



# *Long-Term Capital Market Assumptions*

1<sup>ST</sup> ANNUAL EDITION 2025



## Foreword

“ We hope that this CMA document helps you navigate and fulfil your long-term investment goals.



Welcome to EFG's inaugural Capital Market Assumptions (CMA) document. CMAs were immensely popular pre the 2008/09 financial crisis where, in many respects, the financial markets were “normal”. However, from 2009 onwards as exceptionally low interest rates and quantitative easing from central banks around the world took hold, financial asset prices became exceptionally distorted, CMAs became more challenged given the paradigm shift that occurred. In 2007, no one would have expected the environment of negative interest rates, which we had rarely seen throughout history. Since Covid in 2020 and then the post Covid period, a sense of normality has started to appear for financial asset prices. Indeed, the traditional 60:40 portfolio (60% allocation to stocks and a 40% allocation to bonds), now has the opportunity to earn diversified returns.

As a result, we believe CMAs will make a return in popularity to help investors navigate the expected returns and volatilities of different asset classes and provide guidance relative to an investor's risk profile and time horizon.

In addition to normalised expectations, we are starting to see return expectations for the major stock markets changing, for example smaller companies, have significantly underperformed their larger counterparts over the last 10 to 15 years or so, to the point that the theoretical concept of small-cap risk premium has been challenged. Of course, we can argue that Private Equity has taken some of this mantle as well as regulation making it difficult for companies to list and use the stock markets to raise capital. We do wonder, however, whether the new Trump administration which is heavily biased towards de-regulation can start to change this narrative, at least in part. Regulation does help larger companies, as they use this to protect their interests. We are also interested in market concentration, for example the top ten companies in the

S&P 500 are at the most concentrated level since the 1960's. This is possibly why so many commentators including ourselves expect lower returns for some of the major markets such as the US, compared to history, as this element unwinds.

Finally, with the advent of artificial intelligence (AI), and its influence on pretty much all companies and consumers it will certainly have an impact on productivity and ultimately margins and earnings for companies. Will it lead to higher investment returns? This is unknown, but one thing we do know is that there will be many winners and losers from AI and it could be that the net impact is negligible for the time being. But over the long-term it could have a huge impact as the internet did over the last 20 years with some of the most successful companies in history born over that period. The future in this regard is exciting.

Please do refer to our Outlook 2025 to delve deeper into some of these enduring themes and we hope that this CMA document stimulates debate and challenge but most importantly it provides you with a framework to help you navigate and fulfil your long-term investment goals.

A handwritten signature in black ink, appearing to read 'Moz Afzal', written over a white background.

**Moz Afzal**, Chief Investment Officer

**Past performance is not indicative of future results.** The above data is based on projections. Certain assumptions have been made regarding the above information and such information is provided by way of illustration only. Any changes to these assumptions may have a material impact on the assessment presented.

# Contents

## OUR CAPITAL MARKET ASSUMPTIONS ON KEY ASSET CLASSES

1	2	3	4
<i>Equity Market</i>	<i>Fixed Income</i>	<i>Currencies and Commodities</i>	<i>Private Markets</i>
<i>p. 6-7</i>	<i>p. 8-9</i>	<i>p. 10-11</i>	<i>p. 12-13</i>

---

Capital Market Assumptions	<i>p. 14</i>
----------------------------	--------------

---

Technical Appendix	<i>p. 15</i>
--------------------	--------------

---

The opinions herein are those of EFG Asset Management ("EFGAM") as at December 2024 and are subject to change at any time due to market or economic conditions. The document and assumptions made do not take into consideration the client's situation and does not constitute a recommendation to buy, sell or take any other action. It is not financial advice.

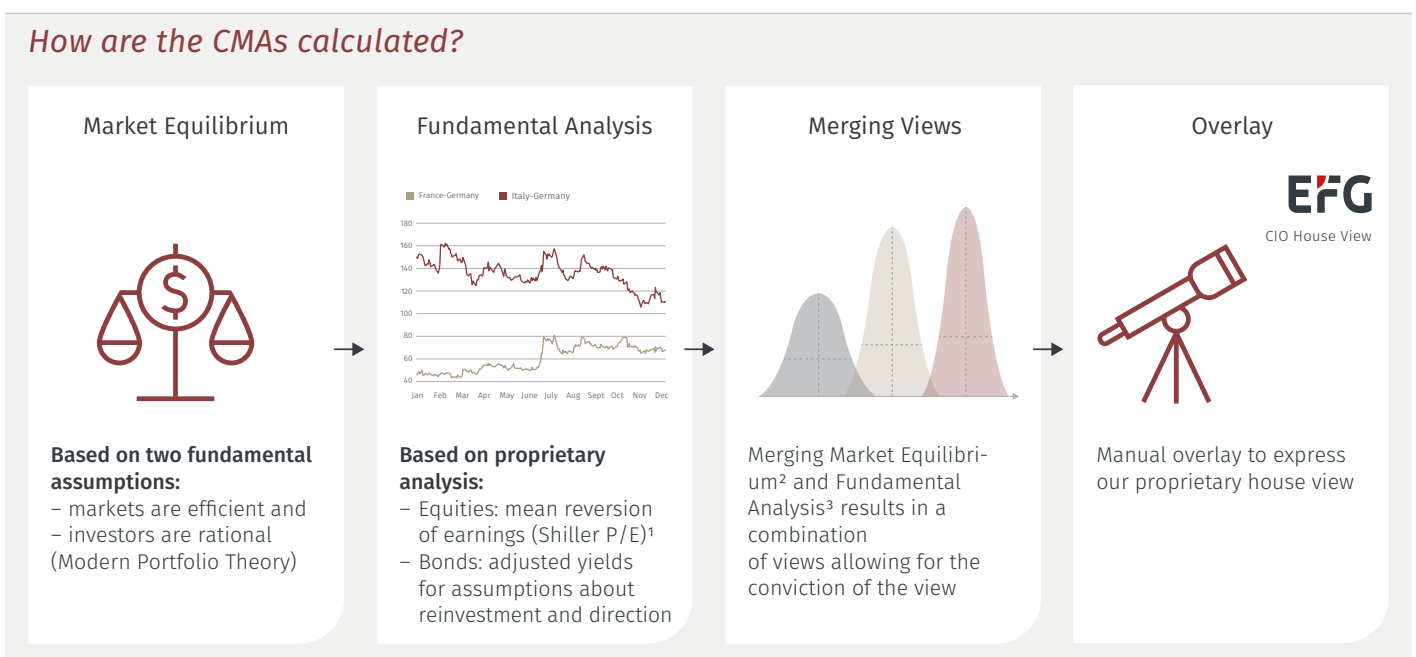
# Introduction

The world has been through enormous change in recent years, starting with the Covid crisis that began in 2020, soon followed by Russia's invasion of Ukraine in 2022 that, in turn, set off a sharp rise in oil and commodity prices. The ensuing rate hiking cycle was one of the sharpest in history and, more recently, has been accompanied by an escalation of tensions in the Middle East to levels not seen since the 1970s. These events are highlighted because they are important in terms of setting the scene for the outlook over the next 7-10 years.

We expect slowing trend growth around the world, a return to more normal inflation dynamics and greater disparity between the economic performance of countries and regions. De-globalisation is expected to continue with an increasingly fragmented global trade network that will weigh more heavily on those countries and regions more dependent on exports for growth.

Our Capital Market Assumptions (CMAs) set out our long-term return expectations across a broad range of markets and asset classes. The time horizon for our long-term market assumptions is 7-10 years. They are largely derived from a quantitative process combined with a qualitative overlay. The process consists of four steps as outlined below (please refer to the Technical Appendix for further information).

## How are the CMAs calculated?



<sup>1</sup> The Shiller P/E ratio is a valuation measure that uses real earnings per share (EPS) over a 10-year period to smooth out fluctuations in corporate profits that occur over different periods of a business cycle. <sup>2</sup> Market equilibrium is defined as the price and quantity point at which market supply and market demand for an item are equal. <sup>3</sup> Fundamental analysis is used to value a company and determine whether a stock is over- or undervalued by the market. Source: EFGAM.

