The J.P. Morgan View – Global Asset Allocation

Increase allocation to commodities

Global Markets Strategy

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Cross-Asset Strategy: The impressive US employment report suggests businesses remain in expansion mode despite a number of drags. Given diminishing risks of a more negative shift in behaviour, low positioning in risky assets and widespread negativity in sentiment, as well as robust nominal GDP and revenue growth, risky assets have seen a recovery. With commodities lagging other risky assets, we shift some of our risk allocation from equities to commodities.

JPM Clients' View: Click here to take this week's survey. This week we poll investors on the equity rally drivers, Q2 earnings, geopolitics, and the BOE, in addition to our running sentiment questions. Our last survey results indicated: (1) equity exposure/sentiment among respondents is ~50th percentile on average; (2) 44% plan to increase equity exposure, and 54% to decrease bond duration near term; (3) 64% believe the US is not currently in recession; (4) 72% don't think the July FOMC meeting represented a dovish pivot, and 67% expect the Fed to hike 50bps in Sep; (5) most (71%) expect US house prices to decrease moderately over the next year.

Increase allocation to commodities

Robust nominal GDP growth has helped both revenue and earnings estimates for the S&P500 index to exhibit resilience despite the US real GDP contraction during the first half of the year. Over the past year Revenues per Share of the S&P500 index are up by 13.1% yoy. Excluding the Energy sector Revenues per Share are still up significantly by 7.9% yoy. While we acknowledge that recession risks remain elevated, we note that the US Economic Activity Surprise Index has rebound in July. In a similar fashion to recent economic releases, the latest US payroll report casts doubt to the idea that the US economy is in recession. Better than feared economic data are inducing equity and credit markets to price out recession risk

Asset Allocation

GAA Long-only portfolio allocation

Major Asset Classes	Active Weights	Prior Month	Δ	UW | OW
Equities	11%	12%	↓	
Govt. Bonds	-9%	-9%		
Corp. Bonds	-8%	-8%		
Commodities	8%	7%	↑	
Cash	-2%	-2%		

Source: J.P. Morgan.

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Cross Asset Strategy

Asset Allocation

Growth risks remain elevated against a backdrop of elevated inflation and tightening of financial conditions. Regionally Europe is losing momentum and July manufacturing PMIs suggest smaller than expected lift from China's reopening thus far. But the impressive US employment report suggests businesses remain in expansion mode despite a number of drags. This supports labor income and, together with falling gasoline prices provides purchasing power relief, diminishing risks of a more negative shift in behavior. Given diminishing risks, low positioning in risky assets and widespread negativity in sentiment, as well as positive surprises in the 2Q earnings season, risky assets have seen a recovery. With commodities lagging other risky assets, we shift some of our risk allocation from equities to commodities. To fund a sizeable OW in equities and commodities, we are UW in both government and corporate bonds, and with a relative weight on both that keeps us UW credit as a partial hedge to the model portfolio's pro-risk stance. Within equities defensive stocks still look expensive while cyclicals/growth/small-caps present more attractive risk reward. We like Energy and Healthcare in the US. Outside the US, we are OW mining and banks, and UW traditional defensives. We retain an OW in EM equities supported by an elevated P/E discount to DM and by a positive outlook on commodity prices. In rates we continue to favor curve flatteners in the US, UWs in Germany vs. US as well as Italy spread wideners. In FX, our strategists keep a defensive and long dollar stance.

In **Equities**, we continue to look for upside into year-end for a number of reasons: absolute and relative valuations, low positioning, overly bearish sentiment, Fed hiking being priced-in, strong USD peaking, firm housing prices, and consumer cushioned by excess savings from COVID period. The percent of companies beating earnings estimates is moderating relative to recent quarters, closer to longer-term averages in the US, with Energy producing the bulk of the revenue and earnings surprise. As for historical comparisons on valuation, current multiples in the US are roughly in-line with median multiples when the bond yield was ~3%. Based on the longer history, during periods when GDP growth was low i.e. 1-2%, we saw historical multiples supported until 10y bond yields reached 3.5-4%. We think the call of peak Fed hawkishness, peak yields, and peak yields is playing out paving the way to a more balanced policy. A better growth policy tradeoff is making us tactically bullish on Growth vs Value, given the potential for a more balanced Fed with lower PMI's and milder inflation, given the rolling over in commodity prices. Defensives continue to manifest the worst relative valuations vs historical. In Japan, we expect equities to outperform from autumn onwards, based on reopenings and also expectations for YCC to be adjusted. Profits in Japan are showing strong progress toward full year guidance, with half of the market's expected profit growth coming from factors other than the yen. In Emerging Markets, the rebound in Growth should continue in 2H with US yields remaining range-bound, while Value can continue to outperform in the long-term with commodities remaining elevated, despite coming off their highs. EM earnings have been in a downgrade cycle since February, and historical comparisons suggest the worst is behind us. EM equities tend to bottom before EPS downgrades, and we expect EM EPS to bottom in 2H. In Brazil, we see the rally in cyclical domestics as a short covering move, as it is too early to get bullish on domestics given rates will stay high and inflation expectations are far from anchored. We are OW Brazil, one of the cheapest markets in the world, due to valuation and we see it returning to the 1Q highs by year-end. In Latam, we review the impact of the strong dollar, which we think will be milder thanks to better external positions and low net Debt/Ebitda levels. In SMid, we see the sell-off in SMid Materals as an opportunity with many stocks already discounting a major economic slowdown.

Bond yields reversed their declines from last week given the strong US labor market report, cementing the case for a 75bp hike in September. Valuations remain rich and we expect higher yields and a more inverted curve in the medium term. In Europe, we expect a mild contraction in coming quarters due to the real income shock from inflation not to mention concerns over natural gas supplies. ECB will likely struggle to deliver on market expectations of 120bp of rate hikes by mid-2023, and our strategists stay long 5Y Germany vs. US. Intra-EMU, political uncertainty keeps us UW 10Y Italy vs Germany. In EM, we remain neutral on local duration, given geopolitical tensions with China, global tightening of financial conditions, and energy squeeze in Europe.

In **Credit**, assuming we are in a phase where some hikes are ahead of us while data is revealing the extent of the slowdown, all-in corporate bond yields may not move much in this phase, with a redistribution of interest rate and credit risk. HG bond spreads drift lower despite the headwinds of lower UST yields and an active supply calendar. In HG, as this is the 3rd rally of the year, market discussion has shifted somewhat from concerns about inflation, monetary policy and recession to a focus on valuation and how much negativity is priced in. EUR spreads are widest to USD spreads in 10 years, so we favor EUR securities of US issuers which have widened in sympathy with EUR peers. In Euro IG, the lack of supply has been a recurrent theme, and September will offer the first glimpse of appetite for corporate supply in the absence of purchases from ECB corporate bond programs. An uptick in supply is likely to weigh on secondary market performance. In Europe, we revised our YE spread targets wider in HG and HY, although cautious investor positioning implies a slower path to wider spreads. We remain cautious on Europe despite the restart of NordStream as energy remains the single biggest risk for markets. In EM Sovereigns, we revised our spread forecasts higher, with the force behind major underperformance has been high-beta, rather than a country's commodity profile.

In **Currencies**, despite the strong jobs numbers and ECI, we see USD strength as rooted in economic weakness outside the US which is largely Fed invariant. Business surveys in Europe are sliding given the rise in natural gas prices, and we retain core euro bloc (EUR, GBP) shorts vs USD and CHF as our highest conviction views. In EM FX, we continue to be UW as EM real yields are insufficient relative to current account deficits and commodity price headwinds.

In **Commodities**, we see the 100kbd increase in supply from OPEC+ as largely symbolic, with the muted increase reflecting OPEC's defensive stance, protecting the downside in prices. Oil prices are down 20% off the March peak, reflecting the repricing of the worst case scenarios for Russian export volumes rather than the risk of full-on recession. We see global oil stabilizing in the low-100s in 2H22, as demand dips during slowdowns have historically been short-lived, and in this case is cushioned by supply constraints. In Base Metals, we think the recent relief rally will be short-lived given worsening demand and risks of oversupply. In US Natural Gas, we see asymmetric upside risk for the rest of the summer until demand destruction manifests. Overall, the global commodity inventory crunch has accelerated even as BCOM has slumped off highs, at close to pre-conflict levels.

Macroeconomic Outlook

Boomy US employment shows resilient firms supporting HH income. Elevated inflation and tightening financial conditions raised the near-term risk of a break in economic performance in which businesses retrench, labor markets deteriorate sharply, and credit conditions tighten materially. If this recession dynamic takes hold, inflation fever would subside and central banks would shift away from tightening. While we have judged the risk of this event occurring this year at an elevated 40%, our baseline entails nuanced macroeconomic dynamics. This includes sub-potential 2H22 DM GDP growth that we expect to ease but not remove inflation pressure and slow but not reverse central bank tightening. However, a genuine soft-landing will be difficult to engineer and outcomes in which a near-term recession is avoided will feed concern of more aggressive central bank action next year. Global activity readings remain downbeat and are a reminder that near-term recession risks remain elevated. Europe is losing momentum and the July manufacturing PMIs suggests that the lift from China's reopening is providing a smaller-than-expected growth dividend. Rising initial jobless claims underscore recession risk in the US, even if seasonal factors may temper the concern. Despite the worries, however, last Friday's impressive US July employment report—jobs are up at a 437K pace over the last three months—suggests businesses remain firmly in expansion mode despite multiple drags. With labor income tracking a boomy current-quarter gain and falling gasoline prices poised to deliver substantial purchasing power relief, risks of a more negative shift in behavior are diminishing

Tight labor markets to keep DM central banks hiking

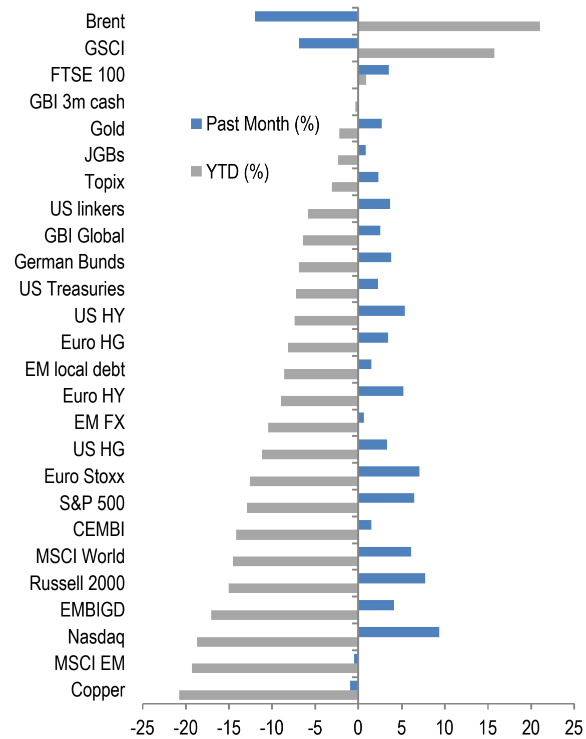
The US unemployment rate fell to its lowest mark in over a half century last month, as participation in the labor force has stopped following employment higher. What's more, Friday's average hourly earnings reading reinforces the ECI report to suggest that hourly labor costs have likely accelerated to a faster than 5%ar. Even with a projected return to trend in productivity growth from a midyear collapse, underlying growth in unit labor costs looks likely to settle well above 3%. We expect such an outturn will keep corporates keen to raise prices at a pace that is unacceptable to the Fed. Given that experience shows that US labor cost pressures do not materially abate without a substantial rise in the unemployment rate, the implication is that the Fed will be pressured into driving a more material slowdown in the economy. The near-term Fed response to this news is straightforward. Despite sluggish growth and an expected slide to a 0.2%m/m July CPI gain this week, the Fed will likely continue to raise policy rates 75bp at its September meeting. The key question is whether it will decide that a material rise in the unemployment rate is necessary to achieve its objectives. If this is the case, its guidance on rates will move significantly higher, alongside a message that it will likely prove to be less sensitive to near-term growth disappointments.

While slide in headline inflation to take pressure off EM CBs. EM central banks with limited credibility began the tightening process in the middle of 2021, with the DM and low yielders joining the fray only after labor markets tightened and inflation pressures broadened. As it became increasingly clear that inflation was reaching unprecedented levels and central banks were broadly behind the curve, a synchronized tightening cycle took hold in 1H22 that raised global policy by 160bp outside China. As we transition into 2H22, an important shift in central bank behavior is likely to take hold. Inflation remains elevated but likely will moderate outside Western Europe as a result of falling oil and agricultural prices, alongside an easing in global supply constraints. At the same time, growth looks to set to remain weak with key regional blocs—Western Europe, CE4, LatAm—expected to contract. In the DM, policymakers will likely remain firmly in the hawkish camp unless they are faced with a tangible recession threat. Despite the DM lead, the EM is seeing an opening to moderate in response to weakening growth and signs of moderating headline inflation. Notably, the latest meetings struck a more dovish tone across a wide group of EM central banks.

Market Recap

Markets snapped last over the past month given ongoing worries around inflation, hawkish central bank rhetoric and growth. Markets increasingly priced in a near-term recession, with equities trading lower than when we published last month's GAA note, commodities selling off sharply, and bonds close to flat. As a result, our model portfolio delivered negative returns and moderately underperformed its benchmark over the past month, given our pro-risk stance and aggressive commodity OW.

Figure 1: Performance across asset classes
Asset class return (%), ranked by YTD return, through Aug 5th



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

Equities

Reasons to look for equity upside into year end. While the activity prints are likely to remain challenging – our M1 lead indicator points to further PMI weakness – and the earnings are seeing negative weekly EPS revisions, we believe that risk-reward for equities is not all bad as we move towards year-end. We cite the following 10 factors that could help risk-reward for stocks in 2H: 1. Valuations look attractive, both in absolute terms and relative to fixed income. International markets in particular trade at 12.6x forward earnings, a 20% discount to historical, so even handicapping earnings the valuation support is there. 2. HF beta and SPX futures positioning is near low end of range. 3. Investor sentiment is overly bearish, with AAII near the lows of last 30 years' range. 4. Post the still likely outsized September hike, Fed is expected to turn much more sensitive to incoming dataflow. This is supported by inflation forwards, which have stabilized. 5. USD could be peaking, and the strength of DXY in 1H was a big detriment for risk taking. 6. The downturn might not need to feed on itself, as Banks' balance sheets are in a strong position. 7. House prices have levelled off, after strong gains, but are likely to stay resilient. Inventory of housing is running at rather low levels. Labour market to soften, but still look robust in a long-term context. 8. Earnings will, in our view, experience only a modest pullback. This is given still elevated pricing power and continued high nominal topline growth. 9. Consumer is likely to be cushioned by excess savings accumulated during the COVID-19 period. 10. The global downcycle is unlikely to be synchronized, as China activity should turn for the better, seen in higher M1 and credit impulse (*Equity Strategy* , Aug 8th).

With 84% of S&P 500 companies having reported, 69% are beating 2Q earnings (vs. 79% avg. last 4Qs) and 67% are beating revenue estimates (vs. 77%). Earnings have surprised to the upside by 3.7% (vs. 11.1% on avg. through past 4Qs) and 5.2% ex-Financials. Interestingly, Energy alone contributed ~61% to overall market revenue surprise and ~99% to its earnings surprise. In fact, ex-Energy, S&P 500 earnings surprise drops to 1.4% for revenue (vs. 2.8% last 4Qs) and 0.1% for earnings (vs. 10.6%). For companies that have reported so far, 2Q revenue growth is around 15.5% y/y and net income growth is 6.6% (vs. 15.1% ex-Financials). Since the beginning of the earnings season, 2Q22E EPS has been revised up 4.0% to $57.44 (+9% y/y), though 2022E EPS has been revised down -1.2% to $225.50 (+8% y/y). The 2022 revision lower has largely been driven by 2H22 EPS estimate cuts (down -3.8% since the start of the earnings season) with current 2H22 EPS expectations now below those at the beginning of the year. In Europe, based on 70% of companies that have reported so far, 63% are beating 2Q EPS estimates and 75% are beating revenue estimates. For companies that have reported, 2Q Revenue Growth is around 26.2% and EPS Growth is 18.0%. In Japan, based on 50% of companies that have reported so far, 66% are beating 2Q earnings and 67% are beating revenue estimates. For companies that have reported, 2Q Revenue Growth is around 15.7% and EPS Growth is 12.4% (*S&P500 Earnings Update*, Aug 5th).

Given the significant market pullback, investors are increasingly asking about equity valuation and how it compares to historical cycles. S&P 500 has seen the second sharpest P/E de-rating of 6.7x (vs. average of 4.5x compression seen during prior recessions). While the current equity multiple of 16.9x is in-line with historical median, we believe it is better than fairly valued given the shift in industry mix to higher quality companies over the last two decades. While equity valuation is a poor timing signal in the short term, it can help frame the upper/lower trading range of the market over the medium term. Post the "Great Inflation" period (since 1980s), there has been a negative relationship between equity multiples and bond yields. Historically, when the 10yr bond yield was at ~3%, S&P 500 equity multiple was also ~16x. Looking at longer history (since late 1800s) and differentiating across various growth regimes, we find an inverse "U" relationship between equity valuation, economic growth, and rates. In short, during periods where real GDP growth was low (e.g., 1-2%), S&P 500 multiples were supported until 10yr bond yields reached 3.5-4% (*Global Equity Strategy*, Jul 28th).

The phase of bad data being interpreted as good is gaining traction, while the call of peak Fed hawkishness, peak yields and peak inflation is playing out. Although the near-term activity outlook remains challenging, we believe that the risk-reward for equities is looking more attractive as we move through 2H. The weak Q2 US GDP print was taken positively by the market as this will open the doors to a more balanced Fed. The gap between breakevens and yields has largely closed and could lead to a softer USD. While we reduced growth and EPS forecasts, we expect equities to be meaningfully higher at YE (*Equity Strategy*, Aug 1st).

Growth - Policy tradeoff is turning as inflation forwards stall; Growth style is bouncing vs Value. Our view is that the Growth–Policy tradeoff is likely to improve as we move through 2H. To be sure, activity momentum is likely to look challenged, through lower PMIs, but the reset in activity is what many want to see to start looking through. Crucially, this could open the doors to a more balanced Fed, and is driving a rollover in bond yields, a potentially peaking USD and a levelling off in inflation. Inflation forwards remain closely tied to the level of Brent, and the broader pullback in commodity prices should be interpreted not only as a sign of a slowdown, but also as bringing relief in inflation pressures. We believe this is one of the angles that is ushering in the phase of "bad data is starting to be seen as good". The turn in rates suggests that the recent better performance of Growth vs Value can continue. We have been arguing to tactically favor Growth over Value, which can also be expressed through a better showing of the Tech sector. Traditional Defensives show the worst relative valuations vs historical, with Staples' relative P/E currently trading at an all-time record, even taking into account the most severe recessions over the past 20-30 years. Within lower beta, our key OW remains Telecoms (*Equity Strategy*, Jul 25th).

Japan Equity strategy in the context of stronger yen, conditions in China, BOJ, and FOMC meetings: The FOMC has decided to increase interest rates by 75bp for a second time in two consecutive months. Amid growing concerns about a recession, the market is waiting for the Fed's hawkish stance to reach a peak. As a tactic during this wait, we recommend (1) stocks (transportation) that stand to benefit from the reopening of Japan's economy and (2) growth stocks with solid earnings, defensive names, and other growth stocks (pharmaceuticals, Internet). From this autumn onward, we expect Japanese equities to outperform alongside mounting expectations for YCC to be adjusted, and reiterate our Overweight stance on the financial sector. For the short term, we also draw attention to export and forex-sensitive stocks, especially stocks highly exposed to China, in light of emerging signs of problems in China's housing market and possible changes in the government's zero-COVID policy for COVID-19. We remain Overweight on these from a medium-term perspective for economic reopenings. The partial unwinding of yen depreciation is unlikely to put strong downward pressure on export-oriented stocks (*Japan Equity Strategy* Aug 1st).

In Japan, profits are being supported by more than just a weak Yen. We expect companies' conservative FX assumptions (average ¥119/USD) to have profits showing strong progress toward full-year guidance, but over half of the market's expected profit growth in FY2022 is coming from factors other than the weak yen. With concern around global recession increasing, we think it makes sense to invest in companies with high dividend yields and share buybacks and have accordingly screened for these (*Japan Equity Strategy*, Jul 14th).

In EM, the recent rebound in Growth should find more legs in the second half as US 10- year Treasury yields are expected to remain range bound. Value can continue to outperform in the long term as commodity prices come off their highs but remain elevated. Global PMIs indicate slowing growth momentum. Though defensive styles might benefit from recession fears, a bottoming out in markets should favor Growth and Value over Low Vol and Quality. Momentum was the best performer last month (+2.1%), followed by Growth (+1.0%) with Value (-2.7%) and Quality (-1.5%) underperformed. YTD, all Styles except Quality have generated positive returns in a L/S portfolio: Value (+15.6%), Low Vol (+13.6%), Momentum (+4.1%) and Growth (+2.9%) (*EM Lighthouse*, Aug 4th).

EM earnings estimates have been in a downgrade cycle since February, declining 12% since then. A comparison with past EM EPS downgrade cycles suggests the worst is behind us. The current cycle's EPS decline has reached 64% of the historical median and the equity price decline has already exceeded the median decline in previous cycles. EM equities tend to bottom before EPS downgrades, and in past cycles EM equities on average bottomed at 70% of the cycle. We expect EM EPS to bottom out in 2H, led by recovery in China that should support sentiment for EM equities. Our top-down model points to 2022 EPS growing 7ppt points above consensus for MSCI EM (*EM Lighthouse*, Jul 28th).

Growth may still outperform Value, green ecosystem is a favorite. While Value crowding has unwound, downward momentum in business cycles, inflation expectations and bond yields remain positive for Growth near-term. Asia's Green Ecosystem is attractive in this context with structural growth and style support. Expressing Growth>Value by Sector, we anticipate more upside in Internet and Tech. Internet in India and ASEAN are starting to turn up. 2Q earnings could prove upside catalysts for China Internet too. In Tech, while the Taiwan semi cycle is in early stages of earnings cuts, the Korea memory downturn looks more mature at trough valuation. Meanwhile, the geopolitical risk premium on Taiwan may persist near-term as Mainland China's counter measures become more specific. Expressing Growth>Value by Market, India + ASEAN may outperform China until the next pivot in styles arrives. Post the May-Jun rally, China equities have corrected over broader property-sector challenges, lack of new stimulus and setbacks in the US-China relationship. The upcoming weeks could be the third notable buying opportunity before a likely year-end rally, we think. Consumption may benefit from easing of dynamic COVID zero implementation (*Asia Equity Strategy Watch*, Aug 5th).

Domestics Recovery Beyond Short Covering? Not So Fast. On August 3, the central bank of Brazil raised the Selic by 50bp to 13.75%, and even though it left the door open for one last hike of a lesser magnitude the consensus interpreted the post-meeting communique as an indication that the hiking cycle is done. To recall, the BCB has been hiking since March 2021, tightening by 11.75% over 17 months. Upon the news, the Bovespa rallied, spearheaded especially by cyclical domestics in what we think is a short covering move, at least until now**:** While Brazil typically follows the global direction, we do think that it might be premature to be too eager on domestics for three reasons: 1) Rates will stay high for long; 2) Inflation expectations are far from anchored and will continue to cause volatility in the yield curve; 3) our economists expect a major growth deceleration, albeit timing is now more uncertain due to the recent fiscal stimulus. We are OW Brazil, especially on the back of a very cheap valuation, but prefer energy, materials, financials, utilities and staples, which are the cheapest sectors within Brazil, which is one of the cheapest markets in the world (along with Egypt, Turkey, Hungary & Colombia). We believe local idiosyncrasies are going to weigh on prices and markets will remain sideways for the next couple of months, but see the Ibov returning to its 1Q highs (125K) by year end (*Brazil Equity Strategy* , Aug 8th).

We revisit the strong dollar impact on LatAm. This time the negative response could be milder considering better external positions and low net debt/Ebitda levels. We look into periods when the broad dollar strengthened by 5% or more. We found that 1) the rally lasted 87 days and the broad dollar strengthened by 7% on average, and 2) MSCI LatAm posted a -22% return, with all countries in the red. From a sector perspective, they all have similar losses at about 25%, with Utilities, Teleco and Staples a bit better (-19%). Overall, we make no changes to our country allocations. We are OW Brazil and Chile, N Mexico and Colombia, UW Peru. Our highest convictions remain on Value (Commodities and Financials), but Cons. Discretionary is our second highest OW (*Latam Key Trades and Risks*, Jul 21st).

SMid Deep Dive: Materials. Most investors are not too keen to own commodity-related stocks, for which company fundamentals are often overruled by harder-to-predict macro events. It is not surprising therefore to see SMid Materials having sold off in recent months given mounting signs of an economic slowdown. However, we believe there is much more than meets the eye within SMid Materials, and in fact see tremendous opportunities for those investors willing to take a more in-depth view of this sector. We have collaborated with all of J.P. Morgan's Materials analysts worldwide, run a 30-year analysis of SMid-Caps in the sector, and conducted a 27-metric backtest that has shed a lot of light on how to navigate this space going forward. While the sector is likely to continue to be pressured should the economic outlook continue to weaken, we believe there are many reasons that Materials could actually outperform the broader SMid universe from here on, with many stocks already discounting a major economic slowdown (*US Small/Mid-Cap Strategy*, Aug 4th).

In US SMid caps we look at what the last 50 years of history can tell us about the road ahead. While some data points are alarming, others are less concerning than most investors would think. For now, we recommend to focus on relative views rather than directional ones, sticking to those parts of the SMid universe that offer more visibility than the broader market, or are already pricing much in (*US Small/Midcap Strategy*, July 15th).

Bonds

Bond yields reversed their declines from the previous week amid hawkishness from central banks and a strong US labor market report. The 528k rise in payrolls and a tick lower in the unemployment rate to 3.5% will likely fuel the Fed's inflation concerns, and our economists now see the Fed hiking by 75bp in Sep, though a case could be made for a larger hike, followed by 25bp hikes in Nov and Dec. Moreover, despite the rise in yields, valuations remain rich. As a result, our strategists retain a bias for higher yields and a more inverted curve over the medium term.

In the **Euro area**, our economists' baseline now sees a mild contraction in 4Q22-1Q23 as a result of the real income shock from inflation and concerns over natural gas supplies. This means the ECB will likely struggle to deliver on market expectations for around 120bp of rate hikes by mid-2023, and our strategists stay long 5Y Germany vs. US. Intra-EMU, political uncertainty keeps us UW 10Y Italy vs Germany. In the **UK**, our strategists stay long Dec22 MPC OIS, as market pricing of hikes looks excessive, and neutral on 10y gilts.

