T.RowePrice®
INVEST WITH CONFIDENCE

**PRICE PERSPECTIVE**
April 2016

In-depth analysis and insights to inform your decision making.



**Joran Laird**
*Fixed Income Portfolio Specialist*



**Arif Hussain**
*Head of International Fixed Income*

# SEEKING TRADITIONAL FIXED INCOME QUALITIES IN A NON-TRADITIONAL WAY

**EXECUTIVE SUMMARY**

- The traditional benchmark-based approach to fixed income investing – exemplified by the Barclays Global Aggregate Index – has been very successful in delivering the three main qualities investors seek from bonds: income, downside risk management and diversification from equities.
- However, in recent years coupons and yields have fallen to very low levels and the correlation between equities and bonds has risen, meaning that benchmark-based bond investing is very unlikely to deliver the same qualities in the future.
- This does not mean we have to give up seeking these qualities from our fixed income portfolios. However, achieving them will require an unconstrained approach to bond investing, incorporating the full spectrum of the fixed income universe, including government bonds and credit, and countries that are less correlated to major markets.
- One way to accomplish this is to divide the fixed income allocation into three core components: return seeking positions, core stable positions and defensive positions. A portfolio managed in this way can provide stable predictable income, downside risk management and diversification from equity markets.

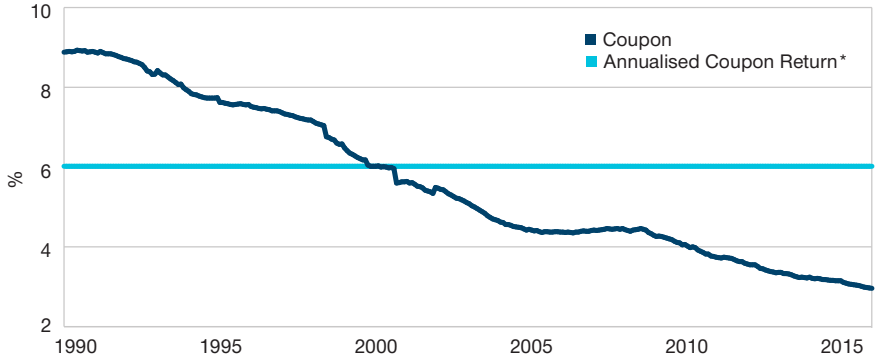
The traditional benchmark-based approach to fixed income has been popular for a reason: it has worked. But the upheavals that have taken place in the global economy over the past few years, and their subsequent impact on bond markets, have raised serious doubts about whether the traditional approach will continue to work as well in future. Is it time to try something else?

Let's first focus on what we mean by the 'traditional' approach to fixed income. Investors have typically looked for their bond allocation to achieve three things: income, downside risk management and diversification from equities. Income is provided by the coupon on the bond, and is the most certain source of return as it is a contractual obligation. Protection against the downside cannot be guaranteed because there will always be risk, but any losses should be infrequent and limited in size – nasty surprises should hopefully be avoided. Diversification from equities is vital as arguably the main reason investors buy bonds is to derive positive returns when equity markets suffer losses.

In the past, an investor looking for these three qualities from their fixed income portfolio would probably

**For wholesale clients only. Not for further distribution.**

**FIGURE 1:** Barclays Aggregate coupon rate and annualised return, 1990-2015




**Past performance is not a reliable indicator of future performance.**
* Annualised coupon return assuming reinvestment.
Source: Barclays Capital. Data from Jan-1990 to Dec-2015. Returns hedged to U.S. dollars.

have found themselves a large, broad global index and hired a manager to manage against that. The Barclays Global Aggregate Index[1] ("Barclays Agg") is one of the most widely used indices and has a very rich history, having been established more than 26 years ago. It comprises around 54% global government bonds and 18% corporate bonds, with the remainder split by government-related and securitized products. Geographically, it has 41% exposure to the US, 32% exposure to Europe and 20% exposure to Asia Pacific.[2]

## THE BARCLAYS AGG SUCCESS STORY

How successfully has the Barclays Agg delivered the traditional qualities sought by investors since the financial crisis of 2008? As **Figure 1** shows, income from coupons has declined steadily over the past 26 years, from around 9% to just under 3%, as yields have fallen. However, the annualised return from coupons over that period was 6.02%, with volatility of just 52 basis points – an excellent return for very little volatility. So in terms of providing income, the Barclays Agg has done a very good job.

