MARKET THOUGHTS

FOURTH QUARTER 2014 VOLUME 36

Quarterly EQUITY INDICATOR	Quarterly BOND INDICATOR	Quarterly HEDGE FUND INDICATOR	Quarterly PENSION LIABILITY INDICATOR
Up 0.7%	Up 1.8%	Up 0.7%	Up 8.2%

NEPC is an independent, full service investment consulting firm, providing asset allocation, traditional and alternative asset manager search, performance evaluation and investment policy services to institutional investment programs. We offer our market letters to provide insight into recent market conditions, and to assist your interpretation of investment results. We encourage your comments and feedback, as well as any inquiries you may have about our firm or our consulting services.

A BOUNTIFUL SEASON…NOW, MODERATION?

Introduction

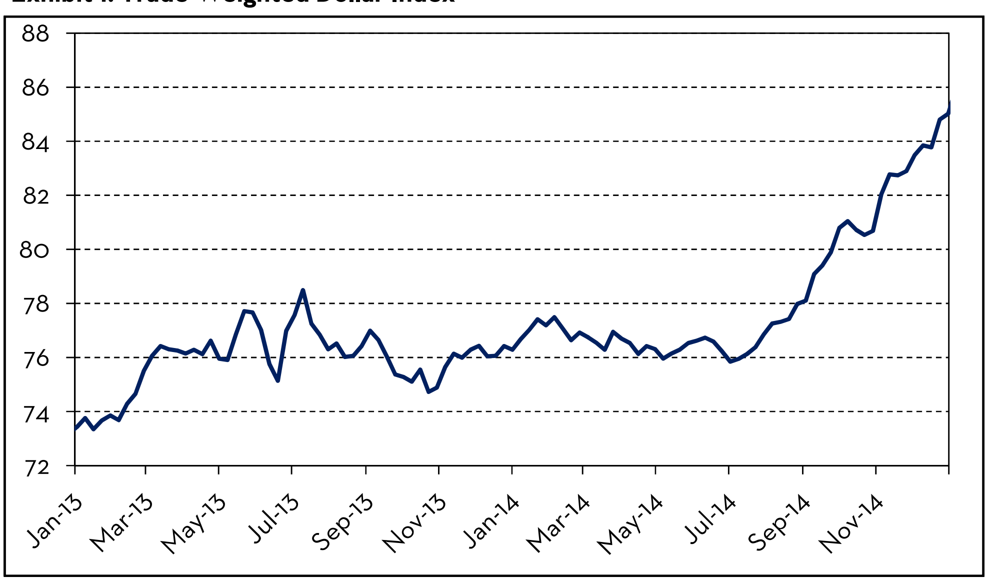
Like a well-laden table during a holiday dinner, 2014 brought a bounty of good economic news for the US: domestic equities topped off another rousing year, yields on fixed income securities narrowed, the economy grew at a healthy pace and unemployment receded further. Consumer confidence at home hit levels last seen before the great recession and the economy added the most jobs since 1999.

But, as we step into 2015, the year in which the Federal Reserve contemplates its first rate increase since 2006 in efforts to moderate monetary policy, it may be time to scale back on the indulgences and return to life in the middle lane. To this end, we believe moderation is a key theme going forward, be it in tempering our expectations for future investment returns or in curtailing the urge to replicate the recent outsized returns with a portfolio of the past.

The positive economic data support the return of the US economy after years of recuperation and unprecedented central bank stimulus. The S&P 500 Index rose nearly 14% in 2014 and the Barclays Aggregate Index was up 6%. The US economy grew 5% in the third quarter following 4.6% in the second quarter. The unemployment rate fell to 5.6% with the economy averaging more than 200,000 new jobs a month. The economic resurgence and the resilience of capital markets in the US signal their readiness to function without the extraordinary support of the Fed. To this end, October marked the end of quantitative easing in the US and 2015 is likely to bring the first increase in the federal funds rate in nearly a decade.

