MONTHLY MACRO OUTLOOK

ThirdRock

KEY MACROECONOMIC DEVELOPMENTS

- Financial markets remain volatile without macro fundamental support, a good environment for traders but not investors
- The global inflation pickup will likely reverse, as slowing global growth and commodity weakness reduce price pressure
- China's recent growth slowdown is real, but a repeat of Japan's post-bubble experience remains an unlikely tail risk

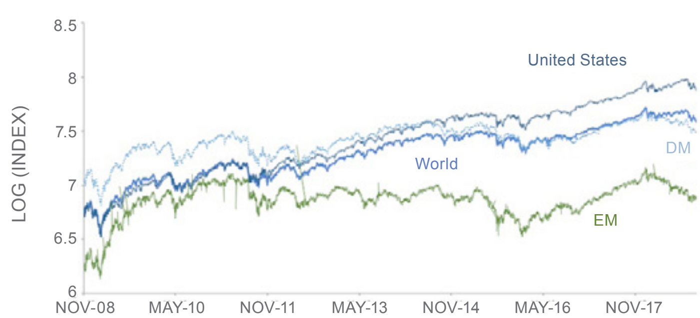
This month, we review financial market developments over the past month or so, with an eye to cross-asset relationships. We also argue that inflation pressures are most likely to come off the boil for the upcoming quarter, and that China's recent macro weakness does not necessarily portend a Japan-style lost decade, although the spillover effects of this slowdown could be more severe for other economies.

A SOJOURN INTO RECENT FINANCIAL MARKET MOVEMENTS

Just when we thought it couldn't get any worse for risk assets given the massive hit in October, November has proven to be little better (and in some cases slightly worse). Unless we see a material rebound in December, this means that almost all risk assets worldwide will have failed to beat inflation this year (save the S&P 500, although even that had briefly flirted with negative real returns in late November), and many classes are even down in nominal terms relative to last year. Nowhere is this bloodbath more evident than in equity markets, a number of which had defied gravity even during the slowdown in early 2015, and had gone on to post solid annual returns.

But unlike in 2015—when macro fundamentals, especially in the United States, stood stubbornly firm in defiance of financial sentiment—this time the macro data are sufficiently wobbly that, when coupled with widespread policy uncertainty, has proven sufficiently dire to warrant an extended retreat (Fig. A). And down markets in the U.S. are only the tip of the iceberg: risk assets in the rest of developed markets (DMs), bereft of the sort of positive macro surprises that the U.S. has enjoyed, have been underperforming since the second quarter. The picture is even worse for emerging market (EM) equities; as we've discussed in earlier Outlooks, sentiment turned powerfully against EMs this year, to the detriment of financial flows and hence equity market performance.

FIG. A: THE MOST RECENT DRAWDOWN IN THE S&P 500 MEANS THAT RETURNS ON ALL RISK ASSETS GLOBALLY HAVE FAILED TO BEAT INFLATION

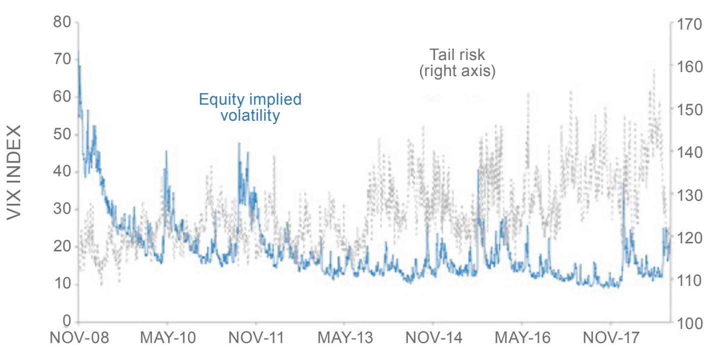


Source: Thirdrock calculations, from Datastream
Notes: EM, DM, United States, and World equities represented by the MSCI EM, MSCI EAFE, S&P 500, and MSCI World indexes, respectively.

Another important distinction between today and 2015 concerns what we are sensing to be a shifting of investor positioning and, by extension, investment strategy. The chatter on the Street during past market corrections—even the surprising one early this year—had been that previous pullbacks offered opportunities to “buy the dip” and get in on the overall bullishness surrounding equities. This time round, we sense a stronger preference for “selling the bounce,” which, needless to say, does not bode well for any sustained recovery. Of course, in secondary markets any reluctant seller must ultimately be matched by a willing buyer, but if previously-optimistic sellers are offloading their holdings to those only willing to hold at a comparatively lower price, then the market will naturally re-equilibrate to lower levels. And if technicals entrench trend- following on the way down, then who knows how far this drawdown will go.

