CHARTS OF THE WEEK

US housing in peril, inflation, and the weak yen

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This week's charts examine the teetering US housing market from multiple angles -- including historic mortgage rate trends and affordability -- and track the GOP's chances of regaining control of the House given the unsettled economy. We also cover European inflation, which is becoming baked into consumers' medium-term expectations even as some nations suffer more than others. In Japan, our charts track pressure on household incomes and the underpriced yen, while Norway's oil bounty and sovereign wealth fund are also in focus.

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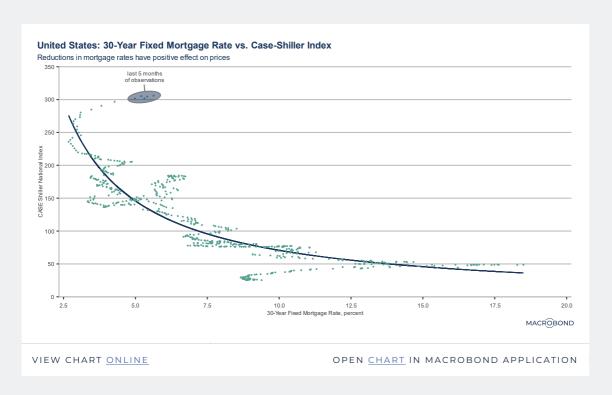
Perilous territory for mortgage rates and house prices

Hindsight is 20/20 for 2020/21. It is now increasingly clear that both monetary and fiscal policy in the US were too expansionary during the peak pandemic years; nominal gross domestic product (GDP) surged far above trend. The Federal Reserve's interest rate tightening cycle, the most rapid in decades, is an attempt to play catch-up.

The chart below shows how the current situation has resulted in an unusual housing market in 2022. Generally, as monthly data points going back to 1975 show, there is a very strong negative correlation between house prices (as measured by the Case-Shiller Index) and rates; house price gains accelerated as mortgages became more affordable.

We highlight the last five months of observations to suggest that house prices are too high in an environment of rising yields and mortgage rates.

Monetary policy has a long (and variable) lag before it affects the wider economy via the housing market – something the latest Nobel Prize winner, former Fed Chairman Ben Bernanke, has written about extensively. Some fear the Fed has already over-tightened and the US housing market is cracking under pressure. We will know by the beginning of next year.





Mortgage rate heat map is glowing red for 2022

The heat map below shows how the surging US mortgage rates of 2022 are unprecedented compared with 31 years of recent history. It tracks the three-month change to the 30-year fixed rate in percentage-point terms.