For investors looking beyond US stocks and government bonds, 2014 was less than stellar. Equities of developed and emerging markets were in the red along with global bond indices. The negative returns can be attributed largely to the strengthening US dollar. The dollar shot up over 10% relative to a basket of major global currencies, representing a headwind for unhedged equity and bond exposures (Exhibit 1). Meanwhile, the Or-

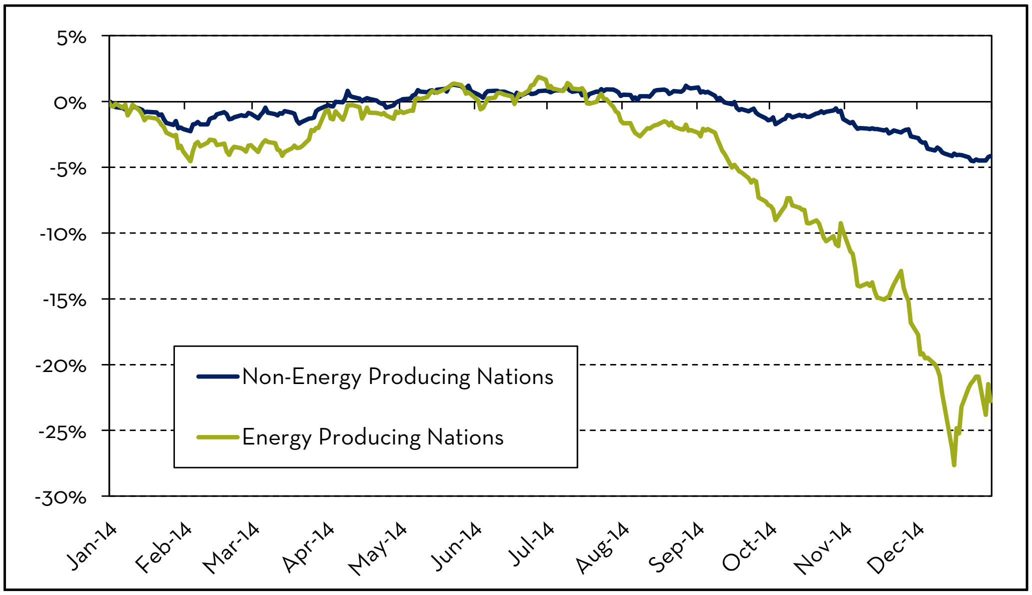
Exhibit 1: Trade-Weighted Dollar Index



Source: Bloomberg

ganization of Petroleum Exporting Countries (OPEC) set aside decades of policy and pledged to maintain oil output despite the excess global supply. Energy markets were acutely impacted, as the price of oil declined to nearly $50 a barrel at year end from over $100. Debt markets were not spared, as high yield credit spreads increased 100 basis points on the year with yields on energy debt rising significantly. Emerging economies reliant on energy exports—Russia, in particular—were stressed, suffering from declines in currencies, bonds and stocks (Exhibit 2).

Exhibit 2: Emerging Markets 2014 Currency Performance



Source: Bloomberg, NEPC

That said, investment opportunities are present beyond the US, especially as the European Central Bank (ECB) embarks on its quantitative easing program consisting of bond purchases of €60 billion a month through at least September 2016. The ECB's plan, on the heels of the quantitative easing programs wrapped up by the US and UK, joins Japan. The open-ended nature of these programs and their scale provide clear support for investments in Europe and Japan despite concerns regarding inflation and economic growth.

Elsewhere, the varied outlook for emerging market equities underscores the key divergences across countries even as many of these regions are buoyed by the events of 2014. For instance, the decline in oil prices represents a fiscal stimulus, lowering energy import bills for South Korea, India and Southeast Asia. An appreciating US dollar improves trade competitiveness for many emerging economies while boosting exports. While growth prospects for emerging markets have edged downward, they are still relatively greater than those of the developed world, particularly for countries undertaking structural economic and political reforms.

We encourage investors to be ready and able as global divergences manifest and highlight stresses in financial markets. As Europe kicks off its quantitative easing program and emerging countries digest swings in currency and energy prices, volatility will likely rise and normalize from recent lows. These stresses were evident in currency markets in 2014 and are likely to filter through to global asset classes as country and market fundamentals take on greater significance. We encourage investors to make use of non-traditional strategies with reduced constraints across markets as we see an improved outlook for active management and dynamically-oriented strategies. US investors should also consider strategically hedging developed currency exposure to reduce the added volatility provided by non-US exposures. At NEPC, we have consistently believed a portfolio comprising a diversified, risk-balanced set of assets remains the best starting place for long-term investment programs in an uncertain and changing environment.

We also build on these themes and provide a broader perspective on our current views in our recently published annual asset allocation letter—*Six Years Later: A Time for Moderation? NEPC's 2015 Asset Allocation Letter*—available at *www.nepc.com*.

