



# indepth

March 2017

Research Note

## The Case for Emerging Market Equities

Daniel Murray  
Chief Economist



## The Case for Emerging Market Equities

---

### About the author

#### Dr Daniel Murray

Daniel Murray is Chief Economist at EFG. He was previously employed as a Director of Strategy at Russell Investments, before which he worked as a portfolio manager at Merrill Lynch Investment Managers. He began his career at Smithers & Co. Ltd. He has broad investment experience, having worked as an economist, strategist, asset allocator and portfolio manager with exposure to a wide range of markets, instruments and investment styles. He has been a CFA charter holder since 2003.

Daniel has a BSc Hons Degree in Economics, an MSc in Econometrics and Mathematical Economics and a PhD in Economics. In 2009 he was awarded the CFA UK Wincott Prize.



**Daniel Murray**  
Chief Economist

### Summary

- Emerging market (EM) equities have underperformed developed market equities for the past six years. With the potential for rising US rates and a stronger US dollar there is concern in some quarters that this trend will continue.
  - Our view is more constructive, based on a number of structural and cyclical factors we think outweigh the potential drag from dollar strength.
  - Not only is the US dollar starting from a position in which it is already fundamentally overvalued but the structural prospects for growth are much better in EM than in the world's so-called advanced economies, supported by demographic profiles and productivity trends.
  - It is also notable that many EM economies have a much greater degree of policy flexibility in the event of a cyclical slowdown.
  - Private sector debt levels have been rising relative to GDP in many EM although still remain below the levels seen across the developed world.
  - A perpetual concern for investors in EM is the exposure to political risk and relatively weak adherence to the rule of law. Whilst a gap still exists with the developed world, there has been a steady improvement in this regard in many EMs in recent years.
  - From an investment perspective, valuations in many EM look cheap both relative to their own history as well as relative to developed markets. In particular, the markets of Emerging Europe look cheap on a fundamental basis.
  - EM equity markets have tended to react positively when EM GDP growth accelerates. An expected increase in EM growth in 2017 would therefore be a positive for EM equities.
  - Taken as a whole the evidence suggests to us that, while a stronger US dollar may act as a short term headwind, there are many other factors that support EM equities.
-

## The Case for Emerging Market Equities

### Introduction

Emerging market (EM) equities have underperformed developed market equities for some time. For the six years to end 2016, the MSCI Emerging Markets equity index returned -1.1% while the MSCI World developed market index returned 72.4% (both net dividends reinvested in US dollar terms) – a difference of over 70% (Chart 1). There are concerns in some quarters that EM equity underperformance will continue in 2017 against a background of tighter US monetary policy and the potential for a stronger US dollar.

**Chart 1. Performance of MSCI World and MSCI EM**



This note explores the prospects for EM equities in that context. The conclusion we reach is that, in spite of the more hawkish outlook for US monetary policy, there are good reasons to be optimistic about the asset class. Indeed it is notable that over recent months, EM equities have performed much better, both in absolute terms and also relative to developed markets.

### US dollar correlations

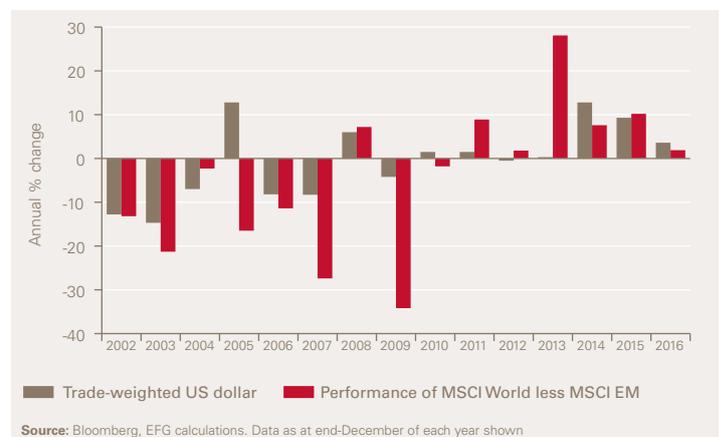
It is often held by financial market commentators and investors that a stronger US dollar is associated with the underperformance of EM assets. There are several theories as to why this might be the case. For example, a stronger dollar makes it more expensive for EM countries to service their dollar denominated debt. Furthermore, a stronger dollar, higher US interest rates and higher returns on US assets often go hand-in-hand, reducing the relative attractiveness of EM assets. Another potential reason is that commodity prices often decline when the US dollar strengthens and many EM economies are reliant on commodity exports as a major source of foreign income.

