J.P.Morgan

Global Economic Research
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Special Report: Wait for it

2023 Global Economic Outlook

- With financial conditions tightening and the winter aggravating China's COVID and Europe's natural gas problems, the global expansion is projected to proceed at a sub-par 1.5%ar pace into 2023.
- The global economy is not at *imminent* risk of sliding into recession, in our view, as 2022 adverse supply-side shocks are fading fast. This should be reflected in a slide in global inflation towards a 3.5%ar early next year.
- Falling inflation should boost US consumption. Alongside moderating DM fiscal policy drags and a non-China Asia service sector lift, the global expansion should remain divergent but not broken.
- Near-term resilience will not likely translate into a medium-term soft-landing. The inflation decline should be substantial but incomplete, as labor markets remain tight and inflation psychology has shifted.
- Timing the next recession is complicated. While the drag from tightening monetary policy will build, households and businesses are not vulnerable to sharp pullbacks as financial conditions tighten.
- Circumstances warrant considering a range of scenarios. The dominant event across the four scenarios presented is a US recession before the end of 2024. But the timing of this break, the path of Fed policy, and the reverberations for the rest of the world vary.
- Our baseline (32% prob.) places the building drag from an expected 5% Fed funds rate and a rising US dollar at the center of the outlook. The US slips into recession late next year and the Fed eases soon after. The rest of the world is expected to sustain growth at a modest positive pace.
- An alternative (28% prob.) projects continued resilience, supported by a central bank pause after 1Q23. The hope behind the pause—that restrictive stances will gradually bring inflation back into comfort zones—is not realized. With elevated inflation becoming embedded, policy rates will need to rise materially further and a global recession takes hold in 2024.
- We think it is a mistake to rule out a soft-landing scenario (20% prob.) in which recession is avoided. Under this scenario, sluggish growth and the removal of supply-side constraints are sufficient to push inflation down towards 2% without a sharp deterioration in labor markets. With growth running at a modest pace, central banks can begin to normalize policy stances in late 2023, laying the groundwork for an extended global expansion.

See page 21 for analyst certification and important disclosures.

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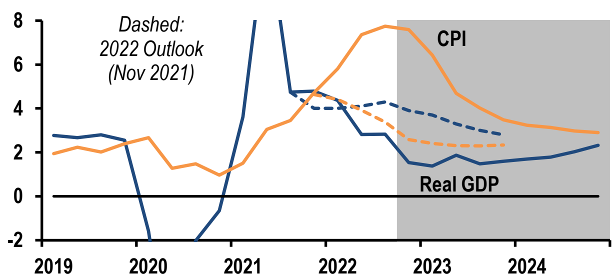
Wait for it

"In economics, things take longer to happen than you think they will, and then they happen faster than you thought they could."~Rudi Dornbusch

Last year at this time we argued ("This time is different") that the current expansion would evolve differently than any in recent decades. The outlook was for a reflationary tilt resulting from pent-up demand, robust fundamentals, considerable policy supports, and constrained supply. We forecasted 6.5% nominal global GDP growth in 2022 with a mix of strong real growth and elevated but moderating inflation (Figure 1). Labor markets were anticipated to tighten further and create pressure for a recalibration of highly accommodative central banks' stances to build over the course of the year.

Figure 1: Real GDP and CPI, global
%oya

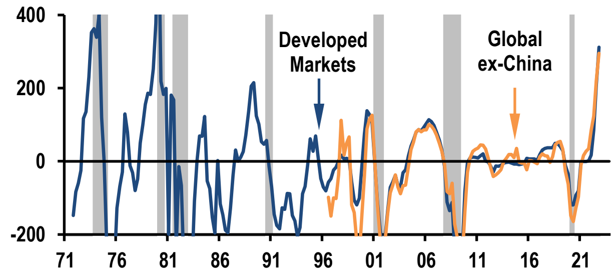


Source: J.P. Morgan Global Economics

The reflationary element of this forecast was realized, as nominal GDP currently looks on track to surge 9%, and unemployment rates have dipped to multi-decade lows. But 2022 delivered a far less favorable growth-inflation mix than we had expected. Adverse supply shocks pushed inflation dramatically higher and tested the limits of private sector resilience. Real GDP disappointed, expanding a sub-potential 1.5% this year. Growth disappointments were spread across the developed markets (DM) and emerging markets (EM), with labor markets owing partly to tepid labor force growth and productivity gains.

Even accounting for these developments, the dramatic pivot by central banks has been a surprise (Figure 2). This year looks to deliver a synchronized 290bp rise in policy rates outside China. Initially, there was recognition of a need for speed to remove accommodative stances in the face of surging inflation. This rapidly evolved into a Fed-led march towards restrictive stances designed to ease labor market tightness and nip in the bud a nascent shift in inflation psychology.

Figure 2: Monetary policy rate
Bp, 4 quarter change (through 4Q22 expected)



Source: J.P. Morgan Global Economics

As we turn towards 2023, the monetary policy tightening drag is building and central banks remain on the march. The substantial rise in borrowing costs is already depressing housing activity, and the sharp rise in the US dollar is likely weighing on US corporate margins. There are also increasing signs that credit conditions are tightening broadly. Tremors emanating from EM low-income commodity importers, UK pension funds, and the US crypto sector are not unrelated: they signal that rapidly tightening financial conditions generate stress that could spill out in ways that threaten macroeconomic stability.

Table 1: Global real GDP
% change annualized

	2021	2022		2023		2024
	4Q/4Q	1H	2H	1H	2H	1H
Global (2.6)	**4.7**	**1.1**	**2.0**	**1.7**	**1.4**	**2.2**
DM (1.4)	**4.9**	**1.0**	**1.0**	**0.7**	**0.4**	**0.4**
US (1.5)	5.7	-1.1	2.0	0.9	0.0	0.0
Euro area (1.3)	4.7	2.9	-0.3	0.2	0.7	0.6
Japan (0.8)	0.5	2.4	1.1	1.6	0.3	0.3
UK (1.0)	8.9	1.9	-1.4	-0.4	0.4	0.0
EM (4.5)	**4.4**	**1.3**	**3.6**	**3.1**	**3.0**	**4.9**
EM ex China (3.4)	**5.1**	**2.9**	**1.9**	**2.0**	**1.9**	**2.4**
China (5.5)	3.6	-0.6	5.7	4.4	4.2	7.5
India (6.0)	4.6	7.2	4.1	4.6	4.2	4.3
EMAX (3.0)	**4.6**	**3.4**	**2.2**	**2.7**	**2.2**	**2.7**
Korea (2.7)	4.5	2.8	1.2	1.5	1.0	1.8
EMEA EM (2.5)	**7.1**	**-1.8**	**0.6**	**1.6**	**1.2**	**2.0**
CEE (3.3)	8.4	5.3	1.6	1.2	2.6	2.6
Russia (1.5)	5.2	-11.9	-0.8	0.7	2.0	2.0
Turkey (3.8)	8.9	5.6	1.0	4.3	-2.6	0.8
South Africa (1.3)	2.2	2.0	1.2	0.7	0.2	1.0
Latam (1.9)	**3.8**	**4.0**	**1.1**	**0.0**	**0.7**	**1.1**
Mexico (2.2)	2.0	4.2	2.6	1.1	0.8	1.0
Brazil (1.5)	1.8	4.8	0.7	-0.9	0.8	1.6

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

With the winter set to aggravate China's COVID problems and Europe's natural gas crisis, the global growth outlook remains depressed as we turn towards the new year (Table 1). Weakness should be concentrated in the goods sector—construction and tech in particular—a development already signaled by business surveys. However, we do not see the global economy at *imminent* risk of sliding into recession. The financial conditions drag is being cushioned by a fading of supply chain and commodity price shocks. Global CPI inflation is on

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track to slow towards a 3.5%ar early next year after approaching 10% in 1H22 (Table 2).

This sharp fall in inflation should deliver a fill-up to household purchasing power. Reinforced by fading DM fiscal policy drags, the global expansion will turn into 2023 bent but not broken, amidst significant regional divergences. A consumer-led rebound should return US growth to its potential pace this quarter and next, while non-China Asia benefits from a service-sector activity bounce. Together these lifts should offset the downdraft from a contraction in Europe and sagging China growth.

Table 2: Global CPI
% change ar

	2017-19	2020	2021	1H22	2H22	1H23	2H23
Headline	2.3	1.1	4.8	9.7	5.9	3.6	3.4
Energy	4.3	-6.6	24.5	39.1	3.1	2.6	2.5
Food	2.9	2.5	3.6	11.0	10.1	5.0	4.5
Core	2.0	1.3	3.2	5.7	4.8	3.3	3.0
Goods	0.6	0.8	4.5	5.6	3.4	0.8	1.0
Services	2.2	1.1	2.4	4.4	5.7	4.8	4.2

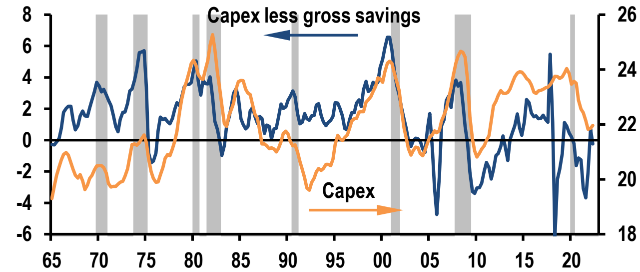
Source: National sources, J.P. Morgan. Note: Includes Turkey.

A forecast that the global expansion remains resilient as we turn into the new year is not an endorsement of a soft-landing scenario. Lags in the policy transmission mechanism suggest that the maximum drag from monetary tightening still lies on the horizon. Equally important, the inflation process has likely changed. Labor market tightness will likely keep wage gains elevated and combine with an underlying shift in inflation psychology to limit the inflation slide related to positive supply side developments. The unwind of this year's inflation surge should be both substantial and incomplete: we forecast core inflation to remain above 3% in both the US and global economy through the middle quarters of next year.

A sustained return of inflation to central bank comfort zones will ultimately require a material increase in slack, but timing the next recession is complicated, as the ingredients that normally produce retrenchment are not currently in place. A material rise in US and/or global unemployment rates usually requires central bank tightening to combine with two other factors. First, tightening financial conditions and limited slack breeds shocks in the financial sector or to commodity prices. Second, macroeconomic imbalances are present that reflect the maturation of an expansion. As durable spending and credit extends at the same time that corporate margins compress—due to rising wages and slower productivity growth—the vulnerability of households and businesses to sharp pullbacks from tighter financial conditions increases.

The drag from tightening financial conditions will be powerful next year, but supply-side shocks should continue to fade. Following a sharp US inflation-led decline at the start of the year, a notable easing of Europe's energy and China's COVID problems are expected. The normal late-cycle vulnerabilities related to margin compression, rising leverage, and extended durable spending are also not yet established, in the US or elsewhere (Figure 3).

Figure 3: US corporate sector position
% share of GVA, 2q moving average; both scales

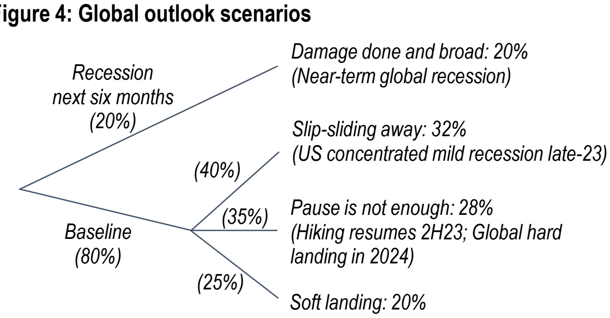


Source: FRB, J.P. Morgan

An additional factor clouding the outlook is an expected pause by the Fed and other major central banks. As US inflation moves lower in the coming months and its labor market cools, the Fed will likely take a break at a roughly 5% policy rate as it respects the lags embedded in the rapid shift to a restrictive policy stance. This pause should not be seen as necessarily reflecting an end to the hiking cycle, but it should promote stabilization in global borrowing rates.

It is normal for us to focus our year ahead outlook on our modal forecast, but circumstances warrant considering a range of scenarios the global economy might follow over the coming two years (Figure 4). The dominant event incorporated in these scenarios is that the US enters recession sometime before the end of 2024. But the timing of this break is highly uncertain, as is the path of Fed policy and the reverberations for the rest of the world. We highlight four scenarios:

Figure 4: Global outlook scenarios



Source: J.P. Morgan Global Economics

- **Broad damage already done (20%).** There are sufficient supports to avoid a recession at the start of 2023, but we think it would be a mistake to ignore the risks associated with tightening financial conditions and weakness in

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Europe in China. We see a one-fifth risk that the US breaks together with Europe and pulls the global economy down early next year. In this scenario, a peak in Fed policy rates below 5% will be followed by a quick turn towards easing as global growth contracts and central banks turn confident that deteriorating labor markets and fading supply shocks will push inflation lower.

