DECEMBER 6, 2019

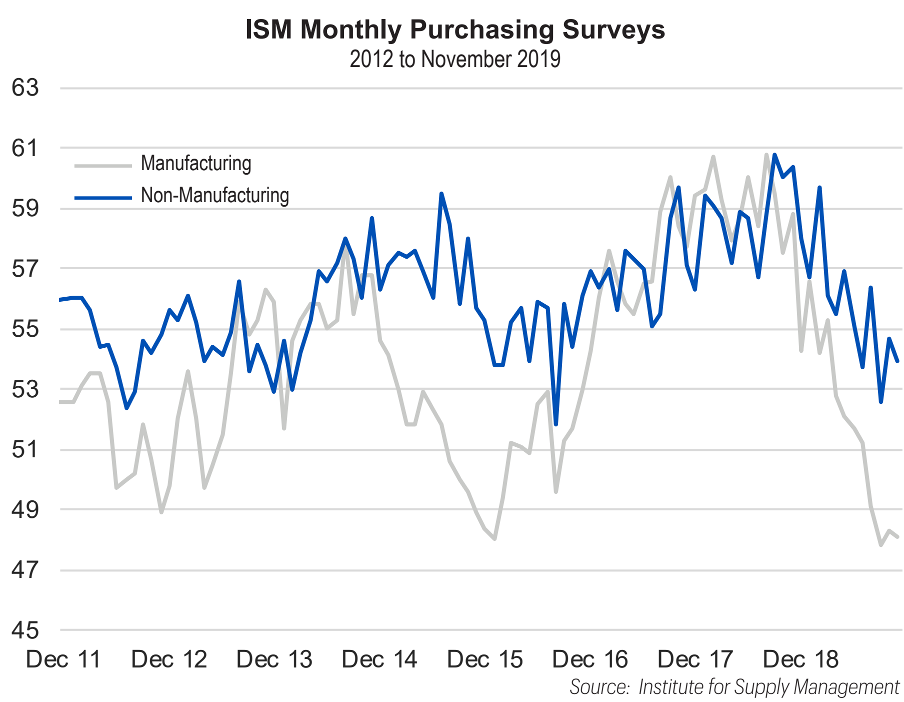
THE WEEKLY REPORT

It's difficult to argue with the hard data of a large payroll increase. It is smart, however, to look at any outlier number in a broader context. This week's context is provided by the chart of ISM purchasing surveys.

The best that can be said of the look at manufacturing is it is bottoming out. The last three months, though, distinctly contrast with the quick bounce over the comparable low seen at the beginning of 2019. Softness last month was also reflected by the failure of Chicago area purchasing to rebound as expected with the conclusion of the GM strike.

When manufacturing slid in 2015 on the oil patch downturn, non-manufacturing remained healthy. This year it can still be called healthy at 53.9, yet the trend remains negative. The failure of services to find a bottom in a forward-looking indicator offers offsetting skepticism to the big increase in services hiring this fall.

Neither purchasing nor employment readings are flashing any need for the Federal Reserve to alter its outlook for rates on hold while it waits for more information on trade and the impact of the three rate cuts implement this year.



INTEREST RATES AND DERIVATIVES P. 2

Rates have moved into a sideways holding pattern. Against the backdrop of both the Fed and the probable impact of the Phase 1 deal on the US economy, range bound intermediate yields fit current reality. Bonds cannot sell off that much as stocks rise because a measured monetary policy outlook helps both sectors.

REPO UPDATE P. 6

The cumulative impact of the Fed's liquidity efforts has been to de-stress daily repo funding but has not eliminated doubts in the term market. The next big tests arrive December 16-17 and December 22-January 3.

PERFORMANCE P. 9

Bond trading volume was much lower in November than this week, but the big investment and curve themes from last month should last into December and January.

