ESG & Multi Asset – a framework

Introduction

Environmental, social and governance (“ESG”) issues have been increasing in both importance and relevance in the asset management industry and are reaching a tipping point, where they are moving from the fringe to the core of both client and investment thinking. However, one of the main issues facing the industry is the definition, quantification and how to approach ESG within an investment framework.

The evolution, development and reasons supporting the rise of ESG is well documented and will not be ground covered in this paper. Instead, this paper will look to establish a framework from which to consider how ESG should fit into investment management and specifically its role in multi-asset and macro investment management.

Delineating between integrating ESG and Sustainable and Impact investing

ESG considerations are incredibly broad (see Figure 1) and many will have significant impact on the valuation of an underlying financial asset – the value of a company, the credit of a company, the perception of risk of a country. Fund managers should always consider all aspects that could impact a position they hold and so all funds should to some greater or lesser extent review ESG considerations, given that they will impact the asset price of an investment.

Today, some funds delineate these ESG considerations into a more systematic review process, so that they can be explained to clients and used to illustrate the level of “ESG-ness” in the fund. However, there needs to be a very clear distinction made between funds integrating ESG into an investment process and those funds embedding ESG into the outcome or investment objectives of a fund because they are very different.

Figure 1
UN Sustainable Development Goals

Source: United Nations as at 31 January 2020. For illustrative purposes only.
**Funds that integrate ESG into their processes**

All existing funds are having to demonstrate their ESG credentials. However, it must be remembered that integrating ESG consideration into an investment process does not alter the financial objectives of the fund. This is not to say that some funds don’t lean into this theme but the majority of investment funds today continue to have a sole financial motivation. And although they may illustrate their ESG credentials, commitments and processes, these funds will only, at their heart, consider ESG as part of their ongoing investment analysis to maximise returns because they are not mandated to target or quantify socially responsible investing (“SRI”) outcomes.

Investment managers should always consider how the value of an investment might change. The themes that impact markets alter and develop over time and all managers must evolve, adapt and add new considerations to their armoury of analysis – and ESG considerations are no different.

It is often frustrating to be asked, “Do you consider ESG?” Because the assumption that you wouldn’t consider elements that can fundamentally alter the value of an investment would be negligent. This is especially true given that ESG considerations can have a significant impact on the financial outlook and value of a corporate or sovereign and hence are becoming increasingly relevant and deserving of deliberation.

There will always be different views on the level of relevance of certain issues, like the role of central banks or the impact of politics, and ESG is no different. Some fund managers will argue that these are key elements and deserve to be front and centre and for others they are just part of a mosaic of many parts that constitute the value of an investment.

Interestingly, in the far left column of Figure 2, there is no right or wrong way to prioritise ESG in the investment decision making, as long as it is considered. Corporate factors, such as like ensuring best practices in voting and engagement are a necessity and though over the short time will be differentiating factors, over time it will simply be expected to be a core competence by clients.

---

**Figure 2**  
**ESG – the spectrum of needs**

<table>
<thead>
<tr>
<th><strong>Financial motive</strong></th>
<th><strong>Process</strong></th>
<th><strong>Product with sustainability target embedded</strong></th>
<th><strong>Sustainable and Impact funds</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>“Broad” ESG Integration</strong></td>
<td><strong>Exclusionary solutions</strong></td>
<td><strong>SRI outcomes</strong> included as part of the investment objectives so the fund is legally bound to apply an SRI strategy</td>
<td>Clients are increasingly demanding that ESG form more than just part of the consideration of a fund but be part of the outcome and objectives. An investor who wants to add these additional requirements to the financial motive can find themselves at odds with a fund that only integrates ESG, given the motive of the fund remains financial and it would be unfair to demand a fund deliver on a target that is not specified. Hence, clients should look for funds that embed ESG considerations into their targets, outcomes and prospectuses. We expect these funds will have dual motives of financial growth and sustainability and the spectrum will be varied.</td>
</tr>
<tr>
<td>- Broad and systematic ESG integration taking place at strategy level and across the process, with regards to ESG data and research, proprietary knowledge and understanding of ESG factors, investment and financial analysis for security selection and portfolio construction, risk</td>
<td>- Specific exclusions or ESG factors have been integrated into the investment objectives and policy to address specific constraints from ESG aware client groups</td>
<td>- The fund must fully describe its ESG criteria and strategy</td>
<td></td>
</tr>
<tr>
<td>- Best practices in voting and engagement are integrated across the investment platform and process</td>
<td>- May be combined with a broad integration approach</td>
<td>- The fund must screen the entire portfolio according to one or more of the RI strategies and standards such as:</td>
<td></td>
</tr>
<tr>
<td>- Ability to report on ESG integration</td>
<td>- ESG considerations are embedded in the process for portfolio construction but the overall objective of the fund does not have a responsible investment “outcome”</td>
<td>- <strong>Best in class/positive screening:</strong> leading or best-performing within a universe or category are selected or weighted</td>
<td></td>
</tr>
<tr>
<td>- However these factors alone do not constitute an explicit responsible investment approach</td>
<td></td>
<td>- <strong>Multiple exclusion strategies:</strong> excludes multiple investments or classes of investment</td>
<td></td>
</tr>
</tbody>
</table>

