

Policy Mistake, Very Likely. Inflation To Collapse Worldwide In 2023

Alberto Bernal, XP Investments

November, 2022



The Year In Which The “Value” Of Diversification Seemed To Cease To Exist...The Worst Year For Fixed Income Assets EVER!! But There Were Two Unique Reasons For That....

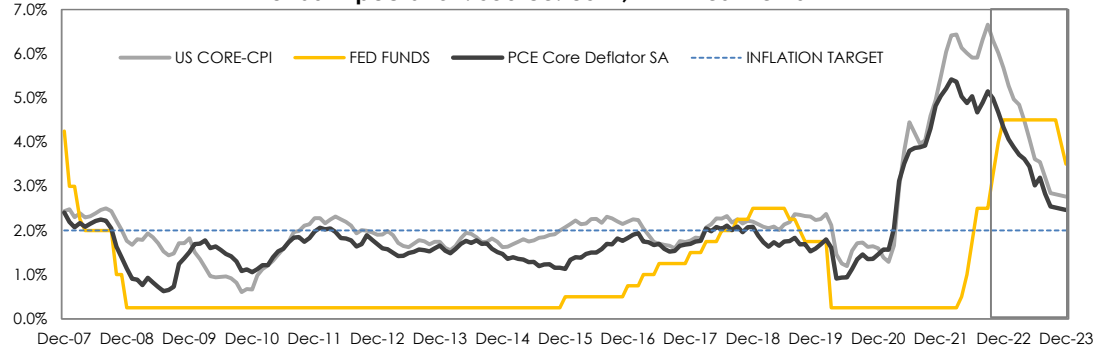
S&P 500, US 10-Year Treasury, and 60/40 Portfolio (Total Returns, 1928 - 2022)															
Year	S&P	10-Yr	60/40	Year	S&P	10-Yr	60/40	Year	S&P	10-Yr	60/40	Year	S&P	10-Yr	60/40
1928	43.8%	0.8%	26.6%	1947	5.2%	0.9%	3.5%	1966	-10.0%	2.9%	-4.8%	1985	31.2%	25.7%	29.0%
1929	-8.3%	4.2%	-3.3%	1948	5.7%	2.0%	4.2%	1967	23.8%	-1.6%	13.6%	1986	18.5%	24.3%	20.8%
1930	-25.1%	4.5%	-13.3%	1949	18.3%	4.7%	12.8%	1968	10.8%	3.3%	7.8%	1987	5.8%	-5.0%	1.5%
1931	-43.8%	-2.6%	-27.3%	1950	30.8%	0.4%	18.7%	1969	-8.2%	-5.0%	-7.0%	1988	16.6%	8.2%	13.3%
1932	-8.6%	8.8%	-1.7%	1951	23.7%	-0.3%	14.1%	1970	3.6%	16.8%	8.8%	1989	31.7%	17.7%	26.1%
1933	50.0%	1.9%	30.7%	1952	18.2%	2.3%	11.8%	1971	14.2%	9.8%	12.4%	1990	-3.1%	6.2%	0.6%
1934	-1.2%	8.0%	2.5%	1953	-1.2%	4.1%	0.9%	1972	18.8%	2.8%	12.4%	1991	30.5%	15.0%	24.3%
1935	46.7%	4.5%	29.8%	1954	52.6%	3.3%	32.9%	1973	-14.3%	3.7%	-7.1%	1992	7.6%	9.4%	8.3%
1936	31.9%	5.0%	21.2%	1955	32.6%	-1.3%	19.0%	1974	-25.9%	2.0%	-14.7%	1993	10.1%	14.2%	11.7%
1937	-35.3%	1.4%	-20.7%	1956	7.4%	-2.3%	3.6%	1975	37.0%	3.6%	23.6%	1994	1.3%	-8.0%	-2.4%
1938	29.3%	4.2%	19.3%	1957	-10.5%	6.8%	-3.6%	1976	23.8%	16.0%	20.7%	1995	37.6%	23.5%	31.9%
1939	-1.1%	4.4%	1.1%	1958	43.7%	-2.1%	25.4%	1977	-7.0%	1.3%	-3.7%	1996	23.0%	1.4%	14.3%
1940	-10.7%	5.4%	-4.2%	1959	12.1%	-2.6%	6.2%	1978	6.5%	-0.8%	3.6%	1997	33.4%	9.9%	24.0%
1941	-12.8%	-2.0%	-8.5%	1960	0.3%	11.6%	4.9%	1979	18.5%	0.7%	11.4%	1998	28.6%	14.9%	23.1%
1942	19.2%	2.3%	12.4%	1961	26.6%	2.1%	16.8%	1980	31.7%	-3.0%	17.8%	1999	21.0%	-8.3%	9.3%
1943	25.1%	2.5%	16.0%	1962	-8.8%	5.7%	-3.0%	1981	-4.7%	8.2%	0.5%	2000	-9.1%	16.7%	1.2%
1944	19.0%	2.6%	12.4%	1963	22.6%	1.7%	14.2%	1982	20.4%	32.8%	25.4%	2001	-11.9%	5.6%	-4.9%
1945	35.8%	3.8%	23.0%	1964	16.4%	3.7%	11.3%	1983	22.3%	3.2%	14.7%	2002	-22.1%	15.1%	-7.2%
1946	-8.4%	3.1%	-3.8%	1965	12.4%	0.7%	7.7%	1984	6.1%	13.7%	9.2%	2003	28.7%	0.4%	17.4%
												2004	10.9%	4.5%	8.3%
												2005	4.9%	2.9%	4.1%
												2006	15.8%	2.0%	10.3%
												2007	5.5%	10.2%	7.4%
												2008	-37.0%	20.1%	-14.2%
												2009	26.5%	-11.1%	11.4%
												2010	15.1%	8.5%	12.4%
												2011	2.1%	16.0%	7.7%
												2012	16.0%	3.0%	10.8%
												2013	32.4%	-9.1%	15.8%
												2014	13.7%	10.7%	12.5%
												2015	1.4%	1.3%	1.3%
												2016	12.0%	0.7%	7.5%
												2017	21.8%	2.8%	14.2%
												2018	-4.4%	0.0%	-2.6%
												2019	31.5%	9.6%	22.7%
												2020	18.4%	11.3%	15.6%
												2021	28.7%	-4.4%	15.5%
												2022*	-20.3%	-19.5%	-19.9%

The Simple Reality Is That The World, And Especially Europe, Was NOT Ready For These Two Developments....

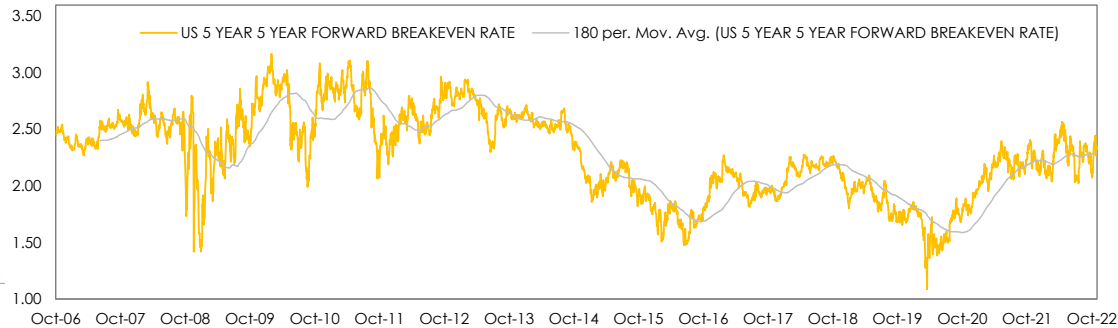


Persistently High Inflation Has Made The Job of World Central Bankers Impossible. Inflation IS, IN FACT, “Transitory”, But The “Transitory” Has Proven To Be Much Longer Than Expected....

