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CIO Strategy Bulletin

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Five Charts That Matter

SUMMARY

This week, Five Charts That Matter.

The charts below paint a picture of an economy poised to weaken. The first four are signposts that portend a recession, although not necessarily a deep one. Despite relevant data that suggests inflation is abating, the yield curve, growth of money supply, home sales declines, and historical patterns of bear markets all point to a meaningful slowdown coming in 2023.

The fifth chart illustrates the market recovery that could occur later in 2023, presaging an economic recovery in 2024.

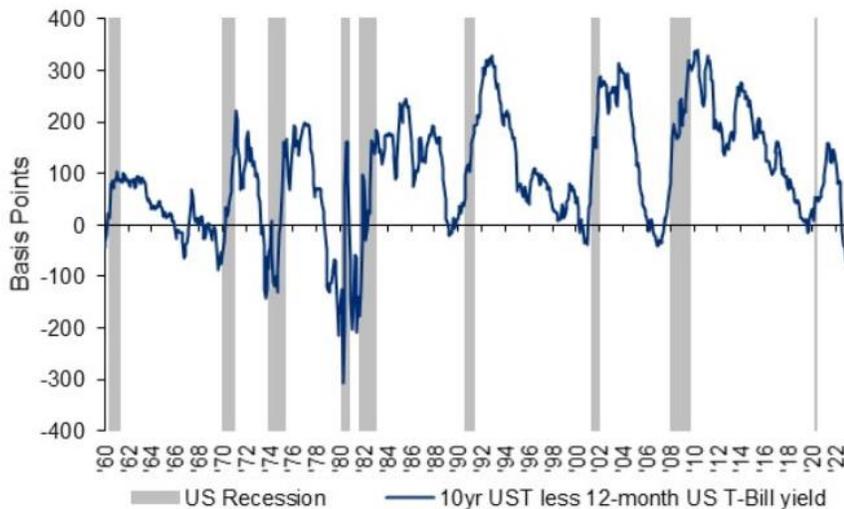
Our goal in providing these “chart vignettes” is to showcase the data that supports our current guidance for core portfolios. The debate between those who believe recession is avoidable and those who do not is unresolved. To us, whether it is called a recession or not is less relevant than the fact that the Fed is raising rates, withdrawing liquidity and ignoring signs of diminishing inflation.

Five Charts That Matter

The Yield Curve Tells a Dreary Story

- The US yield curve has inverted definitively (Chart 1). In 90% of cases since 1960, an inverted curve was followed by a US recession with a long and variable lead time, but with an average of 10 months. This time, it is the result of the Fed pushing up short-term interest rates sharply while reducing bond holdings across all maturities. Higher yields provide an inducement for money to be invested short term rather than to be used for consumption or capital improvements for the future.
- In both 2018 and in the past year, the Fed argued that **reducing** its bond holdings would result in **upward** pressure on interest rates as private investors would need to step in. Federal Reserve Bank of Kansas City President Esther George said: “asset purchases aimed to depress long-term rates... the roll-off of these assets (Quantitative Tightening) is likely to put some upward pressure on those rates, possibly steepening the yield curve.”¹
- Comparable to 2018, the Fed has already reduced its bond holdings by about \$260 billion, but the yield curve has shifted **downwards**, the opposite of Fed predictions. US 10-year Treasury yields fell by almost 50 basis points over the past month.
- The fact that rates have fallen even as the Fed has reduced its balance sheet sends a negative market signal. It means the probability of a recession has increased as borrowers will have to compete for scarce capital at a higher cost while the Fed reduces lending to the bond market.

Chart 1: 10-Year US Treasury Yield Less 1-Year Yield and Periods of Recession



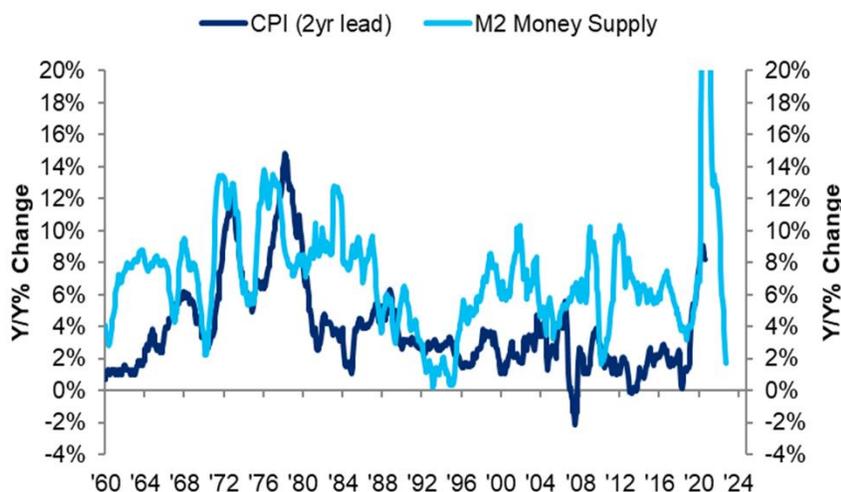
Source: Haver Analytics through Nov. 20, 2022. Grey areas note recessions.