**Source:** Invesco as at 31 December 2019. For illustrative purposes only. Investment processes may vary.
There have been – and will be further – accusations across the industry of products “greenwashing”. However, a significant proportion of these claims stem from a misalignment of the client need and the mandate of an existing fund. Most existing and traditional products are responding to the growth and demands of ESG by illustrating that ESG factors are considered. However, illustrating or trumpeting that ESG factors, along with all other factors, are considered does not equate to ESG being at the core of the philosophy or mandate of a fund.

If clients want ESG considerations to have a greater determining factor in the investment decisions, then finding a Sustainable or Impact fund whose mandate explicitly aligns with their ESG mandate will be necessary. The asset management industry has to respond to the regulatory and client demands to illustrate ESG integration and is clearly doing so. However, until the delineation between funds that integrate ESG and funds that embed ESG in their objectives, outcomes and quantify those is made, accusations of green washing are likely to continue.

ESG considerations within a multi asset portfolio

ESG is normally focussed on and well understood within listed equities, fixed income, passive investments, private equity, infrastructure, real estate, forestry and thematic investing. Interestingly, ESG in the context of multi-asset or macro investing is less well-covered and discussed. This is so much so that the Principals of Responsible Investment (PRI) do not have a section in their ‘Investor tools’ for multi-asset or macro investing, though they do have sections for all the asset types listed above.

This lack of industry wide appreciation of ESG within a multi asset/ macro framework does not restrict the existence or importance of ESG considerations, as illustrated in Figure 3 overleaf.

ESG and the Invesco Global Targeted Returns strategy

The Global Targeted Returns strategy has two targets – risk and return. These are financial targets, and as such, the strategy does not have a sustainability target that we are mandated to deliver against. However, ESG considerations are a key element of our investment analysis because some have been crucial for a long time and other considerations are growing in importance and relevance for asset prices.

Within the Multi Asset team we have always analysed factors that sit within the broad church of ESG, and over recent years we have formalised that analysis so that it is defined and illustratable to clients. Though ESG, from a philosophical standpoint, does not form the sole basis of an investment decision, their consideration is a component of our investment analysis and their relevance and importance differ from idea to idea.

---

1 “Greenwashing” describes the marketing spin used to make consumers believe a company’s product is more environmentally sound than it really is.

2 Target volatility: Less than half global equity volatility over a rolling, three-year period. Target return: a gross return of 3-month EURIBOR or equivalent reference rate plus 5% on a rolling, three-year annualised basis. There is no guarantee this volatility or performance target will be achieved. Please read the investment risks for the strategy at the end of the document.
# ESG considerations within a multi-asset portfolio

<table>
<thead>
<tr>
<th>Macro governance factors</th>
<th>Impact on economies</th>
<th>Examples</th>
</tr>
</thead>
</table>
| **Political rights**     | - Major political changes such as a shift from one party to another or major events  
- Instability related to future public concerns and power struggles (or the dominance of political rule) | - Brexit or manifestation of China/Japan party dominance  
- Putin in Russia and Erdogan in Turkey, Xi Jinping in China |
| **Trading practices**    | - Socially irresponsible governance of trade tariffs regulations and rules  
- Lack of support for global links and private property rights | - Trump closing borders  
- Privatisation of private foreign companies |