Given expectations of higher US interest rates over the next few years, there is concern this will be accompanied by a stronger US dollar and the underperformance of EM equities.

There is evidence in support of the argument that EM growth slows when the US dollar strengthens.<sup>1</sup> There is also some empirical support for the idea that EM equities underperform when the US dollar strengthens.

Looking at annual performance, Chart 2 illustrates the point. It shows that in general EM equities have underperformed in years when the trade weighted US dollar<sup>2</sup> has been strong. In 12 out of the 15 years in the sample, the performance of MSCI World relative to MSCI EM was in the same direction as the performance of the US dollar; MSCI World outperformed (underperformed) MSCI EM when the US dollar strengthened (weakened).

**Chart 2. Performance of MSCI EM relative to MSCI World and the US dollar**



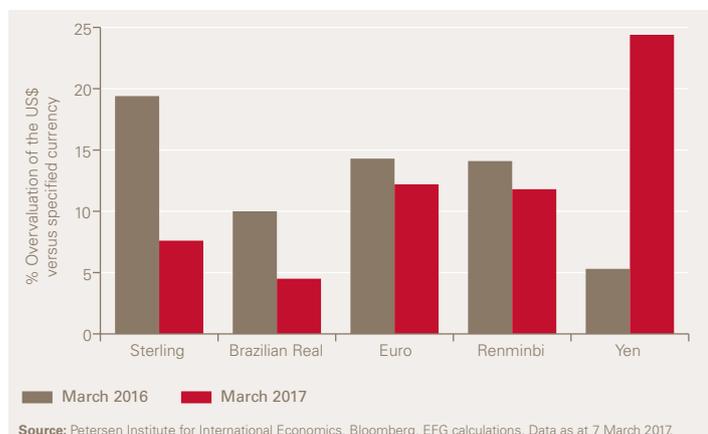
However, the chart also shows that the relationship has varied enormously over time. That reflects the fact that the effect of the US dollar on EM equities depends on why the dollar strengthened. Thus, in 2013 the US dollar strengthened by a negligible 0.3% whilst MSCI World outperformed MSCI EM by 28.1%. In 2014 the US dollar was up by 12.8% - the strongest year in the sample - and MSCI World outperformed MSCI EM by a much more modest 7.6%. The most notable exception was in 2005 when the US dollar rose by just under 12.8% but MSCI World underperformed MSCI EM by 16.5%.

### The US dollar

Given the nature of the relationship between EM equity performance and the US dollar, it is worth saying a few words on prospects for the dollar. It has risen by over 25% on a trade weighted basis over the past three years with much of that strength coming in 2014 and the pace slowing since then. For the year ahead we believe the US dollar will remain supported by robust domestic growth and a more hawkish Federal Reserve but that any gains will be modest, not least because we are starting from a position in which much is already priced in to the currency - Chart 3 overleaf shows that the US dollar is overvalued against all major currencies. This is a long way of saying we do not expect the US dollar by itself to exert much of an influence on EM equities this year.

## The Case for Emerging Market Equities

**Chart 3. US dollar overvaluation**



Overall we believe there is support for the theory that EM equities underperform when the US dollar strengthens but that the relationship varies over time and other factors also need to be taken into consideration. Below we comment on some of these additional factors.

### Trade flows

In addition to concerns about the US dollar, there is also trepidation with regard to the new US administration’s trade policy. President Trump has made it clear he wants to bring jobs back to America and a part of his strategy involves policies that will discourage global trade. Few details have yet been released although it is notable that he has put people with hawkish trade views into senior and influential positions. Countries that export a lot to the US could therefore suffer.

Table 1 shows exports to the US as a percentage of that country’s GDP. China is often cited as a major exporter to the US and it is certainly a sizeable flow; in 2016 China exported goods to the US

worth \$463 billion. Yet exports to the US represent less than 5% of Chinese GDP and this ratio has been in decline in recent years. The two countries that stand out as being by far the most heavily exposed to slowing US imports are Canada and Mexico.