Nor do volatility metrics paint a particularly positive picture. The VIX, a widely-followed tracker of equity volatility implied by S&P 500 options, has crept up over the past month, peaking at around 25, before falling back to the low 20s this month. While these numbers are nowhere near the highs breached in 2008, they are significantly above the longer-term average of 16 for the index, and almost twice the level observed through most of 2017 (Fig. B). Simultaneously, the SKEW—a sister index to the VIX, used to gauge tail risk inherent in the S&P 500—continues to steadily creep up, lending credence to the thesis that markets are ever-more nervous about near-term prospects for equities. Perhaps most worrying, the current episode is losing the sort of macro fundamental support that bailed out stocks in previous rounds of selloffs.

FIG. B: EQUITY VOLATILITY HAS RISEN IN THE UNITED STATES, AND ALTHOUGH NOT UNPRECEDENTED, NO LONGER ENJOYS MACRO SUPPORT



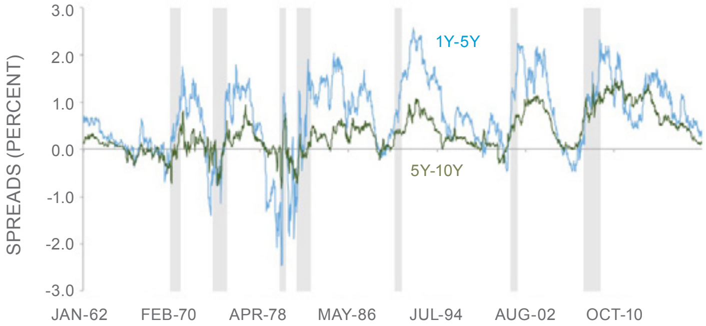
Source: CBOE and BAML/Datastream.
Notes: Equity volatility and tail risk summarized by the VIX and SKEW indexes of implied volatility of the S&P 500 and steepening of implied volatility of the S&P 500.

Other risk assets offer little shelter from the storm. Although bonds are often regarded as a diversifier for a portfolio otherwise loaded with stocks, the post-crisis environment has proven particularly tricky for fixed-income managers. Although the unconventional monetary policies undertaken by global central banks in the aftermath of the crisis undoubtedly extended the almost four-decade bull run in bonds, the subsequent roll-off of quantitative easing (the so-called taper) and rate-hike cycle has been a choppy one, burning even legendary fixed-income managers like Bill Gross. With current Fed chair Powell taking the position that he is much more sensitive to the incoming data flow—but simultaneously eschewing taking a clear stance on key policy parameters, such as the economy’s neutral rate of interest—traditional metrics for understanding the short end of the yield curve, such as the Taylor rule, have become much less useful as a guide to future Fed actions (incidentally, the Taylor rule prescription, for virtually any permutation or combination of the main variable inputs, is higher than the prevailing Fed Funds rate).

Further complicating the trading environment has been the virtually unprecedented late-cycle, deficit-financed fiscal stimulus, along with uncertainty over the longevity of what is now the second-longest postwar economic expansion, has meant conflicting pressures on the long end of the yield curve (the former would raise risk premia and elevate yields, while the latter is associated with impending rate cuts and hence would compress them).

This dynamic is hinted at when we compare the differences in yields for U.S. Treasuries at the 1, 5, and 10-year maturity (Fig. C). The 1-year/5-year (1Y/5Y) spread is traditionally substantially above that of its 5-year/10-year (5Y/10Y) equivalent. Early on in this cycle, the 1Y/5Y spread dipped below the 5Y/10Y, reflecting the fact that the zero-lower bound was leading to a substantial flattening of the former relative to the latter. But this outcome has reversed since, and what is more interesting for us now is not just how small the gap is between the two spreads—the two often rapidly converge and the 1Y/5Y spread crosses the 5Y/10Y just prior to recessions—but how persistent this narrow gap has been, without crossing. Whether they will eventually cross over the next year is anyone’s guess, but our impression is that a sustained gap would be very unusual, but not impossible given the competing factors outlined above. This is especially given the fact that the belly of the curve—in particular, the 3Y/5Y spread—inverted in early December.