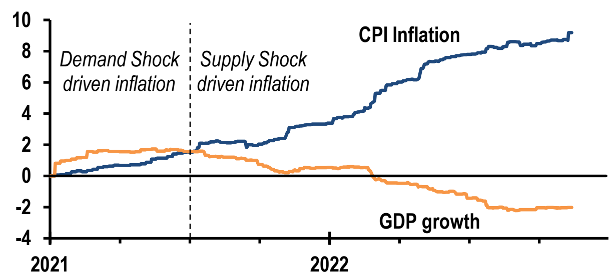
- **Slip-sliding away (Baseline 32%).** While avoiding a near-term recession, our baseline assumes that the US slips into a mild recession in late 2023. This scenario places the building drag on US credit conditions and rising dollar at the center of the outlook. By mid-23, the purchasing power relief to households fades and the anticipated weight of 500bp of Fed tightening will be building. The US recession is anticipated to be mild and the rest of the world is expected to continue to grow at a sub-par but positive pace. An avoidance of a global downturn will partly come from Fed easing in 2024 as a rise in the US unemployment rate to 5% pushes US core inflation well below 3%.
- **A pause is not enough (28%).** This scenario sees fading drags offsetting some of the damage from tightening financial conditions, supported in part by a central bank pause after 1Q23. However, the hope behind the pause—that restrictive stances will bring inflation back into comfort zones—is not realized and a new round of synchronized tightening takes hold in late-2023. With elevated inflation more embedded, policy rates will need to rise materially further and the consequences of a second round of aggressive hiking generates an outright and fairly deep global recession in 2024.
- **Soft landing (20%).** While often derided as an "immaculate disinflation," it would be a mistake to write off scenarios in which recession is avoided, in our view. Under this scenario, the softening in growth this year and next—combined with a further fading of transitory forces—are sufficient to push inflation towards 2% without a sharp deterioration in labor markets. With inflation worries abating and growth sluggish, central banks begin to normalize policy rates in late 2023. Such an outturn would lay the groundwork for an extended global expansion.

2022 was a shocking year

Against the historic volatility of 2020 and 2021—which saw the deepest global downturn on record followed by the strongest rebound—2022 growth outcomes were far more stable. Real GDP is estimated to have increased a sluggish 1.5%, with both 1H and 2H growth running close to this outcome. But this year has been remarkably turbulent, with the global economy buffeted by multiple adverse shocks.

- **Bottleneck pressures intensify and broaden.** The expansion that began in mid-2020 created unprecedented problems in aligning supply and demand. The initial surge in demand for goods generated bottlenecks in sourcing inputs and transportation channels that continued to build into 1H22. While these pressures have started to fade, the dislocation in labor markets remains a key supply constraint and is now putting upward pressure on wages.
- **One more COVID wave.** The year began with a third major COVID-19 wave that sparked a new round of mobility restrictions. Outside China, the drag on activity from Omicron was significantly milder than the two previous ones, a testament to the effectiveness of vaccines. The first quarter saw growth slow, notably in Europe and Japan, but the drags were relatively modest. Indeed, if not for China, this year's Omicron wave would serve largely as a reminder that the global economy has moved into the endemic stage of the virus.
- **China first in, last out.** The strict adherence to its zero-COVID policy (ZCP) made China a victim of its own success. While promoting a rapid recovery that lifted GDP to pre-pandemic levels in under a year, the lack of immunity via infection or through the use of mRNA vaccines required draconian lockdowns that held GDP growth to an expected weak 2.5%q4/q4 this year.
- **Russia's war.** The most unanticipated shock this year has been Russia's invasion of Ukraine. While the war has been contained to Ukraine, the impact has been felt globally through a surge in commodity prices and a slump in sentiment. The shock is most acute in Europe due to its dependence on Russian natural gas supply, manufacturing supply chain disruptions, and a slide in regional sentiment.

Figure 5: Rolling revisions to global outlook
%pt; cum. revision to yr-ahead outlook; Forecast Revision Index (FRI)



Source: J.P. Morgan Global Economics

The common thread running through these shocks is that they boost inflation while depressing real activity. The evidence is clear from our Forecast Revision Indexes (FRI) showing the cumulative rolling revisions to our inflation and GDP growth forecasts (Figure 5). Early in the expansion, upside surprises

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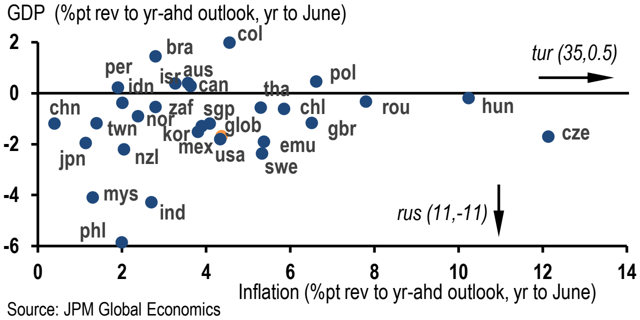
from inflation came alongside rising growth expectations. This change began in late-2021 and accelerated in 2022, when the sweeping supply shocks boosted inflation above expectations, and this led us to mark down our growth assessment. By country, inflation forecasts were marked up and growth forecasts marked down in 23 out of the 31 countries tracked (Figure 6).

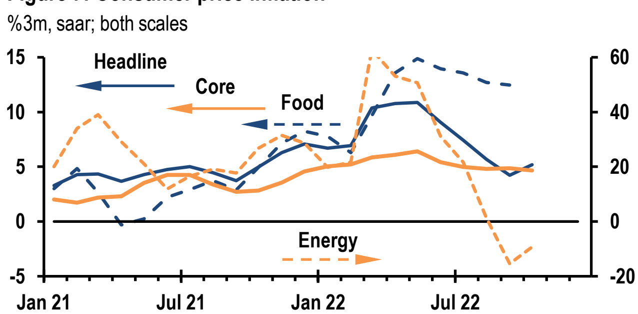
Figure 6: Inflation and GDP forecast revisions



Source: JPM Global Economics

After surging to a multi-decade high of 6% annualized in the last quarter 2021, global consumer price inflation soared further to a stunning 10% annualized pace in 2Q (Figure 7). Global GDP growth, which we had expected to rise by 3.9%q4/q4 this year, fell to a 1.1%ar in 1H22 and is tracking 2.1%ar in 2H22.

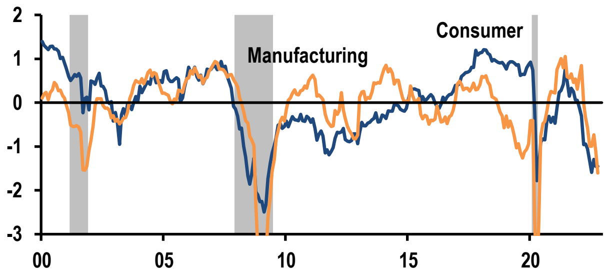
Figure 7: Consumer price inflation



Source: National sources, J.P. Morgan

There are multiple channels by which these supply shocks depressed growth. Rising inflation dramatically compressed household purchasing power while firming company pricing power. Similarly, it generated large terms-of-trade swings that helped (hurt) commodity exporting (importing) countries. As the year proceeded, central banks responded to higher inflation and tightened global financial conditions. Finally, the cumulative impact of multiple adverse shocks generated a dramatic drop in sentiment. Both our global consumer sentiment index (ex. China) and global manufacturing expectations index have dropped to levels that have generally been associated with recession (Figure 8).

Figure 8: Sentiment, global

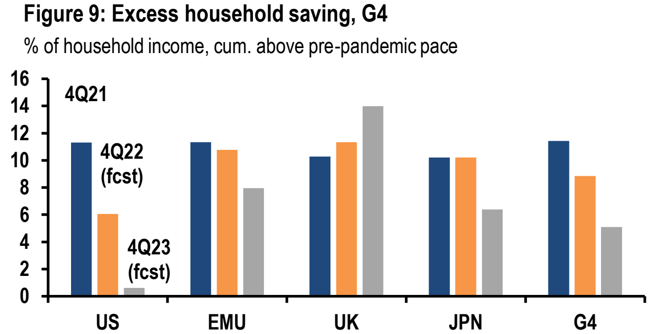


Source: National sources, J.P. Morgan

A cushion from healthy households …

That the global expansion continued in the face of these supply shocks and fiscal drags is a testament to the strength of private sector fundamentals. For the household sector, the pandemic generated a remarkable improvement in balance sheets, as lockdowns depressed spending and government support programs sustained incomes. We estimate these developments created a reservoir of excess savings amounting to more than 10% of G4 household disposable income at the start of the year (Figure 9).

Figure 9: Excess household saving, G4



Source: J.P. Morgan Global Economics

Against this backdrop, the collapse in real incomes related to rising inflation was significantly offset by a drop in personal savings rates (Figure 10). For the G-4, the personal saving rate is on track to tumble nearly 4.5%-points in 2022, a slide that allowed real spending to rise 1.6% despite a projected 2.8% slump in real household income.

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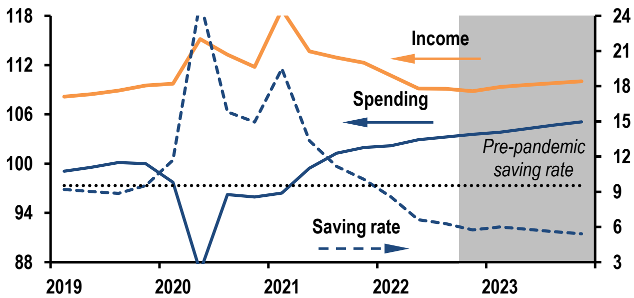
Figure 10: Household income, spending, and saving, G-4

Index, 4Q19 = (100 spending, 109.5 income) = 9.5% saving rate % of income

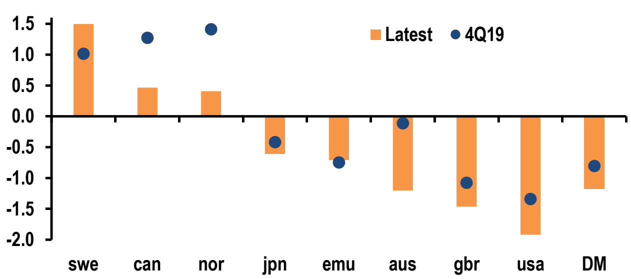


Source: J.P. Morgan Global Economics

The position of the household sector has been boosted by other factors. Despite this year's slump in equity prices, wealth has moved higher with a significant boost in house prices. In the aftermath of the GFC, households reduced their leverage so that by the time the pandemic started, debt as a share of income was near two-decade lows. Rising interest rates will be a drag, but much of household debt is locked into lower rates. In general, most DM household sectors faced debt service burdens below their historical average at the start of the hiking cycle (Figure 11).

Figure 11: Debt service ratio

%-point of income, deviation from 1999-2021 average



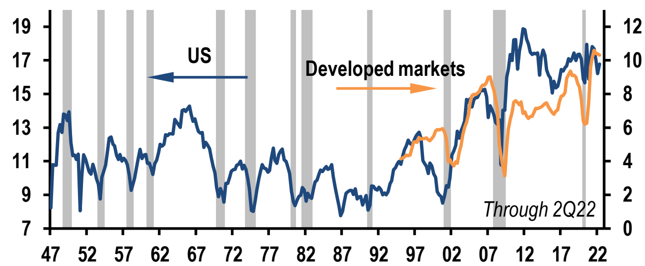
Source: BIS, J.P. Morgan

...and strong business spending

The backdrop for corporates at the start of the year was similarly healthy. While rising inflation squeezed household purchasing power, it boosted corporate earnings, as pricing has generally run well ahead of wage inflation. As such, DM corporate margins rose to record highs at the end of last year (Figure 12). With profits continuing to rise and levels of employment and inventories still depressed, business spending and hiring continued to grow at a solid pace (Figure 13).

Figure 12: Corporate profit margin

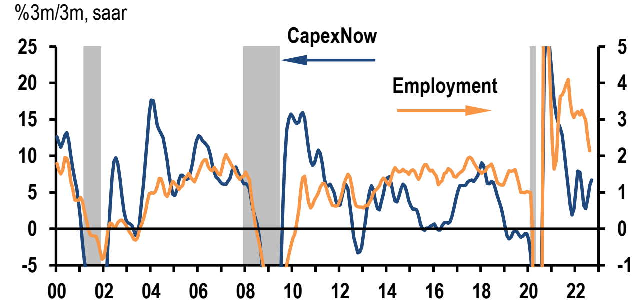
%; NIPA after-tax profits/gross value-added %, MSCI earnings/revenue



Source: MSCI, J.P. Morgan; DM aggregate is a GDP-weighted average

Figure 13: Global business spending

%3m/3m, saar



Source: J.P. Morgan Global Economics

The performance of the EM was particularly impressive this year, overcoming its usual sensitivity to global shocks. Conditions varied widely across countries, but a number of factors facilitated overall EM resilience. First, EM central banks began their hiking cycles earlier than the Fed, particularly the more vulnerable high-yield economies. Second, to the extent commodities played a large role in the global supply shocks, many net-commodity exporting EMs benefited from the terms of trade boom. Finally, the EM private sector also accumulated large savings through the pandemic. Following a sharp rise in 2020, the EM private sector's savings-investment (S-I) gap has fallen sharply, cushioning the hit to overall aggregate demand from falling real purchasing power (Figure 14). While excess household savings in DM supported consumption as inflation surged, the higher EM savings was held by corporates.