US ECONOMY--Core CPI, and Core PCE Y/Y Performance, NSA Data, Fed Funds Expectation. Source: USDL, XP Investments

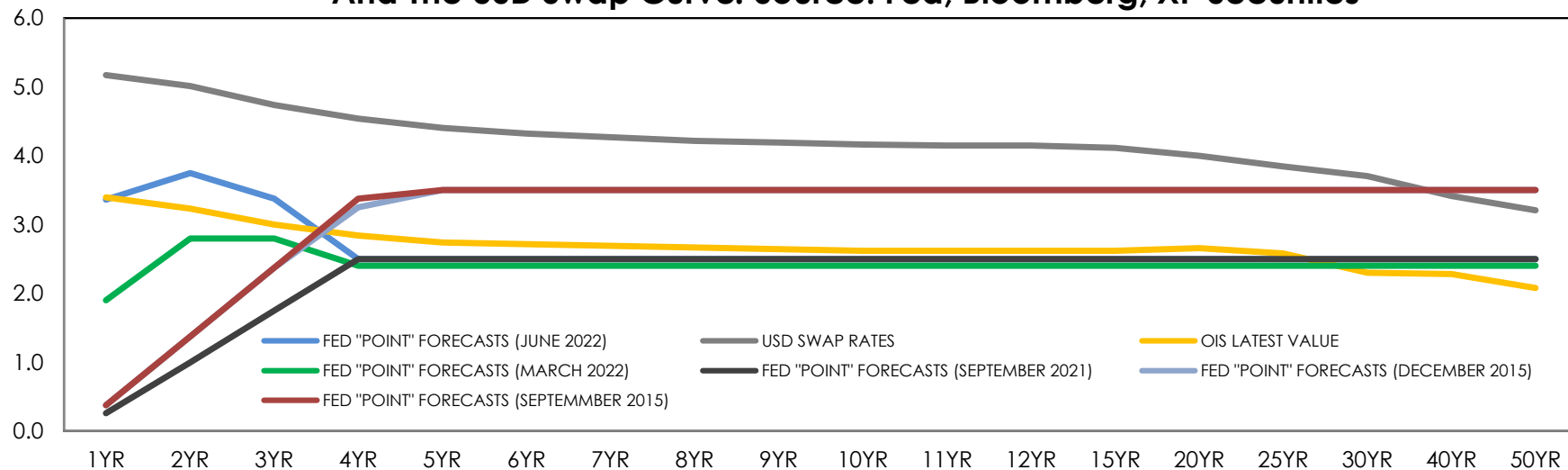


US ECONOMY--5-Year 5-Year Forward Break-Even Rate And 180-Day Moving Average (In Percentages). Source: Bloomberg, XP Investments



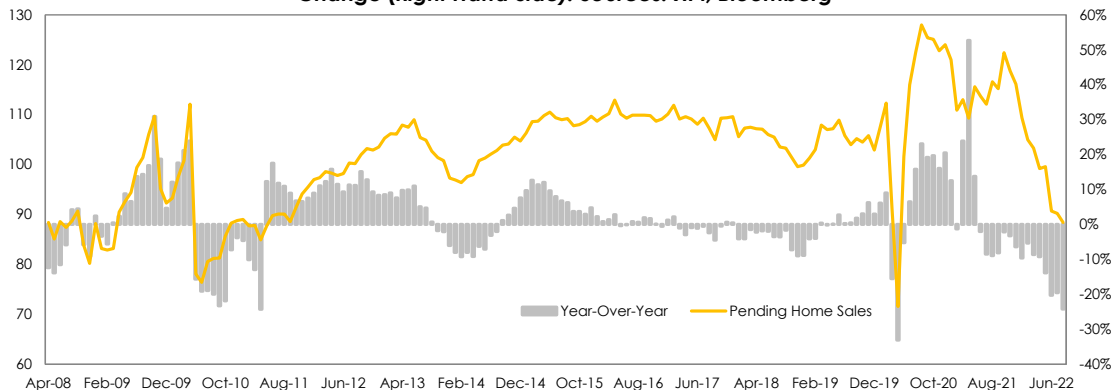
Persistently High Inflation Has Made The Job of World Central Bankers, For Practical Purposes, Impossible. Because of The Persistence of High Inflation And Perceived Loss of Credibility, World Central Bankers Will Now Likely “Overtighten” Policy...

US ECONOMY--The Future Of US Intervention Rates (As Per The "Dots" Chart) And The USD Swap Curve. Source: Fed, Bloomberg, XP Securities

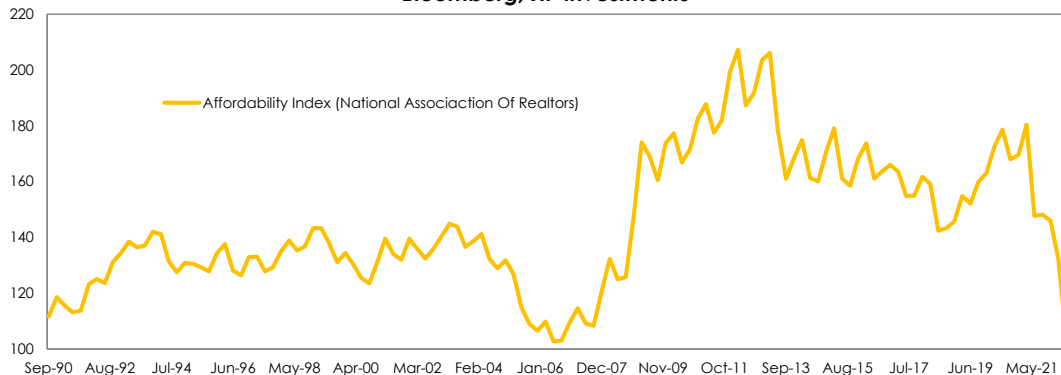


Policy Overtightening Will Have A Material Effect On The US Housing Market...

US HOUSING FUNDAMENTALS--Pending Home Sales Index Level (Left Hand Side), Y/Y Change (Right Hand Side). Sources: XPI, Bloomberg



US HOUSING FUNDAMENTALS--Housing Affordability Composite Index. Source: Bloomberg, XP Investments

