
2024 Long-Term Capital Market Assumptions

1

Executive Summary



Alessio de Longis, CFA®
Senior Portfolio Manager,
Head of Investments,
Invesco Solutions

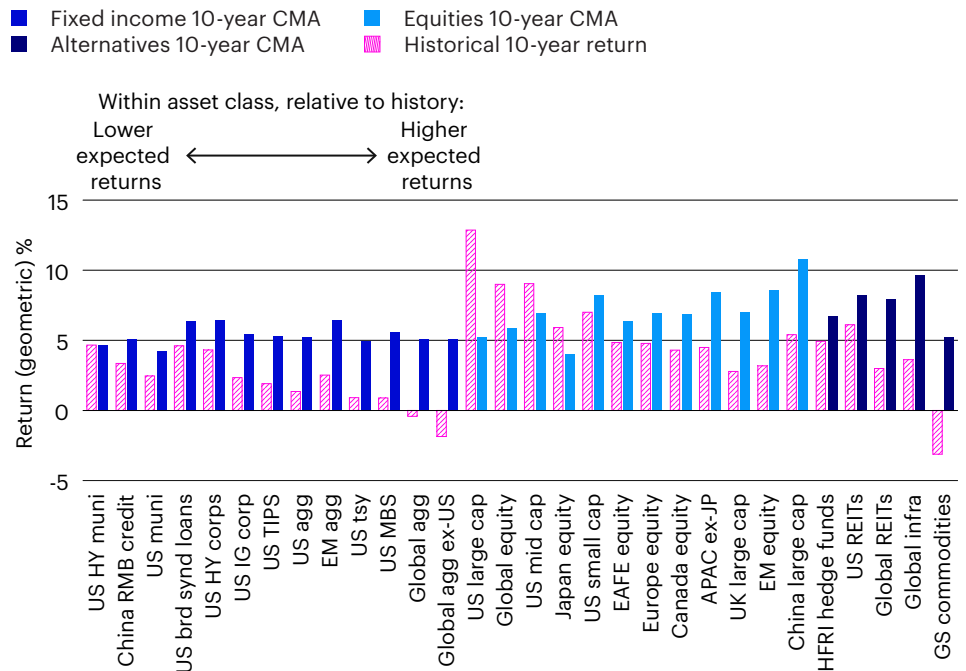
Invesco Solutions provides forecasts for 170+ assets in over 20 currencies, including 10 private assets. For additional CMA data, views, or analysis, please reach out to your Invesco representative.

Executive Summary

Asset Allocation Insights

- Heading into the fourth quarter, we have reached the portion of the business cycle where most major economies outside of Japan have begun to ease monetary policy. The Federal Reserve’s (Fed) recent 50 basis point (bps) cut and forecast of significant cuts to come have prepared investors for a period of lower interest rates and signals that the Fed believes their multi-year battle with inflation has come to an end.
- How should investors position for the first easing cycle since 2020? It very much depends on whether those long lags of the recent tightening cycle catch up with the economy and cause a recession. While not our base case, the downside risks of a recession are a possibility and require serious consideration. Further, a policy mistake where inflation is reignited could make central banks pivot and disrupt their plans for the normalization of interest rates.
- For most long-term investors, a diversified portfolio is always the answer when uncertainty is high. Our capital market assumptions (CMAs) are indeed forward-looking and aim to assess the risks for assets, both to the upside and downside, relative to history. Data in future quarters will begin to price these risks and probabilities accordingly. To assist in evaluating the possible impact of lower short-term rates and the easing cycle on markets, we have broken down the various channels that may be affected under the assumption that a soft landing is stuck and a recession is avoided.
- To aid investors in identifying the relative risks between our near-term tactical asset allocation and our longer-term CMAs, we have added a new figure that plots the positioning of the two distinct time horizons for common asset class pairs.

Figure 1: Expectations relative to historical average (USD)



Source: Invesco, estimates as of June 30, 2024. Proxies listed in **Figure 8**. These estimates are forward-looking, are not guarantees, and they involve risks, uncertainties, and assumptions. Please see page 11 for information about our CMA methodology. These estimates reflect the views of Invesco Solutions; the views of other investment teams at Invesco may differ from those presented here.

2

Asset Allocation Insights



Scott Hixon, CFA®
Senior Portfolio Manager,
Head of Research,
Invesco Global Asset Allocation

For further details on our process for defining scenarios and adjustments, please refer to our CMA Methodology paper.

Executive Summary

Asset Allocation Insights

2024 Capital Market Assumptions |
Q3 Update

Strategic perspective

Heading into the fourth quarter, we have reached the portion of the business cycle where most major economies outside of Japan have begun to ease monetary policy. The Federal Reserve's (Fed) recent 50 basis point (bps) cut and forecast of significant cuts to come have prepared investors for a period of lower interest rates and signals that the Fed believes their multi-year battle with inflation has come to an end. While their justification was weakening of economic indicators, primarily the employment situation, rarely has the Fed begun to ease so significantly with high equity valuations, a strong economy, and inflation still above their target level.

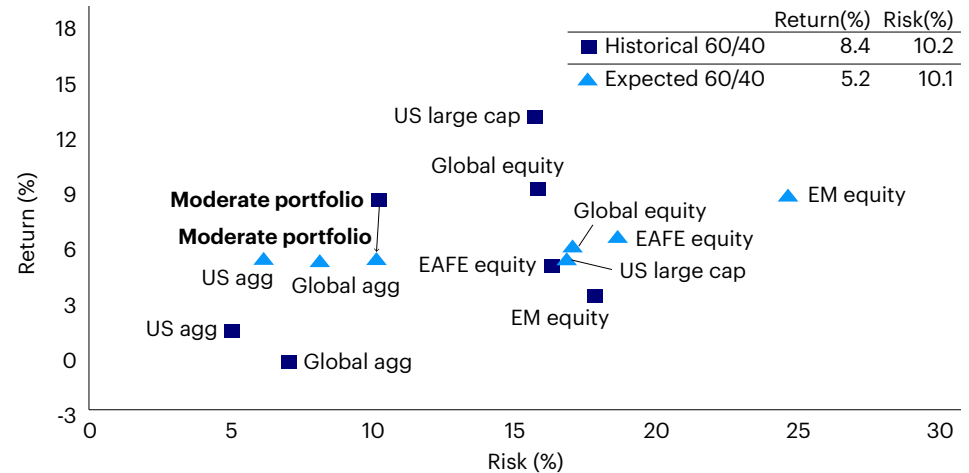
This preemptive move lowers the probability of a recession and increases the chances of a soft landing for the economy. However, as we saw during the tightening cycle, there is often a significant lag until monetary policy begins to affect the economy. All things considered, equity and credit markets seem unphased by the rising unemployment rate or steepening yield curve and have welcomed this policy shift with record highs and tighter spreads.