In **EM**, geopolitical tensions in China resurfaced in addition to the focus on the global tightening of financial conditions and the energy squeeze in Europe. Our strategists remain neutral on local duration, with UWs in Czech Republic and Hungary in EMEA EM and Chile and Peru in Latam offset by a long duration overlay (*EM Fixed Income Focus*, Aug 4th).

Credit

In Euro IG, the lack of supply has been a recurrent theme this year, this week only two issuers stepped out in euros, for a total of €2.25bn taking YTD to €280bn. In August typically the issuance sees the second lowest volumes after December. Our view, September will offer us the first true glimpse of the appetite for € corporate supply in the absence of net purchases under the ECB's corporate bond programs. The handful of deals we've seen over the past few weeks seems to indicate that there is demand out there, albeit at a cost, with average concessions on new corporate deals still hovering around the 20bp range. A tick up in supply with new issue premiums at these elevated levels will likely start to weigh on secondary market performance. The crisis in European natural gas supply and the political upheaval and volatility surrounding the Italian elections remain at the very top of our list of concerns. As we noted last week, light investor positioning heading into July and a resurgence in fund inflows bolstering cash reserves (particularly in the investment grade space) look to be supportive, at least in the near term. Further, we think secondary markets in Europe are also getting an additional boost from the lack of primary activity – excluding Decembers, last month's €6bn was the lowest monthly total in the EUR IG market (*European Credit Weekly*, Aug 5th).

Commodities

With the oil market already in balance, **the announcement of a 100kbd increase in supply by OPEC+ this week looks largely symbolic**. From a physical perspective, our commodity strategists' supply-demand analysis suggests the market is largely balanced. At the start of the war, the oil market was pricing in the worst case scenario—a 3 mbd loss of Russian production combined with record-high summer demand—and the policy response was calibrated accordingly, with a 1.2 mbd monthly drawdown of global strategic petroleum reserves committed through October. In the event, Russia's exports were re-routed toward other buyers without a serious disruption to its production, and demand, while still growing, has largely underwhelmed our expectations. The muted increase is in line with OPEC moving into a defensive stance and protecting the downside for prices. The formal statement also showed apprehension from the group to add supply, noting "the severely limited availability of excess capacity necessitates utilizing it with great caution in response to severe supply disruptions." (*Global Commodities Oil*, Aug 3rd).

Currencies

We did not read Chair Powell's press conference as especially dovish, and the above strong labor market report in addition to the previous week's above consensus ECI underscores the scale of the task ahead for the Fed. For all the hand-wringing around the Fed, USD strength is principally rooted in economic weakness outside the US that is largely Fed invariant, and shows no signs of abating. Business surveys are sliding in Europe, and coupled with an-other sharp rise in natural gas prices. In China, the Politburo meeting disappointed hopes of big bang policy stimulus. Stay defensive.

We stick with our USD net length, reflecting first and foremost ongoing global growth softness. We retain core euro bloc (EUR, GBP) shorts vs. USD and CHF as the highest conviction view. Net defensive and long USD vs high-beta; long JPY vs KRW & NZD; long AUD/NZD. In EM FX we are UW across all three regions against a backdrop of continued USD strength, insufficient EM real yields to contain current account deficits and commodity price headwinds. We are UW PHP in EM Asia, TRY and ZAR in EMEA EM, and PEN in Latam. (*EM Fixed Income Focus*, Aug 4th)

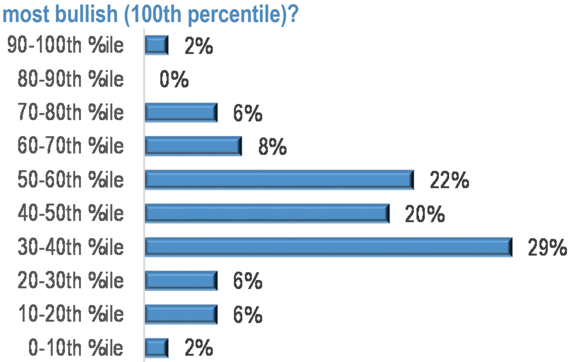
Marko Kolanovic, PhD; Nikolaos Panigirzoglou; Bram Kaplan, CFA; Thomas Salopek; Federico Manicardi; Mika Inkinen; Amy Ho

JPM Clients' View

Click here to take this week's survey

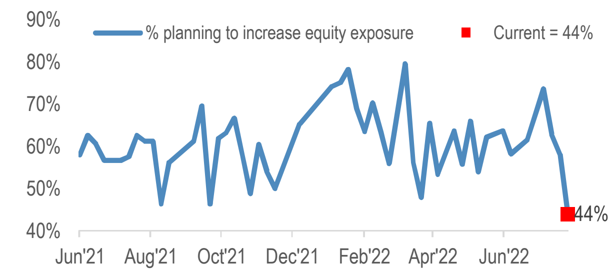
This week, we poll investors on the equity rally drivers, Q2 earnings, geopolitics, and the BOE, in addition to our running survey questions on equity positioning/ sentiment, and intentions for near-term changes to equity allocation and bond duration. The results from last week's survey are shown in the charts below.

Figure 2: What is your current equity positioning or sentiment in historical terms, expressed from most bearish (0th percentile) to most bullish (100th percentile)?



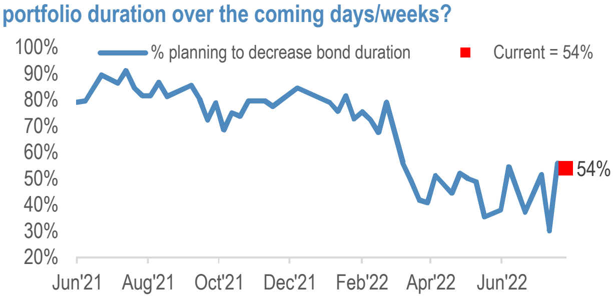
Source: J.P. Morgan.

Figure 3: Are you more likely to increase or decrease equity exposure over the coming days/weeks?



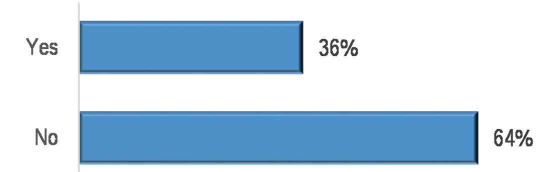
Source: J.P. Morgan.

Figure 4: Are you more likely to increase or decrease bond portfolio duration over the coming days/weeks?



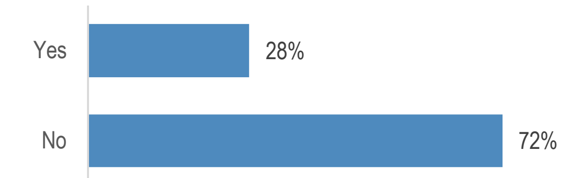
Source: J.P. Morgan.

Figure 5: Is the US currently in recession?



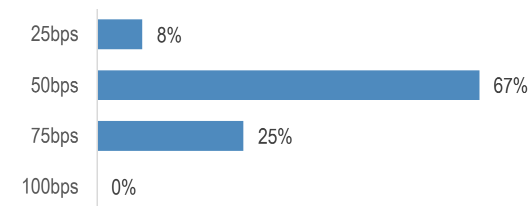
Source: J.P. Morgan.

Figure 6: Did the Fed make a dovish pivot last week?



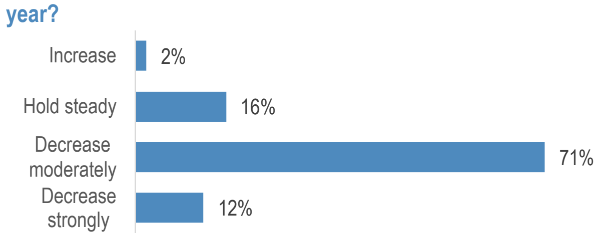
Source: J.P. Morgan.

Figure 7: How much will the Fed hike in September?



Source: J.P. Morgan.

Figure 8: What will happen to US house prices over the next year?



Source: J.P. Morgan.

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Increase allocation to commodities

Our model portfolio outperformed its benchmark producing a positive alpha in July following heavy underperformance in June. Despite a significant correction in both equities and bonds this year, our model portfolio suffered so far a negative alpha in only two months, in March and June, and produced a positive alpha in the remaining five months (Figure 1). In July, the equity overweight helped our portfolio to outperform its benchmark even as the commodity overweight and our EM overweight within equities acted as drags.

The strong rally in equity and credit markets over the past month has caught most clients by surprise. In our opinion this rally should not be surprising given low equity investor positioning and widespread negativity in June. In addition the reporting season delivered another positive surprise over the past month with the S&P500 Earnings per Share estimate for Q2 rising by $2 since the start of the reporting season to $57.3, similar in magnitude to the surprise delivered during the Q1 reporting season. What is striking is that these significant earnings surprises during the Q1 and Q2 reporting seasons took place in a period where US GDP saw a contraction in real terms. In our opinion this suggests that robust nominal GDP growth is helping earnings to avoid a more significant contraction is as real GDP growth is weak.

Robust nominal GDP growth has helped both revenue and earnings estimates for the S&P500 index to exhibit resilience despite the US real GDP contraction during the first half of the year. Over the past year Revenues per Share of the S&P500 index are up by 13.1% yoy. Excluding the Energy sector Revenues per Share are still up significantly by 7.9% yoy. Admittedly higher wage growth over the past year has exerted some downward pressure on profit margins and the EPS of the S&P500 index ex Energy has contracted by 2% yoy even as Revenues grew by 7.9% yoy. But a mild contraction in earnings was already anticipated. This is not only suggested by the upward revisions in the S&P500 EPS since the start of the reporting season but also by the depth of previous negative earnings revisions. Figure 2 shows that earnings revisions had downshifted sharply during the second quarter of the year tracking the pattern seen in previous recessions. This is consistent with the idea that some earnings declines were already factored in. Admittedly the earnings revision metric of Figure 2 would need to stabilize for the recent US equity market gains to be sustained. We see tentative signs of stabilization in the most recent weeks.

While we acknowledge that recession risks remain elevated, we note that the US Economic Activity Surprise Index has rebound in July (Figure 3). In a similar fashion to recent economic releases, the latest US payroll report casts doubt to the idea that the US economy is in recession. Better than feared economic data have likely induced equity and credit markets to price out recession risk in recent weeks as shown in Figures 4 and 5. As we explained in our previous publications (see Flows & Liquidity August 4th) to construct the recession probabilities in Figures 4 and 5, we look at the historical behavior of different asset classes around past recessions, and in particular at the move from the pre-recession peak to the trough during the recession. To keep things simple, we assume that, at market peaks, no chance of a recession is priced in and by the time we reach the market bottom the recession is fully priced. Figures 4 and 5 show the likelihood of a recession implied by US equity, credit and rate markets as well as industrial metals with prices as of close of business of June 16th, at the bottom of the equity market, as well as cob August 5th. US equities price in around 50% probability of recession currently, down from around 90% on June 16th. US credit markets' assessment of recession is little changed since then hovering at around 30%-40%. The outlier is industrial metals, which have not only priced in a higher recession probability relative to June 16th but are also embedding markedly higher probability of recession than other markets at the moment. This elevated recession risk priced stands in contrast to equities, credit and rates where implied recession risks stands at around half that level, suggesting that there could be some upside on a relative basis as a materialisation of recession risks would likely see a larger adjustment in other asset classes while a more benign economic trajectory should see some recovery in industrial metals from current pricing in of recession risks. This motivates us to shift some (one percentage point) of our risk allocation from equities to commodities. And within commodities we increase the allocation to industrial metals.

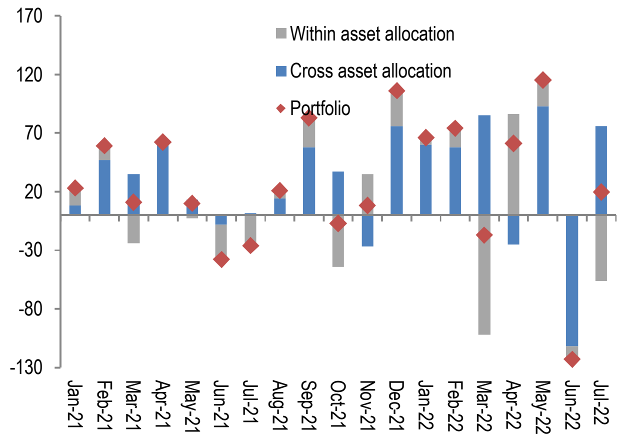
In equities, defensive stocks still look expensive in our mind while cyclicals/growth/small-caps present more attractive risk reward. We like Energy and Healthcare in the US. Outside the US, we are OW mining and banks, and UW traditional defensives. Despite the past month's underperformance we retain an OW in EM within equities. We see EM equity outperformance supported by a rebound in Chinese growth, low investor positioning, an elevated P/E discount to EM and support from higher commodity prices from here. In terms of styles, we have less strong preference for value over growth, but like both vs. defensives.

For rate markets, the evidence of slower growth momentum and incrementally dovish comments from Powell at the July FOMC meeting saw markets initially price in a more modest path for rate rises in coming quarters. However, in the week after the meeting hawkish comments from traditionally dovish members of the Committee suggesting the door is open for another 75bp hike in September had already seen some reversal at the front end as it cast some doubt on the idea that we are approaching a pivot by the Fed. And the strength in the labor market report will likely fuel the Fed's inflation concerns, and our economists now see the Fed hiking by 75bp in Sep followed by 25bp hikes in Nov and Dec. Along with valuations on USTs looking rich, this means we continue to see scope for a bear flattening of the curve.

By contrast, in the Euro area, our economists now expect a mild contraction in 4Q22 and 1Q23 as a result of the real income shock from higher inflation and concerns over natural gas supplies, and clearly risks are skewed to the downside in the event insufficient gas supplies force countries to adopt rationing. They also see less scope for ECB hikes and now expect 50bp of additional hiking by end-2022 before pausing at 0.5% in 1H23. This means we continue to see the ECB struggling to deliver on market pricing of nearly 120bp of additional hikes by mid-2023, and this central bank policy divergence keeps us with an OW in German vs US bonds. Within the euro area, we see spreads facing widening pressure from ongoing uncertainty over the outcome of the Italian election in an environment where the ECB's TPI provides some protection but at wider levels than currently. We thus stay UW Italy vs. Germany.

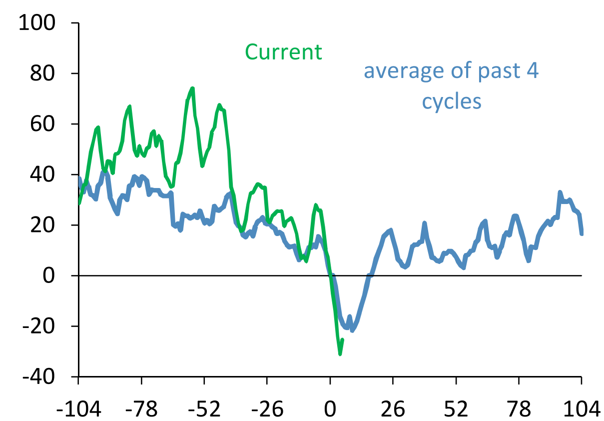
In credit, while spreads have tightened over the past month pricing in less recession risk, our credit strategists note that spreads may eventually need to price in risk premia consistent with a recession before investors return to the asset class on a more sustained basis. In the US, underlying fundamentals look to be in good shape though further Fed tightening will weigh on these fundamentals. In Europe, we see more vulnerability given the end of ECB purchases and a default cycle that is turning less benign. And in EM sovereigns, cycle dynamics are less supportive but elevated oil prices provide some offset for many countries, while corporates remain challenged by macro risks and the uncertain market environment. In FX, we retain a defensive and long dollar stance. Ongoing Fed tightening, persistent recession fears and risks as well as rising European energy prices support this stance.

Figure 1: GAA model portfolio performance vs. benchmark



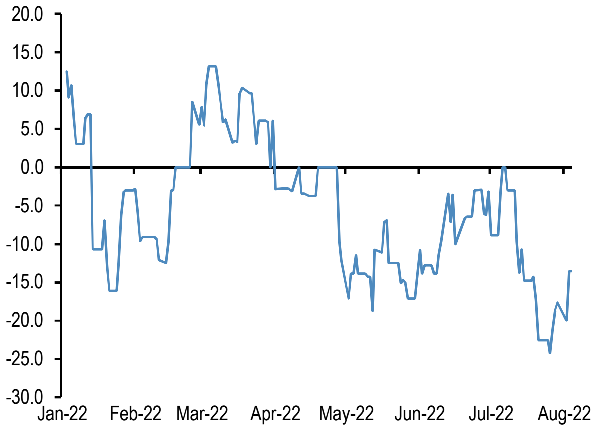
Source: J.P. Morgan

Figure 2: Weekly revision ratio (upgrade to downgrade ratio) for the 12m ahead EPS of MSCI US companies before and after the start of a US recession



Source: J.P. Morgan

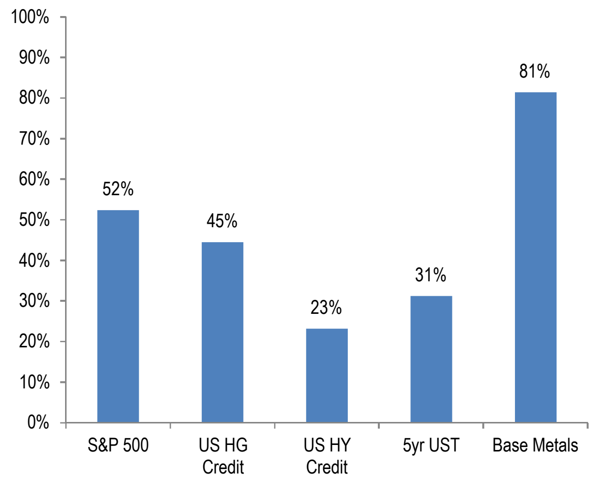
Figure 3: JPM US Economic Activity Surprise Index



Source: J.P. Morgan

Figure 4: Probability of a recession as currently priced in across US equity, credit and rate markets

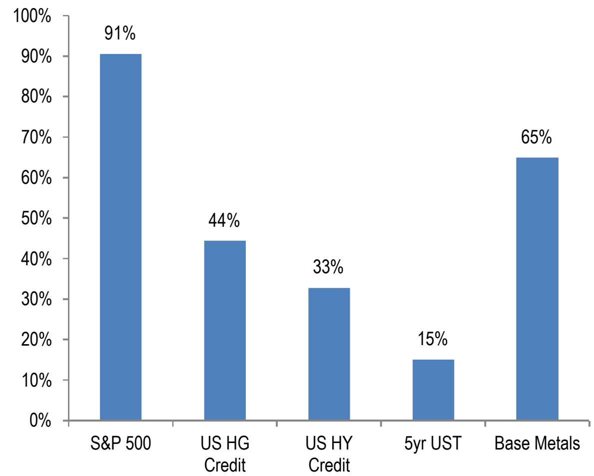
In %, as of close of business on Aug 5th



Source: J.P. Morgan

Figure 5: Probability of a recession as currently priced in across US equity, credit and rate markets

In %, as of close of business on June 16th



Source: J.P. Morgan

Marko Kolanovic, PhD; Nikolaos Panigirzoglou; Bram Kaplan, CFA; Thomas Salopek; Federico Manicardi; Mika Inkinen; Amy Ho

Long-Only Asset Allocation

GAA Long-only portfolio allocation

Major Asset Classes			Active Weights	Prior Month	Δ	UW | OW
Equities			11%	12%	↓	
Govt. Bonds			-9%	-9%		
Corp. Bonds			-8%	-8%		
Commodities			8%	7%	↑	
Cash			-2%	-2%		
Major Sectors within each Asset Class			**Active Weights**	**Prior Month**	**Δ**	**UW | OW**
Equities	Countries	US	-3.0%	-3.0%		
		EMU	-3.0%	-3.0%		
		Japan	0.0%	0.0%		
		UK	1.0%	1.0%		
		EM	5.0%	5.0%		
		Other	0.0%	0.0%		
Govt. Bonds	Countries	US Nominal	-4.0%	-4.0%		
		US TIPs	0.0%	0.0%		
		Europe Core	3.0%	3.0%		
		Europe Periphery	-1.0%	-1.0%		
		Japan	2.0%	2.0%		
		UK	0.0%	0.0%		
		EM Local	0.0%	0.0%		
		Australia	0.0%	0.0%		
		Other	0.0%	0.0%		
Corp. Bonds	HG	US	0.0%	0.0%		
		Europe	-2.0%	-2.0%		
		UK	0.0%	0.0%		
	HY	US	2.0%	2.0%		
		Europe	-1.0%	-1.0%		
		US Loans	1.0%	1.0%		
	EM	Sovereigns	2.0%	2.0%		
		Corporates	-2.0%	-2.0%		
Commodities		Energy	4.0%	4.0%		
		Industrial metals	1.0%	0.0%	↑	
		Agriculture	1.0%	2.0%	↓	
		Precious metals	-4.0%	-4.0%		
		Livestock	-2.0%	-2.0%		

vs. US Benchmark		
Note	Tracking Error (%)	2.16%

vs. Benchmark		
Note	Yield (bp)	-13.9
	Dur (months)	-1.54
	Tracking Error (%)	0.52%

vs. Benchmark		
Note	Yield (bp)	12.8
	Duration (months)	0.6
	Tracking Error (%)	1.97%

vs. Benchmark		
Note	Tracking Error (%)	2.45%

Source: J.P. Morgan.

Long-Only Portfolio Performance

Performance for July 2022 GAA Long-only portfolio

In bps.

GAA Long-only portfolio performance

		Benchmark (bps)			GMOS portfolio			Active (bps)		
		1D	WTD	MTD	1D	WTD	MTD	1D	WTD	MTD
Asset returns	**EQ**	32	53	678	22	28	561	-10	-24	-117
	Govt Bonds	-27	-109	-481	-24	-94	-415	4	15	65
	Corp Bonds	18	32	385	24	42	355	6	10	-30
	CO	18	-398	-297	14	-408	-306	-4	-11	-9
	FX				0	0	0	0	0	0
(1)	**Portfolio**	10	-23	195	11	-50	215	1	-27	20
(2)	**Cross asset class allocation**	16	-36	271				6	-13	76
(3)	**Within asset class allocation**	4	-37	139				-6	-14	-56

Note: (1) the leftmost columns are the absolute returns of the benchmark portfolio. The center columns are the absolute returns of the GMOS portfolio. The rightmost columns are the relative performance of the GMOS portfolio versus the benchmark. If these are positive then the GMOS portfolio outperformed the benchmark. **(2)** The leftmost columns are the absolute returns of the benchmark asset classes with active asset allocation weights. The rightmost columns are the relative performance of the active asset allocation versus the benchmark. If these are positive then active allocation outperformed the passive index. **(3)** The leftmost columns are the absolute returns of the active asset classes with benchmark asset weights. The rightmost columns are the relative performance of this portfolio versus the benchmark. If these are positive then active asset classes with benchmark weights outperformed the passive index.

Source: J.P. Morgan.

Trade Recommendations

Cross Asset	Trade Inception Date
Long Global equities vs. IG credit and govt bonds	Jul'22
Equities	
Options strategies to position for upside in China Equities	Aug'22
Preferred EMEA trades in Equity Derivatives: cautious trades on Gas situation, like Energy and 2023 bank dividends	Aug'22
EM Equities – Advanced EPS decline; excessive price drop	Aug'22
Long Chile, Short Mexico. Remain Long Brazil	Jul'22
Macro option trades (EM, Energy, HC>Staples)	Jul'22
TOPIX Banks upside ideas	Jul'22
Japan share buybacks trading strategies	Jun'22
Long CSI 1000 1Y TRS	Jun'22
OW GARP vs GAAP – Buy SMID 'Growth Havens' vs SMID 'Growth Shorts'	Feb'22
LONG: US Tariff Reduction Beneficiaries Basket (JPAMUSIM <Index>) vs. SPX	Dec'21
Long UK (UKX Index)	Dec'21
Long Oil Outperformers Basket (JPAMOILO <Index>) vs. SPX	Oct'21
Short Oil Underperformers Basket (JPAMOILU <Index>) vs. SPX	Oct'21
COVID-19 Recovery Domestic (JPAMCRDB <Index>) vs. SPX	Sep'21
Position for Re-opening in Asia	Sep'21
Long China Policy Beneficiaries	Sep'21
Sell S&P 500 Convexity	Aug'21
Long Mining (SXPP Index)	Aug'21
Long EM (MXEF Index)	Aug'21
Long COVID-19 Recovery International Basket (JPAMCRIB <Index>) vs. SPX	May'21
Long Banks vs Asia ex Japan	Mar'21
Russell 2000 up-var vs. S&P 500 variance spread	Dec'20
Long Banks (SX7P Index)	Nov'20
Buy the Russell 2000 Value vs the Russell 2000 Growth	Oct'20
Long S&P 500 dividend futures	Jun'20
Long in Euro STOXX 50 dividend futures	Apr'20
Long "5G Thematic" vs. SPX	Dec'19
Fixed Income	
Long 10y EUR and AUD swaps vs. USD and NOK swaps	Aug'22
Stay long 5y Germany vs. US	Jul'22
5s/20s UST curve flatteners	May'22
Short 10y Italy vs. Germany	Mar'22
Credit	
Be neutral on MBS, expressed in specified pools	Aug'22
OW EM Sovereign Credit vs DM corporate Credit	Feb'22
Long US vs. EUR IG credit	Dec'21
FX	
Add to JPY length via EUR/JPY put spread	Aug'22
Buy 4m at-expiry digital EUR put/USD call	Jul'22
USD vs. basket of G10 high-beta FX	Jul'22
GBP shorts to short vs. 50:50 USD	Jul'22
Bullish CHF. EUR/CHF short in cash	Jun'22
Bearish NZD; stay short vs AUD and vs a basket of reserves	May'22
Hold EUR/USD Shorts	Mar'22
Commodities	
Stay long Agriculture commodity complex	Oct'17

Source: J.P. Morgan

Cross-Asset Trading Themes

Stay long Global equities vs. IG credit as well as govt bonds

As we note in the overview section above, robust nominal GDP growth has helped both revenue and earnings estimates for the S&P500 index to exhibit resilience despite the US real GDP contraction during the first half of the year. Admittedly higher wage growth over the past year has exerted some downward pressure on profit margins, but a mild contraction in earnings was already anticipated given the depth of previous negative earnings revisions. But while we acknowledge that recession risks remain elevated, the US EASI has seen a rebound in July and the strength of the US payroll report suggests resilience. We stay OW equities, funded by an UW in credit as well as government bonds.