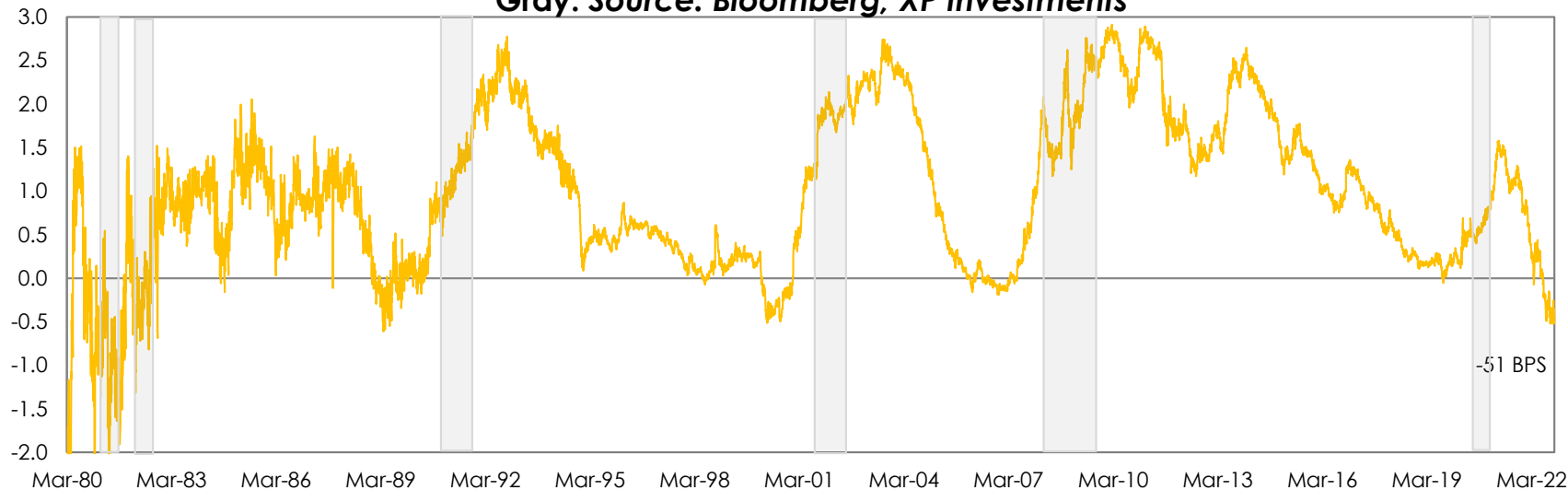


98) Download		99) Scenario Analysis	
Payment Options		Payments	
Enter 2 of the next 3 fields		Table Chart	
Loan Amount	320000.00	Annualized Information	
Interest Rate	2.300	Payment	
Payment	2103.73	Date	Payment
Payment Freq	Monthly	1.	10/20/22 2103.73
Years/Months	15 / 0	2.	11/20/22 2103.73
Starting	09/20/22	3.	12/20/22 2103.73
Points	0.000	4.	01/20/23 2103.73
Prepayment Options		5.	02/20/23 2103.73
		6.	03/20/23 2103.73
		7.	04/20/23 2103.73

98) Download		99) Scenario Analysis	
Payment Options		Payments	
Enter 2 of the next 3 fields		Table Chart	
Loan Amount	320000.00	Annualized Information	
Interest Rate	5.700	Payment	
Payment	2648.75	Date	Payment
Payment Freq	Monthly	1.	10/20/22 2648.75 15%
Years/Months	15 / 0	2.	11/20/22 2648.75 15%
Starting	09/20/22	3.	12/20/22 2648.75 15%
Points	0.000	4.	01/20/23 2648.75 15%
Prepayment Options		5.	02/20/23 2648.75 14%
Scheduled Prepayments		6.	03/20/23 2648.75 14%
		7.	04/20/23 2648.75 14%
		8.	05/20/23 2648.75 14%

Policy Overtightening Will Have A Material Effect On The US Housing Market...And A 2023 Recession Now Seems A Very Likely Outcome. The Question is “How Strong” It Turns Out to Be...

US FIXED INCOME--10-Year UST 2-Year UST Spread (In Percentages). Recessions In Gray. Source: Bloomberg, XP Investments



Policy Overtightening Will Have A Material Effect On The US Housing Market...And A 2023 Recession Now Seems A Very Likely Outcome. The Question is “How Strong” It Turns Out to Be...

US GDP FUNDAMENTALS, Y/Y RATE OF CHANGE, XPI FORECASTS IN RED

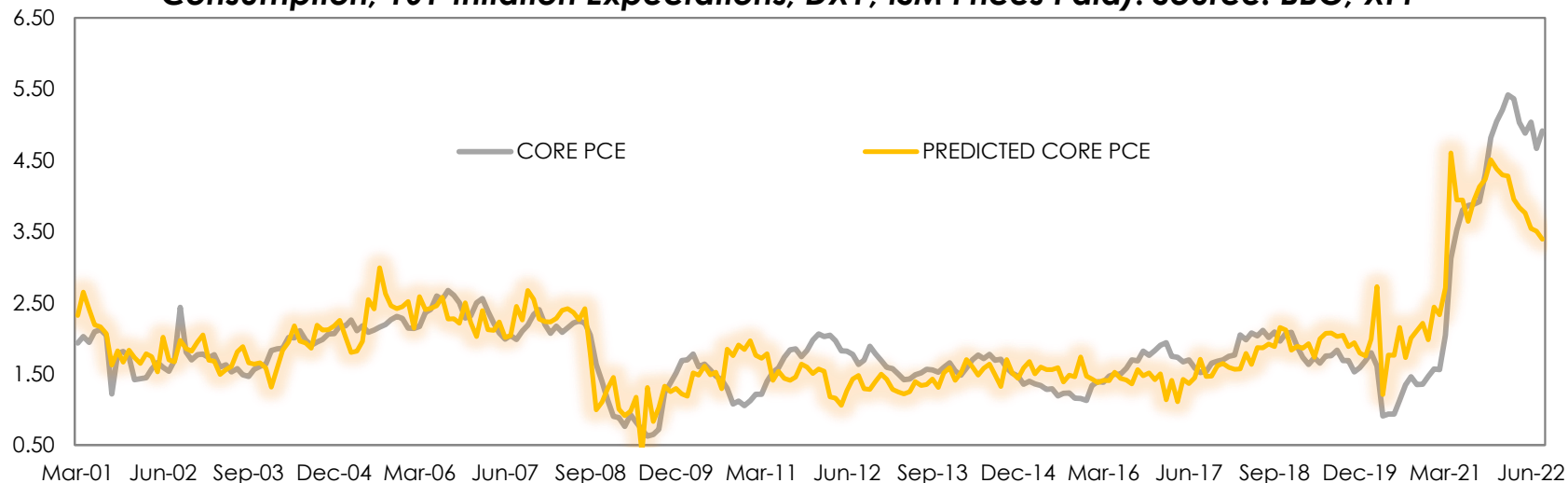
	2017	2018	2019	2020	2021	2022	2023
IMPORTS	4.51%	4.21%	1.14%	-8.96%	14.13%	8.75%	2.31%
EXPORTS	4.27%	2.80%	0.47%	-13.24%	6.05%	7.60%	5.64%
GOVERNMENT	0.43%	1.68%	3.31%	2.56%	0.58%	-0.89%	1.33%
CONSUMPTION	2.38%	2.88%	1.99%	-2.99%	8.29%	2.59%	0.80%
INVESTMENT	4.08%	5.69%	2.76%	-5.33%	8.97%	3.57%	-1.06%
AGGREGATE GDP	2.26%	2.92%	2.29%	-3.40%	5.67%	1.68%	0.51%
CORE PCE Y/Y	1.72%	2.06%	1.64%	1.48%	4.89%	4.33%	2.47%
FED FUNDS RATE (UT)	1.50%	2.50%	1.75%	0.25%	0.25%	4.50%	3.50%

The “Good News” Is That Outlook for US Inflation Is Starting To Look Much More Positive. If We Are Right In that Forecast, Markets Should Find A Stable Footing Soon....