For most of 2022, the heat map is showing an increase above 1 percent. That exceeds the steadily "hot" (and famously disruptive) tightening cycle of 1994. Though these increases have already cooled down the housing market, more pain is likely to come.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
990	0.35	0.49	0.44	0.50	0.06	-0.07	-0.83	-0.05	0.07	0.29	-0.34	-0.66
991	-0.57	-0.50	-0.04	-0.09	0.05	0.15	-0.03	-0.30	-0.80	-0.66	-0.45	-0.63
992	-0.10	0.13	0.72	0.16	-0.23	-0.67	-0.79	-0.66	-0.36	0.16	0.40	0.21
993	-0.35	-0.81	-0.61	-0.43	-0.06	-0.30	-0.18	-0.54	-0.34	-0.39	0.32	0.24
994	0.11	0.26	0.91	1.35	1.04	0.53	0.25	-0.07	0.25	0.48	0.75	0.36
995	-0.11	-0.70	-0.80	-0.68	-0.82	-0.85	-0.44	0.05	0.09	-0.38	-0.43	-0.51
996	-0.42	0.08	0.58	0.97	0.62	0.60	0.24	0.06	-0.23	-0.45	-0.57	-0.39
997	0.10	0.13	0.51	0.13	0.29	-0.56	-0.65	-0.36	-0.31	-0.15	-0.41	-0.28
998	-0.09	-0.08	0.12	0.10	-0.02	-0.17	-0.25	-0.25	-0.38	-0.14	-0.11	0.23
999	-0.09	0.18	0.15	0.19	0.52	0.73	0.77	0.42	-0.01	0.26	0.01	0.36
000	0.29	0.43	0.17	-0.12	0.27	-0.01	-0.01	-0.58	-0.34	-0.39	-0.31	-0.75
2001	-0.64	-0.62	-0.22	0.05	0.21	0.20	-0.14	-0.32	-0.39	-0.44	0.10	0.42
2002	0.46	-0.22	0.04	-0.24	-0.04	-0.63	-0.35	-0.54	-0.54	-0.30	-0.09	-0.16
2003	-0.23	-0.34	-0.06	-0.20	-0.48	-0.39	0.44	1.01	0.37	-0.20	-0.43	0.08
2004	-0.26	-0.31	-0.33	0.33	0.70	0.69	0.07	-0.51	-0.49	-0.44	0.04	0.09
005	-0.01	-0.02	0.23	0.15	-0.17	-0.51	-0.01	0.09	0.38	0.54	0.55	0.31
2006	-0.08	-0.02	0.13	0.35	0.43	0.43	0.05	-0.23	-0.47	-0.32	-0.30	-0.13
2007	0.03	0.04	-0.02	-0.18	0.24	0.51	0.52	0.03	-0.25	-0.42	-0.35	-0.35
800	-0.58	0.14	-0.19	0.38	-0.16	0.47	0.46	0.32	-0.25	-0.06	-0.43	-1.00
009	-1.36	-0.90	-0.32	-0.32	-0.16	0.54	0.47	0.17	-0.38	-0.22	-0.37	0.20
2010	-0.05	0.34	-0.06	0.08	-0.26	-0.50	-0.52	-0.47	-0.26	-0.31	0.14	0.54
2011	0.58	0.41	0.00	-0.03	-0.32	-0.35	-0.23	-0.33	-0.50	-0.55	-0.22	-0.06
2012	-0.13	-0.10	0.04	-0.03	-0.15	-0.33	-0.29	-0.16	-0.26	-0.16	-0.27	-0.06
2013	0.14	0.19	0.23	-0.18	0.30	0.89	1.04	0.70	-0.24	-0.29	-0.22	0.31
2014	0.22	0.08	-0.12	-0.03	-0.25	-0.29	-0.17	-0.02	0.07	-0.14	-0.13	-0.32
2015	-0.32	-0.17	-0.17	0.02	0.07	0.38	0.30	0.02	-0.23	-0.22	0.04	0.16
2016	0.03	-0.29	-0.30	-0.13	0.02	-0.23	-0.18	-0.20	-0.06	0.06	0.62	0.90
2017	0.65	0.02	-0.18	-0.16	-0.16	-0.26	-0.10	-0.12	-0.05	0.01	0.08	0.16
2018	0.28	0.53	0.45	0.33	0.13	0.11	0.05	-0.04	0.17	0.23	0.29	-0.21
2019	-0.37	-0.46	-0.45	-0.32	-0.36	-0.33	-0.39	-0.41	-0.08	0.03	0.10	0.07
2020	-0.27	-0.23	-0.39	-0.28	-0.30	-0.26	-0.24	-0.22	-0.19	-0.18	-0.22	-0.21
2021	-0.08	0.26	0.51	0.25	0.02	-0.20	-0.18	-0.12	0.03	0.34	0.24	0.10
2022	0.41	0.65	1.56	1.55	1.33	1.03	0.20	0.57	1.00	1.65	1.42	
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Another measure of deteriorating home affordability

The US National Association of Realtors compiles a housing affordability index. It tracks price and income data to measure whether or not a typical family earns enough to qualify for a 30-year mortgage on a typical home.

Rate increases are highly negatively correlated with this index, as our chart shows. It tracks monthly data points going back to 1982.

We have inverted the Y axis to highlight how the last four months show historic pressure on affordability. Monthly payments are significantly higher than just a year ago, while prices increased at a spectacular rate until this summer (as the size of the recent individual dots, or "bubbles," shows).



VIEW CHART ONLINE

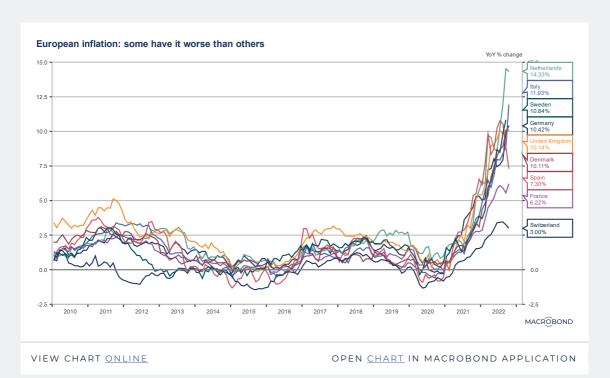
OPEN CHART IN MACROBOND APPLICATION

Europeans are experiencing inflation differently

Everyone is suffering from inflation, but some major European countries have it worse than others, even within the Eurozone. And the differences are widening.

As the Dutch inflation rate soars toward 15 percent, inflation in France is at a much more moderate 5.5 percent. Meanwhile, Switzerland is only experiencing 3 percent inflation, as our chart shows.

The dispersion is explained by different degrees of energy dependency and the energy mix of production. The Swiss are somewhat protected by their strong and appreciating franc, one of the major safe-haven currencies. France caps electricity prices, putting the burden on the state finances rather than the consumer. But the other countries' consumers are more directly exposed to the energy crisis. (The Dutch combine dependence on gas for heating with a <u>statistical quirk</u> that boosts their reported figure.)