How should investors position for the first easing cycle since 2020? It very much depends on if those long lags of the recent tightening cycle catch up with the economy and cause a recession. While not our base case, the downside risks of a recession are a possibility and require serious consideration. Further, a policy mistake where inflation is reignited could make central banks pivot and disrupt their plans for the normalization of interest rates. In prior cycles, equity and credit markets have fared well if inflation has actually been tamed and a recession has been avoided, with 1995 being the last soft landing but not the last recession.

For most long-term investors, a diversified portfolio is always the answer when uncertainty is high. Our capital market assumptions (CMAs) are indeed forward-looking and aim to assess the risks for assets, both to the upside and downside, relative to history. Data in future quarters will begin to price these risks and probabilities accordingly. To assist in evaluating the possible impact of lower short-term rates and the easing cycle on markets, we have broken down the various channels that may be affected under the assumption that a soft landing is stuck and a recession is avoided.

1. **Cash:** Falling short-term rates have a direct, negative impact on the yield of short-term fixed income. After taking liquidity needs into consideration, it may be worthwhile to re-evaluate the role of cash or cash equivalents in a portfolio as the return tradeoff for riskier assets becomes more compelling. Interest rates in the United States are the highest in developed markets, and easing should reduce the relative value of the dollar compared to other currencies.
2. **Government bonds:** The yield curve may experience a steepening where longer-term rates begin to price in the lower probability of a recession and base rates are lowered. Duration is less attractive if there is indeed no recession, but it is still worth considering for those seeking to lock in the elevated rates of longer-dated fixed income.
3. **Credit:** Spreads in the high yield market remain near their cycle lows and yet still offer a compelling risk and return opportunity for those seeking income. A soft landing is likely accompanied by a limited tightening of spreads and limited defaults or credit losses. Floating rate credit, while still attractive relative to most asset classes, will likely lose some of its yield potential as base rates are reduced.
4. **Equities:** A soft landing is very positive for equity markets, as earnings remain strong and valuations continue to expand. The sectors of the market that are more closely tied to the real economy will likely be beneficiaries, particularly cyclical factors such as small size and value. The easing cycle is also a welcome shift for equities outside of the US, which should begin to benefit from improving global growth and a falling dollar.

Figure 2: Comparing historical and expected risk and return for a moderate 60/40 portfolio (USD)



Source: Invesco Solutions, as of June 30, 2024. Proxies listed in **Figure 8**. These estimates are forward-looking, are not guarantees, and they involve risks, uncertainties, and assumptions. Please see page 11 for information about our CMA methodology. These estimates reflect the views of Invesco Solutions; the views of other investment teams at Invesco may differ from those presented here. The 60/40 Portfolio is a blend of 60% S&P 500 Index and 40% Bloomberg US Aggregate Index.

3Q24 CMA observations (10Y, USD)

Equities: Our global equity CMA (5.8%) has risen slightly since our last quarterly update (+0.2%) yet remains significantly lower than its historical average for the prior decade (-3.1%) due to the large weighting of US equities in our global benchmark, with high valuations being a large detractor (-1.2%). Our earnings model, which sources long-term growth forecasts from the IMF, has risen for regions outside of the US, notably Europe and emerging markets (EM), as recession risks seem to be fading after a period of challenging growth. Equities outside of the US rose (+0.6%) due to this higher real earnings growth and slightly higher inflation expectations. US equities fell (-0.2%) mostly because of higher valuations following the A.I.-driven rally that occurred in the second quarter. Small caps (8.3%) and EM (8.6%) are both expected to return significantly more than their recent historical returns and large cap, developed markets.

Fixed income: Yields on offer within fixed income are still much higher than in recent history, and thus, our fixed income CMAs are more attractive relative to other asset classes, with global equities only slightly higher than global aggregate bonds (5.1%) despite having significantly higher risk (17% versus 8%). Our CMAs for credit assets, such as high yield and broadly syndicated loans, are in line (6.4%) with the expected yield on loans being much lower than current yields.

Alternatives: Real assets, such as REITs (8.3%) and infrastructure (9.6%), are expected to return more than global equities due to higher dividend yields and a tailwind from valuations. Hedge funds have an attractive expected return of 6.7% and provide one of our highest risk return ratios of 0.9, similar to that of investment grade fixed income.

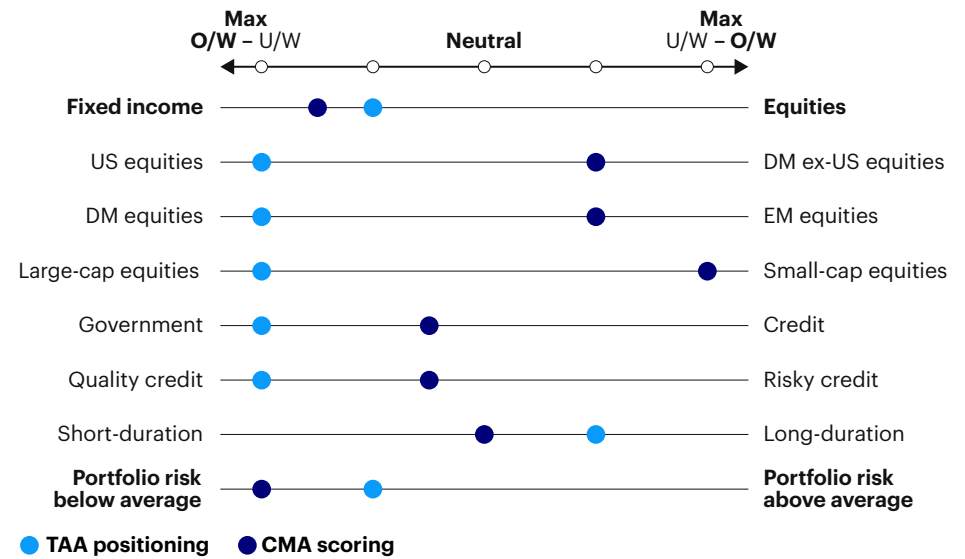
To aid investors in identifying the relative risks between our near-term tactical asset allocation and our longer-term CMAs, we have added a new **Figure 3**, which plots the positioning of the two distinct time horizons for common asset class pairs. These relative CMA signals are calculated by taking the Z-score of the return spread between the CMA pairs, showcasing the relative attractiveness of the signal compared to history and is aimed to be used as a guide for making relative asset class level decisions for a portfolio over a ten-year time horizon. We utilize a separate methodology for tactical asset allocation driven by our macro process, which makes allocation decisions over a time horizon between six months and three years, on average.¹ Our tactical asset allocation positioning is updated monthly, while our CMA signals are updated quarterly.²

1. To learn more about our tactical asset allocation process, please refer to our series of white papers “Dynamic Asset Allocation through the Business Cycle” (de Longis, 2019) and “Market Sentiment and the Business Cycle” (de Longis and Ellis, 2019).
2. For the most recent TAA positioning, please refer to our monthly tactical asset allocation blog.

There are many considerations for investors beyond CMA's when it comes to asset allocation decisions. To learn more about our investment process or discuss your own portfolio needs, please reach out to your Invesco Solutions representative.

