

EQUITY ASSUMPTIONS

Tougher starting point, lower returns

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IN BRIEF

- We lower our long-term (10- to 15-year) equity return assumptions across most regions, with developed markets and emerging markets both down year-over-year. The projected gap in returns between emerging and developed equities compresses to 2.30% in U.S. dollar terms.
- This year, we revisit both the equilibrium margin and valuation assumptions, specifically looking to take into account changes in the underlying sector composition of developed markets.
- Our U.S. expected return posts the steepest decline among developed markets, from 5.60% to 4.10% in U.S. dollar terms. Our euro area assumption falls from 5.80% to 5.20%, while our Japanese assumption falls from 5.50% to 5.10%, both in local currency returns. The reductions largely reflect the impact of valuation normalization.
- Our UK equity return assumption increases to 6.70% from 6.10% in local currency terms as stronger earnings growth expectations more than offset higher starting valuations.
- Our emerging market (EM) equity return expectation drops to 6.80% from 8.70% in local currency terms and to 7.20% from 9.20% in USD terms. The declines reflect headwinds from sharply higher starting valuations and moderately lower GDP growth assumptions. If the U.S. dollar weakens, as we expect it will, it should prove supportive of EM assets.

BROAD DECLINE

Our expected equity returns are broadly lower across most markets this year. In U.S. dollar terms, our long-term developed market (DM) equity return assumption drops 140 basis points (bps), with U.S. assumptions posting the steepest decline, from 5.60% to 4.10%. Our expected emerging market (EM) equity return declines to 7.20% from 9.20% in U.S. dollar terms. The projected gap in returns between emerging and developed equities compresses to 2.30% in U.S. dollar terms.

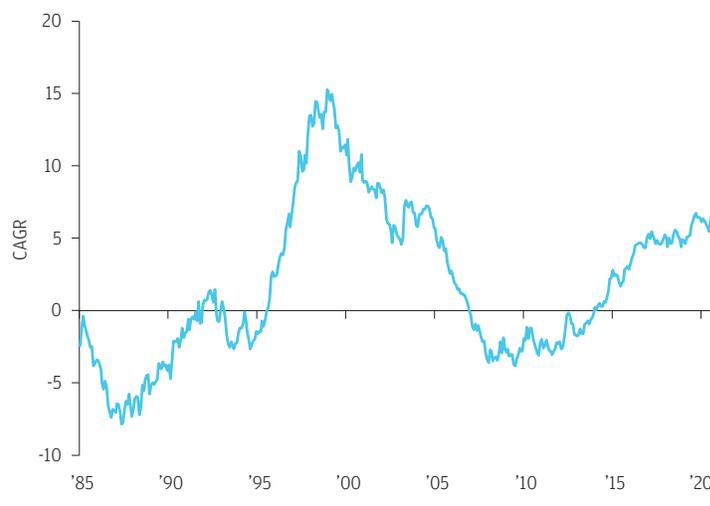
Our assumptions generally reflect expectations of normalizing global growth and valuation. In a world of mid-single digit equity market returns, currency will likely have a significant impact. We expect USD to weaken relative to key developed market currencies, providing a tailwind for the attractiveness of markets outside the U.S. to U.S. dollar-based investors.

Developed market return assumptions this year generally benefit from an expectation of higher GDP growth, driven by a post-pandemic economic recovery. The impact, which varies among countries, delivers a modest boost to revenue and earnings growth of up to 50bps. Given a lower starting point for earnings, we assume a lower level of DM payouts (mostly reduced buybacks and also lower dividends) over our assumption horizon. However, we note that the level of payouts remains high in a historical context, helped by an assumption of a generally supportive leverage environment.

Once again, our equity assumptions imply that non-U.S. equities will outperform their U.S. counterparts. The expected performance gap is 2.40%, largely driven by the U.S. market's increasingly heady valuations - a substantial headwind even relative to our raised equilibrium valuation assumption. We acknowledge that the recent history of U.S. outperformance makes this a challenging notion for many investors. However, long cycles of U.S. outperformance followed by long cycles of underperformance are not unprecedented. The current cycle, more than 10 years of U.S. outperformance - though it has not yet reached the scale of the late 1990s - may well be due for a reversal (**EXHIBIT 1**).