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Equities Trading Themes

Options strategies to position for upside in China Equities

In our Asia Pacific Equity Derivatives Highlights:China flows and positioning update; Trading strategies to position for further upside in China equities, we provide an update on China equity market flow drivers to gauge market positioning. We find that China onshore and offshore equity markets are the major beneficiaries of foreign flows while foreigners retreated from markets including Korea and Taiwan. In the 2H22 outlook, our equity strategists highlight that the China markets are becoming more compelling in EM Asia and globally due to macro resilience, growth supportive policy amid under-control inflation and diminishing policy and regulatory risks. Looking forward, we expect more inflows into China equities from both foreign and local investors. The flow dynamics support moderate upside in China equities in the coming months. Further, we expect VHSCEI to fall from a current level of ~32 with the magnitude of potential decline depending on fiscal stimulus delivery (see here). Incremental good news on the policy front along with improving flow dynamics should help volatility levels gradually decline. We think upside optionality could come from accelerated progress in special government bond issuance, faster-than-expected consumption recovery and easing US-China friction (see here). To position for further upside in China equities, we recommend short Vega and low-premium structures on FTSE China A50 (XIN9I) and H-shares (HSCEI). Specifically we recommend:1) **Buying XIN9I 29Dec22 calls conditional on the best of {XIN9I, KOSPI2, TWSE} <120% at maturity and XIN9I 29Dec22 105% - 115% call spread contingent on SPX<110% at maturity**. The structures take advantage of the potential flow dispersions for a highly leveraged way to position for further China upside. 2) **Buying HSCEI OOF 16Dec22 105% calls funded by selling 16Sep22 92% 108% strangle**: The structure exploits the rich volatility as well as inverted term structure. Selling the Sep22 to finance the purchase of Dec22 calls reflect our view that further up moves will play out in a gradual fashion.

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TOPIX Banks upside ideas

After a positive first quarter, TOPIX Banks (TPNBNK) have remained stagnant. However, the rising 10Y US rates, potential unwinding of cross shareholdings by Japanese banks, and ongoing share buyback programs can potentially push Japan banks to trade higher soon in 2H2022. For investors agreeing with our bullish views on TPNBNK, we recommend 1) buying TPNBNK 09Dec22 call ratio and 2) buying conditional TPNBNK – NKY outperformance option (see Asia Pacific Equity Derivatives Highlights Revisiting TOPIX Banks upside ideas for more details).

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Japan share buybacks trading strategies

Year-to-date cumulative notional share buybacks announced by Japan companies has beaten a record set in 2019 by a substantial margin. The record-setting buyback announcements reflect a desire among corporates to take advantage of low equity valuations and make better use of excess cash toward shareholder rewards. With July-October being a low season for new buyback announcements, we believe investor attention will shift toward the execution of announced programs. Our view remains that execution will be front-loaded relative to the time period guided by the buyback announcements, driven by a relatively low valuation in Japan equity markets versus history. Since end-April 2022, our strategy of buying the top 25 stocks by announced buyback notional or buyback ratio has been delivering meaningful outperformance versus the TOPIX. Investors can consider buying swaps or call spreads on our baskets Japan top 25 by buyback notional Jun22 (JPHJPBNJ <index>) and Japan top 25 by buyback ratio Jun22 (JPHJPBRJ <index>) for long exposure. See Asia Pacific Equity Derivatives Highlights: Buy Nikkei 2023/2024 dividends, Japan share buybacks trading strategies update for details. Increased corporate buying can help to stabilize the Japanese equity market at a time when VNKY continues to signal a high-volatility environment ahead. For investors agreeing with the view, we recommend buying Nikkei double no-touch options to sell volatility with defined loss. Current volatility surface also makes it cost efficient to express a medium-term bullish view beyond a potential range trading period in the near term. To express this view, investors can considering buying call spread collar or window knock-out call options on Nikkei (See Asia Pacific Equity Derivatives Highlights: Japan's coming wave of share buybacks and trading strategies).

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Long CSI 1000 1Y TRS

The outperformance opportunities arising from long TRS is the highest in CSI 1000 among major China A-share indices. In recent years, following the institutionalization of A-shares investors, we observe rising influence of quant strategies in driving the moves in implied funding rates. Mirroring rising investment interest in the mid- to small-cap segments of China A-shares, the AUM of CSI 1000-linked funds have been growing rapidly. This year, the market environment has turned out to be quite challenging for quant strategies to beat the underlying benchmark. Nevertheless, CSI 1000-linked index enhancement funds continue to deliver the highest excess return versus peers, suggesting a relative abundance of alpha generating opportunities in the index. With our China equity strategists re-affirming their positive views on China small-caps, we recommend investors going long CSI 1000 1Y TRS to implement the view. The discounted pricing of swap funding cost is a benefit for long investors, especially in times of elevated market volatilities. (See Asia Pacific Equity Derivatives Highlights: Reiterate bullish views on China SMID-caps, CSI 1000-linked products flow dynamics).

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EM Equities – Advanced EPS decline; excessive price drop

MSCI EM earnings estimates have been in a downgrade cycle since February this year, declining 12% since then. We take a deep dive into the historic MSCI EM EPS downgrade cycles and discuss the scope of earnings revisions in the event of a recession. Historically, we identify four post-GFC EM earnings downgrade cycles. In those EPS downgrade cycles: (1) the median decline in EM EPS is 18%. In the current cycle, **EPS decline of 12% has reached 64% of the historical median**. In our view, even if a recession were to occur, we expect the current downgrade cycle to be shallow relative to the past cycles, given the current slowdown could see nominal GDPs meaningfully positive, still supporting corporate topline; (2) **Equity price decline in the current downgrade cycle has already exceeded the median decline in previous cycles.** In the current cycle, MSCI EM is already down 20% against a 15% median price decline in previous post GFC cycles. In our view, MSCI price change has created a buffer for more EPS downgrades.

Our big picture view is that EM equities will outperform DM into year-end driven by three positive asymmetries: **(1) Under Positioning.** Global investors are 6.6% allocated to EM equities: a reversion to 20-year avg. allocation of 8.9% would represent inflow of funds of ~US$534 billion, or about 35% of current EM AUM; **(2) Relative Growth Acceleration**. The key catalyst for those flows to come to EM is the relative velocity of growth of EM vs. DM. EM growth premium to the US to accelerate during 2H22 and continuously into 2023; **(3) Attractive Relative Valuation**. EM forward P/E is trading at a 31% discount to DM (compared to a 22% historical average discount). EM P/BV is trading at a 44% discount to DM (compared to a 17% historical average discount). Within EM we OW Brazil, Saudi Arabia, China, Indonesia and Chile; Energy, Materials, Financials and Cons. Discretionary.

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Macro option trades (EM, Energy, HC>Staples)

Upside in Energy Stocks via call spreads on XOP. We believe we've entered a new commodity super-cycle, with structurally higher energy prices. Energy remains our Equity Strategists' highest conviction sector OW due to steadily improving fundamentals, stronger growth prospects, improving quality, attractive valuation, and rising shareholder return (e.g. see here). Energy prices and related stocks have pulled back in June on recession fears, with XOP pulling back more than 30% from its peak; however, we believe a recession will ultimately be avoided and bullish drivers for the sector remain in place, and we thus continue to recommend using the pullback to get long. Since we initiated a long in XOP 3M 110/130% call spreads around a month ago, XOP has rebounded by ~8%, leading to a P/L of +1% for our structure.

Position for outperformance of Health Care vs. Staples via call switches on XLV vs. XLP. We are OW Healthcare as we see the sector as a relative safe-haven in a world with elevated geopolitical risks, high inflation, and slowing growth. The sector offers defensive growth, high margins and pricing power, and attractive shareholder yield at a reasonable valuation. However, Consumer Staples suffers from crowded positioning and near record valuation premiums relative to cyclicals. Last month we recommended XLV vs. XLP call switches given these fundamental supports and XLP's rich relative volatility. Since inception, XLV is underperforming XLP by ~1%, giving our structure a P/L of -1%.

Position for the outperformance of EM equities via 6M ATM call switches (long EEM calls vs short SPX calls). EM remains our top equity regional OW on expectations for easing policy and COVID reopening in China, cheap valuations, and low positioning. EM stocks strongly underperformed during the past month, leaving EEM underperforming the S&P 500 by ~6% since our trade was initiated in March, but both are down since inception leaving our trade with a -2% P/L.

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Preferred EMEA trades in Equity Derivatives: cautious trades on Gas situation, like Energy and 2023 bank dividends

Near term the biggest risk to European markets continues to be the threat of Russia to discontinue Gas deliveries to Europe entirely after Russia reduced deliveries to a mere 20% of capacity. Germany's political leadership is very transparent and gravely concerned, especially due to potential rationings, production cuts and even potential credit event under this scenario cannot be rules out. We warned about this scenario in May and in June again. We recommended to hedge the low-risk but high-impact scenario of Russia halting or reducing gas imports to Germany, and in June we warned about mounting risk of Russian gas cuts. We recommended and maintain (see also our 2H22 Outlook) that the most efficient way to play this scenario is via DAX Put-Spread Collars, e.g. the indicatively costless Dec-22 12900-12000 PS vs 14700 Call. Directionally, the risk-reward strikes us as particularly good given the backdrop of tightening financial conditions, rising inflation, slowing growth, and an ongoing Ukrainian conflict that keeps energy prices very elevated indeed. We also recommended the following Equity-FX Dual Digital, Dec-22 SX5E < 95% and EURUSD < 97.5% at ~11.5%, indicatively. We have seen a number of clients take advantage of this high-leverage expression of European risk-off under the aforementioned scenario of gas rationings. We stress that we have the impression that the market has not yet priced in sufficiently the adverse impact of extraordinarily high gas prices in Germany and the rest of Europe, quite apart from the scenario of actual gas rationings On the sector side we maintain our bullish stance on SXEP, the Oil & Gas sector, and expressed that view here to Buy SXEP Dec-22 call ladders ahead of EU sanction package against Russia (105-110-114%), which can be bought indicatively at close to flat. Alternatively, an interesting leveraged play is to buy 2.6x SXEP Dec-22 105-110 Call Spread vs shorting 1x SXEP Dec-22 ATM Put with KI barrier at 75% (or ~240 at the index). In banks our conviction level has decreased over recent weeks, and we are taking a barbell approach. We express an upside view via low-premium, high-leverage call flies, which are a good way to play the relief scenario. Investors can consider the Sep-22 €87.5-€92.5-€97.5 call fly, which is worth €0.5, indicatively, ref €82.8, for a max payout €5 should the index close at expiry at €92.5. However, we also highlighted and continue to like the risk-reward of the Sep-22 €75-€70 1x2 put ratio on SX7E at a small premium of €0.11 (ref €82.8), indicatively, selling rich vol and downside skew. This trade should be interesting, especially, if we enter a renewed risk-off phase should the FED-pivot be called into question if growth indicators such as last Friday's non-farm payrolls and, more importantly, inflation data surprise on the upside before the September FOMC meeting. Another way to position for this scenario is via Sep-22 Put Spreads on ASML (expiry after the Sep FED meeting), which accounts for over 30% of the STOXX Europe Tech index, which we recommended here. The ASML Sep-22 500-450 PS can be bought for ~5.5 Eur yielding 9.5x max payout ratio for the 90-81% Put-Spread, after the stock rallied by around 35% since early July. Finally, we highlight 2023 Bank dividends, which we stress-tested here and find to offer an interesting mix of visibility coupled with decent risk premia, yielding attractive risk-reward.

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OW GARP (Growth at Reasonable Price) vs GAAP (Growth at Any Price) – Buy SMID "Growth Havens" vs SMID "Growth Shorts"

Our proposed SMid trade looks to profit from the fact that the recent cycle has witnessed GARP seemingly having turned into GAAP, with investors paying too much for what also happens to be very demanding growth expectations – a combination that has, over the last 20+ years (i.e., since 1998), destroyed alpha significantly and consistently in every single region of the world, even during times of sustained low economic growth (i.e., Japan). Instead, based on empirical evidence, we advise investors to focus on actual growth rather than expectations (i.e., trailing growth vs Yr+1 cons estimates). Our "Growth Havens" screen is made up of those SMid-Caps that offer quality and actual growth, trading today below their industry average valuations while screening in the top two quintiles of ROE and trailing EPS growth. We combine this long screen with our short "Growth Shorts" screen, which is made up of SMid-Caps making up the priciest part of the market – trading at rich multiples (top quintile of P/E 21E) on aggressive growth expectations (top quintile of estimated EPS growth 22). This pair trade has delivered a return of -612 bps since we launched it on Feb 14, 2022 *(see our July 2022 SMid View report)*.

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Long US Tariff Reduction Beneficiaries Basket (JPAMUSIM <Index>) vs. SPX

The basket contains the largest publicly traded U.S. Importers by reported container shipping volume. These companies were adversely affected by the US/China trade restrictions in the past and could benefit from a positive policy shift. *For exhaustive list of US Thematic Trade Ideas, Please see "Thematic Trade Opportunities."*

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Long UK (UKX Index)

Last November we upgraded the UK to OW, for the first time in six years, taking advantage of its multi-year underperformance. The UK is trading at a record discount vs other regions, even with Value sectors are taken out. UK equity performance with respect to a number of macro variables appears to be changing, with the correlation to bond yields direction turning positive. BoE hiking is unlikely to be a problem for the UK market. The UK offers the highest dividend yield globally, which is, in our view, well covered this time around. Within UK, we believe one should be OW FTSE100 vs FTSE250.

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Long Oil Outperformers Basket (JPAMOILO <Index>) vs. SPX

This basket contains high-conviction long ideas if oil goes to and stays at $100/bbl. The basket includes names with market cap >$1bn. Lastly, we applied a $10mm liquidity criteria, excluded names that are M&A targets and are difficult to short. This basket was compiled with input from JPM Stock Analysts. See Reiterate OW on Energy. *For exhaustive list of US Thematic Trade Ideas, Please see "Thematic Trade Opportunities."*

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Short Oil Underperformers Basket (JPAMOILU <Index>) vs. SPX

This basket contains high-conviction names that would be negatively impacted by oil reaching and maintaining $100/bbl. This could be from margin impact, rising input costs, or demand hit to consumer wallet. The basket includes names with market cap >$1bn. Lastly, we applied a $10mm liquidity criteria, excluded names that are M&A targets and are difficult to short. This basket was compiled with input from JPM Stock Analysts. See Reiterate OW on Energy. *For exhaustive list of US Thematic Trade Ideas, Please see "Thematic Trade Opportunities."*

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Long Chile, Short Mexico. Remain Long Brazil, but expect momentum to pick up only in 4Q

Long Chile: We opened this call last month, and since then return has been 5.8% in USD. We continue to be bullish on Chile based on the following : 1) Valuations are very cheap, with Chile currently trading at 8x, compared to an average of 13x. Full analysis here. There has never been a time in history when the market was as cheap as currently. 2) Currency could stabilize: the copper price decline observed during 2Q has probably come to an end, and our commodity prices expect prices to remain relatively stable from here. That, combined with a more active central bank, especially in terms of interventions, could allow the peso to also find a new footing ahead. 3) Rejection of the new constitution: Chileans will vote in a September 4 referendum on whether to adopt or not a new constitution. Recent polls show a growing advantage for a rejection, which could trigger a positive market reaction.

Maintain long Brazil, expect momentum to pick up only later in the year: Albeit main market drivers remain global, we see the local idiosyncrasies taking the lead, which could derail the important market upside we see for this year (18% in local currency). Some factors to take into consideration. 1) the hiking cycle appears to be over or is close to do so, which could give impulse to Brazilian equities, even though growth is stronger than expected, fiscal stimulus is to kick off and inflation expectations continue to rise. 2) elections are approaching and doubts are going to start to mount on a couple of fronts: whether the process itself will go along in a normal way, despite claims from the sitting president that the ballot system is prone to fraud. Also, there are question marks surrounding what are going to the be the macro policies embraced by Lula if he were to win the presidential race, especially considering that his speeches center mostly on higher expenditures. 3) Valuations are glaringly cheap. Brazil 12 mo fwd is 5.8x, which is the lowest among all EMs, is 2.5SD below 10 year average, at the same time that downward earnings revisions are already in a relatively advanced stage. We recommend investors being long on value more than growth. Taking all that into consideration, we do think that 4Q could bring good momentum for Brazil. The elections will be behind, China will likely be growing more firmly, allowing commodity prices to remain at current levels or even rise from here, while visibility on local issues should be enhanced.

Short Mexico: Mexico's growth is decelerating at the same time that the central bank is to remain on a very hawkish mode to try to tame sticky inflation. While Mexico's vulnerability to external shocks is low considering is good current account and fiscal position, it is the most exposed to a slowdown in economic activity in the US. At the same time, a China rebound will not necessarily translate into Mexican upside. While the market trades cheap relative to history, it is still the most expensive in LatAm.

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COVID-19 Recovery Domestic (JPAMCRDB <Index>) vs. SPX

This basket is designed to benefit as the economy reopens and there is progress in containment of the virus. Our screening methodology for COVID-19 Recovery Domestic stocks is based on S&P 500 companies that became considerably cheaper during the pandemic compared to the pre-COVID-19 period (Q2'20 vs Q4'19) based on our Value composite score (sector-neutral equal weight combination of price-to-forward-earnings, price-to-book-value, and price-to-sales). The list is then filtered to select only Domestic candidates based on their Revenue exposure. The list was reviewed and further revised to incorporate fundamental stock analysts' feedback. See State of the Business, Inventory and Capex Cycles. *For exhaustive list of US Thematic Trade Ideas, Please see "Thematic Trade Opportunities."*

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Position for Re-opening in Asia

With the spread of the highly contagious Omicron variant in 2022, major countries in Asia (barring China) have shifted toward a "living with COVID" approach. China is also planning a medium-term exit to the zero COVID strategy, with positive news flow (production of mRNA vaccines, approval of the Pfizer anti-viral pill and shortening of travel quarantines) on this front. The recent China wave has also peaked, which would lead to some re-opening impetus. Elsewhere, ASEAN is a key beneficiary as a region geared to tourism. We highlight a group of laggards aligned with the re-opening theme in our Quantamental Dashboard (15 Aug 2021) in sectors like leisure, tourism, and offline consumption.

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Long China Policy Beneficiaries

The regulatory tightening in China in 2021 was a combination of catching up on a relatively lax regulatory environment earlier and a renewed focus on common prosperity. The primary beneficiaries of loose regulations and companies with dominant market positions (such as large-cap Internet companies) remain vulnerable. However, areas that are strategically important for China's long-term growth and progress on innovation are likely to enjoy regulatory tailwinds. We highlight a group of stocks aligned with policy initiatives in our Quantamental Dashboard (1 Aug 2021) in sectors such as semiconductors or stocks, which are aligned to themes like localization and de-carbonization.

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Stay short S&P 500 Convexity

As we discussed in a recent *Volatility Review* note, we continue to favor short convexity structures to monetize this rich risk premia via ratio variance vs. volatility swap spreads. We maintain this trade given its attractive risk profile and the still distressed convexity risk premium. The S&P 500 is realizing 19% volatility since we rolled our convexity trade into a new structure a month ago (after the prior trade expired at its maximum possible profit), which is well within the positive P/L range of our trade of 9% to 40%.

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Long Mining (SXPP Index)

We are OW mining, upgraded in Q4, on a likely improvement in China activity. European miners are typically a good hedge against high inflation and geopolitical risks. We believe that the sector can pick up again as China growth momentum appears to be bottoming, and policy is likely to get simulative. Further, the sector offers strong balance sheets and very high and well-covered dividend yields.

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Long EM (MXEF Index)

In Q2 and Q3 last year we highlighted tactical headwinds to EM, ranging from China credit impulse weakening, and appreciating USD, but also the continued regulatory uncertainty in China. Consequently, EM equities performed poorly last year, down 21% vs DM. We entered this year looking for convergence between EM and DM as various headwinds are likely to become less problematic, in our view. Within this, we were cautious on China last year and until May this year, but at that point turned positive, advising to add to CSI. The China market has done poorly since February 2021, the regulatory uncertainty appears to be reducing, big tail risk of zero-COVID lockdowns is in the open, with some easing in restrictions likely, there is a probable further stimulus ahead, and the activity hurdle rate in 2H is likely exceptionally favorable.

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Long Banks vs Asia ex Japan

The impact of hawkish central banks (led by the Fed), still above-trend growth, higher inflation, and a likely asset class rotation support a further increase in bond yields in 2022. This should be overall positive for a macro-exposed sector like banks and aligns well with our call for continued Value outperformance this year. The fundamental outlook for banks looks attractive on all fronts—with NIMs improving, NPLs falling, and credit growth recovering. Also, banks have underperformed the benchmark significantly in the last decade. The MXASJBK index is outperforming the regional benchmark so far (+12.9% YTD).

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Long Banks (SX7P Index)

While we acknowledge that Banks are not likely to perform as long as geopolitics is dominating, or if we have a material downturn, we believe banks remain a fundamental OW. Banks are the key play on rising yields, both short and long end, this year, through improving NIMs, and are likely to close the substantial gap they opened up with yields of late. They still look very cheap, on 0.6x P/B, their balance sheets are resilient this time around, with no need for dilution, even if provisioning increases, and dividends are returning to the sector with a healthy, and well covered, 8% yield. Russia exposure appears limited in terms of its impact on banks' capital base.

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Keep Long Positions in Euro STOXX 50 2023 Dividend Futures

Euro STOXX 50 2023 dividend futures rallied ~5.5% since the publication of the last GAA, fully recovering the previous dip. The theoretical upside from our latest consensus bottom-up estimates remains high at ~2%, but we think that dividend estimate revisions will be negative in the second part of the year, thus reducing potential upside. In our recent H2 Outlook publication, we stress tested dividend estimates to reflect scenarios of much weaker growth and of disruption in natural gas supply. At current valuation find that Euro STOXX 50 2023 dividend futures would have approximately 5% downside in a full recessionary scenario (i.e. 2% GDP revisions from current 2023 estimates). We continue to recommend holding long positions in DEDZ3 contracts, which offer a fair risk-reward in the base case of a moderate rather than acute recession. We recommended rolling 2022, which were up ~65% since our initial recommendation in April 2020, into 2023 contracts in June 2021. As of today the DEDZ3 trade is up approximately 5% since inception.

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Stay Long Russell 2000 Up-Var vs. Short S&P 500 Variance

We stay long Russell 2000 Dec'23 50% up-var vs. short S&P 500 Dec'23 vanilla variance, initiated in Dec'20 to generate strong carry and exploit the term structure dislocation between these indices, structured product supply/demand dynamics, and expensive downside wings/convexity. The Russell 2000 less S&P 500 volatility spread was also one of the few popular volatility spread trades that performed well during the pandemic, as the Russell reasserted itself as a higher beta index and its volatility is supported by style and cyclical rotation trades. The trade continued to carry decently over the past month, with the Russell recording a ~3 point realized volatility premium. Since our trade inception, the Russell 2000 realized ~6.5 points higher volatility than the S&P 500 (vs. the implied/strike entry level of -0.75v), and continues to trade well above the up-var strike, delivering significant gains to our trade. We maintain the trade to continue collecting carry, and given still rich convexity levels.

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Stay Long S&P 500 Dividend Futures

We maintain a positive outlook for dividends given: 1) positive fundamentals (companies have been announcing better than expected dividend increases, corporate balance sheets are healthy, and the high oil prices are driving upside in Energy company dividends), and 2) with the dividend curve inverted for the next few years, it is effectively pricing in a near-term US recession (since a typical recession results in a couple of years of near-zero dividend growth), which we believe is unlikely to materialize at this stage. We recommend staying long 2022 and 2023 S&P 500 dividend futures. Performance was mixed over the past month, with S&P 500 2022 and 2023 dividends close to unchanged, giving our trade a cumulative positive mark-to-market gain of +26% on the 2022s, and +4% on the 2023 contracts (in addition to capturing +8% profit on the 2020 contracts when we rolled them to 2022 last October and +27% P/L on the 2021s when we rolled them to 2023 in January). See S&P 500 Dividend Weekly for the latest dividend developments.

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Long COVID-19 International Basket (JPAMCRIB <Index>) vs. SPX

This basket is designed to benefit as the economy reopens and there is progress in containment of the virus. Our screening methodology for COVID-19 Recovery International stocks is based on S&P 500 companies that became considerably cheaper during the pandemic compared to the pre-COVID-19 period (Q2'20 vs Q4'19) based on our Value composite score (sector-neutral equal weight combination of price-to-forward-earnings, price-to-book-value and price-to-sales). The list is then filtered to select only International candidates based on their revenue exposure. The list is reviewed and further revised to incorporate fundamental stock analysts' feedback. See Market Update, Conditions Increasingly Favor COVID-19 Recovery Candidates, US Equity Outlook and State of the Business, Inventory and Capex Cycles. *For exhaustive list of US Thematic Trade Ideas, Please see "Thematic Trade Opportunities."*

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Stay Long 5G Thematic (JPAMFIVG <Index>) vs. SPX

The 5G Thematic basket is composed of stocks that are most closely tied to the ongoing 5G rollout. Using textual analysis of corporate earnings, conferences, and other call transcripts, we identified the top 30 names in the S&P 1500 most strongly associated with the 5G theme based on level and type of discussion. JPM analyst feedback was also incorporated to further refine the list of stocks. *For exhaustive list of US Thematic Trade Ideas, Please see "Thematic Trade Opportunities."*

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Buy the Russell 2000 Value vs the Russell 2000 Growth

Historical evidence suggests that, within SMid-Caps, value tends to outperform growth significantly and consistently. The two SMid indices with the longest history are the Russell 2000 value and growth indices, which go back to Dec 1978. Since then, the value index has outperformed the growth index by a sizable 5,199% (total return), with only two periods of sustained underperformance that were the Tech bubble and the most recent equity market cycle (i.e., since 2007). In fact, one can say that the growth index has NEVER outperformed the value index as strongly as it has done since 2007. With this in mind, we feel compelled to turn OW on value for the following reasons: 1) valuation dispersion is near record highs, at levels not seen since the tech bubble, which ended with the growth index underperforming the value index by 100% in the following two years; 2) the most expensive quintile of the US SMid universe at this juncture is sporting P/E multiples that discount close to a decade of growth before such multiples will fall below the historical average valuation of US SMid-Caps (with the Russell 2000 Growth sporting very similar premiums); 3) the stocks commanding such multiples are those with the highest consensus expectations of EPS growth . . . one of the most consistent contrarian indicators of 12-month forward performance we can find; and 4) because the common belief that growth is worth buying at almost any price when faced with a low economic growth environment is simply not true – empirical evidence shows a perfect inverse relationship between consensus estimated EPS growth and 12-month forward returns among Japanese SMid-Caps during the last 20+ years (i.e., since 1998), with the highest decile of FCF Yield, Div Yield, and the lowest decile of P/E, P/B, or EV/EBITDA having delivered close to 1000 bps of yearly alpha vs the top decile of consensus 12-month fwd EPS growth estimates. As a result, we stick to our pair trade recommendation (OW the Russell 2000 Value vs the Russell 2000 Growth). This pair trade has delivered a total return of 4325 bps since we launched it on Oct 8, 2020.

