

MACROECONOMIC ASSUMPTIONS

A new business cycle begins: Growth prospects unshaken; range of possible long-run inflation outcomes widens

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IN BRIEF

- The macroeconomic forecasts underlying our annual asset class assumptions grapple this year with the changes wrought by the global pandemic, the long-term impacts of which are not yet clear. Given that the coronavirus recession depressed economic starting points, we add a small cyclical bonus to most growth projections.
- Our developed market (DM) trend growth rate slips from last year's, but the overall forecast rises with the inclusion of the cyclical bonus. Relatively advantaged by demographics and technology adoption, the U.S. stands near the top of the growth list while Japan continues to trail.
- Emerging market (EM) trend growth edges downward but continues to outpace developed markets as EM productivity and human capital gradually converge with DM levels.
- Long-term inflation projections are little changed this year amid uncertainty in both directions. Significant slack and liquidity trap dynamics risk unanchoring expectations downward while, on the upside, several potential inflation drivers and the easing of decades-long structural drags could swing inflation higher longer term - a rough balance of forces.

The year 2020 will forever be remembered as the year of the virus. And just as scientists have grappled with unanswered questions about the pathogen, uncertainty about the impact of the novel coronavirus hangs over the economic forecasts embedded in our Long-Term Capital Market Assumptions (LTCMAs) this year. In many ways, it's too early to tell.

The word “recession” is normally applied to periods of declining economic activity, and by this convention the recession that engulfed the global economy in the first half of 2020 is already over. We also note that the LTCMAs normally ignore short-term, cyclical fluctuations. This time, however, the depth and nature of the coronavirus recession raise two key questions for our long-term forecasts. First, to what extent will the recession change economic agents’ and governments’ long-term behavior in ways that could impact growth and inflation dynamics? Second, how should we adjust our assumptions so they take account of the economic slack created by the recession?

On the first question, about economic growth, we believe it is just too early to say. While the pandemic could change both economic behavior and policy, some of the behavioral changes may

be visible in day-to-day life without doing much to alter overall growth outcomes. And other behavior changes may prove to be offsetting: While a few would likely restrain long-term expansion, others might accelerate it. By next year, we should have a firmer grasp on some of these trends.

With respect to the recession’s depth, though, we are including a small boost to most economies’ average growth rates to take account of their weak cyclical starting points. As a result, our growth forecasts have generally edged higher this year, mostly on account of this “cyclical bonus” (**EXHIBIT 1**).

Our inflation forecasts have not moved much this year, but we see notably more uncertainty than historically around the long-term outlook. On the one hand, the creation of significant slack in most economies, at a time when central banks had been persistently missing their targets, points to the risk that inflation expectations become unanchored to the low side. At the same time, some of the forces that generated that extended period of disinflation may now be diminishing - and we see new possible factors that may drive inflation upward. As a result, we find noteworthy tail risks on both sides of our projections.

Our 2021 assumptions anticipate slow real GDP growth globally, with little change to trend assumptions but small cyclical bonuses applied to several economies

EXHIBIT 1: MACROECONOMIC ASSUMPTIONS (%)

	Real GDP			Inflation		
	2021	2020	Change	2021	2020	Change
DEVELOPED MARKETS	1.6	1.5	0.1	1.6	1.6	0.0
United States	1.8	1.8	0.0	2.0	2.0	0.0
Euro area	1.3	1.2	0.1	1.3	1.3	0.0
Japan	1.0	0.6	0.4	0.7	0.8	-0.1
United Kingdom	1.6	1.2	0.4	2.0	2.0	0.0
Canada	1.7	1.6	0.1	1.8	1.8	0.0
Australia	2.4	2.2	0.2	2.3	2.3	0.0
Sweden	2.0	1.7	0.3	1.6	1.6	0.0
Switzerland	1.5	1.1	0.4	0.5	0.5	0.0
EMERGING MARKETS	3.9	3.9	0.0	3.3	3.3	0.0
China	4.4	4.4	0.0	2.5	2.5	0.0
India	6.9	7.0	-0.1	5.0	5.0	0.0
Brazil	2.4	2.4	0.0	4.3	4.5	-0.2
Russia	1.1	1.2	-0.1	5.3	5.5	-0.2
Korea	2.1	2.2	-0.1	1.8	2.0	-0.2
Taiwan	1.6	1.6	0.0	1.0	1.1	-0.1
Mexico	2.5	2.2	0.3	3.7	3.7	0.0
South Africa	2.5	2.2	0.3	5.3	5.3	0.0
Turkey	3.1	3.0	0.1	8.5	8.0	0.5
GLOBAL	2.4	2.3	0.1	2.2	2.2	0.0

Source: J.P. Morgan Asset Management; estimates as of September 30, 2020. Emerging markets aggregate derived from nine-country sample.