FIG. C: THE NARROW GAP BETWEEN U.S. YIELD SPREADS OF DIFFERENT MATURITIES HAS HELD FIRM, WHICH IS UNUSUAL



Source: Thirdrock calculations, from FRB/FRED
Notes: Spreads between 1Y and 5Y, and 5Y and 10Y yields on constant maturity Tresury debt. Gray bars indicate NBER-designated recessions.

What is the point of this rather technical digression? A simple takeaway is that the behavior of the bond market in this particular late-cycle stage is likely to be different from those past. A more involved inference is that simple straight-line extrapolations of these spreads for the purposes of generating recession signals are unlikely to be reliable (not that spreads were all that amenable to simple extrapolations, anyhow). And finally, bonds may offer less of a buffer to stock market volatility over this particular end-cycle than in the past (although they are likely to still provide diversification benefits).

With markets more stubbornly unpredictable than usual, our recommendation is to identify a medium-term strategy consistent with one's risk appetite, and to stick to it through volatile market movements, rebalancing on a monthly basis. Both traditional hedges (short dollar-yen, inflation-protected securities) as well as more creative ones (derivatives, contingent convertibles) may find a role in the portfolio of a sophisticated investor.

THE COMMODITIES SLINGSHOT HAS SLAIN THE INFLATION GOLIATH

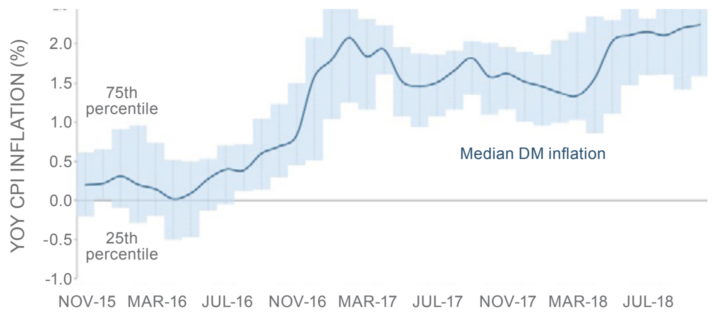
With the deceleration in growth worldwide—even the high-flying United States has seen its overachieving 4.2 percent annualized quarter-on-quarter (QoQ) rate for the second quarter slow to 3.5 percent in the third, and nowcasts for the final quarter are tracking the high 2s—it is not entirely surprising that inflationary pressures, which were building since the beginning of the year as a result of pass-through from commodity prices, are now easing.

Indeed, this reduced pressure from commodities is best seen in the prices of two key commodities: oil and copper. For oil, a decomposition of the contributors to the recent slide down to around $60 a barrel reveals that at least half of the reduced pressure is attributable to weaker demand (the remainder being due to supply expansions, especially renewed contributions from shale and Saudi Arabia, although some of this surplus could tighten again if OPEC acts to lower production in concert with Russia). And copper—often a reliable bellwether for the vigor of global economic activity—has likewise come off the highs attained around the middle of the year, and is down around 13 percent since the start of the year.

To be clear, robust commodity prices are what got us to the current rate of inflation across much of the developed world in the first place, with the median just slightly ahead of the typical advanced-economy central bank target of 2 percent (Fig. D). The concern that inflation might spiral out of hand—held by some observers at the beginning of the year—has clearly not panned out this year, and looks unlikely to even in the face of what is now undeniable pressure from the wage front.

“ With markets more stubbornly unpredictable than usual, our recommendation is to identify a medium-term strategy consistent with one's risk appetite, and to stick to it through volatile market movements. ”

FIG. D: AFTER OVERSHOOTING CENTRAL BANK TARGETS IN THE FIRST HALF OF 2018, INFLATION APPEARS TO HAVE SETTLED DOWN AMONG DMS



Source:Thirdrock calculations, from Thomson Reuters Eikon.
Notes: Bars correspond to 25th and 75th percentile of YoY CPI inflation among DMs.

Not that wage pressures have been completely absent up till now. While many analysts celebrated October's pickup in U.S. average hourly earnings—to 3.2 percent year-on-year (YoY), the highest since April 2009—wage growth by other measures has actually found cyclical peaks before. For instance, the Federal Reserve Bank of Atlanta's wage growth tracker reported a post-crisis peak at the end of 2016 (of 3.9 percent YoY), higher than the current surge thus far (October's number was 3.7 percent YoY). And across virtually all developed markets, wage inflation has picked up significantly since 2018 (Fig. E). Indeed, the rise has been steady for the European Union as a whole since 2013, and has remained strong in the UK even after the Brexit referendum. Among DMs, only Japan has exhibited a notable absence of any wage growth trend.