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Credit Trading Themes

Be neutral on MBS, expressed in specified pools

Mortgage valuations remain extremely volatile, with the significant outperformance in July abruptly reversing on Tuesday as hawkish Fed speak drove rates and vol higher. Cleveland Fed President Mester's comments about MBS sales on Thursday reinvigorated questions around the future path of QT and coincided with underperformance of lower coupons. The strong jobs report on Friday and subsequent selloff saw production coupons widen, resulting in a stack that looks wider and steeper week over week. We maintain many of our core themes; lower coupons look fundamentally rich, and Thursday's relatively slow prepayment report wasn't particularly supportive. Up the stack, the spread pickup is decidedly greater, but investors should allocate to specified pools for a more stable cashflow. It's too challenging to try to replicate the benchmark with TBAs.

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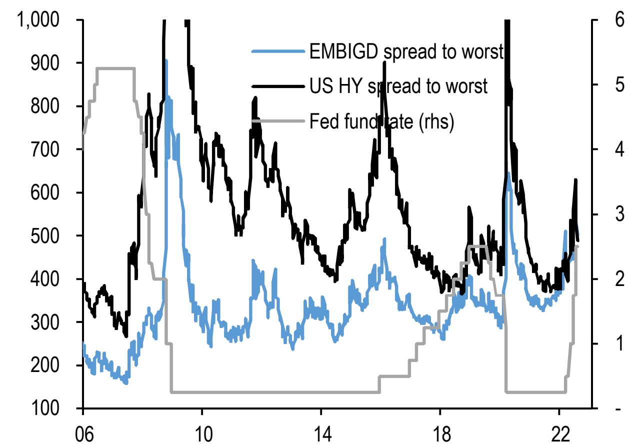
OW EM Sovereign Credit vs DM corporate Credit

Since our last GAA in July, Credit spreads have tightened amid a rebound in risk markets. Spreads on EMBIGD (-35bp) have lagged US HY (-90bp).

As a result, the relative valuation gap between EM sovereigns and US HY is still attractive. Relative to US HY, EMBIGD spreads are close to the widest level of the post GFC era. The differential between the credit spread on both indices at +14bp corresponds to a 95th percentile reading in the 2003-2022 sample and has fallen already substantially from March highs (around +60bp). Notably, the spread between EM Sovs and US HY is trading above 4Q18 levels (i.e., at the end of last Fed hiking cycle) and above 1Q16 levels, i.e., at the worst of global EM-led manufacturing slowdown of 2015/2016. In absolute terms and since 2005, EMBIGD spreads have been higher only at the zenith of the GFC and COVID-19 recessions. With inflation peaking and a mid-cycle slowdown remaining the most likely scenario in our view, this macro RV trade should mean revert more meaningfully. Commodities could also be a tailwind with 60% of net commodity exporters in the EMBIGD.

US HY and EMBIGD spread to worst and Fed Fund rate



Source: J.P. Morgan

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Long US vs. EUR IG credit

The combination of the real income shock and concerns over gas supplies in the Euro area has prompted our economists incorporate a mild contraction in 4Q22 and 1Q23 of 0.5% q/q annualized (*Euro area: Expansion runs out of gas*, Jul 26th). While this baseline still assumes ongoing gas flow from Russia albeit at lower capacity, risks are clearly skewed to the downside on growth given the potential for more severe disruptions to gas flows or a severe winter that could force rationing. In addition, political uncertainty in Italy has again been brought to the fore with the resignation of PM Draghi and snap elections taking place in end-September. And while EUR credit has been supported by lack of primary market activity, with July having seen the lowest issuance since April 2012, a reopening of primary markets after the summer with issuers contending with a post-ECB QE landscape represents another source of pressure. As a result, we continue to see more formidable headwinds to EUR credit than USD credit.

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Fixed Income Trading Themes

Keep 5s/20s UST curve flatteners

Building evidence of a slowing in growth momentum and incrementally dovish comments from Powell at the July FOMC meeting had seen USTs rally. However, subsequent hawkish commentary from traditionally dovish members suggesting the door is open for another 75bp hike in September had started to see the curve bear flattening again. This bear flattening was further fuelled by the strength in the labor market report that will likely fuel the Fed's inflation concerns and prompted our economists to now see a 75bp hike in Sep, rather than 50bp as previously, followed by 25bp hikes in Nov and Dec.

This backdrop of softening US and global growth momentum along a tight labor market and high inflation remains in our mind conducive to further flattening of the UST curve over the medium term, and we keep 5s/20s flatteners.

P&L: +1bp since Jul22 GAA, +11bp since inception in May22 GAA.

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Stay long 5y Germany vs. US

As a result of the real income shock from higher inflation and concerns over natural gas supplies heading into winter, our Euro area economists now expect a mild contraction in 4Q22 and 1Q23. Moreover, while this baseline still assumes ongoing gas flow from Russia albeit at lower capacity, risks are clearly skewed to the downside on growth given the potential for more severe disruptions to gas flows that could force rationing. They also see less scope for ECB hikes, and now expect 50bp of additional hikes by end-2022 before pausing at 0.5% until mid-2023, while markets price in around 120bp of hikes by mid-2023. This divergence between a Fed that faces further pressure to hike from the strength in labor markets and an ECB that faces very different trade-offs means we stay long 5Y Germany vs. US.

P&L: +10bp since inception in Jul22 GAA.

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Hold short 10y Italy vs. Germany

In addition to the more challenging growth backdrop for the Euro area, ongoing political uncertainty also weigh on periphery spreads. The resignation of PM Draghi and a snap election having been called for end-September means political noise will likely continue to warrant a greater risk premium. And while spread have tightened recently amid some more constructive noise from Brothers of Italy and Forza Italia leaders, a liquidation of shorts in BTP futures makes the positioning backdrop cleaner. Moreover, while the ECB's TPI does provide some protection, the pain threshold for spread widening to pressure the ECB to intervene in a widening of spreads due to political noise is wider than the 250bp they reacted to in mid-June. We thus stay UW Italy vs. Germany.

P&L: -1bp since Jul22 GAA, + 44bp since inception in Mar22 GAA.

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Cross-market rule-based signals: long 10y EUR and AUD swaps vs. USD and NOK swaps

We update our regular suite of rule-based signals for outright and cross-market fixed income trading in the Appendix. The sell-off in bonds since the start of the year saw a marked reversal in July, with the average of the 10y swap rates in our sample declining by 44bp. In terms of changes in our signals, EUR swaps replaced CAD swaps as the highest ranked market by carry-to-risk after the outperformance of CAD swaps in the rally. This outperformance also saw CAD swaps replace AUD swaps among the lowest ranking countries in the change in slope signal. Finally, NOK swaps replaced GBP swaps among the lowest ranking countries by carry to risk after the recent large upside surprise to inflation saw front-end rates repriced higher.

Given the BoJ's 10y yield target, we continue to exercise discretion by excluding JPY swaps from the short leg of our signals. This month, this means replacing JPY swaps with NZD swaps and GBP swaps for the carry and real yield signals respectively. Overall, this leaves our signals long EUR and AUD swaps vs. USD and NOK swaps.

P&L: +2.2% since Jun21 GAA; cumulative return since Feb 18: +6.7%.

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FX Trading Themes

We have recently stuck by our long-USD bias despite some signs of softening growth and a dollar-negative price response to the July FOMC meeting. Recent Fedspeak and the strong July payrolls data has put the USD back on track for strong gains, and it remains the core of our portfolio (we have longs vs EUR, GBP and a bloc of high-beta FX). We continue to have high conviction in CHF (long vs EUR, GBP) and also have some later-cycle JPY long hedges on (digi calls vs NZD & KRW, and we added a EUR/JPY put spread recently). We stay short NZD. We expect the remainder of August to be choppy trading, reflecting seasonal liquidity and greater sensitivity to data releases given the Fed's renewed data dependence.

Add to JPY length via EUR/JPY put spread

Having ended the week higher on weak US PMI last week, the yen repeated its rally late in this week on the back of FOMC, which was perceived as slightly dovish by the markets, and an unexpected decline in US 2Q GDP. USD/JPY fell more than 3% from its highs, and cross Yen were also down across the board. Amid the ongoing rates rally, we executed a 3m EUR/JPY put spread as a partial hedge against the risk that the market continued to price growth concerns over inflation, and lower yields by extension. The trade has round-tripped following Speaker Pelosi's Asia visit, Fedspeak and US payrolls this week, with global yields rebounding. This trade can stay under pressure with yields elevated, but is more than offset by our long-USD orientation in that case, and can also benefit amid renewed pressure on the EUR leg.

– **Bought a 3m EUR/JPY put spread. Spot ref 136.23. K=134,129. Cost 98bps. Marked at -23bps.**

– **Hold 9m NZD/JPY digital put. Spot ref 84.95, K=75. Cost 17.35%. Marked at 13.57%.**

– **Hold 6m JPY call/KRW put. Spot ref 9.50, K=10.45. Cost 19.75%. Marked at 17.90%.**

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Hold EUR shorts in cash and options vs USD & CHF.

Euro shorts remain are highest conviction recommendation within G10 as in our view, it has the most durable macro theme. Energy dependence remains the core issue for the single currency, and pressures on this front are intensifying. Gas (TTF) prices have once again breached €200/MWh this week after Russia announced that Nord Stream supplies will be cut to 20% capacity from Wednesday onwards. Against the backdrop, the euro has been remarkably resilient near 1.02, compared to two weeks ago when a similar breach in gas pushed EUR/USD towards parity. Perhaps the market is putting substantial weight on this being only a temporary disruption since a turbine is making its way back from Canada, or more importantly, perhaps this is related to the loss of growth momentum in the US and the indication from Powell that the Fed will be taking a more data dependent approach.

In our view, risks are skewed euro-bearish the longer this issue prolongs. The hit to Euro area economic sentiment is already evident in the survey data released in the past week with PMIs softening and IFO expectations survey signaling a deep recession. The US is undergoing its own growth slowdown as indicated in claims and PMI, and the Fed is taking a more data-dependent approach, so understandably EUR/USD should weaken by less than if the EU alone were slowing down. But, we think that Fed will continue to prioritize inflation and the latest firmer than expected ECI should help to curtail USD bearishness. Moreover, given that the energy dependence issue more acutely affects Europe, we expect the impact net-net still be EUR-negative and for EUR/USD to weaken. EUR/CHF is perhaps the cleaner expression of the bearish euro view since it reduces exposure to the shifting US story, but EUR/USD will likely stay vulnerable over the medium-term. We stay bearish EUR vs. CHF and USD in our recommendations.

CHF extended its rise vs EUR into the 0.97 handle recently before paring gains this week, extending what has been an impressive trend lower in the pair, which we have been long targeting. Of course, the EUR leg of our short EUR/CHF in cash has been aided by continued downside from the negative spillover of soaring natural gas prices and renewed concern over Nordstream supply. But fundamentally, long CHF remains firmly supported, in our view, from the dual tailwinds of the franc's anticyclical growth properties, as well as the impact of the SNB's (now well-appreciated) policy pivot. The latter was reinforced by recent headlines reiterating that SNB policy action could come sooner than the next policy review. This should not in itself be a surprise but does serve to underline the point that further tightening is in all likelihood in the pipeline, supporting the franc. From a flow perspective, weekly sight deposit data continue to suggest a trend toward net CHF purchases by the SNB, which to the degree that it persists should form another tailwind for the franc.

– **Hold EUR/USD in cash. Tighten stop to 1.0350. Marked at +4.99%.**

– **Stay short EUR/CHF in cash. Marked at +4.95%.**

– **Hold 4m at-expiry digital EUR put/USD call. K=0.95. Cost 10.89%. Spot ref 1.0152. Marked at -2.98%.**

– **Hold 6m EUR/CHF bearish risk reversal. Long put K=0.9700. Short call K=1.0620. Zero cost. Marked at 31.83%.**

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Hold USD vs. basket of G10 high-beta FX

We can continue to run USD length vs G10 high-beta to reflect the state of the global cycle. G10 commodity FX screens fairly valued against global momentum. The bloc has failed to outperform the dollar this year despite known, significant terms-of-trade support, which is consistent with our ex-ante thesis that higher commodity prices in the absence of strong global growth is at best mixed for the group. This suggests that a baseline for G10 commodity FX stabilization as a whole will likely be a moderation, and eventual improvement in global growth expectations. One additional headwind for the bloc could be the ongoing withdrawal of G10 central bank liquidity, to which the bloc is traditionally correlated.

– **Hold USD vs. basket of G10 high-beta FX. Marked at +0.40%.**

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Bearish NZD; stay short vs AUD and vs a basket of reserves

Local events have been in focus of late, with the RBA signaling more sensitivity around the consumer outlook, and NZ labor market data softening (u-rate moved higher) but wages were nevertheless firm; we upgraded our RBNZ forecast as a result. Nevertheless, we continue to view the NZ cycle as more mature, with AU's more buttressed by strong ToT anchoring fiscal support. AUD/NZD is also cheap to ToT valuations. This remains a core strategic long.

– **Stay long AUD/NZD in cash. Marked at +0.65%**

– **Hold short NZD basket vs USD, CHF, & JPY. Marked at +1.76%.**

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Stay short GBP

GBP has firmed of late, with the TWI up 1.25% and with cable up 3% since mid-month. We're inclined to point to technical factors including some covering of short positions and the rebound in EUR/USD after breaching parity to explain some of this bounce. GBP remains difficult to model, with the previously-solid relationship with relative real yields breaking down as UK yields have moved meaningfully higher. What is very interesting however is that cable continues to closely track the UK's short-end curve inversion. The current Rsq here is over 0.80%, a remarkably tight correlation. The UK has the second-deepest inversion after the US; like the US, it appears that this rate pricing only converges towards neutral (or slightly above) territory, rather than an outright easing cycle. Nevertheless, the close correlation may be a signal that the FX ultimately remains concerned over the UK's cyclical prospects. Should rates remain inverted, this would suggest a cap on any further rebound in GBP.

– **Stay GBP short vs. 50:50 USD & CHF basket. Marked at +0.13%.**

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Commodities Trading Themes

Stay long the agri commodity complex

(First published in Trade Ideas for Long Term Investors, Panigirtzoglou et al, 18 October 2017).

The J.P. Morgan JPMCCI Ex-Front Month Agriculture Excess Return Index declined a further 1% MOM, and is tracking 16% below the near-term peak attained in mid-May. While the index is still tracking an 8% YTD gain, it has eroded all conflict-based risk premium and is back to pre-conflict levels. Markets are trading as if Ukrainian production and export flows will be back to business as usual through 2022/23 – that is simply not the case. We flag that the 'Black Sea Initiative' is not an indication of a normalization of Ukrainian export flows – which would likely require a peace deal to move grains & oilseeds from farm to port (see Agricultural Markets Update, Allen & Aggarwal, July 22).

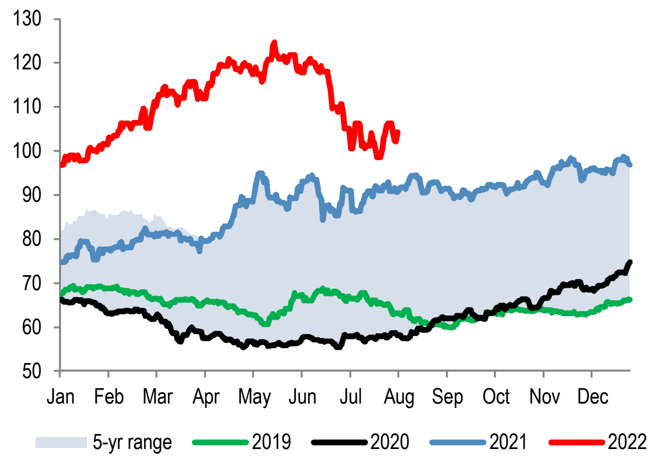
Unlike previous episodes, the food price shock of 2021/22 has been driven by a confluence of supply, demand, and structural factors including a multi-year La Niña impacting rainfall patterns across the Pacific. All of which have been exacerbated by the indefinite close of Ukrainian seaports amid Russian conflict and disruptions to global fertilizer supply chains. Unlike prior food price inflationary episodes, high price alone will in not be sufficient to solve the inventory crunch on this occasion, which is likely to be lasting in our view. **For agri markets, this time is different, and far more complex to overcome-despite the aggressive selloff across markets through late May** (see *Agricultural Markets Quarterly: Higher for longer – redistributing the heat in agri prices over the medium term*, Allen & Aggarwal, June 2).

The collapse is masking the broader outlook of historically tight exportable grain and oilseed inventories, and at oversold levels, we now see spot as well as deferred contracts as offering value to consumers and investors alike. Our analysis indicates that agricultural demand has held quite steady through previous recessionary periods – with the notable exceptions of discretionary commodities like cotton. Attempts to build risk premium have been quelled by systematic selling. But temperature forecasts have turned threatening across much of the Northern Hemisphere and yield and production potential are suffering, in an environment of historically tight export availability (see *Agri Markets Weekly: Macro stress confounds fundamentals as ag weather risks turn to threats*, Allen & Aggarwal, June 24).

- **Went long the agri commodity complex via a proxy index, J.P. Morgan JPMCCI Agriculture Ex-Front Month Excess Return Index at 75.45 points on 18 October 2017. Trade is marked to market at a profit of +28.8 points or +38.2% on August 4.**

The J.P. Morgan JPMCCI Ex-Front Month Agriculture Excess Return Index declined a further 1% MOM, and is tracking 16% below the near-term peak attained in mid-May

J.P. Morgan JPMCCI Ex-Front Month Agriculture Excess Return Index



Source: Bloomberg Finance L.P., J.P. Morgan Commodities Research, as of 4 August

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Global Research Digest

Macro & Cross-Asset Views
US fiscal situation not sustainable long term, by any metric: The long-term budget outlook from the Congressional Budget Office, Joyce Chang and Jan Loeys

We hosted a virtual investor meeting featuring Phillip Swagel, Director of the Congressional Budget Office (CBO), who discussed projections from the 2022 Long-Term Budget Outlook. CBO projects that net interest outlays will double from 1.6% to 3.3% of GDP by 2032, while the federal debt will climb from 98% to 110% of GDP by 2032. Our US economics team sees downside risks to the CBO near-term baseline with higher unemployment, a more aggressive Fed, higher interest rates and higher inflation playing out as "immaculate disinflation" proves elusive. US debt-to-GDP and real debt servicing costs rise to ~112% and 2% of GDP respectively if 10-year Treasury yields reach 5.5% by 2032, rather than the CBO's baseline forecast of 10-year Treasury notes at 3.8% in 2032.

Flows & Liquidity: Gauging the outlook for profit margins, Nikolaos Panigirtzoglou

A recession or potentially weaker economic growth would naturally exert some downward pressure in profit margins over the coming year, but any such cyclical pressure is likely to reverse quickly as it happened during past recessions or soft patches. Beyond cyclical variations, the more structural challenge for profit margins going forward stems from a potential uptrend in the relative price of capital or labor vs. output prices as globalization retreats. After falling during the previous three decades, the relative price for capital appears to have stabilized in recent years, entering a flattish rather than upward trajectory. The relative price for labor has been more mean reverting.

Global Economics and the Recovery from COVID-19
The waters of Taiwan Strait get muddied, Haibin Zhu

Beijing's announcement of military drills around Taiwan during August 4-7, leading to effectively a military blockade of the Strait, if extended, could significantly affect global shipping and add to global supply chain/ logistics disruptions. A meaningful extension or a higher frequency of the military drills could imply a notable shipping route diversion and lengthening of shipment days, thereby increasing freight costs. On trade sanctions, so far, Mainland China's announced restrictions on some fruit and fish imports from Taiwan seem to be modest and we think Mainland China will be cautious about expanding the trade restrictions to a much broader range of products.

The EU gas savings plan ahead of a long winter, Marco Protopapa

The EU Council has adopted a gas savings plan to gradually reduce gas demand to minimize the risk of shortages next winter. These preventive gas savings are calibrated to withstand a shutdown of Russian supply from an EU-wide perspective, allowing gas to be redistributed within the region from countries in (relative) surplus to countries in deficit. The plan entails 10-15% gas savings target over Aug-Mar, but on a voluntary basis, which may become compulsory in the case of a region-wide emergency.

BoE: a 50bp hike, and a willingness to still act forcefully, Allan Monks

BoE raised rates 50bps and the decision was motivated by an observation that inflation was becoming more persistent, requiring a "more forceful" response. We look for a 50bp hike in September (previously 25bp forecast). We then expect the BoE to pause in November (previously 25bps) as it sees clearer evidence of weakening growth domestically and elsewhere in Europe, and some clearer signs of a weakening labor market, leaving rates still at 2.25% by year end. A further significant fiscal easing looks likely in the near term in response to the latest spike in gas prices, probably resulting in a more mild recession than the BoE is projecting.

EM debt: Sometimes a scary chart is just a scary chart, Jahangir Aziz

A perceived increase in foreign borrowing by EM corporates over the past five years has added to the concern that the higher rates could damage EM corporates more materially in the coming quarters. However, EM corporate balance sheets are substantially healthier than in 2012-13 and are likely to be a source of resilience in the face of potentially higher global interest rates and a stronger dollar. That said, the concern now should be over how the higher borrowing cost is changing corporate behavior, which, in turn, is complicating central banks' efforts to fight inflation.

Global Market Implications
Global Commodities Oil: With oil market already in balance, OPEC+ responds with a symbolic increase in quotas, Natasha Kaneva

While the 23-nation OPEC+ alliance agreed to a small production increase in September, lifting supply by just 100 kbd, we make no changes to our supply numbers and assume largely flat OPEC+ growth through year-end. The muted increase in production is in line with OPEC moving into a defensive stance and protecting the downside for prices. Furthermore, Russia's exports re-routed toward other buyers without a serious disruption to its production, and demand, while still growing, has largely underwhelmed our expectations.

Credit Market Outlook & Strategy: The gradual rally continues, Eric Bernstein

The significant negative market moves this year have potential positive fundamental ramifications for pension funding status going forward, and by implication for credit ratings, as discount rate assumptions reset higher. We estimate that currently the pension funded ratio across the largest pensions is around 106.5%, the highest it has been since the GFC and up 11% YoY. In addition, HG bond spreads have continued to drift lower despite the headwinds of lower UST yields and an active supply calendar.

EM Fixed Income Focus: Tracking China's impact on rates, FX and credit, Jonny Goulden and Saad Siddiqui

China-related risks are more pronounced in EM FX, than for EM rates or credit. The channels that China downside risks will impact the rest of EM are through growth and exports, which impact EM FX more, particularly Latam's commodity exporters. With rising recession risk, EM rates will likely diverge with low-vulnerability country longer-end yields trading lower with DM rates, while those with vulnerabilities requiring higher risk premium. Property sector risks are being seen more through the lens of a domestic credit issue with limited direct spillover to the rest of EM credit beyond the growth channel.

China Evergrande Group: Option play on restructuring framework, Frank Pan

Citing ongoing due diligence of its businesses and operations, Evergrande was unable to present an initial proposal for restructuring of its offshore debt by the extended end-July deadline. With no apparent authority overseeing the process, Evergrande's situation could potentially become more complex given its scale and diverse businesses. In our view, such issues along with the current self-salvation path could lead to more delays. We remain Neutral on Evergrande and prefer other distressed credits with possibly faster turnaround.

Sector Level Views

R1 RCM: Acquisition + $10B Contract + Labor Shortages Make RCM Attractive Here, Move to OW from NR, Anne E. Samuel

We believe that RCM is well positioned in the current hospital environment given the need to outsource labor intensive processes, and we expect labor shortages to serve as a meaningful tailwind of adoption. Our bottom-up waterfall analysis points to a 3-year revenue CAGR though 2025 of 21% underpinned by a $10B NPR contract signed in July 2022 and 12% new NPR growth through 2025 (guide 12-14%).

ASEAN Energy: Back the feed molecule over the end-product; OW PCHEM, PTTEP, PTTGC; UW on PTT; d/g IVL to N, Sumedh Samant

The present energy upcycle is creating clear winners among upstream names, but also driving 'non-linear' downstream impact due to cost-competitiveness shift, margin squeeze and state intervention risks. We assume coverage on ASEAN Energy with preference for upstream and refining, and like select petrochemicals based on feedstock-positioning and capacity growth. We recommend a 'barbell' portfolio of structural winners (PCHEM, PTTEP) and 'would-be winners' hurt by specific issues (PTTGC, TOP).

Delivery Hero SE: With market share gains and strongly improving profitability risk/reward turns - upgrade to OW, Marcus Diebel

We see Delivery Hero as well positioned in the Online Food Delivery industry with high market share in the markets it operates. With GMV expectations been reset after the recent profit warning, we increasingly see data points for improving profitability and our app traffic analysis reveals market share gains for DH in Asia, particular in Korea.

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Marko Kolanovic, PhD; Nikolaos Panigirzoglou; Bram Kaplan, CFA; Thomas Salopek; Federico Manicardi; Mika Inkinen; Amy Ho

APPENDIX: Forecasts & Strategy

Rates	Current	Sep-22	Dec-22	Mar-23	Jun-23
US (SOFR)	2.28	2.55	3.45	3.55	3.55
10-year yields	2.63	3.25	3.10	3.00	2.85
Euro area (depo)	0.00	0.50	0.75	0.75	0.75
10-year yields	0.82	1.20	1.00	0.90	0.80
Italy-Germany 10Y (bp)	221	250	225	200	200
Spain-Germany 10Y (bp)	110	115	100	90	85
United Kingdom (repo)	1.25	2.25	2.25	2.25	2.25
10-year yields	1.86	2.20	2.05	1.95	1.85
Japan (call rate)	-0.10	-0.10	-0.10	-0.10	-0.10
10-year yields	0.18	0.25	0.25	0.25	0.25
EM Local (GBI-EM yield)	6.93		7.05		
Currencies	**Current**	**Sep-22**	**Dec-22**	**Mar-23**	**Jun-23**
JPM USD Index	130	132	133	133	133
EUR/USD	1.02	0.95	0.97	1.00	1.02
USD/JPY	133	138	140	139	138
GBP/USD	1.22	1.14	1.15	1.16	1.17
AUD/USD	0.70	0.68	0.7	0.72	0.74
USD/CNY	6.74	6.75	6.80	6.85	6.95
USD/KRW	1299	1320	1340	1360	1360
USD/MXN	20.39	20.00	20.25	20.50	20.75
USD/BRL	5.19	5.10	5.30	5.25	5.25
USD/TRY	17.92	19.00	20.00	21.00	22.00
USD/ZAR	16.65	16.00	16.25	16.50	16.75
Commodities	**Current**	**Sep-22**	**Dec-22**	**Mar-23**	**Jun-23**
Brent ($/bbl, qtr end)	104	104	101	95	94
WTI ($/bbl, qtr end)	98	101	98	91	90
Gold ($/oz, qtr avg)	1,773	1,800	1,720	1,670	1,550
Copper ($/ton, qtr avg)	7,771	7,700	6,500	6,500	6,700
Aluminum ($/ton, qtr avg)	2,464	2,500	2,250	2,250	2,350
Iron ore (US$/dt, qtr avg)	117	140	125		
Wheat ($/bu, qtr avg)	8.1	12.5	12.5	12.0	11.5
Soybeans ($/bu, qtr avg)	14.9	17.0	16.5	16.3	16.0

Source: J.P. Morgan flagship weekly/monthly strategy publications.