The long cycle of U.S. outperformance may be due for a reversal

EXHIBIT 1: 10-YEAR ROLLING TOTAL RETURNS, U.S. VS. DM EX-U.S.



Source: Datastream; data as of August 2, 2020.
CAGR = Compound annual growth rate.

Our equity assumptions methodology decomposes equity returns into easy-to-forecast return drivers

BUILDING BLOCKS OF EQUITY RETURN ASSUMPTIONS

Component	Subcomponents	Outputs			LTCMA
Revenue growth	Domestic growth assumption	Earnings growth	Earnings per share growth	Price return	= Total return
	International contribution of revenues				
	Sales % GDP				
Margins	Change from margin today to target margin				
Net dilution	Buybacks*				
	Gross dilution*				
Valuations	Change from P/E today to target P/E				
Dividend yield	Dividend yield forecast				

Source: J.P. Morgan Asset Management; data as of October 2020.

* Our buybacks and gross dilution assumptions are cross-checked vs. our estimations of return on equity.

REVIEWING OUR EQUILIBRIUM ASSUMPTIONS

This year, we revisit both the equilibrium margin and valuation assumptions to which we expect markets to revert over time. Specifically, we look to take into account changes in the underlying sector composition of developed markets. In the U.S., equilibrium profit margin assumptions are unchanged, with current readings near historical averages. The resilience of U.S. margins at a cyclical trough in the economy reflects the changing complexion of the market. Specifically, sectors with expanding margins - e.g., technology - have an increasing revenue weight in the overall index, whereas those with shrinking margins - e.g., energy - have a lower revenue weight.

In Europe, equilibrium margin assumptions remain in line with historical averages. The overall impact of margin changes was muted, as sector composition changes have been modest and margin increases in some sectors were almost completely offset by margin decreases in others. For the UK, a margin lower than the historical average reflects the market's overweight to "old economy" companies that have faced ongoing profit pressure, as well as uncertainty about the Brexit outcome; these factors have offset any cyclical tailwinds. In Japan, margin assumptions remain unchanged. Japanese margins are currently running below our equilibrium assumption, although they have expanded for industrials that benefit from global secular trends in automation. We continue to believe that governance-led reforms will ultimately strengthen profitability for Japanese corporations.

Based on our review of equilibrium valuation assumptions across markets, we made modest increases in our P/E assumptions for the U.S., UK, euro area and Japan. Acknowledging the trend of rising P/E ratios over recent decades, we looked again at the 30-year average of P/E ratios. A 30-year time frame, extensive enough to ensure a more robust dataset, reflects well the trend of rising P/E ratios. We expect this trend to persist over our investment horizon, likely owing to several factors: ever-lower interest rates, and corporate decisions to use higher levels of payouts (buybacks and dividends) and balance sheet debt to support return on equity (RoE) in the face of a lower macroeconomic growth environment.

U.S. equity

Our expected return for U.S. equities decreases to 4.10% from 5.60% in U.S. dollar terms, one of the largest reductions among stock markets and the lowest return expectation among major developed markets. Earnings growth looks likely to remain strong relative to developed market peers, and we expect that buybacks and dividends will provide a significant component of expected return. But we assume that the positive impact of those forces will be considerably muted by valuation normalization over our investment horizon.

After the shortest bear market in history, in 2020 U.S. equity markets made new highs on the back of coordinated monetary and fiscal stimulus, and investors looked through deteriorating corporate fundamentals to push valuations to levels surpassed only in the dot-com bubble of the late 1990s. As we have discussed, we modestly increased our equilibrium valuation estimates, and this partially reduces the negative impact of valuation normalization.

In prior years, we incorporated the increased impact of the higher margin technology sector by upgrading our equilibrium margin estimates, and during the recent market turbulence the tech sector has indeed proved remarkably resilient. We do acknowledge that increasing uncertainty about regulation of the technology and communications sectors, from both the European Union and the U.S., presents a risk to our profitability forecasts. Current margins for the market overall have deteriorated significantly and are now near our equilibrium estimates; this has reduced the material drag on expected returns that characterized prior-year return expectations.

