

Wait for it

Bruce Kasman ^{AC}

Chief Economist and Head of Global Economic Research

Global Economic Research

+1(212)834-5515

bruce.c.kasman@jpmorgan.com

JPMorgan Chase Bank NA

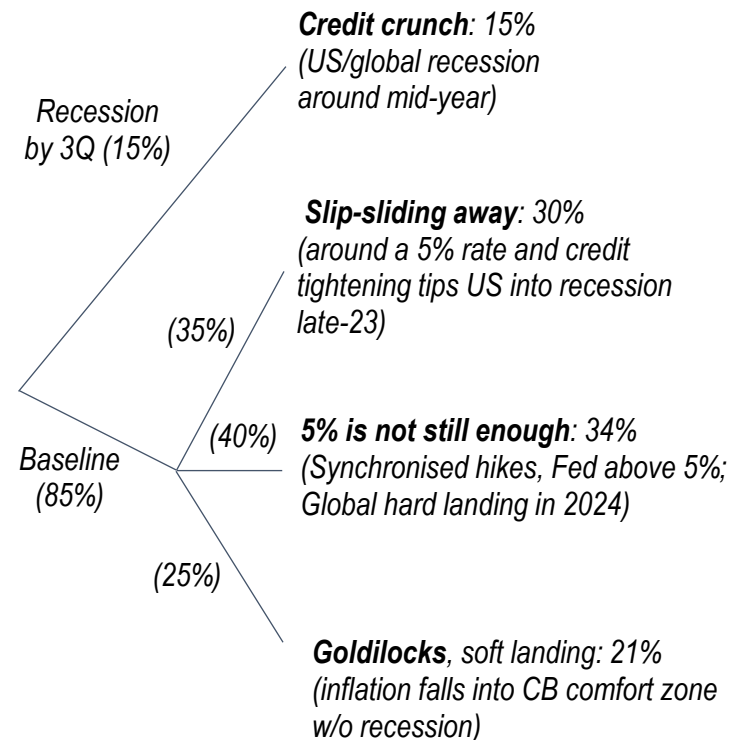
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Main points

- **Divergent global growth but no imminent US recession:** Incoming news points to healthy growth momentum at the start of the year as fading supply-side and DM fiscal drags reinforces still underlying healthy private sector dynamics. The US projected to grow at about a 1%ar in 1H23 while China surges to above a 7%ar.
- **Don't count on a soft-landing.** Inflation is declining but is likely to remain elevated, as labor markets remain tight and inflation psychology has shifted. The expansion will probably prove short-lived.
- The key parameters regarding timing, rate levels and depth of the next recession are difficult to tie down with confidence. Our bias is for a recession that comes **later**, has a **higher** peak policy rate and proves **deeper** than is generally expected. Assuming there is no immediate break, two very different recession scenarios for 2023-4 stand out.

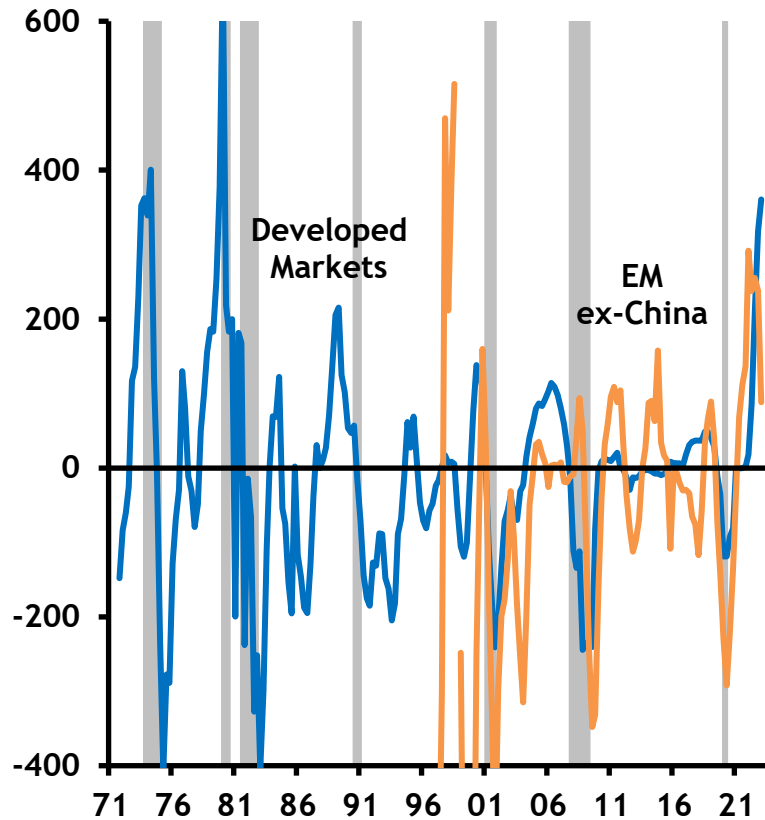
Global outlook scenarios



A significant monetary tightening drag ...

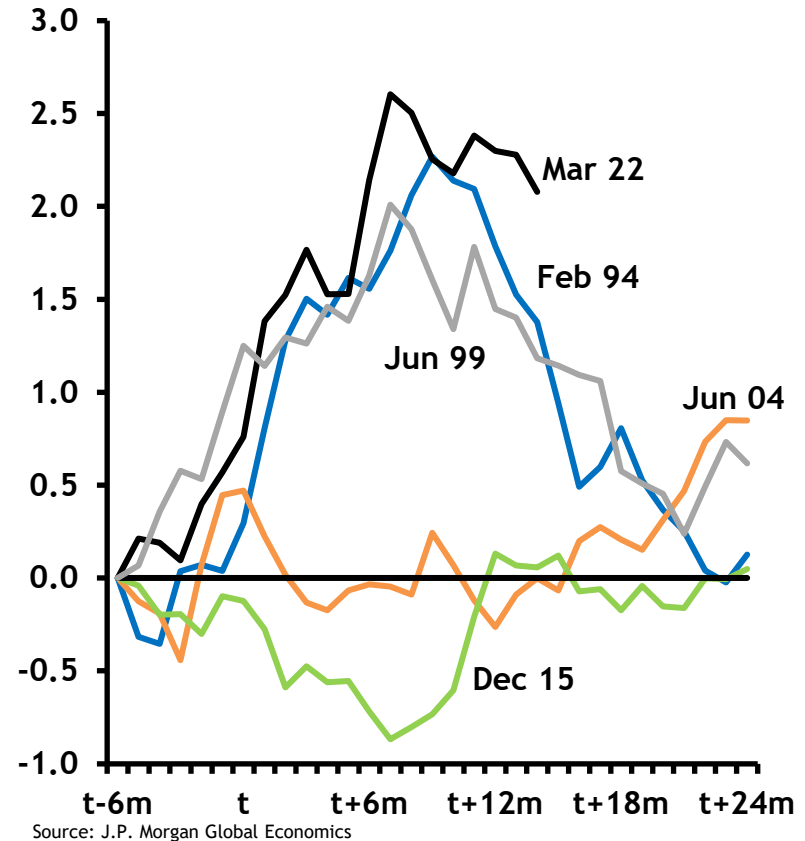
Monetary policy rate

Bp, 4 quarter change



US 10y yield around Fed tightening

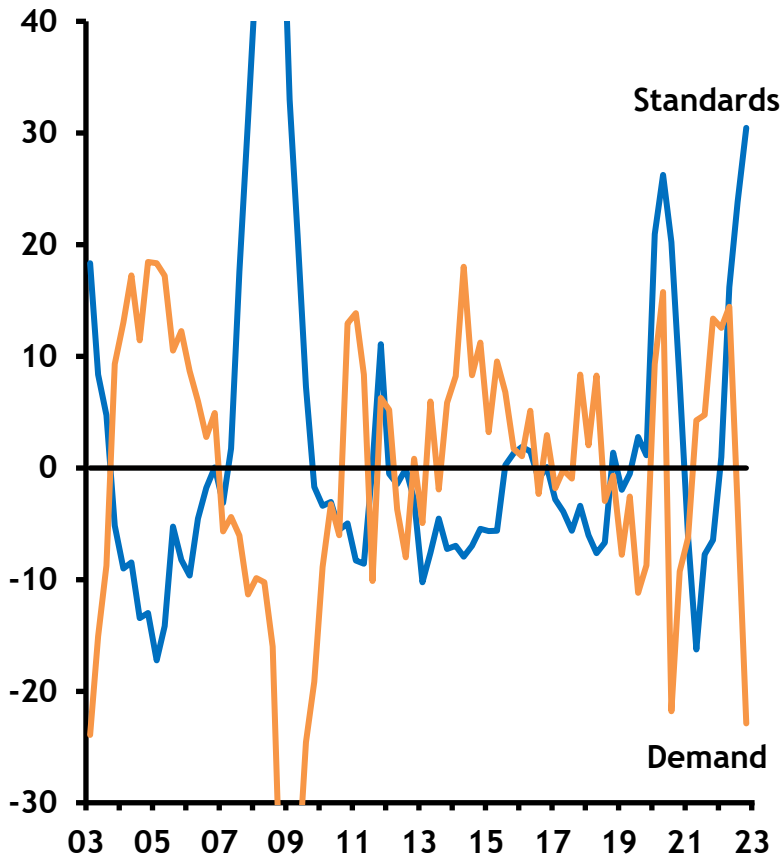
%-pt chg, t =start of Fed hike cycle



...reinforced by credit tightening

G4 business credit standards

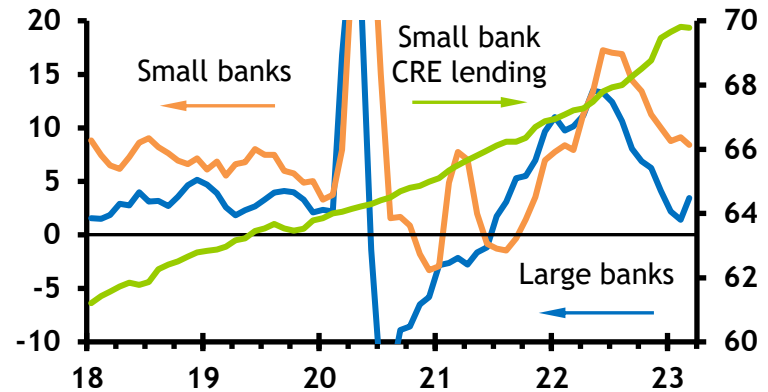
Net % tightening (standards), net % increase (demand)



Source: Fed, ECB, BoE, BoJ, J.P. Morgan

US domestic bank lending

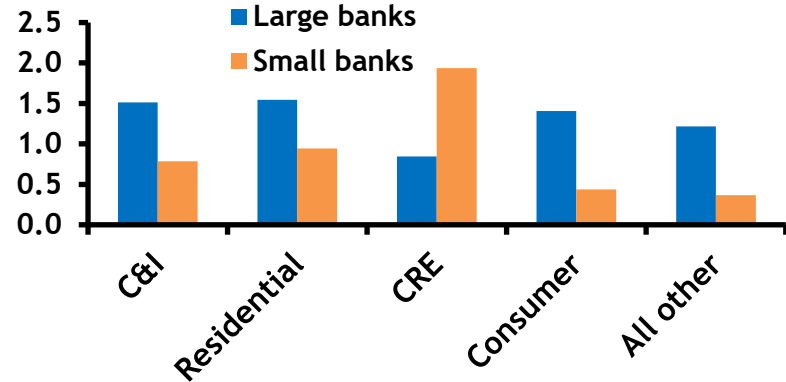
%3m, saar %, share of total domestic lending



Source: FRB, J.P. Morgan

Loan of domestic commercial banks by type

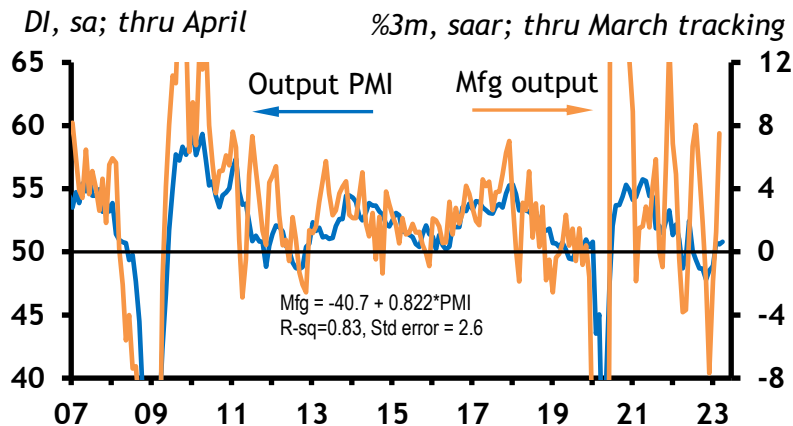
\$tr, sa, Dec 2022-Feb 2023 average



Source: Federal Reserve Board, J.P. Morgan

Data say: Mfg. and housing have been hit...

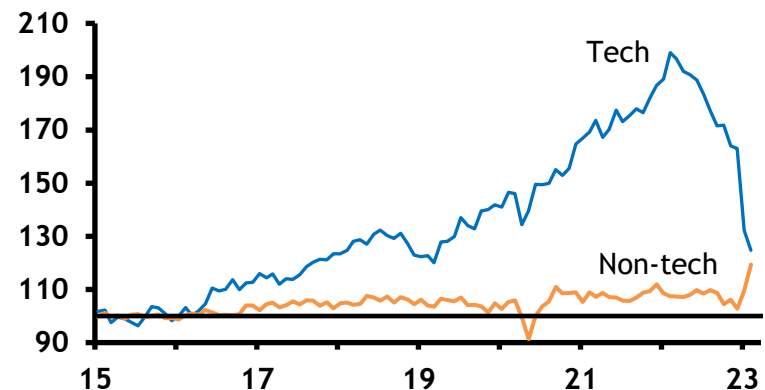
Global mfg output PMI and actual output



Source: S&P Global, J.P. Morgan

Factory output: EMAX

Index, 2015 = 100



Source: J.P. Morgan Global Economics; EMAX is KOR, TWN, SGP, MYS, THA

Manufacturing output PMI

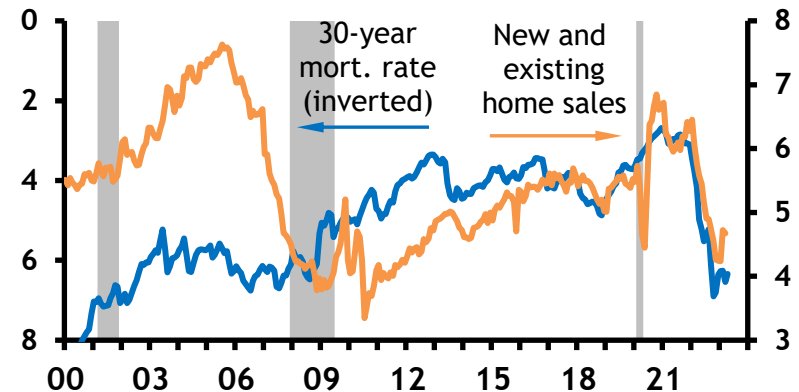


Source: S&P Global, J.P. Morgan

US Home sales and mortgage rates

% p.a.