 Finding the right asset allocation for an investor is therefore critical to achieving long-term investment goals.

### How the CMAs can help your investment decisions

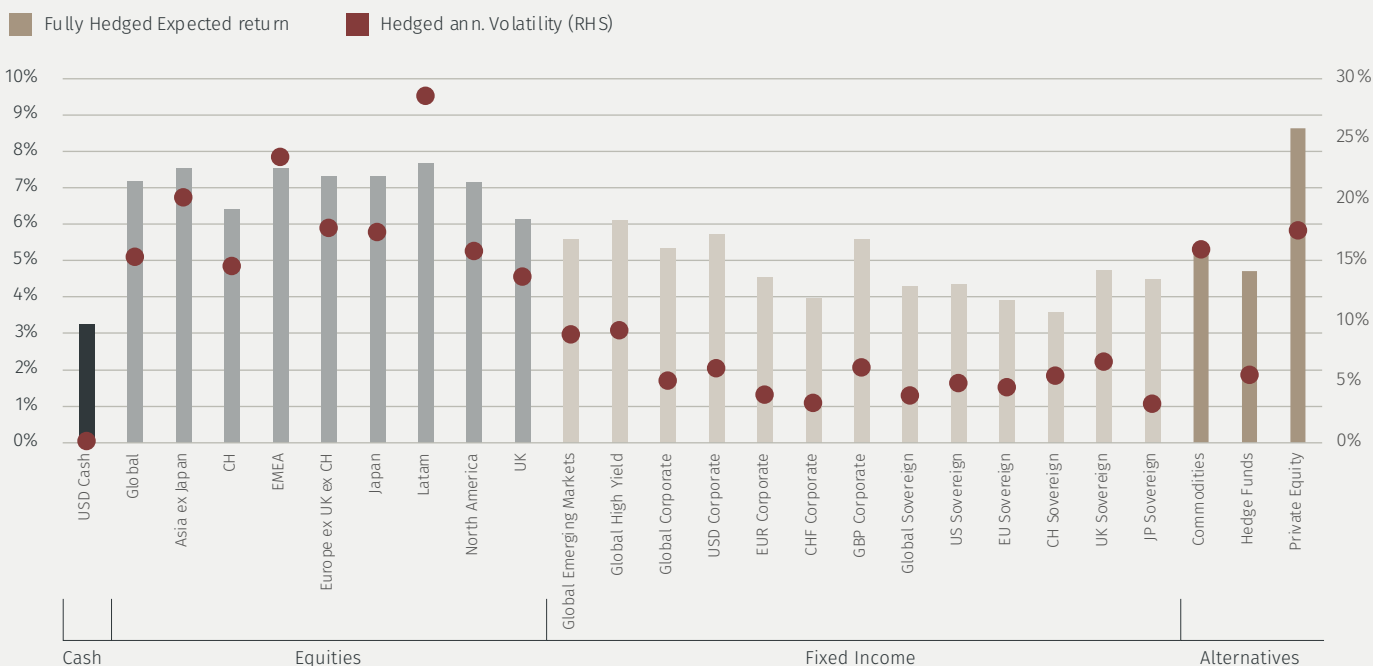
To help you achieve long-term investment success, we believe in the following core principles:

1. Develop and maintain your strategy: Establish and maintain a clear investment strategy that is consistent with your goals, regardless of market conditions. Review your strategy regularly to ensure that it continues to meet your objectives, especially as your personal circumstances are likely to change.
2. Align your strategy with your goals and risk tolerance: Ensure that your investment strategy is consistent with your risk capacity and personal risk tolerance. It is important that the level of risk you take is appropriate to your risk tolerance and financial situation.
3. Build a solid portfolio: Create a well-diversified portfolio that includes different asset classes, sectors, markets and securities. This diversification can help reduce overall risk and provide access to a wider range of potential sources of return than a more concentrated portfolio.

Finding the right asset allocation for an investor is therefore critical to achieving long-term investment goals. Our Capital Market Assumptions are an important part of this process, helping to build and define robust strategies in line with your risk appetite. As Figure 1 shows, there is much variation in terms of expected return and volatility across asset classes, sub asset classes and geographies. Typically the greater the volatility, the higher the expected return, although this is not guaranteed.

Figure 1

### Annualised expected return and volatility (USD investor fully hedged)



Note: EFGs Capital Market Assumptions – forecast utilises a fully hedged expected risk and return for an USD investor. The above data is based on projections. Certain assumptions have been made regarding the above information and such information is provided by way of illustration only. Any changes to these assumptions may have a material impact on the assessment presented. The term hedging can be used to describe diversifying a portfolio by buying shares in a 'conservative' bond fund to offset potential losses in more volatile investments. Source: EFGAM.

# Equity Market assumptions



## Key statements

### Below average returns

Returns will be slightly below average with many regions appearing around fair value and some sectors seeming expensive.

### Nominal growth rates

Equity market growth influenced by the nominal growth rate of the economy.

### Regional variations

Valuations in Europe and Asia are more appealing than the US. The expectation is that US equities will underperform relative to global markets.

# 1 Equity Market assumptions

“ We expect AI to remain a major investment theme over the next 10 years, affecting the world we in which we live in ways we cannot yet imagine.

**The starting point for thinking about equities over the next 10 years are valuations.** On average these look to us to be around fair value in many parts of the world and a little bit above fair value in some others. Some sectors, notably technology, look to be expensive. Against this valuation backdrop, our expectation is that equity market returns are a little bit below average over the next 7-10 years, as shown in our CMAs. There is limited room for multiple expansion, rather it is more likely that there is marginal multiple contraction over the next 7-10 years.

The extent to which equity markets are able to increase will be impacted by the nominal growth rate of the economy, which sets the speed limit for earnings growth. Slightly higher inflation will be helpful in this regard as it is simply a function of companies’ pricing power. However, better pricing will be offset by the slowing trend growth highlighted in the macro section.

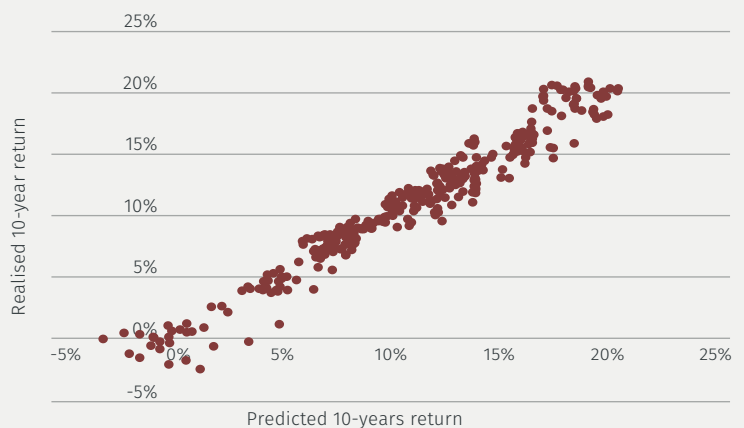
Valuations in Europe and Asia look more attractive than in the US but the counterbalance is slower trend growth and inflation in those parts of the world relative to the US. On balance, we expect US equities to underperform most of the rest of the world over the next 7-10 years, primarily because global markets are over-concentrated in US stocks at the moment. Our view is that we will see a multi-year trend of market broadening, reflected in outperformance of non-US stocks and outperformance of small caps relative to large and mega cap stocks.

We expect AI to remain a major investment theme over the next 10 years, affecting the world in which we live in ways we cannot yet imagine. However, it will be disruptive and there will be some industries and sectors that are major losers. In particular, we expect the white-collar service sector to feel an outsized impact from AI and to undergo extreme change as a result. While those companies benefiting from AI are likely to grow quickly, it will be important not to get caught up in the hype and overpay to access such opportunities.