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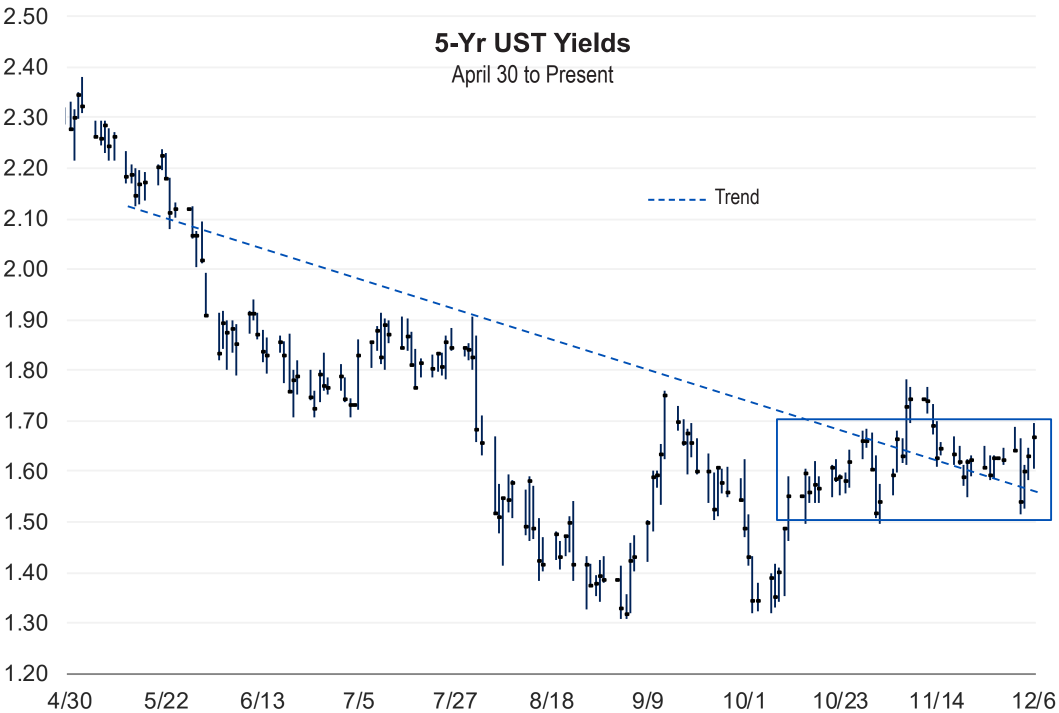
RATES GO RANGE BOUND, AWAIT WHAT COMES NEXT

UST yields are confirming a tight sideways pattern that traces back two months. The remnants of the powerful downward 2019 trend remain visible, but they're getting fainter. The big news: The US/China trade story is losing its upside influence on bond prices as investors look to what changes Phase 1 might actually accomplish.

Even November's big payroll numbers on December 6 merely challenged the top of the 5-yr range at 1.70%. The 7-month trendline began to lose its influence just this week as post-holiday volume returned with a vengance.



Source: FHN Financial

For the last several weeks, we've been working on projections for 5-yr and 10-yr UST rates under several different outcomes for US/China negotiations. Updated estimates reflect the levels one week after the market decides any particular announcement by both the US and China is definitive.

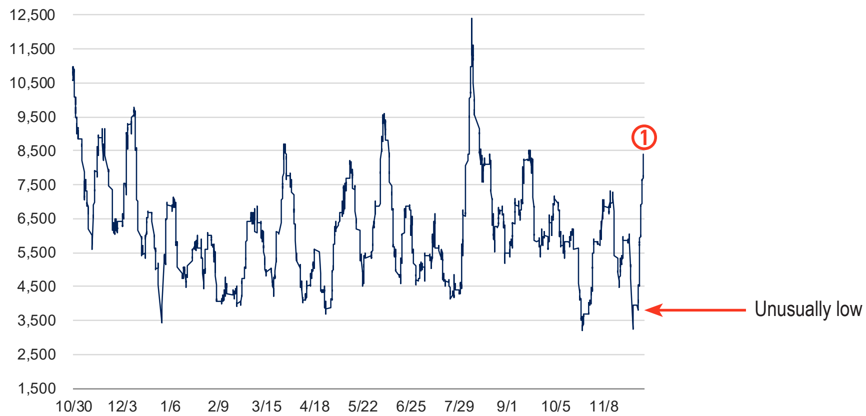
	5-Yr	10-Yr
Current	1.66	1.84
Phase 1 Achieved	1.73	1.92
Phase 1 Postponed	1.63	1.74
Phase 1 Cancelled	1.55	1.65
Phase 1 Watered Down	1.60	1.74

Source: FHN Financial

Volume swings show rush to year end

Much of this week's volatility relates to the large flows from investors trying to find their way to safety and a reasonable position in the next two weeks. Treasury buying/selling on various news reports, equity price changes and economic data have matched what is typically seen on a major change in central bank policy or a shocking number that could sway the FOMC. Neither of those things happened this week, but the 5-day trailing volume (1) move is obvious.