Million units, saar

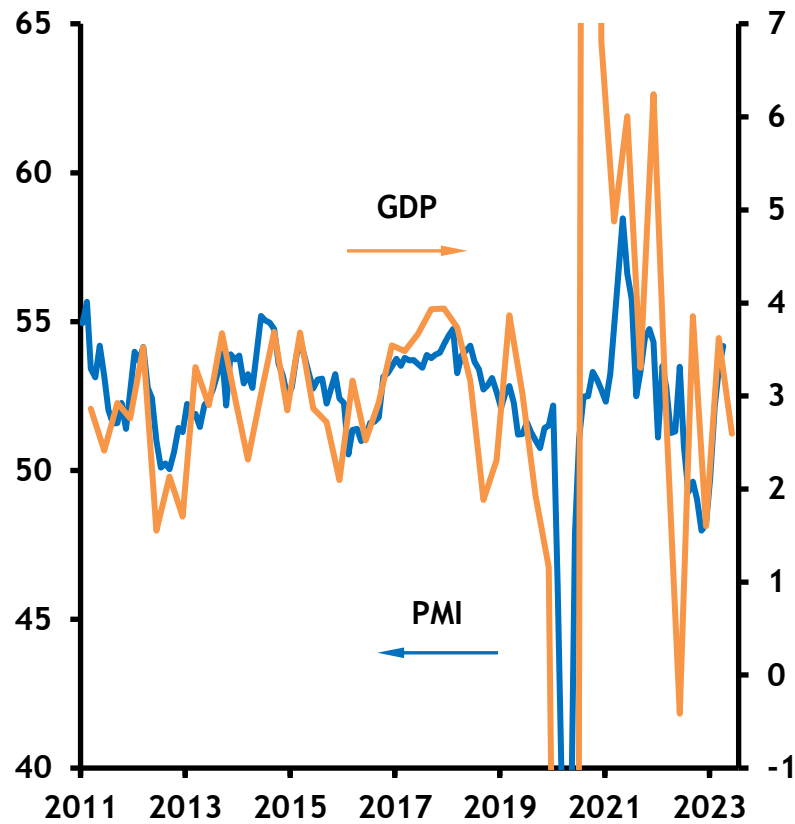


Source: Census, NAR, FHLMC, J.P. Morgan

.. but the expansion remains on firm footing

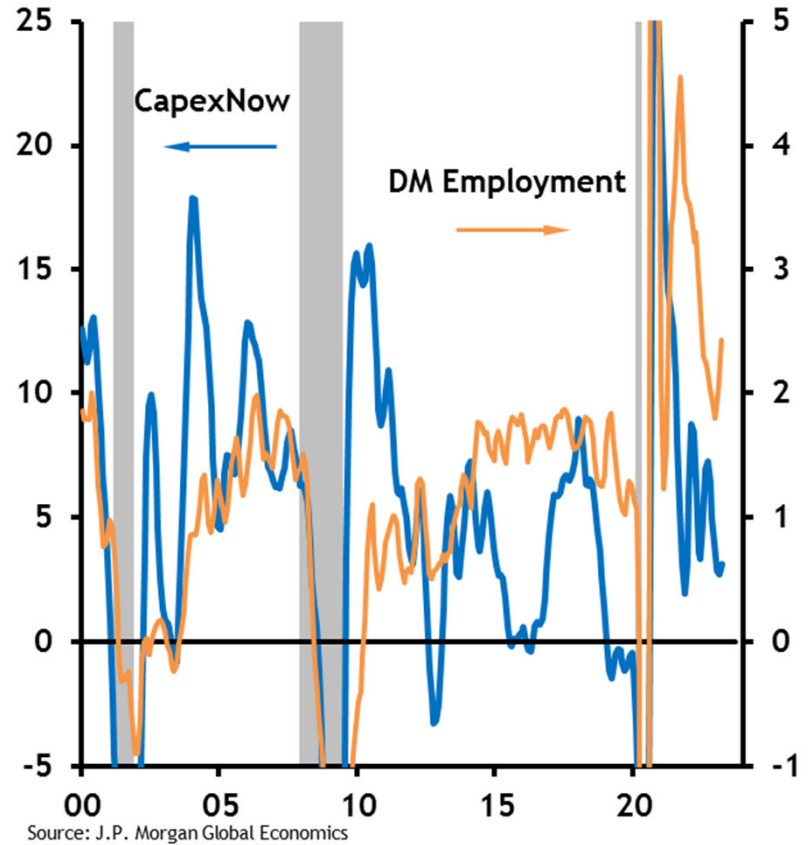
Global all-industry PMI and GDP

DI, sa; thru April %q/q, saar; w/ 1Q & 2Q23 fcst



Global business spending

%3m/3m, saar; both scales



Inflation slide represents fading supply shocks

Global CPI

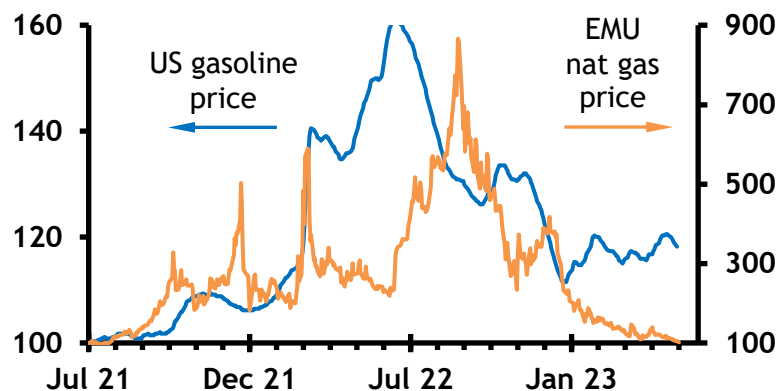
% change ar

	2017-19	2020	2021	1H22	3Q22	4Q22	1H23
Headline	2.3	1.0	4.7	9.3	5.8	5.0	3.6
Energy	4.5	-6.9	26.4	40.8	-0.2	0.0	-7.2
Food	2.9	2.5	3.6	11.6	12.8	8.2	5.1
Core	2.0	1.3	3.3	5.8	5.0	4.5	4.6
Goods	0.6	0.8	4.5	5.5	4.4	2.3	2.7
Services	2.3	1.2	2.6	4.9	4.9	5.1	5.4
Memo: Goods*	2.1	0.2	7.8	13.6	6.8	4.1	2.0

Source: National sources, J.P. Morgan. *Energy, food and core goods. Core goods excludes Turkey.

US gasoline and Euro area natural gas prices

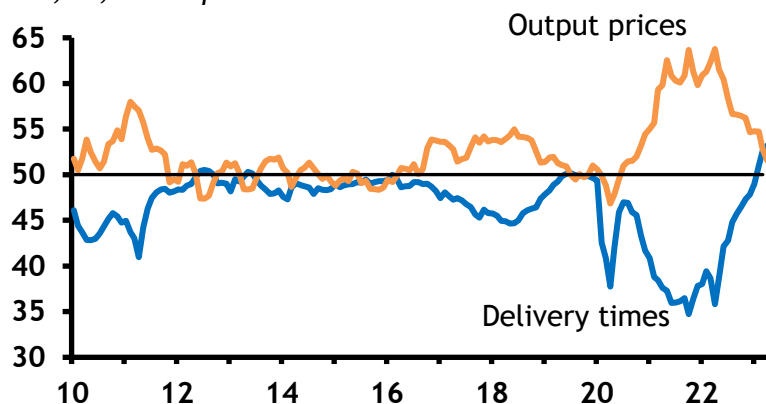
Index: 01 July 2021 = 100; both scales



Source: Bloomberg Finance, L.P., J.P. Morgan

Global mfg PMI, delivery times and prices

DI, sa; thru April

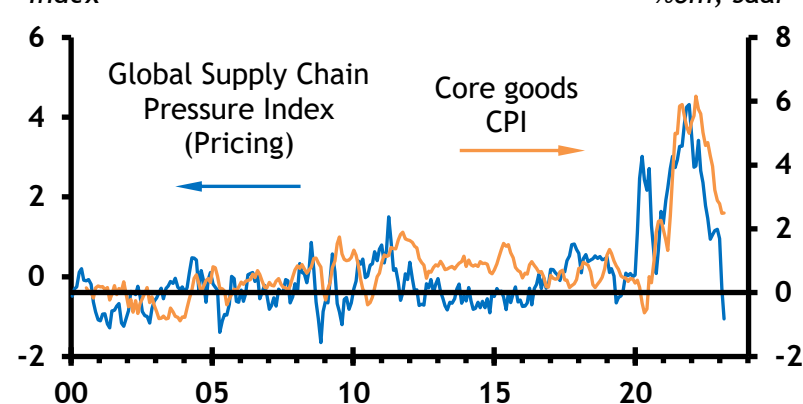


Source: S&P Global, J.P. Morgan

Global supply chain prices, core goods CPI

Index

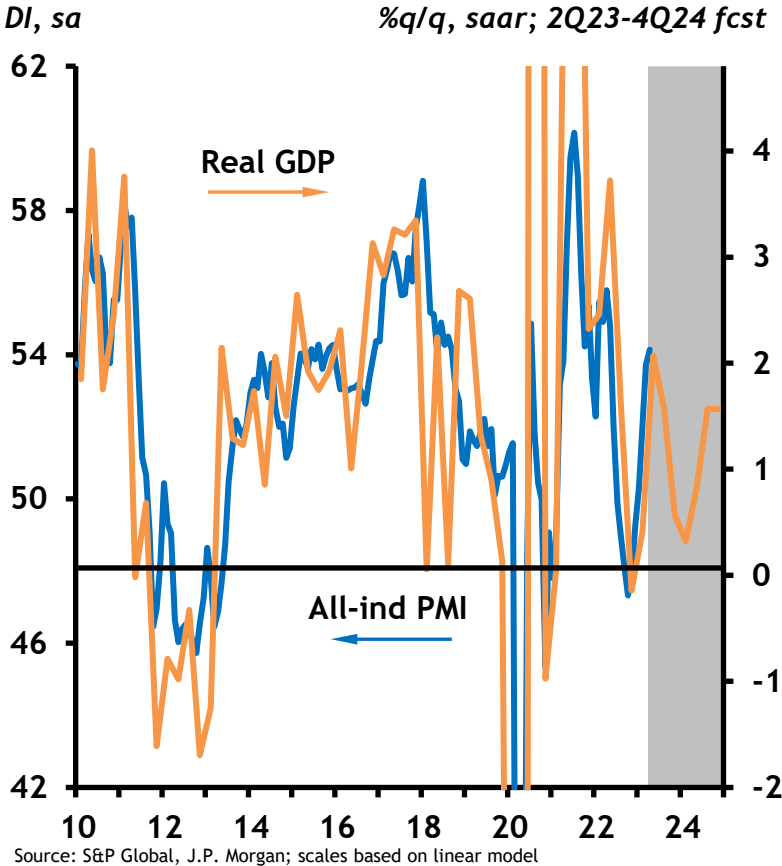
%6m, saar



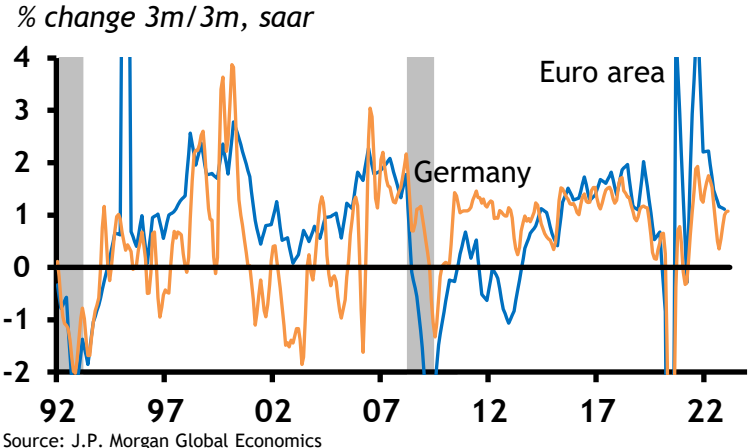
Source: J.P. Morgan, NY Fed

Euro area weathers energy shock ...