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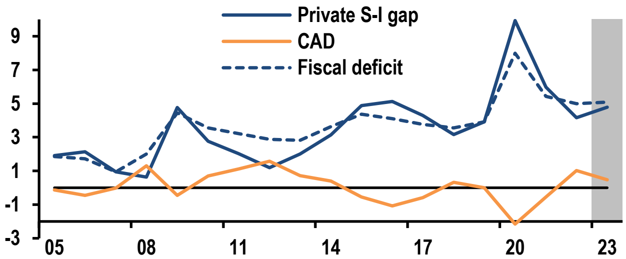
Figure 14: EM private sector's S-I balance

% of GDP



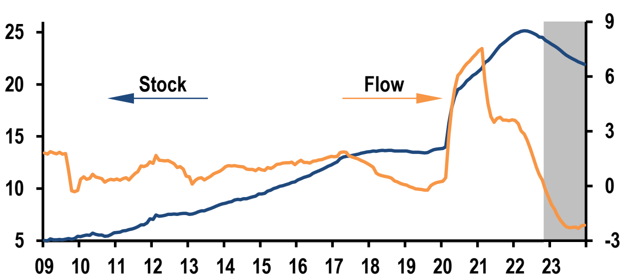
Source: J.P. Morgan Global Economics. Excludes China, Russia, and Turkey.

A synchronized central bank adjustment

Monetary policy began the year in an extremely accommodative stance with global policy rates still 50bp below their pre-pandemic levels and balance sheets continuing to expand. However, global policy rates (Ex. China) are up nearly 300bp over the last eight months in a highly synchronized adjustment. Of the 31 countries we track, 28 have raised rates. There is likely more to come. Based on its current guidance, the Fed is committed to maintaining a restrictive stance and will have delivered a cumulative adjustment of close to 500bp on rates through 1Q23. At the same time, its balance sheet is expected to contract 900 billion by mid-2023 (Figure 15).

Figure 15: DM central bank balance sheet

Trillion USD 12m change, trillion USD

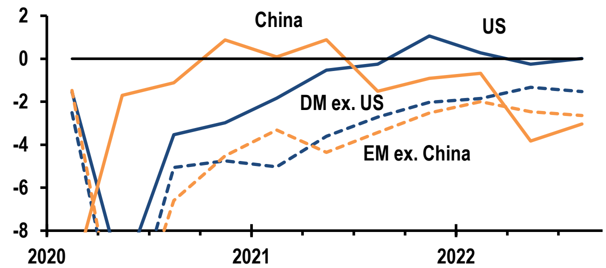


Source: J.P. Morgan Global Economics

The dramatic pivot from accommodation to tightening reflects a major shift in central bank thinking. A year ago, inflation pressures were concentrated in goods prices, which central banks interpreted as a transitory pandemic recovery phenomenon. Underlying disinflationary forces that defined the post-GFC expansion were expected to remain in place, and the closing of large GDP and employment gaps remained a policy priority (Figure 16). Tightening was therefore limited to a set of high-yield EM central banks facing challenges to policy credibility.

Figure 16: Real GDP Deviation from pre-pandemic potential path

%

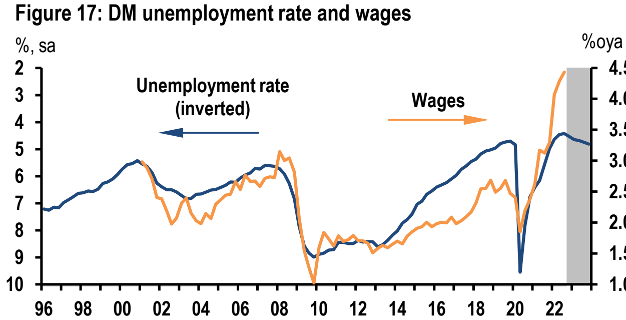


Source: J.P. Morgan Global Economics

This perspective has been challenged, however, by labor market developments and the broader inflation backdrop. Global growth has been weak this year, and no major region except for the US has come close to returning to its pre-pandemic potential path for GDP. Regardless, labor markets have continued to tighten, with DM unemployment rates close to 50-year lows. Other indicators of tightness point to even greater pressure, a point that is underscored by the significant acceleration in DM wage inflation (Figure 17). At the same time, the initial move up in inflation connected to pandemic-disrupted goods and energy prices has broadened materially. Food and service price inflation—which were depressed in 2021—have moved to multi-decade highs and combined with continued goods price pressures to push global CPI inflation to a 10%ar in 1H22.

Figure 17: DM unemployment rate and wages

%, sa %oya



Source: J.P. Morgan Global Economics

Central banks still anticipate fading pandemic shocks to yield sharply lower inflation and a general improvement in supply-side performance. But their concern about a shift in the inflation process embedding higher inflation has generated a need for speed in adjusting stances. With wage pressures evident and inflation having become salient enough to alter price- and wage-setting, they are now broadly committed to establishing stances that ease labor market pressures and nip a nascent shift higher in inflation expectations in the bud.

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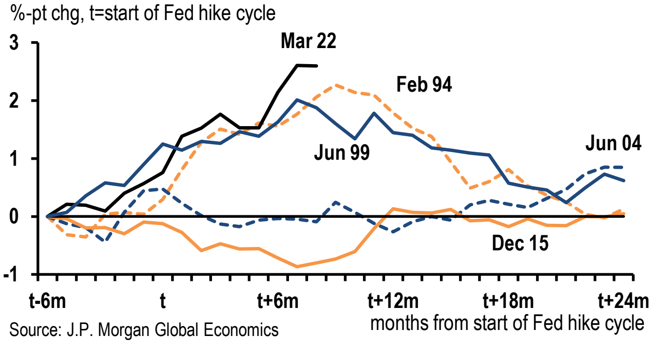
Financial conditions tighten sharply

As central banks act on these concerns, global financial conditions are tightening. US Treasury yields have increased more rapidly than at any point in the last three decades, while the trade-weighted US dollar is up roughly 10% this year to a multi-decade high (Figure 18).

Figure 18: US 10y yield around Fed tightening after recession

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

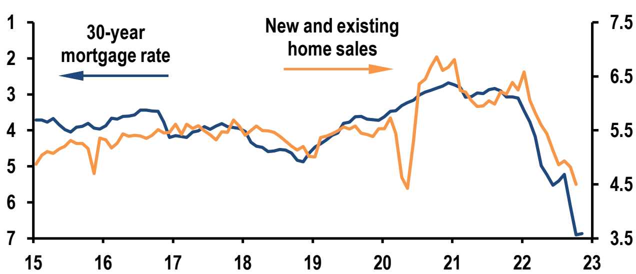


Source: J.P. Morgan Global Economics

There is little doubt that global financial conditions have tightened broadly. A material drag is already in place in global housing and other components of interest-sensitive spending (Figure 19). However, broader economic activity is less vulnerable to large spillovers from rising borrowing costs, as balance sheets are relatively interest insensitive and levels of investment spending as a share of overall activity remain modest.

Figure 19: US home sales and mortgage rates

% p.a., inverted | Million units, saar



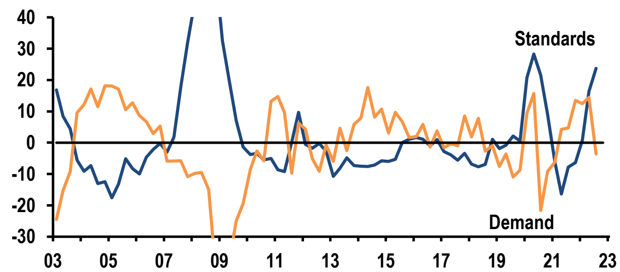
Source: Census, NAR, FHLMC, J.P. Morgan

The transmission of monetary policy tightening through financial conditions will build, and there are signs that credit conditions may be starting to tighten more materially. According to 3Q22 G4 bank lending surveys, a sharp reduction in credit demand and supply may be taking hold. The details of these surveys highlight an anticipated sharp drop in demand for housing loans, but also point to a notable tightening of lending standards for businesses (Figure 20).

A key risk is that central bank tightening is magnified through stress that intensifies credit tightening or restricts access to funding. In tracking this channel through the US Treasury's Office of Financial Research global stress index, much of the increase in stress this year reflects the rising volatility of asset prices and decline in equity prices (Figure 21). The two areas that have had the most impact on activity—rising funding and credit market stress—have thus far shown a limited build-up in stress.

Figure 20: G4 business credit standards vs. loan demand

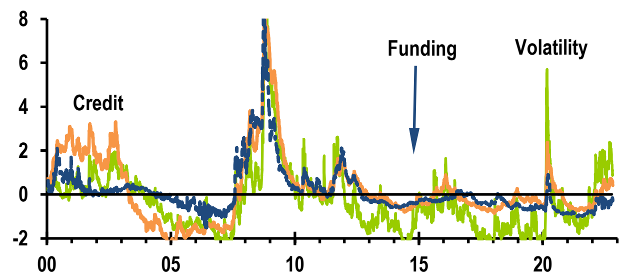
Net % tightening (standards), net % seeing increase (demand)



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

Figure 21: OFR Global Stress Index

Index, 0 = average stress



Source: US Treasury OFR, J.P. Morgan

Despite buffers, EM stress builds for some

The rapid tightening in global financial conditions, combined with a larger rise in the USD, is now raising concerns across the EM. Dwindling domestic private savings cushions, along with increased fiscal supports, have driven increases in foreign borrowing that have become harder to fund. Except for a handful of EMs, fiscal deficits remain very elevated. And roughly two-thirds of countries are running current accounts that are worse than their historical norms. EM FX reserves, though adequate for the most part, have also declined as central banks leaned against dollar strength by intervening in currency markets.

Some in the EM will find navigating tougher global financial conditions more challenging than others. While policy tightening has been substantial in a number of economies, the level of interest rates required to compensate for the rise in macro risks remains insufficient in some cases. This raises the risk of more policy tightening, more demand compression, and more headwinds to growth than captured in our forecast.

To gauge the variation in risks across the EM, we compare our 2023 forecasts across five key indicators: fiscal and current account balances, government debt ratios, and FX reserve adequacy, relative to each country's 2010-19 average (Table 3).

Table 3: EM macro risk heatmap, 2023f
%-pt deviations from 2010-19 country average

	CA, % of GDP	FX res. adequacy	Fiscal bal, % of GDP	Gov't debt, % of GDP	CPI %oya vs target
chn	-0.2	-2.2	-1.7	37.9	-1.6
ind	-0.9	-0.7	-1.9	15.7	1.5
idn	1.8	-0.6	-0.8	16.4	-0.9
kor	-1.7	-0.3	-0.3	14.1	0.6
mys	-2.2	-0.7	-1.7	21.6	0.2
php	-4.8	-4.5	-3.1	27.4	-0.4
twn	3.5	-0.7	0.5	-3.3	0.0
tha	-4.0	-0.5	-2.0	25.0	-0.3
cze	-2.9	0.0	-3.6	6.8	4.1
hun	-6.0	-0.6	-1.6	-1.1	3.8
isr	0.6	0.9	2.3	-5.9	0.4
pol	-1.2	0.4	-2.6	1.1	5.7
rom	-5.4	-0.2	-1.4	12.3	8.4
rus	1.7		-0.6	1.9	1.2
zaf	2.5	0.3	-1.0	28.2	0.2
tur	1.8	-0.2	-1.8	2.6	54.5
bra	1.2	-2.1	-4.0	18.3	1.8
chl	-0.8	-1.2	-1.3	23.3	2.2
col	-1.0	-0.8	-1.9	18.5	4.4
mex	-0.7	2.0	-1.3	10.3	2.3
per	1.0	-1.4	-1.8	12.4	1.8

Source: J.P. Morgan. CPI is 4Q23f vs target. FX reserve adequacy is ratio to short-term external debt.

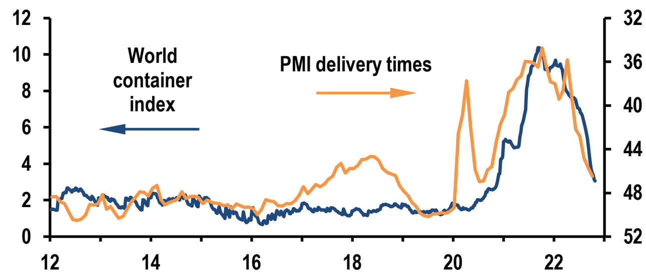
Due to their elevated macro risks and lagging policy response, India and Romania could remain susceptible to periods of stress in the absence of appropriate policy adjustments. Other countries that could be in the crosshairs if investors turn more risk averse or if their fundamentals deteriorate further include the Philippines, Thailand, Malaysia, Poland, and Chile. Mexico, Israel and South Africa should remain relatively more resilient provided rate hikes are delivered in line with our forecasts. In Brazil, while rate hikes have been aggressive, the sharp projected widening in the fiscal deficit could fuel concerns over debt sustainability.