Our CMA scoring aligns well with our latest tactical positioning within a contraction regime at the portfolio risk level and when comparing equities to fixed income. Presently, both are recommending taking below-average levels of risk and sourcing that risk from fixed income rather than equities, which is intuitive for the CMA signal as the relative return of fixed income compared to equities is elevated. Tactically, downside risks to the economy and markets are higher in a contraction regime. The first major difference between the two time horizons appears when comparing US equities to developed markets outside of the US, as US equities have both high valuations, which tend to be a longer-term headwind for the CMAs, and a large concentration of defensive, high-quality companies that tend to do well during a tactical contraction as they are less tied to the business cycle. This same logic cascades when comparing the two signals for DM to EM equities and large-cap equities to small caps. Long-duration government bonds provide the greatest potential downside protection in a tactical contraction due to their defensive properties and inverse correlation to equities as long interest rates fall, leading to a tactical maximum overweight.

Figure 3: Relative tactical asset allocation (TAA) positioning (Sept. 2024) and CMA scoring (Q3 2024)

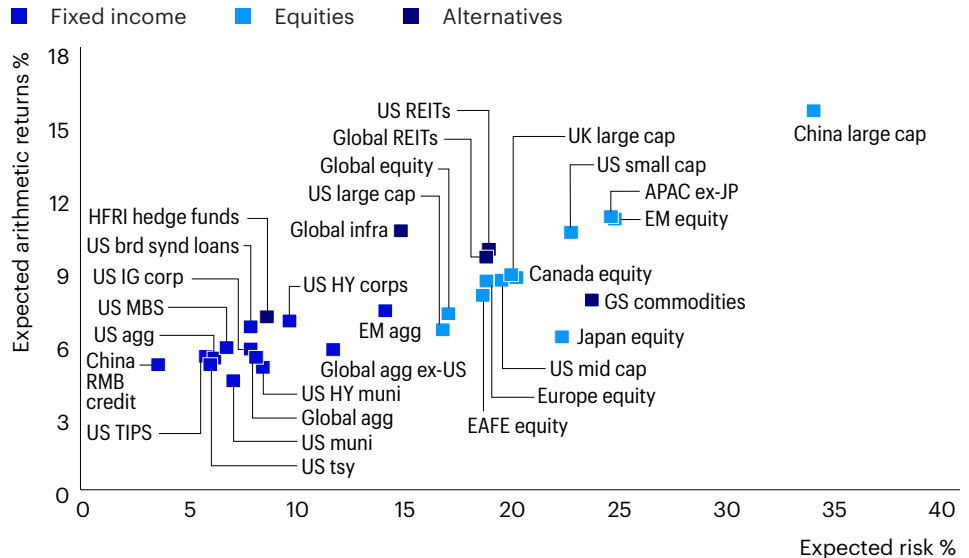


Source: Invesco Solutions, Aug. 31, 2024. DM = developed markets. EM = emerging markets. For illustrative purposes only. Portfolios mentioned are hypothetical models. Benchmark is a global, moderate risk portfolio consisting of 60% global equities (MSCI ACWI) and 40% global bonds (BBG global agg).

3

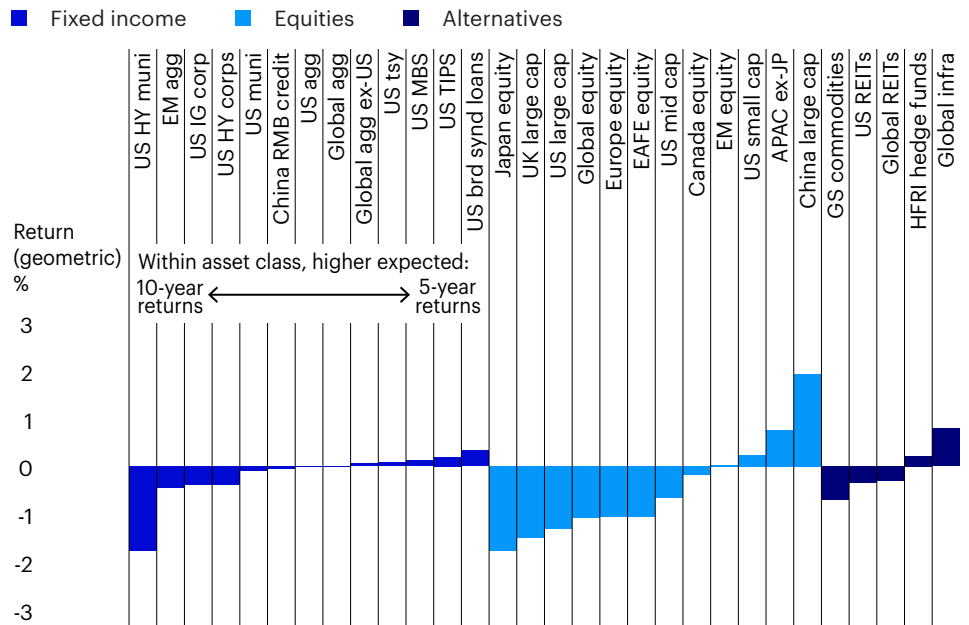
2024 Capital Market Assumptions | Q3 Update

Figure 4: 10-year asset class expectations (USD)