When considering downside management, we look at the changes in price, which derives from changes in yield combined with the amount of duration (price sensitivity to changes in interest rates) in the portfolio. **Figure 2** shows that the annual price return from the Barclays Agg has been highly volatile, frequently dipping into negative territory, and sometimes severely so. Annualised over 26 years, the price of the index has delivered a very modest return of 0.8% but with a volatility of 3% – the opposite of the coupon element. What this tells us is that over the long term the coupon has often done much of the heavy lifting in bond portfolios – and therefore should not be dismissed.

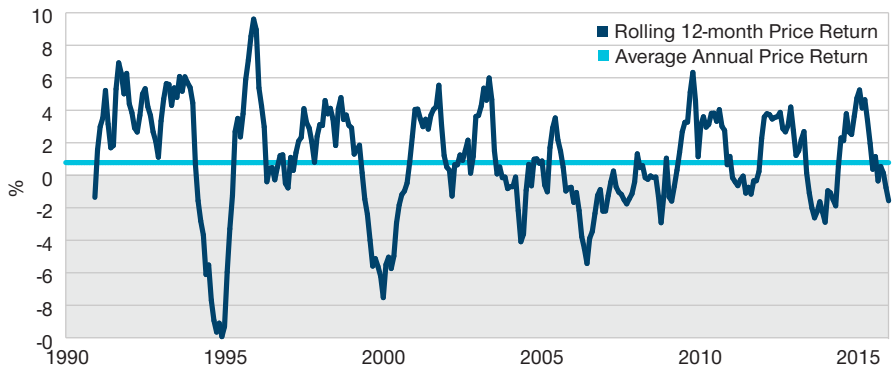
When coupon and price returns are added together, the result is an annualised total return of 6.2% over 26 years, with volatility of 3%. Over that time, periods of negative return were infrequent, the worst being -3.6% in 1994 and the others very small. So when tested against its ability to offer downside protection, the Barclays Agg has performed very well for the past quarter of a century, largely because of the stable cushion of coupon income over that time.

Coming finally to diversification from equities, **Figure 3** (page 3) shows that the correlation of the Barclays Agg to the S&P 500 has averaged out at just 0.1 over 26 years. This does not tell the whole story: as the light blue line in the chart shows, the rolling three-year correlation has ranged from almost 0.7 to -0.5 over that period, indicating the extent to which correlations can change over time. However, as **Figure 4** (page 3) shows, the Barclays Agg has delivered positive returns during two periods of severe falls in equities. The first of those was between October 2000 and May 2003, when it delivered 24.4% during a period in which the S&P 500 declined -29.9%; the second came between December 2007 to September 2009, when the S&P 500 suffered another heavy loss of -24.9% and the Barclays Agg returned 10.6%. So despite varying correlations over time, the Barclays Agg has delivered diversification when it truly mattered – in periods when equities have fallen.

## NOTHING LASTS FOREVER...

It is clear that the Barclays Agg has done a very good job of delivering the three main qualities that investors require from bond portfolios over a long period of time. Can we be confident that it will continue to do so in the future? Regarding income, the answer is relatively easy: no. While the coupon return averaged 6.02% over 26 years, at the end of last year it stood at 2.96% – less than half its historical average. Clearly, coupons cannot be expected to

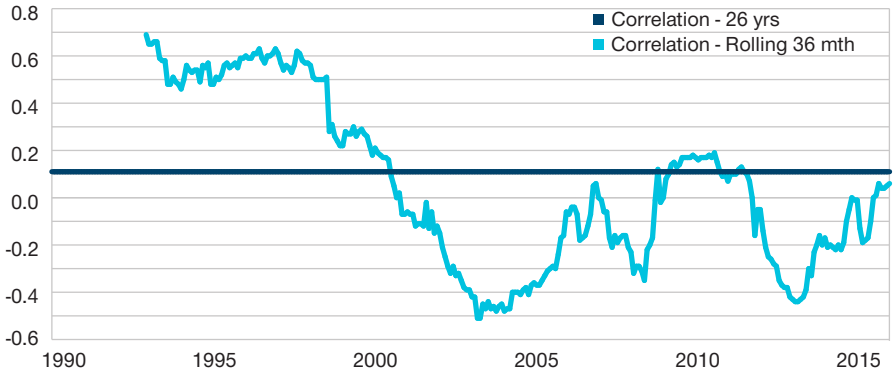
**FIGURE 2:** Barclays Aggregate annual price return, 1990-2015




**Past performance is not a reliable indicator of future performance.**
Source: Barclays Capital. Data from Jan-1990 to Dec-2015. Returns hedged to U.S. dollars.