Credit		Current	Dec-22
US High Grade (bp over UST)	JPM JULI	170	175
Euro High Grade (bp over Bunds)	iBoxx HG	204	250
US High Yield (bp vs. UST)	JPM HY	549	525
Euro High Yield (bp over Bunds)	iBoxx HY	641	750
EM Sovereigns (bp vs. UST)	JPM EMBIGD	544	575
EM Corporates (bp vs. UST)	JPM CEMBI	404	375
Equities		**Current**	**Dec-22**
S&P 500		4,124	4,800
MSCI Eurozone		231	275
FTSE 100		7,423	8,150
TOPIX		1,940	2,100
MSCI EM ($)		998	1,300
MSCI China		69	116
MSCI Korea		746	980
MSCI Taiwan		584	780
MSCI India		1,969	2,000
Brazil (Ibovespa)		103,682	125,000
Mexico (MEXBOL)		48,255.9	54,400
MSCI South Africa (USD)		420.0	521

Equity sector recommendations & year-to-date returns

	US		Europe		Japan		EM	
Energy	38%	OW	22%	OW	32%	N	-25%	OW
Materials	-14%	N	-12%	OW	-6%	N	-18%	OW
Industrials	-12%	N	-16%	OW	-4%	OW	-11%	N
Discretionary	-25%	N	-16%	N	-5%	OW	-16%	OW
Staples	-2%	UW	-2%	UW	1%	N	-11%	UW
Healthcare	-6%	OW	2%	UW	0%	UW	-20%	UW
Financials	-15%	OW	-10%	OW	12%	OW	-8%	OW
Technology	-20%	N	-23%	N	-17%	N	-27%	N
Comm Service	-29%	N	0%	OW	12%	UW	-24%	N
Utilities	4%	UW	-4%	N	33%	UW	-2%	UW
Real Estate	-13%	UW	-22%	UW	9%	N	-17%	N
Overall	**-15.0%**		**-7.9%**		**-2.0%**		**-18%**	

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

Global Economic Outlook Summary

	Real GDP									Consumer prices			
	% over a year ago									% over a year ago			
	2021	2022	2023	1Q22	2Q22	3Q22	4Q22	1Q23	2Q23	4Q21	2Q22	4Q22	2Q23
United States	5.7	1.6 ↓	1.2 ↓	-1.6	-0.9 ↓	1.0	1.5	1.8	1.3	6.7	8.6 ↑	6.8 ↑	3.5 ↑
Canada	4.5	3.5 ↓	1.9 ↓	3.1	3.5 ↓	2.0 ↓	1.8 ↓	1.8 ↓	1.8	4.7	7.5 ↑	6.8	2.6
Latin America	6.6	2.4	0.6 ↓	3.1	2.8 ↑	-0.5 ↓	-0.4 ↓	0.6 ↓	1.0	8.3	10.2	8.0	5.4 ↑
Argentina	10.4	2.7 ↓	-0.4 ↓	3.5	2.5 ↑	-5.0 ↓	-1.0 ↓	0.0 ↓	1.0	51.4	60.8	86.4 ↑	97.0 ↑
Brazil	4.6	1.6	-0.2	4.0	3.0	-1.0	-1.6	-0.4	0.4	10.5	11.9	7.5 ↓	4.9 ↓
Chile	11.7	2.5 ↑	-1.0 ↓	-3.0	1.4 ↑	-4.5 ↓	-3.0 ↓	0.0	0.5	6.6	12.5	11.6 ↑	7.1 ↑
Colombia	10.7	7.2 ↑	2.5	4.0	6.5 ↑	1.0 ↓	2.0	2.5	2.5	5.2	9.3	9.6 ↑	6.4 ↑
Ecuador	4.2	1.6	1.9	1.6	-4.2	3.5	3.0	1.5	2.5	1.8	3.5	5.0	3.8
Mexico	4.8	2.0 ↓	1.2 ↓	4.1	4.0 ↓	0.5 ↓	0.3 ↓	1.6	1.2	7.0	7.8	7.6 ↑	5.7 ↑
Peru	13.5	2.6	2.5	-1.7	-2.3 ↑	7.5 ↓	3.0 ↓	0.5	2.0	6.0	8.8	7.1	4.4
Uruguay	4.4	4.5	4.5	2.5 ↓	0.0	1.0	2.4	2.0	2.0	7.9	9.3	8.4	6.1
Asia/Pacific	6.3	3.2 ↓	3.9 ↓	5.1 ↑	-3.0 ↓	6.5 ↑	4.3 ↓	4.0	3.8	2.1	3.3	3.8 ↑	2.9 ↑
Japan	1.7	1.1 ↓	1.4 ↓	-0.5	2.0 ↓	1.0 ↓	3.0 ↑	1.0	1.0	0.5	2.1	2.1 ↓	1.8
Australia	4.8	3.6	2.5	3.1	2.1	1.9	2.8	2.4	2.4	3.5	6.0 ↑	7.0 ↑	4.3 ↑
New Zealand	5.7	1.6	2.3	-0.6	2.6	2.8	2.2	1.9	2.1	5.9	7.3 ↑	4.9 ↑	2.3
EM Asia	7.4	3.7 ↓	4.5 ↓	6.5 ↑	-4.5 ↓	8.0 ↑	4.7 ↓	4.8	4.5	2.4	3.3 ↓	4.0 ↑	3.0 ↑
China	8.1	3.2 ↓	5.1 ↓	7.4 ↑	-8.7 ↓	10.5 ↑	5.7 ↓	5.5	5.0	1.8	2.2 ↓	3.2 ↑	2.6 ↑
India	8.7	6.6	4.3	7.9	4.5	4.5	4.0	4.0	4.5	5.0	7.3	6.3 ↓	5.0 ↓
Ex China/India	4.5	3.6 ↓	2.8 ↓	3.5	2.7 ↓	2.8 ↓	2.4 ↓	3.4 ↑	3.3	2.9	4.5	5.2 ↑	3.2 ↑
Hong Kong	6.3	-0.7 ↓	4.4 ↑	-11.1	3.6 ↓	9.7 ↑	6.0	2.4	2.4	2.0	1.5 ↑	2.2 ↑	2.3 ↑
Indonesia	3.7	4.8	3.0	3.5	4.0	4.2	4.2	4.4	4.0	1.8	3.7	4.7	3.1
Korea	4.2	2.7	1.8 ↓	2.6	2.9 ↑	1.3 ↓	1.3 ↓	2.0	2.0	3.5	5.4	6.6	4.0
Malaysia	3.1	6.8 ↓	4.4 ↓	16.4	4.8 ↑	0.5 ↓	0.5 ↓	6.5	6.5	3.2	2.8 ↓	3.6 ↑	2.7 ↑
Philippines	5.7	6.7 ↓	5.2 ↓	7.6	3.0 ↓	0.5 ↓	0.5 ↓	8.0 ↑	7.5	3.6	5.5 ↑	5.9 ↑	3.7 ↑
Singapore	7.6	4.3	2.0	2.8	7.0	1.0	1.3	2.0	1.8	3.7	5.7	5.3	2.7
Taiwan	6.6	2.9 ↓	2.3 ↓	4.3	-2.9 ↓	3.0 ↓	2.5 ↓	2.5 ↓	2.5	2.7	3.5 ↑	3.1	2.0
Thailand	1.5	3.0	3.3	4.7	1.2	3.9	3.2	3.3	3.4	2.4	6.5	6.8	3.2
Western Europe	5.6	3.0 ↓	0.7 ↓	1.9 ↓	2.1 ↑	0.5 ↓	-0.6 ↓	-0.2 ↓	1.6	4.6	8.1 ↑	9.2 ↑	4.9 ↑
Euro area	5.3	3.0 ↓	0.7 ↓	2.0 ↓	2.8 ↑	0.5 ↓	-0.5 ↓	-0.5 ↓	1.8	4.6	8.0 ↑	8.9 ↑	4.6 ↑
Germany	2.6 ↓	1.6 ↓	0.5 ↓	3.2 ↑	-0.1 ↓	0.5 ↓	-0.5 ↓	-0.5 ↓	1.8	5.4	8.3	9.1 ↑	4.5 ↑
France	6.8	2.5 ↑	0.7 ↓	-0.8	2.1 ↑	0.5 ↓	-0.5 ↓	-0.5 ↓	2.0	3.3	5.9	7.1 ↑	4.0 ↑
Italy	6.6	3.3	0.5 ↓	0.4 ↓	4.2 ↑	0.0 ↓	-2.0 ↓	-0.5 ↓	1.5	3.7	7.4	8.6 ↑	4.6 ↑
Spain	5.1	4.6 ↑	1.3 ↓	0.8	4.6 ↑	2.0 ↓	-0.5 ↓	0.0 ↓	2.0	5.8	8.9	9.3 ↑	4.9 ↑
Norway	4.2	2.9	1.4	-2.4	3.0	1.8	1.3	1.3	1.3	3.4	3.3 ↓	6.6 ↑	4.5 ↑
Sweden	4.9	1.8	0.9	-3.2	2.5	0.5	0.0	0.8	1.3	3.3	7.4 ↑	9.3 ↑	4.6 ↑
United Kingdom	7.4	3.3 ↑	0.3 ↓	3.0	-1.0 ↑	0.5 ↓	-1.2 ↓	0.8 ↓	1.2	4.9	9.2 ↑	11.0 ↑	6.7 ↑
EMEA EM	6.4	1.6 ↓	1.3 ↓	4.1	-6.7 ↓	-1.6 ↓	0.6 ↓	2.1 ↓	3.2	10.3	23.8 ↓	23.4 ↓	10.4 ↑
Czech Republic	3.3	3.0 ↓	1.1 ↓	3.5 ↓	0.8 ↑	1.0 ↓	-0.5 ↓	0.3 ↓	2.0	6.1	15.8	19.6 ↑	10.6 ↑
Hungary	7.1	5.6 ↓	1.2 ↓	8.7	3.0	0.3 ↓	-0.3 ↓	-0.3 ↓	2.5	7.1	10.6	17.2 ↑	12.9 ↑
Israel	7.9	5.4	3.7	-1.8 ↑	3.6	3.0	3.0	4.1	4.1	2.5	4.2 ↓	5.0 ↑	3.5 ↑
Poland	5.9	5.8 ↓	1.3 ↓	10.0	-1.0 ↓	1.5	0.3 ↓	-0.3 ↓	2.5	7.7	13.9 ↓	14.9 ↓	11.2 ↑
Romania	6.0	6.0	5.0	22.5	2.4	3.0	2.4	6.6	5.3	8.0	14.4	13.8	9.2
Russia	4.7	-3.5	-1.0	-1.4	-19.0	-7.0	0.0	1.5	2.5	8.3	16.9 ↓	13.2 ↓	3.8 ↓
South Africa	4.9	1.7 ↓	1.2 ↓	8.0	-3.7 ↓	0.0 ↓	0.9 ↓	1.8 ↑	2.0	5.4	6.6	7.4	5.7 ↑
Turkey	11.0	3.7	3.6	4.9	-1.2	0.4	0.8	4.1	4.9	25.8	74.1	74.9	29.4
Global	6.0	2.6 ↓	2.1 ↓	2.4	-1.1 ↓	2.8	2.0 ↓	2.2 ↓	2.4	4.7	7.3 ↑	7.2 ↑	4.0 ↑
Developed markets	5.2	2.2 ↓	1.1 ↓	0.1 ↓	0.8 ↓	0.9 ↓	1.0 ↓	1.0 ↓	1.4	5.1	7.6 ↑	7.2 ↑	3.8 ↑
Emerging markets	7.1	3.3 ↓	3.6 ↓	5.8 ↑	-3.9 ↓	5.6 ↑	3.5 ↓	3.9 ↓	3.9	4.1	6.9 ↓	7.1	4.3 ↑

Source: J.P. Morgan

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Central Bank Policy Rate Watch

	Official rate	Current rate (%pa)	4-qrtr change (bp) Last	Next	Last change	Next meeting	Forecast next change	Forecast (%pa) Sep 22	Dec 22	Mar 23	Jun 23	Sep 23
Global		2.64	125	60				3.04	3.24	3.29	3.28	3.24
excluding US		2.69	98	35				2.95	3.05	3.11	3.10	3.04
Developed		1.41	128	91				1.97	2.22	2.23	2.23	2.32
Emerging		4.53	120	13				4.68	4.81	4.93	4.90	4.66
Latin America		10.54	658	4				11.24	11.53	11.44	11.14	10.58
EMEA EM		7.86	183	-34				7.91	8.01	8.73	8.75	7.52
EM Asia		3.03	30	23				3.12	3.24	3.26	3.26	3.26
The Americas		3.51	279	107				4.24	4.70	4.69	4.65	4.58
United States	Fed funds	**2.50**	225	125	27 Jul 22 (+75bp)	21 Sep 22	**Sep 22 (+75bp)**	**3.25**	**3.75**	**3.75**	**3.75**	3.75
Canada	O/N rate	**2.50**	225	75	13 Jul 22 (+100bp)	7 Sep 22	**7 Sep 22 (+50bp)**	3.00	**3.25**	3.25	3.25	3.25
Brazil	SELIC O/N	13.75	850	-100	3 Aug 22 (+50bp)	21 Sep 22	Sep 22 (+25bp)	**14.00**	**14.00**	**14.00**	**13.75**	12.75
Mexico	Repo rate	7.75	350	200	23 Jun 22 (+75bp)	11 Aug 22	11 Aug 22 (+75bp)	9.00	**9.75**	**9.75**	**9.75**	9.75
Chile	Disc rate	**9.75**	900	-100	14 Jul 22 (+75bp)	6 Sep 22	**6 Sep 22 (+75bp)**	**10.50**	**11.00**	**10.50**	**9.50**	8.75
Colombia	Repo rate	**9.00**	725	-75	29 Jul 22 (+150bp)	30 Sep 22	**30 Sep 22 (+50bp)**	**9.50**	**9.50**	**9.25**	**8.75**	8.25
Peru	Reference	5.50	525	-50	9 Jun 22 (+50bp)	11 Aug 22	11 Aug 22 (+50bp)	6.75	6.75	6.25	5.25	5.00
Europe/Africa		1.85	94	56				2.26	2.29	2.45	2.46	2.41
Euro area	Depo rate	**0.00**	50	75	21 Jul 22 (+50bp)	8 Sep 22	**Sep 22 (+50bp)**	**0.50**	**0.50**	**0.50**	**0.50**	0.75
United Kingdom	Bank rate	**1.75**	165	75	4 Aug 22 (+50bp)	15 Sep 22	**Sep 22 (+50bp)**	**2.25**	2.25	**2.25**	**2.25**	2.50
Norway	Dep rate	1.25	125	150	23 Jun 22 (+75bp)	18 Aug 22	18 Aug 22 (+25bp)	1.75	2.25	2.50	2.75	2.75
Sweden	Repo rate	0.75	75	125	30 Jun 22 (+50bp)	20 Sep 22	20 Sep 22 (+50bp)	1.25	1.50	1.75	2.00	2.00
Czech Republic	2-wk repo	7.00	625	-100	22 Jun 22 (+125bp)	29 Sep 22	Aug 23 (-50bp)	7.00	7.00	7.00	7.00	6.00
Hungary	3-m dep	**10.75**	955	25	26 Jul 22 (+100bp)	30 Aug 22	**Aug 22 (+75bp)**	12.00	12.00	12.00	12.00	11.00
Israel	Base rate	1.25	115	150	4 July 22 (+50bp)	22 Aug 22	22 Aug 22 (+50bp)	1.75	2.25	2.50	2.75	2.75
Poland	7-day interv	6.50	640	0	7 Jul 22 (+50bp)	23 Aug 22	Sep 22 (+50bp)	7.00	7.25	7.25	7.25	6.50
Romania	Base rate	**5.50**	425	200	5 Aug 22 (+75bp)	5 Oct 22	**5 Oct 22 (+50bp)**	**5.50**	**6.50**	**7.50**	**7.50**	7.50
Russia	Repo rate	**8.00**	150	-100	22 Jul 22 (-150bp)	16 Sep 22	**Sep 22 (-50bp)**	**7.50**	**7.25**	**7.00**	7.00	7.00
South Africa	Repo rate	**5.50**	200	175	21 Jul 22 (+75bp)	22 Sep 22	**Sep 22 (+75bp)**	**6.25**	**6.75**	**7.25**	**7.25**	7.25
Turkey	1-wk repo	14.00	-1900	-200	16 Dec 21 (-100bp)	18 Aug 22	1Q 23 (+400bp)	14.00	14.00	18.00	18.00	12.00
Asia/Pacific		2.43	32	22				2.52	2.62	2.64	2.64	2.64
Australia	Cash rate	**1.85**	175	75	2 Aug 22 (+50bp)	6 Sep 22	**Sep 22 (+50bp)**	**2.35**	**2.60**	**2.60**	2.60	2.60
New Zealand	Cash rate	**2.50**	225	75	13 Jul 22 (+50bp)	17 Aug 22	**Aug 22 (+50bp)**	**3.00**	**3.25**	**3.25**	**3.25**	3.25
Japan	O/N call rate	-0.10	-7	0	28 Jan 16 (-20bp)	22 Sep 22	On hold	-0.10	-0.10	-0.10	-0.10	-0.10
Hong Kong	Disc. wndw	**2.75**	-50	125	3 Mar 20 (-50bp)	-	**Sep 22 (+75bp)**	**3.50**	**4.00**	**4.00**	**4.00**	4.00
China	1-yr MLF	2.85	-10	0	17 Jan 22 (-10bp)	-	On hold	2.85	2.85	2.85	2.85	2.85
Korea	Base rate	**2.25**	175	100	13 Jul 22 (+50bp)	25 Aug 22	**Aug 22 (+25bp)**	2.50	3.00	3.25	3.25	3.25
Indonesia	BI RRR	3.50	0	75	18 Feb 21 (-25bp)	23 Aug22	23 Aug 22 (+25bp)	4.00	4.25	4.25	4.25	4.25
India	Rev repo	**5.40**	140	35	5 Aug 22 (+50bp)	30 Sep 22	**Oct 22 (+35bp)**	**5.40**	**5.75**	**5.75**	**5.75**	5.75
Malaysia	O/N rate	2.00	-175	100	11 May 22 (+25bp)	8 Sep 22	**Sep 22 (+25bp)**	2.50	2.75	3.00	3.00	3.00
Philippines	Rev repo	**3.25**	125	75	14 Jul 22 (+75bp)	18 Aug 22	**Aug 22 (+50bp)**	**4.00**	**4.00**	4.00	4.00	4.00
Thailand	1-day repo	0.50	0	75	20 May 20 (-25bp)	10 Aug 22	3Q 22 (+25bp)	0.75	1.25	1.25	1.25	1.25
Taiwan	Official disc.	1.50	38	50	16 Jun 22 (+12.5bp)	22 Sep 22	3Q 22 (+25bp)	1.75	1.88	2.00	2.00	2.00

Source: J.P. Morgan. [1]BoJ targets ¥80tn/year expansion in monetary base and sets the IOER (O/N) as policy guidance.
Bold denotes move since last GDW and forecast changes. Underline denotes policy meeting during upcoming week.
Aggregates are GDP-weighted averages. [2]The BI rate for Indonesia reflects announced recalibration effective August 19, 2016.
[3]The Philippines introduced a recalibrated reverse repo rate effective June 3 at a level of 3.00%.
Rather than the refi rate, we now display the 1-wk dep rate, which better represents CBR policy stance and is closer to interbank market rates.

Global Rates Forecast

		22-Jul	Sep-22	Dec-22	Mar-23	Jun-23	YTD chg. (bp)
US	Fed funds	1.50-1.75	2.75-3	3.25-3.5	3.25-3.5	3.25-3.5	-
	SOFR	0.00	2.45	3.20	3.30	3.30	-
	2Y bmk yield	3.11	3.35	3.15	2.95	2.65	238
	5Y bmk yield	3.04	3.30	3.20	3.10	2.90	178
	10Y bmk yield	2.94	3.25	3.10	3.00	2.85	144
	30Y bmk yield	3.09	3.30	3.20	3.15	3.10	120
	2s/10s bmk curve	-17	-10	-5	5	20	-94
	10s/30s bmk curve	15	5	10	15	25	-24
	2s/30s bmk curve	-2	-5	5	20	45	-118
Euro area	Refi rate	0.50	0.50	1.00	1.50	1.75	-
	Depo rate	0.00	0.25	0.75	1.25	1.50	-
	3M Euribor	0.20	0.25	0.75	1.25	1.50	77
	2Y bmk yield	0.44	0.60	0.50	0.45	0.40	107
	5Y bmk yield	0.80	0.90	0.75	0.65	0.55	126
	10Y bmk yield	1.05	1.20	1.00	0.90	0.80	123
	30Y bmk yield	1.29	1.40	1.20	1.15	1.10	111
	2s/10s bmk curve	61	60	50	45	40	16
	10s/30s bmk curve	24	20	20	25	30	-12
	2s/30s bmk curve	85	80	70	70	70	4
	2Y swap spread	83	58	56	54	52	50
	5Y swap spread	77	62	60	58	56	31
	10Y swap spread	82	64	62	60	58	36
	30Y swap spread	43	32	30	28	26	15
10Y spread	Austria	53	45	40	35	35	25
to Germany	Belgium	61	55	45	40	40	26
(curve adj.)	Finland	52	45	40	35	35	26
	France	58	50	45	40	40	22
	Greece	222	220	200	180	170	73
	Ireland	61	55	45	40	40	20
	Italy	238	250	225	200	200	100
	Netherlands	32	25	20	15	15	17
	Portugal	116	115	100	90	85	52
	Spain	124	115	100	90	85	50
	Wtd. peri. spread	192	194	173	154	153	80

		22-Jul	Sep-22	Dec-22	Mar-23	Jun-23	YTD chg. (bp)
UK	Base rate	1.25	2.00	2.25	2.50	2.75	-
	2Y bmk yield	1.90	2.00	2.05	1.85	1.65	140
	5Y bmk yield	1.74	2.00	2.05	1.95	1.80	101
	10Y bmk yield	1.98	2.30	2.35	2.15	2.00	101
	30Y bmk yield	2.48	2.55	2.60	2.45	2.35	136
	2s/10s bmk curve	8	30	30	30	35	-40
	10s/30s bmk curve	50	25	25	30	35	36
	2s/30s bmk curve	58	55	55	60	70	-4
	2Y swap spread	74	65	65	60	50	31
	5Y swap spread	69	55	55	50	45	36
	10Y swap spread	19	5	5	0	-5	20
	30Y swap spread	-35	-35	-35	-40	-45	-8
Japan	Policy rate	-0.10	-0.10	-0.10	-0.10	-0.10	-
	10Y yield target	0.00	0.00	0.00	0.00	0.00	-
	2Y bmk yield	-0.08	-0.05	-0.05	0.00	0.00	2
	5Y bmk yield	0.00	0.05	0.05	0.10	0.10	8
	10Y bmk yield	0.21	0.25	0.25	0.25	0.25	14
	20Y bmk yield	0.50	0.90	0.95	1.10	1.20	3
	30Y bmk yield	1.23	1.10	1.15	1.30	1.40	54
	2s/10s bmk curve	28	30	30	25	25	12
	10s/30s bmk curve	102	85	90	105	115	40
	2s/30s bmk curve	130	115	120	130	140	52
Australia	Cash rate	1.35	2.10	2.35	2.60	2.60	-
	3Y bmk yield	3.23	3.00	2.90	2.90	2.90	226
	10Y bmk yield	3.56	3.50	3.20	3.20	3.20	190
New Zealand	Cash rate	2.50	2.75	2.75	2.75	2.75	25
	2Y bmk yield	3.71	3.40	3.00	3.00	3.00	194
	10Y bmk yield	3.78	3.60	3.20	3.20	3.20	144
Sweden	Repo rate	0.75	1.25	1.50	1.75	2.00	-
	2-year govt	1.84	1.75	1.60	1.50	1.35	219
	10-year govt	1.48	1.40	1.20	1.15	1.10	130
Norway	Depo rate	1.25	1.50	1.75	2.00	2.25	25
	2-year govt	2.49	2.75	2.90	2.80	2.70	112
	10-year govt	2.89	2.90	2.90	2.80	2.65	121

Source: J.P. Morgan

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FX Forecasts vs. Forwards & Consensus