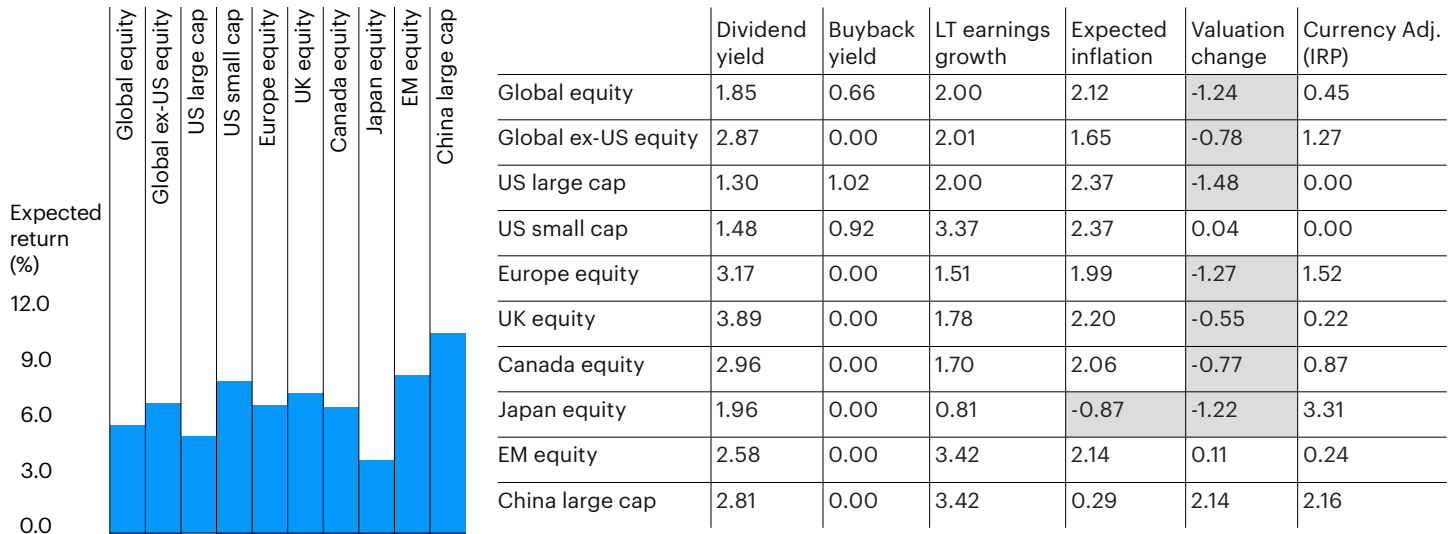
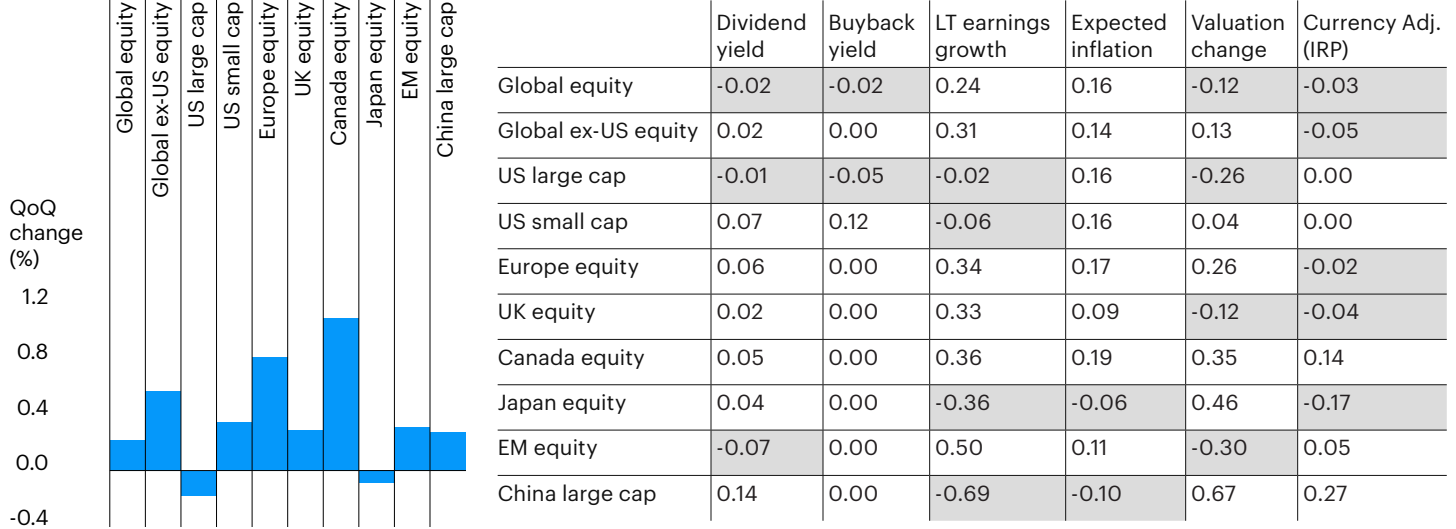
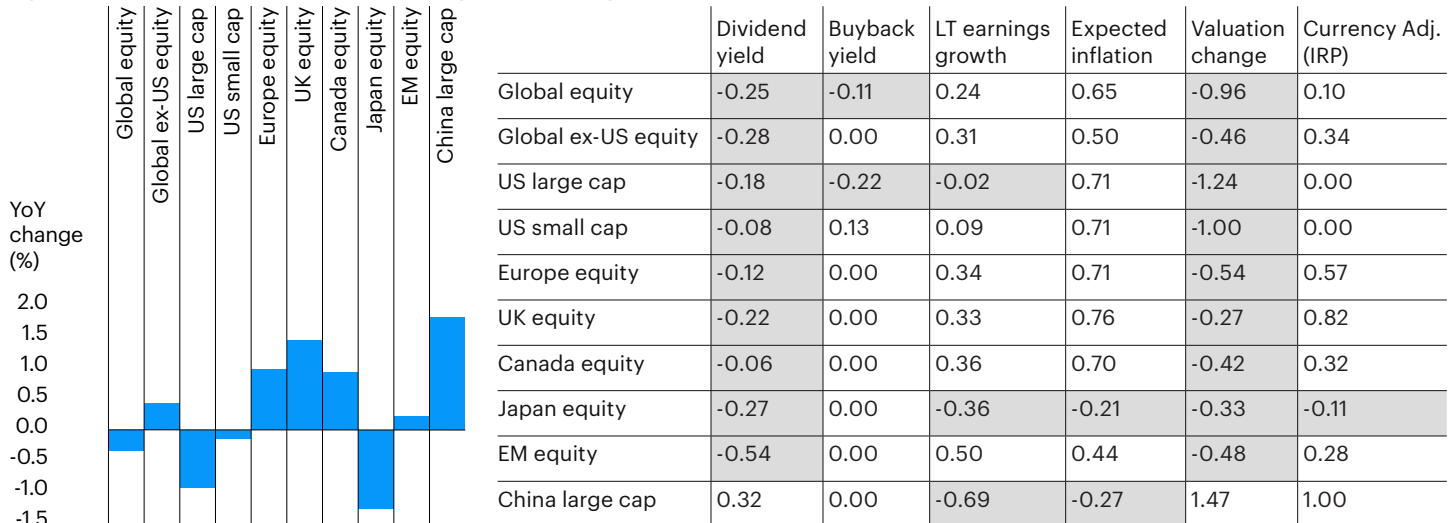


Source: Invesco, estimates as of June 30, 2024. Proxies listed in **Figure 8**. These estimates are forward-looking, are not guarantees, and they involve risks, uncertainties, and assumptions. Please see page 11 for information about our CMA methodology. These estimates reflect the views of Invesco Solutions; the views of other investment teams at Invesco may differ from those presented here. **Past performance is not a guarantee of future results.**

Figure 5: CMA difference: 5-year minus 10-year assumptions (USD)