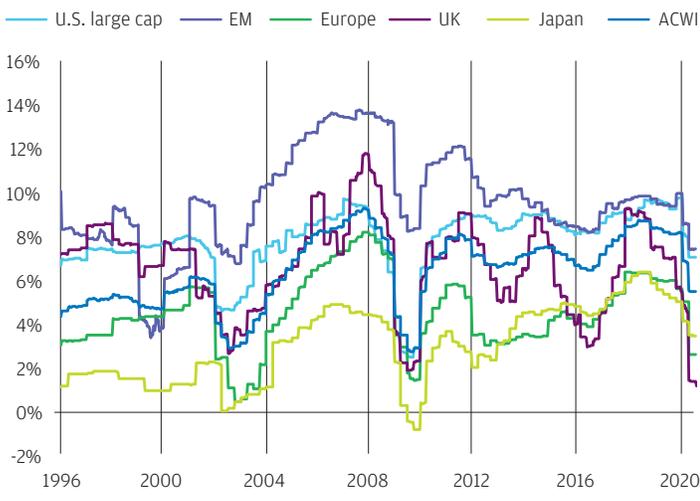
UK, Europe and Japan equity

Our UK equity return assumption moves significantly higher this year, to 6.70% in local currency terms, up from 6.10% last year and a full 2.10% above the developed market average.

UK equities look generally attractive in our framework because they are relatively cheap when compared with other markets while offering a sizable dividend yield. However, year-on-year, the biggest driver of the pickup in our return expectations comes from margins. We see a 5.75% equilibrium margin for the UK market, down from 6.25% in the face of looming Brexit headwinds. Last year, UK margins came in above that level, but they are now below it. The UK equity market, with its heavy weighting to the commodities and financial sectors, has seen its margins collapse by more than other developed markets during the COVID-19 crisis (**EXHIBIT 2**). Additionally, after taking a closer look at the UK market's sector composition, we have lowered our equilibrium P/E ratio from 15.5x to 14.5x. In absolute terms, we see UK equities as expensive, but in relative terms the negative drag expected from valuations for UK equities is smaller than in other markets. This makes sense, given the significant underperformance of UK equities since our 2020 LTCMAs.

UK margins have collapsed by more than other developed market margins during the COVID-19 crisis

EXHIBIT 2: NET PROFIT MARGINS ACROSS KEY REGIONS



Source: Datastream, J.P. Morgan Asset Management; data as of October 15, 2020.

We marginally downgrade our eurozone equity assumptions from 5.80% in local currency last year to 5.20%. As is the case in many other markets, the positive impact of our higher equilibrium valuation assumption is overwhelmed by the negative impact of the past year's significant rise in P/E ratios. Another major negative detractor is a 50bps decline in dividend yield.

Looking back over a decade of disappointing returns from eurozone markets, it's clear that Europe's political crises were exacerbated by a double-dip recession, which we would not expect to repeat over our forecast horizon. Over the past year, too, Europe has taken a significant step toward collective fiscal policy, which could pave the way toward a deeper and more integrated capital market. Finally, we note that while U.S. companies have certainly dominated the tech boom of the 2010s, Europe may be better positioned to capitalize on growth in environmental technology over the 2020s.

Our return assumption for Japanese equities falls from 5.50% to 5.10% in local currency terms. With the local index level not much changed from last year's starting point in our Long-Term Capital Market Assumptions (LTCMAs), the hit to earnings sustained from the COVID-19 recession has left the market looking somewhat expensive, despite a small hike in our equilibrium P/E assumption. Stronger assumed earnings growth, driven by a recovery in margins back to our (unchanged) equilibrium assumption and modestly higher GDP growth than last year, is not quite enough to offset the higher valuation starting point.

EM equity

Our EM equity return expectation drops significantly, to 6.80% from 8.70% in local currency terms. In USD terms, it falls to 7.20% from 9.20%. The return premium we expect from emerging markets relative to developed markets compresses further, to 230bps in USD vs. last year's 290bps.

In 2020, EM equity markets outperformed their DM counterparts during the COVID-19 bear market, lagged in the rapid global rebound and received a boost in the second half of the year when a furious bull market in China lifted the whole EM complex. This followed several years of challenged performance for the asset class, which has eroded its long-run performance advantage over developed markets to just 2.6% annualized (since 1987). Historically, the performance of emerging markets relative to developed markets has gone through long cycles, and we are now 10 years into this underperformance cycle (EXHIBIT 3).