Exchange rates vs. U.S dollar

Majors		Current 5-Aug	Sep 22	Dec 22	Mar 23	Jun 23	JPM forecast gain/loss vs June 23* Spot	Forwards	Consensus**	Actual change in local FX vs USD Past 1mo	Past 3mo	YTD	Past 12mos
	EUR	1.02	0.95	0.97	1.00	1.02	0.3%	-2.2%	-2.9%	-3.4%	-3.6%	-10.6%	-14.1%
	JPY	135	138	140	139	138	-1.9%	-5.3%	-4.3%	-0.2%	-3.6%	-15.0%	-18.9%
	GBP	1.21	1.14	1.15	1.16	1.17	-3.0%	-3.7%	-4.1%	-1.8%	-2.3%	-10.9%	-13.4%
	AUD	0.69	0.68	0.70	0.72	0.74	7.3%	4.1%	2.9%	-0.3%	-2.5%	-5.0%	-6.8%
	CAD	1.29	1.30	1.30	1.33	1.33	-2.7%	-2.8%	-3.8%	0.2%	-0.5%	-2.4%	-3.4%
	NZD	0.62	0.60	0.62	0.63	0.63	1.0%	1.2%	-1.6%	-1.0%	-2.7%	-8.6%	-11.6%
JPM USD index		129.6	131.5	131.8	131.8	132.0	1.8%	1.7%	3.0%	1.1%	1.8%	6.5%	8.5%
DXY		106.7	112.6	111.0	108.7	107.1	0.3%	2.4%	2.8%	2.2%	2.9%	11.5%	15.7%
Europe, Middle East & Africa													
	CHF	0.96	1.03	0.99	0.94	0.90	6.8%	3.8%	4.5%	-0.8%	2.6%	-5.3%	-5.9%
	ILS	3.35	3.45	3.50	3.55	3.60	-7.0%	-8.9%	-4.7%	2.6%	1.6%	-7.3%	-4.0%
	SEK	10.21	10.74	10.41	10.00	9.80	4.1%	2.8%	2.0%	-0.4%	-2.4%	-11.3%	-15.6%
	NOK	9.81	10.89	10.62	10.20	9.80	0.1%	-0.6%	-1.8%	1.0%	-3.3%	-10.1%	-10.1%
	CZK	24.09	26.6	26.5	26.3	26.0	-7.3%	-4.8%	-8.5%	-2.4%	-1.6%	-9.2%	-10.9%
	PLN	4.63	4.84	4.79	4.70	4.71	-1.6%	2.2%	-5.9%	-3.5%	-3.6%	-12.9%	-17.1%
	HUF	387.2	432	438	425	431	-10.2%	-3.2%	-12.4%	-1.5%	-6.6%	-16.2%	-22.8%
	RUB	118.69	90.0	90.0	90.0	90.0	31.9%	-19.9%	-27.8%	0.0%	0.0%	-37.1%	-38.4%
	TRY	17.93	19.00	20.00	21.00	22.00	-18.5%	22.0%	-13.2%	-3.1%	-16.6%	-25.8%	-52.4%
	ZAR	16.80	16.00	16.25	16.50	16.75	0.3%	3.4%	-3.0%	-5.5%	-4.8%	-5.1%	-13.6%
Americas	ARS	132.9	140.0	155.0	170.0	185.0	-28.2%	41.7%	-14.9%	-6.5%	-12.5%	-22.7%	-27.1%
	BRL	5.20	5.10	5.30	5.25	5.25	-1.0%	6.7%	1.0%	0.7%	-2.3%	7.3%	1.0%
	CLP	918	845	855	865	875	4.9%	10.7%	5.6%	-1.5%	-6.4%	-7.2%	-15.1%
	COP	4331	3950	4025	4100	4150	4.4%	10.9%	-2.4%	-5.6%	-6.4%	-5.8%	-9.7%
	MXN	20.39	20.00	20.25	20.50	20.75	-1.8%	4.1%	-0.7%	-2.3%	-1.3%	0.7%	-2.2%
	PEN	3.90	3.80	3.85	3.90	3.90	0.0%	3.0%	-0.3%	-3.6%	-2.2%	2.6%	4.4%
LACI		40.4	41.4	40.2	39.7	39.1	-3.3%	9.9%	-0.9%	-2.0%	-3.0%	-1.2%	-5.6%
Asia	CNY	6.76	6.75	6.80	6.85	6.95	-2.7%	-3.4%	-2.9%	-1.0%	-1.4%	-6.0%	-4.4%
	HKD	7.85	7.85	7.85	7.84	7.83	0.3%	-0.1%	0.3%	0.0%	0.0%	-0.7%	-0.9%
	IDR	14893	15200	15300	15350	15350	-3.0%	-0.8%	-4.2%	-0.3%	-2.7%	-4.3%	-3.7%
	INR	79.25	80.50	81.50	82.50	83.00	-4.5%	-1.5%	-3.9%	-1.1%	-2.9%	-6.2%	-6.4%
	KRW	1298	1320	1340	1360	1360	-4.5%	-4.9%	-6.3%	0.0%	-1.9%	-8.4%	-11.9%
	MYR	4.45	4.50	4.55	4.60	4.60	-3.3%	-3.3%	-5.4%	-1.1%	-1.9%	-6.4%	-5.3%
	PHP	55.21	56.50	57.00	57.50	57.50	-4.0%	-1.5%	-3.9%	-0.4%	-4.9%	-7.6%	-9.0%
	SGD	1.38	1.40	1.40	1.40	1.39	-0.6%	-1.0%	-0.7%	0.5%	0.2%	-2.4%	-2.3%
	TWD	29.96	29.90	29.90	30.00	30.00	-0.1%	-2.5%	-0.2%	-0.8%	-1.0%	-7.6%	-7.3%
	THB	35.57	36.50	37.00	37.50	37.25	-4.5%	-5.8%	-6.0%	-0.2%	-3.4%	-6.1%	-6.5%
ADXY		101.8	101.2	100.4	99.7	99.1	-2.6%	-2.8%	-3.0%	-0.8%	-3.0%	-5.8%	-5.5%
EMCI		50.47	48.75	47.97	47.68	47.16	-6.6%	1.9%	-4.9%	-2.4%	-3.1%	-4.1%	-11.0%
Exchange rates vs Euro										Actual change in local FX vs EUR			
	JPY	137.7	131	136	139	141	-2.2%	-3.2%	-1.5%	3.3%	0.0%	-4.9%	-5.6%
	GBP	0.84	0.833	0.843	0.862	0.872	-3.3%	-1.6%	-1.3%	1.6%	1.4%	-0.2%	0.7%
	CHF	0.98	0.98	0.96	0.94	0.92	6.5%	6.2%	7.6%	2.7%	6.4%	5.9%	9.5%
	SEK	10.38	10.20	10.10	10.00	10.00	3.8%	5.1%	5.0%	3.0%	1.2%	-0.8%	-1.8%
	NOK	9.98	10.35	10.30	10.20	10.00	-0.2%	-0.4%	-0.9%	4.5%	0.2%	0.5%	4.6%
	CZK	24.50	25.25	25.75	26.25	26.50	-7.6%	-2.6%	-5.8%	1.0%	2.1%	1.6%	3.7%
	PLN	4.71	4.60	4.65	4.70	4.80	-1.9%	4.5%	-3.1%	-0.1%	0.1%	-2.6%	-3.5%
	HUF	394	410	425	425	440	-10.5%	-1.0%	-9.8%	1.9%	-3.0%	-6.2%	-10.2%
	RON	4.93	5.00	5.05	5.05	5.10	-3.4%	3.7%	-2.0%	0.4%	0.4%	0.5%	-0.2%
	TRY	18.25	18.05	19.40	21.00	22.44	-18.7%	24.8%	-10.7%	0.3%	-13.6%	-17.3%	-44.6%
	RUB	62.01	85.50	87.30	90.00	91.80	-32.4%	-18.1%	-25.7%	-8.1%	15.8%	37.8%	39.5%
	BRL	5.29	4.85	5.14	5.25	5.36	-1.3%	9.1%	3.9%	4.2%	1.4%	19.9%	17.5%
	MXN	20.73	19.00	19.64	20.50	21.17	-2.1%	6.4%	2.2%	1.1%	2.5%	12.6%	13.8%

↑ indicates a revision resulting in a stronger currency forecast, ↓ indicates a revision resulting in a weaker currency forecast. Source: J.P.Morgan

* Positive indicates JPM more bullish on local currency than spot, consensus or forward rates. ** Bloomberg *FX Consensus Forecasts.* † *SIMADI*

Source: J.P. Morgan

Global Commodities Price Forecasts

Quarterly and annual aver

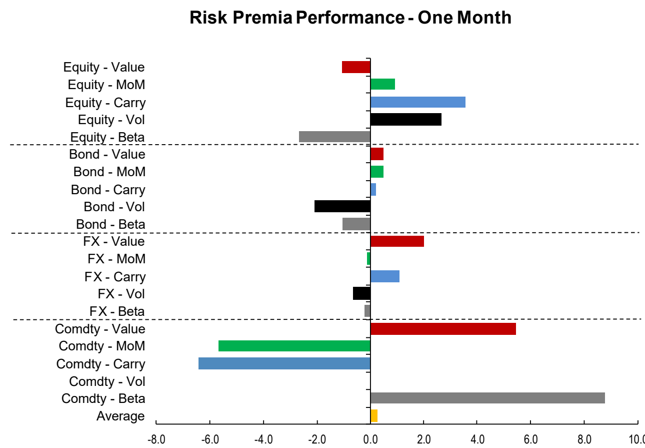
		1Q22A	2Q22A	3Q22	4Q22	1Q23	2Q23	3Q23	4Q23	2022	2023
Energy											
WTI Crude	US$/bbl	95	109	99	98	92	94	93	95	100	94
Brent Crude	US$/bbl	98	112	102	101	96	98	97	99	103	98
US Natural Ga	US$/MMBtu	4.19	6.43	7.75	6.00	5.00	4.00	3.75	4.25	6.09	4.25
European Nat	Eur/MWh	98.50	100.87	178.00	150.00	159.00	143.00	160.00	162.00	131.84	156.00
Base Metals											
Aluminum	US$/mt	3,262	2,872	2,500	2,250	2,250	2,350	2,400	2,500	2,721	2,375
Copper	US$/mt	9,997	9,508	7,700	6,500	6,500	6,700	7,000	7,300	8,426	6,875
Nickel	US$/mt	26,388	28,867	21,000	19,000	18,000	19,000	19,000	20,000	23,814	19,000
Zinc	US$/mt	3,738	3,904	3,300	2,800	2,800	2,900	3,000	3,200	3,436	2,975
Precious Metals											
Gold	US$/t oz.	1,879	1,871	1,800	1,720	1,670	1,550	1,530	1,450	1,818	1,550
Silver	US$/t oz.	24.13	22.63	22.20	20.70	19.93	18.50	18.26	17.30	22.41	18.50
Platinum	US$/t oz.	1,030	953	1,080	1,150	1,250	1,300	1,350	1,400	1,053	1,325
Palladium	US$/t oz.	2,322	2,072	2,100	1,900	1,800	1,700	1,600	1,500	2,099	1,650
Agriculture											
Wheat	USc/bu	913	1,073	1,250	1,250	1,200	1,150	1,150	1,100	1,122	1,150
Corn	USc/bu	673	778	900	850	800	750	780	750	800	770
Soybeans	USc/bu	1,562	1,683	1,700	1,650	1,630	1,600	1,500	1,450	1,649	1,545
Sugar (ICE #1	Usc/lb	18.6	19.2	21.0	22.0	21.0	21.0	21.0	22.0	20.2	21.3
Cotton (ICE #	Usc/lb	123	140	145	140	135	135	130	130	137	133
MDE-Bursa P	MYR/tonne	6,183	6,497	6,500	7,200	7,200	7,200	7,300	7,500	6,595	7,300

Source: J.P. Morgan

Cross-Asset Risk Premia

Table A1: Performance

Risk Premia	One Day			Month To Date Performance			Year To Date Performance		
	Long	Short	Total	Long	Short	Total	Long	Short	Total
Equity - Value	0.09	-0.17	-0.09	-2.5	1.5	-1.0	-4.5	5.7	1.3
Equity - MoM	-0.56	-0.09	-0.64	-1.6	2.5	0.9	-5.2	4.5	-0.8
Equity - Carry	0.40	0.32	0.71	-1.0	4.6	3.5	-1.0	4.6	3.5
Equity - Vol			0.00			2.7			3.1
Equity - Beta			-0.07			-2.6			-7.4
Bond - Value	0.63	-0.36	0.26	-0.9	1.3	0.5	-2.4	2.3	-0.2
Bond - MoM	0.43	-0.42	0.01	-0.8	1.3	0.5	-1.7	3.2	1.5
Bond - Carry	0.59	-0.38	0.21	-1.0	1.2	0.2	-2.2	2.1	-0.1
Bond - Vol			-1.33			-2.1			-2.1
Bond - Beta			0.58			-1.0			-2.5
FX - Value	0.48	0.02	0.50	2.0	0.0	2.0	0.1	0.8	0.9
FX - MoM	0.22	-0.02	0.19	0.4	-0.5	-0.1	-0.3	0.9	0.6
FX - Carry	0.26	-0.02	0.25	1.3	-0.2	1.1	-0.4	1.1	0.8
FX - Vol			-0.44			-0.6			-2.1
FX - Beta			-0.10			-0.2			-1.1
Comdty - Value	3.01	-2.10	0.92	10.4	-4.9	5.4	25.8	-7.7	18.1
Comdty - MoM	2.12	-3.86	-1.75	6.1	-11.7	-5.7	30.8	-12.7	18.1
Comdty - Carry	1.90	-3.86	-1.97	5.3	-11.7	-6.4	26.7	-15.5	11.2
Comdty - Vol			0.00			0.0			0.0
Comdty - Beta			3.13			8.7			21.4
Average	0.80	-0.91	0.02	1.5	-1.4	0.3	5.5	-0.9	3.2



Source: J.P. Morgan Quantitative and Derivatives Strategy

Risk Premia Definitions[1]

Equity - Value: Excess return of monthly rolling a long position in top-three equity benchmark indices with lowest aggregate price-to-book ratios and a short position in the bottom-three. Universe includes Canada, France, Germany, Hong Kong, Japan, Netherlands, Spain, Switzerland, United Kingdom and United States.

Bond - Value: Excess return of monthly rolling a long position in top-three 10-year government bonds with most increase in 10-year yields during the past three years and a short position in the bottom-three 10-year government bonds with least increase (or most decrease) in 10-year yields during the past three years. Our universe was comprised of government bonds from Australia, Canada, Denmark, Europe, Japan, New Zealand, Sweden, UK and the US.

FX - Value: Currency value factor is a long/short G10 currency portfolio based on 5-year change of purchasing power parity. The universe covers spot exchange rates of the following G10 currencies: Australia, Canada, Europe, Denmark, Japan, New Zealand, Norway, Sweden, Switzerland, UK and US.

Commodity - Value: Excess return of monthly rolling a long position in top-four commodity futures with lowest valuation and a short position in the bottom-four commodity futures with highest valuation, where the valuation metric is defined as the ratio of current price relative to the average price over the past five years. Commodity futures universe includes Heating oil, Crude Oil, Natural gas, Gold, Silver, Aluminium, Copper, Nickel, Wheat, Corn and Soybeans.

Equity - Momentum: Excess return of monthly rolling a long position in three equity indices with highest past 12 month returns and a short position in the three equities indices with lowest past 12 month returns; Our index universe consisted of country equity benchmarks for Canada, France, Germany, Hong Kong, Japan, Netherlands, Spain, Switzerland, United Kingdom and United States.

Bond - Momentum: Excess return of monthly rolling a long position in three 10-year government bonds with highest past 12 month returns and a short position in the three 10-year government bonds with lowest past 12 month returns. Our universe includes government bonds from Australia, Canada, Denmark, Europe, Japan, New Zealand, Sweden, UK and the US.

FX - Momentum: Excess return of monthly rolling a long position in three G10 currencies with highest past 12 month returns and a short position in the three G10 currencies with lowest past 12 month returns.

Commodity - Momentum: Excess return of monthly rolling a long position in four commodity futures with highest past 12 month returns and a short position in the four commodity futures with lowest past 12 month returns. The commodity futures universe was: Heating oil, Crude Oil, Natural gas, Gold, Silver, Aluminium, Copper, Nickel, Wheat, Corn and Soybeans.

Equity - Carry: Excess return of monthly rolling a long position in three equity indices with highest dividend yield and a short position in the three equities indices with lowest dividend yield. Our index universe consisted of country equity benchmarks for Canada, France, Germany, Hong Kong, Japan, Netherlands, Spain, Switzerland, United Kingdom and United States.

Bond - Carry: Excess return of monthly rolling a long position in three 10-year government bonds with the steepest yield curves and a short position in the three 10-year government bonds with flattest yield curve. Our universe was comprised of government bonds from Australia, Canada, Denmark, Europe, Japan, New Zealand, Sweden, UK and the US.

FX - Carry: Excess return of monthly rolling a long position in top-three yielding currencies and a short position in the bottom-three yielding currencies. For currencies, we use G10 FX and for yields domestic interest rate data.

Commodity - Carry: Excess return of monthly rolling a long position in top-four backwardated commodity futures and a short position in the bottom-four backwardated (steepest contango) commodity futures. The commodity futures universe was: Heating oil, Crude Oil, Natural gas, Gold, Silver, Aluminium, Copper, Nickel, Wheat, Corn and Soybeans.

Equity - Volatility: Equal weighted delta-neutral S&P 500 Buy-write (BXM) and Put-write (PUT) Index.

Bond - Volatility: Excess return of monthly rolling a short position on 3-month At-the-Money Straddle (ATM Call plus ATM Put) on near-month US 10-year Treasury Futures.

FX - Volatility: Excess return of monthly rolling an equal weighted position of volatility swaps on USDJPY, USDAUD and USDCHF (receiving implied vol swap) with unit vega notional.

Commodity - Volatility: Return from short volatility position across WTI, Brent, Heating Oil, Gold, Corn, Soybeans, Wheat, Cocoa, Coffee, Sugar and Live Cattle.

[1] See Systematic Strategies across Asset Classes, Kolanovic, December 2013.

Global Equity Style View

Style Recommendation

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Table 1: Global Equity Style Recommendation

Region	QMI Cycle	Value	Momentum	Growth	Quality	Low Volatility
US	Contraction	OW	N	N	UW	UW
Europe	Contraction	N	OW	N	OW	OW
EM Asia	Contraction	OW	UW	N	OW	UW

Source: J.P. Morgan Quantitative and Derivatives Strategy

Table B2: View Rationale and Implementation[2]

Region	Equity Style	View	Possible Implementation	View Rationale	Style Definition
US	Value	OW	JPRPULVA, FTUSFLUT, FTUSPLUT, FTUSWLUT	Value receded in June & July after dominating all other styles YTD. Market likely more concerned about a hard landing with inflation under control at the cost of recession. We still favor Value over expensive stocks based on the view that risk premium is still quite large (e.g. P/E spread) and recession is not around	B/P 1Y Fwd. Earnings Yield Sales Yield
	Momentum	N	JPRPULMO, FTUSMLUT, FTUSXLUT, FTUSNLUT	Momentum's continued its weak performance YTD. It reflects positioning finally begining to consolidate in the low vol stocks. Momentum is gradually beginning to appear crowded now given this rotation out of Growth into Low Vol and Value. Given the mixed positioning, it is not ideal to have exposure to	12M Price Mom
	Growth	N	JPAMSMSG	Growth stocks are showing early signs of reversal to their YTD underperformance. They are trading cheaper versus the market (15%ile). Rising rates continue to be a risk to long duration exposure of the Growth stocks especially the ones with higher beta. We recommend cheaper sustainable growth stocks (GARP) and the Cyclical Recovery Growth stocks that are showing improving fundamentals driven by the broad based reopening in the economy e.g. Energy.	Sales Growth (1Y, 3Y) FCF Growth (1Y, 3Y)
	Quality	UW	JPRPULQU, FTUSELUT, FTUSILUT, FTUSALUT	Quality stocks outperformed due to rising concerns of slowdown and investors flight to safety. Bouts of risk aversion may continue to support Quality. The recent outperformance is supported by relatively stronger earnings vs market, resulting in multiple spread shrinking (from 99%ile begining of the year to ~60%ile now). Any cyclical recovery poses a risk to Quality Stocks.	ROE ROA EPS Quality (Piotroski)
	Low Volatility	UW	JPRPULBE, FTUSVLUT	Low Vol stock valuations are less extreme compared to 4Q'21. Last month's underperformance of Low Vol stocks can be attributed to risk-on sentiment. We do not favor Low Vol since recession, if it occurs, is still distant. Also, the Style remains exposed to high inflation and yields.	12-month stock Volatility
Europe	Value	N	JPQTVLEL (L), JPQTVLE1(L/S)	The European QMI, our macro navigational tool continues to suggest the 'Contraction' phase of the cycle. Value stocks perform better than Growth stocks during this phase, but both will underperform Quality. Today, Value stocks appear cheap, but their EPS revisions are starting to mean revert from high levels. We remain nervous of Value stocks that are highly variable EPS & DPS forecasts. Watch Energy stocks and the Oil price for a significant change in Value's performance.	Earnings Yield Dividend Yield FCF Yield
	Momentum	OW	JPQTMOEL (L), JPQTMOE1(L/S)	Momentum stocks are now more closely correlated to Value than Quality. However, the correlation has hit a high and is now mean reverting. This move is typical when the QMI slows. Momentum stock may struggle in the ST, as the correlation moves from Value towards Quality. However, Momentum stocks should continue to work well over the medium to longer term.	Price Mom Seasonality
	Growth	N		Growth stocks have clearly peaked from their extreme price levels. Usually, there is greater upside if economic growth becomes scarce (as we expect) over the coming months, but this may be offset with high valuations, and weaker profits growth expectations. The dramatic rise in bond yields has accelerated the decline in long duration assets. Moreover, there is still a concern around high market concentration, which as it unwinds hurts growth stocks further. The key positive is that we believe bond yields may have peaked and Growth stocks may have hit a relative floor, particularly vs. Value.	Earnings Mom PEG Ratio
	Quality	OW	JPQTQUEL (L), JPQTQUE1(L/S)	Quality has been lagging Value YTD. However, there now seems to be upside potential to Quality stocks as the QMI shifts further into the 'Contraction' phase. High Quality stocks are less expensive on Valuations, and L/S is now much cheaper. Cheaper Quality stocks may start to perform much better than before. Overall, as both the economic & profit cycle slows - Quality is our preferred exposure.	ROE Net Income Margin Equity Debt Ratio
	Low Volatility	OW	JPQTLVEL (L), JPQTLVE1(L/S)	Recently, low Volatility stocks have started to perform differently to Quality stocks. Low Vols recent gains vs Quality seems to be because they offer much better value. Additionally, it now seems like an opportunity to move OW given the fall in the QMI & consensus EPS revisions. Low Volatility should perform well if equity market volatility starts to rise faster than bond market volatility. Q2 should support low Vol. vs high Vol. stocks. We are OW.	Low Size Low Beta Low Vol
EM Asia	Value	OW	JPHASST2 (L), QTJPXEYS (L/S)	Value remains the best performing style in 2022 but the margin of outperformance has reduced. Only parts of Value (like Commodities) likely to do well going ahead as economic growth slows down. Crowding has come off quite a bit	Fwd Earnings Yield Sales Yield B/P
	Momentum	UW	JPHASSTY (L), QTJPXPMS (L/S)	Momentum performance has faltered steadily YTD as cycle concerns rise and retail support fades. Valuations at historical lows	6M, 12M Price Mom 3M EPS Revision
	Growth	N	JPHASSTY (L)	Growth stocks with low profitability have underperformed massively but some signs of reversal as yields cool off and Cyclical performance fades. Valuations still quite expensive	EPS Growth Sales Growth Forecast certainty
	Quality	OW	QTJPXRES (L/S)	The lacklustre performance from last year has carried over into 2022. Expect it to pick up as the busines cycle remains in Contraction	ROE Forecast Certainty
	Low Volatility	UW	QTJPXLVS (L/S)	Macro uncertainties (Hawkish Fed, inflation, Ukraine conflict) have lent support to Low Vol performance this year. Crowding fairly elevated	Low 240D Vol

Source: J.P. Morgan Quantitative and Derivatives Strategy. Highlighted are thematic J.P. Morgan Indices, which are one of the many possible implementations of an equity style view. Other implementations include quantitative ETFs, direct trading of long/short stock portfolios, equity risk factor benchmarks designed by other institutions, etc.

[2] See Framework for Style Investing, Lakos-Bujas et al., May 2015.
See Global Equity Style Investing, Chaudhry et al., Nov 2017.

Rule-based fixed income signals

Table D1: Rules: Current duration and cross-country signals

Duration signal positions by country, by signal, and weighted average across signals

Positive numbers signal a duration long, negative numbers a duration short and 0 neutral.

Duration — Current signal by country

	Weight	Euro area	Japan	UK	US	Australia	Canada	Sweden	Switzerland	New Zealand	Norway	Combined
PMI momentum	15%	1	1	1	1	1	1	1	1	1	1	1.0
Revision ratio momentum	15%	-1	-1	-1	0	0	0	-1	-1	-1	-1	-0.7
Bond price momentum	20%	0	-1	0	0	0	0	0	0	0	0	-0.1
Equity price momentum	15%	1	1	1	1	1	1	1	1	1	1	1.0
Carry to Risk	35%	-0.3	1.3	-1.1	-1.3	0.2	-1.1	-0.8	-1.1	0.4	2.0	-0.2
Combined		0.0	0.4	-0.2	-0.1	0.4	-0.1	-0.1	-0.2	0.3	0.9	0.1
Previous month		*0.2*	*0.5*	*-0.3*	*-0.2*	*0.6*	*0.2*	*-0.1*	*0.3*	*0.5*	*0.7*	*0.2*

NB: Positive numbers signal a duration long, negative numbers a duration short, and 0 neutral. Combined signal can be thought of as a scalar relative to a risk budget, e.g. a coefficient of -0.2 would signal a short of 20% of risk limit.
Source: J.P. Morgan, Bloomberg Finance L.P.

Positions of cross-country signals

Each measure ranks countries from highest to lowest; the highest two per signal indicate long positions in 10Y swaps and lowest to indicate short positions in 10Y swaps.

Cross-market — Current basket

	First pair		Second pair	
	Long	Short	Long	Short
Carry	AUD	NOK	EUR	JPY
Carry to Risk	EUR	NOK	AUD	NZD
Change in slope	JPY	CAD	GBP	USD
Real yield	NZD	EUR	AUD	JPY

Returns on duration signals

%

	Returns*, %								IR since 1998
	1M	3M	6M	YTD	12M	5Y	10Y	Since 1998	
PMI momentum	4.4	2.2	-3.8	-3.8	-6.9	1.7	1.6	2.4	0.58
Revision ratio momentum	2.1	-2.2	-6.5	-6.6	-7.2	-1.3	-0.3	2.2	0.50
Bond price momentum	-0.2	1.3	8.8	10.3	12.5	4.4	2.6	2.8	0.62
Equity price momentum	4.4	3.9	2.2	3.9	6.9	1.0	0.7	3.0	0.59
Carry to Risk	-1.1	-1.8	-4.9	-4.9	-4.3	-3.6	-1.1	0.9	0.25
Combined	0.9	0.2	-1.1	-0.7	-0.4	-0.3	0.2	1.5	0.86

* Holding period returns for 1M - 6M; annualized for 12M and longer.
Source: J.P. Morgan, Bloomberg Finance L.P.

Manufacturing PMI momentum: Short duration in each country if both local country and global manufacturing PMI increased over past two months, long duration if both fell, and neutral otherwise.

Earnings revision ratio momentum: Short duration in each country if the local and global IBES equity earnings revision ratio increased over the past three months, long duration if both fell, and neutral otherwise.

Bond price momentum: Long duration if our bond total return swap indices are above both 1-month and 12-month average, short if below both 1-month and 12-month average, neutral otherwise.

Equity price momentum: Long duration in each country if local equity market is below its 6-month average, and short if it is above 6-month average (net of cash).