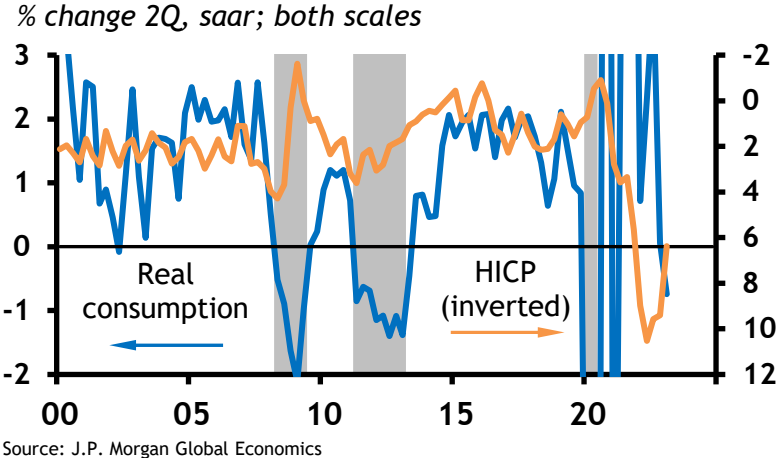
Euro area all-IND PMI and real GDP



Euro area employment

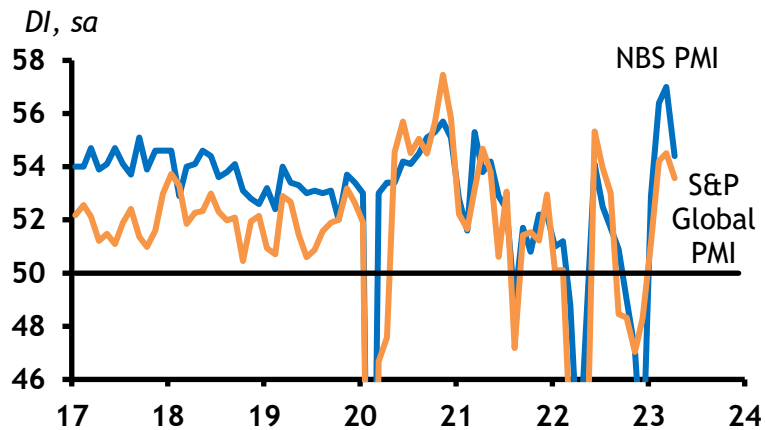


Euro area consumption and inflation



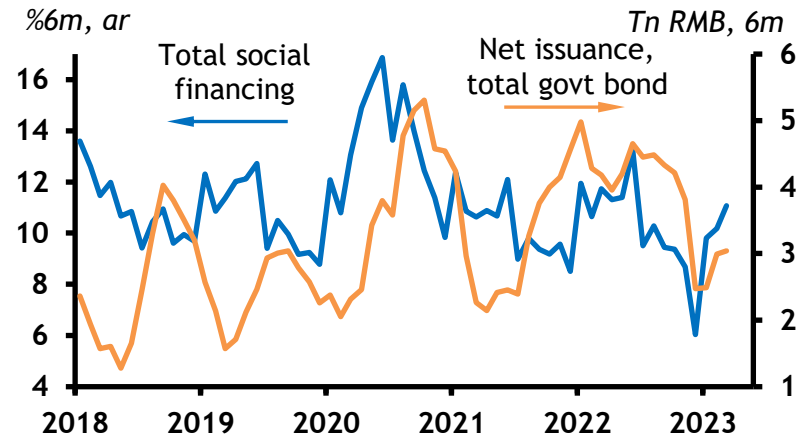
...and an early China reopening bounce

China composite output PMI



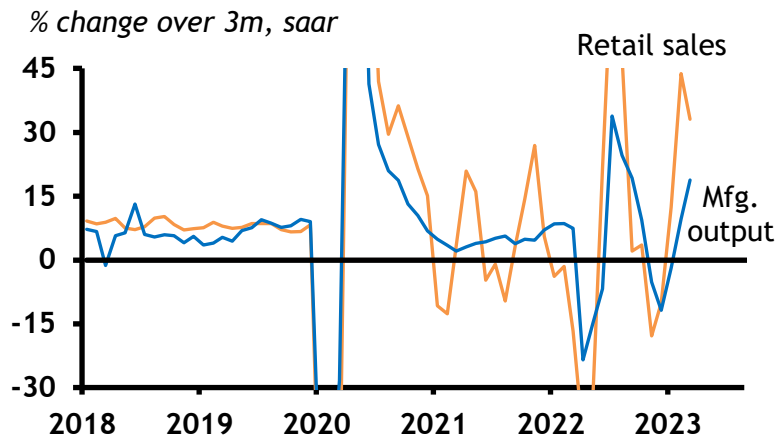
Source: NBS, S&P Global, J.P. Morgan

China credit growth



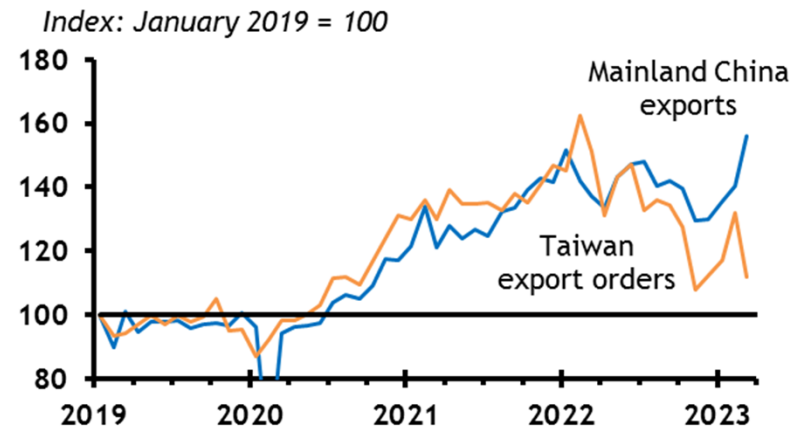
Source: J.P. Morgan Global Economics

China retail spending and mfg output



Source: NBS, J.P. Morgan

EM Asia trade



Source: China Customs, MOEA, J.P. Morgan

US 1Q23 growth: signal and noise

US GDP growth

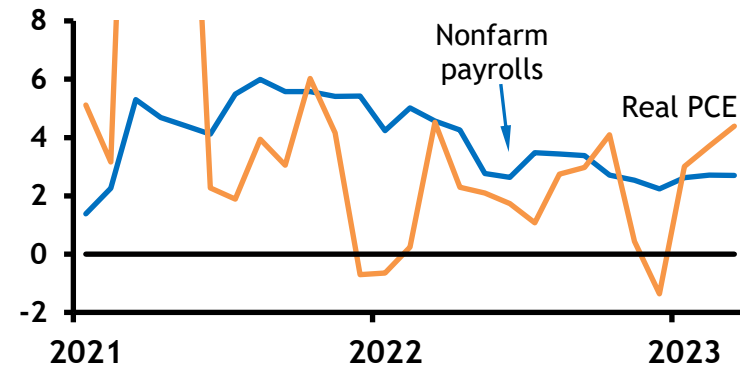
% change, annualized rate

	1H22	3Q22	4Q22	1Q23
GDP	-1.1	3.2	2.6	1.1
Consumption	1.7	2.3	1.0	3.7
Business investment	4.0	6.2	4.0	0.7
Government	-1.9	3.7	3.8	4.7
Housing	-10.5	-27.1	-25.1	-4.2
Domestic demand (%-pt)	-0.1	0.4	2.2	1.0
Net export contrib. (%-pt)	-1.0	2.9	0.4	0.1
memo:				
Employment	445	423	284	295

Source: BEA, J.P. Morgan. Employment is monthly avg, '000s.

US employment and real PCE

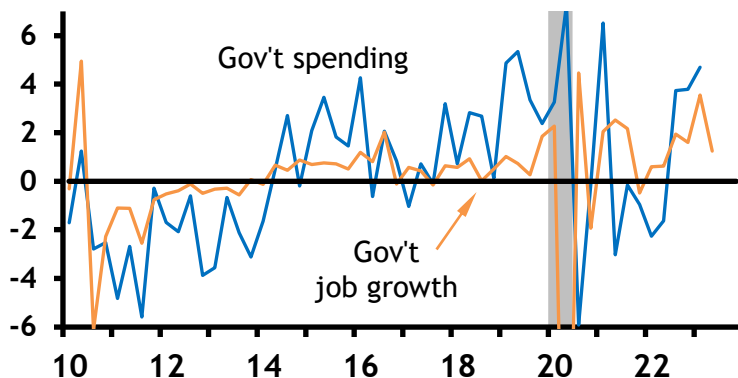
%3m, saar



Source: BEA, BLS, J.P. Morgan

US gov't spending and jobs

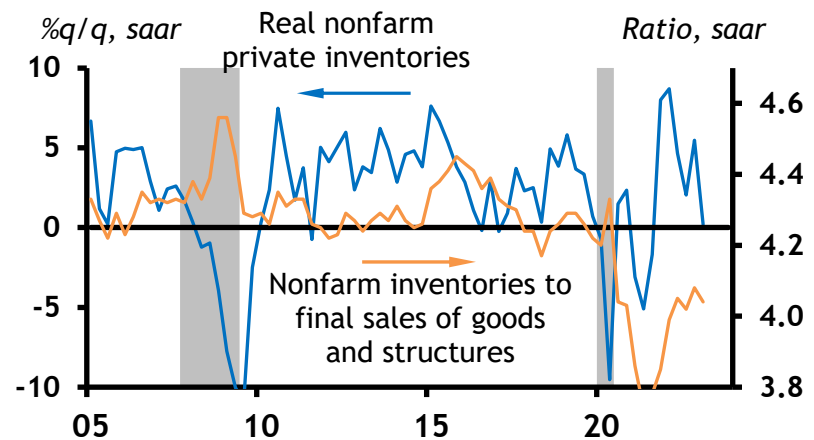
%q/q, saar



Source: BLS, J.P. Morgan

US priv. inv. & ratio of priv. inv. to final sales

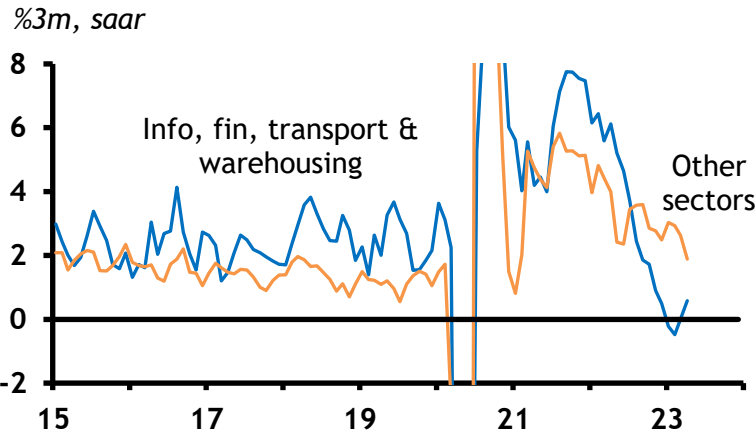
%q/q, saar



Source: BEA, J.P. Morgan

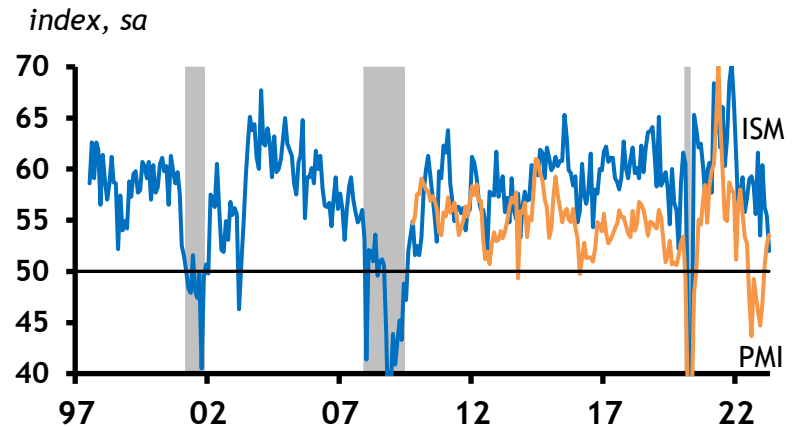
US growth to slow but not break

US employment growth by sector



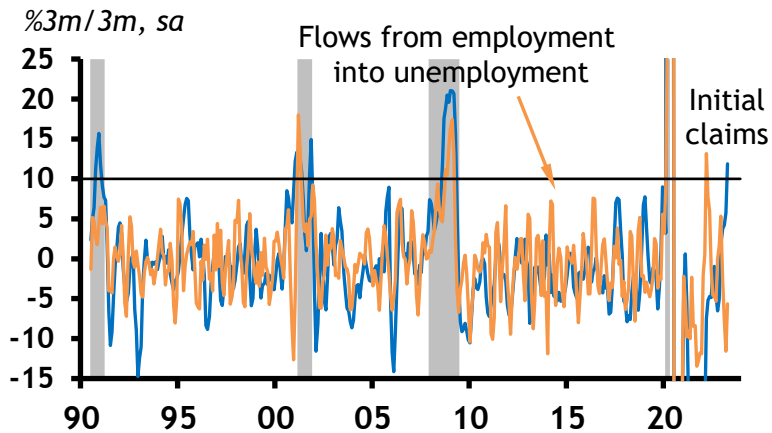
Source: BLS, J.P. Morgan Global Economics

US service sector surveys



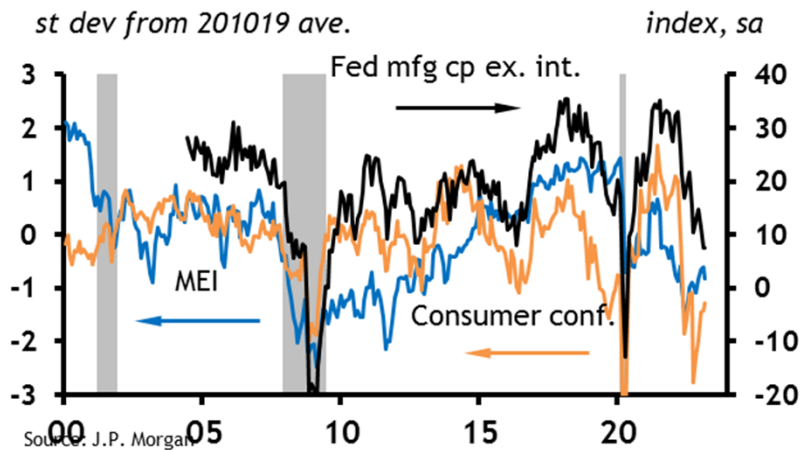
Source: ISM, S&P Global, J.P. Morgan

US labor market



Source: BLS, Department of Labor, J.P. Morgan

US sentiment



Source: J.P. Morgan

View: Divergent growth; recession not imminent

Global real GDP

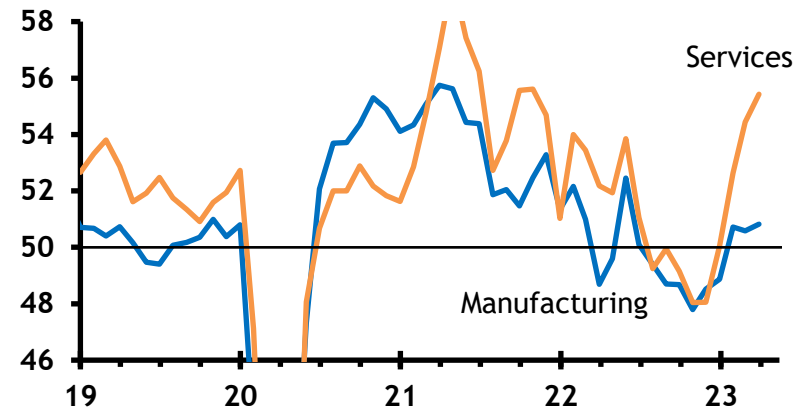
% change annualized

	2020	2021	2022		2023		2024
	4Q/4Q	4Q/4Q	1H	2H	1H	2H	1H
Global (2.6)	-0.7	5.0	1.1	2.7	3.2	1.7	1.9
DM (1.4)	-2.8	5.3	0.8	1.6	1.1	0.5	0.4
US (1.5)	-1.5	5.7	-1.1	2.9	1.0	0.0	0.0
Euro area (1.3)	-4.1	4.9	3.0	0.7	1.2	1.0	0.5
Japan (0.8)	-2.0	1.5	1.4	-0.5	1.4	0.2	0.6
UK (1.0)	-9.8	8.9	1.1	0.1	0.9	1.1	0.2
EM (4.5)	2.4	4.5	1.5	4.2	6.0	3.4	4.1
EM ex China (3.4)	-1.1	5.1	2.9	2.0	3.0	1.9	2.6
China (5.5)	6.2	3.9	0.0	6.5	9.1	4.9	5.5
India (6.0)	1.2	5.0	7.0	4.6	6.1	4.7	4.4
EMAX (3.0)	-1.9	4.7	3.8	1.2	3.7	2.2	2.6
Korea (2.7)	-1.1	4.5	2.8	-0.2	2.3	1.0	1.8
EMEA EM (2.5)	-0.8	6.7	-1.5	2.2	2.2	1.2	3.0
CEE (3.3)	-3.1	6.8	4.5	-1.0	2.2	2.6	3.1
Russia (1.5)	-1.7	5.2	-11.2	4.8	1.4	1.9	2.3
Turkey (3.8)	5.6	8.9	5.3	1.7	4.7	-3.0	5.4
South Africa (1.3)	-3.4	2.2	1.6	1.1	0.8	1.2	0.7
Latam (1.9)	-2.2	3.9	3.9	1.0	0.7	0.4	1.0
Mexico (2.2)	-4.0	1.1	4.6	2.7	2.7	0.4	1.4
Brazil (1.5)	-0.4	2.1	4.5	0.1	1.6	-0.1	1.2

Source: J.P. Morgan Global Economics. Pre-pandemic potential in parentheses.

Global output PMI

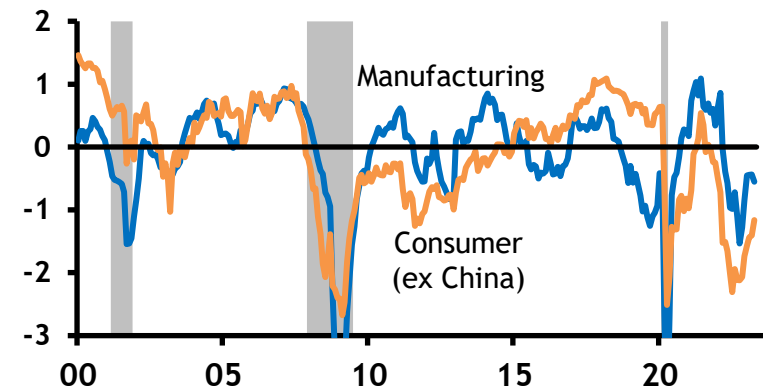
DI, sa



Source: S&P Global, J.P. Morgan

Global confidence

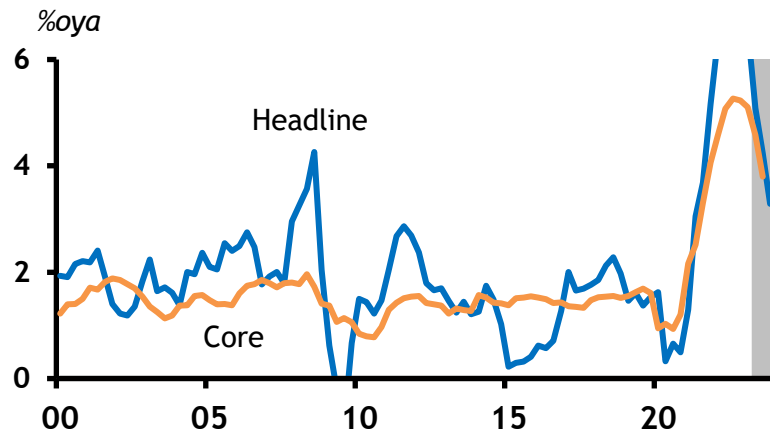
Std. dev from 2010-2019 avg



Source: J.P. Morgan Global Economics

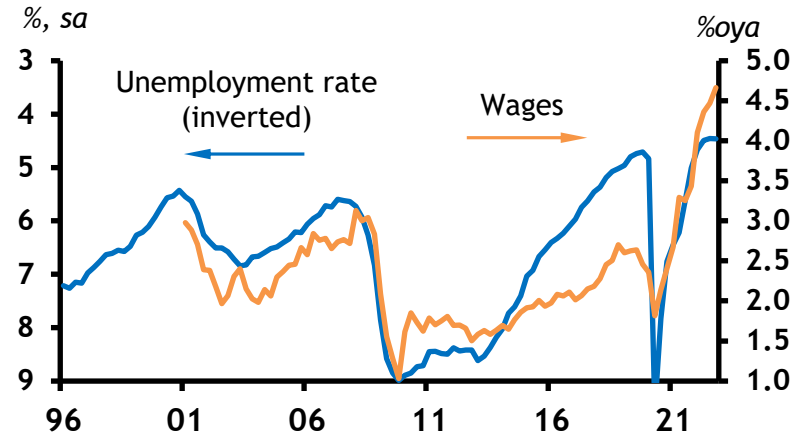
View: Inflation slide substantial but incomplete