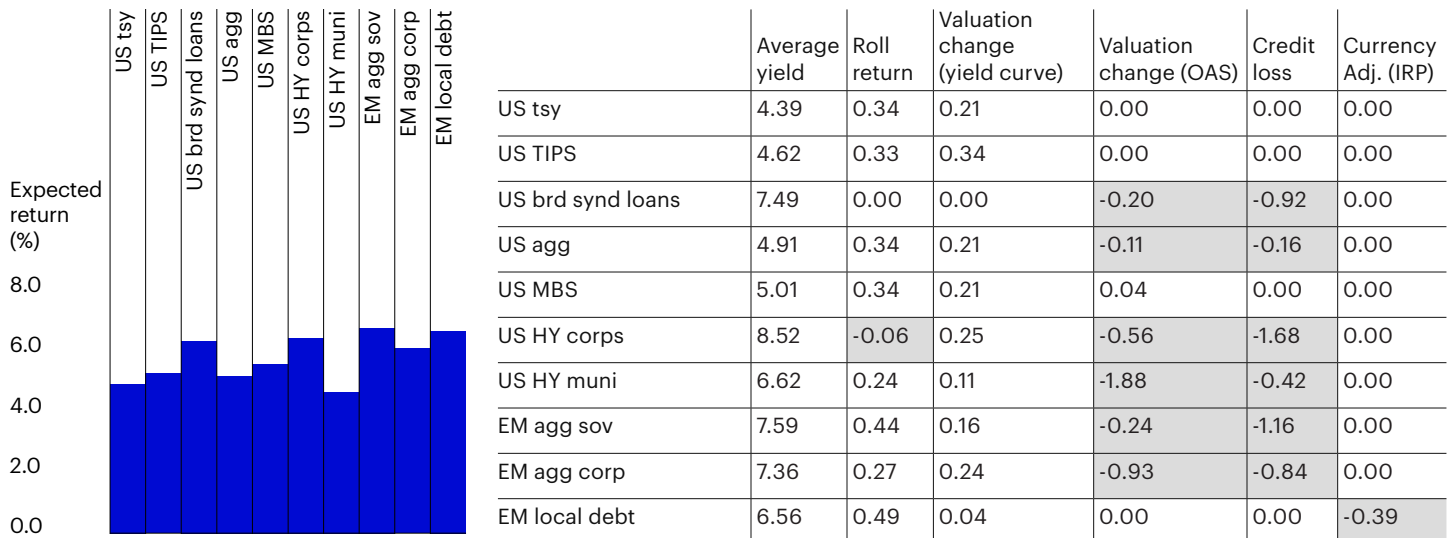
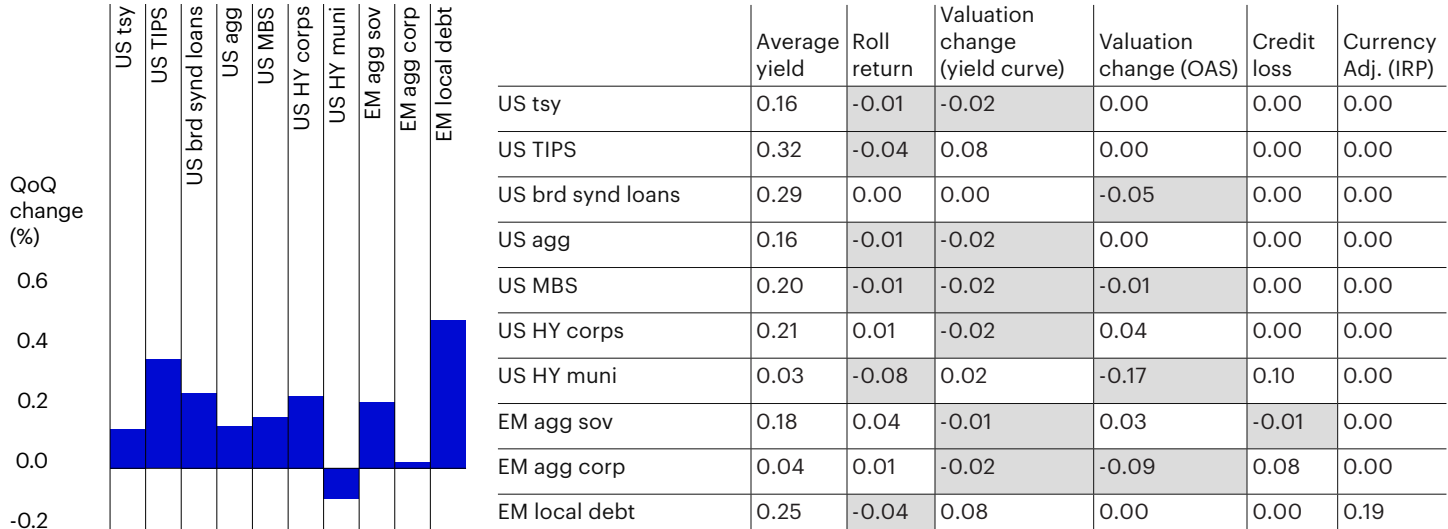
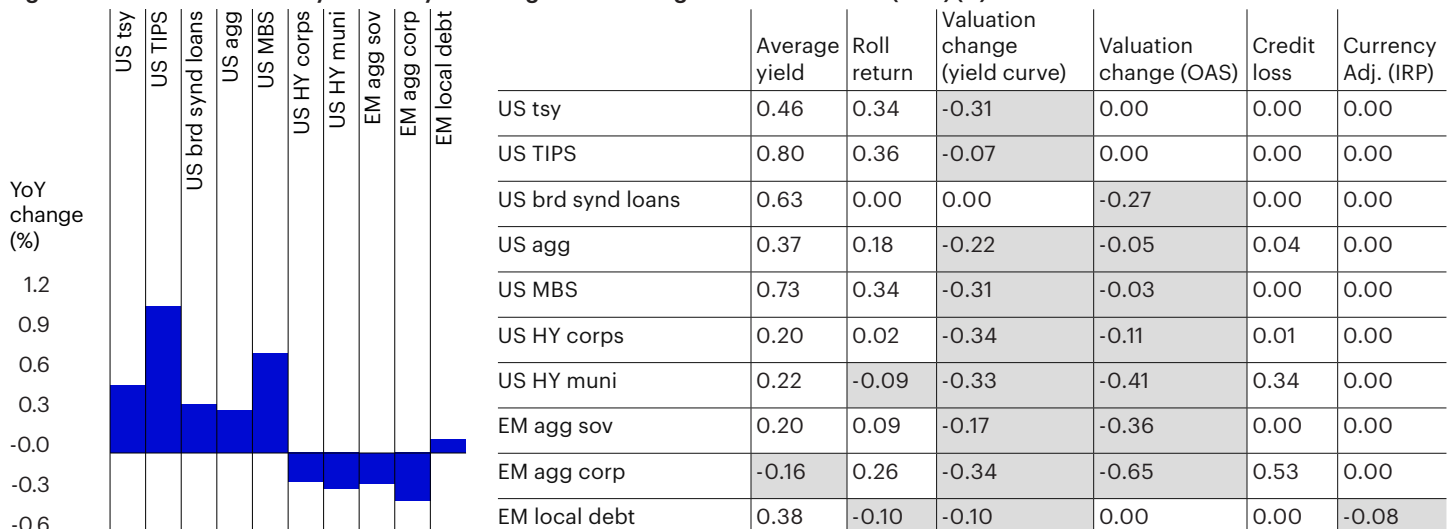
Source: Invesco, estimates as of June 30, 2024. Proxies listed in **Figure 8**. These estimates are forward-looking, are not guarantees, and they involve risks, uncertainties, and assumptions. Please see page 11 for information about our CMA methodology. These estimates reflect the views of Invesco Solutions; the views of other investment teams at Invesco may differ from those presented here. **Past performance is not a guarantee of future results.**

Figure 6a: Equity CMA and building block contribution (USD) (%)
■ Expected return