Of course, any change in trade policy will be offset to some extent by a stronger US dollar. On balance we do not anticipate a shift in US trade policy to act as a major short term headwind to EM growth although at the margin it may act as a small drag. The exception is Mexico where the impact is expected to be much greater because of the size of the relationship.

### Trend growth: demographics and productivity

Japan has a poor demographic profile, reflected in a rapidly ageing population and a shrinking labour force. However, most other developed nations also face demographic headwinds in coming years. Such trends are gradual and hard to reverse. In contrast, many EM have relatively attractive demographic profiles.

Table 2 overleaf demonstrates one such feature of the differing demographics. It shows how the population of working age across most EM is expected to grow at a healthy pace over the next few years whilst it is stagnant at best for most of the developed world. Mexico, ASEAN and India are expected to experience particularly fast growth in their working age populations whilst Japan and the eurozone are expected to see their working age populations shrink, as are Russia and China.

Growth in working age population is an important determinant of overall economic growth: the more people working, the greater is output. The other dimension is productivity, as measured by output per head. If the same number of people are working in two countries but the first country is able to produce twice as much output per head, then, trivially, aggregate output will be twice as high in the first country as the second.

It is hard to find international comparisons of productivity across both developed markets and EM and even more so if one wants

**Table 1. Exports to the US as % of own country GDP**

	HK + India + Indonesia + Singapore + S. Korea + Taiwan	Japan	China	Eurozone	UK	Canada	Mexico	Brazil
31 Dec 2011	3.6	2.1	5.3	2.1	2.0	17.7	22.5	1.2
31 Dec 2012	3.6	2.4	5.0	2.3	2.1	17.8	23.4	1.3
31 Dec 2013	3.6	2.7	4.6	2.3	1.9	18.1	22.2	1.1
31 Dec 2014	3.6	2.8	4.5	2.4	1.8	19.4	22.7	1.3
31 Dec 2015	3.7	3.0	4.4	2.9	2.0	19.1	25.9	1.5

Source: Bloomberg, EFG calculations. Data as at 7 March 2017.

## The Case for Emerging Market Equities

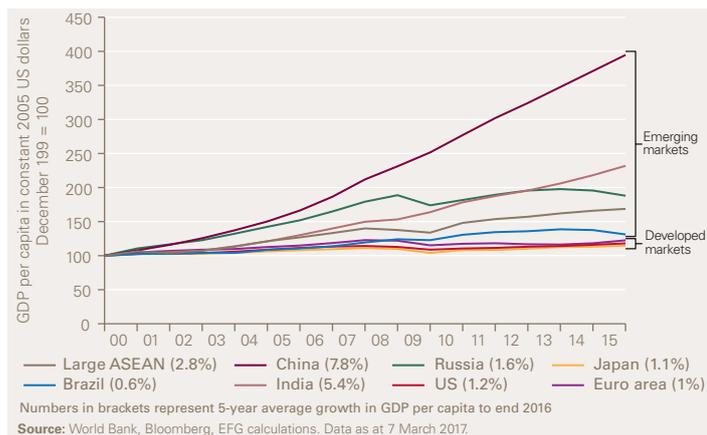
**Table 2. Working Age Population: 2017 – 2025**

Millions of people	Population aged 15-65			Annual growth rate (%)	
	2017	2020	2025	2017-2020	2017-25
Russia	97.6	95.3	92.0	-0.8	-1.2
China	993.6	980.9	970.1	-0.4	-0.5
Brazil	143.8	147.5	151.5	0.9	1.0
Mexico	82.2	85.3	89.4	1.3	1.7
ASEAN	439.3	453.4	472.5	1.1	1.5
India	851.5	888.2	942.5	1.4	2.1
<b>TOTAL</b>	<b>2,608.0</b>	<b>2,650.5</b>	<b>2,718.0</b>	<b>0.5</b>	<b>0.8</b>
Japan	75.0	73.2	71.0	-0.8	-1.1
Eurozone	213.7	213.1	210.6	-0.1	-0.3
United Kingdom	41.7	42.0	42.4	0.2	0.3
United States	214.4	216.5	219.0	0.3	0.4
<b>TOTAL</b>	<b>544.8</b>	<b>544.8</b>	<b>543.0</b>	<b>0.0</b>	<b>-0.1</b>

Source: US Census Bureau, EFG calculations. Data as at 7 March 2017.

to examine the trends over time. As a proxy for productivity we use GDP per capita, for which data is much more widely available. The trends are shown in Chart 4 across a range of developed and emerging economies.