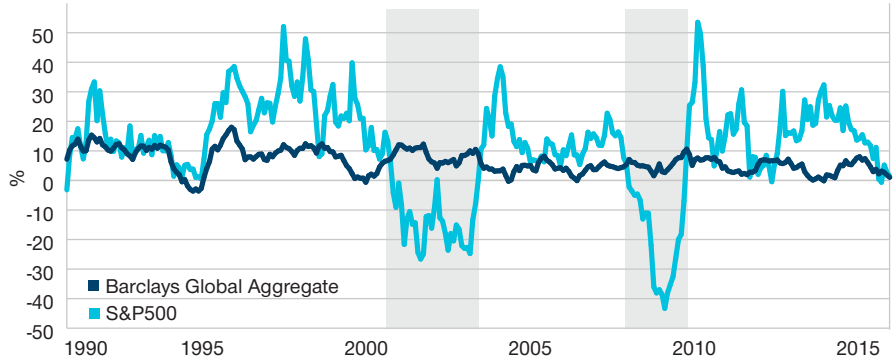
[1] Index referred to is Barclays Global Aggregate (USD Hedged) Index.
[2] As at 15 April 2016. Source: Barclays Global Aggregate Index.

**FIGURE 3:** Barclays Global Aggregate total return correlation with S&P 500, 1990-2015




**Past performance is not a reliable indicator of future performance.**
Sources: FactSet, Barclays Capital. Data from Dec-1992 to Dec-2015. Returns hedged to U.S. dollars.

**FIGURE 4:** Rolling 12-month return of Barclays Global Aggregate, 1990-2015




**Past performance is not a reliable indicator of future performance.**
Sources: FactSet, Barclays Capital. Data from Jan-1990 to Dec-2015. Returns hedged to U.S. dollars.

deliver the same level of returns as they have done historically.

Let's now consider downside risk management. From 1990 to 2015, the yield of the Barclays Agg fell from 9.0% to 1.8%, while its duration rose from 3.5 years to 6.6 years. What would happen if we took today's Barclays Agg, with its record high duration and record low yield, reset it from 1990 and rolled it through the same path of yields that we've seen over the past 26 years to estimate overall returns over the next 26? The result is shown in **Figure 5** (page 4), where the light blue line shows the actual returns over that period and the dark blue line represents our historical simulation. It is immediately noticeable that our simulation contains many more months of negative returns than the historical returns over that period.

To be precise, there were 11 actual months of negative returns over the 26 years from 1990-2015, but this rises to 62 in our simulation – a frequency of 20.7%, or one in every five months. Moreover, the severity of the negative months is greater in our simulation – an average of -3.0% (compared to -1.8% in the actual period) and a worst negative of -13.04% (compared to -3.6%). Given this, it is clear that the Barclays Agg will not be able to protect against the downside as well in the near-to-medium term as it has done in the past.

As discussed above, the Barclays Agg provided excellent diversification from equities during two distinct periods of equity market collapse over the 26-year period – from October 2000 to May 2003, and from December 2007 to September 2009. It was able to do this because yields were so high that they had ample room to fall, pushing bond prices higher and driving the Barclays Agg to deliver positive returns of 24.4% and 10.6% respectively.

