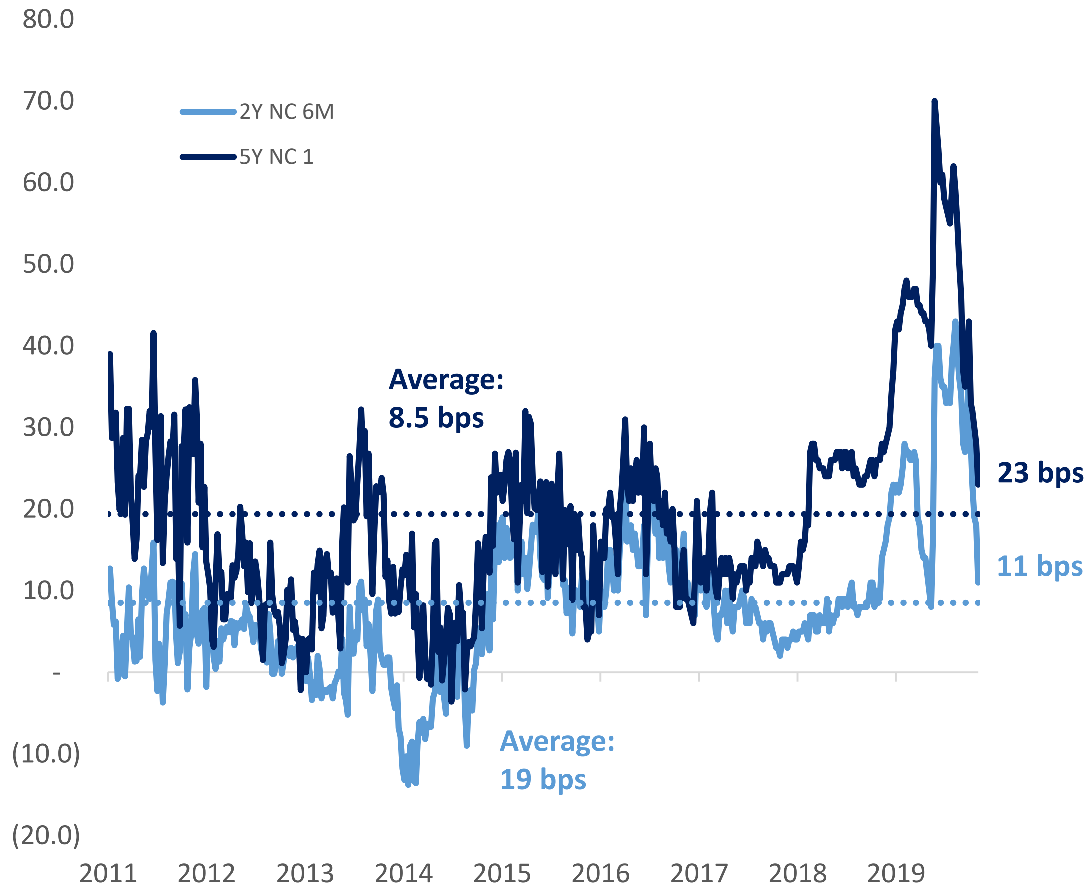


Source: Bloomberg, Wells Fargo Securities, LLC

Agency Callable Spreads Have Tightened

Reduced expectations for further rate cuts have caused callable spreads to tighten sharply vs. agency bullets.