**Chart 4. Global productivity trends**



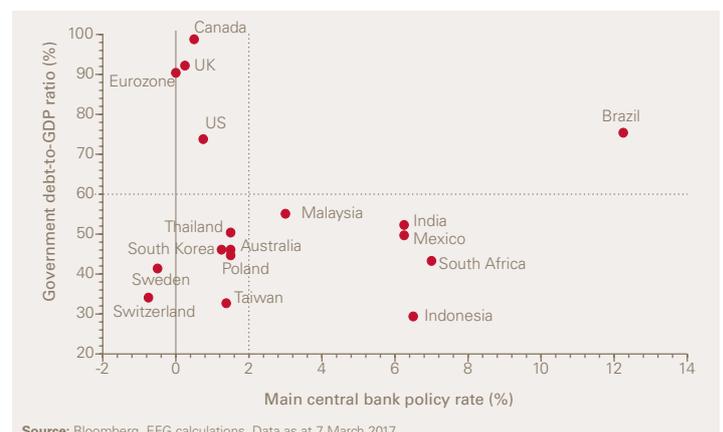
Output per head has grown by around 1% p.a. across the developed world on average over the past five years but by significantly more in most emerging economies. Brazil and Russia have been the laggards within EM, the former having suffered a prolonged period of political uncertainty from which it now seems to be escaping and economic performance of the latter being closely tied to the oil price. It is natural to expect growth in GDP per capita to slow as these economies mature but the recent pace of expansion has been so rapid that, except for Brazil and Russia, it allows for a significant slowdown before growth approaches the rates experienced in the developed world.

The combination of expected future productivity improvements and favourable demographics should therefore continue to support robust economic growth across much of the developing world in the years ahead.

## Policy flexibility

While it is useful to look at the prospects for trend growth, it is also important to understand what tools are available to offset any cyclical slowdown. Chart 5 is a convenient way to visualise the degree of fiscal and monetary flexibility inherent in a country. The main central bank policy rate is shown on the horizontal axis and the ratio of government debt to GDP is shown on the vertical axis.

**Chart 5. Government debt and global policy rates**



## The Case for Emerging Market Equities

A country that has a higher central bank policy rate - further to the right on the horizontal axis - has more flexibility to cut rates in the event of a cyclical downturn. Similarly, a country that has a lower ratio of government debt to GDP - closer to 0% on the vertical axis - has more flexibility to add fiscal stimulus in the event of a cyclical downturn. So it could be argued that countries with a high policy rate and low debt to GDP ratio have the most potential policy flexibility.

The chart area has been subjectively divided into four quadrants. Countries in the top left exhibit high debt to GDP (>60%) alongside an already low policy rate (<2%) so might be considered to have limited policy flexibility. Countries in the top right exhibit high debt to GDP (>60%) alongside a high policy rate (>2%) so might be considered to have limited fiscal policy flexibility but good monetary flexibility. Countries in the bottom left exhibit low debt to GDP (<60%) alongside a low policy rate (<2%) so might be considered to have good fiscal policy flexibility but limited monetary flexibility. Countries in the bottom right exhibit low debt to GDP (<60%) alongside a high policy rate (>2%) so might be considered to have good monetary and fiscal policy flexibility.

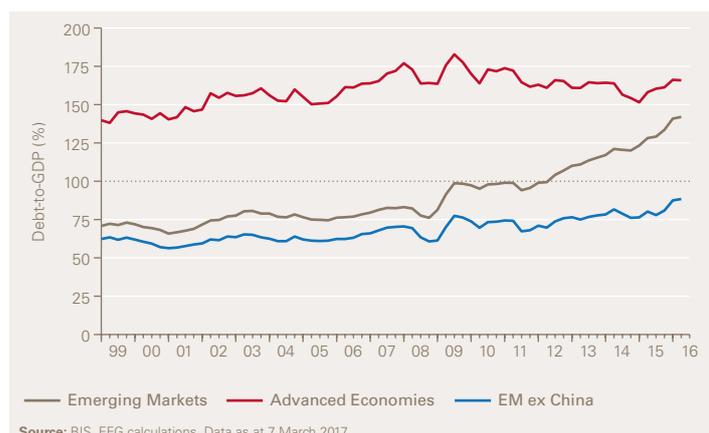
It is discernible how many of the world's developed economies sit in the top left and how many of the world's developing economies sit in the bottom right quadrant. This is a relatively simple way of demonstrating the far greater policy flexibility inherent in many emerging market economies.