With this in mind, EFG’s process for generating equity capital market assumptions is based on two complementary approaches. The starting point are the equilibrium returns then the second step focuses on fundamentals. A critical input into the fundamental analysis are valuations leveraging the Shiller P/E. This simple model works rather well, as shown in Figure 2.

Figure 2

## Predicted 10-year return based on Shiller P/E for US Equities



The data on the right is based on projections. Certain assumptions have been made regarding the above information and such information is provided by way of illustration only. Any changes to these assumptions may have a material impact on the assessment presented. Source: EFGAM.

# Fixed Income assumptions



## Key statements

### Returns below bond yields

Expectation for the next ten years is that fixed income returns will be below bond yields.

### Neutral yield range

US Government 10-year yield expected to be between 4.25% – 4.75% with the fed funds rate around 3.25%.

### Eurozone yield curve flatter

Use Germany as the overall indicator, with countries like Italy and Spain experiencing constant or slightly declining spreads; France will experience spread widening.



## 2 Fixed Income assumptions

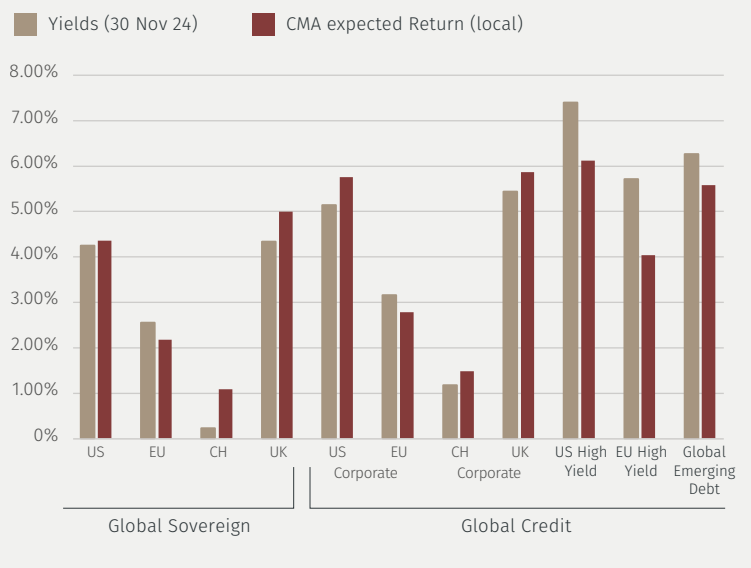
“ We expect fixed income returns to be a little bit below bond yields in the coming decades.

**Fixed income markets have received a massive boost over the past 40 years from the trend decline in inflation, interest rates and bond yields that began in the early-to-mid 1980s. We expect the next 10 years to see that process go into reverse.** Whereas fixed income returns have been a little bit higher than bond yields over the past few decades, we expect fixed income returns to be a little bit below bond yields in the coming decades.

It is important also to think about neutral interest rates and the slope of the curve. Our view is that policy rates in most of the developed world remain in restrictive territory but only just. We expect the Federal Reserve to impart fewer rate cuts in this cycle than in Europe while the Bank of Japan is expected to hike rates very gently. Over the next 10 years we expect the average fed funds rate to be around 3.25%. Given the normal steepness of the curve we would expect the 10-year yield to be 1.0% to 1.5% above that, suggesting a neutral range of 4.25% to 4.75%. In our view, this is around 0.5% higher under Trump and the Republican clean sweep than it would have been under a Democrat administration, due to the fact budget deficits will likely be higher for longer.

Figure 3

### Yields vs. our long-term expected returns



**Past performance is not indicative of future results.** The above data is based on projections. Certain assumptions have been made regarding the above information and such information is provided by way of illustration only. Any changes to these assumptions may have a material impact on the assessment presented. Source: Bloomberg.

We believe the eurozone yield curve will be anchored by a policy rate that is around 1.50% below that in the US and a yield curve that is a bit flatter, with the gap between the short end and the long end more like 0.5% to 1.0%. However, it will be important to think about yield spreads relative to Germany. Our view is that some countries like Italy and Spain will see constant or possibly slightly declining spreads while others such as France will experience spread widening.

With regard to credit, we note that credit spreads are unusually tight at the moment, both in Investment Grade (IG) and High Yield (HY). A normalisation of these spreads over the next 7-10 years will see returns that are below current yields.

# Currencies and Commodities assumptions



## Key statements

### Varied outlook

Little variation in USD, strengthening yen, weakening Swiss franc and renminbi as China uses its currency to offset headwinds to export growth.

### Global reserve currency movements

Gold will remain attractive diversifier over USD as the world's global reserve currency as alternatives are sought.

### Weak oil price dynamics

Affected by volume of oil being pumped, over capacity supplies and lower demand due to greater environmental awareness.

### 3 Currencies and Commodities assumptions

” The fragmentation of the post-WWII global trading system will encourage countries to seek alternatives to the US dollar as the world’s global reserve currency.

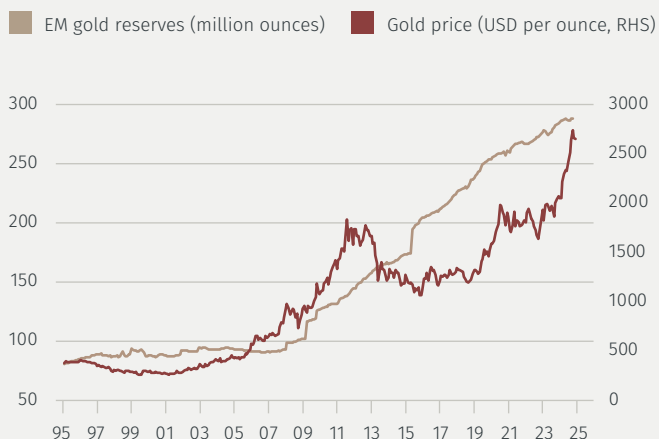
The currency outlook over the next 7-10 years depends very much on which currency pair is being looked at. On average we expected the trade weighted US dollar to be little changed over the next 7-10 years. However, within the aggregate we think that there is potential for the yen to strengthen in response to tighter monetary policy and for the Swiss franc to weaken as it takes the place of the yen as the main funding currency in the global carry trade. The renminbi is also expected to weaken as China uses its currency as a tool to help offset headwinds to export growth.

The fragmentation of the post-WWII global trading system will encourage countries to seek alternatives to the US dollar as the world’s reserve currency. However, in the absence of any serious contenders, gold will remain an attractive diversifier despite its 0% yield. Holding gold is also much less antagonistic to US politicians than seeking to set up an alternative global reserve currency.

Underlying oil price dynamics look weak. Despite output cuts from OPEC+ (Organisation of the Petroleum Exporting Countries) and rising Middle East tension, the oil price has struggled to gain traction. This is for a number of reasons. First, the US is pumping a significant volume of oil, something that will expand further under the Trump administration. Secondly, the large oil producers have plenty of spare capacity such that even if global markets were to lose Iran’s oil supply, the gap could be easily filled. Thirdly, demand for hydrocarbons has weakened as a result of greater environmental awareness. We expect these factors to continue to limit the ability of the oil price to sustain meaningful gains in the years ahead.

Figure 4

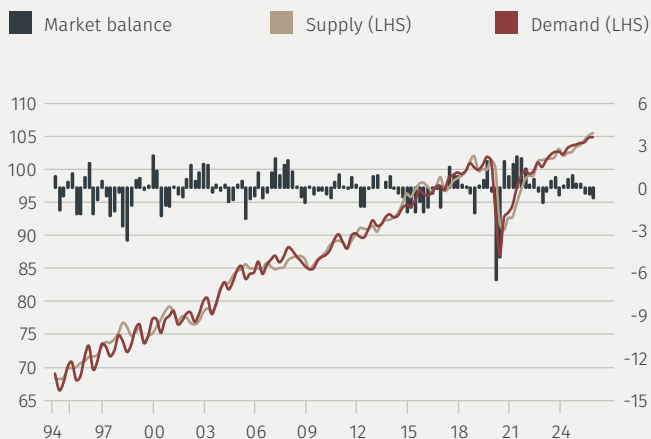
#### Emerging Markets (EM) gold reserves and the price of gold



Source: LSEG Data & Analytics and EFGAM calculations 2024. Past performance is not indicative of future results.