5-Day Cumulative 10-Yr UST Futures Trading Volume Contracts
Daily
November 2018 to Present



Source: FHN Financial, CBOT

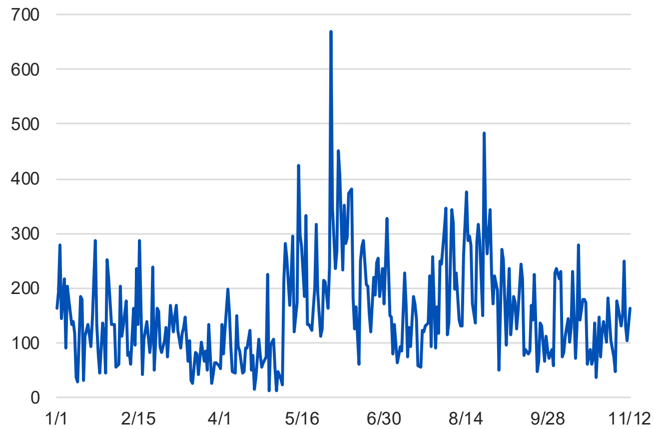
Trade agreement too late for 2020?

Economists promote guarded optimism about 2020, on their usual theory the worst is past and recovery can begin. Improved trade is a major catalyst for that view, because it was such an obvious dark cloud this year. If the trade agreement had arrived 6-9 months ago, we'd share in that optimism. But, its economic influence in July would have been much greater than this month, when at best it will be an interim pact on the cusp of an election/ impeachment year.

Trade disputes hurt the economy in two ways. One, they gum up the benefits of globalization that have kept the world spinning forward even as demographics in the developed economy become progressively worse. Second, Fed economists have successfully tied trade policy "uncertainty" to economic growth. [TWR 9.6.19.pdf]

A Phase 1 agreement can reduce the friction that hampers global trade, but the Fed's analysis of uncertainty's impact shows that it lingers well after the disputes erupt. Uncertainty was already higher than normal before the trade agreement fell apart in May. Current levels are lower than they were in June and August, but they're still high enough to have an impact into the second half of 2020.

Trade Policy Uncertainty Index
January 2019 to Mid-November



Source: The Federal Reserve

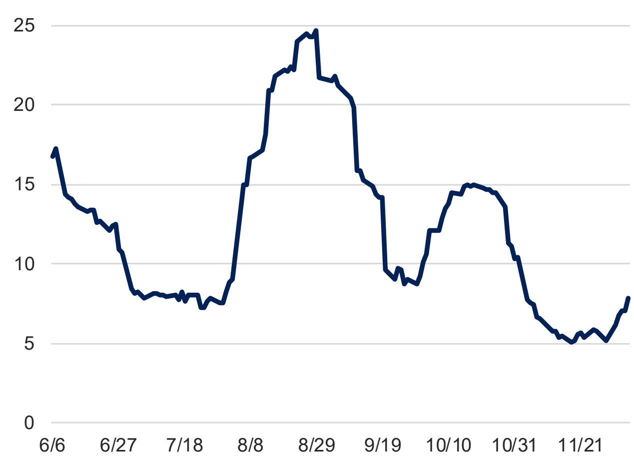
> And while trade policy certainty has been a unique feature of the financial markets the last two years, there is nothing unique about the impact of uncertainty from any source on economic investment and consumption. Given the central role of the White House's political messaging on trade policy – with a crazy quilt approach to negotiations – the White House can remain a common denominator of economic and investment uncertainty even if it moves past the current dispute with China. In 2020, other politicians will get an equal opportunity to cast either confusion or calm into the national discussion as well.