### Private sector debt

The discussion above demonstrates the bias within EM for lower government debt-to-GDP ratios than within the developed world. However, as was evident during the financial crisis, when economic conditions are stressed, the government often has to take onto its balance sheet a degree of private sector debt. Moreover, if private sector debt levels are high there is a risk this increases the probability of a financial crisis.

Chart 6 illustrates how the ratio of non-financial private sector debt-to-GDP remains around 20 percentage points lower in EM than for the group of advanced economies, suggesting private

**Chart 6. Non-financial private sector debt-to-GDP**



sector EM debt is not excessive.<sup>3</sup> Moreover, most of the increase in the ratio – and in the amount of debt outstanding - can be attributed to China; excluding China the increase in the EM debt ratio is much more modest. A point worth noting is that the rapid growth in the Chinese ratio over the past few years may represent a separate source of risk.

### Corruption

A feature of EM that has historically acted as a restraint on EM equities has been the perception - often backed up by real events - that the rule of law is less robustly applied than in the developed world. This could manifest itself in numerous different ways in any particular country, which has meant that investors sometimes demand a higher risk premium for investing in EM assets. However, the varied nature of this source of risk makes it difficult to quantify.

As a proxy for this risk we have found it useful to look at some of the indicators supplied by the World Economic Forum in their annual *Global Competitiveness Report*. One of the reported metrics is a corruption index, as shown in Table 3 – a higher number indicates less corruption. This shows how the degree of corruption in EM remains greater than for the developed world but that the gap has been narrowing over the past 20 years – in general EM have become less corrupt. A continuation of this trend would be a support for EM assets.

**Table 3. Corruption indices (Score out of 10, lower = more corrupt)**

Country/Region	1997	2002	2007	2012	2016
<b>Average</b>	<b>7.73</b>	<b>7.68</b>	<b>7.82</b>	<b>7.58</b>	<b>7.65</b>
US	7.61	7.70	7.20	7.30	7.40
Canada	9.10	9.00	8.70	8.40	8.20
UK	8.22	8.70	8.40	7.40	8.10
France	6.66	6.30	7.30	7.10	6.90
Germany	8.23	7.30	7.80	7.90	8.10
Japan	6.57	7.10	7.50	7.40	7.20
<b>Average</b>	<b>3.46</b>	<b>3.15</b>	<b>3.30</b>	<b>3.80</b>	<b>3.90</b>
Indonesia	2.72	1.90	2.30	3.20	3.70
Thailand	3.06	3.20	3.30	3.70	3.50
Malaysia	5.01	4.90	5.10	4.90	4.90
Philippines	3.05	2.60	2.50	3.40	3.50
<b>BRICs</b>	<b>2.87</b>	<b>3.23</b>	<b>3.20</b>	<b>3.85</b>	<b>3.73</b>
Brazil	3.56	4.00	3.50	4.30	4.00
Russia	2.27	2.70	2.30	3.60	2.90
India	2.75	2.70	3.50	3.60	4.00
China	2.88	3.50	3.50	3.90	4.00

Source: WEF. Data as at 7 March 2017.

## The Case for Emerging Market Equities

### Valuations

If the macro backdrop looks good for EM – not just in isolation but also relative to advanced economies – it is reasonable to ask the question as to what extent this is already priced in to markets. Charts 7a and 7b illustrate how valuations vary across different regions but on average EM equities are attractively valued both relative to their own history and relative to developed equity markets. The most expensive region within EM is Latin America, driven by recent strong Brazilian equity market performance.

**Chart 7a. Price-Earnings ratios**



**Chart 7b. Price-to-Book ratios**



### Short-term growth and market outlook

Chart 2 showed how a stronger US dollar has historically been associated with the underperformance of EM equities. It is possible to perform a similar analysis for economic growth. Rather than the simple level of growth, we have found it instructive to examine the relationship between the change in growth and EM equity performance. This is shown in Table 4.