Carry-to-risk: Long duration if carry-to-risk (10Y – 3M slope) is above its 10Y average, short duration if below its 10Y average, with position size proportional to how far carry to risk is above or below average.

Returns on cross-market signals

%

	Returns*, %								IR since 1996**
	1M	3M	6M	YTD	12M	5Y	10Y	Since 1996**	
Carry	2.7	0.2	-4.1	-5.0	-9.7	-1.7	-1.1	2.0	0.46
Carry to Risk	3.3	2.0	-3.4	-3.9	-7.6	-0.1	-0.4	1.9	0.46
Change in slope	-1.3	-1.4	-2.8	-2.2	0.4	0.9	-1.0	1.6	0.40
Real yield	2.8	3.3	3.1	3.2	0.5	2.0	1.5	1.6	0.46

* Holding period returns for 1M - 6M; annualized for 12M and longer.
** Except for the real yield signal, which starts in 2004.
Source: J.P. Morgan, Bloomberg Finance L.P.

Carry and carry-to-risk: Overweight countries with high carry (10Y swap rate – 1M Libor rate), and overweight countries where carry is high relative to volatility[3].

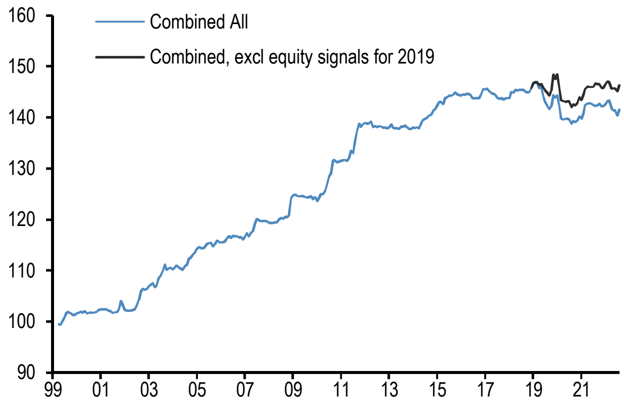
Reversal (change in curve slope): Overweight countries where curve (10Y – 1Y slope) has steepened most, relative to average over past 6M[4].

Real yield: Overweight markets with high real yields, measured as 10Y swap rate less consensus forecasts of inflation over the next 10Y[5].

[3] See *A cross-market bond carry strategy*, N. Panigirtzoglou, March 2006.
[4] See *Exploiting reversals in cross-market yield spreads*, S. Mac Gorain, March 2012.
[5] See *Rule-based Fixed Income Monthly*, S. Mac Gorain, November 2012.

Combined duration signal performance

Index, Jan 1999 = 100



* Black line shows returns excluding the revision ratio and equity price momentum signals and using only the PMI momentum, bond price momentum and carry-to-risk signals.
Source: J.P. Morgan

Combined duration signal performance

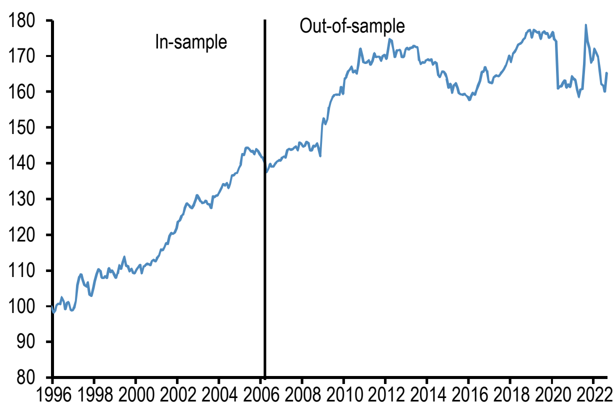
Since 1998; % and IR

	Return	Vol	IR	Max drawdown	Success ratio
PMI momentum	2.4%	4.0%	0.58	-11%	54%
Revision ratio momentum	2.2%	4.6%	0.50	-11%	58%
Bond price momentum	2.8%	4.5%	0.62	-9.7%	53%
Equity price momentum	3.0%	5.0%	0.59	-11%	52%
Carry to Risk	0.9%	4.8%	0.25	-21%	53%
Combined	1.5%	1.7%	0.86	-5.5%	60%

Source: J.P. Morgan

Cross-market carry-to-risk signal performance

Index, Jan 1996 = 100



Source: J.P. Morgan

Cross-market signal performance

Since 1996 (except real yield signal since 2004); % and IR

	Return	Vol	IR	Max drawdown	Success ratio
Carry	2.0%	4.4%	0.46	-14%	57%
Carry-to-risk	1.9%	4.2%	0.46	-12%	57%
Change in slope	1.6%	4.0%	0.40	-19%	54%
Real yield	1.6%	3.5%	0.46	-6.3%	54%

Source: J.P. Morgan

Cross-Asset Monitor

	Asset	Spot	1W Return (%)	1M Return (%)	YTD Return (%)	1Y Low	1Y High	Percentile	1Y Current Percentile Relative to 1Y Low/High and 20th-80th Percentile Range	Z-Score
Equity	MSCI AC World (USD)	639.53	0.21	5.20	-14.08	584.6	758.9	20.3%		-1.10
	MSCI AC World (lcy)	770.99	0.62	5.04	-11.41	702.6	886.1	21.1%		-0.92
	MSCI World (USD)	2,752.06	0.13	5.79	-13.72	2485.8	3248.1	20.3%		-1.02
	MSCI World (lcy)	2,160.77	0.60	5.67	-10.71	1946.3	2477.0	21.9%		-0.83
	S&P 500	4,145.19	0.67	6.39	-12.25	3666.8	4796.6	23.0%		-0.75
	Russel 2000	1,921.82	2.07	8.68	-13.79	1649.8	2442.7	27.6%		-0.71
	Nasdaq	12,657.55	2.36	8.83	-18.71	10646.1	16057.4	26.9%		-0.76
	Euro Stoxx	3,725.39	0.55	6.35	-10.76	3359.8	4401.5	23.0%		-0.88
	FTSE 100	7,439.74	0.49	3.57	2.98	6903.9	7672.4	66.9%		0.64
	Topix	1,947.17	0.35	3.63	-0.90	1758.9	2118.9	55.3%		0.03
	MSCI EM (USD)	1,002.87	0.83	0.61	-16.88	961.9	1325.7	11.5%		-1.48
	MSCI EM (lcy)	59,954.64	0.89	0.28	-14.39	57947.1	74190.5	15.3%		-1.40
Bonds	GBI Global (hedged USD	409.35	-0.47	0.85	-7.10	394.0	447.0	21.5%		-1.09
	GBI Global (lcy)	554.84	-0.49	0.77	-7.47	534.6	609.0	20.3%		-1.13
	EM local debt (USD)	338.83	0.39	1.52	-8.54	329.0	381.8	18.0%		-1.38
	US Treasuries	610.68	-0.85	-0.16	-8.16	591.0	673.4	19.6%		-1.21
	German Bunds	494.88	-0.80	2.17	-7.82	464.9	548.4	22.6%		-1.01
	JGBs	288.17	0.27	1.03	-2.18	284.4	296.3	20.7%		-0.91
	US linkers	335.88	-1.48	1.55	-6.64	325.5	361.4	16.1%		-1.17
	Euro linkers	262.46	0.58	3.68	-0.61	243.0	277.5	61.1%		0.28
Credit	US HG	341.15	-0.82	1.74	-9.37	328.2	394.5	21.1%		-1.18
	US HY	685.02	0.84	6.27	-5.38	642.1	740.7	23.8%		-0.80
	Euro HG	220.76	-0.36	2.87	-7.23	209.3	246.0	21.5%		-1.05
	Euro HY	333.01	1.10	6.22	-7.53	313.1	367.7	16.1%		-1.08
	EMBIGD	808.57	0.90	3.39	-14.93	758.3	1005.4	15.0%		-1.25
	CEMBI	321.09	-0.08	0.72	-12.63	313.9	384.3	10.3%		-1.38
FX	USD TWI	130.15	0.58	0.98	6.92	119.1	131.8	95.3%		1.99
	EUR/USD	1.02	-0.36	-0.81	-10.44	1.0	1.2	4.6%		-1.84
	GBP/USD	1.21	-0.81	1.05	-10.78	1.2	1.4	6.5%		-1.77
	USD/JPY	135.01	-1.29	0.62	-14.76	109.2	139.0	88.8%		1.63
	EM FX	339.37	0.32	0.73	-10.29	332.4	390.0	8.8%		-1.55
Comdty	GSCI	649.27	-6.26	-6.94	15.70	494.4	822.3	54.6%		0.05
	Brent	94.92	-13.72	-7.64	22.04	65.2	128.0	54.2%		0.09
	Gold	1,772.90	0.57	0.51	-3.05	1700.2	2043.3	19.6%		-0.80
	Copper	7,870.00	-0.77	2.65	-19.26	7162.0	11299.5	8.4%		-2.12
Ca	GBI 3m cash (lcy)	325.49	-0.025	-0.05	-0.38	325.5	327.4	1.1%		-1.68

	Asset	Rate (%)	1W Chg (spread)	1M Chg (spread)	YTD Chg (spread)	1Y Low	1Y High	Percentile	1Y Current Percentile Relative to 1Y Low/High and 20th-80th Percentile Range	Z-Score
Rates	US 10yr	2.83	0.18	0.02	1.32	1.2	3.5	76.5%		1.13
	EU 10yr	0.96	0.14	-0.22	1.13	-0.5	1.8	78.4%		1.01
	UK 10yr	2.05	0.19	0.00	1.08	0.5	2.7	85.7%		1.18
	Japan 10yr	0.17	-0.02	-0.06	0.10	0.0	0.3	50.0%		0.22
	GBI-Agg Yield	2.60	0.04	-0.14	1.01	1.3	3.0	81.9%		1.14
	GBI-DM Yield	2.14	0.07	-0.09	1.13	0.7	2.6	83.8%		1.25
	GBI-EM Yield	#N/A Invalid	#N/A Invalid	#N/A Invalid	#N/A Invalid	0.0	0.0	#VALUE!		#VALUE!
	US 10yr Breakeven	2.47	-0.08	0.18	-0.12	2.3	3.0	38.0%		-0.49

	Asset	Spread (bps)	1W Chg (spread)	1M Chg (spread)	YTD Chg (spread)	1Y Low	1Y High	Percentile	1Y Current Percentile Relative to 1Y Low/High and 20th-80th Percentile Range	Z-Score
Credit Spread	US HG	165.44	-2.37	-12.33	36.63	0.6	1.8	35.3%		-0.11
	US HY	488.89	-40.49	-127.58	75.87	368.2	636.8	79.6%		0.80
	Euro HG	120.44	-9.23	-35.95	32.44	54.0	160.9	77.3%		0.92
	Euro HY	589.20	-38.41	-140.67	203.51	297.2	729.9	86.9%		1.36
	EMBIGD	503.09	-29.51	-38.90	121.84	336.2	593.6	86.1%		1.29
	CEMBI	377.85	-17.07	-7.66	87.26	248.2	446.0	81.5%		1.24
CDS Spread	CDX IG 5yr	80.73	0.56	-19.03	31.23	45.9	102.3	75.7%		0.89
	CDX HY 5yr	464.06	-6.44	-103.53	171.17	272.8	587.0	77.6%		0.98
	iTraxx Main 5yr	101.99	1.33	-20.34	54.11	44.5	124.9	86.5%		1.33
	iTraxx x-Over 5yr	517.83	6.00	-87.87	275.43	224.5	619.0	86.5%		1.48

Source: J.P. Morgan Quantitative and Derivatives Strategy

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Cross-Asset Correlation

		Equity											
	Asset	MSCI AC World (USD)	MSCI AC World (lcy)	MSCI World (USD)	MSCI World (lcy)	S&P 500	Russel 2000	Nasdaq	Euro Stoxx	FTSE 100	Topix	MSCI EM (USD)	MSCI EM (lcy)
Equity	MSCI AC World (USD)		100%	100%	99%	97%	90%	94%	80%	75%	68%	73%	70%
Equity	MSCI AC World (lcy)	100%		99%	100%	98%	90%	95%	79%	75%	68%	71%	69%
Equity	MSCI World (USD)	100%	99%		100%	98%	90%	95%	79%	74%	65%	67%	64%
Equity	MSCI World (lcy)	99%	100%	100%		99%	90%	96%	79%	73%	66%	65%	63%
Equity	S&P 500	97%	98%	98%	99%		89%	96%	71%	65%	58%	59%	56%
Equity	Russel 2000	90%	90%	90%	90%	89%		89%	69%	64%	57%	61%	59%
Equity	Nasdaq	94%	95%	95%	96%	96%	89%		68%	59%	58%	60%	59%
Equity	Euro Stoxx	80%	79%	79%	79%	71%	69%	68%		87%	57%	57%	53%
Equity	FTSE 100	75%	75%	74%	73%	65%	64%	59%	87%		54%	63%	60%
Equity	Topix	68%	68%	65%	66%	58%	57%	58%	57%	54%		65%	66%
Equity	MSCI EM (USD)	73%	71%	67%	65%	59%	61%	60%	57%	63%	65%		99%
Equity	MSCI EM (lcy)	70%	69%	64%	63%	56%	59%	59%	53%	60%	66%	99%	
Bonds	GBI Global (hedged USD)	9%	7%	10%	9%	14%	7%	13%	-4%	-12%	-13%	-8%	-10%
Bonds	GBI Global (lcy)	9%	7%	11%	9%	14%	8%	14%	-4%	-12%	-12%	-7%	-10%
Bonds	EM local debt (USD)	57%	51%	54%	49%	44%	44%	43%	56%	56%	33%	63%	54%
Bonds	US Treasuries	6%	4%	8%	5%	10%	4%	11%	-6%	-16%	-14%	-8%	-12%
Bonds	German Bunds	4%	5%	6%	6%	11%	6%	9%	-11%	-14%	-13%	-9%	-9%
Bonds	JGBs	9%	8%	10%	9%	11%	13%	9%	2%	1%	-10%	0%	-2%
Bonds	US linkers	22%	21%	24%	23%	27%	30%	26%	7%	-3%	-4%	2%	0%
Bonds	Euro linkers	22%	22%	23%	23%	27%	26%	25%	-2%	1%	-4%	9%	10%
Credit	US HG	35%	32%	35%	33%	36%	27%	37%	19%	8%	12%	20%	16%
Credit	US HY	72%	71%	72%	71%	71%	67%	70%	54%	47%	40%	50%	47%
Credit	Euro HG	37%	37%	38%	38%	40%	35%	35%	27%	22%	15%	19%	17%
Credit	Euro HY	62%	61%	62%	61%	57%	53%	55%	62%	53%	45%	48%	45%
Credit	EMBIGD	63%	61%	63%	60%	58%	48%	55%	66%	52%	39%	47%	40%
Credit	CEMBI	45%	43%	43%	41%	39%	26%	36%	43%	34%	35%	46%	41%
FX	USD TWI	-64%	-58%	-62%	-56%	-53%	-51%	-49%	-55%	-55%	-40%	-65%	-57%
FX	EUR/USD	50%	44%	49%	43%	42%	39%	39%	43%	39%	32%	42%	35%
FX	GBP/USD	65%	60%	63%	58%	56%	51%	52%	52%	49%	37%	61%	55%
FX	USD/JPY	2%	7%	2%	7%	3%	6%	3%	8%	13%	27%	4%	9%
FX	EM FX	54%	50%	52%	49%	45%	43%	42%	55%	50%	42%	51%	45%
Comdty	GSCI	19%	19%	17%	16%	18%	26%	13%	-5%	10%	14%	30%	32%
Comdty	Brent	16%	16%	14%	14%	15%	24%	9%	-3%	11%	16%	30%	32%
Comdty	Gold	4%	0%	2%	-1%	-1%	7%	-2%	-8%	-4%	-13%	15%	11%
Comdty	Copper	35%	33%	32%	30%	28%	32%	25%	22%	29%	30%	44%	43%
Cas	GBI 3m cash (lcy)	5%	4%	6%	5%	5%	-1%	1%	11%	10%	0%	-5%	-7%

		Bonds								Credit					
	Asset	GBI Global (hedged USD)	GBI Global (lcy)	EM local debt (USD)	US Treasuries	German Bunds	JGBs	US linkers	Euro linkers	US HG	US HY	Euro HG	Euro HY	EMBIGD	CEMBI
Equity	MSCI AC World (USD)	9%	9%	57%	6%	4%	9%	22%	22%	35%	72%	37%	62%	63%	45%
Equity	MSCI AC World (lcy)	7%	7%	51%	4%	5%	8%	21%	22%	32%	71%	37%	61%	61%	43%
Equity	MSCI World (USD)	10%	11%	54%	8%	6%	10%	24%	23%	35%	72%	38%	62%	63%	43%
Equity	MSCI World (lcy)	9%	9%	49%	5%	6%	9%	23%	23%	33%	71%	38%	61%	60%	41%
Equity	S&P 500	14%	14%	44%	10%	11%	11%	27%	27%	36%	71%	40%	57%	58%	39%
Equity	Russel 2000	7%	8%	44%	4%	6%	13%	30%	26%	27%	67%	35%	53%	48%	26%
Equity	Nasdaq	13%	14%	43%	11%	9%	9%	26%	25%	37%	70%	35%	55%	55%	36%
Equity	Euro Stoxx	-4%	-4%	56%	-6%	-11%	2%	7%	-2%	19%	54%	27%	62%	66%	43%
Equity	FTSE 100	-12%	-12%	56%	-16%	-14%	1%	-3%	1%	8%	47%	22%	53%	52%	34%
Equity	Topix	-13%	-12%	33%	-14%	-13%	-10%	-4%	-4%	12%	40%	15%	45%	39%	35%
Equity	MSCI EM (USD)	-8%	-7%	63%	-8%	-9%	0%	2%	9%	20%	50%	19%	48%	47%	46%
Equity	MSCI EM (lcy)	-10%	-10%	54%	-12%	-9%	-2%	0%	10%	16%	47%	17%	45%	40%	41%
Bonds	GBI Global (hedged USD)		100%	8%	95%	90%	67%	68%	66%	86%	40%	78%	29%	33%	26%
Bonds	GBI Global (lcy)	100%		9%	95%	90%	67%	68%	66%	86%	40%	78%	29%	33%	26%
Bonds	EM local debt (USD)	8%	9%		15%	-6%	11%	8%	0%	33%	47%	23%	45%	72%	62%
Bonds	US Treasuries	95%	95%	15%		77%	58%	68%	52%	89%	36%	64%	21%	35%	28%
Bonds	German Bunds	90%	90%	-6%	77%		64%	58%	74%	67%	33%	85%	29%	17%	17%
Bonds	JGBs	67%	67%	11%	58%	64%		49%	55%	56%	43%	63%	36%	23%	17%
Bonds	US linkers	68%	68%	8%	68%	58%	49%		72%	62%	49%	54%	35%	23%	11%
Bonds	Euro linkers	66%	66%	0%	52%	74%	55%	72%		47%	42%	69%	35%	8%	4%
Credit	US HG	86%	86%	33%	89%	67%	56%	62%	47%		64%	72%	47%	56%	47%
Credit	US HY	40%	40%	47%	36%	33%	43%	49%	42%	64%		63%	77%	63%	44%
Credit	Euro HG	78%	78%	23%	64%	85%	63%	54%	69%	72%	63%		69%	48%	40%
Credit	Euro HY	29%	29%	45%	21%	29%	36%	35%	35%	47%	77%	69%		63%	52%
Credit	EMBIGD	33%	33%	72%	35%	17%	23%	23%	8%	56%	63%	48%	63%		79%
Credit	CEMBI	26%	26%	62%	28%	17%	17%	11%	4%	47%	44%	40%	52%	79%	
FX	USD TWI	-12%	-13%	-86%	-18%	4%	-13%	-19%	-10%	-36%	-50%	-21%	-42%	-59%	-41%
FX	EUR/USD	1%	1%	70%	14%	-24%	-2%	4%	-20%	26%	34%	-8%	21%	50%	34%
FX	GBP/USD	7%	8%	71%	11%	-3%	10%	16%	10%	27%	46%	21%	45%	50%	43%
FX	USD/JPY	-61%	-62%	-25%	-62%	-54%	-38%	-37%	-29%	-53%	-25%	-40%	-15%	-30%	-21%
FX	EM FX	-5%	-5%	69%	2%	-18%	-17%	8%	-9%	15%	32%	4%	30%	54%	53%
Comdty	GSCI	-7%	-7%	-3%	-11%	0%	14%	27%	35%	-4%	21%	2%	9%	-17%	-8%
Comdty	Brent	-11%	-11%	-2%	-13%	-5%	6%	21%	23%	-6%	15%	-4%	1%	-19%	-7%
Comdty	Gold	11%	11%	35%	14%	5%	16%	38%	32%	10%	16%	2%	2%	4%	6%
Comdty	Copper	-2%	-2%	34%	-4%	-4%	12%	19%	13%	11%	30%	7%	30%	23%	18%
Cas	GBI 3m cash (lcy)	3%	3%	11%	3%	3%	-8%	11%	-3%	1%	1%	3%	5%	7%	16%

		FX					Commodity				Cash
	Asset	USD TWI	EUR/USD	GBP/USD	USD/JPY	EM FX	GSCI	Brent	Gold	Copper	GBI 3m cash (lcy)
Equity	MSCI AC World (USD)	-64%	50%	65%	2%	54%	19%	16%	4%	35%	5%
Equity	MSCI AC World (lcy)	-58%	44%	60%	7%	50%	19%	16%	0%	33%	4%
Equity	MSCI World (USD)	-62%	49%	63%	2%	52%	17%	14%	2%	32%	6%
Equity	MSCI World (lcy)	-56%	43%	58%	7%	49%	16%	14%	-1%	30%	5%
Equity	S&P 500	-53%	42%	56%	3%	45%	18%	15%	-1%	28%	5%
Equity	Russel 2000	-51%	39%	51%	6%	43%	26%	24%	7%	32%	-1%
Equity	Nasdaq	-49%	39%	52%	3%	42%	13%	9%	-2%	25%	1%
Equity	Euro Stoxx	-55%	43%	52%	8%	55%	-5%	-3%	-8%	22%	11%
Equity	FTSE 100	-55%	39%	49%	13%	50%	10%	11%	-4%	29%	10%
Equity	Topix	-40%	32%	37%	27%	42%	14%	16%	-13%	30%	0%
Equity	MSCI EM (USD)	-65%	42%	61%	4%	51%	30%	30%	15%	44%	-5%
Equity	MSCI EM (lcy)	-57%	35%	55%	9%	45%	32%	32%	11%	43%	-7%
Bonds	GBI Global (hedged USD)	-12%	1%	7%	-61%	-5%	-7%	-11%	11%	-2%	3%
Bonds	GBI Global (lcy)	-13%	1%	8%	-62%	-5%	-7%	-11%	11%	-2%	3%
Bonds	EM local debt (USD)	-86%	70%	71%	-25%	69%	-3%	-2%	35%	34%	11%
Bonds	US Treasuries	-18%	14%	11%	-62%	2%	-11%	-13%	14%	-4%	3%
Bonds	German Bunds	4%	-24%	-3%	-54%	-18%	0%	-5%	5%	-4%	3%
Bonds	JGBs	-13%	-2%	10%	-38%	-17%	14%	6%	16%	12%	-8%
Bonds	US linkers	-19%	4%	16%	-37%	8%	27%	21%	38%	19%	11%
Bonds	Euro linkers	-10%	-20%	10%	-29%	-9%	35%	23%	32%	13%	-3%
Credit	US HG	-36%	26%	27%	-53%	15%	-4%	-6%	10%	11%	1%
Credit	US HY	-50%	34%	46%	-25%	32%	21%	15%	16%	30%	1%
Credit	Euro HG	-21%	-8%	21%	-40%	4%	2%	-4%	2%	7%	3%
Credit	Euro HY	-42%	21%	45%	-15%	30%	9%	1%	2%	30%	5%
Credit	EMBIGD	-59%	50%	50%	-30%	54%	-17%	-19%	4%	23%	7%
Credit	CEMBI	-41%	34%	43%	-21%	53%	-8%	-7%	6%	18%	16%
FX	USD TWI		-82%	-77%	25%	-68%	-11%	-12%	-37%	-40%	-8%
FX	EUR/USD	-82%		70%	-24%	65%	-3%	1%	23%	31%	8%
FX	GBP/USD	-77%	70%		-22%	58%	22%	20%	27%	46%	9%
FX	USD/JPY	25%	-24%	-22%		-8%	6%	8%	-25%	0%	1%
FX	EM FX	-68%	65%	58%	-8%		10%	16%	23%	25%	21%
Comdty	GSCI	-11%	-3%	22%	6%	10%		94%	40%	51%	-3%
Comdty	Brent	-12%	1%	20%	8%	16%	94%		36%	42%	13%
Comdty	Gold	-37%	23%	27%	-25%	23%	40%	36%		32%	5%
Comdty	Copper	-40%	31%	46%	0%	25%	51%	42%	32%		2%
Cas	GBI 3m cash (lcy)	-8%	8%	9%	1%	21%	-3%	13%	5%	2%	

Source: J.P. Morgan Quantitative and Derivatives Strategy

Marko Kolanovic, PhD; Nikolaos Panigirzoglou; Bram Kaplan, CFA; Thomas Salopek; Federico Manicardi; Mika Inkinen; Amy Ho