Not today: Fading drags offset tightening

The impact of tightening financial conditions should build over time and is the main source of 2023 recession risk. However, we see a relatively low probability of a recession taking hold at the start of the year and forecast global GDP to expand at a 1.5%ar through 1H22, the same lackluster pace as recorded through the first three quarters of 2022. The near-term defense against recession comes, in part, from the resilience of healthy households and corporates that are relatively insensitive to rising rates. At the same time, we look for two important 2022 growth drags to fade, providing an important near-term defense against tighter financial conditions.

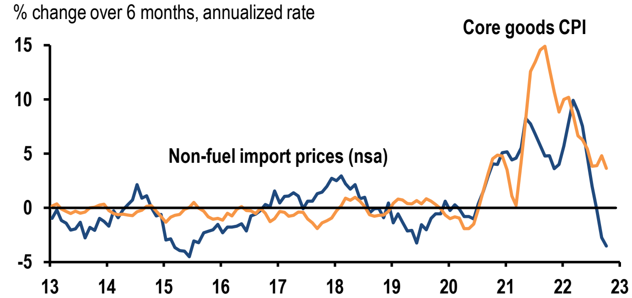
First, an unwind of inflation now underway is set to provide a material near-term growth lift. Aligned with evidence that pandemic supply bottlenecks have abated and global commodity prices have stabilized, a sharp drop in goods price pressures lowered CPI gains to a 4.9%ar in the three months through September (Figure 22). This slide is even sharper in the US, where the dollar's rise has pushed non-fuel import prices down for six consecutive months (Figure 23).

Figure 22: Global supply chain indicators
Thousand USD / 40-ft box



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

Figure 23: US non-fuel import and core goods prices
% change over 6 months, annualized rate



Source: BLS, J.P. Morgan

Every country tracked in the J.P. Morgan universe is projected to materially disinflate (Figure 24). Of the 24 countries, 16 are expected to see sequential quarterly inflation tumble by over 4%-points annualized by 2Q23. The largest declines are expected in Europe but will come after a continued inflation spike this quarter. Large declines are expected in Brazil, Chile, Korea, and Thailand as well. Indeed, other than China, we forecast that every country we track will see at least a 2%-point bounce in real purchasing power by mid-2023.

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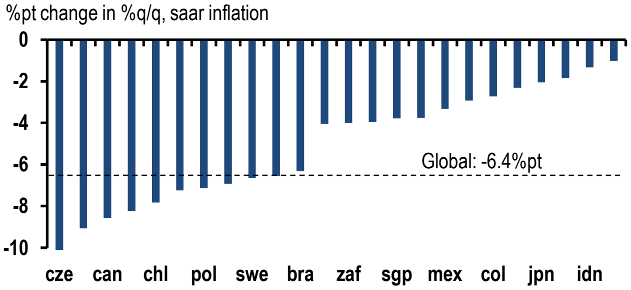
Figure 24: Change sequential inflation, 1H22 to 1H23 forecast

%pt change in %q/q, saar inflation

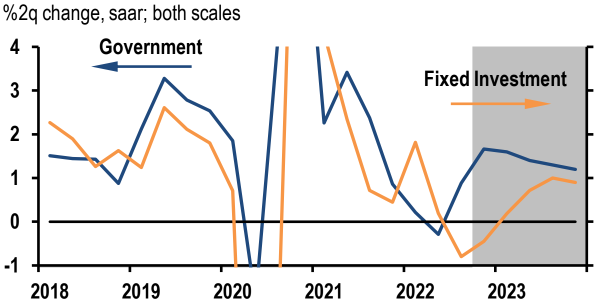


Source: National sources, J.P. Morgan

Second, a moderation of this year's large DM fiscal drags should also limit downside risk. Government tax and spending policies have played an unusually large and complicated role in 2022 growth outcomes. On the surface, it appears that fiscal policy turned firmly restrictive this year, with the IMF forecasting a drop in the deficit for major advanced economies from 8.7% of GDP in 2021 to 4.4% this year. Part of this move reflects the revenue windfall from boomy labor income gains and rising inflation. But much of the fiscal tightening also represents the curtailment of COVID-related programs and spending earlier this year. G4 spending on goods and services contracted 0.5%ar in 1H22 (Figure 25), and this drag was magnified in the US by a sharp drop in transfer income as policy supports delivered during the pandemic expired.

Figure 25: Gov spending and fixed investment, Developed market

%2q change, saar; both scales



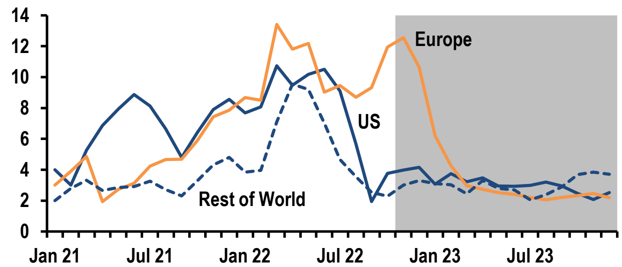
Source: J.P. Morgan Global Economics

A turnaround in this fiscal impulse is now underway, as government spending is projected to bounce back to a more normal 1.5%ar pace of growth in 2023. The swing from contraction to more normal growth should provide a direct needed boost to overall GDP. This shift will be magnified in the US, where last year's sharp fall in household transfer payments will be followed by a large social security cost of living adjustment worth $106bn starting in January. Outside the US, we look for elevated transfers to absorb some of the blow of higher energy prices in Europe and an additional credit impulse in China in response to weak housing activity and depressed.

If we are right, this sluggish growth outcome will produce important rotations in regional and sectoral growth. After having generated strong 1H22 GDP gains, Europe is now expected to contract, as its energy crisis is anticipated to sustain inflation at a double-digit pace until early next year (Figure 26).

Figure 26: Near-term inflation trajectory

%3m, saar; headline CPI



Source: J.P. Morgan Global Economics

That a relatively mild and short-lived downturn is expected for the region reflects the view that government supports and a falling household saving rate will provide important cushions to this blow. However, the UK shock to its fiscal credibility—which is forcing more aggressive fiscal and monetary austerity—suggests it will slide more deeply and lag the regional rebound anticipated to take hold once a difficult winter passes.

The main near-term beneficiaries of the inflation slide will be the US and non-China Asia. In addition to a direct purchasing power lift, US consumers benefit from a fading fiscal drag that depressed income last year. Japan, alongside other Asian economies, are still in the early stages of a service sector recovery given their slow COVID normalization.

While a repeat of China's 2022 lockdowns (which generated a 1H22 GDP contraction) is unlikely, COVID drags will continue to play a key role in its outlook. A new outbreak is set to weigh heavily on growth this quarter. And while recent policy announcements have signaled that the implementation of zero-COVID policy is being relaxed, the path to reopening is likely to be bumpy. China's cumulative infection is very low (less than 1% of total population). In the absence of any material natural immunity, it is very likely that the reopening will be accompanied by widespread infection, leading to disruptions in labor supply and self-imposed mobility restrictions. Our forecast assumes a start-and-stop quarterly pattern in which the overall reopening lift is tempered by fading fiscal supports and a continued, albeit milder, housing drag generating 4% GDP growth.

Domestic politics are likely to become a dominant driver of performance for some large EM economies. In the pandemic and its aftermath, the election cycle in EM was relatively light. However, in the coming two years much of EM will see elections, and it is likely that pandemic-policies and outcomes will be tested. In the few where there have been elections (mostly in Latin America), incumbents lost and the policy orthodoxy, which characterized much of EM since the Taper Tantrum, is now being challenged by the new governments in Chile and Colombia. Similarly, concerns over the fiscal stance of the government-elect in Brazil have risen sharply after it recently sought from the Congress a permanent 2% of GDP increase in spending to meet social priorities. While the political makeup of the Congress makes it unlikely to accede to such a large expansion, worries over the dilution of policy orthodoxy have shifted market perception from expecting the start of a large monetary easing cycle to now fearing more rate hikes in 1Q23. We believe rates will remain on hold for an extended period.

In contrast, the upcoming election outcome in Turkey (by May 2023) could be an opportunity for orthodoxy to be returned to monetary policy. The central bank has been easing policy despite surging inflation, which has shaken investor confidence and kept the currency and asset prices under relentless downward pressure. India, Indonesia, and South Africa face elections in 2024. In the run-up to these elections, pressures will rise to mitigate social pressures arising from an incomplete pandemic recovery and an associated widening of inequality. The space for easing is severely limited in India and Indonesia. In South Africa, pressures are building to make the pandemic-related distress relief permanent, especially given high commodity-related revenues. Domestic politics can also become problematic among many frontier economies, especially those already under or now negotiating IMF programs, such as in Egypt, Pakistan Sri Lanka, Ghana, and Zambia.

Inflation drop: substantial, not sufficient

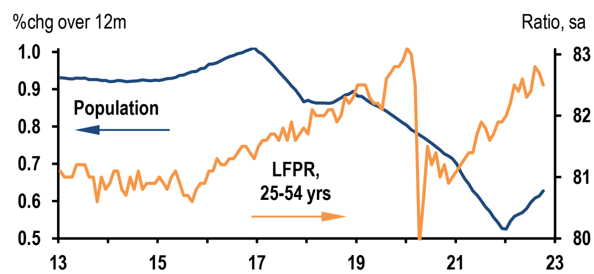
As the fading of supply shocks pushes inflation sharply lower in the coming months, we believe this will encourage the Fed and other central banks to pause. Based on a view that core inflation falls to an 0.3% m/m pace and labor market conditions cool, we look for most central banks to pause by the end of 1Q23. DM policy rates are expected to be in restrictive territory at this juncture, with Fed pausing at 5%. The BoE and ECB will have more significant growth weakness at the start of the year and are anticipated to pause at 4.25% and 2.5%, respectively.

While this pause will raise hopes that the monetary tightening cycle is over, central banks are likely to maintain a hawkish bias, as their jobs will be far from complete. This pause will be designed to let lags in the policy transmission mechanism operate. The hope is that the lagged restraint on demand, alongside a further unwind in supply constraints, will be sufficient to lower inflation further.

Absent a significant rise in unemployment rates, we do not expect inflation to return to central bank comfort zones next year. Behind this view is the judgment that a change in the underlying inflation process has taken place:

- **A lasting supply shock.** Although pandemic-related supply constraints are abating, there are good reasons to expect the pandemic to leave a lasting imprint on the mobility of goods and labor globally (Figure 27). Shocks related to the pandemic and the 2018-19 US-China trade war have exposed supply chain vulnerabilities, prompting an underlying shift that balances a focus on lowering costs with the need for reliable sources that serve regional demand hubs. In addition, immigration has previously been a significant source of potential growth for DM economies and has worked as a cyclical cushion that aligns labor supply with economic demand. The lingering effects of the pandemic, combined with a shift in US immigration policy and the UK exit from the EU, are likely to limit population and labor force growth.

Figure 27: US population growth and LFPR



Source: BLS, J.P. Morgan

- **Labor tightness steepens the wage Phillips curve**. Wage pressures are not the primary source of the 2021-22 price surge. But labor costs are now moving higher, and a broad range of indicators of labor market tightness suggest that labor bargaining power will remain firm. The rise in wage inflation is broadly based across the DM and should both limit disinflation and compress profit margins in the coming year (Figure 28, 29).

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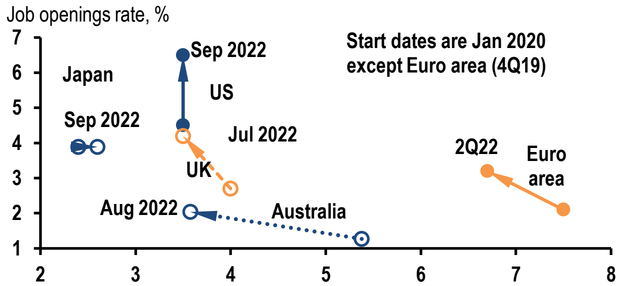
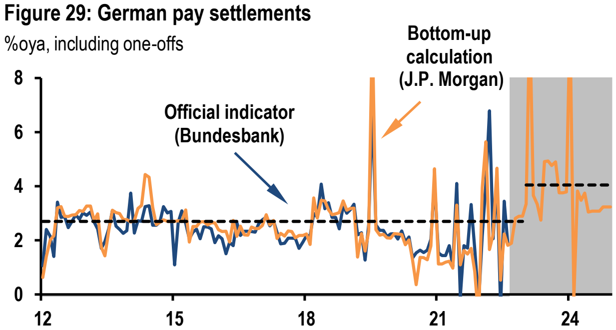
Figure 28: Shifts in DM Beveridge curves during the pandemic



Source: National sources, J.P. Morgan

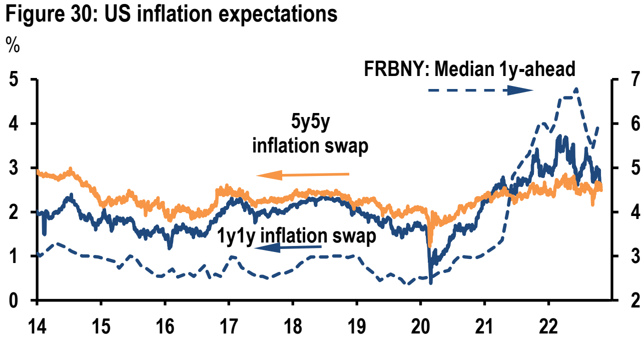
Figure 29: German pay settlements



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

- **Salience.** Empirical research shows little persistence of inflation shocks over the past quarter century, a development that is often linked to central banks having anchored medium-term expectations. But this hypothesis has not been tested in the face of a large inflation shock like the one experienced over 2021-22. There is a strong case to be made that inflation has become salient enough that decisions on price- and wage-setting will be influenced by the recent inflation breakout even if central banks' medium-term objectives remain credible. So far, the evidence on this front is limited. But inflation surveys and market compensation send an important signal that shorter-term forward inflation expectations remain elevated (Figure 30).