Figure 5

#### Oil demand and supply trends



Source: LSEG Data & Analytics, US Energy Information Administration, and EFGAM calculations 2024. Past performance is not indicative of future results.

# Private Market assumptions



## Key statements

### Hedge funds exploit opportunities

International divergence, steeper yield curves and varied cross-sectional opportunities in equity markets will enable hedge funds to exploit market conditions.

### Two opposing forces

Outlook balanced between effects of a reduction in the illiquidity premium and strong demand for private markets.

### Attractive but varied returns

Risk – return will be attractive relative to public markets but strongly dependent on the selected manager given the large dispersion in returns.



## 4 Private Market assumptions

“ The outlook for private markets is finely balanced by two opposing forces.

It is harder to think about the outlook for alternatives because the term encompasses such a broad array of investment opportunities and styles. Nonetheless, there are certain things we can say.

Against the macro backdrop described above in which we expect a greater degree of international divergence, steeper yield curves and varied cross-sectional opportunities in equity markets, hedge funds as an asset class are expected to provide good diversification benefits over the next 7-10 years. The greater flexibility afforded to hedge funds means that they should be able to exploit markets in ways that long only products are unable to do so.

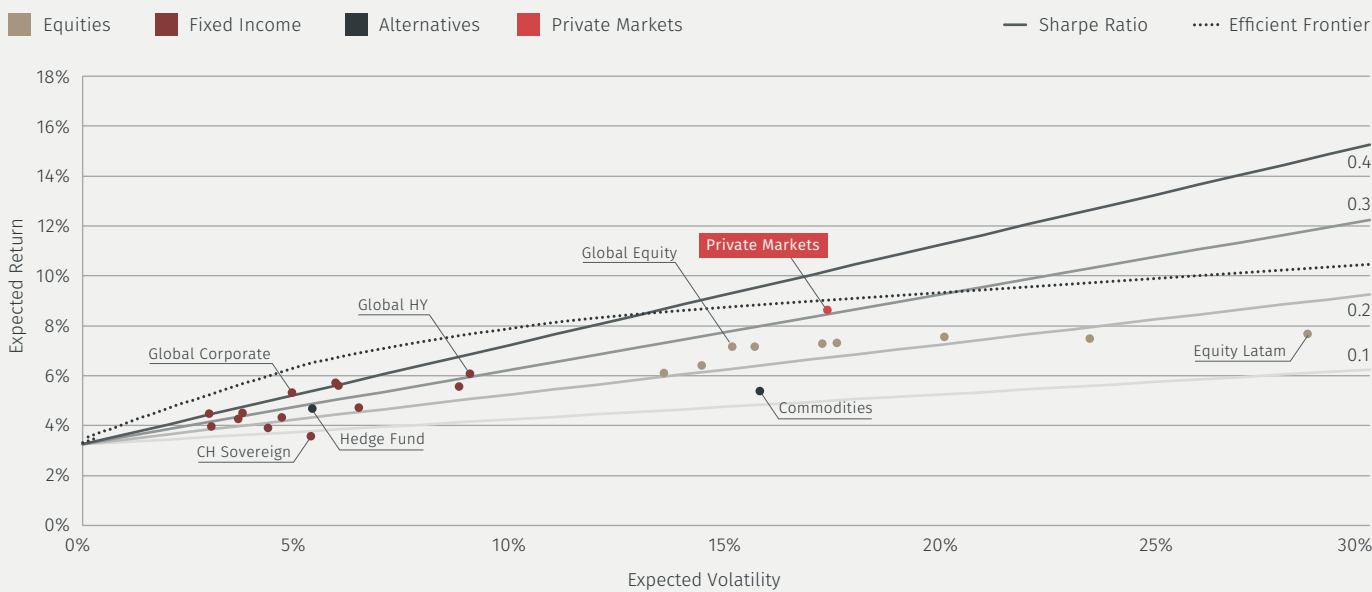
The outlook for private markets is finely balanced by two opposing forces. First, we note that there has been a surge of money into private markets in recent years. This has resulted in valuations that look expensive relative to history; deals are taking place at higher multiples and the yield spreads on offer relative to publicly traded debt have shrunk. In other words, there has been a reduction in the illiquidity premium. At the same time, there are several trillion dollars in dry powder, suggesting there remains strong demand for private markets. Against this background our expectation is that returns over the next decade will be attractive relative to public markets but not as attractive as a few years ago. One should bear in mind, given the large dispersion of return of private market managers, being in the top performing managers in private markets will determine whether indeed these returns are better or significantly worse than our assumptions.

Figure 6 shows, there is much variation in terms of expected return and volatility across asset classes, sub asset classes and geographies. Typically the greater the volatility, the higher the expected return, although this is not guaranteed. Private Markets expected risk and return is shown below.

Figure 6

### Private Market's position on the efficient frontier

Forecast utilises a fully hedged expected risk and return for an USD investor



An efficient frontier is a set of investment portfolios that are expected to provide the highest returns at a given level of risk. A portfolio is said to be efficient if there is no other portfolio that offers higher returns for a lower or equal amount of risk. The above data is based on projections. Certain assumptions have been made regarding the above information and such information is provided by way of illustration only. Any changes to these assumptions may have a material impact on the assessment presented. The Sharpe ratio compares the return of an investment with its risk. Source: EFGAM.

# Capital Market Assumptions

The Capital Market Assumptions set out our long-term risk and return expectations across a broad range of markets and asset classes over the next 7-10 years.