<table>
<thead>
<tr>
<th>Macro social factors</th>
<th>Impact on economies</th>
<th>Examples</th>
</tr>
</thead>
</table>
| **Human rights governance** | - Lack of freedom of religion leading to clashes and human rights controversies  
- Lack of tolerance of diversity can lead to closed borders for immigration | - Myanmar social cleansing; Arab spring  
- Rise of far right governments in US/Europe |
| **Demographic shifts** | - Ageing populations leads to greater dependency on the healthcare system and a smaller working population leads to greater burden of taxation  
- Millennials driving changing trends in consumption and flow of goods and services as well as need for mobile service provisions | - US/EU/Japan healthcare spend under review and criticism of quality of service  
- Technology savy consumers leads to rise of the "fourth revolution" |
| **Inequality**        | - Regulatory scrutiny can lead to minimum wage rises and tax implications to close the gap  
- Gaps can lead to social unrest and strikes | - US and UK minimum wage increasing  
- Public strikes in France/Greece |
| **Urbanisation**      | - Infrastructure investment needed for urban centres due to movement from farming to cities due to search for jobs and greater provision of basic services (water; shelter; medical care)  
- Changes towards more service based economies | - Emerging market trend |

<table>
<thead>
<tr>
<th>Macro environmental factors</th>
<th>Impact on economies</th>
<th>Examples</th>
</tr>
</thead>
</table>
| **Climate change**          | - Regulatory developments; infrastructure spending  
- Changing energy mix towards lower carbon intensity sources | - Renewable energy increasing investment globally/reduction of coal  
- Carbon regulation impact |
| **Land use and biodiversity** | - Natural resources development and competing land uses | - Mining vs farming and impact on commodity prices |
| **Water management**        | - Flood risk management and infrastructure investment for water access | - E.g. Thai floods 2011 during monsoon season hit global tech/auto supply chains |
| **Air pollution**           | - Air pollution in the form of SOx, NOx and particulate matter - health impacts; regulatory impacts; technology developments | - China emissions regulations and enforcement suggested impact on GDP |
| **Natural disasters**       | - Typhoons, hurricanes, volcanic eruption halts global interactions and can impact commodity prices | - Hurricane impact on oil and gas production in Houston/Miami 2017 |

Source: Invesco as at 31 December 2019. For illustrative purposes only.
ESG integration in the Invesco Global Targeted Returns investment process

The Invesco Global Targeted Returns strategy has a very defined and repeatable three-step risk-based portfolio management process, and ESG considerations play a role within each step.

Within the first step of our investment process we analyse the risk and return of our macro-themed ideas. Within that analysis, we consider many factors that are ESG in nature. These can include major political or regime change, environmental concerns, trade negotiations, demographics and inequality to name a few.

Figure 4 illustrates some of the ESG themes that are relevant for a multi-asset or macro portfolio and adds recent real-life ESG considerations that have been a key factor in our analysis and decision-making for individual ideas in the strategy.

The impact these factors have on an idea could be substantial or less so. But as with all investments, we review how these themes might influence the prices of the instruments we use to implement an idea.

In Step 1, we also set out our Central Economic Thesis that we use to test each idea against. The objective is that each idea will make money if that outlook proves accurate. When we debate our 2-3 year Central Economic Thesis, we review many themes that impact our outlook, including ESG considerations. Recently, this has included discussing how the introduction of taxonomy could influence capital markets in Europe and beyond and how the changing corporate culture in Japan could impact equity prices. We have also been focussed on the trade developments between China and the US.

In the second step of our investment process, scenario testing is at the core of our risk analysis. We use scenarios to review the impact on the portfolio of adding, removing and changing ideas. Several scenarios that we test the fund against are ESG risk factors, and these include natural disasters, social unrest and a reversal of wealth inequalities.

---

**Figure 4**

**ESG – the approach of the Multi Asset team**

ESG considerations are integrated into our research process. Specifically, in our idea by idea analysis and also in the formulation of our central economic thesis.