Figure 30: US inflation expectations

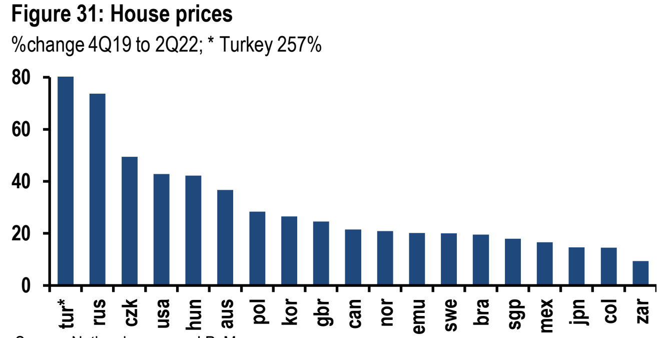


Source: Bloomberg Finance, L.P., Federal Reserve Bank of New York, J.P. Morgan

Housing bubble global, with local risks

While the inflation surge over the past 18 months has garnered the most attention, the jump in house prices has been equally impressive and broad-based. Of the 26 countries we track that report house prices, 18 have experienced double-digit gains since the start of the expansion, while 12 have seen increases over 20% (Figure 31). The jump in demand for increased space, largely in areas outside of densely populated cities, combined with a sluggish supply response, resulted in a significant imbalance in the market. The rise in prices has bolstered homeowner balance sheets but also sharply curtailed housing affordability. Rising home prices have also spilled over into the rental market, lifting the prices that more directly affect consumer inflation.

Figure 31: House prices



Source: National sources, J.P. Morgan

With rates rising sharply around the world, the cost of borrowing is also moving up. While the market is correcting downward in both supply and demand, the hit to demand is larger. As a result, home prices should begin to moderate. This is already happening in the countries with the most sensitivity to rising rates and existing high leverage, including the UK, Netherlands, Norway, Sweden, Australia, New Zealand. In the EM, Korea stands out with relatively high leverage. Notably, US debt is relatively modest after a decade of deleveraging.

Long odds: The soft-landing scenario

While the global outlook points to several possible scenarios, most roads lead to a US recession over the coming two years. The modest 20% probability we place on a soft-landing scenario aligns with Fed Chair Powell recent comment that "The runway for a soft-landing has narrowed considerably over the course of this year as inflation pressures have built and central banks responded by tightening financial conditions."

While the runway has narrowed, an important lesson learned over the past three years is that our understanding of the inflation process is limited. The arguments made today that substantial disinflation requires central banks to induce a meaningful deterioration in labor markets follow a pre-pandemic

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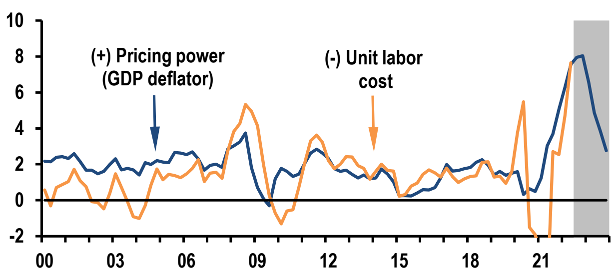
chorus that discounted links between labor markets and inflation. Until the pandemic-related bottlenecks constraining supply unwind, it will remain unclear where underlying consumer price inflation stands. Similarly, the dislocations in labor markets that have pushed up wages may reflect a pandemic-period depressed job-churning that has begun to unwind. The evidence that core inflation and vacancies show signs of moderating without a rise in unemployment should keep hope alive for a soft-landing scenario. We see this unwind as likely to be limited in the face of a lasting deterioration in inflation psychology and labor supply but recognize the wide range of possibilities that lie ahead.

Any soft-landing scenario requires a balanced disinflation in wage and price inflation to be sustainable. While a stabilization in global commodity prices can be expected to shave more than 5%-pts off CPI inflation in the coming year, elevated wage inflation should prove stickier given tight labor markets and the building salience of the 2021-22 inflation surge.

Figure 32: Fundamentals of corporate margins, Developed Market
% 4qtr chg; Components of change in margin; Through 3Q22 (deflator fcst)



Source: Bloomberg Finance, L.P., J.P. Morgan; DM recession bars

A key wild card for the outlook then becomes productivity, which has tumbled this year and added to unit labor cost growth. As of 3Q22, the surge in DM pricing power has been completely matched by an equally impressive surge in unit labor costs (wages relative to productivity) (Figure 32). If, as expected, productivity growth remains below its pre-pandemic trend in a sub-par growth environment, DM unit labor costs will likely be rising well above 3% next year, more than twice the average pace from 2015-19.

Our baseline forecast of 3.5% DM unit labor cost growth next year creates a dilemma. A desired drop in DM inflation well below 3% would place downward pressure on margins that would be amplified by rising borrowing costs. As a result, the pressure would build for a corporate pullback to contain costs. On the other hand, continued corporate pricing power that sustains inflation at the pace of elevated unit labor cost gains would deliver margin stability at the expense of more pressure on central banks to tighten policy.

QT to take back seat to rate hikes

The main event for the 2023 outlook is the fallout from the most synchronized and aggressive monetary policy rate hiking cycle in forty years. However, central banks are not just hiking, they are also in the process of unwinding the record amount of assets they added to their balance sheets over the past few years. Nonetheless, that quantitative tightening is proceeding more gradually, and the impact is expected to be modest once accounting for the rise in front-end rates.

While "Quantitative Tightening" (QT) has begun for most of the major DM central banks, the pace of drawdown remains slow. By the end of next year DM central banks will still have some $22tn of assets on their balance sheets, down marginally from a peak just over $25tn earlier this year—but well in excess of the $14tn before the pandemic began. We estimate that the peak pace of central bank balance sheet reduction will occur in 3Q23 and after a gradual start this year over $2tn will leave DM central bank balance sheets during 2023 (Table 4).

Table 4: DM central bank balance sheets
12m diff as of Dec, $bn

	2017	2018	2019	2020	2021	2022	2023
Fed	-9	-385	115	3161	1431	-249	-961
ECB	802	231	-31	2342	1605	-218	-983
BoJ	312	213	146	901	147	-64	90
BoE	115	32	-11	367	258	-25	-118
BoC	4	4	3	323	-37	-66	-83
RBA	8	-7	0	99	215	-2	-82
RBNZ	2	1	-3	32	11	7	-8
Total	**1234**	**88**	**219**	**7224**	**3631**	**-618**	**-2145**

Source: Fed, ECB, BoJ, BoE, BoC, RBA, RBNZ, J.P. Morgan

The gradual pace of QT is adding only modestly to the degree of monetary tightening by DM central banks. A number of Fed officials have cited staff research suggesting the total expected wind-down of the Fed's balance sheet over the next several years, from a peak of nearly $9tn to under $7tn, should be equivalent to around 50bp of additional rate hikes. Other estimates of the reduction in 10-year Treasury yields from an additional $1tn of asset purchases range from 15 to 60bp, with earlier programs having larger announcement effects and appearing more powerful when market dislocations are larger. The pre-announced nature of QT, occurring outside periods of significant market stress, is likely to push up yields by a correspondingly smaller amount—especially if there is any residual "stock effect" from large retained holdings. Moreover, while QE led markets to price extended "lower for longer" policy stances, it is unlikely that ongoing QT will lead markets to raise their expected terminal rates—indeed, markets have tended to treat QT and rate hikes as substitutes.

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The global economic outlook in summary

	Real GDP % over a year ago			Real GDP % over previous period, saar						Consumer prices % over a year ago			
	2021	2022	2023	2Q22	3Q22	4Q22	1Q23	2Q23	3Q23	2Q22	4Q22	2Q23	4Q23
United States	5.9	1.9	1.0	-0.6	2.6	1.5	1.0	0.8	0.5	8.6	7.3	4.1	3.0
Canada	4.5	3.2	0.8	3.3	1.0	1.0	0.3	0.3	0.8	7.5	7.0	2.5	2.0
Latin America	6.6	3.4	0.7	3.9	2.8	-0.4	0.1	0.2	0.6	10.1	8.0	5.6	5.3
Argentina	10.4	4.7	-0.6	4.2	3.4	-4.0	1.0	-2.0	-2.0	61.8	94.0	111.3	111.6
Brazil	4.6	2.8	0.2	5.0	2.2	-0.8	-1.0	-0.6	0.8	11.9	6.1	3.3	5.2
Chile	11.7	2.5	-1.2	0.6	-4.6	-1.8	-1.4	0.0	1.0	11.5	12.8	8.5	5.5
Colombia	10.7	8.0	0.9	5.2	6.4	-2.0	-2.0	2.0	1.5	9.3	12.2	11.1	7.4
Ecuador	4.2	2.2	2.3	0.5	2.5	2.0	2.0	2.5	3.3	3.5	4.1	2.6	2.5
Mexico	4.8	2.8	1.6	3.7	4.2	1.0	1.3	1.0	0.7	7.8	8.5	6.8	5.3
Peru	13.6	2.5	2.3	1.0	4.5	3.4	2.5	2.0	1.0	8.3	7.6	5.2	3.8
Uruguay	4.4	5.2	1.9	4.3	0.8	1.5	2.5	2.0	1.0	9.3	9.3	7.4	6.5
Asia/Pacific	6.3	3.2	3.2	**-1.5** ↓	**5.2** ↑	**2.8** ↑	**4.4** ↑	2.7	2.5	3.3	3.7	2.7	**2.6** ↑
Japan	1.7	1.5	1.6	4.6	-1.2	3.5	2.0	1.2	0.5	2.4	3.5	2.9	2.7
Australia	4.9	4.0	2.6	3.6	2.5	2.4	3.0	2.7	1.9	6.1	7.6	5.6	3.5
New Zealand	5.6	2.1	2.3	7.0	0.6	2.3	1.9	1.5	3.6	7.3	7.2	5.6	3.4
EM Asia	7.4	3.6	**3.7** ↑	**-3.3** ↓	**6.8** ↑	**2.6** ↑	**5.0** ↑	**3.1** ↑	3.0	3.4	3.5	2.5	**2.5** ↑
China	8.1	2.9	4.0	-7.3	9.0	2.4	5.9	3.0	3.0	2.2	2.4	1.7	1.9
India	8.7	7.1	**4.4** ↑	**6.5** ↓	**3.5** ↑	**4.8** ↑	**4.8** ↑	**4.5** ↑	4.5	7.3	6.5	5.0	**5.7** ↑
Ex China/India	4.5	3.6	2.4	3.0	**2.3** ↑	2.2	2.7	2.5	2.2	4.5	5.0	3.3	2.4
Hong Kong	6.3	-2.9	2.7	4.1	-10.0	9.0	2.5	3.5	4.2	1.5	2.6	2.8	1.9
Indonesia	3.7	4.8	3.1	7.8	-0.7	2.0	4.0	3.8	3.3	3.8	5.4	3.6	2.6
Korea	4.1	2.7	1.4	3.0	1.1	1.3	1.5	1.5	1.0	5.4	5.1	3.2	2.6
Malaysia	3.1	9.2	3.7	14.7	7.7	0.0	3.5	3.2	3.0	2.8	3.7	2.8	2.2
Philippines	5.7	7.0	4.6	-0.5	12.3	4.0	4.0	3.8	3.8	5.5	7.7	5.4	2.6
Singapore	7.6	3.0	1.4	-1.0	2.0	1.8	1.8	1.3	1.0	5.9	6.9	5.3	3.0
Taiwan	6.6	3.0	2.0	-7.0	6.6	2.2	2.3	1.8	1.5	3.5	2.6	1.7	2.0
Thailand	1.5	3.1	2.7	**2.8** ↑	**5.0** ↑	1.8	3.2	2.7	2.5	6.5	6.3	3.3	2.2
Western Europe	5.6	3.4	0.1	3.0	0.6	-1.4	-1.0	1.2	0.9	8.2	10.3	7.1	3.2
Euro area	5.3	3.3	0.2	3.3	0.8	-1.3	-1.0	1.5	1.0	8.0	10.3	6.8	2.9
Germany	3.4	1.8	-0.1	0.4	1.1	-1.5	-1.5	1.5	1.0	8.3	11.5	9.1	3.7
France	6.8	2.5	0.2	2.0	0.6	-0.5	-1.5	1.5	1.0	5.9	7.4	6.5	3.9
Italy	6.7	3.7	0.2	4.4	2.0	-2.0	-2.0	1.8	1.8	7.4	12.2	7.5	1.2
Spain	5.5	4.5	0.8	6.0	0.9	-2.0	-0.5	2.5	2.0	8.9	7.4	5.8	4.5
Norway	4.2	3.6	0.5	5.1	3.3	0.0	-1.5	0.3	0.8	5.8	6.8	5.3	2.7
Sweden	4.8	3.1	-0.1	3.6	1.5	-0.8	-1.8	0.0	0.8	7.4	11.6	9.3	4.2
United Kingdom	7.5	4.3	-0.6	0.9	-0.7	-2.2	-0.8	0.0	0.4	9.2	11.0	8.3	4.6
EMEA EM	6.6	2.2	0.6	-6.8	1.2	0.2	1.1	2.2	0.8	23.8	24.5	14.5	15.0
Czech Republic	3.3	2.7	0.6	1.8	-1.3	0.8	0.0	2.3	2.0	15.8	15.5	8.2	6.1
Hungary	7.1	5.2	0.9	3.2	-1.6	0.5	-0.3	2.0	2.8	10.6	21.8	18.8	6.8
Israel	8.5	6.4	2.6	7.3	2.1	2.8	2.5	2.3	2.0	4.2	5.0	3.7	2.4
Poland	6.8	5.8	0.6	-8.9	3.6	0.8	-0.5	1.5	2.3	13.9	17.7	14.0	8.2
Romania	6.0	5.0	3.3	5.3	5.3	2.0	2.8	3.6	4.1	14.4	16.4	11.6	10.9
Russia	4.7	-2.8	-1.2	-22.6	0.5	-2.0	-0.5	2.0	2.0	16.9	12.4	3.3	5.0
South Africa	4.9	1.9	0.5	-2.9	1.8	0.6	1.0	0.5	0.5	6.6	7.4	5.6	4.7
Turkey	11.4	5.5	2.0	8.5	0.0	2.0	5.3	3.2	-5.1	74.1	80.2	50.1	59.5
Global	6.0	2.9	1.6	-0.2	3.0	1.2	1.8	1.6	1.4	7.4	7.6	4.8	3.6
Developed markets	5.3	2.5	0.8	1.6	1.4	0.7	0.4	1.0	0.7	7.6	8.0	5.0	3.0
Emerging markets	7.2	3.4	**2.9** ↑	**-2.9** ↓	**5.6** ↑	1.9	**3.9** ↑	**2.6** ↑	2.4	6.9	6.9	4.5	4.5
Emerging ex China	6.3	3.7	1.8	**1.2** ↓	**2.4** ↑	**1.5** ↑	**2.0** ↑	**2.2** ↑	1.8	11.4	11.2	7.1	7.0
Global — PPP weighted	6.4	3.4	2.0	**-0.8** ↓	**3.4** ↑	**1.3** ↑	**2.1** ↑	1.9	1.8	8.3	8.5	5.4	4.6