¹ “The Path to Price Stability,” Economics Club of New York, March 30, 2022

Inflation Is Deflating. Why Is the Fed So Strident?

- Inflation is a phenomenon of money. When there is too much money to purchase goods and services in excess of their supply, consumer prices rise. US broad money supply growth has slowed from a 28% rate in early 2021 to just 2% over the past year. It has actually contracted outright since March 2022. That's bad news for growth, but good news when it comes to future inflation. As Chart 2 shows, historically the growth of money leads inflation by two years and points to a sharp slowing in inflation through 2024.
- Federal spending fell by 11% in 2022 to date. This was because of a one-time drop in pandemic support that is over now. With the Fed now tightening sharply, banks are raising lending standards broadly. Private companies are only borrowing if they need to. Securities issuance is falling. Home sales have plunged as US mortgage rates more than doubled. We think other sources of both credit demand and supply will likely shrink further.
- Even in the face of falling money supply and slowing credit growth, the Fed will take note of meaningful growth in commercial loans and consumer credit. These are both components of the Index of Lagging Economic Indicators. This lagging data may encourage the Fed to keep tightening and maintain higher rates for longer. To have a soft landing, the Fed would need to look forward – not backward.

Chart 2: US M2 money supply (2-year lead) vs inflation



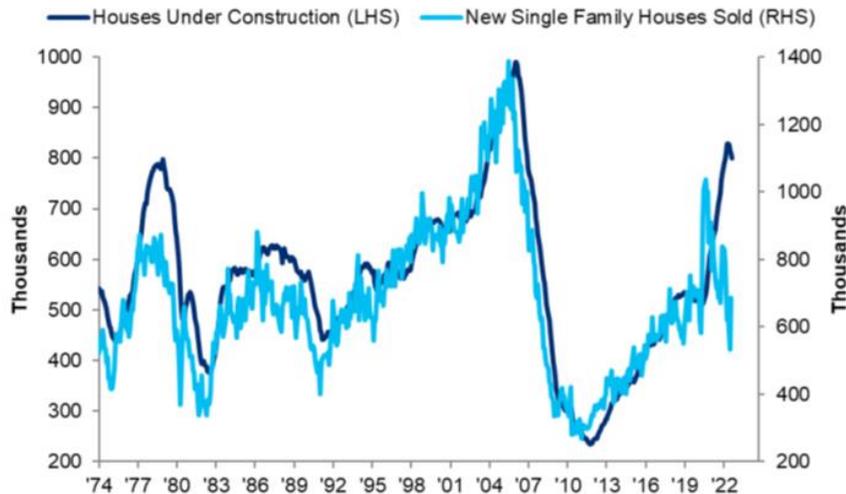
Source: : Haver Analytics as of November 15, 2022.

Believe in the “Lag Effect”

- Bond investors feel pretty sure about a decline in inflation, in spite of solid employment data. US employment just grew by 261,000 in October, faster than the trend growth rate of labor supply.
- How do we explain this? It is the “Lag Effect.” It simply takes more time than people expect for economic activity to reflect changes in economic policy. Most of the economic impact from the Fed’s 400-basis-point rate cuts of the past nine months will be felt in 2023.
- As Chart 3 shows, there’s a difference between a home sale and the housing output in GDP. So far, new single-family US home sales have fallen 41% from their late-2020 peak. In contrast, new home completions – projects still under construction – have fallen just 4%, so far. That’s why new residential construction jobs have not seen a decline – yet. (Home resales, or “turnover,” have dropped 33% with further declines likely.)

- We expect 300,000-400,000 job losses in the residential construction sector in 2023. These declines are the easiest to foresee for next year. However, since the late-1940s, all periods of at least a year or more of construction industry employment declines have seen broader private employment declines. We wonder why this time would be different.

Chart 3: US home sales vs homes still under construction



Source: Haver Analytics as of Nov. 23, 2022.

Sorry to Report, the Bear Market Isn't Over...

- The world moves ever faster. Like technology itself, markets seem to adjust ever more quickly. In 2020, US shares plunged more than 30% and rebounded 30% -- all within the space of just three months. The US also experienced the shortest recession in history over that time. With markets moving so fast, is it possible the market is accurately discounting an economic recovery beyond the likely recession we foresee?
- While it would be nice to believe that the discounting ability of markets is both faster and wiser, this seems unlikely to us. Discounting an unknown pace of recovery before seeing the start of recession seems implausible. And it also contradicts historical patterns.
- If there is a US recession, history suggests we haven't touched a market bottom yet. No equity bear market associated with a recession (a drop of 20% or more) has ever ended before the job and profit declines associated with it have even begun (Chart 4).
- The coming economic slowdown – driven first by shortages and inflation, but soon by the Fed itself – is very different from the Covid shock. To defy historical precedent, the Fed would have to pause rate hikes sooner and indicate that it has made meaningful strides in bringing down inflation, steps it has yet to signal.