<table>
<thead>
<tr>
<th>Environmental elements</th>
<th>Themes</th>
<th>Considerations within ideas</th>
</tr>
</thead>
</table>
| Climate change         | Regulatory developments, infrastructure spending for a changing energy mix | - Green bonds & fiscal spending in Europe  
- The capital allocation within & to the oil sector |
| Natural disasters      | Volcanos, earthquake, Tsunami risks | - Numerous disasters are scenario tested |

<table>
<thead>
<tr>
<th>Social elements</th>
<th>Themes</th>
<th>Considerations within ideas</th>
</tr>
</thead>
</table>
| Human rights           | Regional conflict, religious persecution | - Dispute in the Middle East  
- Impact of Mexican border issues |
| Demographics           | Reform of pension, taxation & healthcare system, changes to consumption patterns | - Savings & consumption patterns in Japan |
| Inequality             | Change in political landscape, social unrest & strikes (e.g. Chile, Brazil truckers) | - Gillet Jaunes  
- Impact of Warren & Sanders in the US |

<table>
<thead>
<tr>
<th>Governance elements</th>
<th>Themes</th>
<th>Considerations within ideas</th>
</tr>
</thead>
</table>
| Political rights       | Major political changes | - Political reforms in Russia  
- Constitutional reform in Chile |
| Trading practices      | Trade tariffs, regulatory changes | - US-China trade negotiations |
| Corporate governance   | Stakeholder vs shareholder models, corporate pay | - The role of balance sheet optimisation  
- Corporate reforms in Japan |

Source: Invesco as at 31 December 2019.
Example 1
**Russian Ruble vs Chilean Peso**
The initial analysis reviewed the country risk of both Russia and Chile, which included reviewing the political and human rights in both countries. During the time we held the position, there has been significant civil unrest in Chile. This required us to review the causations, the policy response of the central bank, government and the president, and we monitored how these were received by the Chilean population and the global financial markets.

The unrest combined with the twin deficit led the Chilean peso to fall more than 10%. During our holding period, there was also a seismic change in the political landscape in Russia. The political reforms recommended by Putin needed to be reviewed for their inherent implications for civil rights, and what this might do to impact the country risk associated with Russia.

These considerations were made because the financial implications of what are social and governance factors both in Chile and Russia were significant contributors to the value of the relevant underlying currencies that we hold in the idea. This illustrates that although we have no explicit ESG mandate, there are always ESG considerations that can impact financial asset prices.

Example 2
**Japanese and Chinese Equities**
One of the core reasons for our Japanese equities idea is the trend of corporate reform that we believe has and will continue to lead to higher return on equities over time.

Within this idea, we have also reviewed the role that demographics have had in the Japanese economy and how this has impacted long-term savings and consumption patterns. These factors are extremely relevant in China, where we recently added equity exposure. Though this idea was supported by low valuations and the shadow of the US trade negotiations lifting, there is also an inherent realisation that part of this idea requires a structural shift of the Chinese economy from an export to a domestic consumer-led one.

This move will be well supported if Chinese consumers follow the lead of developed market consumers and spend more than they earn. China remains the only developed economy where consumer spending is below consumer incomes – and by a very significant amount – as can be seen in Figure 5 below.

Again, this social consideration is a key element of the investment case, but it doesn't form the objective of the investment. It is an important differentiation to make that this social theme is part of the investment rationale, and yet doesn't have primacy.

**Figure 5**
*China consumer spending and labour payments, % GDP*

<table>
<thead>
<tr>
<th>(% Share of nominal GDP)</th>
<th>Consumer spending</th>
<th>Labour income</th>
</tr>
</thead>
<tbody>
<tr>
<td>80</td>
<td></td>
<td></td>
</tr>
<tr>
<td>70</td>
<td></td>
<td></td>
</tr>
<tr>
<td>60</td>
<td></td>
<td></td>
</tr>
<tr>
<td>50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>40</td>
<td></td>
<td></td>
</tr>
<tr>
<td>30</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: NBS, NBER; Minack Advisors as at 31 January 2020.