Source: J.P. Morgan Global Economics. The long-form nomenclature for China, Hong Kong, and Taiwan is Mainland China, Hong Kong SAR (China), and Taiwan (China)

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G-3 economic outlook detail

	2021	2022	2023	2022 3Q	2022 4Q	2023 1Q	2023 2Q	2023 3Q	2023 4Q
United States									
Real GDP	5.9	1.9	1.0	2.6	1.5	1.0	0.8	0.5	-0.5
Private consumption	8.3	2.8	1.9	1.4	3.2	2.0	1.8	1.3	0.8
Equipment investment	10.3	4.6	2.3	10.8	1.5	2.0	2.0	1.0	-2.0
Non-residential construction	-6.4	-9.1	-2.0	-15.3	-5.0	4.0	4.0	3.5	-4.0
Intellectual property products	9.7	8.8	6.0	6.9	6.5	6.0	5.5	5.5	2.0
Residential construction	10.7	-9.9	-11.8	-26.4	-15.0	-8.0	-6.0	-6.0	-4.0
Inventory change ($ bn saar)	-19.4	115.6	111.3	61.9	75.7	102.7	130.6	135.1	76.7
Government spending	0.6	-0.9	0.1	2.4	1.8	0.0	-1.1	-1.1	-0.7
Exports of goods and services	6.1	7.2	0.0	14.4	-2.0	-3.3	-3.3	-3.3	-3.3
Imports of goods and services	14.1	8.9	1.9	-6.9	5.0	4.5	4.3	1.0	-4.0
Domestic final sales contribution	6.6	1.6	1.3	0.5	2.4	1.7	1.4	1.0	0.3
Inventories contribution	0.3	0.7	0.0	-0.7	0.3	0.5	0.6	0.1	-1.2
Net trade contribution	-1.0	-0.4	-0.3	2.8	-1.2	-1.3	-1.2	-0.6	0.4
Consumer prices (%oya)	4.7	8.1	4.1	8.3	7.3	5.9	4.1	3.4	3.0
Excluding food and energy (%oya)	3.6	6.2	4.2	6.3	6.0	5.3	4.6	3.8	3.2
Core PCE deflator (%oya)	3.5	5.0	3.4	4.9	4.7	4.1	3.7	3.2	2.8
Federal budget balance (% of GDP, FY)	-11.9	-5.4	-4.0						
Personal saving rate (%)	11.9	3.4	2.8	3.3	2.7	3.1	3.0	2.7	2.5
Unemployment rate (%)	5.4	3.6	4.0	3.6	3.6	3.7	3.8	4.0	4.3
Industrial production, manufacturing	5.7	3.8	1.0	1.9	3.0	0.5	0.5	0.2	-3.0
Euro area									
Real GDP	5.3	3.3	0.2	0.8	-1.3	-1.0	1.5	1.0	0.5
Private consumption	3.7	3.7	0.2	1.0	-1.5	-1.5	1.5	1.3	1.0
Capital investment	3.7	2.3	-0.1	1.0	-2.0	-2.0	2.0	1.0	0.0
Government consumption	4.3	1.8	1.3	1.0	1.0	1.5	1.5	1.0	1.0
Exports of goods and services	10.5	7.4	4.0	6.0	3.0	3.0	4.0	4.0	4.0
Imports of goods and services	8.3	7.5	4.1	7.0	3.0	3.0	4.0	4.3	4.3
Domestic final sales contribution	3.7	2.8	0.4	0.9	-1.0	-0.9	1.5	1.1	0.7
Inventories contribution	0.2	0.1	-0.2	0.0	-0.4	-0.2	-0.2	-0.1	-0.3
Net trade contribution	1.3	0.3	0.1	-0.2	0.1	0.1	0.2	0.1	0.1
Consumer prices (HICP, %oya)	2.6	8.5	5.8	9.3	10.3	8.5	6.8	5.0	2.9
ex food, alcohol and energy	1.5	3.9	3.9	4.4	5.0	4.8	4.4	3.7	2.8
General govt. budget balance (% of GDP, FY)	-5.1	-3.6	-3.7						
Unemployment rate (%)	7.7	6.8	7.1	6.7	6.8	7.0	7.1	7.1	7.2
Industrial production	7.9	0.7	0.5	2.0	-2.0	-1.5	2.0	3.0	3.0
Japan									
Real GDP	1.7	1.5	1.6	-1.2	3.5	2.0	1.2	0.5	0.2
Private consumption	1.3	3.1	2.6	1.1	4.5	3.0	2.0	1.2	1.0
Business investment	-0.7	2.3	4.7	6.3	8.0	5.0	3.0	1.0	-2.0
Residential construction	-2.0	-4.4	0.1	-1.7	1.0	1.0	1.0	1.0	1.0
Public investment	-2.7	-6.8	0.4	4.9	-1.0	-0.5	-0.5	-0.5	-0.5
Government consumption	2.1	1.5	0.3	0.0	-1.0	2.0	0.0	-2.0	0.0
Exports of goods and services	11.9	4.6	2.2	7.9	1.5	1.5	1.0	0.5	-1.0
Imports of goods and services	5.1	8.0	3.8	22.6	2.5	2.0	1.0	-0.5	-1.0
Domestic final sales contribution	0.8	1.9	2.2	1.7	3.5	2.9	1.6	0.4	0.2
Inventories contribution	-0.2	0.3	-0.3	-0.4	0.2	-0.8	-0.4	-0.1	0.0
Net trade contribution	1.1	-0.6	-0.3	-2.6	-0.2	-0.1	0.0	0.2	0.0
Consumer prices (%oya)	-0.2	2.4	2.6	2.9	3.5	2.5	2.9	2.1	2.7
ex food and energy	-0.9	0.0	2.0	0.6	1.7	2.3	2.0	1.6	2.0
General govt. net lending (% of GDP, CY)	-8.0	-6.0	-4.4						
Unemployment rate (%)	2.8	2.6	2.4	2.6	2.4	2.4	2.4	2.4	2.4
Industrial production	5.6	1.2	3.7	25.8	5.0	3.0	1.0	-2.0	-2.0
Memo: Global industrial production	2.8	2.0	2.0	7.1	2.1	1.6	1.7	1.7	1.0
%oya				3.1	2.7	1.9	3.0	1.8	1.5

Source: Government agencies and J.P. Morgan Global Economics. Details on request.