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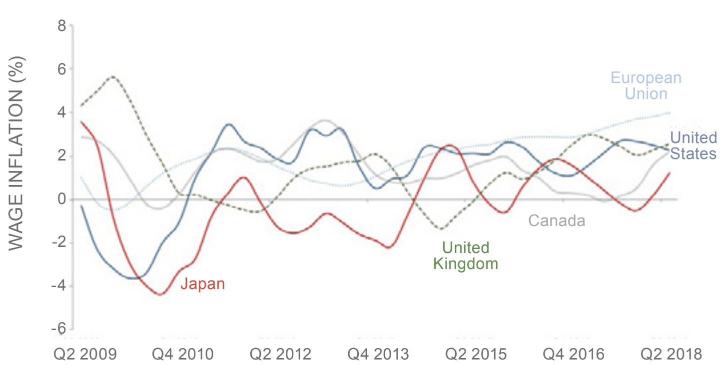
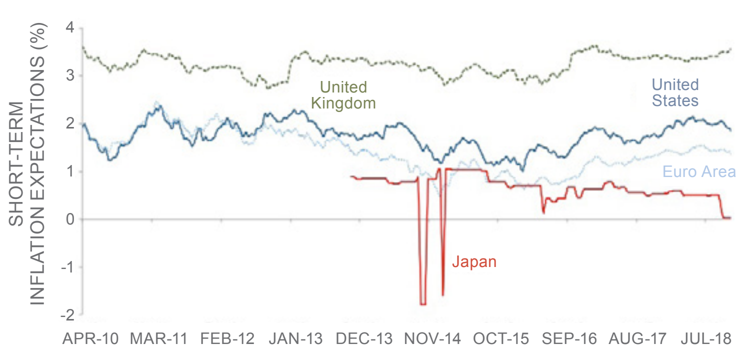
This sense of (very) modest inflationary expectations appear to be well-priced into financial markets. Implied inflation inferred from futures markets point to a weakening, rather than strengthening, of inflation for the Euro Area, Japan, and the United States for the coming five-year period, with only the UK bucking that trend (due to an anticipated continuation of pound weakness following Brexit) (Fig. F). In Japan, inflation expectations have even plunged to close to zero, which do not bode well for Abenomics' efforts at slaying the deflation dragon there (or worse, it could be a signal of forced anticipated rate cuts as a result of impending recession). Notably, this severe plunge is absent for short-run inflationary expectations five years into the future (as inferred from the five year-five year forward inflation swaps), which remains in mid-0.5 percent territory (undoubtedly still below the Bank of Japan's official target, but at least not skirting deflation territory.

FIG. E: WAGE GROWTH HAS BEEN WEAK ACROSS DMS SINCE THE POST-CRISIS BOUNCE, BUT HAS STRENGTHENED RECENTLY



Source: Thirdrock calculations, from Oxford Economics/Datastream.
Notes: MA(3) of YoY inflation of monthly total economy unit wage cost index.

FIG. F: MARKET-IMPLIED INFLATION EXPECTATIONS FOR THE NEAR TERM SUGGEST A SOFTENING ACROSS MOST MAJOR DMS

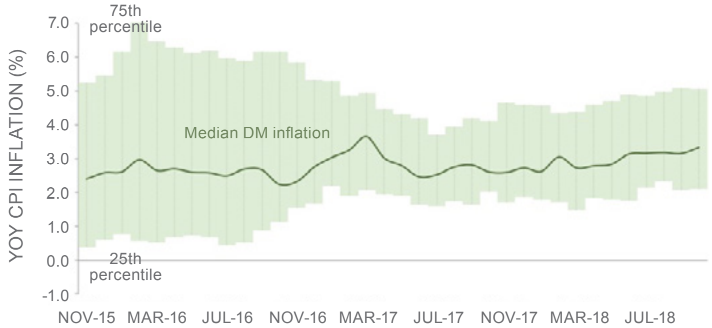


Source: Thirdrock calculations, from Thomson Reuters Datastream.
Notes: Short-term inflation expectations correspond to the 5Y inflation swap (TIPS breakeven for US) rate, smoothed using a 10-period moving average. Japan data begin in 2009M6.