2Y NC 6M and 5Y NC 1Y vs. Agency Bullet Spreads

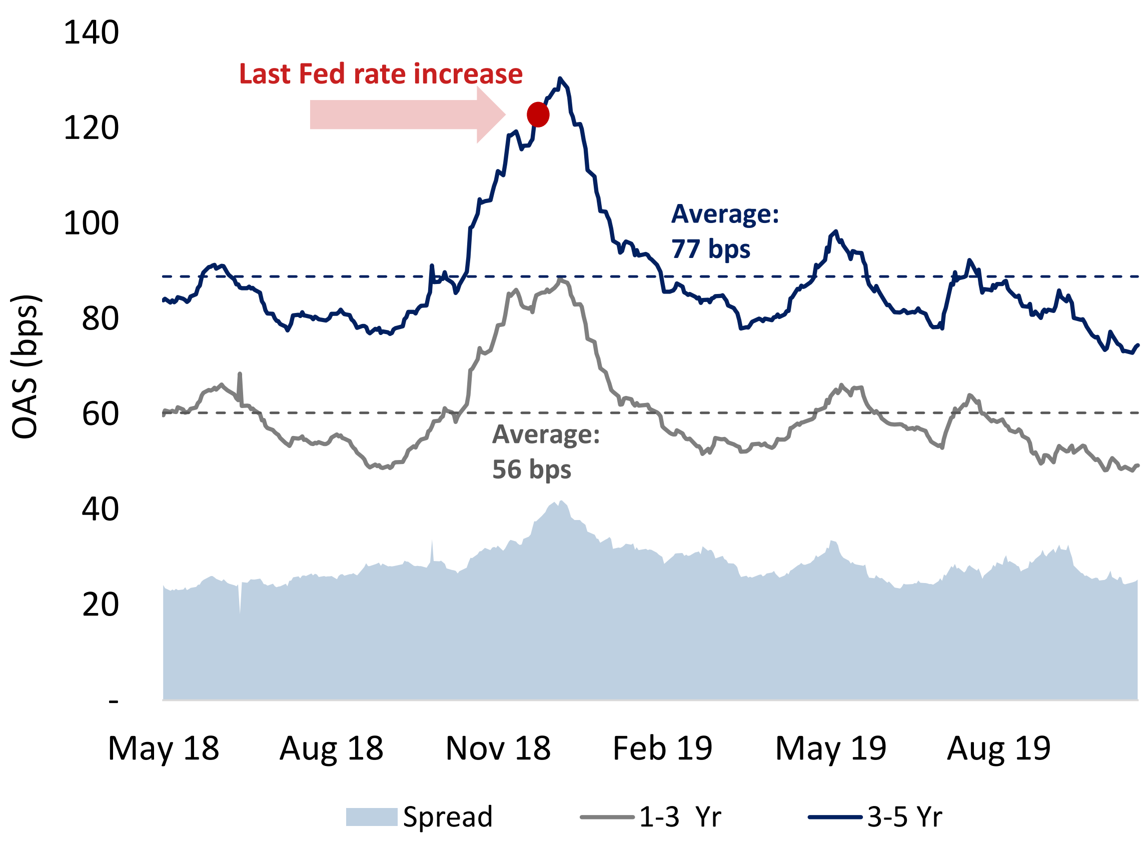


Source: Wells Fargo Securities, LLC

Corporate Credit Spreads Remain Tight

Short-term credit spreads remain below their 18-month averages, touching a high-point when the Fed ended it's tightening cycle.