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Real GDP

%q/q, saar, underlining denotes forecasts

	2021				2022				2023				2024			
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
United States	6.3	7.0	2.7	7.0	-1.6	-0.6	2.6	1.5	1.0	0.8	0.5	-0.5	-0.5	0.5	2.3	1.8
Japan	-1.3	2.0	-2.5	4.1	0.2	4.6	-1.2	3.5	2.0	1.2	0.5	0.2	0.0	0.6	0.6	0.8
Canada	4.4	-3.1	5.3	6.6	3.1	3.3	1.0	1.0	0.3	0.3	0.8	1.0	1.5	2.0	2.5	2.5
Australia	8.0	2.4	-7.1	16.3	2.9	3.6	2.5	2.4	3.0	2.7	1.9	2.2	2.7	2.7	2.6	2.6
Euro area	-0.3	8.2	9.3	2.1	2.4	3.3	0.8	-1.3	-1.0	1.5	1.0	0.5	0.5	0.8	1.5	1.5
Germany	-2.5	7.9	3.2	-0.1	3.2	0.4	1.1	-1.5	-1.5	1.5	1.0	0.5	0.5	0.8	1.5	1.5
France	0.3	4.3	14.0	2.3	-1.0	2.0	0.6	-0.5	-1.5	1.5	1.0	0.5	0.5	0.8	1.5	1.5
Italy	1.1	10.3	11.7	3.4	0.5	4.4	2.0	-2.0	-2.0	1.8	1.8	0.5	0.5	0.8	1.5	1.5
Spain	-0.9	5.5	13.0	9.4	-0.8	6.0	0.9	-2.0	-0.5	2.5	2.0	1.5	1.0	1.3	1.8	1.8
Norway	-3.9	5.9	11.9	5.2	-1.9	5.1	3.3	0.0	-1.5	0.3	0.8	0.5	0.8	1.3	1.5	1.5
New Zealand	7.1	9.7	-14.8	12.6	-0.9	7.0	0.6	2.3	1.9	1.5	3.6	2.5	2.3	1.4	3.2	1.7
Sweden	6.9	3.7	6.7	5.4	0.7	3.6	1.5	-0.8	-1.8	0.0	0.8	0.3	0.8	0.8	1.3	1.5
United Kingdom	-4.6	28.8	7.3	6.6	2.8	0.9	-0.7	-2.2	-0.8	0.0	0.4	0.4	0.0	0.0	0.8	1.0
Argentina	15.0	-2.4	16.4	6.7	4.8	4.2	3.4	-4.0	1.0	-2.0	-2.0	0.0	-5.0	-2.0	0.0	4.0
Brazil	4.3	-1.1	0.2	3.1	4.6	5.0	2.2	-0.8	-1.0	-0.6	0.8	1.4	1.6	1.6	1.8	1.8
Chile	15.9	5.6	19.0	7.1	-2.7	0.6	-4.6	-1.8	-1.4	0.0	1.0	2.0	2.0	2.0	5.0	5.0
Colombia	13.8	-8.6	28.3	11.9	5.9	5.2	6.4	-2.0	-2.0	2.0	1.5	1.5	2.0	2.0	2.0	2.0
Ecuador	6.2	9.0	1.6	2.9	1.8	0.5	2.5	2.0	2.0	2.5	3.3	2.5	2.0	2.5	3.0	3.5
Mexico	2.0	3.8	-2.1	1.2	4.6	3.7	4.2	1.0	1.3	1.0	0.7	0.9	0.9	1.1	2.0	1.0
Peru	-3.1	3.1	12.5	2.2	-2.0	1.0	4.5	3.4	2.5	2.0	1.0	1.0	2.5	4.0	5.0	5.0
China	3.3	8.9	-4.2	8.1	6.5	-7.3	9.0	2.4	5.9	3.0	3.0	5.5	7.5	7.5	6.1	5.0
Hong Kong	25.3	-6.6	2.8	0.0	-11.1	4.1	-10.0	9.0	2.5	3.5	4.2	4.0	4.2	4.2	3.3	3.3
Indonesia	5.8	4.7	-3.3	13.5	4.3	7.8	-0.7	2.0	4.0	3.8	3.3	3.2	3.2	3.5	4.0	5.0
India	13.5	-22.2	28.0	8.2	7.9	6.5	3.5	4.8	4.8	4.5	4.5	4.0	4.0	4.5	5.0	5.0
Korea	7.1	3.4	0.9	5.5	2.6	3.0	1.1	1.3	1.5	1.5	1.0	1.0	1.8	1.8	2.5	2.5
Malaysia	9.9	-3.3	-10.4	19.7	16.3	14.7	7.7	0.0	3.5	3.2	3.0	2.5	2.5	2.0	2.0	2.0
Philippines	5.4	0.4	11.9	13.8	6.6	-0.5	12.3	4.0	4.0	3.8	3.8	3.5	3.5	3.5	3.5	3.5
Singapore	12.4	-3.2	6.1	9.5	3.1	-1.0	2.0	1.8	1.8	1.3	1.0	1.0	3.0	3.0	2.0	3.0
Taiwan	12.2	-3.7	1.8	10.1	6.5	-7.0	6.6	2.2	2.3	1.8	1.5	2.2	2.6	2.6	3.0	3.0
Thailand	2.0	1.8	-4.1	7.1	4.7	2.8	5.0	1.8	3.2	2.7	2.5	2.7	3.0	3.0	3.0	3.0
Czech Republic	-2.0	5.7	7.0	3.4	2.5	1.8	-1.3	0.8	0.0	2.3	2.0	1.8	1.8	2.0	2.0	2.5
Hungary	5.2	10.3	4.2	9.0	6.6	3.2	-1.6	0.5	-0.3	2.0	2.8	2.3	2.0	1.8	2.5	3.3
Poland	5.7	8.2	10.8	7.4	17.9	-8.9	3.6	0.8	-0.5	1.5	2.3	2.8	2.3	2.5	2.8	3.0
Romania	1.9	13.0	-13.9	6.8	6.1	5.3	5.3	2.0	2.8	3.6	4.1	3.6	4.1	4.9	6.1	6.6
Russia	2.5	8.2	2.2	5.9	-0.5	-22.6	0.5	-2.0	-0.5	2.0	2.0	2.0	2.0	2.0	1.8	1.5
South Africa	3.3	5.7	-7.0	5.6	7.2	-2.9	1.8	0.6	1.0	0.5	0.5	0.0	0.5	1.5	1.5	2.0
Israel	-0.2	16.5	7.3	19.6	-3.4	7.3	2.1	2.8	2.5	2.3	2.0	1.5	2.5	4.0	5.0	4.0
Turkey	10.9	8.2	11.3	6.5	2.7	8.5	0.0	2.0	5.3	3.2	-5.1	0.0	-2.0	3.6	5.3	8.2
Global	3.9	6.1	3.2	6.4	2.4	-0.2	3.0	1.2	1.8	1.6	1.4	1.5	1.9	2.4	2.9	2.61
Developed market economies	2.9	7.6	4.2	5.5	0.3	1.6	1.4	0.7	0.4	1.0	0.7	0.1	0.1	0.7	1.8	1.6
Emerging economies	5.5	3.9	1.6	7.7	5.5	-2.9	5.6	1.9	3.9	2.6	2.4	3.7	4.7	5.0	4.6	4.2
G-7	2.9	7.5	3.7	5.4	-0.2	0.9	1.5	0.9	0.4	0.9	0.6	-0.1	-0.1	0.6	1.8	1.6
Latin America	5.7	0.7	5.4	3.9	3.8	3.9	2.8	-0.4	0.1	0.2	0.6	1.2	0.8	1.3	2.1	2.3
Emerging Asia	5.7	3.4	0.6	8.4	6.1	-3.3	6.8	2.6	5.0	3.1	3.0	4.6	6.0	6.0	5.2	4.6
Emerging Europe[1]	4.6	8.5	4.9	6.3	4.4	-8.8	1.1	-0.1	1.0	2.3	0.7	1.8	1.3	2.6	3.0	3.7

Source: J.P. Morgan Global Economics. The long-form nomenclature for China, Hong Kong, and Taiwan is Mainland China, Hong Kong SAR (China), and Taiwan (China)

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Real GDP

%oya, underlining denotes forecasts

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
The Americas	2.3	1.4	2.2	2.8	2.0	-3.5	6.0	2.2	0.9	0.6
United States	2.7	1.7	2.2	2.9	2.3	-2.8	5.9	1.9	1.0	0.4
Canada	0.7	1.0	3.0	2.8	1.9	-5.2	4.5	3.2	0.8	1.5
Argentina	2.7	-2.1	2.8	-2.6	-2.0	-9.9	10.4	4.7	-0.6	-1.8
Brazil	-3.5	-3.3	1.3	1.8	1.2	-3.9	4.6	2.8	0.2	1.4
Chile	2.2	1.8	1.4	4.0	0.8	-6.0	11.7	2.5	-1.2	2.5
Colombia	3.0	2.1	1.4	2.6	3.2	-7.0	10.7	8.0	0.9	2.0
Ecuador	0.1	-1.2	2.4	1.3	0.0	-7.8	4.2	2.2	2.3	2.5
Mexico	3.3	2.6	2.1	2.2	-0.2	-8.1	4.8	2.8	1.6	1.0
Peru	3.3	4.0	2.5	4.0	2.2	-11.0	13.6	2.5	2.3	2.5
Uruguay	0.4	0.5	1.6	0.5	0.4	-6.1	4.4	5.2	1.9	2.0
Asia/Pacific	5.2	5.1	5.2	4.9	4.0	-0.9	6.3	3.2	3.2	4.1
Japan	1.6	0.7	1.7	0.6	-0.4	-4.6	1.7	1.5	1.6	0.4
Australia	2.3	2.7	2.4	2.8	2.0	-2.1	4.9	4.0	2.6	2.5
New Zealand	3.7	4.0	3.5	3.4	2.9	-2.1	5.6	2.1	2.3	2.4
China	6.8	6.7	6.8	6.6	6.1	2.2	8.1	2.9	4.0	6.0
Hong Kong	2.4	2.2	3.8	2.8	-1.7	-6.5	6.3	-2.9	2.7	3.9
India	8.0	8.3	6.8	6.5	4.0	-7.3	8.7	7.1	4.4	4.5
Indonesia	4.9	5.0	5.1	5.2	5.0	-2.1	3.7	4.8	3.1	4.1
Korea	2.8	2.9	3.2	2.9	2.2	-0.7	4.1	2.7	1.4	1.7
Malaysia	5.0	4.4	5.7	4.9	4.4	-5.5	3.1	9.2	3.7	2.4
Philippines	6.3	7.1	6.9	6.3	6.1	-9.5	5.7	7.0	4.6	3.6
Singapore	3.0	3.6	4.7	3.7	1.1	-4.1	7.6	3.0	1.4	2.1
Taiwan	1.5	2.2	3.3	2.8	3.1	3.4	6.6	3.0	2.0	2.5
Thailand	3.1	3.4	4.2	4.2	2.2	-6.2	1.5	3.1	2.7	2.9
Africa/Middle East	1.8	2.8	2.9	3.0	2.4	-3.9	6.9	4.4	1.6	2.0
South Africa	1.3	0.7	1.2	1.5	0.3	-6.3	4.9	1.9	0.5	0.7
Euro area	1.9	1.8	2.8	1.8	1.6	-6.3	5.3	3.3	0.2	0.9
Germany	1.2	2.1	3.0	1.0	1.2	-4.9	3.4	1.8	-0.1	0.9
France	1.1	1.0	2.4	1.8	1.9	-7.9	6.8	2.5	0.2	0.9
Italy	0.6	1.4	1.7	0.8	0.5	-9.1	6.7	3.7	0.2	1.0
Spain	3.8	3.0	3.0	2.3	2.0	-11.3	5.5	4.5	0.8	1.5
Norway	1.4	0.2	2.4	2.7	2.1	-3.0	4.2	3.6	0.5	0.9
Sweden	4.2	1.8	2.8	2.0	2.0	-2.3	4.8	3.1	-0.1	0.7
United Kingdom	2.4	2.2	2.4	1.7	1.6	-11.0	7.5	4.3	-0.6	0.3
Bulgaria	6.4	6.2	-5.5	0.4	1.8	0.6	0.9	2.0	2.5	0.0
Czech Rep.	5.4	2.5	5.2	3.2	3.0	-5.8	3.3	2.7	0.6	1.9
Hungary	3.7	2.2	4.3	5.4	4.6	-4.8	7.1	5.2	0.9	2.2
Poland	4.2	3.1	4.8	5.9	4.4	-2.0	6.8	5.8	0.6	2.5
Romania	3.0	4.7	7.3	4.5	4.2	-3.8	6.0	5.0	3.3	4.5
Russia	-2.0	0.2	1.8	2.8	2.2	-2.7	4.7	-2.8	-1.2	2.0
Israel	2.2	4.5	4.4	4.2	4.1	-1.8	8.5	6.4	2.6	3.0
Turkey	6.1	3.3	7.5	3.0	0.8	1.9	11.4	5.5	2.0	1.0
All Europe	2.0	1.9	3.0	2.1	1.8	-6.0	5.8	3.1	0.1	1.0
Global	3.3	2.9	3.6	3.4	2.7	-3.2	6.0	2.9	1.6	2.0
Developed markets	2.3	1.6	2.4	2.3	1.7	-4.5	5.3	2.5	0.8	0.6
G-7	2.1	1.5	2.3	2.2	1.7	-4.6	5.3	2.2	0.7	0.5
Emerging Economies	4.9	4.8	5.3	5.1	4.2	-1.1	7.2	3.4	2.9	4.2
Latin America	0.4	-0.3	1.8	1.7	0.6	-6.6	6.6	3.4	0.7	1.2
Emerging Asia	6.2	6.2	6.2	6.0	5.2	0.0	7.4	3.6	3.7	5.1
ex China	5.0	5.2	5.1	4.8	3.3	-4.1	5.9	4.7	3.0	3.3
ex China and India	3.5	3.7	4.2	3.9	3.0	-2.5	4.5	3.6	2.4	2.8
Emerging Europe	1.9	1.9	4.3	3.6	2.6	-2.0	6.6	1.7	0.3	2.1

Source: J.P. Morgan Global Economics. The long-form nomenclature for China, Hong Kong, and Taiwan is Mainland China, Hong Kong SAR (China), and Taiwan (China)