Figure 7

## Long-term risk and return expectations

	Fully Hedged Expected Return				Hedged ann. Volatility	Fully Hedged Correlation																											
	USD	EUR	GBP	CHF		Global	Asia ex Japan	CH	EMEA	Europe ex UK ex CH	Japan	Latam	North America	UK	Global Emerging Markets	Global High Yield	Global Corporate	USD Corporate	EUR Corporate	CHF Corporate	GBP Corporate	Global Sovereign	US Sovereign	EU Sovereign	CH Sovereign	UK Sovereign	JP Sovereign	Commodities	Hedge Funds	Private Equity			
<b>Cash</b>	3.25%	1.50%	3.50%	0.75%	0.00%																												
<b>Equities</b>																																	
Global	7.18%	5.43%	7.43%	4.68%	15.26%	1.00																											
Asia ex Japan	7.55%	5.80%	7.80%	5.05%	20.17%	0.80	1.00																										
CH	6.41%	4.66%	6.66%	3.91%	14.55%	0.76	0.51	1.00																									
EMEA	7.52%	5.77%	7.77%	5.02%	23.51%	0.78	0.81	0.52	1.00																								
Europe ex UK ex CH	7.32%	5.57%	7.57%	4.82%	17.68%	0.89	0.68	0.79	0.68	1.00																							
Japan	7.31%	5.56%	7.56%	4.81%	17.34%	0.67	0.54	0.56	0.58	0.63	1.00																						
Latam	7.68%	5.93%	7.93%	5.18%	28.56%	0.74	0.74	0.51	0.84	0.64	0.47	1.00																					
North America	7.16%	5.41%	7.41%	4.66%	15.79%	0.99	0.73	0.72	0.72	0.83	0.61	0.69	1.00																				
UK	6.13%	4.38%	6.38%	3.63%	13.68%	0.81	0.63	0.73	0.67	0.84	0.54	0.65	0.76	1.00																			
<b>Fixed Income</b>																																	
Global Emerging Markets	5.57%	3.82%	5.82%	3.07%	8.95%	0.61	0.65	0.42	0.71	0.50	0.38	0.71	0.57	0.50	1.00																		
Global High Yield	6.09%	4.34%	6.34%	3.59%	9.21%	0.72	0.68	0.51	0.66	0.65	0.50	0.64	0.69	0.60	0.69	1.00																	
Global Corporate	5.35%	3.60%	5.60%	2.85%	5.10%	0.38	0.40	0.21	0.36	0.28	0.16	0.33	0.38	0.28	0.66	0.60	1.00																
USD Corporate	5.74%	3.99%	5.99%	3.24%	6.10%	0.36	0.40	0.18	0.36	0.25	0.14	0.33	0.36	0.26	0.67	0.59	0.99	1.00															
EUR Corporate	4.52%	2.77%	4.77%	2.02%	3.94%	0.37	0.34	0.26	0.31	0.32	0.19	0.26	0.37	0.29	0.52	0.57	0.88	0.80	1.00														
CHF Corporate	3.97%	2.22%	4.22%	1.47%	3.23%	0.25	0.26	0.18	0.30	0.23	0.16	0.24	0.23	0.23	0.63	0.42	0.75	0.70	0.81	1.00													
GBP Corporate	5.60%	3.85%	5.85%	3.10%	6.16%	0.39	0.34	0.30	0.32	0.37	0.19	0.26	0.39	0.37	0.48	0.52	0.82	0.77	0.83	0.70	1.00												
Global Sovereign	4.29%	2.54%	4.54%	1.79%	3.85%	-0.10	-0.06	-0.10	-0.10	-0.16	-0.26	-0.12	-0.07	-0.14	0.26	0.00	0.68	0.67	0.56	0.49	0.54	1.00											
US Sovereign	4.35%	2.60%	4.60%	1.85%	4.85%	-0.17	-0.09	-0.17	-0.13	-0.24	-0.30	-0.17	-0.14	-0.20	0.22	-0.08	0.61	0.64	0.40	0.37	0.42	0.95	1.00										
EU Sovereign	3.92%	2.17%	4.17%	1.42%	4.54%	0.05	0.04	0.07	-0.01	0.02	-0.07	-0.03	0.07	-0.01	0.27	0.15	0.66	0.60	0.75	0.58	0.61	0.84	0.68	1.00									
CH Sovereign	3.58%	1.83%	3.83%	1.08%	5.53%	-0.05	-0.07	-0.04	-0.07	-0.06	-0.16	-0.09	-0.03	-0.07	0.24	0.10	0.55	0.51	0.58	0.66	0.46	0.73	0.63	0.73	1.00								
UK Sovereign	4.73%	2.98%	4.98%	2.23%	6.64%	-0.02	-0.02	-0.02	-0.05	-0.05	-0.20	-0.10	0.01	-0.01	0.20	0.04	0.55	0.53	0.49	0.43	0.68	0.83	0.75	0.71	0.63	1.00							
JP Sovereign	4.48%	2.73%	4.73%	1.98%	3.18%	-0.09	-0.07	-0.11	-0.09	-0.12	-0.21	-0.02	-0.07	-0.09	0.13	0.00	0.29	0.28	0.23	0.25	0.16	0.51	0.36	0.30	0.33	0.29	1.00						
<b>Alternatives</b>																																	
Commodities	5.39%	3.64%	5.64%	2.89%	15.90%	0.39	0.44	0.13	0.55	0.26	0.28	0.50	0.37	0.33	0.35	0.38	0.19	0.20	0.15	0.07	0.13	-0.15	-0.15	-0.13	-0.17	-0.16	-0.02	1.00					
Hedge Funds	4.70%	2.95%	4.95%	2.20%	5.56%	0.66	0.60	0.47	0.62	0.61	0.54	0.58	0.62	0.54	0.51	0.61	0.38	0.37	0.37	0.32	0.36	-0.10	-0.14	0.03	-0.03	-0.07	-0.12	0.48	1.00				
Private Equity	8.64%	6.89%	8.89%	6.14%	17.47%	0.88	0.74	0.63	0.78	0.78	0.63	0.72	0.85	0.74	0.60	0.75	0.43	0.42	0.43	0.33	0.44	-0.09	-0.15	0.06	-0.04	-0.02	-0.06	0.46	0.67	1.00			

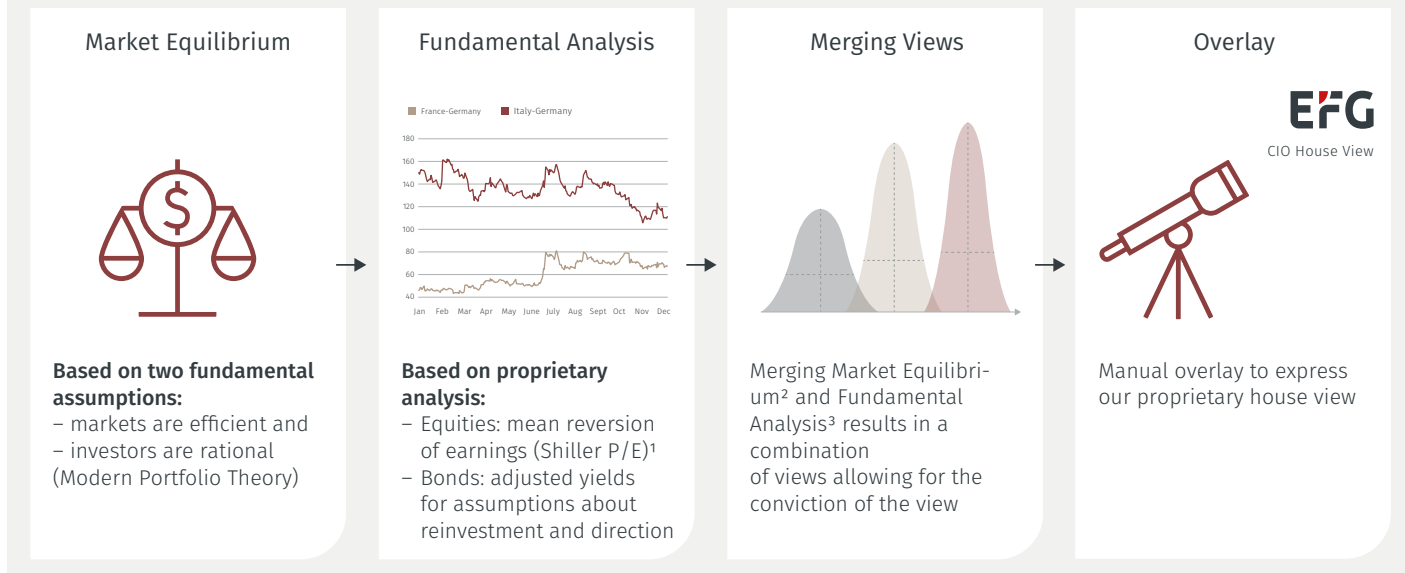
The above data is based on projections for risk and return expectations over the next 7-10 year period. Certain assumptions have been made regarding the above information and such information is provided by way of illustration only. Any changes to these assumptions may have a material impact on the assessment presented. **There is no guarantee that these forecasts will be achieved.** Source: EFGAM.

# Technical Appendix

The Capital Market Assumptions are developed using a predominantly quantitative process that consists of four stages, as set out below.

Figure 8

## How are the CMAs calculated?



<sup>1</sup> The Shiller P/E ratio is a valuation measure that uses real earnings per share (EPS) over a 10-year period to smooth out fluctuations in corporate profits that occur over different periods of a business cycle. <sup>2</sup> Market equilibrium is defined as the price and quantity point at which market supply and market demand for an item are equal. <sup>3</sup> Fundamental analysis is used to value a company and determine whether a stock is over- or undervalued by the market. Source: EFGAM.

## Stage 1 – Market Equilibrium

The first stage in developing our CMAs is to estimate the market equilibrium risk and return. The horizon of these expectations is very long term, about 30 years.

Standard mean-variance optimisation<sup>4</sup> is used to identify the optimal portfolio mix based on expected returns, standard deviations and co-variances. It is possible to reverse this process: if we know the optimal weights and the co-variances – including the standard deviations – of the underlying asset classes, then we can estimate the returns consistent with these parameters.