Fed's hold music plays to both stocks and bonds

As discussed in the look at November financial market returns (page 9), the primary economic theme heading into next year works for both stocks and bonds. The Fed's intent to hold rates steady has clearly benefited US and global stock prices. FHN Financial is still analyzing the balance between the impact of trade headlines and Fed messaging, but a rough cut is 65/35 in favor of trade policy's value to equities for the next several months.

The trade story saw wide swings from the euphoria of early November to abject surrender that crashed into stocks to start this week. Yet, even with recent trade headlines as jumpy as October, look at how S&P 500 volatility (realized) took a big step down after October's FOMC meeting and subsequent Fedspeak.

S&P 500
Realized Volatility, Trailing 20 Days
Last 6 Months
Daily



Source: Standard and Poor's, FHN Financial, Bloomberg

A simple barometer of the market's view of the danger of higher rates from the Fed that would quickly damage 5-yr and 10-yr bond prices is the spread between 3-month bills and the 18-month implied forwards for 3-month bills. This is one of the Fed staff's favorite measure of the yield curve. It has the added advantage of much more underlying liquidity than the more popular "probability" of FOMC rate targets derived from fed funds futures.

The spread spikes around sudden bursts of good news – trade in mid-November and payroll growth on December 6. But, after three rate cuts, the obvious convergence of opinion through early 2021 is for little if any rate changes.

18-Month Fwd 3-Mo Yield less Current 3-Mo Bills
2019 | YTD
Daily

Source: FHN Financial, Bloomberg

The reduced volatility of real interest rates and term premium in 10-yr UST reflect the confidence seen above.

10-Yr Real Treasury Yields
Constant Maturity Basis
March 2017 to Present
Daily

Source: FHN Financial

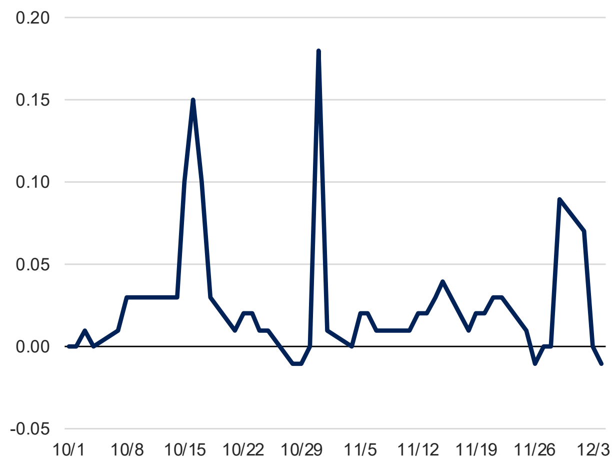
REPO MARKET MORE MANAGEABLE, NOT YET REPAIRED

The advance market for year-end repo rates has climbed the last two weeks. It's risen from the mid-3.0s to the high 3.0s for overnights that bridge from December 31 to January 2. That's not necessarily a sign of poor liquidity, but funding levels there will attract negative attention given 2018 cleared into 2019 in the low 3.0s when short-term rates were 75bp higher than today.

The cumulative impact of the Fed's liquidity efforts – now in the third month with at least another month guaranteed – has been to de-stress daily repo funding. But the Fed has not eliminated doubts in the term market. The next large cash drain due to Treasury note settlements will be December 16-17, an estimated $60 billion in a market which often struggles with drains of $20 billion. January 15's drain could be more than $75 billion.

The chart tracks the spread between SOFR and the effective fed funds daily rate back to October 1. The spike at the end of November was larger than anticipated given the minor cash drain relative to the size of Fed injections.

Spread between SOFR and Effective Fed Funds
October 1 to December 5
Daily



Source: Federal Reserve Bank of New York

This week, press reports said the Financial Stability Oversight Council is doing a post mortem on September's repo spike. Many explanations have already been offered, but the official analysis provided by the Fed has been less than convincing. Board Vice Chair Quarles told Congress this week the Fed's liquidity rules did play a part but he said not all of the factors "were related to our regulatory framework." Liquidity ratio reports from large banks at the end of November showed enough of them were under their year-end requirements to suggest more December funding strains lie ahead.