For the past decade, EM markets have underperformed relative to DM markets

EXHIBIT 3: EMERGING VS. DEVELOPED MARKETS RELATIVE TOTAL RETURN



Source: Datastream; data as of August 2, 2020.

CAGR = Compound annual growth rate.

Valuations have risen substantially across the EM universe, although in aggregate only modestly more than in developed markets. At the same time, earnings and margins have fallen, offsetting some of the headwinds from valuations and modestly lower GDP growth assumptions.

From a structural perspective, our views remain mostly stable, although we acknowledge increased uncertainty. In particular, the changing U.S.-China relationship could potentially alter the EM landscape over the long term; however, we have not yet adjusted our expectations to anticipate any significant change. We incrementally lower our overall economic growth forecasts for emerging markets, mostly in Asia, where the effects of China's secular growth slowdown are most keenly felt. However, relative to developed economies, EM growth potential remains substantially higher, due mostly to still-high potential for productivity catch-up and - outside of parts of East Asia - more favorable demographics. If the U.S. dollar weakens, as we expect it will, it should prove supportive, as it gives EM central banks policy space and alleviates pressure on EM borrowers.

Translating economic growth into equity returns is an especially nuanced process in emerging markets that investors need to consider as they determine their allocations. We continue to note the dispersion among returns in individual emerging markets within the broader complex. Variations in market structure, sectoral composition, corporate governance and external exposure all contribute to the spread among individual EM market returns.

As highlighted in prior editions of our LTCMAs, earnings per share are more complicated to forecast for emerging markets. As the market capitalization of a relatively nascent stock market grows through new issuance, the number of listed shares increases, diluting the portion of the pie owned by existing shareholders. Thus, faster economic growth does not necessarily result in faster earnings per share growth. Within our assumptions framework, this tends to lead to a higher net dilution for emerging markets than for developed ones. While this factor has admittedly diminished substantially over the last decade, we still see it as being a roughly 2.5% drag for EM equity returns relative to DM equity returns.

We derive our aggregate EM equity assumption by applying the same methodology we use for DM equity assumptions to nine large emerging markets and aggregating by market capitalization weight. The countries we include account for more than 80% of the market capitalization of the MSCI Emerging Markets Index. We once again caution that data history in emerging economies is generally shorter and data quality less robust, so our confidence in the resulting assumptions is by nature somewhat lower than for developed markets. Despite this reservation and the variety of cyclical and structural crosscurrents moving through the emerging market universe, we identify a few common themes.

The divergence in the performance of different EM regions this year has been the widest in more than a decade, as the commodity-sensitive Latin America and EMEA regions were hit harder by the COVID-19 crisis than EM Asia. Following poor performance by Latin American equity, we raise the return assumption for the region by 70bps, to 8.00% in local currency terms. This mainly reflects an expectation of improving profit margins; in both Brazil and Mexico, for example, amid weaker commodity prices the current margin levels are well below our equilibrium margin assumptions.

Meanwhile, our overall EMEA return assumption declines by 100bps, to 8.60% in local currency terms. The decline was mainly driven by a 290bps cut in the return assumption for Russia, to 6.50%, dragged down by a higher starting valuation and weak earnings. The return assumption for South Africa is raised by 60bps, to 10.50%, helped by the positive impact of low current margins and upgraded dividend assumptions.

Changes in Asia are more significant, with the overall EM Asia return assumption falling to 6.50% from 8.80% in local currency terms amid significantly higher starting valuations across the complex. The valuation drag is most notable for Chinese equities. The return assumption for MSCI China and China's domestic A-share market drops by 250bps and 180bps, respectively, to 6.60% and 6.30%. That compares with a decline of 200bps for the Taiwan market and a decline of 230bps for the Korea market. The Taiwan market is notably weighed down by higher margin levels amid strong tech demand. The downward adjustment in India's return assumption is more modest at only 140bps, to 8.90%.