Figure 6b: Equity CMA quarter-over-quarter change and building block contribution (USD) (%)

Figure 6c: Equity CMA year-over-year change and building block contribution (USD) (%)


Source: Invesco, estimates as of June 30, 2024. Proxies listed in **Figure 8**. These estimates are forward-looking, are not guarantees, and they involve risks, uncertainties, and assumptions. Please see page 11 for information about our CMA methodology. These estimates reflect the views of Invesco Solutions; the views of other investment teams at Invesco may differ from those presented here. **Past performance is not a guarantee of future results.**

Figure 7a: Fixed income CMA and building block contribution (USD) (%)

■ Expected return

**Figure 7b: Fixed income CMA quarter-over-quarter change and building block contribution (USD) (%)****Figure 7c: Fixed income CMA year-over-year change and building block contribution (USD) (%)**

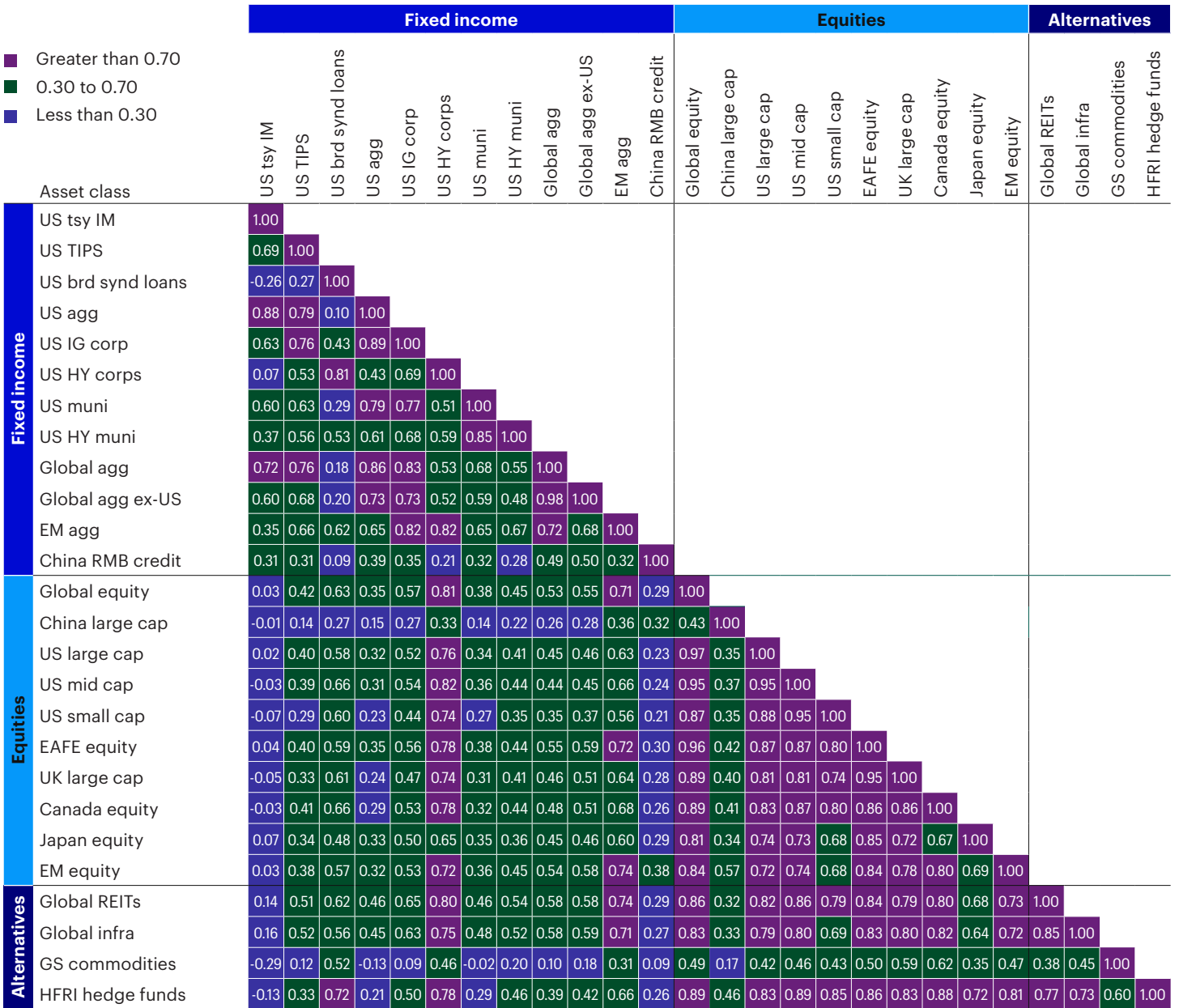
Source: Invesco, estimates as of June 30, 2024. Proxies listed in **Figure 8**. These estimates are forward-looking, are not guarantees, and they involve risks, uncertainties, and assumptions. Please see page 11 for information about our CMA methodology. These estimates reflect the views of Invesco Solutions; the views of other investment teams at Invesco may differ from those presented here. **Past performance is not a guarantee of future results.**

Figure 8: 10-year asset class expected returns, risk, and return risk (USD)