DM consumer prices



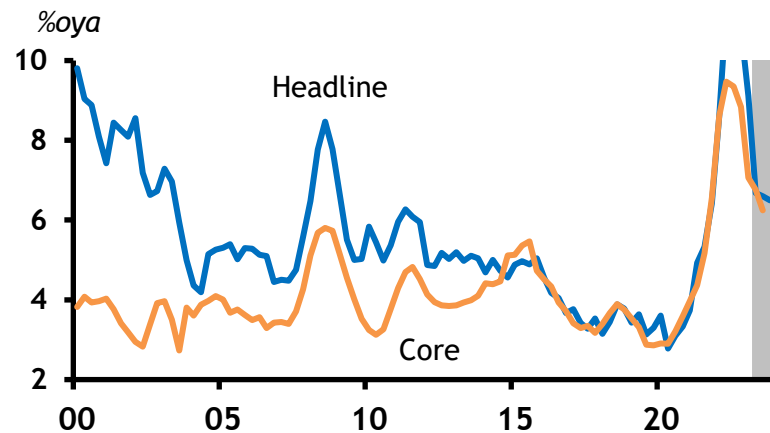
Source: National sources, J.P. Morgan

DM unemployment rate and wages



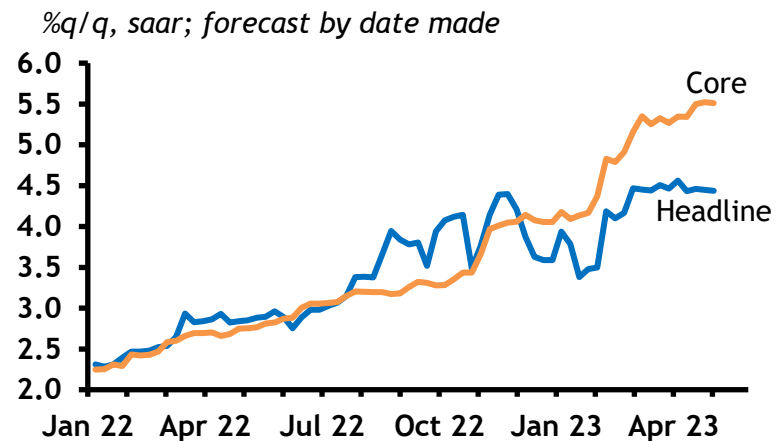
Source: J.P. Morgan Global Economics

EM consumer prices



Source: National sources, J.P. Morgan

J.P. Morgan 1Q23 CPI forecast, ex. China



Source: J.P. Morgan Global Economics

A recession is about retrenchment

US macroeconomic performance in recessions

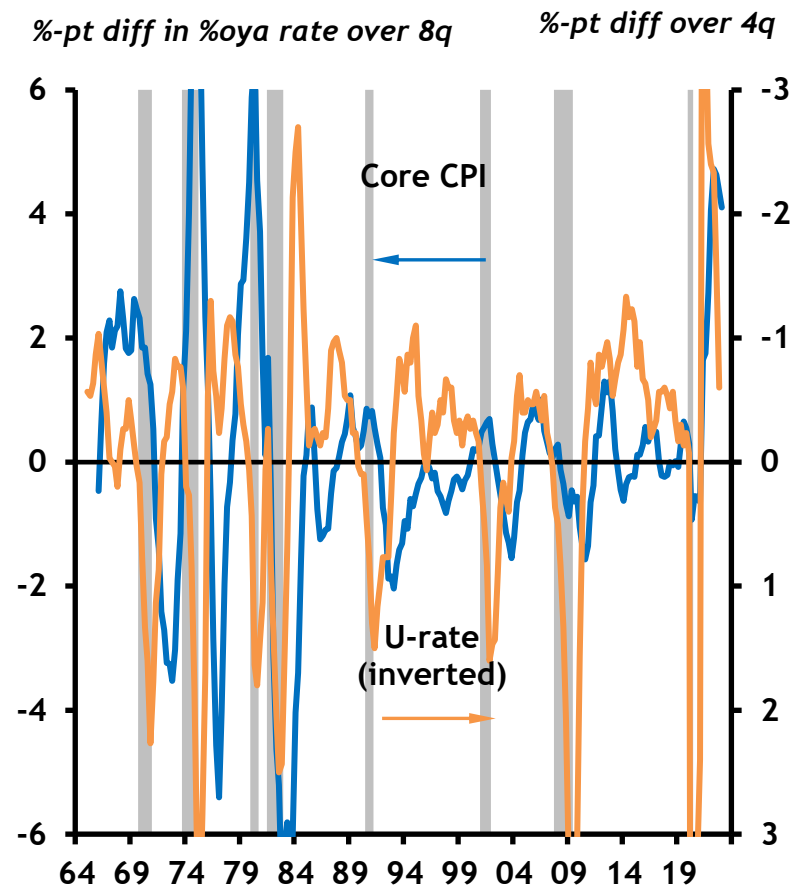
Period	Duration (months)	GDP	Unemp rate (%-pt)	Fed Rate (bp)	Memo: Global GDP
1948-49	11	-1.5	+3.0
1953-54	10	-2.4	+3.6
1957-58	8	-3.0	+3.0	-229	...
1960-61	10	-1.3	+1.9	-169	...
1969-70	11	-0.7	+2.6	-337	-0.3
1973-75	16	-3.1	+4.0	-369	-1.8
1980	6	-2.2	+1.5	-521	-1.1
1981-82	16	-2.5	+3.6	-829	-0.5
1990-91	8	-1.4	+2.6	-173	0.4
2001	8	-0.1	+2.4	-346	-0.1
2007-09	18	-3.8	+5.5	-432	-3.9
2020	2	-9.6	+7.5	-158	-7.4
Average	10	-2.6	+3.4	-356	-1.8

Forecast

2023/24	6	-0.1	+1.5	0	1.3
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Source: J.P. Morgan Global Economics. Note: Duration and Fed easing are calculated over recession period. GDP drop and unemployment rate is from peak to trough. This typically lasts longer than the recession period for unemployment rate.

Core CPI and unemployment rate, US

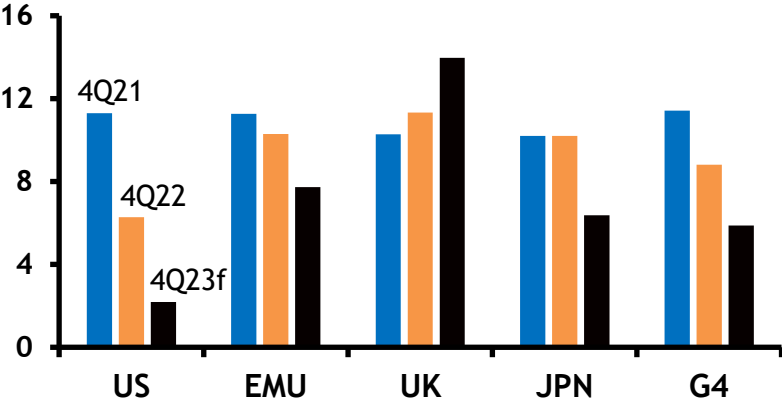


Source: BLS, J.P. Morgan

DM household sector not vulnerable in large blocs

Excess household saving, G4

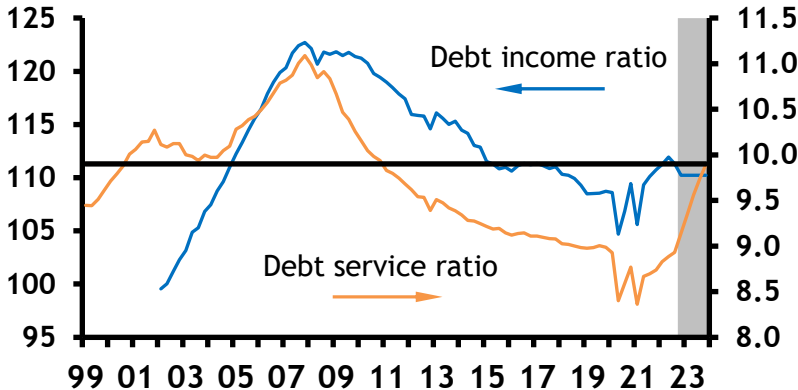
% of household income, cum. above pre-pandemic pace



Source: J.P. Morgan Global Economics

Household debt and debt servicing, DM

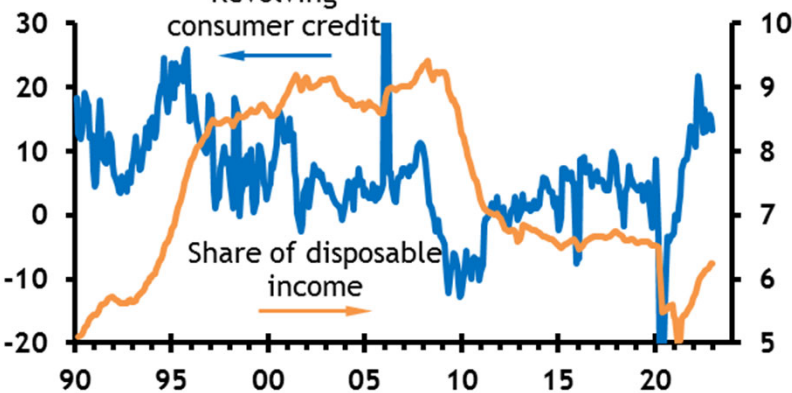
% of income; both scales



Source: J.P. Morgan Global Economics

US revolving consumer credit

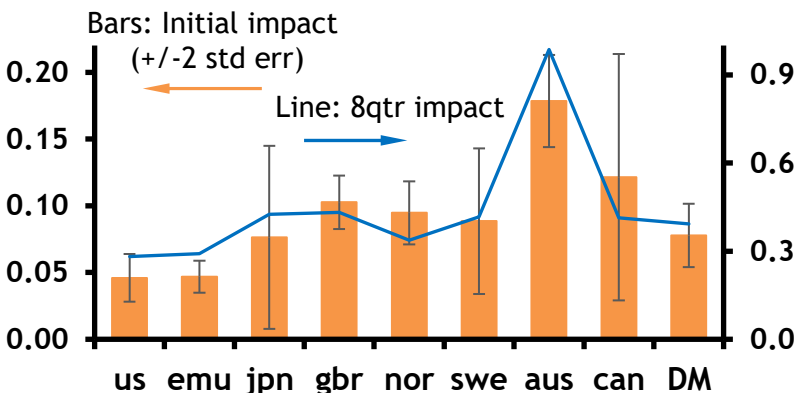
%3m, saar % , sa; 3mma



Source: BEA, FRB, J.P. Morgan

Impact of short-rates on debt servicing costs

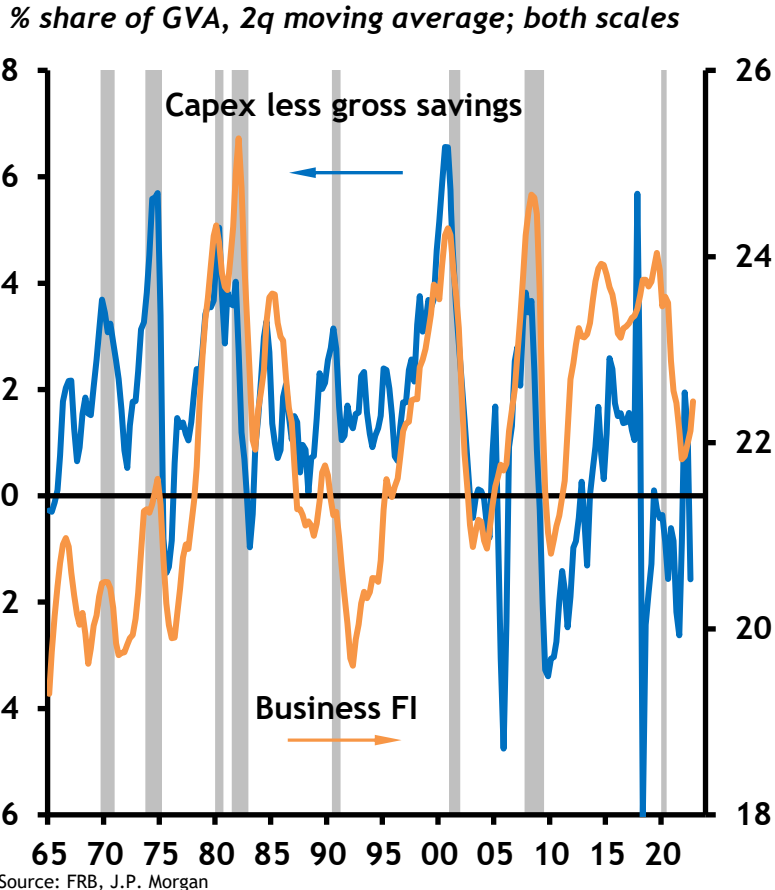
%pt of income; impact of 1%pt rise in Sov1yr (both scales)