The data show how in 12 out of the 15 years in the sample a rise (fall) in EM growth has been associated with MSCI EM outperforming (underperforming) MSCI World; when the data in the middle column is positive, the data in the right column is generally negative and vice-versa.

**Table 4. Change in growth and EM equity performance**

	Change in EM GDP growth (%)	Performance of MSCI World less MSCI EM (%)
2002	0.7	-13.2
2003	1.9	-21.3
2004	1.5	-2.3
2005	-0.7	-16.5
2006	0.9	-11.4
2007	0.5	-27.4
2008	-2.8	7.2
2009	-2.7	-34.2
2010	4.3	-1.8
2011	-1.1	8.9
2012	-1.1	1.8
2013	-0.2	28.1
2014	-0.4	7.6
2015	-0.3	10.2
2016	0.5	1.9

Source: IMF, Bloomberg, EFG calculations. Data as at 7 March 2017

It is therefore interesting to note that expectations are for an acceleration in EM GDP growth this year. For example, in its most recent update in January to its World Economic Outlook, the IMF forecast GDP growth of 4.5% this year compared to 4.1% last year for the world's Emerging Market and Developing Economies. By region, GDP growth is expected to pick up by 1.6%, 0.1%, 0.2% and 1.9% for the Commonwealth of Independent States, Emerging Asia, Emerging Europe, and Latin America respectively.

### Conclusion

There is a reasonable case to be made that EM equities underperform developed world equities during periods when the US dollar strengthens. In the current environment of a more hawkish Federal Reserve there is thus some reason for caution. However, against this we must take into consideration a number of factors, including the fact that the US dollar already looks overvalued and so the prospects for a further aggressive strengthening look limited.

In addition, there are a number of other good reasons to feel upbeat about the prospects for EM equities such as: relatively fast trend growth supported by good demographics and positive productivity trends; a high degree of policy flexibility; improving legal standards; relatively low levels of private sector debt relative to GDP (particularly ex-China); attractive valuations; rising GDP growth.

Our view is that these positive factors outweigh the potential drag from a marginally stronger dollar. Within EM there are

## The Case for Emerging Market Equities

---

regional differences, notably Latin American equities look relatively expensive whereas emerging European equities look decidedly cheap and have done for some time. A potential catalyst for an improvement in performance of the latter is a climate of *détente* between the US and Russia in line with the preferences of the new US administration. Any firming in commodity prices, particularly oil, would also be a tailwind for emerging European equities.

Sometimes markets efficiently discount the shifting newsflow in a rational way that approximately prices future macro and corporate developments into the current price. On other occasions markets jump about in less rational fashion. If we were to experience a meaningful underperformance of EM equities in a Pavlovian response to fears over a stronger US dollar, we would view that as a buying opportunity.

## Endnotes

- <sup>1</sup> See, for example, <http://voxeu.org/article/strength-dollar-and-emerging-markets-growth>
- <sup>2</sup> As measured by the USDX index, Bloomberg ticker DXY.
- <sup>3</sup> There may be structural reasons for this such as less well developed banking and credit channels.

## Important Information

This document does not constitute and shall not be construed as a prospectus, advertisement, public offering or placement of, nor a recommendation to buy, sell, hold or solicit, any investment, security, other financial instrument or other product or 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. This document is for general information only and is not intended as investment advice or any other specific recommendation as to any particular course of action or inaction. 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 suitable to your particular circumstances prior to making any investment or if you are in doubt as to the information in this document.

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.

The value of investments and the income derived from them can fall as well as rise, and past performance is no indicator of future performance. Investment products may be subject to investment risks involving, but not limited to, possible loss of all or part of the principal invested.

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.

This document has been produced by EFG Asset Management (UK) Limited for use by the EFG group and the 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. 7389746. Registered address: EFG Asset Management (UK) Limited, Leconfield House, Curzon Street, London W1J 5JB, United Kingdom, telephone +44 (0)20 7491 9111.

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 authorized to conduct securities business in and from The Bahamas including dealing in securities, arranging deals 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.

**Bermuda:** EFG Wealth Management (Bermuda) Ltd. is an exempted company incorporated in Bermuda with limited liability. Registered address: Thistle House, 2nd Floor, 4 Burnaby Street, Hamilton HM 11, Bermuda.