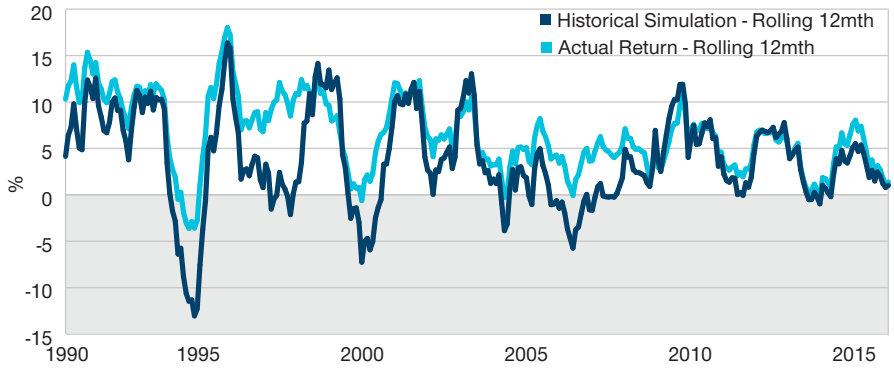
Could today's bond market deliver those kind of returns? As shown in **Figure 6** (page 4), in order to do so in the first period, the yield would have to fall by 300 basis points from its current 1.77% to -1.23%. In other words, the entire Barclays Agg – all 17,000 securities in 37 countries – would on average have to trade at a negative yield of -1.23% – not impossible perhaps, but highly unlikely. In the second period, the yield would have to fall by 114 basis points from 1.77% to 0.63% – a less dramatic fall, but also an unlikely one. The point here is that negative correlations alone are not enough: there needs to be enough scope for the yields to fall in order to drive prices higher and offset equity market losses. As yields are already at record lows, we have quite simply run out of room for this to occur, meaning the Barclays Agg is very unlikely to deliver the required diversification from equities in the future.

## LOOSENING THE BONDS

In summary, the Barclays Agg is simply no longer able to do as good a job as it has in the past of delivering income, downside risk management and diversification from equities. This does not mean we have to give up seeking these qualities from our fixed income portfolios – they are the reasons we buy bonds and we should continue to strive to achieve them. Doing so, however, will require adopting an unconstrained approach to bond investing – one that considers the full spectrum of the fixed income universe, including government bonds and credit instruments, and countries that are less correlated to major markets.

The good news is that fixed income investors today have more choice than ever before. In countries where interest rates are rising, for example, steepening yield curves can offer income opportunities, while rising volatility on foreign exchange markets can lead to currency opportunities. Emerging markets can offer the higher yields that investors look for but may come with

**FIGURE 5:** Barclays Global Aggregate total return, actual and historical simulation




**Trailing 12-month total returns since January 1990**

| Barclays Global Aggregate | # Neg. | Freq. | Average Negative | Worst Negative |
|---|---|---|---|---|
| Actual | 11 | 3.7% | -1.75% | -3.61% |
| Historical Simulation | 62 | 20.7% | -3.04% | -13.04% |

**Past performance is not a reliable indicator of future performance.**
Sources: FactSet, Barclays Capital. Data from Jan-1990 to Dec-2015. Returns hedged to U.S. dollars.

added risk, while lower-yielding, less risky securities still offer benefits in a period of highly volatile equity markets.

The bad news is that greater choice does not necessarily make the job of fixed income investors any easier, however – with more options comes the need for more research, due diligence, and risk management. However, investors who actively embrace this wider opportunity set are ultimately likely to find their efforts rewarded, while those who do not seek access to different country bond markets could miss potential performance enhancement and diversification.

## DIVERGENCE CREATES OPPORTUNITY

Policy divergence among central banks across the world is expanding the opportunity set for investors seeking more diversification from their bond portfolios. Those with access to a broad range of markets can derive returns by taking positions in countries at differing stages of the interest rate cycle. **Figure 7** (page 5) illustrates the interest rate cycle of a selected number of developed and emerging markets. It shows how an investor can take advantage of relative country exposures in markets where interest rates are falling or stable versus countries where interest rates are rising. This enables investors to not only exploit interest rate differentials between countries, but also adjust duration and yield curve exposures within individual countries. If yields are attractive but currency valuations are not, currency risk can be neutralised to focus exclusively on country selection.

The ability to capture returns in rising and falling markets through both long and short positions is a key component of the unconstrained approach. During the 30-year bond bull market, investors in traditional long-only fixed income strategies linked to benchmarks such as the Barclays Agg Index enjoyed relatively strong positive returns as yields fell and prices rose. However, as yields begin to rise again and prices fall, the ability to short certain markets and sectors and capture returns from falling prices will be extremely valuable.