Figure 4: S&P 500 bear market bottoms: How deep into recessionary periods?

Recession	Depth into Recession that trough occurred	Recession	Depth into Recession that trough occurred
Aug 29-Mar 33	77.3%	Nov 73-Mar 75	63.5%
May 37-Jun 38	76.7%	Jan 80-Jul 80	31.0%
Feb-45-Oct 45	11.5%	Jul 81-Nov 82	77.4%
Nov-48-Oct 49	60.8%	Jul 90-Mar 91	30.5%
Jul 53-May 54	14.6%	Mar 01-Nov 01	70.5%
Aug 57-Apr 58	21.6%	Dec-07-Jun 09	79.0%
Apr 60-Feb 61	59.3%	Feb-20-Apr 20	56.5%
Dec 69-Nov 70	43.5%		
		Average	51.6%
		Median	59.3%

Source: Haver Analytics as of Oct. 5, 2022. Proxy for equities data is S&P 500 Index. Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only and do not represent the performance of any specific investment. Past performance is no guarantee of future results. Real results may vary.

Get Ready for a Real Rebound (Later in 2023)

- Bull and bear markets are two sides of the same coin. They both reflect unsustainably strong or weak conditions in the economy. Once markets bottom following a bear market, the returns on US equities have tended to be **much stronger than average**. For the past century, the median 12-month return from a bear-market bottom has been 37.1%, the average 45.5% (Chart 5).
- There may be even more good news. Like good comedians know, timing is everything! Investors don't have to wait for the economy to recover before equity markets gain. As Chart 4 above shows, equity markets tend to bottom halfway through an economic contraction on average. In some cases, rebounds have occurred earlier. Just as markets are leading the economy lower in 2022, we expect markets to lead the US and world economy out of a slump beginning some time in 2023.

Chart 5: Still in a bear market. What happens next?

S&P 500 Bear Markets and Subsequent Performance								
Peak		Trough		Peak to Trough % Change	# trading days	1-Year Performance from Trough	2-Year Performance from Trough	
Date	Level	Date	Level					
09/07/1929	31.92	06/01/1932	4.41	-86.18%	812	120.85%	112.57%	
09/07/1932	9.31	02/27/1933	5.53	-40.60%	141	95.44%	59.00%	
07/18/1933	12.20	10/21/1933	8.56	-29.82%	75	5.29%	42.35%	
02/05/1934	11.81	03/14/1935	8.06	-31.77%	332	81.41%	125.16%	
03/06/1937	18.68	03/31/1938	8.50	-54.48%	321	29.18%	43.70%	
11/09/1938	13.79	04/08/1939	10.19	-26.12%	123	23.61%	-3.46%	
10/25/1939	13.21	06/10/1940	8.99	-31.94%	188	9.24%	-7.26%	
11/09/1940	11.40	04/28/1942	7.47	-34.46%	440	53.68%	58.90%	
05/29/1946	19.25	05/17/1947	13.72	-28.75%	274	21.12%	8.81%	
06/15/1948	17.07	06/13/1949	13.55	-20.59%	282	42.05%	59.02%	
08/02/1956	49.75	10/22/1957	38.98	-21.65%	308	31.02%	43.66%	
12/12/1961	72.64	06/26/1962	52.32	-27.97%	136	32.66%	55.70%	
02/09/1966	94.06	10/07/1966	73.20	-22.18%	168	33.21%	41.67%	
11/29/1968	108.37	05/26/1970	69.29	-36.06%	370	43.73%	59.71%	
01/11/1973	120.24	10/03/1974	62.28	-48.20%	437	38.01%	67.04%	
11/28/1980	140.52	08/12/1982	102.42	-27.11%	431	58.33%	61.52%	
08/25/1987	336.77	12/04/1987	223.92	-33.51%	72	22.78%	56.94%	
03/24/2000	1527.46	10/09/2002	776.76	-49.15%	638	33.73%	44.75%	
10/09/2007	1565.15	03/09/2009	676.53	-56.78%	356	68.57%	95.12%	
09/20/2018	2930.75	12/24/2018	2351.10	-19.78%	66	37.10%	57.50%	
02/19/2020	3386.15	03/23/2020	2237.40	-33.92%	24	74.78%	99.17%	
01/03/2022	4796.56	10/14/2022?	3583.07	-25.30%	198			
Average				-36.24%	285	45.51%	56.27%	
Median				-31.94%	282	37.10%	57.50%	

Source: Bloomberg as of November 14, 2022. Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only and do not represent the performance of any specific investment. Index returns do not include any expenses, fees or sales charges, which would lower performance. For illustrative purposes only. All forecasts are expressions of opinion and are subject to change without notice and are not intended to be a guarantee of future events. Past performance is no guarantee of future results. Real results may vary.

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