DM GROWTH: THE STRUCTURAL AND THE CYCLICAL

In generating this year's forecasts for developed market (DM) growth, we started with the question, "What would have happened to the numbers if the coronavirus shock had not occurred?" We concluded that they most likely would not have moved much. The slow-moving inputs to these figures - information about the labor force, investment spending and total factor productivity (TFP) - barely budged relative to 2020. Rolling population projections by a year did not significantly alter our expectations for long-term labor force growth, in part because in recent years we have already taken on board much of the ongoing demographic transition in these aging economies. Nor have we observed major changes to business or public sector investment patterns. Finally, while the past year has brought some signs of accelerating total factor productivity growth, thus far the pickup appears small and our forecasts already anticipated improvement after an extended weak spell.

In thinking about the long-term effects of the coronavirus shock, we considered several that might affect growth trajectories. One is globalization. Already stagnant in recent years, globalization could retreat if companies choose to shorten their supply chains and if countries provide incentives to promote heavier reliance on local resources. Such a development would likely create winners and losers, but in broad terms we would think of it as a negative productivity shock, albeit one that might damage emerging market (EM) economies more than developed markets.

Another, similar productivity drag could result from renewed emphasis on redundancy at the expense of efficiency (such as holding larger inventory stockpiles or relying on multiple suppliers in different countries), although reduced volatility might accompany this trend. A third is de-densification. If many people decide to decamp from cities to suburbs or rural areas, this would also likely trim productivity growth, which is higher in urban centers. This response to the shock, however, might spur a new wave of technology adoption or accelerate an existing one, boosting productivity in a similar fashion to the 1990s.

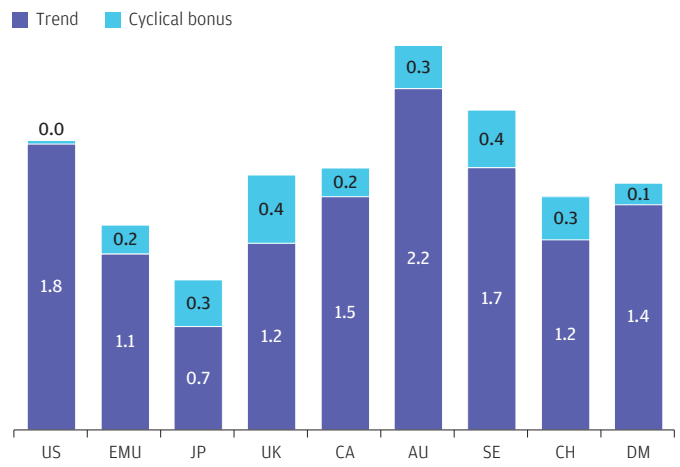
Alongside these potential influences on productivity we also considered a few possible influences on the labor force, including higher women's participation, facilitated by work-from-home arrangements or a decline in senior participation. We concluded, though, that none of these changes to productivity and labor has conclusively manifested itself thus far. Moreover, some, such as de-densification, would likely exercise only very small effects on growth if they did materialize. Finally, we cannot yet say whether a combined technology and anti-globalization shock would be a net positive or negative for growth. We will reevaluate developments on all these fronts next year.

In estimating this year's cyclical bonus, given the low current levels of activity relative to trend, it is important to recognize that most economies have moved from the best of times to the worst. At the start of 2020, many economies were operating above their potential levels, with low unemployment rates. We therefore do not take that starting point as the equilibrium to which economies will inevitably return.