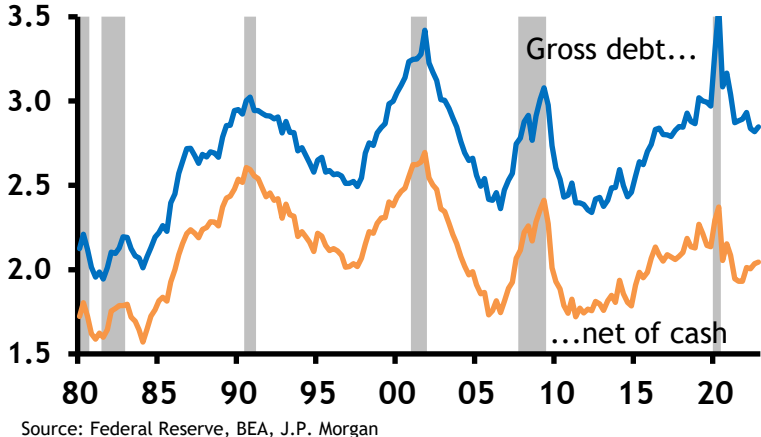
Source: J.P. Morgan Global Economics

US corporates still in rude health

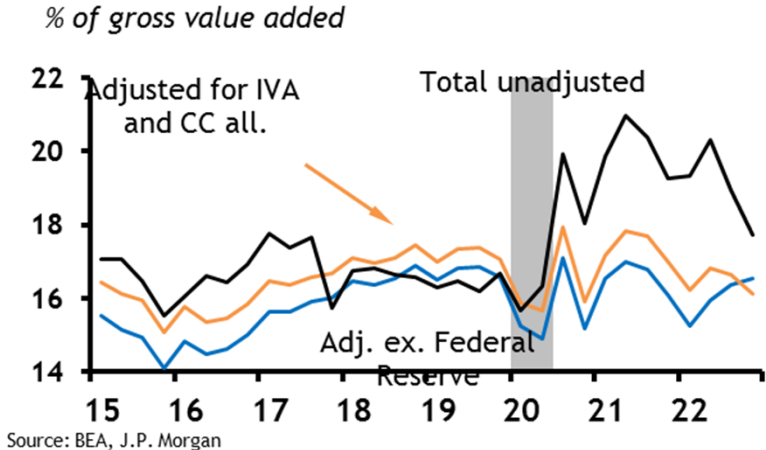
US corporate sector position



US nonfinancial corporate balance sheet ratio to EBITDA

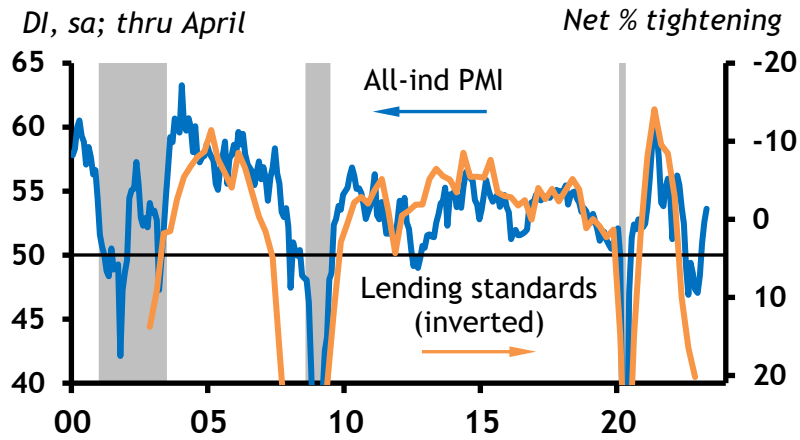


US corporate profit margin



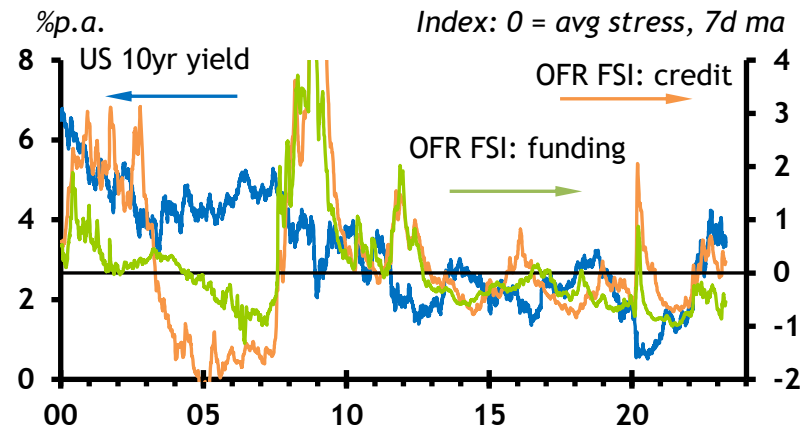
It matters when credit shocks hit

DM PMI and G4 lending standards



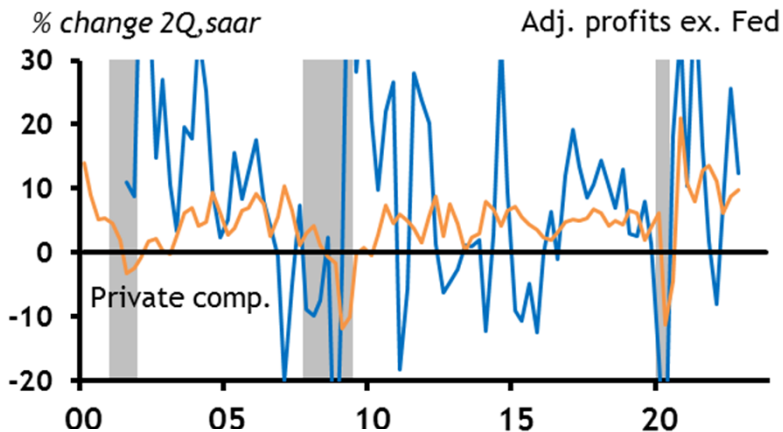
Source: National sources, J.P. Morgan

US 10-year yield and global financial stress



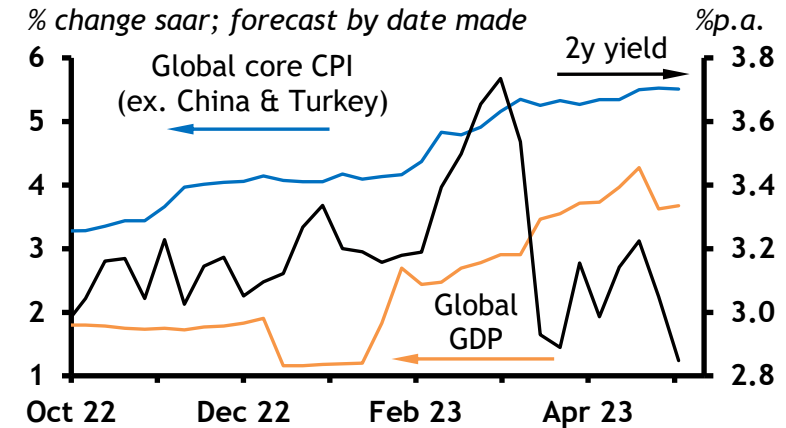
Source: Bloomberg Finance, L.P., UST OFR, J.P. Morgan

US private sector income



Source: J.P. Morgan Global Economics

JPM 1Q23 fcst and DM 2y yield



Source: J.P. Morgan Global Economics

Inflation drop not tracking a soft landing

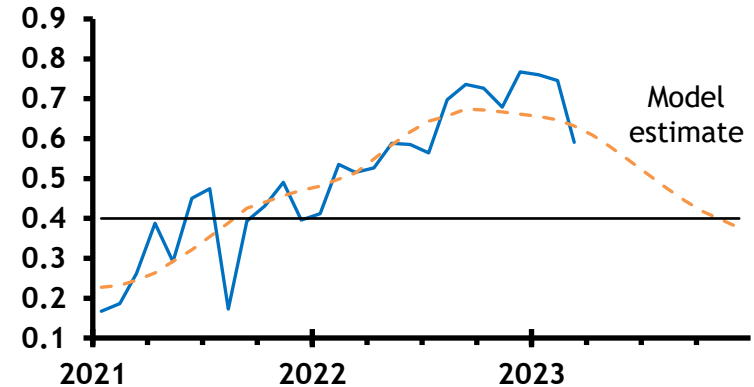
Select categories of core CPI inflation

Category (share of core, %)	Sep 2022 (%oya)	Sep 2023 fct (%oya)	Oct22-Mar23 (%saar)
Core Goods (27.4)	6.6	-2.0	-0.6
New vehicles (5.2)	9.4	-3.0	4.9
Used cars and trucks (5.2)	7.2	-9.0	-20.4
Other core goods (17.0)	5.6	0.5	3.9
Core Services (72.6)	6.7	5.4	6.6
Shelter (41.6)	6.6	7.5	8.7
Health insurance (1.0)	28.2	-39.0	-38.1
Airline fares (0.8)	42.9	0.0	6.2
Other core services (29.3)	5.0	4.1	5.2
Core CPI	6.6	4.0	4.7
Memo: Headline CPI	8.2	3.5	

Source: BLS, J.P. Morgan

Shelter CPI

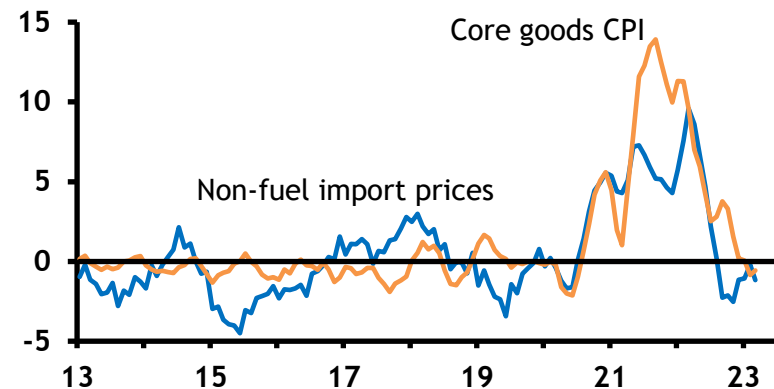
%m/m, sa. Observed data through Mar



Source: BLS, J.P. Morgan

US import and core goods prices

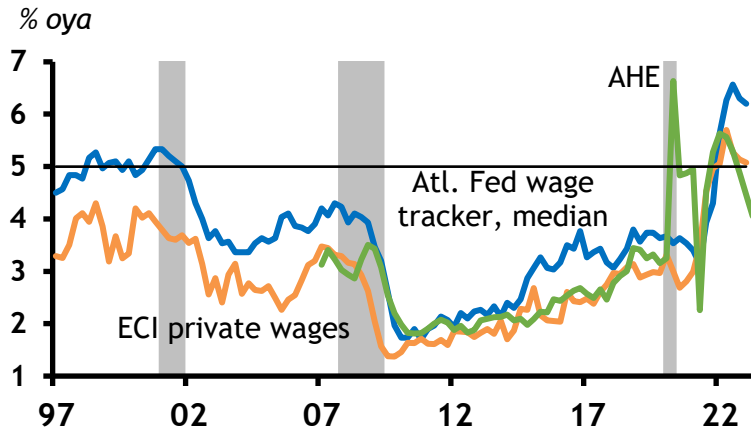
% change over 6 months, saar



Source: National sources, J.P. Morgan

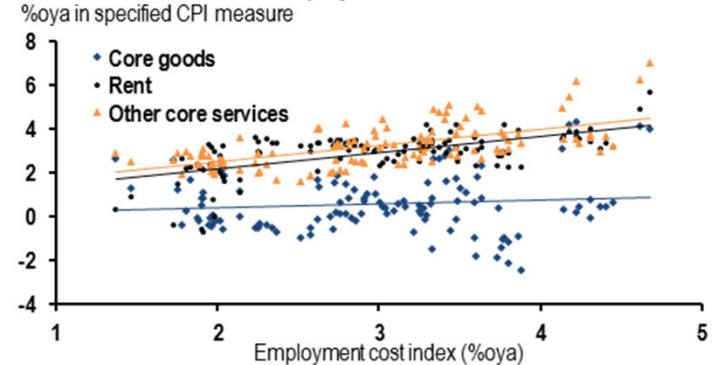
The proof will lie in the stickiness of labor costs

US labor compensation



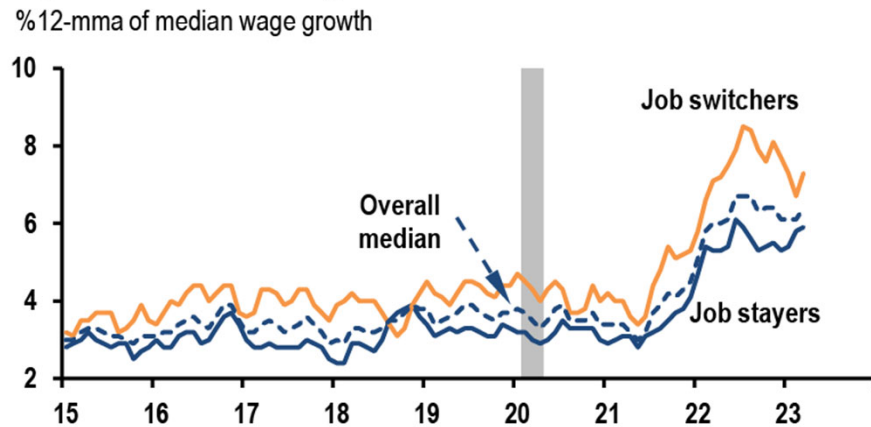
Source: Atlanta Fed, BLS, J.P. Morgan

Core CPI measures and employment cost index



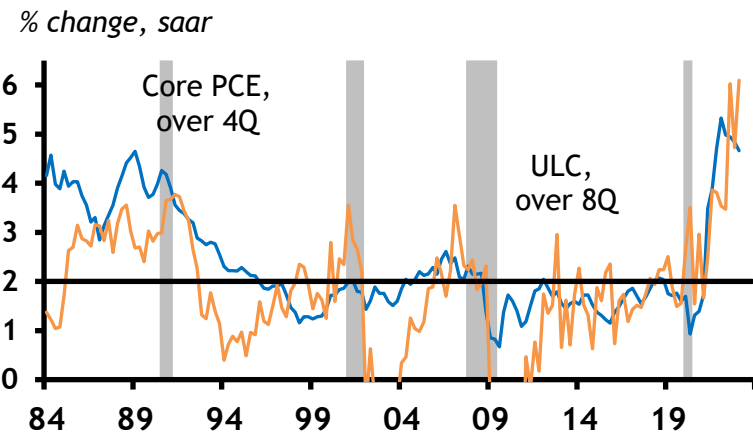
Source: BLS, Haver Analytics, J.P. Morgan. Sample: 1991-2019, quarterly averages.