Past the year-end headlines, the repo story should center on the monetary policy issues raised by the failure of short-term money markets to function smoothly at lower rates. With the cash fed funds market only a sliver of total short-term debt outstanding, the Fed's de facto target interest rate is measured by i) SOFR; and ii) the spread of SOFR to interest on excess reserves, currently at 1.55%. The FOMC faces major policy decisions in 2020 and cannot allow poor repo function to distract from its prime objectives. The Treasury's FSOC focus on repo is warranted – more information is always welcome – but investors should not use repo as a barometer of systemic risk.

For more information, these two reports covered the two big repo episodes earlier this fall.
TWR 9.20.19.pdf TWR 10.18.19.pdf

Fed term liquidity program could be more proactive

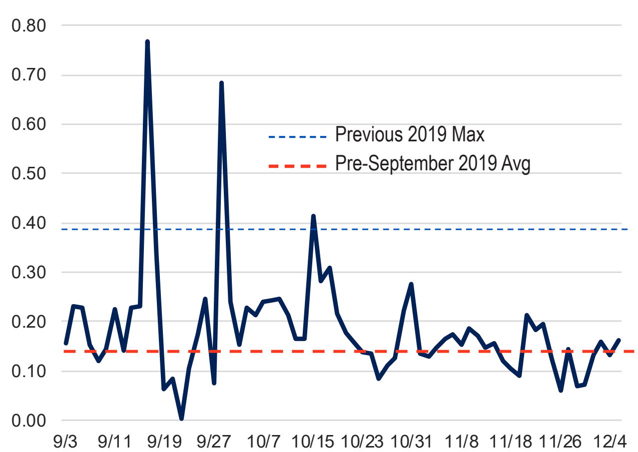
Perhaps due to its focus on SOFR as a proxy for short-term rate policy, the Fed system seems to miss simple opportunities in the term repo market that would improve funding confidence and reduce its own headline risk. For better or worse, the country's central bank "owns" repo funding right now and the consequences of future errors at least into the first quarter.

1. The first 42-day repo operation on November 25 was undersized at $25 billion. Demand was $49 billion, so the December 2 operation was raised from $15 billion to $25 billion. This week, demand was $42 billion, so the offering on December 9 will again increase from the scheduled $15 billion to $25 billion. From the first auction to the second, the high award did contract against average funding cost by 6bp – so there was improvement – but why not increase December 2 funding by more than just $10 billion against $20+ billion of market demand? ***The Fed may choose not to help everyone, but the sizing feels rote rather than market-aware.***
2. The same wash-rinse-repeat cycle is evident in the maturity dates the Fed selected for its term offerings this month. The 14-day repo on December 3, for example, comes due the morning where overnight liquidity should still be strained. Few participants wanted to risk rolling over a repo on December 17, and it saw the lightest participation since the term program began two months ago. The easy fix to minimize term disruption? Have the December 3 operation come due on December 18 or 19.
3. <u>Note</u>: The 42-day repo program suffers from similar date miscalculations.

At any given time, the Fed has a book of $75 billion to $100 billion of 2-week term repos. That doesn't dominate the market, but it is sizeable against the max overnight book of $90 billion at the Fed. Yet, the spread of term repo against 2-week Treasury bills has merely returned to the "normal" 2019 conditions before the September 15 eruption.

The chart marks the term repo/bill spread since the beginning of September, laid against the previous max spread of 38bp and the average of 13bp for the first 9 months of the year. Term repo closed on December 5 with a spread of 16bp.

Two-Week Repo Spreads to Comparable Maturity UST Bills
September 3 to Present
Daily



Source: Bloomberg, Refinitiv, FHN Financial

The Fed may have calibrated term operations to approximate the old normal. That's a sensible target. The obvious market question, however, is where will normal be when/if the Fed decides the time is right to pull back term repo assistance? The issue isn't the spread math, the issue is investor confidence the repo system won't crack the next time there's an unexpected strain. Also, note that 13bp is 5.5% of IOER during the first eight months of the year while the current average of 17bp is 10% of IOER since term repo started to normalize after October 23.

Excess reserves up $130 billion from September lows

The Fed purchased $75 billion in Treasury bills to add to excess reserves through the latest reporting period ended November 20. From the lows in mid-September, reserves in excess of the minimum have risen $130 billion, so Fed injections have accounted for 58% of the improvement.