INFLATION FUNDAMENTALS, SELECTED SUB INDEXES, OCTOBER 2022, XPI FORECAST VERSUS ACTUAL PRINT						
	M/M CHANGE XPI	OFFICIAL M/M CHANGE	INDEX WEIGHT	HEADLINE CPI INCIDENCE	PERCENTAGE HEADLINE CPI	PERCENTAGE CORE CPI
<i>KEY SUB INDEXES</i>						
.....FOOD AT HOME	0.68%	0.40%	7.72%	0.03%	7.72%	N/A
.....FOOD AWAY FROM HOME	0.72%	0.94%	6.26%	0.06%	14.71%	N/A
.....GASOLINE	2.39%	4.00%	3.91%	0.16%	39.10%	N/A
.....NEW VEHICLES	0.05%	0.29%	3.83%	0.01%	2.78%	4.11%
.....USED CARS AND TRUCKS	-4.90%	-2.42%	3.29%	-0.08%	-19.90%	-29.49%
.....APPAREL	-0.24%	-0.69%	2.73%	-0.02%	-4.71%	-6.98%
.....RENT OF PRIMARY RESIDENCE	0.70%	0.69%	7.60%	0.05%	13.11%	19.42%
.....UTILITY (PIPED) GAS SERVICES	-4.82%	-4.57%	0.77%	-0.04%	-8.80%	N/A
.....OWNERS EQUIVALENT RENT	0.69%	0.62%	23.60%	0.15%	36.58%	54.19%
.....ELECTRICITY	0.32%	0.14%	2.47%	0.00%	0.86%	N/A
.....CONSUMER COMMODITIES LESS FOOD AND ENERGY	-0.10%	-0.38%	12.10%	-0.05%	-11.50%	-17.03%
.....TRANSPORTATION SERVICES	0.24%	0.80%	5.08%	0.04%	10.16%	15.05%
.....MEDICAL CARE SERVICES	0.45%	-0.60%	7.02%	-0.04%	-10.53%	-15.60%
OCTOBER 2022 HEADLINE CPI M/M, XPI FORECAST: 0.40%				0.44%		
OCTOBER 2022 CORE CPI M/M, XPI FORECAST: 0.27%				0.27%		

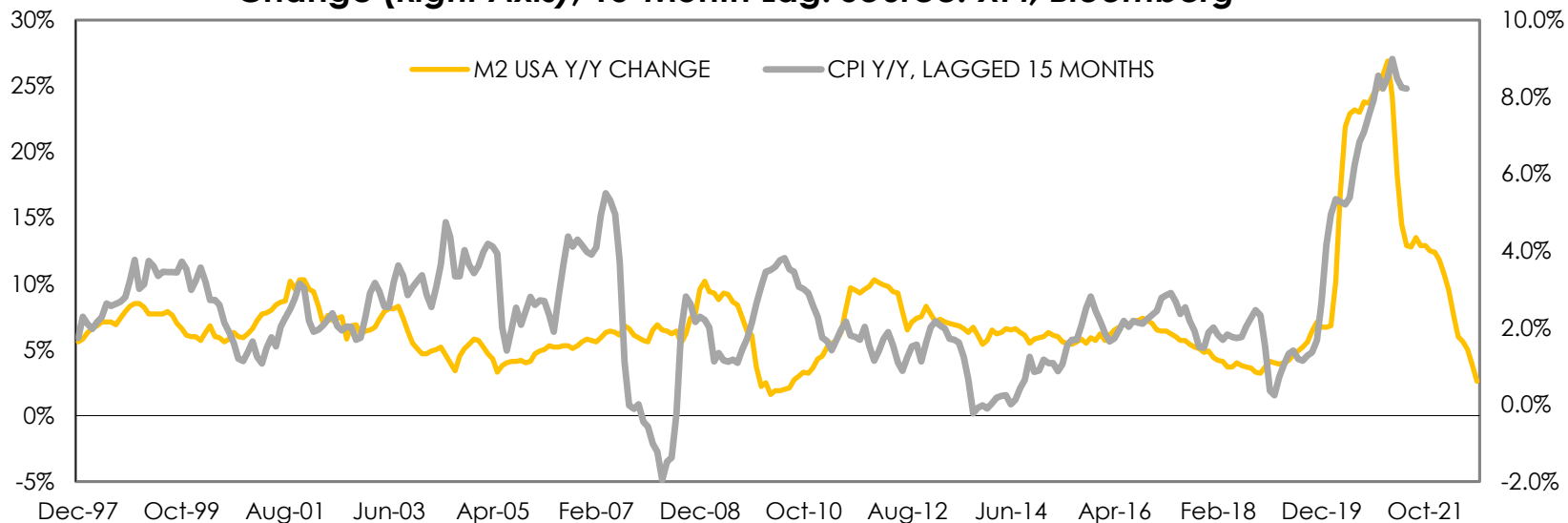
The “Good News” Is That Outlook for US Inflation Is Starting To Look Much More Positive. If We Are Right In that Forecast, Markets Should Find A Stable Footing Soon....

US ECONOMY--Actual Vs. Predicted Core PCE Y/Y (Fx of Wages, Personal Consumption, 10Y Inflation Expectations, DXY, ISM Prices Paid). Source: BBG, XPI



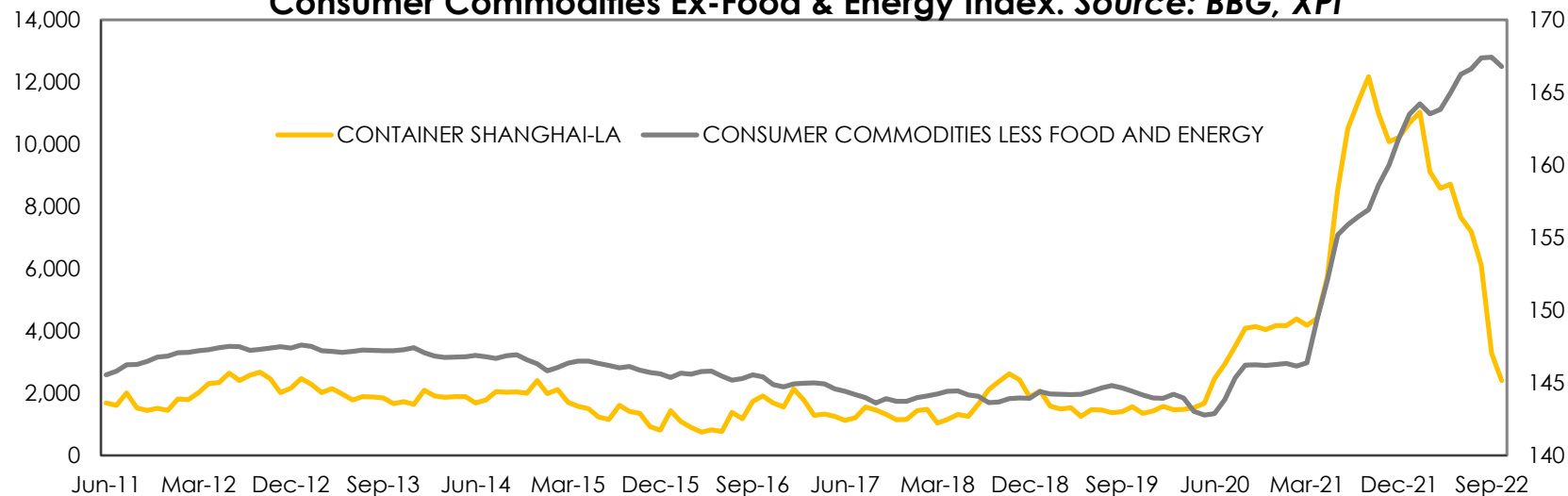
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US ECONOMY--M2 Y/Y Growth Rate (Left Axis) And Headline CPI Y/Y Change (Right Axis), 15-Month Lag. Source: XPI, Bloomberg