Figure 2: Atlanta Fed Wage Tracker



Source: Atlanta Fed, BLS, J.P. Morgan

US ULC and core PCE

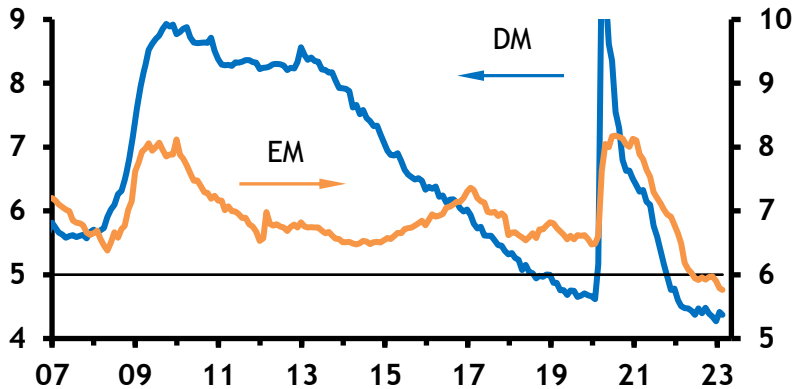


Source: BEA, BLS, J.P. Morgan

The rub: labor markets tight despite incomplete GDP recoveries

Global unemployment rate

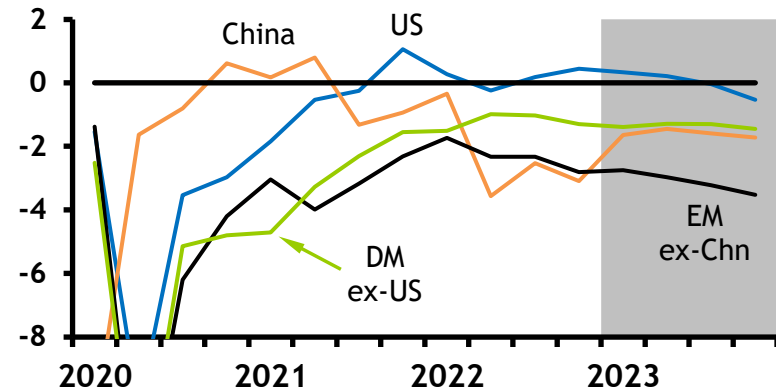
%; both scales



Source: J.P. Morgan Global Economics

Real GDP relative to pre-pandemic potential

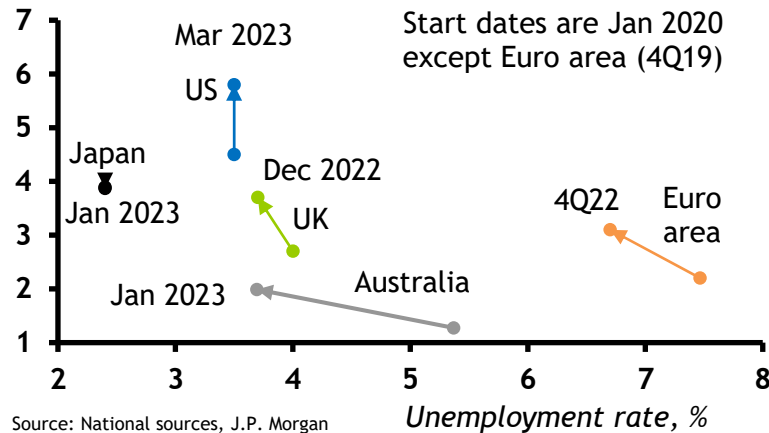
% deviation



Source: J.P. Morgan Global Economics

Beveridge curve shifts during the pandemic

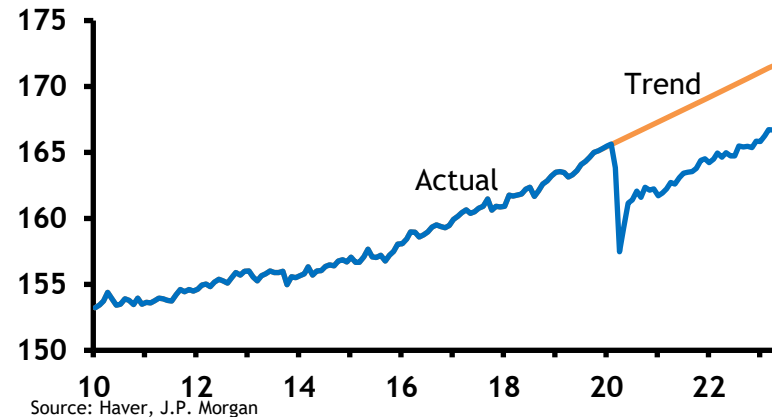
Job openings rate, %



Source: National sources, J.P. Morgan

US labor force

Mns, population control adjusted

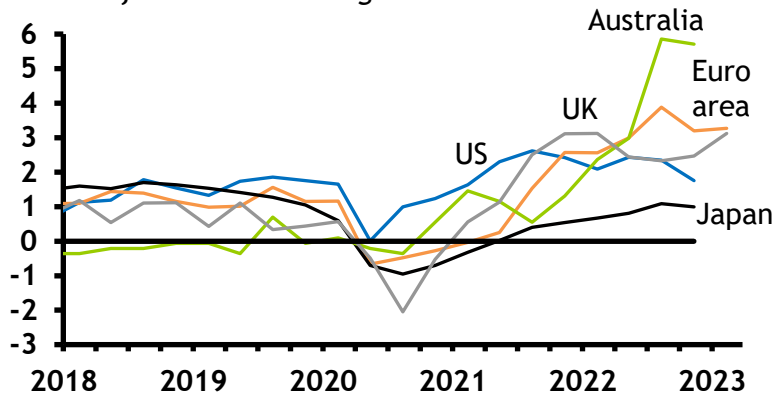


Source: Haver, J.P. Morgan

Labor costs pressures are a broad phenomenon

DM survey measures of labor availability

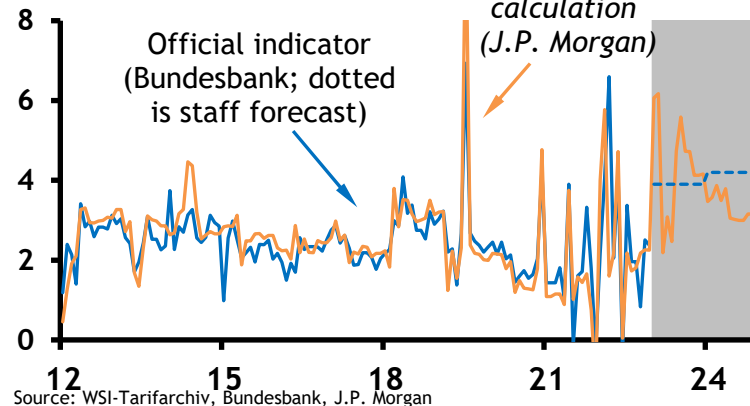
St devs from historical avgs



Source: Country sources, J.P. Morgan. Note: positive = shortage, negative = surplus.

German pay settlements

% oya, including one-offs

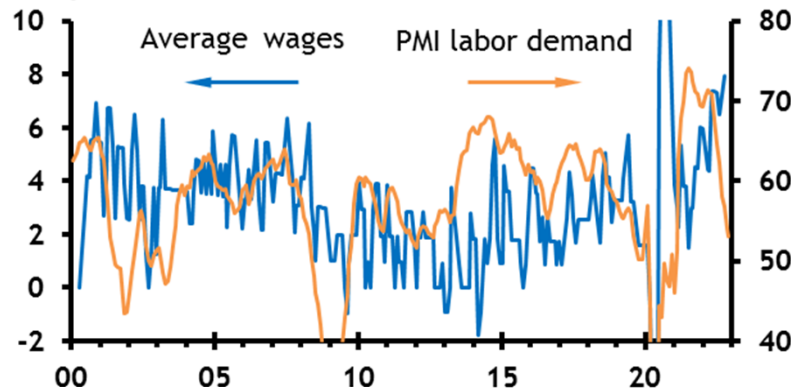


Source: WSI-Tarifarchiv, Bundesbank, J.P. Morgan

UK labor costs

% oya, 3mma

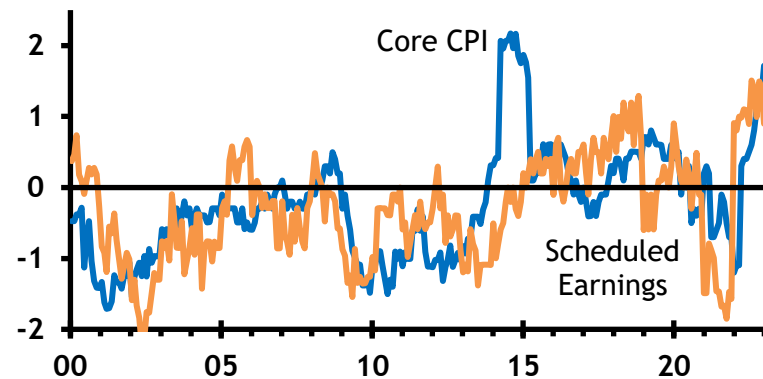
Index, sa



Source: S&P Global, J.P. Morgan Global Economics

Japan core CPI and wages

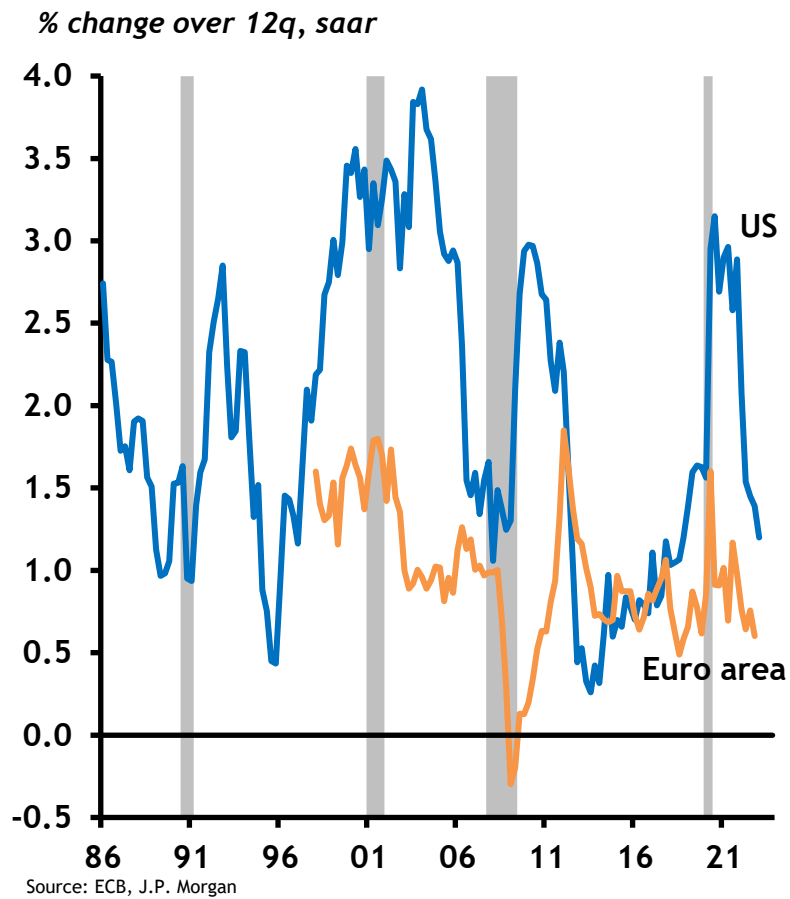
% oya



Source: MHLW, Statistics Bureau, J.P. Morgan

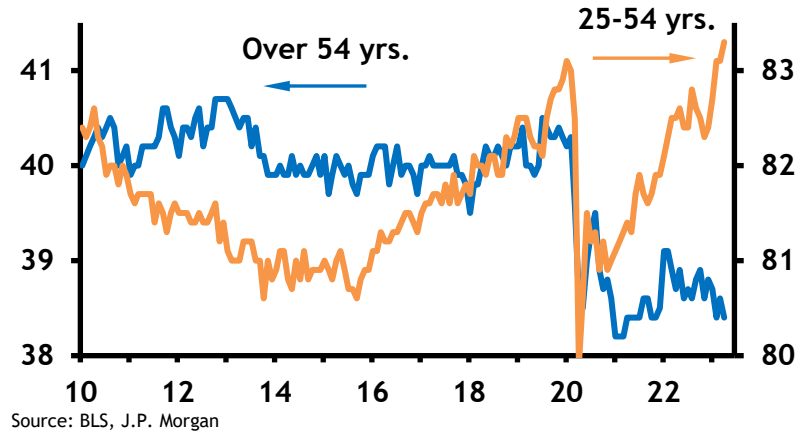
Labor market easing not likely from supply

Labor productivity



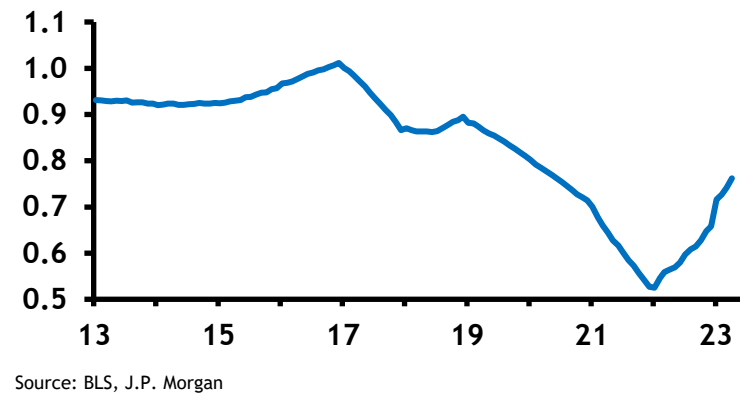
US labor force participation rate

%, sa; both scales



US population, 16 and older

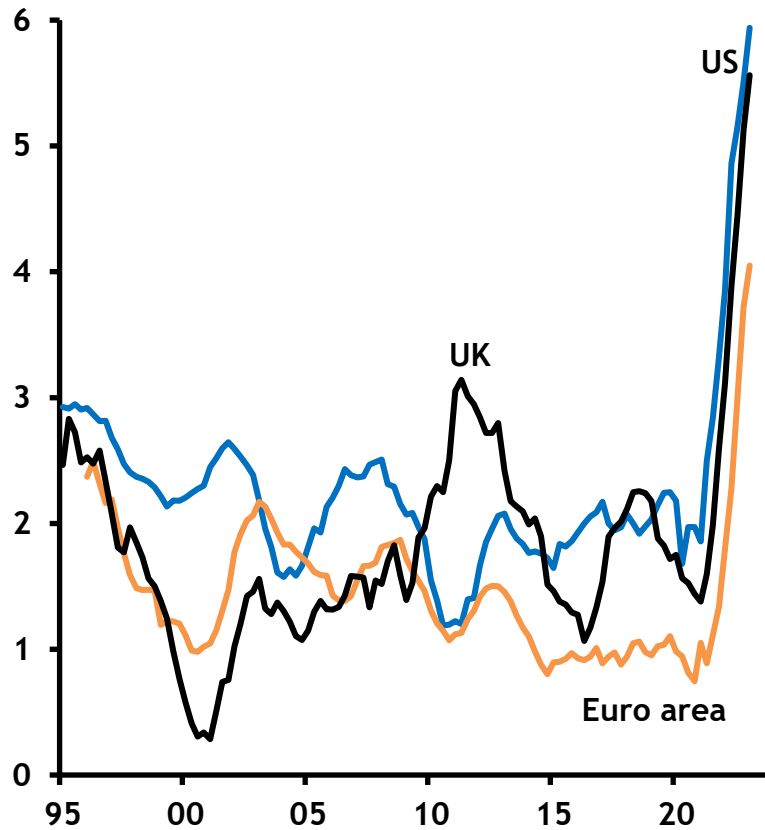
%chg over 12m



The concern: Salience shifts psychology even though CBs are credible

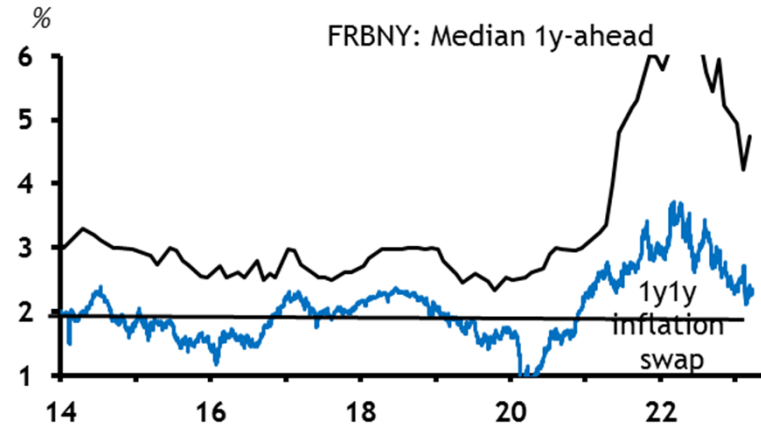
Core CPI

% change over 8 quarters, saar



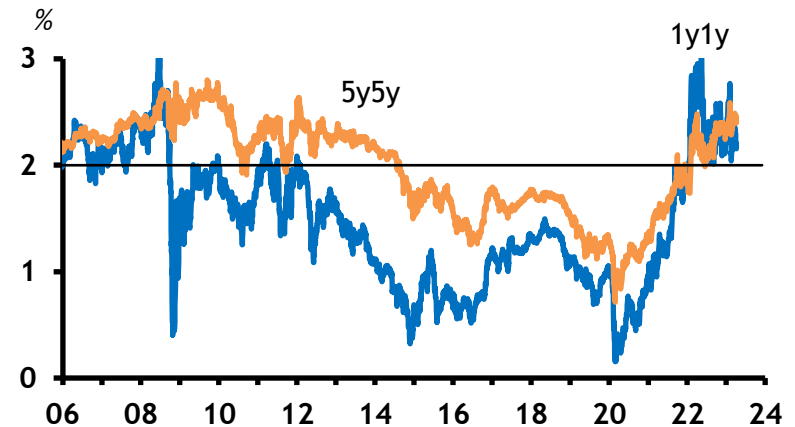
Source: J.P. Morgan Global Economics

US inflation expectations



Source: Bloomberg Finance, L.P., Federal Reserve Bank of New York, J.P. Morgan

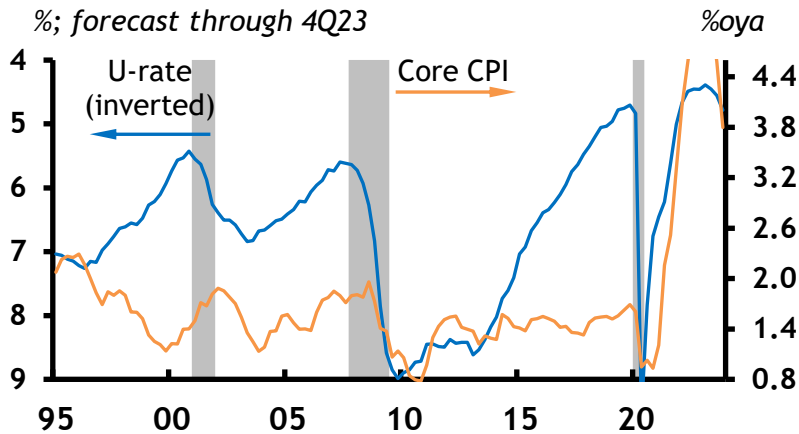
Euro area inflation swaps



Source: J.P. Morgan Global Economics

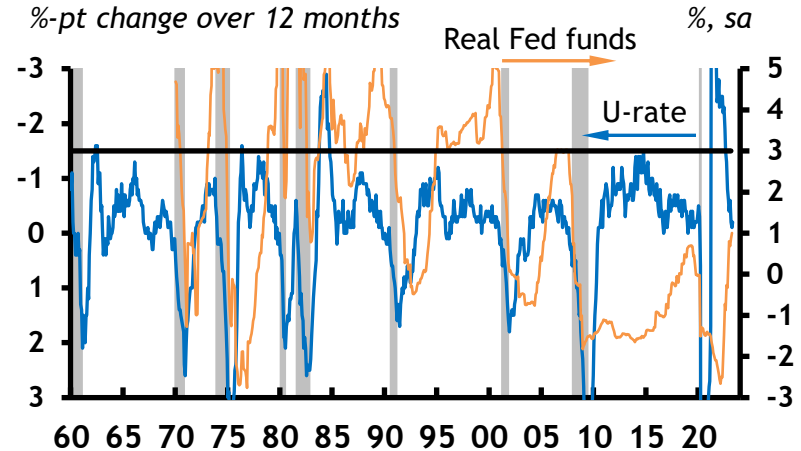
The long and variable road to boil a frog