Excess Bank Reserves over Minimum Requirements
September 2018 to December 2019
Every Two Weeks
(Billions)

Source: The Federal Reserve, FHN Financial

The next reserve report will reflect the benefit of another $42 billion in purchases. The decline in reserves reflected in the chart in the last 12 months is the reason the Fed says it will be adding to the reserve management portfolio "at least" into the second quarter of next year to cover the cash paid to the IRS in mid-April.

Summary

Repo frictions are the cost of carrying inventory and trading positions. The issue isn't quite so much the cost – although it could become prohibitive if liquidity doesn't improve without the Fed. The issue is repo financing is the "can't-live-without-it" component of the money markets. If commercial paper or discount notes cost more, those issuers can switch their funding – to bank lines, to a different part of the curve, use derivatives, etc – but there are effectively only three short-term answers to a repo shortage. 1) Sell inventory to a buyer with idle cash; 2) raise more equity to support positions; and/or 3) FHLB members can borrow overnight if FHLB is somehow insulated from the funding shortage (it was not in September). The first two alternatives are not viable for those that depend on the $1+ trillion market, and the third is not an effective risk-adjusted choice.

FIXED INCOME HOLDS UP AS EQUITIES TAKE OFF

November followed three themes:

1. The FOMC repeated its message it's on hold. Intermediate maturities bear steepened on mildly positive economic data, with 7s taking the biggest hit.
2. Just enough optimism on US/China trade to allow equities to flourish due to lower real interest rates at the short end of the curve.
3. Just enough doubt about EU growth and political prospects to strengthen the dollar. One key result was continued global sponsorship of US financial assets as a store of value into next year.

In the first week of the month, the second theme dominated global assets with a burst of enthusiasm that took 10-yr UST yields to 1.97% before they declined almost 20bp into month-end. Treasuries closed with a month-to-date loss of 1.4% as of November 8. Strength in 30s anchored Treasuries, though, shrinking the total loss to 30bp for the month with the net rate increase concentrated in higher inflation expectations. So, TIPS did well. Oddly, it was a terrible month for commodities. The best UST curve play was a 2s/30s barbell on a duration-neutral basis.

Rates on hold and a healthy risk appetite allowed credit to flourish, generating excess returns of 63bp against comparable duration Treasuries among investment grade corporates. Down in credit was only moderately successful, however, as high yield lagged BBB names. Mortgages, municipals and agency debt all held their value very well during the sell-off that took 5-yr UST yields 10bp higher in November. Given the amount of money chasing equities last month, fixed income fared well. Shrinking trading volume, however, left bonds vulnerable at the end of the month.

October's big story was risk-on around the world, allowing high-quality global governments to beat Treasuries easily. Even before US dollar gains in November, though, Treasuries easily reversed the score. Measured in dollars, global governments excluding UST fell more than 1% against the domestic government index. The G6 fell more than 1.25%. Denominated in euros, the G6 suffered a loss of 55bp versus a gain by UST of 88bp.

Summary results by sector

Mortgages: MBS are gradually building a solid fourth quarter performance. With total returns in the black, excess returns vs UST produced 19bp, almost comparable to the strong month to end the third quarter. The only conventional 30-yr coupon that wasn't above average were the 4.0s. The 3.5% coupon enjoyed 33bp excess returns to put it on top. GNMAs suffered again, with 30s slightly in the red due to losses in the 3.5% coupon that shrank excess returns to 5bp. Only GNMA 3.0s did well. 15-yr conventionals were quite strong with nominal returns of 11bp and excess returns of 23bp. 20-yr pass-throughs matched the averages of 15s and 30s.

CMBS suffered with nominal results of -40bp and excess returns of -5bp versus duration matched UST.

Investment grade credit: With credit spreads tightening 6-7bp, corporates were able to generate returns of 25bp. That was enough for 63bp of excess returns to UST, led by the long end at 121bp. Financials were significantly better than industrials, while utilities actually were in the red for November as measured by nominal returns. Stronger financials were in the insurance industry; telecom's excess returns were 40bp above the investment grade average.