In practice, the optimal weights are taken to be the market weights, since the market is assumed to be efficient, and the co-variance matrix can be estimated using 30 years of historical data to produce relatively stable results over time.

Using the market weights and the covariance matrix, an expected return estimate can be developed.

<sup>4</sup> Mean-variance analysis is the process of weighing risk, expressed as variance, against expected return. Investors use mean-variance analysis to make investment decisions.

Figure 9

## Estimating the market equilibrium risk and return

### Traditional optimisation:

- Input: risk & return
- Output: optimal portfolio



### Inverse optimisation:

- basis of Market Equilibrium
- Input: risk & optimal portfolio
- Output: equilibrium return of each asset



Source: EFGAM.

## Stage 2 – Fundamental Analysis

**The second stage in developing our CMAs is to estimate the expected risk and return on a long-term basis, typically 7 – 10 years using a different, independent methodology.**

This methodology uses fundamentals to forecast long-term returns.

**1. Equities** – the analysis is based on valuations. While valuations are considered a sub optimal guide to short-term performance, they are a reliable guide to long-term returns. The underlying assumption is that valuations are means-reverting. This means that if current valuations are above the cyclically-adjusted, long-term valuation the model expects future returns to be below the long-term average. Conversely, if the current valuation is below the cyclically-adjusted long-term valuation then the model expects the future returns to be above the long-term average.

**2. Bonds** – the most reliable predictor of long-term returns is the current yield-to-maturity (YTM) rate. When yields are trending lower the model anticipates long-term returns that are slightly above the YTM and vice versa.

## Stage 3 – Merging Views

**The third stage in developing our CMAs focuses on merging the equilibrium expectation with the expectation derived from the fundamental analysis using our own confidence level.**

This is achieved by using the Black-Litterman (BL) approach. This methodology is explicitly designed to incorporate other views into a standard optimisation approach. This is ideal for combining output from the Market Equilibrium process (stage 1) with the output from the Fundamental Analysis (stage 2) process. The BL approach balances the risk premia from each process according to assumptions about the likelihood of each occurring. The BL approach is extremely flexible in its application:

- The combination of two or more sources of output (allowing additional processes to be added to ME and FA if deemed necessary).
- Different assumptions about either absolute or relative returns, e.g., assumption 1 US equities will return X% over the next 10 years vs. assumption 2 US equities will outperform European equities by Y% over the next 10 years.
- Each forecasting process involves different assumptions about probabilities, however they are calculated (subjectively or quantitatively).

Although this stage is largely quantitative, it requires the expression of a confidence level based on two key inputs, namely market equilibrium and fundamental analysis. This is a crucial stage in the process as it requires us to confirm which outcome better reflects what we expect over the next 7-10 years. The starting point is to assign a 50% / 50% confidence level, the confidence level is then adjusted up or down depending on our economic outlook.

## Stage 4 – Subjective Overlay

**The final and fourth stage allows us to adjust the expected risk and return in a completely subjective manner.** While we always try to minimise the use of this, we have to acknowledge that any model has its shortcomings and a subjective overlay is necessary to reflect our proprietary outlook over the next 7-10 years.

**Please reach out to use if you have any inputs or would like to challenge our approach.**



# Investment *publications*

Stay updated on investment opportunities, macroeconomic trends, market movements and the global economic outlook with our suite of investment content.

## Annual flagship publications



**Outlook**  
Our top 10 themes for the year ahead



**Capital Market Assumptions**  
A view on how we expect asset classes to behave over the next 7-10 years

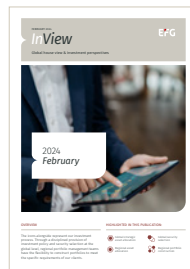
## Core publications



**InTime**  
Daily Market Note  
Summarising the most important market events from the past 24 hours



**InVision**  
Weekly Macro Note  
Outlining the main macroeconomic events from the past week



**InView**  
Global House View  
Offering asset allocation guidelines, macro overviews and investment ideas



**InFocus**  
Macro Comment  
An analysis of prevailing market events



**Podcast: Beyond the Benchmark**  
Moz Afzal, EFG's Chief Investment Officer, shares his insights on the developments shaping the markets and the global economy, speaking with special guests who have a particular point of view



For further information and to sign up to receive our regular investment publications, please visit our Insights page at: [www.efginternational.com/insights](http://www.efginternational.com/insights)

## Important disclaimers

This document has been produced by EFG Asset Management (UK) Limited for use by the EFG International ("EFG Group" or "EFG") worldwide subsidiaries and affiliates within the EFG Group. EFG Asset Management (UK) Limited is authorised and regulated by the UK Financial Conduct Authority, registered no. 07389736. Registered address: EFG Asset Management (UK) Limited, Park House, 116 Park Street, London W1K 6AP, United Kingdom, telephone +44 (0)20 7491 9111.

This document has been prepared solely for information purposes. The information contained herein constitutes a marketing communication and should not be construed as financial research or analysis, an offer, a public offer, an investment advice, a recommendation or solicitation to buy, sell or subscribe to financial instruments and/or to the provision of a financial service. It is not intended to be a final representation of the terms and conditions of any investment, security, other financial instrument or other product or service. The content of this document is intended only for persons who understand and are capable of assuming all risks involved. Further, this document is not intended to provide any financial, legal, accounting or tax advice and should not be relied upon in this regard. The information in this document does not take into account the specific investment objectives, financial situation or particular needs of the recipient. You should seek your own professional advice (including tax advice) suitable to your particular circumstances prior to making any investment or if you are in doubt as to the information in this document.

The information provided in this document is not the result of financial research conducted by EFGAM's research department. Therefore, it does not constitute investment or independent research as defined in EU regulation (such as "MIFID II" or "MIFIR") nor under the Swiss "Directive on the Independence of Financial Research" issued by the Swiss Banking Association or any other equivalent local rules.

The value of investments and the income derived from them can fall as well as rise, and you may not get back the amount originally invested. Past performance is no indicator of future performance. Investment products may be subject to investment risks, involving but not limited to, currency exchange and market risks, fluctuations in value, liquidity risk and, where applicable, possible loss of principal invested.

Although information in this document has been obtained from sources believed to be reliable, no member of the EFG group represents or warrants its accuracy, and such information may be incomplete or condensed. Any opinions in this document are subject to change without notice. This document may contain personal opinions which do not necessarily reflect the position of any member of the EFG group. To the fullest extent permissible by law, no member of the EFG group shall be responsible for the consequences of any errors or omissions herein, or reliance upon any opinion or statement contained herein, and each member of the EFG group expressly disclaims any liability, including (without limitation) liability for incidental or consequential damages, arising from the same or resulting from any action or inaction on the part of the recipient in reliance on this document.

EFG and its employees may engage in securities transactions, on a

proprietary basis or otherwise and hold long or short positions with regard to the instruments identified herein; such transactions or positions may be inconsistent with the views expressed in this document.

The availability of this document in any jurisdiction or country may be contrary to local law or regulation and persons who come into possession of this document should inform themselves of and observe any restrictions. This document may not be reproduced, disclosed or distributed (in whole or in part) to any other person without prior written permission from an authorised member of the EFG group.

Financial intermediaries/independent asset managers who may be receiving this document confirm that they will need to make their own independent decisions and in addition shall ensure that, where provided to end clients/investors with the permission from the EFG Group, the content is in line with their own clients' circumstances with regard to any investment, legal, regulatory, tax or other considerations. No liability is accepted by the EFG Group for any damages, losses or costs (whether direct, indirect or consequential) that may arise from any use of this document by the financial intermediaries/independent asset managers, their clients or any third parties.

Comparisons to indexes or benchmarks in this material are being provided for illustrative purposes only and have limitations because indexes and benchmarks have material characteristics that may differ from the particular investment strategies that are being pursued by EFG and securities in which it invests. The information and views expressed herein at the time of writing are subject to change at any time without notice and there is no obligation to update or remove outdated information.