CONVERTIBLE BONDS

Convertible bonds – corporate debt securities that provide the holder with an option to convert into the issuer’s stock at a predetermined price – have historically offered investors equity-like returns with lower volatility and downside protection through a bond floor. Convertibles generally provide a more attractive income component than stocks alone while still allowing participation in the stock’s price movement. They can improve the risk-adjusted returns of balanced stock-bond portfolios due to their asymmetric return profile and diversification benefits (**EXHIBIT 4**).

Convertibles can be used by equity investors as a more defensive alternative, as well as by fixed income investors.

As an equity alternative, convertibles allow investors to participate in the equity upside while lowering the risk of large drawdowns. Moreover, convertible valuations benefit from increased volatility, as they are implicitly long volatility via the optionality embedded within them.

As a credit alternative, convertible bonds offer an income component and are structurally lower in duration than credit broadly. Convertibles will generally be more positively affected by rising stock values than negatively affected by rising interest rates due to their low duration.

Credit-sensitive convertibles behave more like debt than equity

EXHIBIT 4: CONVERTIBLE BOND RETURNS, IN LOCAL CURRENCY AND HEDGED TO USD

Convertible asset	Local currency	2021		2020		Year-over-year change	
		Local return	Return hedged to USD	Local return	Return hedged to USD	Local return	Return hedged to USD
Global	USD	4.2	4.6	4.3	4.8	-0.1	-0.2
Global investment grade hedged	USD	2.7	3.2	3.0	3.6	-0.3	-0.4
Global credit sensitive hedged	USD	3.8	4.2	3.9	4.4	-0.1	-0.2
U.S. hedged	USD	5.0	5.0	4.6	4.6	0.4	0.4
U.S. investment grade hedged	USD	3.2	3.2	3.8	3.8	-0.6	-0.6
U.S. high yield	USD	5.4	5.4	5.4	5.4	0.0	0.0
Europe hedged	EUR	3.2	4.1	2.6	3.9	0.6	0.2
Japan hedged	JPY	2.3	3.3	2.2	3.2	0.1	0.1

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

We incorporate into our convertible bond assumptions our existing LTCMA numbers for equity and fixed income, along with convertibles' equity sensitivity, credit quality, option premium and the underlying stocks' unique characteristics. While the geographic composition of the global convertible bonds universe is similar to that of the MSCI World Index, it has historically been biased toward smaller companies and cyclical sectors. Thus, our convertible bond assumptions estimate regional betas based on a historical regression and apply that to our regional weight and delta assumptions and the existing regional equity return LTCMA numbers.

We believe that the current trend of more issuance coming out of the Americas and APAC ex-Japan will continue. Similarly, we believe that the weight in Europe and Japan will continue to decline. For the fixed income component of convertible bonds, we make an assumption of future investment grade vs. high yield issuance and use our LTCMA regional return assumptions. This year, our global convertible bond and global credit-sensitive convertible bond assumptions (hedged into USD) are 4.6% and 4.2%, respectively. Credit-sensitive convertibles are securities whose underlying stock trades significantly below the conversion price, causing them to behave more like debt than equity.

This year, our equity return assumptions decline across most regions

EXHIBIT 5A: SELECTED DEVELOPED MARKET EQUITY LONG-TERM RETURN ASSUMPTIONS AND BUILDING BLOCKS

Equity assumptions	U.S. large cap	Eurozone	Japan	UK
Revenue growth	5.2	4.4	3.4	5.3
+ Margins impact	0.1	1.5	1.5	0.2
Earnings growth	5.3	5.9	5.0	5.5
+ Gross dilution	-2.0	-2.0	-2.0	-2.0
+ Buybacks	2.1	1.1	1.5	1.2
EPS growth	5.4	4.9	4.4	4.7
+ Valuation impact	-3.0	-2.2	-1.9	-1.5
Price return	2.4	2.7	2.6	3.1
+ Dividend yield (DY)	1.8	2.5	2.5	3.5
Total return, local currency	4.1	5.2	5.1	6.7
Change vs. 2020 LTCMAs	-1.5	-0.6	-0.4	0.6

Source: J.P. Morgan Asset Management; estimates as of September 30, 2019, and September 30, 2020. Components may not add up to totals due to rounding.