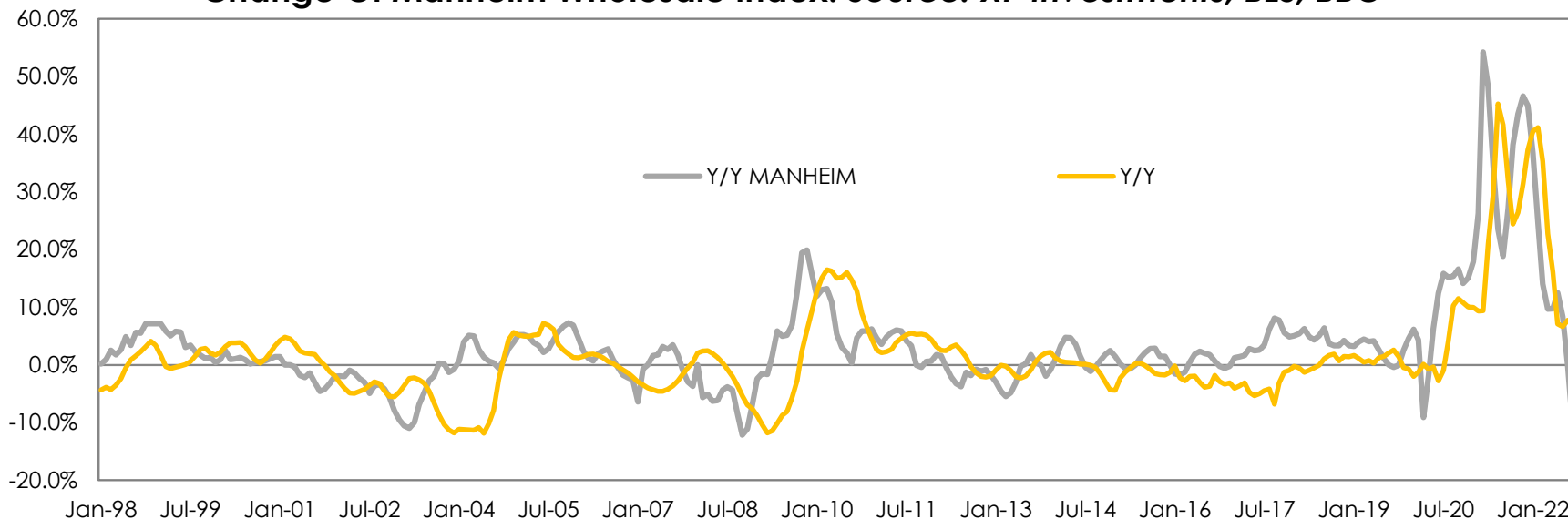
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US INFLATION FUNDAMENTALS--Price Of 40-Foot Container, Shanghai-LA, and Consumer Commodities Ex-Food & Energy Index. Source: BBG, XPI



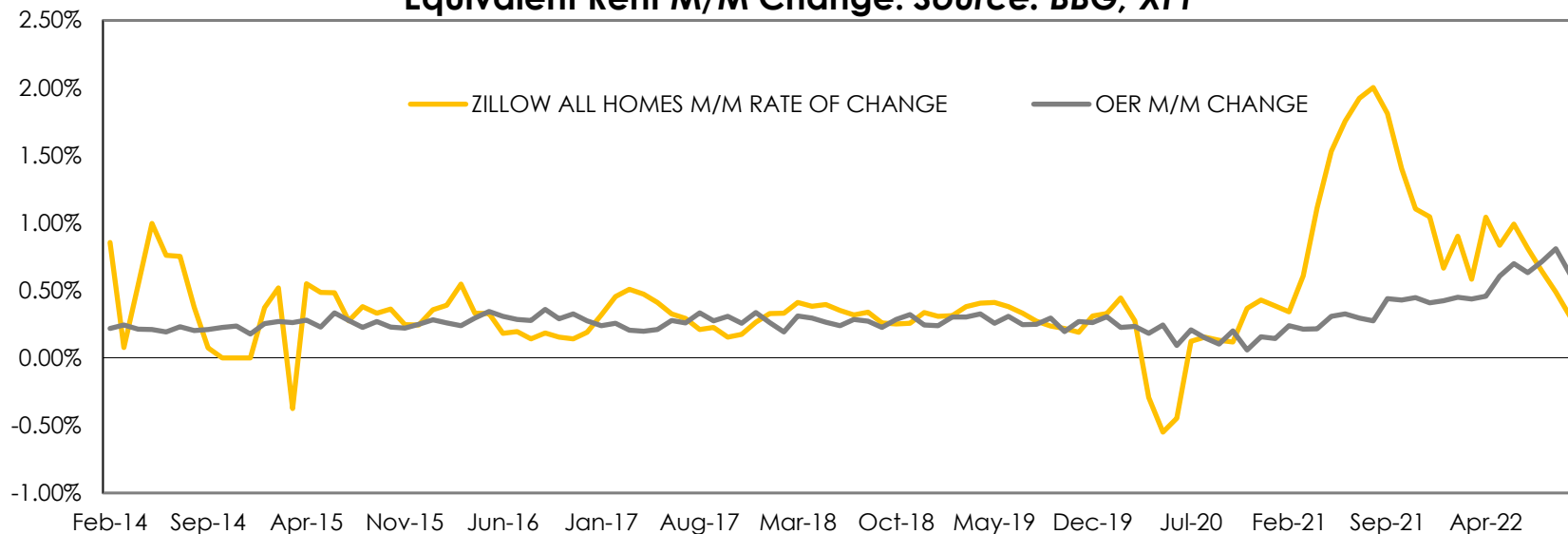
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US INFLATION FUNDAMENTALS--Used Cars And Trucks Prices, Y/Y And Y/Y Change Of Manheim Wholesale Index. Source: XP Investments, BLS, BBG



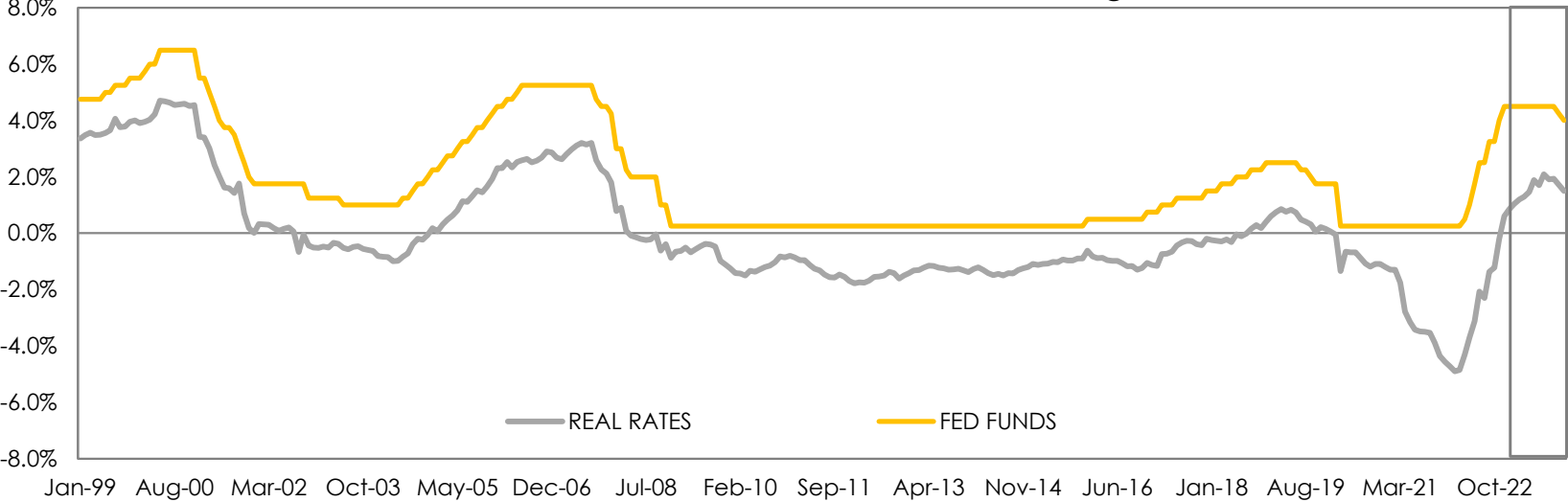
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US INFLATION FUNDAMENTALS--Zillow All Homes Rent Index M/M, Owners Equivalent Rent M/M Change. Source: BBG, XPI