Cross-Asset Volatility

	Asset	3M ATM IV	1W Chg (vol pt)	1M Chg (vol pt)	YTD Chg (vol pt)	1Y Low	1Y High	1Y Percentile	Current Percentile Relative to 1Y Low/High and 20th-80th Percentile Range	Z-Score	Implied-Realized	1W Chg (vol pt)
Equity	MSCI World (USD)	21.5%	1.21	-1.85	5.79	13.5%	28.3%	64.1%		0.52	-0.28%	2.94
	S&P 500	20.5%	0.40	-2.98	4.75	14.2%	28.4%	53.6%		0.08	-4.32%	2.33
	Russel 2000	24.7%	-0.01	-3.22	3.10	19.9%	32.9%	43.0%		-0.29	-3.51%	3.05
	Euro Stoxx	21.5%	0.06	-3.28	4.79	14.2%	34.5%	54.4%		0.18	-0.75%	1.55
	FTSE100	16.6%	0.05	-3.66	2.99	12.3%	28.1%	55.7%		0.00	-1.65%	1.13
	Topix	16.7%	-0.13	-2.41	-0.66	15.2%	25.8%	13.5%		-1.04	0.38%	0.02
	MSCI EM (USD)	0.0%	-21.08	-22.37	-18.94	17.6%	32.5%	0.0%		-8.11	-19.33%	-20.35
Credit	CDX IG 5yr	53.8%	0.89	-6.89	9.60	39.8%	75.8%	49.4%		-0.04	9.02%	2.00
	CDX HY 5yr	53.1%	0.08	-3.43	8.38	37.3%	67.8%	52.4%		0.26	4.50%	1.37
	iTraxx Main 5yr	63.6%	2.32	1.81	19.26	36.3%	86.2%	78.1%		0.86	16.64%	2.64
	iTraxx x-Over 5yr	60.3%	1.79	0.52	11.12	41.5%	84.7%	60.5%		0.43	14.28%	2.35
FX	EUR/USD	9.8%	-0.58	-0.52	4.43	4.9%	12.2%	90.0%		1.43	-0.60%	-0.87
	GBP/USD	10.2%	-0.05	-1.08	3.63	6.2%	12.3%	81.9%		1.22	-0.78%	0.57
	USD/JPY	10.7%	0.02	-1.06	4.84	5.2%	13.6%	80.0%		1.16	-1.15%	-0.92
	EM FX	12.8%	0.11	-0.14	1.46	8.4%	13.9%	84.6%		1.22	6.60%	0.00
Comdty	Brent	45.1%	1.48	-5.90	7.75	29.4%	72.6%	52.1%		0.13	-1.26%	-0.33
	Gold	15.2%	-0.51	-2.55	1.34	13.0%	26.3%	52.1%		-0.25	1.75%	-0.72
	Copper	29.9%	-0.69	-2.26	2.66	25.3%	33.7%	84.8%		0.90	3.09%	-0.88

	Asset	3M ATM IV (bp vol)	1W Chg (vol pt)	1M Chg (vol pt)	YTD Chg (vol pt)	1Y Low	1Y High	1Y Percentile	Current Percentile Relative to 1Y Low/High and 20th-80th Percentile Range	Z-Score
Rates	US 10yr	116.7	0.02	-1.46	-9.26	66.6	131.7	84.2%		1.23
	EU 10yr	122.0	-1.76	2.88	-739.09	36.3	138.8	89.6%		1.54
	UK 10yr	133.1	-5.13	-1.74	-13.53	55.7	155.1	88.5%		1.57
	Japan 10yr	33.9	14.31	-0.45	-70.09	14.7	53.5	84.6%		0.99

Source: J.P. Morgan Quantitative and Derivatives Strategy

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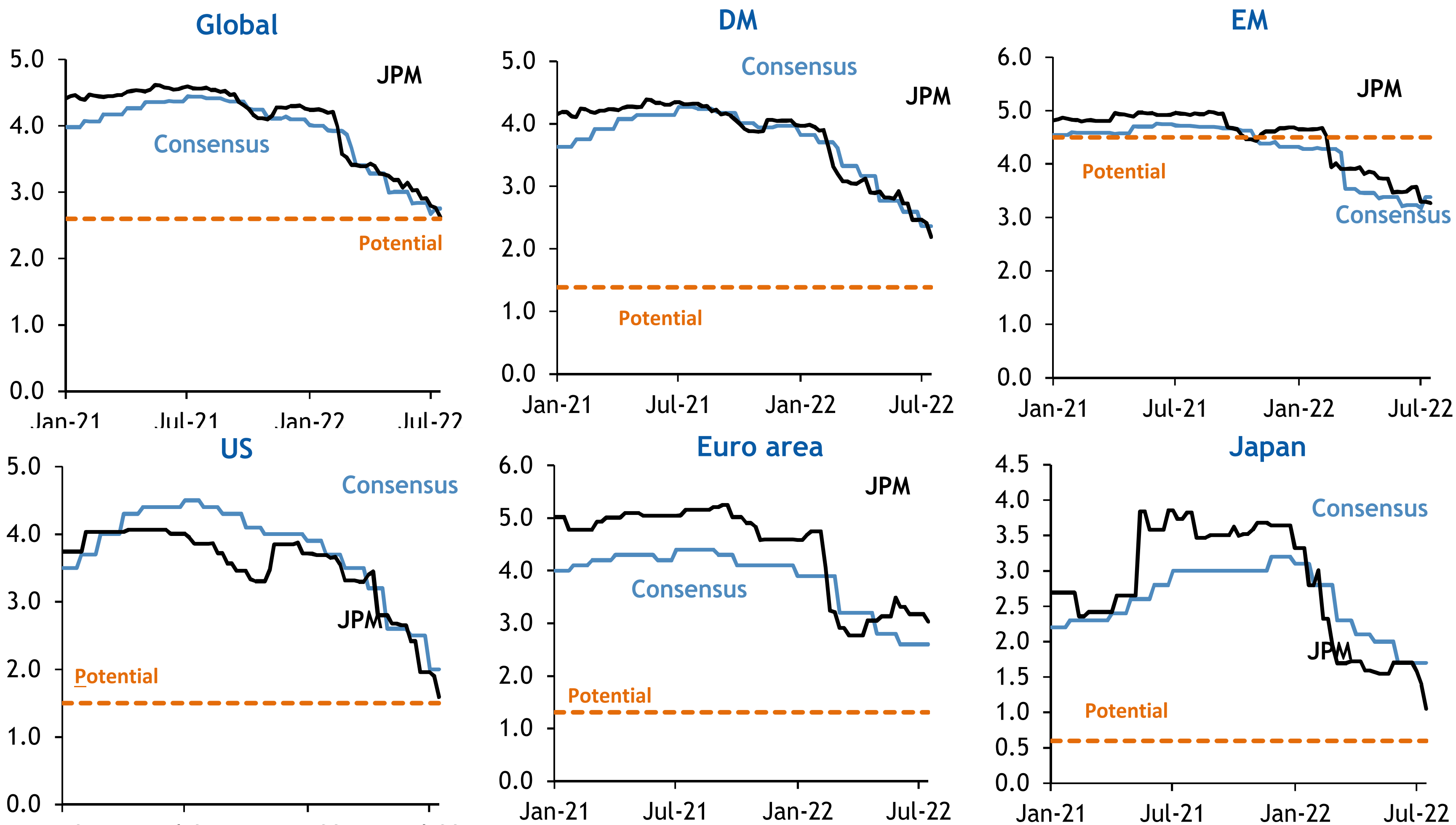
Macro Momentum

2022 GDP Expectations

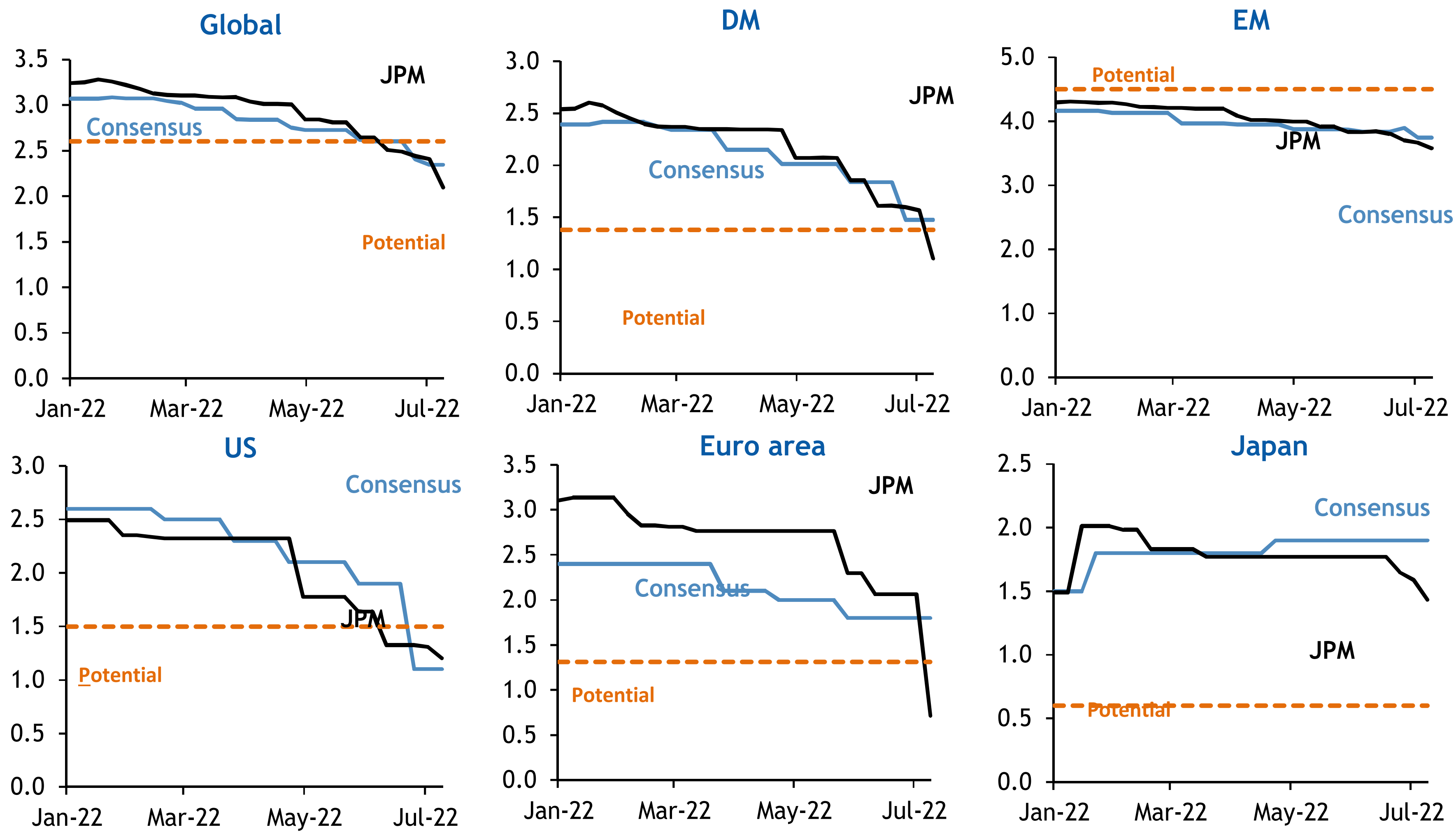
In %, GDP estimates of J.P. Morgan and consensus with current J.P. Morgan estimates of potential growth. Consensus Economics forecasts for global growth are done using the same 5-year rolling USD GDP country/region weights that we use for our own global growth forecast.



Source: J.P. Morgan.

2023 GDP Expectations

In %, GDP estimates of J.P. Morgan and consensus with current J.P. Morgan estimates of potential growth. Consensus Economics forecasts for global growth are done using the same 5-year rolling USD GDP country/region weights that we use for our own global growth forecast.



Source: J.P. Morgan.

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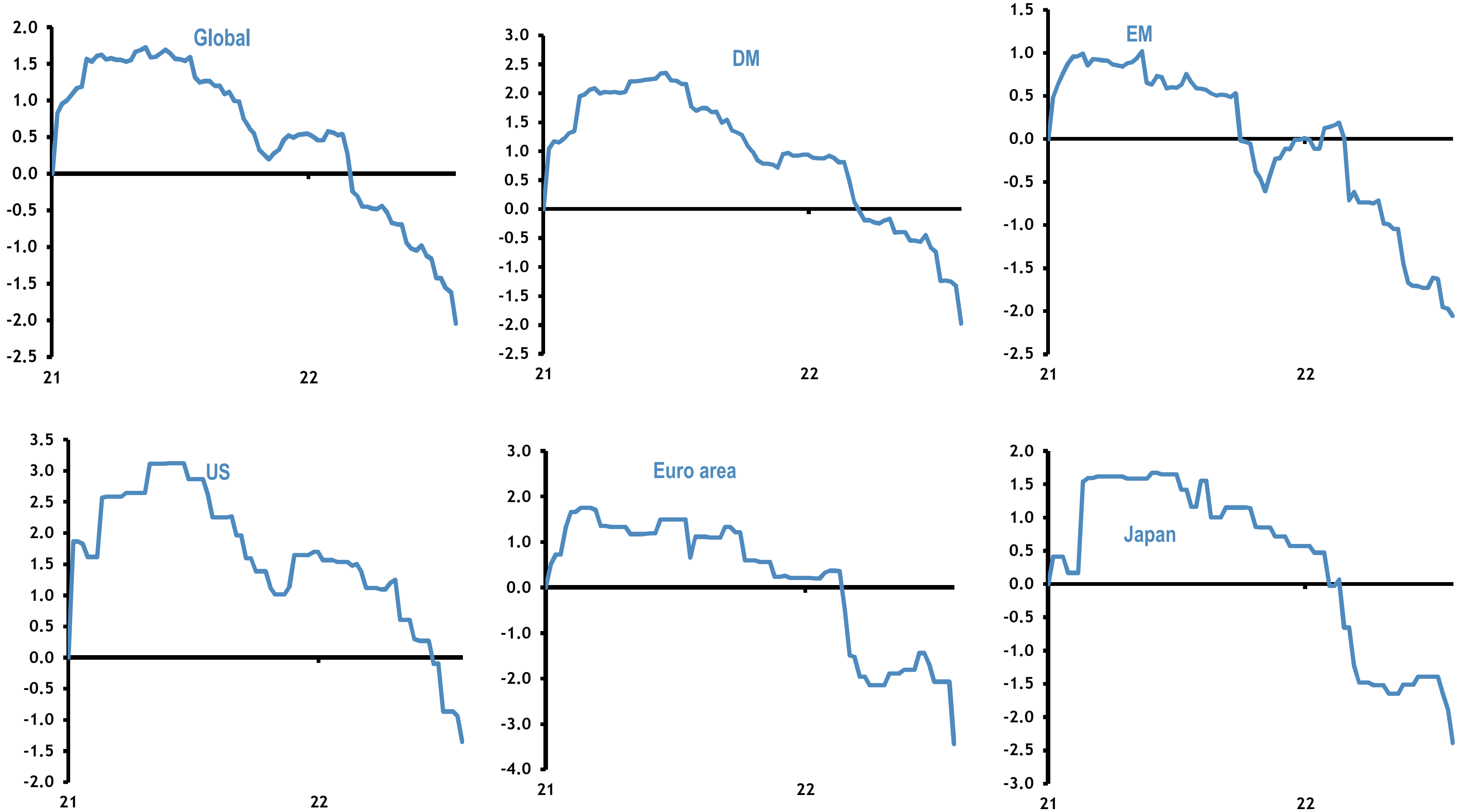
Forecast Revision indices since 2021

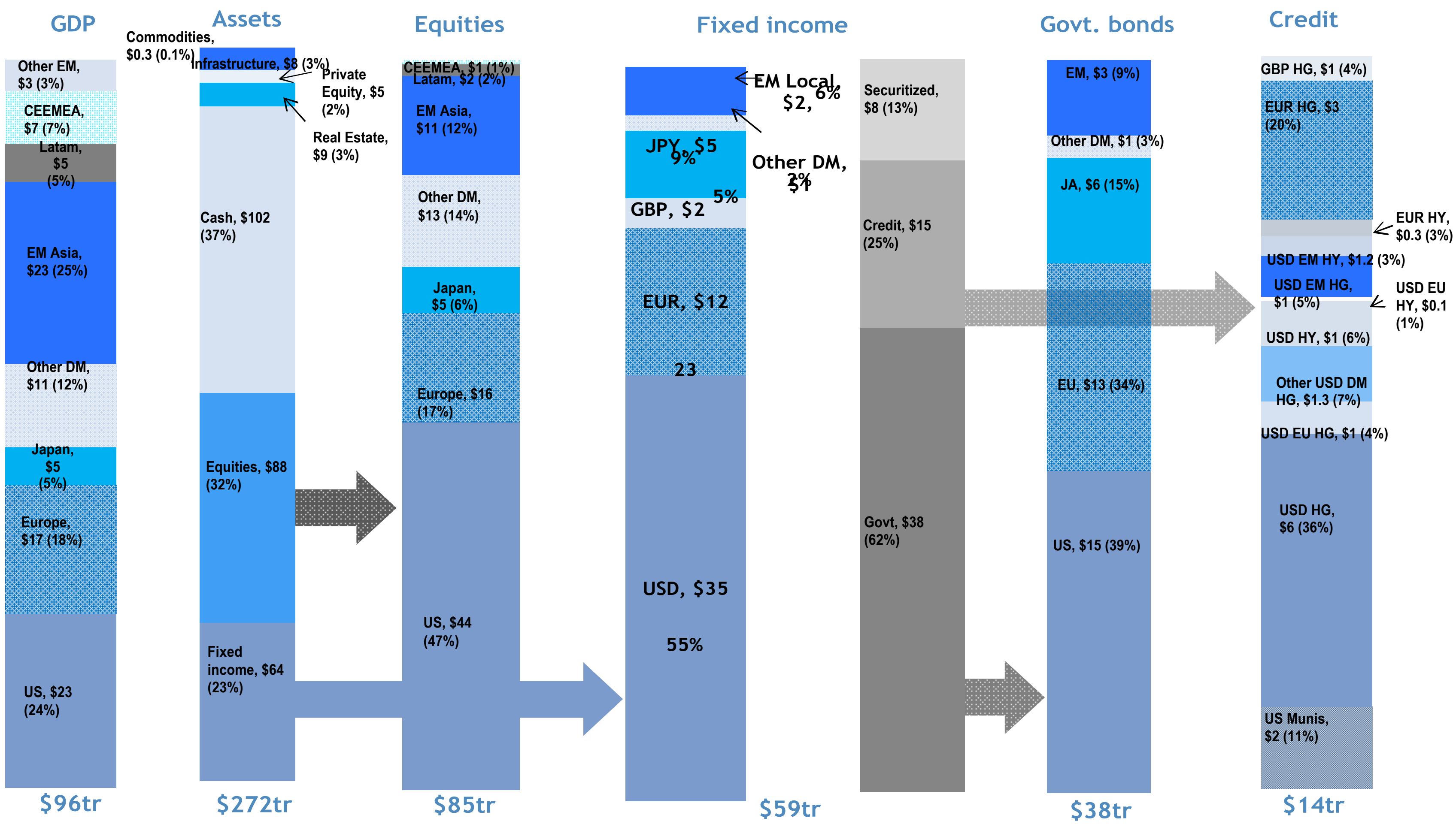
In %, the FRI is cumulative weekly changes in GDP forecasts for the current Quarter (Q), Q-1, Q+1 and Q+2 made by J.P. Morgan economists. The beginning of every series is normalized to begin at zero.



Source: J.P. Morgan.

Marko Kolanovic, PhD; Nikolaos Panigirzoglou; Bram Kaplan, CFA; Thomas Salopek; Federico Manicardi; Mika Inkinen; Amy Ho

Market Panorama



Source: J.P. Morgan, BIS, MSCI, Datastream, Bloomberg Finance L.P. Market size estimates for sub asset class as of Nov'20. GDP estimates are as of end 2019. Global Fixed income is proxied by the sum of the global domestic debt securities reported by BIS and J.P. Morgan's EMBIG index for external debt. For equities, we used the Datastream world equity index. Global cash is an aggregated M2 (or close proxy of M2) of developed and developing countries. Note: There is some difference between breakup of FI total in column 2 and 4. That is because in column 2 we take the total market size from BIS and adjust it for central bank holdings and in column 4 we take the breakup of sub-asset class of FI from J.P. Morgan indices, which are easy to track and trade.

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Risks of Common Option Strategies

Risks to Strategies: Not all option strategies are suitable for investors; certain strategies may expose investors to significant potential losses. We have summarized the risks of selected derivative strategies. For additional risk information, please call your sales representative for a copy of "Characteristics and Risks of Standardized Options." We advise investors to consult their tax advisors and legal counsel about the tax implications of these strategies. Please also refer to option risk disclosure documents.

Put Sale: Investors who sell put options will own the underlying asset if the asset's price falls below the strike price of the put option. Investors, therefore, will be exposed to any decline in the underlying asset's price below the strike potentially to zero, and they will not participate in any price appreciation in the underlying asset if the option expires unexercised.

Call Sale: Investors who sell uncovered call options have exposure on the upside that is theoretically unlimited.

Call Overwrite or Buywrite: Investors who sell call options against a long position in the underlying asset give up any appreciation in the underlying asset's price above the strike price of the call option, and they remain exposed to the downside of the underlying asset in the return for the receipt of the option premium.

Booster : In a sell-off, the maximum realized downside potential of a double-up booster is the net premium paid. In a rally, option losses are potentially unlimited as the investor is net short a call. When overlaid onto a long position in the underlying asset, upside losses are capped (as for a covered call), but downside losses are not.

Collar: Locks in the amount that can be realized at maturity to a range defined by the put and call strike. If the collar is not costless, investors risk losing 100% of the premium paid. Since investors are selling a call option, they give up any price appreciation in the underlying asset above the strike price of the call option.

Call Purchase: Options are a decaying asset, and investors risk losing 100% of the premium paid if the underlying asset's price is below the strike price of the call option.

Put Purchase: Options are a decaying asset, and investors risk losing 100% of the premium paid if the underlying asset's price is above the strike price of the put option.

Straddle or Strangle: The seller of a straddle or strangle is exposed to increases in the underlying asset's price above the call strike and declines in the underlying asset's price below the put strike. Since exposure on the upside is theoretically unlimited, investors who also own the underlying asset would have limited losses should the underlying asset rally. Covered writers are exposed to declines in the underlying asset position as well as any additional exposure should the underlying asset decline below the strike price of the put option. Having sold a covered call option, the investor gives up all appreciation in the underlying asset above the strike price of the call option.

Put Spread: The buyer of a put spread risks losing 100% of the premium paid. The buyer of higher-ratio put spread has unlimited downside below the lower strike (down to zero), dependent on the number of lower-struck puts sold. The maximum gain is limited to the spread between the two put strikes, when the underlying is at the lower strike. Investors who own the underlying asset will have downside protection between the higher-strike put and the lower-strike put. However, should the underlying asset's price fall below the strike price of the lower-strike put, investors regain exposure to the underlying asset, and this exposure is multiplied by the number of puts sold.

Call Spread: The buyer risks losing 100% of the premium paid. The gain is limited to the spread between the two strike prices. The seller of a call spread risks losing an amount equal to the spread between the two call strikes less the net premium received. By selling a covered call spread, the investor remains exposed to the downside of the underlying asset and gives up the spread between the two call strikes should the underlying asset rally.

Butterfly Spread: A butterfly spread consists of two spreads established simultaneously – one a bull spread and the other a bear spread. The resulting position is neutral, that is, the investor will profit if the underlying is stable. Butterfly spreads are established at a net debit. The maximum profit will occur at the middle strike price; the maximum loss is the net debit.

Pricing Is Illustrative Only: Prices quoted in the above trade ideas are our estimate of current market levels, and are not indicative trading levels.

Companies Discussed in This Report (all prices in this report as of market close on 08 August 2022, unless otherwise indicated)
Delivery Hero SE(DHER.DE/€50.40[05 August 2022]/OW), Indorama Ventures(IVL.BK/Bt42.75/N), PTT Exploration & Production(PTTEP.BK/Bt154.00/OW), PTT Global Chemical Pcl(PTTGC.BK/Bt45.75/OW), Petronas Chemicals Group Berhad(PCGB.KL/RM8.73/OW), R1 RCM(RCM/$26.42[05 August 2022]/OW), Thai Oil Public Company(TOP.BK/Bt50.00/OW)

Disclosures

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J.P. Morgan Equity Research Ratings Distribution, as of July 02, 2022

	Overweight (buy)	**Neutral** (hold)	**Underweight** (sell)
J.P. Morgan Global Equity Research Coverage*	52%	37%	12%
IB clients**	50%	44%	34%
JPMS Equity Research Coverage*	51%	37%	12%
IB clients**	72%	65%	52%

*Please note that the percentages might not add to 100% because of rounding.
**Percentage of subject companies within each of the "buy," "hold" and "sell" categories for which J.P. Morgan has provided investment banking services within the previous 12 months.
For purposes only of FINRA ratings distribution rules, our Overweight rating falls into a buy rating category; our Neutral rating falls into a hold rating category; and our Underweight rating falls into a sell rating category. Please note that stocks with an NR designation are not included in the table above. This information is current as of the end of the most recent calendar quarter.

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China Evergrande Group - J.P. Morgan Credit Opinion History

	Date	Action	Rating/Designation	Ticker/ISIN
Issuer	01 Sep 21	Downgrade	Neutral	EVERRE
8.25% '22 *	18 Nov 20	Upgrade	Overweight	XS1580431143
8.25% '22 *	01 Sep 21	Downgrade	Neutral	XS1580431143
11% '20	18 Nov 20	Terminate	Not Covered	XS1903671698
12% '20	13 Jul 17	Terminate	Not Covered	XS1165146488
13% '22	31 Oct 18	Initiate	Overweight	XS1903671854
13.000% '15	29 Apr 15	Terminate	Not Covered	USG3225AAA19
13.75% '23	31 Oct 18	Initiate	Overweight	XS1903671938
6.25% '21	18 Nov 20	Upgrade	Overweight	XS1627599142
6.25% '21	01 Sep 21	Terminate	Not Covered	XS1627599142
7% '20	14 Feb 20	Terminate	Not Covered	XS1580430681
7.5% '23	18 Nov 20	Upgrade	Overweight	XS1627599498
7.5% '23	01 Sep 21	Downgrade	Neutral	XS1627599498
8% '19	13 Jul 17	Terminate	Not Covered	XS1344520561
8.75% '25	25 Feb 22	Downgrade	Neutral	XS1627599654
8.75% '18	13 Jul 17	Terminate	Not Covered	USG3225AAD57
9.5% '24	01 Sep 21	Downgrade	Neutral	XS1587867539
TIANHL 11.5% '22	22 Jan 20	Initiate	Overweight	XS2109191986
TIANHL 12% '23	22 Jan 20	Initiate	Overweight	XS2109192109

***Indicates representative/primary bond/instrument.**

The table(s) above show the recommendation changes made by J.P. Morgan Credit Research Analysts in the subject company and/or instruments over the past three years (or, if no recommendation changes were made during that period, the most recent change). Notes: Effective April 11, 2016, J.P. Morgan changed its Credit Research Ratings System. Please see the Explanation of Credit Research Ratings below for the new definitions. The previous rating system no longer should be relied upon. For the history prior to April 11, 2016, please call 1-800-447-0406 or e-mail research.disclosure.inquiries@jpmorgan.com.

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J.P. Morgan Sovereign Research Ratings Distribution, as of July 2, 2022

	Overweight	Marketweight	Underweight
Global Sovereign Research Universe*	6%	84%	10%
IB clients**	25%	60%	50%

*Please note that the percentages might not add to 100% because of rounding.
**Percentage of subject issuers within each of the "buy, "hold" and "sell" categories for which J.P. Morgan has provided investment banking services within the previous 12 months.
The Sovereign Research Rating Distribution is at the issuer level. Issuers with an NR or an NC designation are not included in the table above. This information is current as of the end of the most recent calendar quarter.