EXHIBIT 5B: SELECTED EMERGING MARKET EQUITY LONG-TERM RETURN ASSUMPTIONS AND BUILDING BLOCKS

Equity assumptions	China*	Korea	Taiwan	India	South Africa	Brazil
Revenue growth	9.4	4.7	3.8	12.2	9.1	8.1
+ Margins impact	-0.4	2.6	0.1	0.9	-0.2	2.9
Earnings growth	8.9	7.5	4.0	13.2	8.9	11.3
+ Gross dilution	-3.9	-1.5	-0.7	-2.7	-2.3	-4.0
+ Buybacks	0.3	1.0	0.3	0.5	0.5	0.8
EPS growth	5.5	6.9	3.5	10.7	6.9	7.7
+ Valuation impact	-1.0	-3.2	-1.8	-3.1	-0.2	-4.0
Price return	4.5	3.7	1.7	7.6	6.7	3.7
+ Dividend yield (DY)	2.5	2.0	3.8	1.5	3.5	3.5
Total return, local currency	6.6	5.6	5.5	8.9	10.5	7.1
Change vs. 2020 LTCMAs	-2.5	-2.3	-2.0	-1.4	0.5	0.5

Source: J.P. Morgan Asset Management; estimates as of September 30, 2019, and September 30, 2020. Components may not add up to totals due to rounding.

* China refers to MSCI China Index.

EQUITY FACTOR ASSUMPTIONS

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Our long-term assumptions include return estimates for factor exposures. We cover individual factor and multi-factor approaches across five geographies, with U.S. assumptions included in this report.

METHODOLOGY

We determine our long-term assumptions by examining the properties of two index suites, designed by J.P. Morgan Asset Management and calculated by FTSE Russell. The J.P. Morgan Diversified Factor Suite describes the performance of stocks chosen for their diversified factor characteristics; the J.P. Morgan U.S. Single Factor Suite describes the performance of large U.S. companies chosen to target a single characteristic. While there is no unambiguous, natural choice of representative index, we hope that these long-term assumptions will help inform how investors think about asset allocation with respect to factors.

To reach a factor return assumption, we first make assumptions about the relative performance of the best and worst stocks according to a factor. We calculate the historical return difference between the best and worst quartile of stocks for each factor; significantly, we measure stocks relative to their sector and geographical region peers. Relative returns are adjusted to remove the impact of market beta, allowing for an isolated view of factor performance. The quartile portfolios are rebalanced monthly and incorporate conservative estimates for the cost of trading. We then apply a haircut to these returns to account for potential selection bias effects and market adaptation. These steps form a baseline for our long-term factor return assumptions.

Next, we adjust for the richness/cheapness of factors under the assumption that factor returns are persistent but cyclical. Mechanically, we assume that the forward earnings yield differential between top quartile stocks and bottom quartile stocks will revert to its long-term average over time, and adjust the factor return assumption accordingly. This year, the value and quality factors receive meaningful upward adjustments, as both factors cheapened over the past year, particularly in the stimulus-driven equity market rally in Q2 2020. With the exception of the dot-com bubble, value and quality have never been cheaper.*

Finally, we estimate the exposure of each index in the diversified and single-factor suites to a range of factors, including the market risk premium, using regression analysis. Multiplying each exposure by the appropriate return assumption gives us our final return assumptions. These are down across the board due to the year-over-year decrease in market risk premia assumptions, though many are higher in excess return terms; our multi-factor estimate is now 140bps higher than the assumption for U.S. equities, up from 70bps a year ago. We base expectations for volatility and correlation on their historical values for the J.P. Morgan Asset Management Index series.

We cover individual factors and multi-factor approaches across five geographies

RETURN ESTIMATES

Factor	2021 return assumption USD	2020 return assumption USD	Change
U.S. diversified	5.8%	6.3%	-0.7%
U.S. value	6.2%	7.2%	-1.0%
U.S. momentum	4.1%	5.4%	-1.3%
U.S. quality	4.3%	5.6%	-1.3%
U.S. dividend	5.5%	6.9%	-1.4%
U.S. min vol	4.8%	5.8%	-1.0%
U.S. large cap	4.1%	5.6%	-1.5%

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

* Note: This impact is partially countered by the decrease in historical returns for value and quality when incorporating this year's data into the sample period beginning in 1999.

PORTFOLIO INSIGHTS



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