DM unemployment rate and core CPI



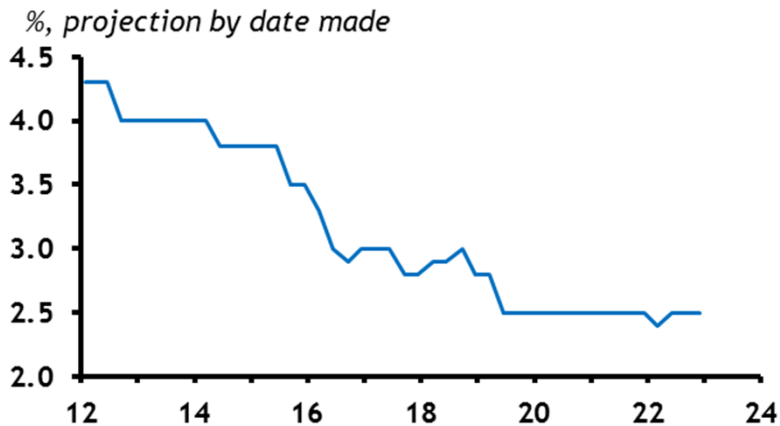
Source: National sources, J.P. Morgan

US real policy rate and unemployment rate



Source: BEA, BLS, J.P. Morgan, Fed funds rate deflated by 36m ar change in core PCE

r* median FOMC projection (nominal)



Source: FRB, J.P. Morgan

Large Fed tightenings since 1960

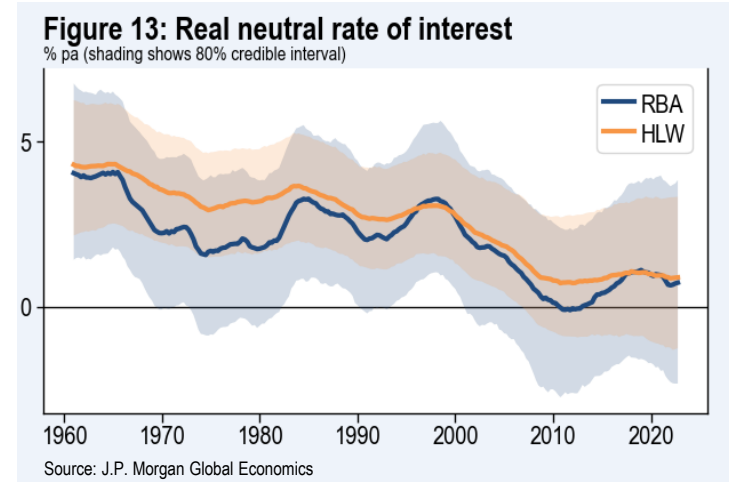
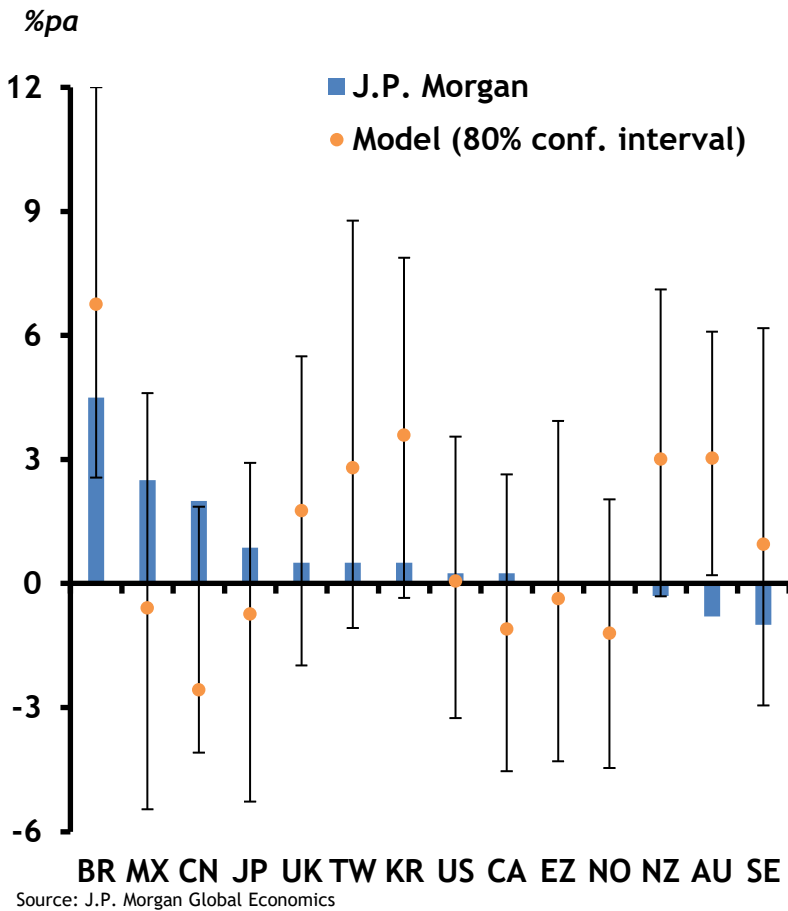
Episode	Size (bp)	Duration (months)	Peak real rate (%)	Peak to recession (months)
58-59	335	17	1.9	7
67-69	527	23	5.1	4
72-73	550	12	7.0	4
74	395	5	8.0	N/A
79-80	975	11	12.7	0
80-81	1050	10	11.6	3
83-84	325	17	6.6	72
88-89	312	16	6.0	15
94-95	300	13	3.6	74
04-06	425	25	3.0	19
Now	450	12	1.1	...

Source: BEA, BLS, FRB, J.P. Morgan. Real rate deflated by 36m trailing core PCE.

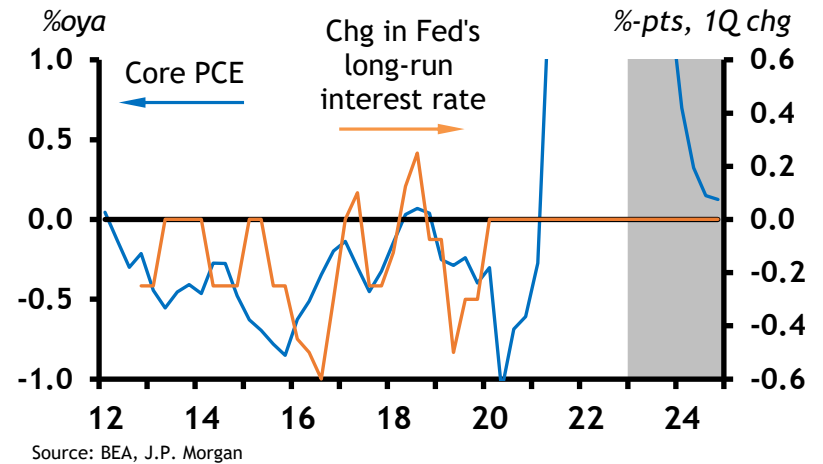
The ill-fated search for R*

See: [Dark Sky: On the ill-fated search for R*](#)

Neutral real rate of interest (r*)



US inflation, Fed's long-run rate (Fed SEP)



Global Economic Outlook Summary

	Real GDP			Real GDP						Consumer prices			
	% over a year ago			% over previous period, saar						% over a year ago			
	2022	2023	2024	4Q22	1Q23	2Q23	3Q23	4Q23	1Q24	4Q22	2Q23	4Q23	2Q24
United States	2.1	1.3	0.4	2.6	<u>1.1</u>	1.0	0.5	-0.5	-0.5	7.1	4.1	3.2	2.6
Canada	3.4	1.1	1.3	0.0	<u>2.0</u>	0.3	0.3	0.3	1.5	6.7	3.4	2.2	2.0
Latin America	3.5	0.9	1.0	0.0	<u>2.4</u>	-0.8	0.7	0.4	0.7	8.0	5.8	5.4	4.3
Argentina	5.2	-3.3	-1.7	-6.0	<u>-2.0</u>	-12.0	1.5	-2.0	-4.5	92.0	108.6	122.2	150.3
Brazil	2.9	0.9	0.8	-0.9	<u>3.0</u>	0.2	-0.5	0.3	1.2	6.0	3.7	5.5	4.2
Chile	2.4	-0.2	2.4	0.2	<u>3.0</u>	-1.4	0.8	1.0	3.0	13.0	8.4	5.1	4.1
Colombia	7.5	1.0	1.9	2.7	<u>0.5</u>	-2.0	2.0	1.5	2.0	12.6	12.6	8.8	5.5
Ecuador	2.9	2.5	2.5	9.7	<u>2.5</u>	1.5	3.0	2.5	2.0	3.8	2.2	2.4	2.6
Mexico	3.1	2.5	1.1	1.8	<u>4.6</u>	0.9	0.5	0.3	0.7	8.0	5.9	4.9	4.4
Peru	2.7	2.0	3.0	0.5	<u>-3.5</u>	7.3	4.0	3.2	1.0	8.4	6.5	4.2	3.4
Uruguay	4.9	0.4	2.5	-5.3	<u>4.5</u>	-2.0	4.9	2.0	2.0	8.6	7.3	6.8	6.2
Asia/Pacific	3.2	4.5	4.0	2.1	<u>7.9</u> ↑	<u>4.9</u> ↓	<u>3.6</u> ↓	<u>3.5</u> ↓	4.0	3.4	2.1	2.5	2.9
Japan	1.0	0.8	0.6	0.1	<u>1.4</u>	1.4	0.2	0.2	0.6	3.9	3.3	3.5	3.0
Australia	3.7	2.4	2.4	1.9	<u>2.5</u>	2.5	1.7	2.0	2.6	7.8	6.3	4.1	3.2
New Zealand	2.4	1.3	1.9	-2.5	<u>0.8</u>	0.2	1.7	2.0	2.1	7.2	5.6	3.4	2.4
EM Asia	3.6	5.3	4.7	2.6	<u>9.5</u> ↑	<u>5.7</u> ↓	4.4	<u>4.2</u> ↓	4.7	3.0	1.6	2.2	2.9
China	3.0	6.4	5.3	3.1	<u>11.9</u>	<u>6.3</u>	4.9	4.9	5.5	1.8	0.5	1.8	3.1
India	<u>7.1</u> ↑	<u>5.1</u> ↑	5.0	4.7	<u>8.0</u>	<u>4.3</u> ↓	<u>4.8</u> ↓	<u>4.6</u> ↓	4.0	6.1	4.9	5.7	5.4
Ex China/India	3.5	<u>2.2</u> ↑	<u>2.6</u> ↓	-0.1	<u>3.1</u> ↑	4.5	<u>2.5</u> ↓	<u>2.0</u> ↓	2.5	5.1	3.5	2.6	2.1
Hong Kong	-3.5	<u>5.4</u> ↑	<u>1.4</u> ↓	0.0	<u>22.9</u> ↑	<u>6.1</u> ↓	<u>2.0</u> ↓	<u>0.0</u> ↓	3.0	1.8	2.6	2.6	2.3
Indonesia	5.3	3.1	4.1	5.2	<u>4.0</u>	3.8	3.8	3.5	3.5	5.5	3.6	2.6	2.4
Korea	2.6	1.1	1.8	-1.6	<u>1.1</u>	<u>3.5</u>	1.0	1.0	1.8	5.2	3.5	2.7	1.9
Malaysia	8.7	3.4	3.0	-10.0	<u>8.0</u> ↑	6.0	3.0	2.5	3.0	3.9	3.0	2.2	1.9
Philippines	7.6	5.5	3.6	10.1	<u>4.0</u>	3.8	2.5	2.5	4.5	7.9	6.7	3.7	2.7
Singapore	3.6	1.3	0.6	0.3	<u>1.3</u>	1.0	0.5	0.3	0.2	6.6	4.7	2.8	1.3
Taiwan	2.5	0.1	2.8	-1.5	<u>-6.4</u>	<u>7.2</u>	3.1	2.4	2.3	2.6	<u>2.1</u> ↑	2.0	<u>1.5</u> ↓
Thailand	2.6	2.7	2.9	-5.9	<u>4.6</u>	6.1	5.4	3.2	3.0	5.8	2.7	2.2	1.8
Western Europe	3.6	0.9	0.8	-0.1	<u>0.4</u>	1.7	1.4	0.5	0.3	10.1	6.9	<u>3.4</u> ↑	<u>2.3</u> ↑
Euro area	3.5	1.1	0.9	-0.2	<u>0.3</u>	<u>2.0</u>	1.5	0.5	0.3	10.0	<u>6.5</u> ↓	<u>3.0</u> ↑	<u>2.1</u> ↑
Germany	1.9	0.4	0.9	-2.1	0.2	<u>2.0</u>	1.5	0.5	0.3	10.8	7.7	3.1	2.0
France	2.6	1.0	0.9	0.1	<u>0.7</u>	<u>2.0</u>	1.5	0.5	0.3	7.0	6.1	4.1	2.2
Italy	3.8	1.5	1.0	-0.5	2.0	<u>2.0</u>	1.8	0.8	0.3	12.5	6.2	-0.7	1.4
Spain	5.5	2.2	1.3	1.6	1.9	<u>2.0</u>	1.5	1.3	0.8	6.5	3.6	3.5	2.5
Norway	3.8	1.5	0.8	3.4	<u>0.5</u>	0.3	0.5	0.5	0.8	6.6	5.9	4.0	3.2
Sweden	2.7	-0.6	0.2	-2.0	<u>0.3</u>	-2.0	-1.0	0.3	0.3	11.6	10.0	5.4	3.5
United Kingdom	4.1	0.7	0.7	0.5	<u>0.6</u>	1.3	1.5	0.8	0.4	10.8	7.9	4.4	2.6
EMEA EM	2.2	1.4	2.4	1.8	<u>3.2</u> ↓	<u>1.3</u> ↓	1.2	1.2	2.9	23.4	13.1	12.4	10.3
Czech Republic	2.4	<u>0.5</u> ↓	2.2	-1.4	<u>0.4</u> ↓	<u>1.8</u> ↓	2.3	2.3	2.0	15.7	11.7	9.0	2.6
Hungary	4.6	0.0	2.6	-1.7	<u>-1.5</u>	<u>2.3</u>	3.0	2.5	2.8	22.7	23.8	11.4	6.4
Israel	6.4	3.0	2.9	5.3	<u>2.3</u>	2.3	1.5	1.5	2.5	5.2	4.6	3.3	2.2
Poland	<u>4.9</u> ↑	<u>-0.3</u> ↑	<u>2.9</u> ↑	-9.3	<u>1.5</u>	4.0	2.5	2.8	2.8	<u>17.3</u> ↑	<u>13.6</u> ↑	<u>8.4</u> ↑	<u>5.6</u> ↑
Romania	4.8	3.7	4.5	4.2	<u>3.2</u>	3.6	2.8	2.8	4.5	16.2	10.4	7.4	7.2
Russia	-2.1	1.2	1.8	6.1	<u>5.0</u>	-2.0	1.5	2.3	2.3	12.2	3.0	5.0	4.4
South Africa	2.0	0.3	1.0	-4.9	<u>1.1</u>	0.5	1.0	1.5	0.5	7.4	6.3	5.4	5.0
Turkey	5.6	2.5	2.7	3.8	<u>4.5</u>	5.0	-2.0	-4.0	5.7	77.4	42.0	44.0	39.0
Global	<u>3.0</u> ↑	2.4	2.0	1.6	<u>3.8</u> ↑	2.6	<u>1.9</u> ↓	<u>1.4</u> ↓	1.7	7.3	4.5	<u>3.6</u> ↑	<u>3.2</u> ↑
Developed markets	2.6	1.2	0.7	1.2	0.9	1.3	0.8	0.1	0.1	7.9	5.1	<u>3.3</u> ↑	2.5
Emerging markets	3.4	4.2	3.9	<u>2.2</u> ↑	<u>7.8</u> ↑	<u>4.3</u> ↓	3.5	<u>3.3</u> ↓	3.9	6.4	3.6	4.0	4.1
Emerging ex China	<u>3.8</u> ↑	<u>2.2</u> ↑	<u>2.5</u> ↓	<u>1.2</u>	<u>3.8</u> ↑	<u>2.3</u> ↓	<u>2.1</u> ↓	<u>1.8</u> ↓	2.4	10.9	6.8	6.2	5.1
Global — PPP weighted	3.4	2.8	2.5	<u>1.7</u>	<u>4.4</u> ↑	<u>2.7</u> ↓	<u>2.3</u> ↓	<u>1.9</u> ↓	2.1	8.1	5.0	<u>4.4</u> ↑	3.9