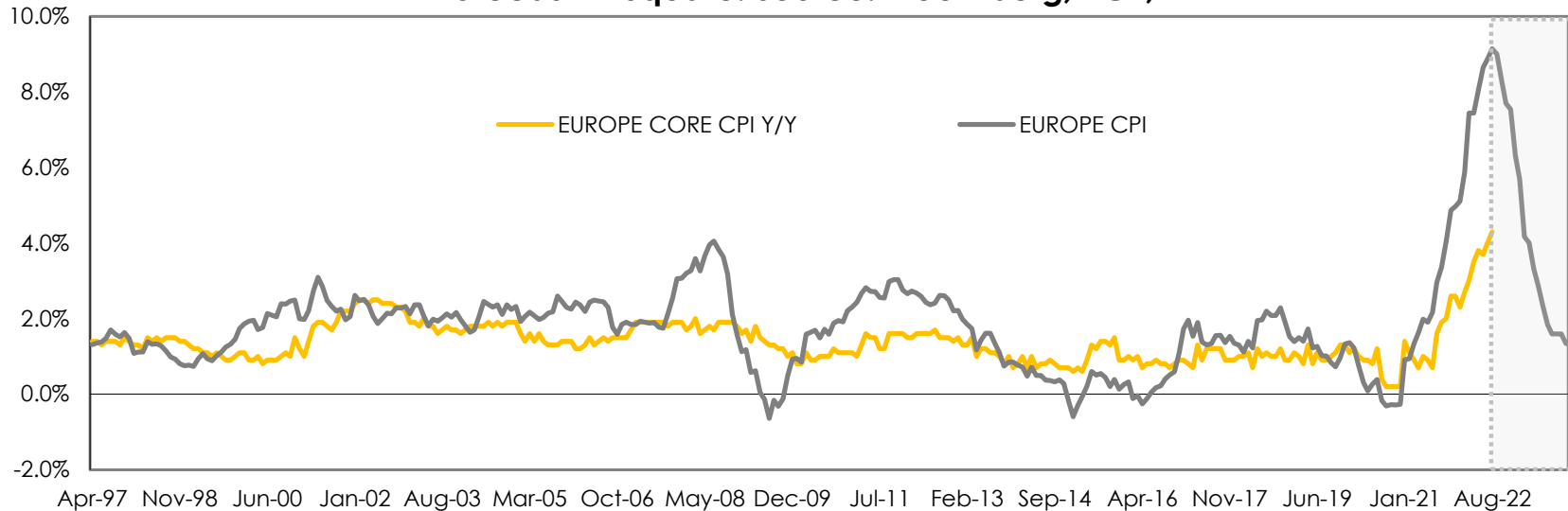
The Stance of US Monetary Policy Can NO LONGER Be Labelled As Expansionary. In fact, It Is Becoming Deeply Restrictive As We Speak....

US ECONOMY--US Fed Funds Rate And Real Core PCE, Forecast In Square.
Source: Fed, XP Investments, Bloomberg



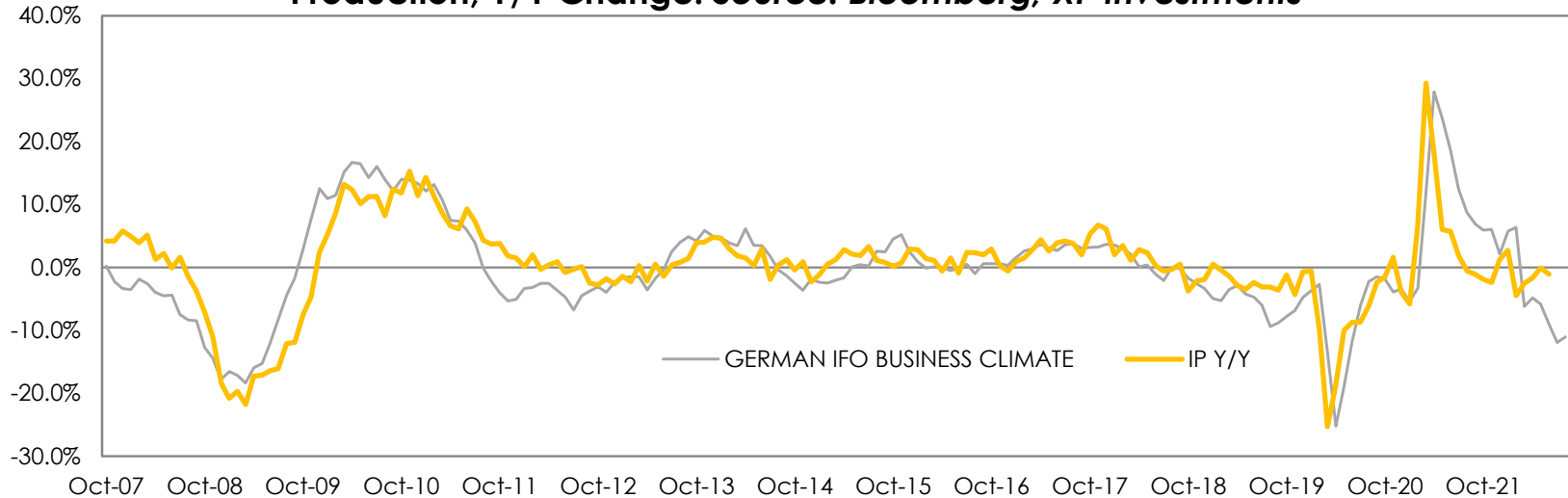
The Eurozone's Current Inflation Problem Is Mostly A Function of Energy and Food, But There is "Contamination" Of Core Inflation. Therefore, The ECB Will Be Forced To Also Tighten Policy In A Region That Is Most Likely Heading Into Recession

EUROPE CONSUMER PRICES--Headline And Core Y/Y Performance, NSA Data.
Forecast In Square. Source: Bloomberg, ECB, XPI