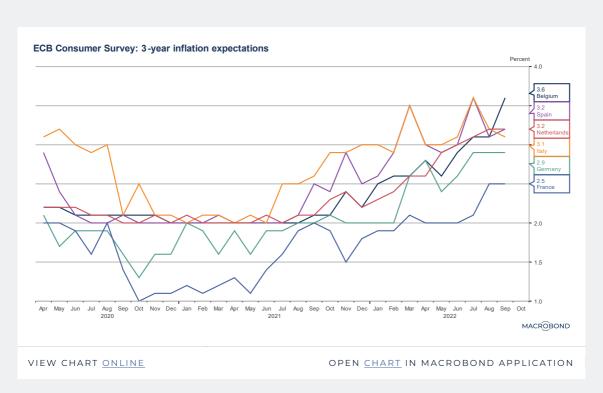


Europeans are expecting inflation to last for years

The European Central Bank surveys consumers to measure their inflation expectations. As real-time inflation rises, so do consumers' expectations of future inflation, our newly added ECB survey data shows. This is probably not surprising.

But the major headache for the ECB is that consumers aren't on "team transitory." As our chart shows, Europeans expect medium-term (three-year) inflation to rise, persisting beyond the short run. This trend is broadly similar across the eurozone.

Unanchored inflation expectations are one of central bankers' biggest fears. These data points will support the more hawkish policy makers in Frankfurt, and the view that more rate hikes are needed right away to bring inflation back down in a reasonable time frame.



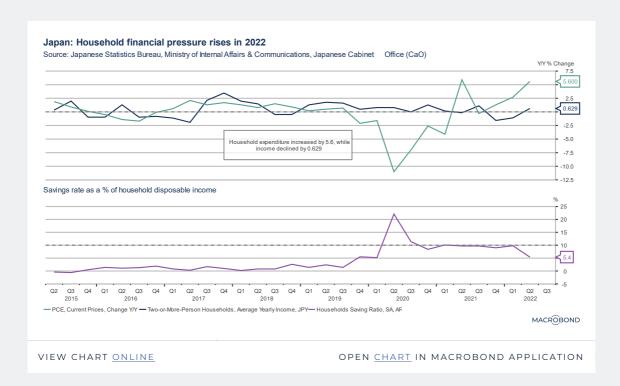


Japanese households are starting to struggle

The inflation rate in Japan is one of the lowest in the OECD. But the nation's households are still under pressure.

As our chart shows, household spending is up more than 5 percent year-on-year in nominal terms, while incomes have slipped about 1 percent.

To make up the difference, households might be spending money they would have saved in the past. That said, the savings rate is staying steady at about 10 percent -- quite elevated compared to the prepandemic "old normal."





The underpriced Japanese yen

The Japanese yen is at its <u>weakest in 30 years</u>, approaching the fateful 150 mark versus the dollar. That might be the line in the sand for the Bank of Japan, which recently intervened in the currency market for the first time in decades.

The following chart tracks our simple valuation model. It's based on high-frequency data such as interest rates and measures of Japan's terms of trade, equity prices and OECD economic indicators.

Our model tracked the value of the yen quite well until a few months ago. But there is now a record gap between the currency's predicted value and the much weaker actual exchange rate.

Based on fundamentals, there is room for the yen to rebound.

This chart allows for the <u>change region</u> function.



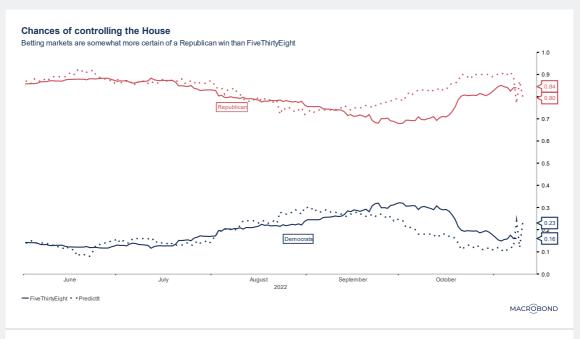


US Democrats improve their electoral chances but it is likely not enough

The US midterm elections are less than a month away. Many Americans think they are already experiencing a recession and are unhappy with the spike in inflation. That's bad news for President Biden's party.

Our chart tracks Fivethirtyeight (whose model is essentially a polling aggregator) and Predictlt, a market that allows people to bet on election outcomes.

The Democrats have improved their chances over the summer. Even so, Predictlt gives the Republicans a roughly 80 percent chance of winning the House of Representatives. Fivethirtyeight is slightly more optimistic for the Democrats, but still gives the GOP a 70 percent chance of controlling the House.



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Norwegian oil riches

The surge in oil and gas prices has massively improved Norway's fiscal position.

As our chart shows, the government's revenue from petroleum activities is expected to surpass 20 percent of GDP this year and next.

It's interesting to track the net transfer to the nation's famed sovereign wealth fund. During the worst of the Covid-19 crisis, that net transfer was slightly negative as the <u>government withdrew</u> funds to pay for pandemic relief measures. Positive transfers have resumed again and are expected to exceed 1 trillion kroner (USD 90 billion) this year.







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