Independent Asset Managers: in case this document is provided to Independent Asset Managers ("IAMs"), it is strictly forbidden to be reproduced, disclosed or distributed (in whole or in part) by IAMs and made available to their clients and/or third parties. By receiving this document IAMs confirm that they will need to make their own decisions/judgements about how to proceed and it is the responsibility of IAMs to ensure that the information provided is in line with their own clients' circumstances with regard to any investment, legal, regulatory, tax or other consequences. No liability is accepted by EFG for any damages, losses or costs (whether direct, indirect or consequential) that may arise from any use of this document by the IAMs, their clients or any third parties.

If you have received this document from any affiliate or branch referred to below, please note the following:

**Bahamas:** EFG Bank & Trust (Bahamas) Ltd is licensed by the Securities Commission of the Bahamas pursuant to the Securities Industry Act, 2011 and Securities Industry Regulations, 2012 and is authorised to conduct securities business in and from The Bahamas including dealing in securities, arranging dealing in securities, managing securities and advising on securities. EFG Bank & Trust (Bahamas) Ltd is also licensed by the Central Bank of The Bahamas pursuant to the Banks and Trust Companies Regulation Act, 2000 as a Bank and Trust company. Registered office: Goodman's Bay Corporate Centre West Bay Street and Sea View Drive, Nassau, The Bahamas.

**Bahrain:** EFG AG Bahrain is a branch of EFG Bank AG as licensed by the Central Bank of Bahrain (CBB) as Investment Business Firm Category 2 and is authorised to carry out the following activities:

a) Dealing in financial instruments as agents; b) Arranging deals in financial instruments; c) Managing financial instruments; d) Advising on financial instruments; e) Operating a Collective Investment Undertaking; and f) Arranging Credit and Advising on Credit. Registered address: EFG AG Bahrain Branch, Manama/ Front Sea/Block 346/Road 4626/Building 1459/Office 1401/ P O Box 11321 Manama – Kingdom of Bahrain.

**Cayman Islands:** EFG Bank AG, Cayman Branch (“the Branch”) is a Registered Person under the Cayman Islands Monetary Authority (CIMA) Securities Investment Business Act (as revised) (“the Securities Act”) and its accompanying regulations. The Branch is permitted to provide securities investment services to high net worth and sophisticated persons, as defined in Schedule 4 of the Securities Act, in and from within the Cayman Islands including dealing in securities, arranging dealing in securities, managing securities, and advising on securities. The Branch is also licensed by CIMA pursuant to the Banks and Trust Companies Act (as revised) (“the Banking Act”) as a Category B Bank to provide banking services in accordance with Section 6 (6) of the Banking Act. Registered Office: Suite 3208, 9 Forum Lane, Camana Bay, Grand Cayman KY1-1003, Cayman Islands.

**Cyprus:** EFG Cyprus Limited is an investment firm established in Cyprus with company No. HE408062, having its registered address at Kennedy 23, Globe House, 6th Floor, 1075, Nicosia, Cyprus. EFG Cyprus Limited is authorised and regulated by the Cyprus Securities and Exchange Commission (CySEC).

**Dubai:** EFG (Middle East) Limited is regulated by the DFSA. This material is intended “for professional clients only”. Registered address: EFG (Middle East) Limited DIFC, Gate Precinct 5, 7th Floor PO Box 507245 - Dubai, UAE.

**Greece:** EFG Bank (Luxembourg) S.A., Athens Branch is a non-booking establishment of EFG Bank (Luxembourg) S.A. which is authorised to promote EFG Bank (Luxembourg) S.A.’s products and services based on the EU freedom of establishment pursuant to a license granted by the Luxembourg financial supervisory authority “CSSF”. Registered address: 342 Kifisias Ave. & Ethnikis Antistaseos Str. - 154 51 N. Psychiko, General Commercial Registry no. 143057760001.

**Hong Kong:** EFG Bank AG, Hong Kong branch (CE Number: AFV863) (“EFG Hong Kong”) is authorized as a licensed bank by the Hong Kong Monetary Authority pursuant to the Banking Ordinance (Cap. 155, Laws of Hong Kong) and is authorized to carry out Type 1 (dealing in securities), Type 4 (advising on securities) and Type 9 (asset management) regulated activities in Hong Kong. Registered address: EFG Bank AG Hong Kong branch, 18th floor, International Commerce Centre, 1 Austin Road West, Kowloon, Hong Kong. To the fullest extent permissible by law and the applicable requirements to EFG Hong Kong under the Code of Conduct for Persons Licensed by or Registered with the Securities and Futures Commission, EFG Hong Kong shall not be responsible for the consequences of any errors or omissions herein, or of any information or statement contained herein. EFG Hong Kong expressly disclaims any liability, including (without limitation)

liability for incidental or consequential damages, arising from the same or resulting from any action or inaction on the part of the recipient in reliance on this document.

**Israel:** EFG Wealth Management (Israel) Ltd. Registered Office: 3 Rothschild Blv., Tel Aviv 6688106, Israel.

**Jersey:** EFG Private Bank Limited, Jersey Branch having its principal place of business at 5th Floor, 44 Esplanade, Jersey, JE1 3FG is regulated by the Jersey Financial Services Commission (JFSC registration number: RBN32518) and is a branch of EFG Private Bank Limited. EFG Private Bank Limited is authorised by the Prudential Regulation Authority and regulated by the Financial Conduct Authority (UK FCA registered no 144036) and Prudential Regulation Authority. EFG Private Bank Limited is registered in England and Wales no 2321802. UK registered office: Park House, 116 Park Street London W1K 6AP, United Kingdom, telephone +44 (0)20 7491 9111. The services of EFG Private Bank Limited, Jersey Branch are carried out under and in accordance with the rules of the Jersey Financial Services Commission and where appropriate the rules of the Financial Conduct Authority and Prudential Regulation Authority.

**Liechtenstein:** EFG Bank von Ernst AG is regulated by the Financial Market Authority Liechtenstein. Registered address: EFG Bank von Ernst AG Egertastrasse 10 - 9490 Vaduz, Liechtenstein.

**Luxembourg:** EFG Bank (Luxembourg) S.A. is authorised by the Ministry of Finance Luxembourg and supervised by the Commission de Surveillance du Secteur Financier (CSSF). EFG Bank (Luxembourg) S.A. is Member of the Deposit Guarantee Fund Luxembourg (F.G.D.L. - Fonds de Garantie des Dépôts Luxembourg) and Member of the Luxembourg Investor Compensation Scheme (S.I.I.L. - Système d’Indemnisation des Investisseurs Luxembourg). R.C.S. Luxembourg no. B113375. Registered address: EFG Bank (Luxembourg) S.A. - 56, Grand-Rue, L-1660 Luxembourg.

**Portugal:** EFG Bank (Luxembourg) S.A. - Sucursal em Portugal is authorised and supervised by Banco de Portugal (register 280) and the CMVM, the Portuguese securities market commission, (register 393) for the provision of financial advisory and reception and transmission of orders. EFG Bank (Luxembourg) S.A. - Sucursal em Portugal is a non-booking branch of EFG Bank (Luxembourg) S.A., a public limited liability company incorporated under the laws of the Grand Duchy of Luxembourg, authorised and supervised by the CSSF (Commission de Surveillance du Secteur Financier). Lisbon Head Office: Avenida da Liberdade n.º 131 - 6º Dto., 1250 - 140 Lisboa. Porto agency: Avenida da Boavista, n.º 1837 - Escritório 6.2, 4100-133 Porto. Companies Registry Number: 980649439.

**Monaco:** EFG Bank (Monaco) SAM is a Monegasque Limited Company with a company registration no. 90 S 02647 (Répertoire du Commerce et de l’Industrie de Monaco). EFG Bank (Monaco) SAM is a bank with financial activities authorised and regulated by the “Autorité de Contrôle Prudentiel et de Résolution” (French Prudential Supervision and Resolution Authority) and by the “Commission de Contrôle de Activités Financières” (Monegasque Commission for the Control of Financial Activities). Registered address: EFG Bank (Monaco) SAM, Villa les Aigles, 15, avenue d’Ostende - BP 37 - 98001 Monaco (Principauté de Monaco), telephone: +377 93 15 11 11. The recipient of this document is

perfectly fluent in English and waives the possibility to obtain a French version of this publication.