Short-Term IG Corporate Spreads



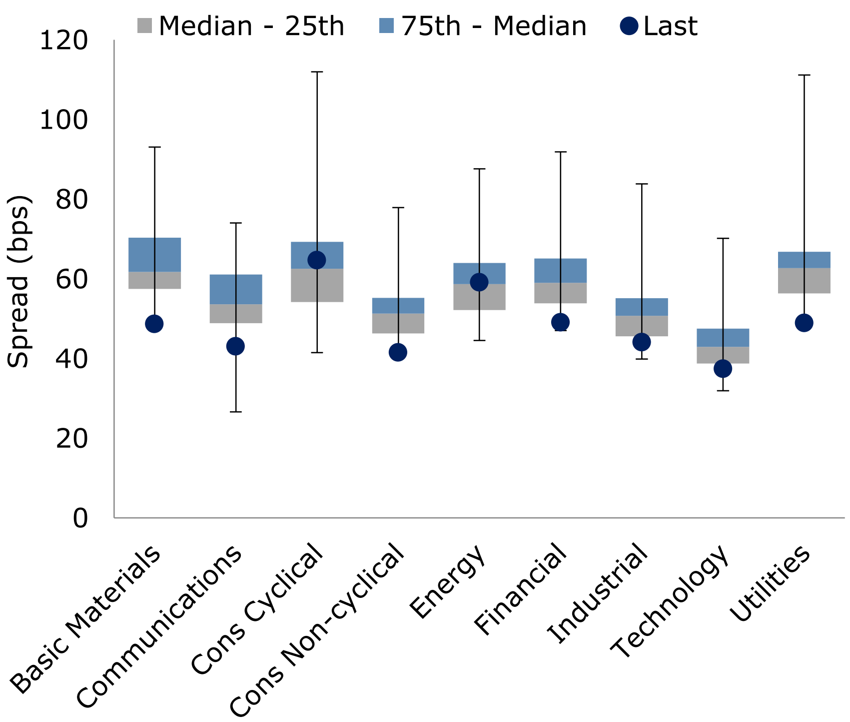
Source: Bloomberg, Wells Fargo Securities, LLC

Corporate Credit Spreads Remain Tight

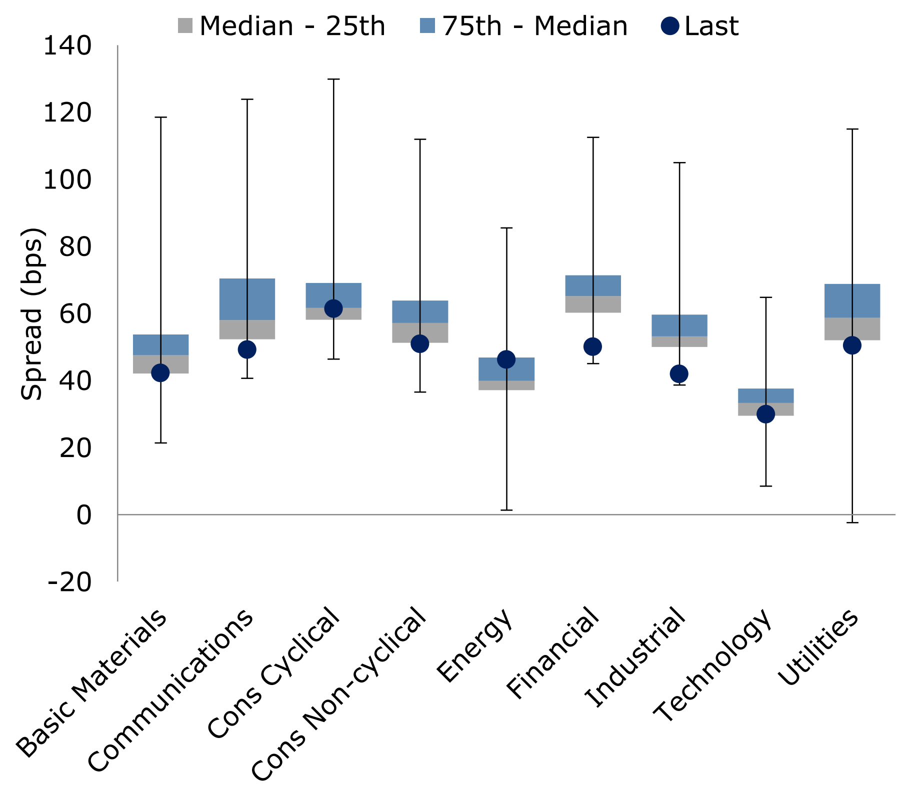
Short-term credit spreads in most IG sectors remain below their 18-month median levels, and in many cases, below their 25th percentile spread level.

Short-Term IG Corporate Spreads

Money Market Spreads



FRN Spreads



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