**Cayman Islands:** EFG Bank is licensed by the Cayman Islands Monetary Authority for the conduct of banking business pursuant to the Banks and Trust Companies Law of the Cayman Islands. EFG Wealth Management (Cayman) Ltd. is licensed by the Cayman Islands Monetary Authority for the conduct of trust business pursuant to the Banks and Trust Companies Law of the Cayman Islands, and for the conduct of securities investment business pursuant to the Securities Investment Business Law of the Cayman Islands.

**Guernsey:** EFG Private Bank (Channel Islands) Limited is licensed by the Guernsey Financial Services Commission.

**Hong Kong:** EFG Bank AG 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) and Type 9 (asset management) regulated activity in Hong Kong.

**Jersey:** EFG Wealth Solutions (Jersey) Limited is regulated by the Jersey Financial Services Commission in the conduct of investment business under the Financial Services (Jersey) Law 1998.

**Liechtenstein:** EFG Bank von Ernst AG is regulated by the Financial Market Authority Liechtenstein, Landstrasse 109, P.O. Box 279, 9490 Vaduz, Liechtenstein.

**Luxembourg:** EFG Bank (Luxembourg) S.A. is listed on the official list of banks established in Luxembourg in accordance with the Luxembourg law of 5 April 1993 on the financial sector (as amended) (the "Law of 1993"), held by the Luxembourg supervisory authority (Commission de surveillance du secteur financier), as a public limited company under Luxembourg law (société anonyme) authorised to carry on its activities pursuant to Article 2 of the Law of 1993. Luxembourg residents should exclusively contact EFG Bank (Luxembourg) S.A., 56 Grand Rue, Luxembourg 2013 Luxembourg, telephone +352 264541, for any information regarding the services of EFG Bank (Luxembourg) S.A.

**Monaco:** EFG Bank (Monaco) SAM is a Monegasque Public Limited Company with a company registration no. 90 S 02647 (Registre du Commerce et de l'Industrie de la Principauté de Monaco). EFG Bank (Monaco) SAM is a bank with financial activities authorized and regulated by the French Prudential Supervision and Resolution Authority and by the 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..

Cont.

*(cont.)*

**Singapore:** The Singapore branch of EFG Bank AG (UEN No. T03FC6371J) is licensed by the Monetary Authority of Singapore as a wholesale bank to conduct banking business and additionally carries on the regulated activities of dealing in securities, fund management and securities financing.

**Switzerland:** EFG Bank AG, Zurich, including its Geneva branch, is authorized and regulated by the Swiss Financial Market Supervisory Authority (FINMA). Registered address: EFG Bank AG, Bleicherweg 8, 8022 Zurich, Switzerland and EFG Bank SA, 24 quai du Seujet, 1211 Geneva 2, Switzerland.

**Taiwan:** EFG Securities Investment Consulting Co. Ltd, Suite A-1, 14th Floor, Hung Tai Center, No.168 Tun Hwa North Road Taipei, +886 2 8175 0066, SICE License No. BO286.

**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, registered no. 144036. EFG Private Bank Limited is a member of the London Stock Exchange. Registered company no. 2321802. Registered address: EFG Private Bank Limited, Leconfield House, Curzon Street, London W1J 5JB, United Kingdom, telephone +44 (0)20 7491 9111. In relation to EFG Asset Management (UK) Limited please note the status disclosure appearing above.

**United States:** EFG Asset Management (UK) Limited is an affiliate of EFG Capital International Corp. ("EFG Capital"), 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"). None of the SEC, FINRA or SIPC, have endorsed this document or the services and products provided by EFG Capital or its U.S. based affiliates, EFG Asset Management (Americas) Corp. ("EFGAM Americas") and EFG Capital Advisors Inc. ("EFGCA"). Both EFGAM Americas and EFGCA are registered with the SEC as investment advisers. Securities products and brokerage services are provided by EFG Capital, and asset management services are provided by EFGAM Americas and EFGCA. EFG Capital, EFGAM Americas and EFGCA are affiliated by common ownership and may maintain mutually associated personnel. EFGCA is a Commodity Trading Advisor and Commodity Pool Operator registered with the Commodity Futures Trading Commission ("CFTC"), and a member of the National Futures Association ("NFA"). Neither the NFA nor CFTC have endorsed this document nor the services and products provided by EFGCA.