J.P. Morgan US forecast

	%q/q, saar								%q4/q4			%y/y		
	3Q22	4Q22	1Q23	2Q23	3Q23	4Q23	1Q24	2Q24	2022	2023	2024	2022	2023	2024
Gross domestic product														
1. Real GDP	3.2	2.6	1.1	1.0	0.5	-0.5	-0.5	0.5	0.9	0.5	1.0	2.1	1.3	0.4
2. Final sales	4.5	1.1	3.4	0.2	0.5	0.7	0.5	-0.3	1.3	1.2	0.8	1.3	1.8	0.6
3. Domestic	1.5	0.7	3.2	1.4	1.0	0.1	0.0	0.8	0.9	1.4	1.4	1.7	1.5	0.9
4. Consumer spending	2.3	1.0	3.7	1.2	1.1	0.4	0.1	0.8	1.7	1.6	1.3	2.7	1.9	0.9
5. Business investment	6.2	4.0	0.7	1.4	1.4	-2.4	-2.4	1.0	4.5	0.3	2.5	3.9	2.0	0.5
6. Equipment	10.6	-3.5	-7.3	0.0	1.0	-4.0	-4.0	1.0	3.9	-2.6	1.2	4.3	-1.6	-0.7
7. Structures	-3.6	15.8	11.2	1.0	-2.0	-10.0	-10.0	-5.0	-1.7	-0.2	-2.2	-6.6	3.4	-5.0
8. Intellectual property products	6.8	6.2	3.8	3.0	3.0	2.0	2.0	3.0	8.2	2.9	5.2	8.8	4.5	3.6
9. Residential investment	-27.1	-25.1	-4.2	-5.0	-8.0	-5.0	-4.0	0.0	-18.8	-5.6	0.5	-10.6	-13.3	-2.8
10. Government	3.7	3.8	4.7	3.0	2.0	2.0	2.0	1.0	0.9	2.9	1.2	-0.6	3.2	1.7
11. Net exports (\$bn, chained \$2009)	-1269	-1239	-1236	-1299	-1330	-1302	-1272	-1333	-	-	-	-	-	-
12. Exports (goods and services)	14.6	-3.7	4.8	-3.5	-3.3	-3.3	-3.0	-3.0	4.6	-1.4	-2.9	7.1	1.7	-3.1
13. Imports (goods and services)	-7.3	-5.5	2.9	4.3	1.0	-5.0	-5.0	4.5	1.5	0.7	1.9	8.1	-0.6	-0.2
14. Inventories (ch \$bn, chained \$2009)	38.7	136.5	-1.6	40.0	40.6	-20.0	-72.9	-31.5	-	-	-	-	-	-
Contribution to real GDP growth (% pts):														
15. Domestic final sales	1.5	0.7	3.3	1.4	1.1	0.1	0.0	0.9	0.9	1.4	1.4	1.7	1.5	0.9
16. Net ex ports	2.9	0.4	0.1	-1.2	-0.6	0.6	0.6	-1.2	0.4	-0.2	-0.6	-0.3	0.3	-0.3
17. Inventories	-1.2	1.5	-2.3	0.8	0.0	-1.2	-1.0	0.8	-0.4	-0.7	0.2	0.7	-0.5	-0.2
Income and profits (NIPA basis)														
18. Adjusted corp profits	-0.2	-7.8	-4.0	-12.0	-14.0	-20.0	-20.0	5.0	2.6	-12.7	0.4	6.6	-6.8	-9.1
19. Real disposable personal income	3.2	5.0	8.0	1.2	-0.3	-0.1	-0.1	0.9	-1.4	2.1	1.2	-6.1	3.3	0.5
20. Nominal disposable personal income	-	8.7	12.2	4.3	3.0	2.2	2.1	2.5	4.3	5.4	3.3	0.2	7.2	2.8
21. Saving rate ¹	3.2	4.0	4.8	4.8	4.5	4.4	4.3	4.3	-	-	-	3.7	4.6	4.3
Prices and labor cost														
22. Consumer price index	5.5	4.2	3.8	2.9	3.4	2.7	2.4	1.8	7.1	3.2	2.4	8.0	4.1	2.6
23. Core	6.2	5.1	5.0	4.1	3.2	2.5	2.5	2.5	6.0	3.7	2.5	6.1	4.7	2.7
26. PCE deflator	4.3	3.7	4.2	3.1	3.3	2.3	2.2	1.6	5.7	3.2	2.1	6.3	3.9	2.3
27. Core	4.7	4.4	4.9	3.6	2.8	2.2	2.2	2.1	4.8	3.4	2.1	5.0	4.1	2.3
28. GDP chain-type price index	4.4	3.9	4.0	2.3	2.5	2.3	2.3	2.3	6.4	2.8	2.3	7.0	3.7	2.3
29. S&P/C-S house price index (%oya)	13.1	7.4	2.3	-0.3	-2.6	-5.3	-3.3	-1.3	7.4	-5.3	2.5	14.8	-1.5	-0.4
30. Employment Cost Index	4.8	4.5	4.7	4.0	3.8	3.6	3.2	3.2	5.1	4.0	3.3	4.9	4.4	3.4
31. Productivity	1.2	1.6	-2.7	0.5	1.0	0.5	0.5	1.0	-1.8	-0.2	1.1	-1.7	-0.2	0.8
Other indicators														
32. Housing starts (mn units, saar) ¹	1.45	1.40	1.40	1.28	1.30	1.31	1.33	1.36	-	-	-	1.55	1.32	1.37
33. Industrial production, mfg.	0.1	-3.1	0.3	0.5	0.2	-3.0	-3.0	2.0	0.6	-0.5	0.5	2.7	-0.4	-0.6
35. Light vehicle sales (mn units, saar) ¹	13.4	14.3	15.2	16.5	17.1	16.8	16.6	17.0	-	-	-	13.8	16.4	17.0
36. Unemployment rate ¹	3.6	3.6	3.5	3.6	3.8	4.2	4.5	4.9	-	-	-	3.6	3.8	4.9
37. Payroll employment (ch, '000s, samr) ¹	423	284	295	70	-60	-125	-125	-75	-	-	-	399	45	0
38. Nominal GDP	7.7	6.6	5.1	3.3	3.0	1.8	1.8	2.8	7.3	3.3	3.3	9.2	5.1	2.7
39. Current account balance (\$bn) ¹	-219	-207	-206	-211	-216	-211	-216	-236	-	-	-	-944	-845	-940
40. % of GDP	-3.4	-3.2	-3.1	-3.2	-3.2	-3.1	-3.2	-3.5	-	-	-	-3.7	-3.2	-3.4
41. Federal budget balance (\$bn) ¹	-	-	-	-	-	-	-	-	-	-	-	-1375	-1480	-1575
42. % of GDP	-	-	-	-	-	-	-	-	-	-	-	-5.4	-5.5	-5.7

Global Central Bank Watch: J.P. Morgan and Market

Policy rates: next meeting, next change

	Official rate	Current rate	Change since (bps)		Next Mtg (bps)			
			4Q19	4Q20	Date	JPM Fcst	Mkt Fcst	JPM - Mkt
Global		4.30	220	322				
Developed		3.98	318	399				
US	Fed funds	5.25	350	500	14-Jun-23	On hold	-4	4
EMU	Depo rate	3.25	375	375	15-Jun-23	+25	+15	10
Japan	Pol rate IOER	-0.10	0	0	16-Jun-23	On hold	+1	-1
UK	Bank rate	4.25	350	415	11-May-23	+25	+23	2
Canada	O/N rate	4.50	275	425	07-Jun-23	On hold	-1	1
Norway	Dep rate	3.25	175	325	22-Jun-23	+25	-8	33
Sweden	Repo rate	3.50	350	350	28-Jun-23	+25	+19	6
Australia	Cash rate	3.85	310	375	06-Jun-23	On hold	+1	-1
New Zealand	Cash rate	5.25	425	500	24-May-23	On hold	+13	-13
Emerging		4.95	57	193				
EM Low Yield		3.34	-20	103				
EM High Yield		8.69	270	401				
EM Asia		2.78	-114	14				
China	1-yr MLF	2.75	-159	-20	Unsch.	On hold	--	--
Hong Kong	Disc. wndw	5.50	350	500	Unsch.	On hold	--	--
India	Repo rate	6.50	134	250	08-Jun-23	On hold	0	0
Indonesia	BI IRR	5.75	75	200	25-May-23	On hold	--	--
Korea	Base rate	3.50	225	300	25-May-23	On hold	+15	-15
Malaysia	O/N rate	3.00	0	125	06-Jul-23	On hold	+11	-11
Philippines	Rev repo	6.25	225	425	18-May-23	On hold	--	--
Taiwan	Official disc.	1.88	50	75	15-Jun-23	On hold	0	0
Thailand	1-day repo	1.75	50	125	31-May-23	+25	+24	1
LATAM		12.28	724	978				
Brazil	SELIC O/N	13.75	925	1175	21-Jun-23	On hold	-14	14
Chile	Disc rate	11.25	950	1075	12-May-23	On hold	+4	-4
Colombia	Repo rate	13.25	900	1150	30-Jun-23	On hold	+8	-8
Mexico	Repo rate	11.25	400	700	18-May-23	On hold	+7	-7
Peru	Reference	7.75	550	750	11-May-23	On hold	--	--
EMEA EM		7.75	180	239				
Czechia	2-wk repo	7.00	500	675	21-Jun-23	On hold	-5	5
Israel	Base rate	4.50	425	440	22-May-23	On hold	-10	10
Poland	7-day interv	6.75	525	665	10-May-23	On hold	-36	36
Romania	Base rate	7.00	450	550	10-May-23	On hold	--	--
Russia	1-day min repo	7.50	125	325	09-Jun-23	On hold	+63	-63
South Africa	Repo rate	7.75	125	425	23-May-23	+25	+8	17
Turkey	1-wk repo	8.50	-350	-850	25-May-23	On hold	+1291	-1291

Policy Rate: J.P. Morgan and Market

	Current %pa	Basis point change from current											
		End 2Q23			End 3Q23			End 4Q23			End 4Q24		
		JPM	Mkt	JPM-Mkt	JPM	Mkt	JPM-Mkt	JPM	Mkt	JPM-Mkt	JPM	Mkt	JPM-Mkt
Global	4.30	7	30	-23	33	27	6	29	4	25	-56	-72	16
Developed	3.98	10	5	5	18	-3	21	17	-33	50	-84	-141	57
US	5.25	0	-6	6	0	-40	40	0	-96	96	-150	-245	95
EMU	3.25	25	18	7	50	38	12	50	29	21	-25	-67	42
Japan	-0.10	0	1	-1	0	5	-5	0	8	-8	0	19	-19
UK	4.25	50	40	10	50	61	-11	50	54	-4	-50	-35	-15
Canada	4.50	0	-3	3	0	-20	20	0	-46	46	-100	-144	44
Norway	3.25	25	-4	29	25	34	-9	25	50	-25	-75	-46	-29
Sweden	3.50	25	19	6	25	31	-6	25	11	14	-75	-77	2
Australia	3.85	0	3	-3	0	-4	4	0	-20	20	0	-83	83
New Zealand	5.25	0	17	-17	0	11	-11	-25	-7	-18	-50	-116	66
Emerging	4.95	0	60	-60	48	64	-16	38	55	-17	-10	30	-40
EM Low Yield	3.34	0	-12	12	-2	-25	23	-6	-34	28	-33	-3	-30
EM High Yield	8.69	1	266	-265	168	314	-146	141	304	-163	43	139	-96
EM Asia	2.78	0	7	-7	0	-2	2	0	-5	5	-6	37	-43
China	2.75	0	8	-8	0	0	0	0	-2	2	0	49	-49
Hong Kong	5.50	0	--	--	0	--	--	0	--	--	-150	--	--
India	6.50	0	-2	2	0	-15	15	-25	-27	2	-50	-91	41
Indonesia	5.75	0	--	--	0	--	--	0	--	--	0	--	--
Korea	3.50	0	4	-4	0	-21	21	0	-27	27	-75	-46	-29
Malaysia	3.00	0	9	-9	0	-5	5	0	-19	19	0	-2	2
Philippines	6.25	25	--	--	25	--	--	25	--	--	25	--	--
Taiwan	1.88	0	0	0	0	-12	12	0	-17	17	0	-28	28
Thailand	1.75	25	26	-1	25	28	-3	25	28	-3	25	33	-8
LATAM	12.28	0	22	-22	-19	-16	-3	-94	-98	4	-331	-339	8
Brazil	13.75	0	-21	21	0	-66	66	-100	-163	63	-275	-294	19
Chile	11.25	0	-12	12	-125	-117	-8	-300	-262	-38	-650	-678	28
Colombia	13.25	0	8	-8	0	0	0	-150	-76	-74	-600	-422	-178
Mexico	11.25	0	9	-9	0	-11	11	0	-62	62	-250	-370	120
Peru	7.75	0	--	--	-150	--	--	-225	--	--	-375	--	--
EMEA EM	7.75	2	509	-507	395	639	-244	392	668	-276	282	520	-238
Czechia	7.00	0	-4	4	-50	-29	-21	-100	-93	-7	-275	-100	-175
Israel	4.50	0	-10	10	0	-12	12	0	-29	29	-100	-162	62
Poland	6.75	0	-48	48	0	-74	74	0	-111	111	-175	-113	-62
Romania	7.00	0	--	--	0	--	--	0	--	--	0	--	--
Russia	7.50	0	82	-82	0	192	-192	0	283	-283	-100	408	-508
South Africa	7.75	25	28	-3	25	44	-19	25	34	-9	-25	-23	-2
Turkey	8.50	0	2442	-2442	2150	2925	-775	2150	2966	-816	2150	1969	181

*Next change after forecast horizon. -- market-based policy rate forecast is unavailable.

-- indicates market-based policy rate forecast is unavailable. Market-based forecast data are lagged 1-2 days.

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