| | Asset class | Index | Expected geometric return % | Expected arithmetic return % | Total yield % | Expected risk % | Arithmetic return to risk ratio |
|-------------------|--------------------------|---|-----------------------------|------------------------------|---------------|-----------------|---------------------------------|
| Fixed income | US tsy short | BBG US tsy short | 3.8 | 3.8 | 5.3 | 1.5 | 2.56 |
| | US tsy IM | BBG US tsy IM | 4.4 | 4.5 | 4.6 | 4.6 | 0.98 |
| | US tsy long | BBG US tsy long | 5.2 | 5.9 | 4.6 | 12.2 | 0.48 |
| | US TIPS | BBG US TIPS | 5.3 | 5.4 | 4.9 | 5.7 | 0.95 |
| | US brd synd loans | CSFB leverage loan | 6.4 | 6.7 | 8.8 | 7.8 | 0.85 |
| | US agg | BBG US agg | 5.2 | 5.4 | 5.0 | 6.1 | 0.88 |
| | US IG corp | BBG US IG | 5.5 | 5.8 | 5.5 | 7.8 | 0.74 |
| | US MBS | BBG US MBS | 5.6 | 5.8 | 5.2 | 6.7 | 0.87 |
| | US preferred stocks | BOA ML fixed rate pref securities | 5.1 | 5.7 | 6.5 | 11.6 | 0.49 |
| | US HY corps | BBG US HY | 6.5 | 6.9 | 7.9 | 9.6 | 0.72 |
| | US muni | BOA ML US muni | 4.2 | 4.4 | 3.8 | 7.0 | 0.64 |
| | US muni (taxable) | ICE BOA US taxable muni securities plus | 5.4 | 5.7 | 5.3 | 8.0 | 0.71 |
| | US HY muni | BBG muni bond HY | 4.7 | 5.0 | 5.4 | 8.4 | 0.60 |
| | Global agg | BBG global agg | 5.1 | 5.4 | 4.8 | 8.1 | 0.67 |
| | Global agg ex-US | BBG global agg ex-US | 5.1 | 5.7 | 4.8 | 11.6 | 0.49 |
| | Global tsy | BBG global tsy | 5.1 | 5.5 | 4.6 | 9.6 | 0.58 |
| | Global sov | BBG global sov | 5.2 | 5.6 | 5.2 | 9.0 | 0.62 |
| | Global corp | BBG global corp | 5.5 | 5.9 | 5.6 | 8.9 | 0.66 |
| | Global IG | BBG global corp IG | 5.5 | 5.9 | 5.6 | 9.1 | 0.65 |
| | Eurozone corp | BBG euro agg credit corp | 5.3 | 6.4 | 5.7 | 14.9 | 0.43 |
| | Eurozone tsy | BBG euro agg gov tsy | 5.5 | 6.4 | 5.1 | 14.2 | 0.45 |
| | Asian dollar IG | BOA ML AC IG | 5.4 | 5.8 | 5.5 | 8.9 | 0.65 |
| | EM agg | BBG EM agg | 6.4 | 7.3 | 7.2 | 14.1 | 0.52 |
| | EM agg IG | BBG EM USD agg IG | 5.4 | 5.9 | 5.6 | 9.6 | 0.61 |
| | China policy bk & tsy | BBG China PB tsy TR | 4.5 | 4.6 | 4.2 | 4.0 | 1.15 |
| | China RMB credit | BBG China corporate | 5.1 | 5.1 | 4.8 | 3.5 | 1.46 |
| Equities | Global equity | MSCI ACWI | 5.9 | 7.2 | 3.0 | 17.0 | 0.42 |
| | Global ex-US equity | MSCI ACWI ex-US | 7.0 | 8.6 | 4.1 | 18.8 | 0.46 |
| | US broad market | Russell 3000 | 4.9 | 6.3 | 2.5 | 17.5 | 0.36 |
| | US large cap | S&P 500 | 5.2 | 6.5 | 2.3 | 16.8 | 0.39 |
| | US mid cap | Russell midcap | 7.0 | 8.7 | 3.0 | 19.5 | 0.45 |
| | US small cap | Russell 2000 | 8.3 | 10.5 | 2.4 | 22.7 | 0.46 |
| | EAFE equity | MSCI EAFE | 6.4 | 8.0 | 4.8 | 18.6 | 0.43 |
| | Europe equity | MSCI Europe | 7.0 | 8.5 | 4.7 | 18.8 | 0.46 |
| | Eurozone equity | MSCI euro ex-UK | 6.8 | 8.5 | 4.9 | 19.8 | 0.43 |
| | UK large cap | FTSE 100 | 7.0 | 8.8 | 4.1 | 19.9 | 0.44 |
| | UK small cap | FTSE small cap UK | 8.8 | 11.6 | 4.5 | 25.5 | 0.45 |
| | Canada equity | S&P TSX | 6.9 | 8.7 | 3.8 | 20.2 | 0.43 |
| | Japan equity | MSCI JP | 4.0 | 6.3 | 5.3 | 22.3 | 0.28 |
| | EM equity | MSCI EM | 8.6 | 11.2 | 2.8 | 24.6 | 0.45 |
| | APAC ex-JP | MSCI APXJ | 8.4 | 11.1 | 3.0 | 24.8 | 0.45 |
| | China large cap | CSI 300 | 10.8 | 15.5 | 5.0 | 34.0 | 0.46 |
| | Alternatives | Global infra | DJ Brookfield global infra | 9.6 | 10.6 | 4.6 | 14.8 |
| Global REITs | | FTSE EPRA/NAREIT developed | 7.9 | 9.5 | 4.7 | 18.8 | 0.51 |
| HFRI hedge funds | | HFRI HF | 6.7 | 7.1 | - | 8.6 | 0.83 |
| GS commodities | | S&P GSCI | 5.2 | 7.8 | - | 23.7 | 0.33 |
| Agriculture | | S&P GSCI agriculture | 5.1 | 7.1 | - | 21.2 | 0.34 |
| Energy | | S&P GSCI energy | 6.6 | 12.2 | - | 36.8 | 0.33 |
| Industrial metals | | S&P GSCI industrial metals | 4.4 | 6.9 | - | 23.9 | 0.29 |
| Precious metals | S&P GSCI precious metals | -1.8 | -0.2 | - | 18.3 | -0.01 | |

Source: Invesco, estimates as of June 30, 2024. These estimates are forward-looking, are not guarantees, and they involve risks, uncertainties, and assumptions. Please see page 11 for information about our CMA methodology. These estimates reflect the views of Invesco Solutions; the views of other investment teams at Invesco may differ from those presented here. Agg = Aggregate, Infra = Infrastructure, Corp = Corporate, DJ = Dow Jones, HY = High Yield, Muni = Municipals, Tsy = Treasury, IM = Intermediate, ML = Merrill Lynch, Sov = Sovereign, EM = Emerging Markets, IG = Investment Grade, APAC = Asia Pacific, Gov = Government, MBS = Mortgage-Backed Securities, TIPS = Treasury Inflation-Protected Securities.

Figure 9: 10-year correlations (USD)



Source: Invesco, estimates as of June 30, 2024. Proxies listed in Figure 8. These estimates are forward-looking, are not guarantees, and they involve risks, uncertainties, and assumptions. Please see page 11 for information about our CMA methodology. These estimates reflect the views of Invesco Solutions; the views of other investment teams at Invesco may differ from those presented here.

About our capital market assumptions methodology

We employ a fundamentally based “building block” approach to estimating asset class returns. Estimates for income and capital gain components of returns for each asset class are informed by fundamental and historical data. Components are then combined to establish estimated returns (Figure 10). Here, we provide a summary of key elements of the methodology used to produce our long-term (10-year) estimates. Five-year assumptions are also available upon request. Please see Invesco’s Capital Market Assumptions: Methodology update whitepaper for more details.

Figure 10: Our building block approach to estimating returns

| | Income | Capital gain | Loss |
|------------------|---------------------|--------------|---------------|
| Expected returns | Equity | | |
| | Total yield | | |
| | + Valuation change | | |
| | + Earnings growth | | |
| | Fixed income | | |
| | Total yield | | |
| | + Valuation change | | |
| | + Roll return | | |
| | | | - Credit loss |

For illustrative purposes only.

Fixed income returns are composed of:

- **Average yield:** The average of the starting (initial) yield and the expected yield for bonds.
- **Valuation change (yield curve):** Estimated changes in valuation given changes in the Treasury yield curve.
- **Roll return:** Reflects the impact on the price of bonds that are held over time. Given a positively sloped yield curve, a bond’s price will be positively impacted as interest payments remain fixed, but time to maturity decreases.
- **Credit adjustment:** Estimated potential impact on returns from credit rating downgrades and defaults.