Diverse requirements and customisation
Today, a large part of the ‘Sustainable and Impact Investing’ product range available from the industry is thematic in nature and have climate and carbon targets. However, as can be seen from the UN’s seventeen sustainable development goals, there are a plethora of variables that could become relevant for clients that sit under the definition of ESG.

It appears to be a reasonable assumption that over the next decade, client requirements of an investment product will move from purely financial motivations to a broad spectrum of motives that could include some of the sustainability themes highlighted earlier in Figure 1.

Over the coming years, it may be increasingly relevant for asset managers to offer customisation, so that clients can pick and choose which criteria they would like to combine with their financial motive. Clearly, defining these criteria into an investment framework and finding quantifiable ways to measure the improvements will continually develop. Invesco is committed to this journey and to providing clients with a wide array of investment products that encompass their needs.
ESG and the Invesco Global Targeted Returns strategy

As outlined above, the Invesco Global Targeted Returns strategy integrates ESG considerations into its investment and risk processes, and we feel we have been towards the forefront of ESG consideration in the multi-asset and macro investment community. However, we appreciate that this strategy cannot be classed as ‘Sustainable’ or ‘Impact’, given that environmental or social targets have not been embedded into the strategy’s objective.

However, this has not prevented us from having two variants of the strategy with ESG exclusions integrated into their investment objectives. One of these variants prohibits the ownership of agricultural commodities and debt below a B rating, while the other prohibits the ownership of tobacco-related businesses. Both fit into the ‘exclusionary’ ESG solution profile shown in Figure 1.

The industry today tends to perceive exclusionary funds as ‘Sustainability’ funds. However, we believe that in time, screened investment funds that don’t actively engage, actively consider and actively quantify environmental or social outcomes will not being considered Sustainable and Impact investing because they do not pass the acid test of ‘doing good’ rather than simply ‘doing no harm’.

What does the future hold in terms of future product offerings for the Global Targeted Returns strategy?

We currently have our core strategy with its two targets of risk and return. This strategy will continue to fully embed ESG considerations into its investment process, complemented by the two strategy variants with exclusionary requirements. Moving forward, we are reviewing the ability and viability of a sustainable version of the strategy with specific ESG criteria added to the two existing targets of the strategy.

Unfortunately, client customisation for a complex multi-asset strategy like ours is very difficult. This is because the fixed initial running costs of a separate strategy are high, making individual client customisation very cost inefficient.

Conclusion

We believe that ESG is not a fad that will fade away as some commentators and investors believe. There is an increasing need and demand for investment aims to diversify away from being purely financial.

Though the range of ESG objectives and needs are diverse, and many still nascent, the coming years will see the development and intertwining of these requirements in the asset management industry and the products it offers.

Today, it is crucial both for the asset management industry and our clients to be able to delineate between funds that integrate ESG into their processes and those that embed environmental and social factors into their objectives and outcomes. All funds should consider ESG themes because they can and do have impact on the financial value of assets. It is perfectly reasonable for clients to review how committed an existing manager is to integrating ESG analysis into their processes.

However, integrating ESG doesn’t mean it becomes part of the objectives or target of a fund, and adding ESG labels to funds that don’t embed sustainable objectives is likely to be considered greenwashing. If clients want ESG considerations to be at the core of their portfolio, they will need to find investment funds with outcomes and targets that are explicitly measurable and aligned with their requirements.

The Multi Asset team currently offer the Global Targeted Returns strategy and the two exclusionary strategy variants to clients, but we will consider a ‘sustainable’ version of the strategy over time. As a team, we are committed and firm believers of the role and importance that ESG has within our investment analysis and the role ESG has in terms of shaping and changing society.