**People's Republic of China ("PRC"):** EFG Bank AG Shanghai Representative Office is approved by China Banking Regulatory Commission and registered with the Shanghai Administration for Industry and Commerce in accordance with the Regulations of the People's Republic of China for the Administration of Foreign-invested Banks and the related implementing rules. Registration No: 310000500424509. Registered address: Room 65T10, 65 F, Shanghai World Financial Center, No. 100, Century Avenue, Pudong New Area, Shanghai. The business scope of EFG Bank AG Shanghai Representative Office is limited to non-profit making activities only including liaison, market research and consultancy.

**Singapore:** EFG Bank AG, Singapore branch (UEN No. T03FC6371J) is licensed as a wholesale bank by the Monetary Authority of Singapore pursuant to the Banking Act 1970, an Exempt Financial Adviser as defined in the Financial Advisers Act 2001 and an Exempt Capital Markets Services Entity under the Securities and Futures Act 2001. This advertisement has not been reviewed by the Monetary Authority of Singapore. Registered address: EFG Bank AG Singapore Branch, 79 Robinson Road, #18-01, Singapore 068897. This document does not have regard to the specific investment objectives, financial situation or particular needs of any specific person. This document shall not constitute investment advice or a solicitation or recommendation to invest in this investment or any products mentioned herein. EFG Singapore and its respective officers, employees or agents make no representation or warranty or guarantee, express or implied, as to, and shall not be responsible for, the accuracy, reliability or completeness of this document, and it should not be relied upon as such. EFG Singapore expressly disclaims any liability, including (without limitation) liability for incidental or consequential damages, arising from the same or resulting from any action or inaction on the part of the recipient in reliance on this document. You should carefully consider, the merits and the risk inherent in this investment and based on your own judgement or the advice from such independent advisors whom you have chosen to consult, evaluate whether the investment is suitable for you in view of your risk appetite, investment experience, objectives, financial resources and circumstances, and make such other investigation as you consider necessary and without relying in any way on EFG Singapore.

**Switzerland:** EFG Bank AG, Zurich, including its Geneva and Lugano branches, is authorised and regulated by the FINMA. Registered Office: EFG Bank AG, Bleicherweg 8, 8001 Zurich, Switzerland. Registered Swiss Branches: EFG Bank SA, 24 quai du Seujet, 1211 Geneva 2, and EFG Bank SA, Via Magatti 2, 6900 Lugano.

**United Kingdom:** EFG Private Bank Limited is authorised by the Prudential Regulation Authority and regulated by the Financial Conduct Authority and the Prudential Regulation Authority. EFG Private Bank Limited is a member of the London Stock Exchange. Registered company no. 02321802. Registered address: EFG Private Bank Limited, Park House, 116 Park Street, London W1K 6AP, United Kingdom, telephone +44 (0)20 7491 9111.

#### **USA:**

**EFG Asset Management (Americas) Corp ("EFGAM Americas")** is a U.S. Securities and Exchange Commission ("SEC") registered investment adviser providing investment advisory services. Registration with the SEC or any state securities authority does not imply any level of skill or training. EFGAM Americas may only transact business or render personalized investment advice in those states and international jurisdictions where it is registered, has notice filed, or is otherwise excluded or exempted from registration requirements. An investor should consider his or her investment objectives, risks, charges and expenses carefully before investing. For more information on EFGAM Americas, its business practices, background, conflict of interests, fees charged for services and other relevant information, please visit the SEC's public investor information site at: <https://www.investor.gov>. Also, you may visit: <https://adviserinfo.sec.gov/firm/summary/158905>. In both of these sites you may obtain copies of EFGAM Americas's most recent Form ADV Part 1, Part 2 and Form CRS. EFGAM Americas Registered address: 701 Brickell Avenue, Suite 1350 – Miami, FL 33131.

**EFG Capital International Corp. ("EFG Capital")** is a U.S. Securities and Exchange Commission ("SEC") registered broker-dealer and member of the Financial Industry Regulatory Authority ("FINRA") and the Securities Investor Protection Corporation ("SIPC"). Securities products and brokerage services are provided by EFG Capital. None of the SEC, FINRA or SIPC, have endorsed this document or the services and products provided by EFG Capital and its U.S. based affiliates. Registered address: 701 Brickell Avenue, Ninth Floor & Suite 1350 – Miami, FL 33131. EFG Capital and EFGAM Americas are affiliated by common ownership under EFGI and maintain mutually associated personnel. The products and services described herein have not been authorized by any regulator or supervisory authority, and further are not subject to supervision by any regulatory authority outside of the United States. Please note the content herein was produced and created by EFG Bank AG/EFG Asset Management (UK) Limited (as applicable). This material is not to be construed as created or otherwise originated from EFG Capital or EFGAM Americas. Neither EFGAM Americas nor EFG Capital represent themselves as the underlying manager or investment adviser of this Fund/ product or strategy.

EFG Asset Management (North America) Corp. ("EFGAM NA") is a US Securities and Exchange Commission (SEC) Registered Investment Adviser For more information on EFGAM NA Corp, its business, affiliations, fees, disciplinary events, and possible conflicts of interests please visit the SEC Investment Advisor Public Disclosure website (<https://adviserinfo.sec.gov/>) and review its Form ADV.

#### **Information for investors in Australia:**

For Professional, Institutional and Wholesale Investors Only. This document has been prepared and issued by EFG Asset Management (UK) Limited, a private limited company with registered number 7389736 and with its registered office address at Park House, Park Street, London W1K 6AP (telephone number



+44 (0)20 7491 9111). EFG Asset Management (UK) Limited is regulated and authorized by the Financial Conduct Authority No. 536771.

EFG Asset Management (UK) Limited is exempt from the requirement to hold an Australian financial services licence in respect of the financial services it provides to wholesale clients in Australia and is authorised and regulated by the Financial Conduct Authority of the United Kingdom (FCA Registration No. 536771) under the laws of the United Kingdom which differ from Australian laws.

This document is personal and intended solely for the use of the person to whom it is given or sent and may not be reproduced, in whole or in part, to any other person.

ASIC Class Order CO 03/1099

EFG Asset Management (UK) Limited notifies you that it is relying on the Australian Securities & Investments Commission (ASIC) Class Order CO 03/1099 (Class Order) exemption (as extended in operation by ASIC Corporations (Repeal and Transitional Instrument 2016/396) for UK Financial Conduct Authority (FCA) regulated firms which exempts it from the requirement to hold an Australian financial services licence (AFSL) under the Corporations Act 2001 (Cth) (Corporations Act) in respect of the financial services we provide to you.

UK Regulatory Requirements

The financial services that we provide to you are regulated by the FCA under the laws and regulatory requirements of the United Kingdom which are different to Australia. Consequently any offer or other documentation that you receive from us in the course of us providing financial services to you will be prepared in accordance with those laws and regulatory requirements. The UK regulatory requirements refer to legislation, rules enacted pursuant to the legislation and any other relevant policies or documents issued by the FCA.

Your Status as a Wholesale Client

In order that we may provide financial services to you, and for us to comply with the Class Order, you must be a 'wholesale client' within the meaning given by section 761G of the Corporations Act. Accordingly, by accepting any documentation from us prior to the commencement of or in the course of us providing financial services to you, you:

- warrant to us that you are a 'wholesale client';
- agree to provide such information or evidence that we may request from time to time to confirm your status as a wholesale client;
- agree that we may cease providing financial services to you if you are no longer a wholesale client or do not provide us with information or evidence satisfactory to us to confirm your status as a wholesale client;

and agree to notify us in writing within 5 business days if you cease to be a 'wholesale client' for the purposes of the financial services that we provide to you.

© EFG. All rights reserved