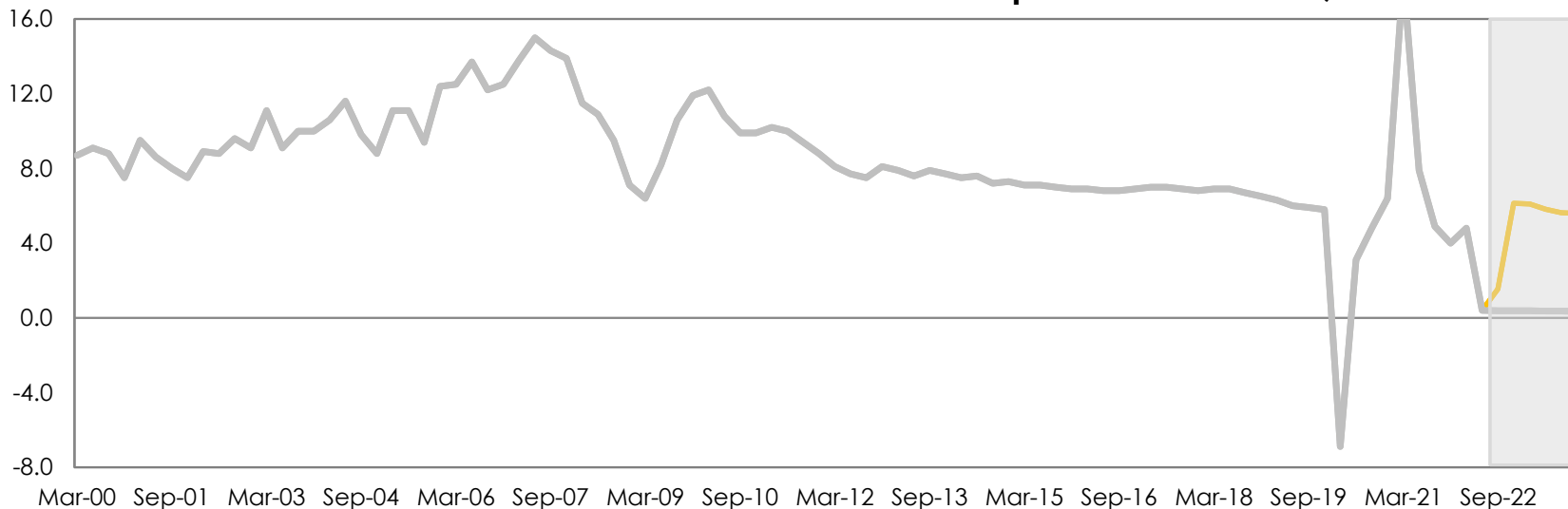
There Is A Very Material Risk That The Eurozone's Economy Will Fall Into a Material Recession Because of a Few Specific Reasons: (1) Lower Business Expectations, (2) Lower Consumer Confidence, (3) Energy Shortages (Blackouts) If The Winter Proves Too Harsh

GERMAN FUNDAMENTALS--IFO Business Climate Survey And Industrial Production, Y/Y Change. Source: Bloomberg, XP Investments



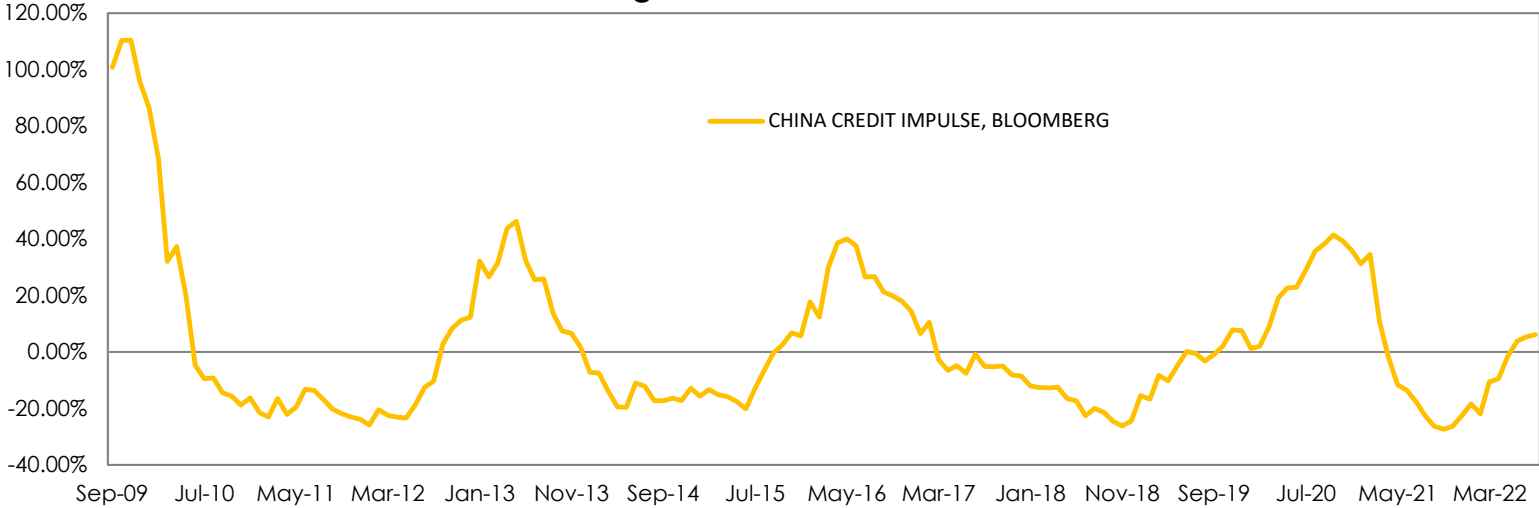
China Grew 8.1% Y/Y in 2021, And We Are Forecasting that the Economy Will Expand 3.2% Y/Y in 2022 And 5.3% Y/Y in 2023. Without Stimulus The Economy Would Only Grow 1.4% Y/Y in 2022. The Risk To Our 2023 Call Remains To The Downside.

CHINA FUNDAMENTALS--Year-Over-Year Economic Growth, In Percentages, With And Without Further Stimulus. Forecast In Square. Source: *BBG, XPI*



China Grew 8.1% Y/Y in 2021, And We Are Forecasting that the Economy Will Expand 3.2% Y/Y in 2022 And 5.3% Y/Y in 2023. Without Stimulus The Economy Would Only Grow 1.4% Y/Y in 2022. The Risk To Our 2023 Call Is To The Downside.

CHINA FUNDAMENTALS--China Credit Growth Impulse, Y/Y Change. Source: JP Morgan, BBG, XP Investments



China Grew 8.1% Y/Y in 2021, And We Are Forecasting that the Economy Will Expand 3.2% Y/Y in 2022 And 5.3% Y/Y in 2023. Without Stimulus The Economy Would Only Grow 1.4% Y/Y in 2022. The Risk To Our 2023 Call Is To The Downside.

Economic momentum out of the Covid lockdowns has been weak

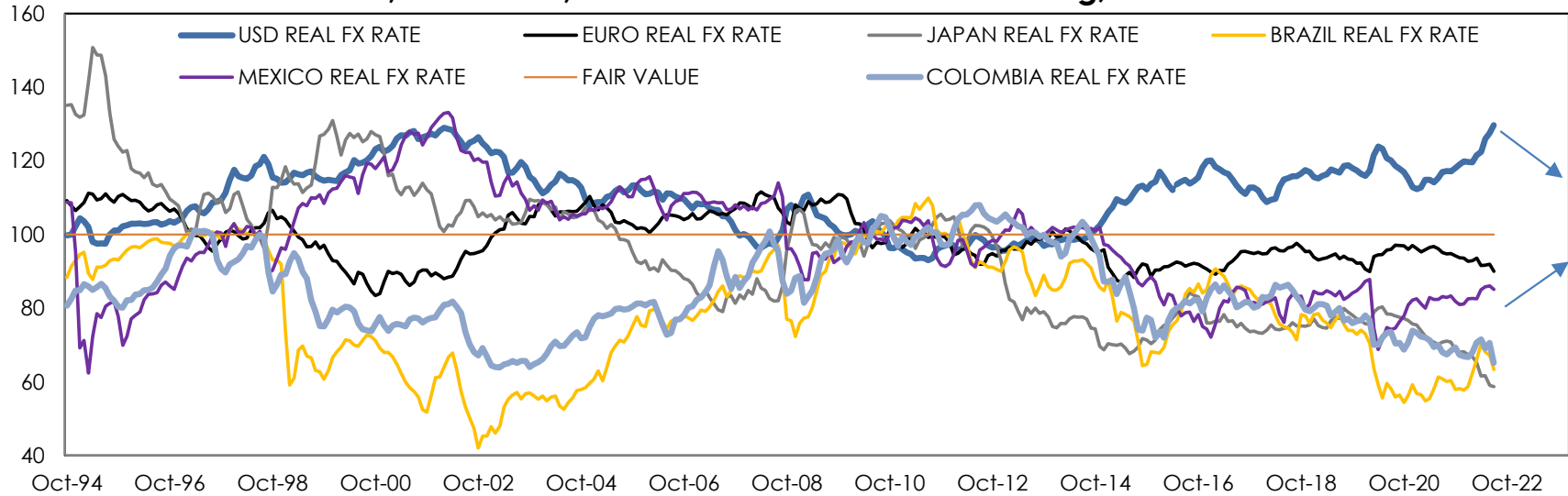


What Are The Main Risks To The China Economic And Market Outlook At This Time?