Instead, we compare the pre-shock unemployment rate in each economy with our estimate of a long-term expected average level. From that gap, we estimate the degree to which GDP had been running above its trend. We then subtract that from the amount that GDP has fallen this year to see how much each country can reasonably be expected to outgrow its long-term potential from here, and amortize that over our forecast period to calculate the cyclical bonus. The bonuses range from zero to 0.4 percentage points (ppt), as shown in **EXHIBIT 2**. We expect most of that slack to be taken up in the next few years, especially if a vaccine is developed soon.

Given depressed post-shock starting points, we have added cyclical bonuses to our trend growth projections

EXHIBIT 2: GDP GROWTH BREAKDOWN (% PER ANNUM)



Source: J.P. Morgan Asset Management; estimates as of September 30, 2020.

AUSTRALIA, U.S. TOP DM GROWTH LIST; JAPAN CONTINUES TO TRAIL

Our aggregate DM growth rate forecast rises 10bps, to 1.6%, given the inclusion of the cyclical bonus, but the trend growth rate actually slips to 1.4%, from 1.5% last year.

The U.S. growth rate forecast stands near the top of developed markets, even as its strong initial post-shock rebound means its cyclical bonus rounds to zero. Our trend estimate for the U.S., 1.8%, is unchanged from last year. Demographics again represent a relative advantage for the U.S. among developed markets, with the labor force projected to grow 0.6ppt per year vs. the 0.3ppt DM average. We also continue to project a slightly faster pace of TFP growth in the U.S. than elsewhere, given the economy's generally rapid rate of technology adoption.

Australia leads in DM growth with a 2.2% trend rate, buoyed by highly favorable demographics. We note two downside risks to our Australian estimate: increased domestic discussion about immigration restrictions and the possibility of a turn toward household deleveraging after an extended cycle of expansionary behavior tied to a strong housing market. At the other end of the spectrum, Japan continues to trail other DM economies, reflecting its demographics. Still, we nudge its trend rate higher, to 0.7% from 0.6%, given a secular increase in senior participation in the workforce. In contrast, we lower the euro area trend rate by one-tenth, to 1.1%, largely because of less favorable population projections for Spain.

DM INFLATION LITTLE CHANGED, BUT WITH GREATER TAIL RISKS

Long-term inflation projections are in flux following a lengthy period in which multiple factors steadily pushed our forecasts downward. What has changed? For one, the global coronavirus recession that has lowered GDP starting points (for which we compensate with a cyclical bonus in real terms) has also pushed prices lower globally. As a result, our forecasting exercise takes place amid strong cyclical crosscurrents: We expect some payback for the disinflationary shock to push against slack and persistent liquidity trap dynamics.

There is also a more structural shift underway as the trends that have anchored our low inflation view (and the downside risks around it) are becoming less aligned. The influence of monetary policy efficacy, technological innovation and adoption, globalization and demographic change - which have all dragged on inflation for the last two decades - is exerting increasingly mixed effects, and new upside risks are coming into view. As a result, while our DM inflation estimates are broadly stable, the plausible range of outcomes over the next 10 to 15 years is considerably wider.

EXHIBIT 3 illustrates the forces we expect to be exerted on inflation over our forecast horizon. In the early years, we see risks as being roughly balanced and, if anything, still tilted to the downside. For one, there is still ample slack in the system following the shutdown measures of early 2020, and with rates back at the zero lower bound, central bankers will continue to struggle to push inflation to their targets.¹ There are also many high growth, low inflation impulses that have been accelerated by the COVID-19 pandemic. Technology innovation and adoption trends, in particular, have been given a boost; e-commerce and work-from-home arrangements are the most visible of these trends.² Demographics are a near-term headwind, especially as economies approach the tail end of their baby boomers' transition to retirement, with the associated downdrafts to aggregate demand.

Over the course of our forecast horizon, aggregate inflation risk swings to the upside

EXHIBIT 3: MACRO TRENDS AND THEIR INFLUENCE ON DM INFLATION

Macro trend	Prior decade	Early years (0-5)	Late years (5-15)
Technology	-	--	-
Slack	--	-	0
Demographics	-	-	0
Globalization	-	+	0
Monetary policy efficacy	--	-	+
Fiscal policy	0	+	+
Inequality	0	+	+
Climate change	0	++	+

Source: J.P. Morgan Asset Management; assessments as of September 30, 2020.