At Invesco one of our core principles is to deliver an investment experience that helps people get more out of life. So, whether that’s industry advocacy, adherence to principles and practices, or by leading the charge in engagement, client needs sit at the heart of our Environmental, Social and Governance (ESG) approach. We will work together to provide a broad selection of progressive investment solutions, designed to meet specific ESG needs in the future.
ESG & Multi-Asset — a framework

Contact information

**Amsterdam**
+31 20 561 62 61
www.invesco.nl

**Brussels**
+32 2 64 10 17 0
www.invesco.be

**Dubai**
+9714 425 0950
www.invesco.ae

**Frankfurt**
+49 69 298 078 40
www.de.invesco.com

**Jersey**
+44 1534 607 600
www.invesco.je

**Madrid**
+34 91 78 13 02 0
www.invesco.es

**Milan, Malta and Cyprus**
+39 02 8807 41
www.invesco.it

**Paris**
+33 1 56 62 43 77
www.invesco.fr

**Stockholm**
+46 84 63 11 09
www.invesco.eu

**Vienna**
+43 1 316 20 0
www.invesco.at

**Isle of Man and UK**
+44 1491 417 600
https://www.invesco.co.uk/uk

**Zurich**
+41 44 287 90 00
www.invesco.ch

**Hong Kong**
+852 3128 6000
www.invesco.com.hk

**Atlanta**
+1 800 241 5477
www.invesco.com/us

**Toronto**
+1 800 874 6275
www.invesco.ca

### 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. Changes in interest rates will result in fluctuations in value.

The strategy uses derivatives (complex instruments) for investment purposes, which may result in a portfolio being significantly leveraged and may result in large fluctuations in value. The strategy may hold debt instruments which are of lower credit quality which may result in large fluctuations in value.

Derivatives may be more volatile and less liquid than traditional investments and are subject to market, interest rate, credit, leverage, counterparty and management risks. An investment in a derivative could lose more than the cash amount invested.

A decision as to whether, when and how to use options involves the exercise of skill and judgment, and even a well-conceived option transaction may be unsuccessful because of market behaviour or unexpected events. The prices of options can be highly volatile and the use of options can lower total returns.

The risks of investing in securities of foreign issuers, including emerging market issuers, can include fluctuations in foreign currencies, political and economic instability, and foreign taxation issues.

Underlying investments may appreciate or decrease significantly in value over short periods of time and cause share values to experience significant volatility over short periods of time.

Leverage created from borrowing or certain types of transactions or instruments may impair liquidity, cause positions to be liquidated at an unfavourable time, lose more than the amount invested, or increase volatility.

Short sales may cause an investor to repurchase a security at a higher price, causing a loss. As there is no limit on how much the price of the security can increase, exposure to potential loss is unlimited.

Commodities, currencies and futures generally are volatile and are not suitable for all investors.

### Important information

By accepting this document, you consent to communicate with us in English, unless you inform us otherwise. This document is for Professional Clients and Financial Advisers in Continental Europe (as defined below); Qualified Investors in Switzerland and Professional Clients in Dubai, Jersey, Guernsey, Isle of Man, Malta, Cyprus and the UK; Professional Investors in Hong Kong; Institutional Investors in Australia and the United States; Institutional and/or Accredited Investors in Singapore; Qualified Institutional Investors in Taiwan; in Canada, this document is restricted to Accredited Investors as defined under National Instrument 45-106. It is not intended for and should not be distributed to, or relied upon by, the public or retail investors. This document is not for consumer use; please do not redistribute this document.

Data as at 31 January 2020, unless otherwise stated.

Past performance is not a guide to future returns. Where individuals or the business have expressed opinions, they are based on current market conditions, they may differ from those of other investment professionals, they are subject to change without notice and are not to be construed as investment advice. This material may contain statements that are not purely historical in nature but are “forward-looking statements.” These include, among other things, projections, forecasts, estimates of income. These forward-looking statements are based upon certain assumptions, some of which are described herein. Actual events are difficult to predict and may substantially differ from those assumed. All forward-looking statements included herein are based on information available on the date hereof and Invesco assumes no duty to update any forward-looking statement. Accordingly, there can be no assurance that projections can be realized, that forward-looking statements will materialize or that actual returns or results will not be materially lower than those presented.

This document is marketing material and is not intended as a recommendation to invest in any particular asset class, security, strategy or product. Investors should consult a financial professional before making any investment decisions.

As with all investments, there are associated risks. Please obtain and review all relevant materials carefully before investing. This document is by way of information only. Asset management services are provided by Invesco in accordance with appropriate local legislation and regulations where applicable.
Important information (cont.)

For the distribution of this document, Continental Europe is defined as Austria, Belgium, Finland, France, Germany, Greece, Ireland, Italy, Liechtenstein, Luxembourg, Netherlands, Norway, Spain, Sweden and Switzerland.