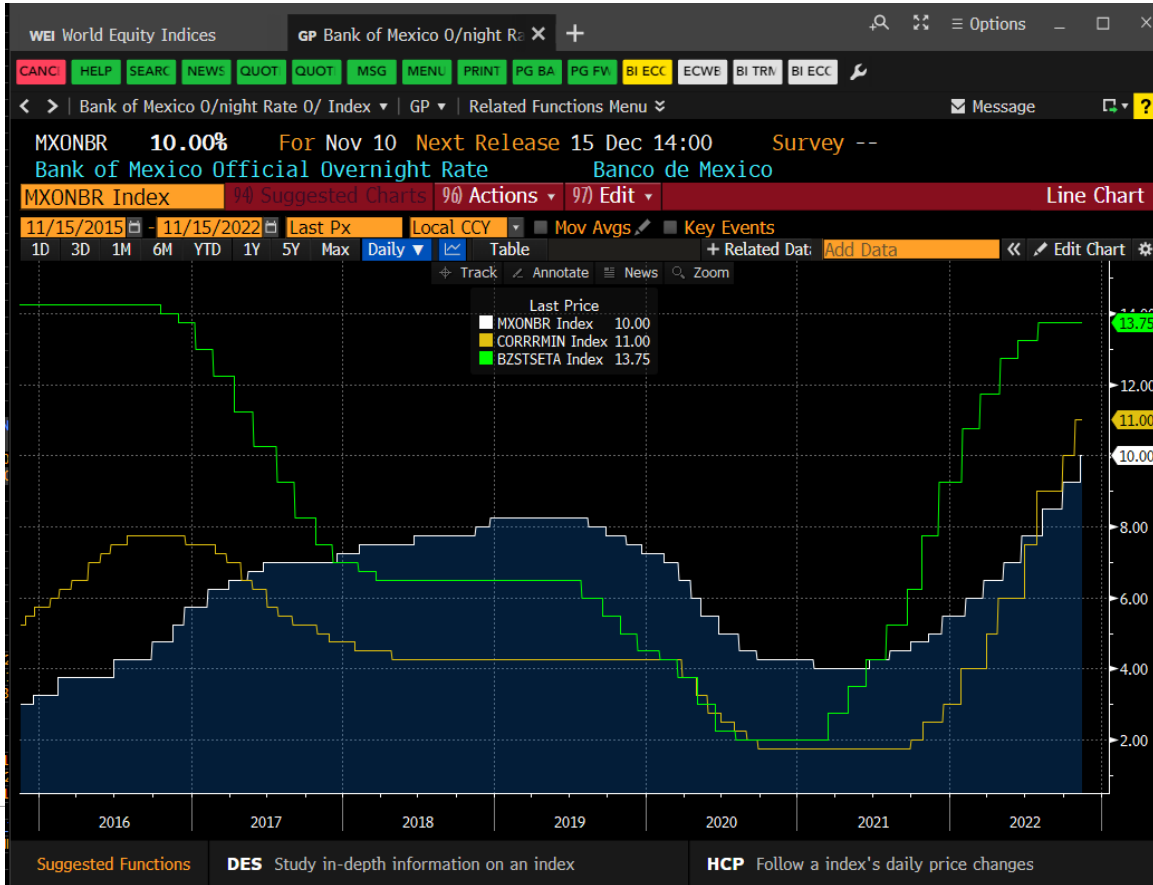
- **Zero Covid Policy.** It seems clear now, after almost three years of the pandemic, that the policy of “suppressing” the virus is unlikely to prove effective. “Beating” a virus seems like an impossible ordeal, the only path going forward is high societal seroprevalence.
- **Housing Crisis.** The housing sector remains in a deep slump, and the options available to the authorities to counteract such reality are suboptimal.
- **Political Instability Following Low Growth:** There’s an *“implicit agreement”* between the Chinese population and its rulers. Namely, *“I don’t ask for freedom, but you will give me growth”*.
- **Taiwan Issue:** Let’s pray....

The Value Of The USD...Is It Sustainable?? The Trade Of 2023??

SELECTED REAL EXCHANGE RATES (USD, EURO, COP, JPY, MXN, BRL). Above 100, Overvalued, Below 100, Undervalued. Source: Bloomberg, XP Investments



Why Should EM FX Start To Perform Better Going Forward?



How Attractive Are Current Equity Valuations In The Eurozone? What About China?

SELECTED WORLD STOCK MARKET'S RELATIVE VALUE					
	LAST PRICE	CURRENT YEAR (PE RATIO)	NEXT YEAR (PE RATIO)	MEDIAN PE RATIO 10-YEAR AVERAGE	CHEAP/EXPENSIVE VERSUS SPX NEXT YEAR PE RATIO
US MARKETS					
DOW JONES INDUSTRIAL	33,695	18.40	16.60	15.43	
S&P 500	4,009	18.08	16.97	16.73	
NASDAQ COMPOSITE	11,448	26.49	22.62	29.60	
MSCI WORLD	2,654	15.88	15.15	16.82	-10.72%
MSCI EMERGING MARKETS	940	11.32	9.99	12.97	-41.15%
LATAM MARKETS					
MEXICAN BOLSA	52,029	13.66	12.80	21.16	-24.55%
BRAZIL'S BOVESPA	113,161	6.35	7.01	15.70	-58.71%
ARGENTINA'S MERVAL	156,554	3.91	2.97	12.10	-82.49%
CHILE'S IPSA	5,221	5.32	6.68	19.39	-60.65%
COLOMBIA COLCAP	1,280	5.68	6.00	19.90	-64.67%
LIMA GENERAL INDEX	22,244	8.40	10.00	19.73	-41.10%
EUROPEAN MARKETS					
EURO STOXX 50	3,915	11.71	11.59	15.24	-31.70%
FTSE 100 INDEX	7,369	9.31	9.51	16.41	-43.98%
CAC 40 INDEX	6,642	10.68	11.16	14.21	-34.25%
DAX INDEX	14,379	11.53	11.34	15.40	-33.16%
IBEX 35 INDEX	8,188	10.48	10.52	12.90	-38.03%
FTSE MIB INDEX	24,700	8.15	8.25	14.62	-51.37%
SWISS MARKET INDEX	11,026	17.89	15.43	18.30	-9.07%
RUSSIAN INDEX	1,160	2.54	2.84	6.70	-83.25%
ASIAN MARKETS					
NIKKEI 225	27,990	14.99	15.28	20.60	-9.97%
HANG SENG INDEX	18,343	10.11	8.85	11.40	-47.84%
SHANGHAI SE COMPOSITE	3,134	11.36	9.94	16.40	-41.41%
S&P/ASX 200 INDEX	7,142	14.05	14.04	18.19	-17.29%
INDIA SENSEX	61,873	23.10	19.58	18.92	15.36%
JAKARTA COMPOSITE	7,036	15.09	15.20	19.30	-10.45%
VIETNAM STOCK INDEX	912	8.94	7.59	12.80	-55.27%



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