¹ David Kelly et al., "Central banks and sluggish growth: The failure of monetary stimulus," *2020 Long-Term Capital Market Assumptions*, J.P. Morgan Asset Management, November 2019.

² Benjamin Mandel et al., "The future impact of e-commerce on the economy: New economy, same old returns?" *2020 Long-Term Capital Market Assumptions*, J.P. Morgan Asset Management, November 2019, and Benjamin Mandel et al., "The impact of a global work from home labor force: Market implications of skill-biased tech adoption and lower urban density," J.P. Morgan Asset Management, June 23, 2020.

These low inflation forces are counterbalanced in the near term – and possibly overwhelmed in the long term – by a number of countervailing forces:

- The transition to, or toward, neutral of what have been long-standing inflation drags: technology, slack and demographics.
- The likely outright reversal of other disinflationary forces, including globalization and monetary policy efficacy. The globalization transitions have already begun to play out, after stalling along several dimensions post-global financial crisis (GFC). Now globalization has been forced into a moderate retreat by Sino-U.S. trade tensions and more cloistered migration policies due to COVID-19, both of which have incrementally increased firms' marginal costs of intermediate inputs or labor.
- The possibilities that the tacit coordination between fiscal and monetary authorities during the COVID-19 recession proves to be persistent,³ and that the whiff of debt monetization is enough to move inflation expectations higher. Indeed, for inflation expectations to normalize to their pre-GFC levels, some level of monetary-fiscal coordination might be a necessary precursor.
- The appearance of three upside risks relatively novel in our framework: fiscal policy, operating through more persistently accommodative policy stances over the cycle; climate change – rising carbon pricing as new climate transition policies come into being or as existing ones are strengthened; and inequality, with the potential for redistributive policies (e.g., a rise in the minimum wage) to alter corporate cost structures.

GAPS BETWEEN OUR OUTLOOK AND HISTORICAL REALIZED INFLATION

In light of the near-term balance of macro forces on inflation, as well as the string of forecast downgrades in recent years that have brought our projections much closer to recent realized inflation, we make few changes to our DM inflation forecasts this year. Japan is an exception, with a large gap between realized inflation and our outlook: 90 basis points (bps) since last year's publication and 65bps over the last five years, which prompts us to make a small downward revision.

We can also use the gap between our outlook and historical realized inflation to gauge the upside inflation baked into our assumptions. Our current forecasts for DM inflation over the next 10 to 15 years are 20bps-30bps higher vs. realized inflation over the past decade, which strikes us as reasonable for the expected evolution of macro risks. Of course, the tail risks in either direction deriving from these factors could be much larger.

EM GROWTH: EDGING DOWNWARD

Our forecasting process for EM economies resulted in slightly larger changes than for DM economies. As with the DM countries, we are not yet taking on board possible long-term effects from the coronavirus shock, though one phenomenon we will be monitoring is the alteration – particularly any shortening – of supply chains. Instead, the adjustments we make to EM growth assumptions reflect fresh analysis of existing conditions, and similarly to recent years, the results are all growth downgrades. Still, our aggregate EM trend growth forecast, 3.8%,⁴ remains above the DM pace. The EM-DM gap owes only partly to demographics, which are just moderately more favorable in emerging economies. A faster pace of improvement in human capital also helps, as does an advantage in total factor productivity growth. Economic structures also play a role, particularly the orientation of major EM economies, such as Korea and Taiwan, toward high tech manufacturing, a sector characterized by rapid productivity growth. EM economies' edge also comes partly from a convergence effect: EM countries generally operate away from the global technology frontier but are converging toward it.

In the largest change to an EM trend growth forecast, we trim India to 6.5% from 7.0%.⁵ After an extensive period of very rapid growth, India has slowed in the past few years. Its structural reform process has also lost momentum, leaving the economy less open and flexible today than we expected. And the domestic banking sector is going through a deleveraging process that may inhibit efficient resource allocation in coming years. Due to a combination of these factors, the country's investment rate has fallen off fairly sharply. Yet even with our downgrade, India's growth forecast leads all emerging economies by a wide margin, reflecting its ample room for convergence, its young and growing population, and the rapidly improving education and skill level of its human capital.