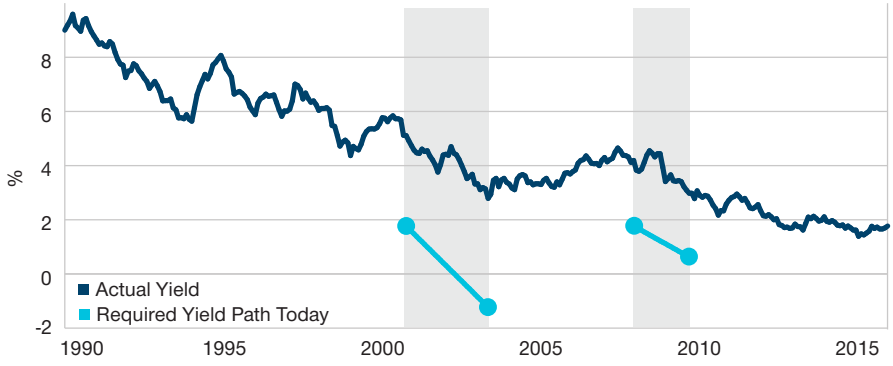
By adopting an unconstrained bond strategy, an investor can seek value anywhere in the world irrespective of whether markets are going up or down. But this is not an easy strategy to adopt: the heterogeneous nature of the global bond universe means that the choices facing an unconstrained investor are seemingly endless. Success requires conviction – only those positions backed up with a high degree of confidence should be adopted.

This requires an in-depth analysis of the main macroeconomic indicators, such as economic growth, monetary policy developments, and inflation expectations, and an understanding of the impact these factors have on interest rates in the long term. Armed with this knowledge, investors can compare their expectations with the market consensus and identify where the best opportunities lie, both on the long and the short side.

## GOING UNCONSTRAINED DOES NOT MEAN SACRIFICING QUALITY

One way to accomplish this is to divide the fixed income allocation into three core components: return seeking positions, core stable positions and defensive positions (see **Figure 8**, page 5). Return-seeking positions include high conviction investments that have strong potential for capital gains or high income characteristics.

**FIGURE 6:** Barclays Aggregate actual yield and simulated required yield path




**Past performance is not a reliable indicator of future performance.**
Sources: FactSet, Barclays Capital. Data from Jan-1990 to Dec-2015. Returns hedged to U.S. dollars.

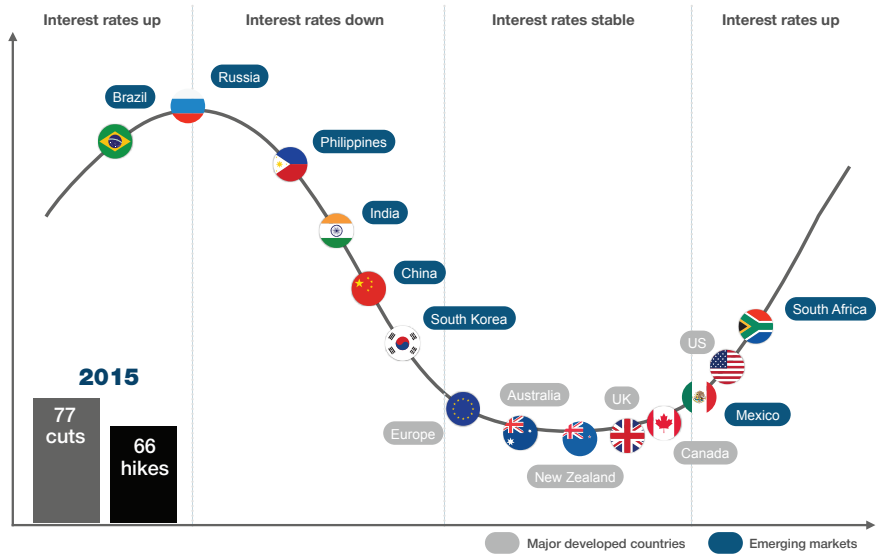
They may include locally-denominated emerging market debt and selected high yield products. Core stable positions are those with small but steady income or upside potential and a low risk profile, and may also include long positions in locally-denominated debt as well as shorter-dated investment grade corporate products. Defensive positions are typically those that are unlikely to perform unless in a risk-averse environment, such as inflation-linked products and short positions in vulnerable currencies and sectors.

A portfolio managed in this way can provide a number of benefits to investors, including stable predictable income, downside protection, capital preservation and diversification to equity markets. An unconstrained approach to fixed income is the best way to achieve this – investors should be prepared for the unexpected and able to react quickly to changing circumstances, which means investing across markets and different types of bonds, on both the long and short side. In a world of multi-speed economic growth and differing interest rate cycles, the ability to shift positions quickly can make a huge difference to performance.