Taken together, it is difficult to make the case that either strong pipeline pressures or market expectations point to any sustained inflation pickup in advanced economies, at least according to the available data. What about emerging markets?

As it turns out, inflation appears to be fairly quiescent in these markets as well. Since the middle of last year, median inflation among EMs has risen by less than a percentage point, from 2.5 to 3.3 percent (Fig. G). Keeping in mind that inflation is generally higher in developing countries—the typical central bank target in this group is closer to 4 percent—this increase is entirely within historical trends, and if anything inflation remains below what many EMs, especially commodity exporters, would be pleased with. Moreover, the gentle rise in inflation has been accompanied by the continuation of the narrowed dispersion in the top and bottom quartiles of the distribution (a trend that we first identified in our April Macro Outlook). Given all the currency turmoil that has plagued a number of EMs this year, this is surely comforting for central bank authorities that are probably more used to dealing with the effects of currency crises quickly passing through into domestic prices, and engendering undesirable spikes in inflation.

FIG. G: INFLATION IS LIKEWISE QUIESCENT AMONG EMS, LARGELY OWING TO A SOFTENING IN COMMODITY PRICES



Source: Thirdrock calculations, from Thomson Reuters Eikon.
Notes: Bars correspond to 25th and 75th percentile of YoY CPI inflation among EMs.

CHINA: WHEN THE DRAGON SNEEZES, THE WORLD CATCHES THE FLU

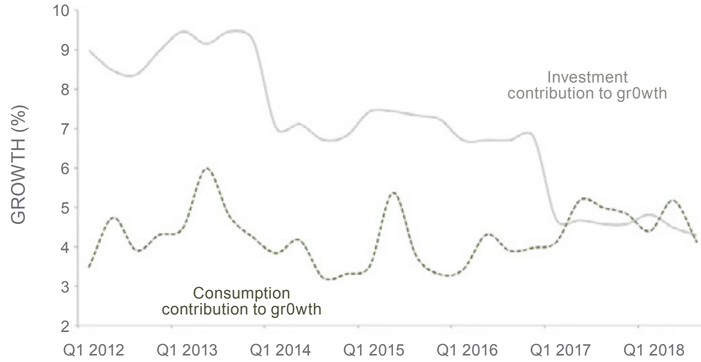
The world's second-largest economy registered a tick down in its growth rate in the third quarter—to 6.5 percent (year-on- year, or YoY), from 6.7 percent the previous quarter—and this promptly led to much Sturm und Drang. Much of this wailing was, predictably, centered on the ongoing trade war between China and the United States. But others have kvetched about the ongoing difficulties of China's rebalancing efforts, its looming debt challenges, and growing authoritarian overreach by President Xi Jinping. We count ourselves among those concerned about these very issues, and so it is a useful exercise to place the recent slowdown in context, and to consider performance metrics beyond headline GDP prints.

Before diving in, it's worth placing the recent growth number in a broader context. First, it should be acknowledged that this slowdown is real; on a (non-annualized) quarter-to-quarter basis, growth likewise pulled back to 1.6 percent from 1.7 percent previously (QoQ growth rates can sometimes differ in terms of directionality relative to YoY numbers, so it is always wise to check). Other higher-frequency proxy indicators of growth—such as industrial production and the Li Keqiang index—likewise pulled back in the third quarter, corroborating the notion that there has been, indeed, a generalized deceleration in the Chinese economy (Fig. H). Second, the slowdown has been widely anticipated, and as a matter of fact was also anticipated by us (see, for instance, our June Macro Outlook). Whatever one's views of China's potential growth rate, YoY rates in the high sixes are widely regarded as above-trend, and so some degree of mean reversion would always have been on the cards. Finally, it's important to recognize that 6.5 percent is, all said and done, still an incredibly strong rate of growth. At this "depressed" rate, China's economy would still be on track to double in a little more than a decade. Even if the U.S. maintains the average of its blowout growth rates for the past two quarters (at 3.9 percent QoQ annualized, which it won't), and it will take the economy almost twice as long (18 years) to double in size. So convergence in terms of economic size is still happening, in spite of the relative slowdown.

FIG. H: MEASURES OF OFFICIAL AND UNOFFICIAL ECONOMIC ACTIVITY IN CHINA INDICATE A MODEST SLOWDOWN IN THE THIRD QUARTER

Source: Thirdrock calculations, from China National Bureau of Statistics/Datastream.
Notes: Keqiang index proxy for GDP constructed from rail cargo volume, electricity consumption, and bank loan disbursements.