We have shaved a few other EM trend forecasts. Korea edges down to 1.9%, from 2.2%, mostly on steadily weakening population projections. Also dipping slightly: commodity-oriented Russia (to 0.9%, from 1.2%). Brazil slips slightly (to 2.3%, from 2.4%), given persistently weak economic policy formation, an unfriendly global backdrop and low domestic saving rates.

³ See the analysis in this volume and John Bilton et al., "The fiscal decade: The promises, problems and potential of fiscal stimulus," *2021 Long-Term Capital Market Assumptions*, J.P. Morgan Asset Management, November 2020.

⁴ While the EM trend growth rate this year is 3.8%, our long-term EM forecast is 3.9% with the inclusion of the cyclical bonus.

⁵ While India's trend growth rate this year is cut to 6.5%, our long-term forecast for India is 6.9% with the inclusion of the cyclical bonus.

Having cut China significantly last year, we keep its trend forecast unchanged, at 4.4% - the second highest in our sample after India. On the surface, China's demographics look highly unfavorable, but we think ongoing internal migration to cities will continue providing a partial offset. The economy's gradually increasing emphasis on technology manufacturing and online activity should also help. In contrast with other forecasts, the China number does not represent a "steady state" figure but rather captures a gradual decline in trend growth over time, extending the trend evident during the past decade, as local standards of living gradually move closer to developed markets'.

We have included cyclical bonuses for most EM economies that, like their DM counterparts, have only partly clawed back the significant output losses of the first half of 2020 (**EXHIBIT 4**). EM economies, though, generally show more path dependence than is the case in developed markets, and some of the decline in production will likely never be recouped. Moreover, China has bounced back extremely rapidly and does not appear to be operating with much spare capacity. This combination of factors limits the aggregate EM cyclical bonus to 0.1ppt.

EM INFLATION: DISINFLATIONARY BABY STEPS

The main challenge for our EM projections is to distinguish the signal from the noise in recent inflation outcomes. China and India's run of high inflation over the past year was predominantly driven by food and commodity inflation, which is likely to be mostly transient over our forecast horizon. Where we take more signal aboard is the broad-based slowing of inflation in most of the EM economies for which we publish estimates (with the noticeable exceptions of China and India), which has pushed recent outcomes below our LTCMA forecasts.

To be sure, part of the decline is cyclical and orients around relatively weak global goods price inflation. But equally material are the lower frequency trends toward lower inflation in Brazil and Russia, and the convergence to DM inflation levels in parts of emerging Asia. We make several 10bps-20bps cuts to our forecasts to reflect these trends. Turkey is the exception, where inflation rates remain persistently around 10%, prompting a 50bps upward revision to our forecast.

This year, our forecasts include a cyclical bonus in both DM and EM economies

EXHIBIT 4: GDP TREND GROWTH FORECASTS

	2020 GDP	Change in trend forecast	Cyclical bonus	2021 GDP
DEVELOPED MARKETS	1.5	-0.1	0.1	1.6
United States	1.8	0.0	0.0	1.8
Euro area	1.2	-0.1	0.2	1.3
Japan	0.6	0.1	0.3	1.0
United Kingdom	1.2	0.0	0.4	1.6
Canada	1.6	-0.1	0.2	1.7
Australia	2.2	0.0	0.3	2.4
Sweden	1.7	0.0	0.4	2.0
Switzerland	1.1	0.1	0.3	1.5
EMERGING MARKETS	3.9	-0.1	0.1	3.9
China	4.4	0.0	0.0	4.4
India	7.0	-0.5	0.4	6.9
Brazil	2.4	-0.1	0.2	2.4
Russia	1.2	-0.3	0.2	1.1
Korea	2.2	-0.3	0.1	2.1
Taiwan	1.6	0.0	0.0	1.6
Mexico	2.2	0.0	0.3	2.5
South Africa	2.2	0.0	0.2	2.5
Turkey	3.0	0.0	0.2	3.1

Source: J.P. Morgan Asset Management; estimates as of September 30, 2020. Emerging markets aggregate derived from nine-country sample.

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