Equity returns are composed of:

- **Dividend yield:** Dividend per share divided by price per share.
- **Buyback yield:** Percentage change in shares outstanding resulting from companies buying back or issuing shares.
- **Valuation change:** The expected change in value given the current price/earnings (P/E) ratio and the assumption of reversion to the long-term average P/E ratio.
- **Long-term (LT) earnings growth:** The estimated rate of the growth of earnings based on the long-term average real GDP per capita and inflation.

Currency adjustments are based on the theory of interest rate parity (IRP), which suggests a strong relationship between interest rates and the spot and forward exchange rates between two given currencies. Interest rate parity theory assumes that no arbitrage opportunities exist in foreign exchange markets. It is based on the notion that, over the long term, investors will be indifferent between varying rates of returns on deposits in different currencies because any excess return on deposits will be offset by changes in the relative value of currencies.

For volatility estimates for the different asset classes, we use rolling historical quarterly returns of various market benchmarks. Given that benchmarks have differing histories within and across asset classes, we normalize the volatility estimates of shorter-lived benchmarks to ensure that all series are measured over similar time periods.

Correlation estimates are calculated using trailing 20 years of monthly returns. Given that recent asset class correlations could have a more meaningful effect on future observations, we place greater weight on more recent observations by applying a 10-year half-life to the time series in our calculation.

Arithmetic versus geometric returns. Our building block methodology produces estimates of geometric (compound) asset class returns. However, standard mean-variance portfolio optimization requires return inputs to be provided in arithmetic rather than in geometric terms. This is because the arithmetic mean of a weighted sum (e.g., a portfolio) is the weighted sum of the arithmetic means (of portfolio constituents). This does not hold for geometric returns. Accordingly, we translate geometric estimates into arithmetic terms. We provide both arithmetic returns and geometric returns, given that the former informs the optimization process regarding expected outcomes, while the latter informs the investor about the rate at which asset classes might be expected to grow wealth over the long run.

Contributors

Invesco Solutions

Alessio de Longis

CFA®
Senior Portfolio Manager,
Head of Investments,
Invesco Solutions

Scott Hixon

CFA®
Senior Portfolio Manager,
Head of Research,
Invesco Global Asset
Allocation

Jeff Bennett

CFA®
Head of Manager
Selection,
Invesco Solutions

Chang Hwan Sung

PhD, CFA®, FRM
Portfolio Manager,
Solutions Research, APAC

Debbie Li

CFA®
Senior Analyst

Jared Greenberg

Analyst, Investment
Research,
Invesco Solutions

Invesco Solutions Thought Leadership

Drew Thornton

CFA®
Head of Solutions Thought Leadership

Invesco Solutions is an experienced multi-asset team that seeks to deliver desired client outcomes using Invesco's global capabilities, scale and infrastructure. We partner with you to fully understand your goals and harness strategies across Invesco's global spectrum of active, passive, factor, and alternative investments that address your unique needs. From robust research and analysis to bespoke investment solutions, our team brings insight and innovation to your portfolio construction process. Our approach starts with a complete understanding of your needs:

- We help support better investment outcomes by delivering insightful and thorough analytics.
- By putting analytics into practice, we develop investment approaches specific to your needs.
- We work as an extension of your team to engage across functions and implement solutions.

The foundation of the team's process is the development of capital market assumptions — long-term forecasts for the behavior of different asset classes. Their expectations for returns, volatility, and correlation serve as guidelines for long-term, strategic asset allocation decisions.

Assisting clients in North America, Europe, and Asia, Invesco's Solutions team consists of over 75 professionals with 20+ years of experience across the leadership team. The team benefits from Invesco's on-the-ground presence in 25 countries worldwide, with over 150 professionals to support investment selection and ongoing monitoring.

Invesco Solutions

Investment risks

The value of investments and any income will fluctuate (this may partly be the result of exchange rate fluctuations), and investors may not get back the full amount invested.

Invesco Solutions develops CMAs that provide long-term estimates for the behavior of major asset classes globally. The team is dedicated to designing outcome-oriented, multi-asset portfolios that meet the specific goals of investors. The assumptions, which are based on 5- and 10-year investment time horizons, are intended to guide these strategic asset class allocations. For each selected asset class, we develop assumptions for estimated return, estimated standard deviation of return (volatility), and estimated correlation with other asset classes. This information is not intended as a recommendation to invest in a specific asset class or strategy, or as a promise of future performance. Estimated returns are subject to uncertainty and error, and can be conditional on economic scenarios. In the event a particular scenario comes to pass, actual returns could be significantly higher or lower than these estimates.

Important information

This document is intended only for professional investors in Hong Kong, for Institutional Investors and/or Accredited Investors in Singapore, for certain specific sovereign wealth funds and/or Qualified Domestic Institutional Investors approved by local regulators only in the People's Republic of China, for certain specific Qualified Institutions and/or Sophisticated Investors only in Taiwan, for Qualified Professional Investors in Korea, for certain specific institutional investors in Brunei, for Qualified Institutional Investors and/or certain specific institutional investors in Thailand, for certain specific institutional investors in Malaysia upon request, for certain specific institutional investors in Indonesia and for qualified buyers in Philippines for informational purposes only. This document is not an offering of a financial product and should not be distributed to retail clients who are resident in jurisdiction where its distribution is not authorized or is unlawful. Circulation, disclosure, or dissemination of all or any part of this document to any unauthorized person is prohibited.

This document may contain statements that are not purely historical in nature but are "forward-looking statements," which are based on certain assumptions of future events. Forward-looking statements are based on information available on the date hereof, and Invesco does not assume any duty to update any forward-looking statement. Actual events may differ from those assumed. There can be no assurance that forward-looking statements, including any projected returns, will materialize or that actual market conditions and/or performance results will not be materially different or worse than those presented. All material presented is compiled from sources believed to be reliable and current, but accuracy cannot be guaranteed. Investment involves risk. Please review all financial material carefully before investing. The opinions expressed are based on current market conditions and are subject to change without notice. These opinions may differ from those of other Invesco investment professionals.

The distribution and offering of this document in certain jurisdictions may be restricted by law. Persons into whose possession this marketing material may come are required to inform themselves about and to comply with any relevant restrictions. This does not constitute an offer or solicitation by anyone in any jurisdiction in which such an offer is not authorised or to any person to whom it is unlawful to make such an offer or solicitation.

This document is issued in the following countries:

- in Hong Kong by Invesco Hong Kong Limited 景順投資管理有限公司, 45/F, Jardine House, 1 Connaught Place, Central, Hong Kong.
- in Singapore by Invesco Asset Management Singapore Ltd, 9 Raffles Place, #18-01 Republic Plaza, Singapore 048619.
- in Taiwan by Invesco Taiwan Limited, 22F, No.1, Songzhi Road, Taipei 11047, Taiwan (0800-045-066). **Invesco Taiwan Limited is operated and managed independently.**

Contact

Danielle Singer, CFA®
Head of North America and EMEA Client Solutions
212 652 4264
danielle.singer@invesco.com

Peter Miller, CFA®
Head of Insurance Solutions
617 345 8281
peter.miller@invesco.com