It is important to stress that adopting an unconstrained approach need not come at the expense of quality or bring additional transaction costs – it is possible to retain a high-quality, liquid profile while still being agile enough to manage risks. A fixed income strategy that is not constrained by a benchmark, but still contains the best investment ideas, should fulfill fixed income's role as a diversifier and a provider of sustainable income and capital preservation. Ultimately, the goal is balance: how to find the right mix between duration, country allocation, bottom-up security selection, and currency preservation to achieve optimal returns while effectively managing risk and protecting the portfolio.

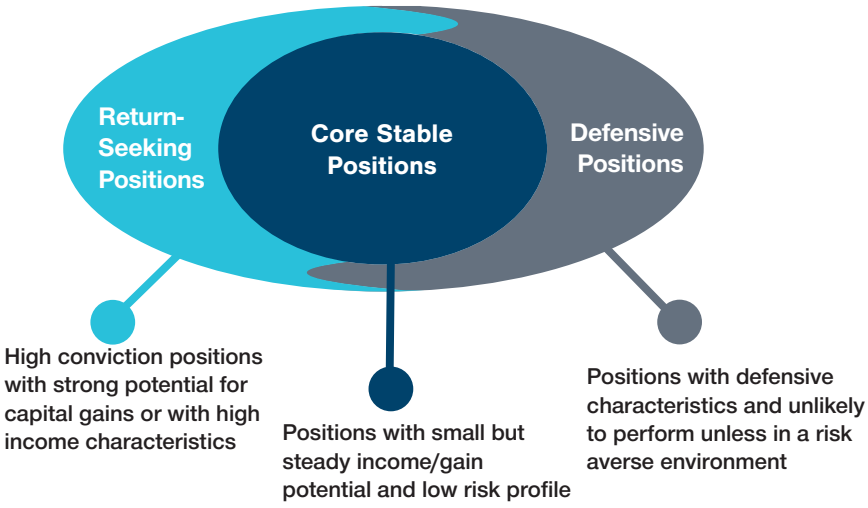
**FIGURE 7:** Illustrative interest rate cycle

As of 31 December 2015




The two columns of cuts vs hikes are the actual cuts and hikes that occurred in 2015 across countries worldwide.
Sources: CRB Rates and T. Rowe Price.

**FIGURE 8:** The core components of an unconstrained portfolio




Source: T. Rowe Price.

INVEST WITH CONFIDENCE®

T. Rowe Price is a global asset manager focused on delivering investment management excellence and retirement services that investors can rely on—now and over the long term.

To learn more, please visit troweprice.com.

**Important Information**
This material, including any statements, information, data and content contained within it and any materials, information, images, links, graphics or recording provided in conjunction with this material are being furnished by T. Rowe Price for general informational purposes only. The material is not intended for use by persons in jurisdictions which prohibit or restrict the distribution of the material and in certain countries the material is provided upon specific request. It is not intended for distribution to retail investors in any jurisdiction. Under no circumstances should the material, in whole or in part, be copied or redistributed without consent from T. Rowe Price. The material does not constitute a distribution, an offer, an invitation, recommendation or solicitation to sell or buy any securities in any jurisdiction. The material has not been reviewed by any regulatory authority in any jurisdiction. The material does not constitute advice of any nature and prospective investors are recommended to seek independent legal, financial and tax advice before making any investment decision. Past performance is not a reliable indicator of future performance. The value of an investment and any income from it can go down as well as up. Investors may get back less than the amount invested.

The views contained herein are as of 25 April 2016 and may have changed since that time. Unless indicated otherwise the source of all market data is T. Rowe Price.

**Australia -** Issued in Australia by T. Rowe Price International Ltd (ABN 84 104 852 191), Level 50, Governor Phillip Tower, 1 Farrer Place, Suite 50B, Sydney, NSW 2000, Australia. T. Rowe Price International Ltd is exempt from the requirement to hold an Australian financial services licence in respect of the financial services it provides in Australia. T. Rowe Price International Ltd is authorised and regulated by the UK Financial Conduct Authority under UK laws, which differ from Australian laws. For Wholesale Clients only.

T. ROWE PRICE, INVEST WITH CONFIDENCE and the Bighorn Sheep design are, collectively and/or apart, trademarks or registered trademarks of T. Rowe Price Group, Inc. in the United States, European Union, and other countries. This material is intended for use only in select countries.

CR218QVHX
2016-GL-3824