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Consumer prices

underlining denotes forecasts

	2021				2022				2023				2024			
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
%q/q, saar																
United States	4.1	8.2	6.7	7.9	9.2	10.5	5.7	4.0	3.4	3.2	3.1	2.4	2.4	2.4	2.4	2.4
Japan	1.5	-2.2	1.8	1.1	3.0	4.0	3.3	4.3	-1.7	4.6	1.5	4.7	2.5	2.4	1.2	2.4
Euro area	5.2	2.2	4.4	6.8	11.4	9.8	9.2	11.7	5.0	3.0	1.7	1.9	1.8	1.8	1.8	1.8
United Kingdom	2.3	4.3	4.5	8.6	7.5	16.4	7.8	9.0	4.8	2.7	2.0	3.5	3.2	1.9	1.1	2.7
%oya																
United States	1.9	4.8	5.3	6.7	8.0	8.6	8.3	7.3	5.9	4.1	3.4	3.0	2.8	2.6	2.4	2.4
Japan	-0.5	-0.7	-0.2	0.5	0.9	2.4	2.9	3.5	2.5	2.9	2.1	2.7	3.3	2.8	2.7	2.1
Canada	1.4	3.3	4.1	4.7	5.8	7.5	7.2	7.0	5.1	2.5	2.5	2.0	2.0	2.0	2.0	2.0
Australia	1.1	3.8	3.0	3.5	5.1	6.1	7.3	7.6	6.5	5.6	4.4	3.5	3.0	2.8	2.8	2.7
Euro area	1.1	1.8	2.8	4.6	6.1	8.0	9.3	10.3	8.5	6.8	5.0	2.9	2.1	1.8	1.8	1.8
Germany	1.7	2.2	3.5	5.4	6.1	8.3	9.4	11.5	10.7	9.1	7.1	3.7	0.0	0.0	0.0	0.0
France	1.0	1.8	2.2	3.3	4.2	5.9	6.5	7.4	7.7	6.5	5.5	3.9	0.0	0.0	0.0	0.0
Italy	0.7	1.2	2.1	3.7	6.0	7.4	8.9	12.2	8.5	7.5	5.3	1.2	0.0	0.0	0.0	0.0
Spain	0.5	2.3	3.4	5.8	7.9	8.9	10.0	7.4	6.6	5.8	3.9	4.5	0.0	0.0	0.0	0.0
Norway	3.0	2.8	3.5	4.6	3.8	5.8	6.7	6.8	7.1	5.3	3.5	2.7	1.8	1.4	1.6	1.8
New Zealand	1.5	3.3	4.9	5.9	6.9	7.3	7.2	7.2	6.6	5.6	4.0	3.4	2.6	2.4	2.4	2.2
Sweden	1.5	1.8	2.0	3.3	4.7	7.4	9.7	11.6	12.4	9.3	5.9	4.2	2.8	2.2	1.9	2.7
United Kingdom	0.6	2.0	2.8	4.9	6.2	9.2	10.0	11.0	10.6	8.3	6.8	4.6	3.9	2.7	2.4	2.2
Argentina	38.3	46.5	50.7	51.4	54.1	61.8	78.1	94.0	106.7	111.3	109.6	111.6	107.8	94.6	80.9	62.1
Brazil	5.3	7.7	9.6	10.5	10.7	11.9	8.6	6.1	5.2	3.3	4.7	5.2	4.8	4.4	4.2	3.9
Chile	2.9	3.6	4.9	6.6	8.3	11.5	13.6	12.8	11.0	8.5	6.3	5.5	0.0	0.0	0.0	0.0
Colombia	1.6	3.0	4.3	5.2	7.8	9.3	10.8	12.2	12.2	11.1	9.1	7.4	5.3	4.4	4.2	4.1
Ecuador	-0.9	-1.1	0.8	1.8	2.6	3.5	3.9	4.1	3.4	2.6	2.4	2.5	2.5	2.6	2.5	2.1
Mexico	4.0	6.0	5.8	7.0	7.3	7.8	8.5	8.5	8.0	6.8	5.8	5.3	4.9	3.9	3.5	3.5
Peru	2.6	2.7	4.7	6.0	6.2	8.3	8.6	7.6	7.1	5.2	4.0	3.8	3.6	3.3	3.4	3.4
China	0.0	1.1	0.8	1.8	1.1	2.2	2.7	2.4	2.9	1.7	1.4	1.9	2.3	2.7	3.0	3.1
Hong Kong	1.2	0.8	2.3	2.0	1.5	1.5	2.7	2.6	2.5	2.8	2.0	1.9	1.9	2.2	2.4	2.4
Indonesia	1.4	1.5	1.6	1.8	2.3	3.8	5.0	5.4	4.8	3.6	2.8	2.6	2.5	2.4	2.4	2.4
India	4.9	5.6	5.1	5.0	6.3	7.3	7.0	6.5	6.4	5.0	5.3	5.7	5.3	5.4	5.0	4.7
Korea	1.4	2.5	2.5	3.5	3.8	5.4	5.9	5.1	4.6	3.2	2.5	2.6	2.2	1.7	1.6	1.5
Malaysia	0.5	4.2	2.1	3.2	2.2	2.8	4.5	3.7	3.3	2.8	2.2	2.2	2.1	1.9	1.9	2.1
Philippines	4.0	4.0	4.1	3.6	3.4	5.5	6.5	7.7	7.3	5.4	4.0	2.6	2.5	2.7	2.8	3.0
Singapore	0.8	2.3	2.5	3.7	4.6	5.9	7.3	6.9	6.5	5.3	3.8	3.0	2.0	1.3	1.2	1.2
Taiwan	0.8	2.1	2.3	2.7	2.8	3.5	2.9	2.6	2.2	1.7	2.0	2.0	1.9	1.8	1.9	2.1
Thailand	-0.5	2.4	0.7	2.4	4.7	6.5	7.3	6.3	5.2	3.3	2.6	2.2	1.8	1.6	1.5	1.6
Czech Republic	2.2	2.9	4.1	6.1	11.2	15.8	17.6	15.5	12.2	8.2	5.5	6.1	4.5	3.8	3.9	3.8
Hungary	-1.1	2.6	1.3	4.2	8.2	10.6	16.5	21.8	21.5	18.8	12.7	6.8	5.3	4.8	4.5	4.4
Poland	2.9	4.3	4.9	7.3	9.5	13.9	16.3	17.7	18.4	14.0	11.3	8.2	5.8	5.3	5.1	5.0
Romania	3.1	3.6	5.5	8.0	9.0	14.4	15.4	16.4	16.2	11.6	10.9	10.9	10.4	9.9	9.1	8.0
Russia	5.5	6.0	6.9	8.3	11.5	16.9	14.4	12.4	9.1	3.3	4.8	5.0	4.5	4.2	4.4	4.4
Israel	-0.1	1.3	2.2	2.5	3.4	4.2	4.8	5.0	4.4	3.7	2.7	2.4	2.1	2.0	2.1	2.1
South Africa	3.1	4.8	4.9	5.4	5.8	6.6	7.7	7.4	7.0	5.6	4.5	4.7	4.6	4.6	4.5	4.5
Turkey	15.6	17.1	19.3	25.8	54.8	74.1	81.1	80.2	57.8	50.1	58.2	59.5	55.6	52.1	42.3	38.6
Global	1.5	3.0	3.4	4.7	5.8	7.4	7.7	7.6	6.5	4.8	4.1	3.6	3.3	3.1	3.0	2.9
Developed market economies	1.3	3.1	3.7	5.1	6.3	7.6	8.0	8.0	6.6	5.0	4.0	3.0	2.7	2.4	2.2	2.2
Emerging economies	1.9	3.0	3.1	4.1	5.0	6.9	7.3	6.9	6.2	4.5	4.3	4.5	4.3	4.3	4.2	4.1
G-7	1.3	3.2	3.8	5.2	6.3	7.5	7.7	7.7	6.5	5.0	4.0	3.1	2.3	2.0	1.9	1.8
Latin America	4.2	6.1	7.2	8.3	8.9	10.1	9.2	8.0	7.3	5.6	5.5	5.3	4.4	3.8	3.6	3.4
Emerging Asia	0.8	1.9	1.6	2.4	2.2	3.4	3.8	3.5	3.7	2.5	2.1	2.5	2.6	2.8	3.0	3.0
Emerging Europe	6.5	7.5	8.6	11.4	19.9	27.8	29.0	28.4	22.2	16.6	17.9	17.5	15.9	14.8	12.7	11.9

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Central Bank Watch

	Official rate	Current rate (%pa)	4-qrtr change (bp) Last	4-qrtr change (bp) Next	Last change	Next mtg	Forecast next change	Forecast (%pa) Dec 22	Mar 23	Jun 23	Sep 23	Dec 23
Global		3.51	204	68				3.81	4.11	4.08	4.22	4.19
excluding US		3.32	150	56				3.54	3.78	3.72	3.92	3.88
Developed		2.70	256	87				3.13	3.56	3.56	3.56	3.56
Emerging		4.77	122	39				4.86	4.97	4.88	5.24	5.16
Latin America		11.68	605	-139				11.94	12.03	11.72	11.03	10.29
EMEA EM		7.53	147	328				7.33	7.41	7.34	10.85	10.81
EM Asia		3.24	47	11				3.36	3.48	3.41	3.35	3.35
The Americas		4.95	402	67				5.40	5.84	5.80	5.71	5.62
United States	Fed funds	4.00	375	100	2 Nov 22 (+75bp)	14 Dec 22	Dec 22 (+50bp)	4.50	5.00	5.00	5.00	5.00
Canada	O/N rate	3.75	350	50	26 Oct 22 (+50bp)	7 Dec 22	7 Dec 22 (+25bp)	4.00	4.25	4.25	4.25	4.25
Brazil	SELIC O/N	13.75	600	-225	3 Aug 22 (+50bp)	7 Dec 22	Jun 23 (-25bp)	13.75	13.75	13.50	12.50	11.50
Mexico	Repo rate	10.00	508	75	10 Nov 22 (+75bp)	15 Dec 22	15 Dec 22 (+50bp)	10.50	10.75	10.75	10.75	10.75
Chile	Disc rate	11.25	850	-425	13 Oct 22 (+50bp)	14 Dec 22	Apr 23 (-75bp)	11.25	11.25	9.50	8.50	7.00
Colombia	Repo rate	11.00	850	-100	28 Oct 22 (+100bp)	16 Dec 22	16 Dec 22 (+100bp)	12.00	12.50	12.50	11.25	10.00
Peru	Reference	7.25	525	-350	10 Nov 22 (+25bp)	7 Dec 22	7 Dec 22 (+25bp)	7.50	7.00	6.00	5.00	3.75
Europe/Africa		2.93	201	148				3.29	3.74	3.72	4.43	4.42
Euro area	Depo rate	1.50	200	100	27 Oct 22 (+75bp)	15 Dec 22	Dec 22 (+50bp)	2.00	2.50	2.50	2.50	2.50
United Kingdom	Bank rate	3.00	290	125	3 Nov 22 (+75bp)	15 Dec 22	Dec 22 (+50bp)	3.50	4.25	4.25	4.25	4.25
Norway	Dep rate	2.50	225	25	3 Nov 22 (+25bp)	15 Dec 22	15 Dec 22 (+25bp)	2.75	3.00	3.00	3.00	2.75
Sweden	Repo rate	1.75	175	125	20 Sep 22 (+100bp)	24 Nov 22	24 Nov 22 (+75bp)	2.50	3.00	3.00	3.00	3.00
Czech Republic	2-wk repo	7.00	425	-100	22 Jun 22 (+125bp)	21 Dec 22	Aug 23 (-25bp)	7.00	7.00	7.00	6.50	6.00
Hungary	Base rate	13.00	1090	0	27 Sep 22 (+125bp)	22 Nov 22	On hold	13.00	13.00	13.00	13.00	13.00
Israel	Base rate	**3.25**	315	25	21 Nov 22 (+50bp)	2 Jan 23	**2 Jan 23 (+25bp)**	3.25	3.50	3.50	3.50	3.50
Poland	7-day interv	6.75	550	0	7 Sep 22 (+25bp)	7 Dec 22	Mar 24 (-25bp)	6.75	6.75	6.75	6.75	6.75
Romania	Base rate	6.75	500	100	8 Nov 22 (+50bp)	10 Jan 23	10 Jan 23 (+25bp)	6.75	7.00	7.25	7.50	7.75
Russia	Key pol rate	7.50	0	-50	16 Sep 22 (-50bp)	16 Dec 22	Apr 23 (-25bp)	7.50	7.50	7.25	7.00	7.00
South Africa	Repo rate	6.25	250	100	22 Sep 22 (+75bp)	24 Nov 22	Nov 22 (+75bp)	7.00	7.50	7.50	7.50	7.25
Turkey	1-wk repo	10.50	-1500	1950	20 Oct 22 (-150bp)	24 Nov 22	Nov 22 (-150bp)	9.00	9.00	9.00	30.00	30.00
Asia/Pacific		2.64	50	11				2.75	2.85	2.80	2.74	2.75
Australia	Cash rate	2.85	275	50	1 Nov 22 (+25bp)	6 Dec 22	Dec 22 (+25bp)	3.10	3.10	3.10	3.10	3.35
New Zealand	Cash rate	3.50	275	100	5 Oct 22 (+50bp)	23 Nov 22	Nov 22 (+75bp)	4.25	4.75	4.75	4.75	4.50
Japan	Pol rate IOER[1]	-0.10	-6	0	28 Jan 16 (-20bp)	20 Dec 22	On hold	-0.10	-0.10	-0.10	-0.10	-0.10
Hong Kong	Disc. wndw	4.25	-50	100	3 Mar 20 (-50bp)	-	Dec 22 (+50bp)	4.75	5.25	5.25	5.25	5.25
China	1-yr MLF	2.75	-20	-20	15 Aug 22 (-10bp)	-	2Q 23 (-10bp)	2.75	2.75	2.65	2.55	2.55
Korea	Base rate	3.00	200	75	12 Oct 22 (+50bp)	24 Nov 22	Nov 22 (+25bp)	3.25	3.75	3.75	3.75	3.75
Indonesia	BI RRR	5.25	175	50	17 Nov 22 (+50bp)	22 Dec 22	22 Dec 22 (+25bp)	5.50	5.75	5.75	5.75	5.75
India	Repo rate[2]	5.90	190	85	30 Sep 22 (+50bp)	7 Dec 22	Dec 22 (+50bp)	6.40	6.75	6.75	**6.75**	**6.75**
Malaysia	O/N rate	2.75	-175	50	3 Nov 22 (+25bp)	19 Jan 23	Jan 23 (+25bp)	2.75	3.25	3.25	3.25	3.25
Philippines	Rev repo	5.00	300	75	17 Nov 22 (+75bp)	15 Dec 22	Dec 22 (+50bp)	5.50	5.75	5.75	5.75	5.75
Thailand	1-day repo	1.00	50	75	28 Sep 22 (+25bp)	30 Nov 22	Nov 22 (+25bp)	1.25	1.75	1.75	1.75	1.75
Taiwan	Official disc.	1.63	50	25	22 Sep 22 (+12.5bp)	15 Dec 22	15 Dec 22 (+13bp)	1.75	1.88	1.88	1.88	1.88

Source: J.P. Morgan. [1] BoJ sets the policy rate on IOER (O/N) and targets 10-year JGB yields as policy guidance

Bold denotes move since last GDW and forecast changes. Underline denotes policy meeting during upcoming week. Aggregates are GDP-weighted averages.

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