Canada
For more information on the Invesco Global Targeted Returns Pool available to Canadian investors, or to obtain a confidential copy of the offering memorandum, please contact your Invesco Canada representative or your financial advisor.
- Issued in Canada by Invesco Canada Ltd., 5140 Yonge Street, Suite 800, Toronto, Ontario, M2N 6X7.

Hong Kong
This document is provided to professional investors (as defined in the Securities and Futures Ordinance and the Securities and Futures (Professional Investor) Rules) only. It is not intended for and should not be distributed to, or relied upon, by members of public or retail investors.
- Issued in Hong Kong by Invesco Hong Kong Limited

Singapore
This document is provided to Institutional and/or Accredited Investors only in Singapore. This document may not be circulated or distributed, whether directly or indirectly, to persons in Singapore other than (i) to an institutional investor under Section 304 of the SFA, (ii) to a relevant person pursuant to Section 305(1), or any person pursuant to Section 305(2), and in accordance with the conditions specified in Section 305 of the SFA, or (iii) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA.
- This document is issued in Singapore by Invesco Asset Management Singapore Ltd, #18-01 Republic Plaza, Singapore 048619.

Taiwan
This document is provided by Invesco Taiwan Limited ("Invesco Taiwan"), Address: 22F, No.1, Songzhi Road, Taipei 11047, Taiwan, R. O. C.; Telephone No.: 0800-045-066. It contains confidential and proprietary information and is intended only for private placement investors of offshore funds in Taiwan who are qualified under Article 52 of the Regulations Governing Offshore Funds or for professional investment institutions of non-securitized offshore funds in Taiwan who are qualified under the article 4 of Financial Consumer Protection Act (collectively the "Qualified Investors"). It is delivered only to the Qualified Investors for institutional mandate purposes only and may not be used by, copied, reproduced, relied upon or distributed in whole or in part, to any other person in Taiwan without prior written permission from Invesco Taiwan.

Invesco Taiwan Limited is operated and managed independently.

Australia
This document has been prepared only for those persons to whom Invesco has provided it. It should not be relied upon by anyone else. Information contained in this document may not have been prepared or tailored for an Australian audience and does not constitute an offer of a financial product in Australia. You may only reproduce, circulate and use this document (or any part of it) with the consent of Invesco.

The information in this document has been prepared without taking into account any investor’s investment objectives, financial situation or particular needs. Before acting on the information the investor should consider its appropriateness having regard to their investment objectives, financial situation and needs.

You should note that this information:
- may contain references to dollar amounts which are not Australian dollars;
- may contain financial information which is not prepared in accordance with Australian law or practices;
- may not address risks associated with investment in foreign currency denominated investments; and
- does not address Australian tax issues.

- Issued in Australia by Invesco Australia Limited (ABN 48 001 693 232), Level 26, 333 Collins Street, Melbourne, Victoria, 3000, Australia which holds an Australian Financial Services Licence number 239916.
- Issued in Belgium, Cyprus, Malta, Finland, Greece, Luxembourg, Norway, France, Italy, Netherlands, Spain and Sweden by Invesco Asset Management S.A., 18, rue de Londres, 75009 Paris. Authorised and regulated by the Autorité des marchés financiers in France.
- Issued in Dubai by Invesco Asset Management Limited, Po Box 506599, DIFC Precinct Building No 4, Level 3, Office 305, Dubai, United Arab Emirates. Regulated by the Dubai Financial Services Authority.
- Issued in Austria and Germany by Invesco Asset Management Deutschland GmbH, An der Welle 5, 60322 Frankfurt am Mai, Germany.
- Issued in Ireland, Isle of Man, Jersey, Guernsey and the UK by Invesco Asset Management Limited, Perpetual Park, Perpetual Park Drive, Henley-on-Thames, Oxfordshire RG9 1HH, UK. Authorised and regulated by the Financial Conduct Authority.
- Issued in Switzerland and Liechtenstein by Invesco Asset Management (Schweiz) AG, Talacker 34, 8001 Zurich, Switzerland.

GL118/64992/PDF/060520