	Nov 29	Oct 31	Change Month	Change Dec 14
UST 2s/10s	16	17	-0.4	-134
UST 5s/30s	58	66	-8.4	-52
UST 10-Yr Yield	1.77	1.68	0.09	-0.4
UST 10-Yr TIPS	0.16	0.14	0.02	-0.3
5-Yr Swap Spread	-3.5	-3.6	0.1	-15.5
Mortgage Index LOAS	41.5	43.8	-2.3	44.0
Agency Avg LOAS	6.6	5.5	1.1	16.5
1x5 Swaption Vol (bp)	67.0	67.2	-0.2	-18.3
Inv Grade Credit LOAS	120.5	126.2	-5.7	2.6
FHN Financial Crdt Indx	214.4	219.7	-5.3	-43.6
High Yield LOAS	411.9	418.5	-6.6	-113.9
US Dollar	98.3	97.3	1.0	8.0
Dow Jones Industrials	28051	27046	4.1%	81%
S&P 500	3141	3038	3.6%	72%
NASDAQ	8665	8292	4.7%	98%
FTSE	7347	7248	1.8%	40%
DAX	13236	12867	2.9%	40%
Nikkei	23294	22927	1.6%	42%
Shanghai	2872	2929	-1.9%	-1%
Hang Seng	26346	26907	-2.0%	34%
Commodity (Bloombrg)	77.1	79.2	-2.7%	-26%

Source: FHN Financial, FTSE Russell, Bloomberg

Agencies: As with corporates, longer agency debt securities produced the best total excess returns at 33bp. Overall nominal returns surrendered 7bp for the month, more defensive than Treasuries due to almost .5bp of spread tightening in the large group of intermediate maturities. Bullet spreads did widen 1bp against LIBOR, however. Intermediate callable spreads tightened as much as 15bp thanks to strong demand for a stable/shrinking pool of agency debt at auction. Longer callable spreads widened on the long end due to curve flattening. Overall, callable performance was in the black last month, even beating LIBOR swaps on a duration matched comparison.

Municipals: Municipal bonds shook off weakness in October to generate positive returns of 19bp in November. That was sufficient to produce 46bp of excess returns to UST and 49bp versus LIBOR, almost near the top of the list along with investment grade credit. The difference between corporates and municipals, though, was longer tax-exempt bonds didn't see the big upside enjoyed by investment grade credit. Taxables could not keep up with tax-free bonds on a nominal basis, but produced excellent excess returns.

TIPS: Nominal returns inched into positive territory at 16bp. Performance against coupon Treasuries was +38bp, a little better than October but not yet sufficient for the fourth quarter to recover from the losses in the third.

<u>Risk Sectors</u>

- Banks and tech have led stocks most of the fall, joined by healthcare and industrials in November. The S&P 500 rose 3.6%, held back by interest-sensitive stocks that fared much worse than bonds. Outside the US, the strongest large market was Germany. Asian markets suffered due to some weak data from China and the continuing blows to Hong Kong's economy due to protests and tension. Emerging markets, ex-China, were down .45% due mainly to the stronger dollar.

- Precious metals led commodities to a sizeable loss in November, an overall drop of 2.7% for a sector that should have done well against the global outlook. Outside natural gas, with a loss of more than 13%, energy held its own. Industrial metals were mixed, but large losses offset small profits in copper and aluminum. Grains were mixed at best, as well. Wheat profits of almost 5% were the exception with corn and beans down almost 5%. Livestock fell.
- High yield performance matched the nominal return of BBB corporates, but HY excess returns of 47bp (vs UST) couldn't match the added benefit of longer maturities in investment grade credit. Industrial HY, though, was excellent, followed by another solid month for financials. With oil moving sideways on balance and sputtering at month end, energy names brought up the rear among the major sectors.
- Emerging markets broke even with total returns of less than 3bp. Government bonds in the index fell 24bp. Overall, excess returns were 41bp against Treasuries.

Investment Grade Sector Returns: November

Returns on a duration adjusted basis hedge maturity exposure against UST and LIBOR-based interest rate swaps.

		Duration Adjusted	
	Returns	UST	LIBOR
Total	-.04	.22	.35
Intermediate	-.07	.12	.13
Treasuries	-.30		.17
Mortgages	.09	.19	.17
Corporates	.25	.63	.87
Agencies	-.03	.11	.10

Source: FHN Financial