FIG. I: MUCH OF THE SLOWDOWN IN GROWTH IS ATTRIBUTABLE TO A HEALTHY SCALING BACK OF INVESTMENT SPENDING

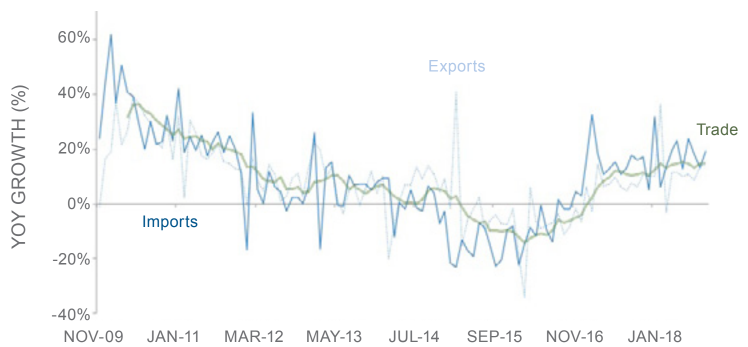


Source: Thirdrock calculations, using Datastream.
Notes: Real YoY changes from non-seasonally-adjusted quarterly data.

As it turns out, the underlying economic dynamics driving this slowdown is not necessarily bad, at least from the perspective of ensuring that China's rapid growth remains sustainable over the longer run. One steady criticism of China's recent growth record has been an excessive reliance on fixed investment (and associated debt accumulation) as an engine for growth, which at one point amounted to almost half of output (in 2011); even today, this remains elevated at around 44 percent of GDP today (Fig. I). Still, investment growth has undergone an inexorable slowdown, and (in the most recent data) accounted for only 4.3 percent of GDP growth. This diminished contribution has occurred in tandem with a pickup in the growth contribution from consumption, of around 3.2 four years ago to about 4.1 percent currently. Nitpickers will quibble with how private consumption, at about two-fifths of output, remains anemic relative to G7 countries (which tends toward at least two-thirds or more), but then again, China remains a developing economy, and should not be held to the same benchmark as advanced economies. Our overall take is that China's economy is gradually redirecting its spending in a responsible, gradualist fashion, and that this rebalancing has the ability to forestall a more sudden collapse in China's carefully-manicured growth transition (investment tends to be more volatile than consumption).

And quite honestly, such critics might wish to think carefully about the implications of what they wish for. By dint of its size, Chinese demand for commodities has kept global activity—among emerging markets, surely, but even for advanced- economy commodity exporters such as Australia and Canada—afloat. The softening in commodity prices since the summer is almost certainly linked to lower Chinese demand at the margin, and the spillover effects of increases in Chinese consumption for imports from the rest of the world (and by extension growth) are likely to be smaller than those emanating from investment per se (some mild evidence in favor of this thesis is the fact that imports are now much lower than in the post-crisis period, when investment growth was twice that prevailing today) (Fig. J).

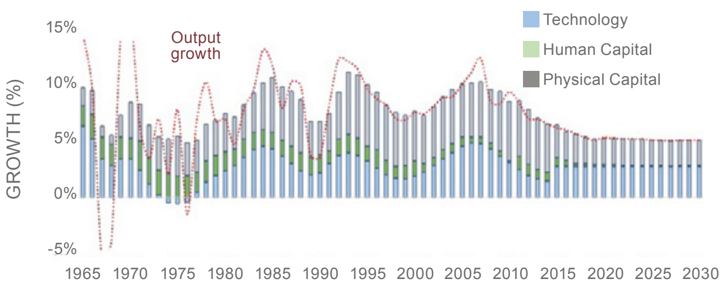
FIG. J: CHINESE TRADE HAS HELD UP, BUT RECENT IMPORT GROWTH IS SIGNIFICANTLY LOWER THAN RIGHT AFTER THE GLOBAL CRISIS



Source: Thirdrock calculations, from China Customs/Datastream.
Notes: YoY growth in imports, exports, and trade (MA(6) of imports and exports).

This is a trend that will almost persist far into the future, to limited detriment for China's overall growth. Indeed, the basis for our confidence over China's long-term potential trend growth—which we judge to be in the region of 5.5 percent—is premised on our model of long-term growth that holds the share of investment in the economy largely fixed, but relies on the combined contributions of human capital (changes in the schooling-adjusted labor force, whose contributions will fade in negligible amounts in the future) and technological growth (a combination of institutional innovations coupled with the continued reallocation of factors of production in China toward more productive uses). So long as China successfully navigates its debt problem (a concern we have been flagging, most recently in last month's Outlook), the slower-but-still impressive 5.5 percent 10-year growth rate is, in our view, is still very achievable (Fig. K).

FIG. K: EVEN WITH REDUCTIONS IN INVESTMENT'S CONTRIBUTION, CHINA RETAINS THE ABILITY TO POSE SOLID LONG-TERM GROWTH

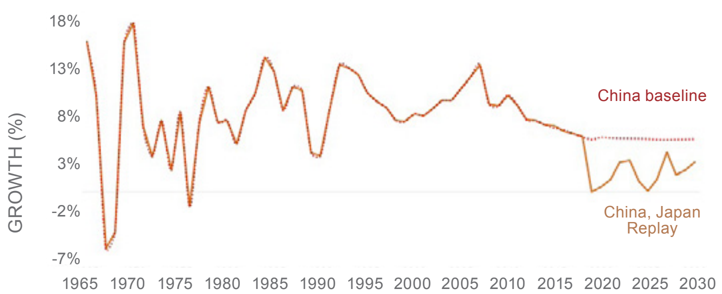


Source: Thirdrock calculations, from Barro & Lee (2015, 2016), IIASA (2010), ILO (2014), UN (2013, 2015), World Bank (2017)
Notes: Growth accounting model includes contributions from human capital (schooling-adjusted labor force), physical capital (depreciated fixed investment accumulation), and technology (TFP residual), with capital accumulation held as constant share of GDP. Dotted line indicates actual GDP growth realizations (for historical years).

One of the key sources of our relative confidence that China will eventually get there—with perhaps some bumps along the way—is the fact that Chinese policymakers are fairly clear-eyed about the risks inherent in the economy. The most recent five-year plan explicitly discussed an acceptance of lower growth targets in exchange for higher-quality growth; last year, the process for shoring up financial stability began in earnest, although the process has been subject to uneven starts and stops (the catchphrase was to target not so much "black swan"—essentially unpredictable—risks, but at least "gray rhino" events, those foreseen but often overlooked). So while authorities clearly have their work cut out for them, the fact that they are at least cognizant of the dangers is, for us, a more enlightened policy approach than one of either rational inattention or benign neglect.

It's nevertheless useful to think through worse-case scenarios. The one that probably keeps Chinese officials up at night is a reprise of the post-1992 Japanese experience. Thankfully, China's slowdown currently appears to be more gradual than the acceleration in growth that began for Japan in mid-1987 (following the signing of the Louvre Accord, which institutionally locked in a steady yen overvaluation). But the consequences of the post-bubble collapse in productivity led to a lost decade (or two) for Japan. This is heartening, because a precipitous drop would imply a sharp slowdown in Chinese growth, not just now but over as long as a decade. We consider this scenario by imposing the productivity collapse that occurred in Japan for Chinese data—keeping other contributors to growth consistent with our baseline—and we find that the long-term 10-year growth rate would average only 1.8 percent (Fig. L). Now, sub-2 percent growth isn't a complete disaster, but our guess is that this would be a catastrophe for risk assets in the short term, and perhaps even longer if growth never recovers.

FIG. L: IF CHINA WERE TO FOLLOW JAPAN'S POST-BUBBLE TFP PATH, AVERAGE ANNUAL GROWTH COULD FALL BELOW 2 PERCENT



Source: Thirdrock calculations, from Barro & Lee (2015, 2016), IIASA (2010), ILO (2014), UN (2013, 2015), World Bank (2017)
Notes: Projections for Japanese reply scenario assume similar human and physical capital contributions to growth as in the baseline, but follow the Japanese TFP path from 1992 onward.

INVESTMENT TAKEAWAYS

The market environment remains challenging, and we continue to rebalance into strength and rotate equity holdings into defensives. As mentioned above, we recommend the adoption and maintenance of a strategy that looks further afield, gradually taking on equity risk in particularly undervalued segments, such as Asian EM. In accordance with our analysis underscoring a particularly tricky environment for fixed income, we have evolved our approach toward a barbell for bonds, remaining short duration but also increasing some exposure to long-end Treasuries. Other more creative hedges we are now exploring include contingent convertibles and equity collars, although we acknowledge that pricing for the latter may well be prohibitive.

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