Global Equities

US stocks continued their winning streak in the fourth quarter amid positive economic data. Investors moved towards defensive equities, companies that benefitted from lower energy prices, and bond-proxy stocks such as healthcare, staples, utilities, REITs and consumer discretionary. Energy was the worst performing sector, bearing the brunt of increasing oil supply, a stronger US dollar and deteriorating global macroeconomic conditions. Small-cap stocks outperformed large-cap equities for the quarter but fell behind in the year as a whole. The S&P 500 Index outperformed the Russell 2000 Index by nearly 9% last year, the widest margin since 1998. Value equities narrowly outperformed growth among large-cap and mid-cap stocks in 2014, while growth bested value in small-cap equities.

Stocks of developed and emerging markets didn't fare as well, losing 3.6% and 4.5%, respectively, during the quarter, as continuing weakness in commodities and a strong US dollar eroded returns. In local currency terms, developed markets performed relatively better with the Eurozone roughly flat while Japanese stocks gained nearly 5%.

The energy and materials sectors were the weakest performers in developed and emerging markets. Among countries, Russia traded off 33% while the ruble declined nearly 32%. A bright spot in emerging markets was the financial sector in China, which gained amid speculation of a supportive monetary policy.

Equity Index Returns as of 12/31/2014				
Global Equity	**Quarter**	**1 Year**	**3 Yrs**	**5 Yrs**
MSCI World	0.7%	2.9%	14.9%	9.3%
US Equity	**Quarter**	**1 Year**	**3 Yrs**	**5 Yrs**
S&P 500	4.9%	13.7%	20.4%	15.5%
Dow Jones Industrial Average	4.6%	7.5%	15.3%	14.2%
NASDAQ Composite	5.4%	13.4%	27.3%	21.7%
Russell 1000 Growth	4.8%	13.1%	20.3%	15.8%
Russell 1000 Value	5.0%	13.5%	20.9%	15.4%
Russell 2000	9.7%	4.9%	19.2%	15.6%
Russell 2000 Growth	10.1%	5.6%	20.1%	16.8%
Russell 2000 Value	9.4%	4.2%	18.3%	14.3%
International Equity	**Quarter**	**1 Year**	**3 Yrs**	**5 Yrs**
MSCI EAFE	-3.6%	-4.9%	11.1%	5.3%
MSCI Emerging Markets	-4.5%	-2.2%	4.0%	1.8%
MSCI Europe	-4.4%	-6.2%	13.3%	5.9%
MSCI UK	-4.2%	-5.4%	10.5%	7.9%
MSCI Japan	-2.4%	-4.0%	10.7%	6.1%
MSCI Far East	-1.7%	-2.6%	11.4%	6.7%

Global Fixed Income

Government bonds of developed markets rallied in the fourth quarter against a backdrop of diverging policy among central banks, global growth concerns outside of the US, and a steep decline in energy prices.

The yield on the 10-year US Treasury dropped 35 basis points during the quarter, finishing at 2.17%. Rates on shorter-dated Treasuries rose on expectations that the Fed would start raising rates in mid-2015. In addition, expectations of lower inflation pulled down rates on the long-end, flattening the yield curve. The spread between two- and 10-year rates fell 44 basis points to 1.50%. Treasury Inflation-Protected Securities, or TIPS, underperformed nominal Treasuries as falling energy prices weighed on the outlook for inflation. The Barclays US 1-10 Year TIPS Index posted a loss of 1.0% for the three months ended December 31, 2014.

Many risky assets underperformed Treasuries during the quarter as oil prices declined precipitously and investors fled to quality. The US investment grade corporate sector gained 1.8% but underperformed like-duration Treasuries. The Barclays Long Duration Credit Index was bolstered by falling Treasury yields and gained 4.1% in the quarter. Agency mortgage-backed securities returned 1.8% as the Fed stopped net purchases, but continued to reinvest principal and interest from existing balance sheet holdings. High yield bonds were the worst affected by the slide in oil prices with the Barclays US Corporate High Yield Index losing 1.0%. In general, higher-rated credits fared the best. Leveraged loans were in the red for a second consecutive quarter with the CS Leveraged Loan Index losing 0.5% in the three months ending December 31, 2014. Retail investors withdrew $13 billion from the asset class in the quarter, but demand for collateralized loan obligations, or CLOs, remained robust.

Weaker commodity prices and concerns around global growth proved to be a headwind for emerging market debt in the fourth quarter, especially for oil exporting countries such as Russia and Venezuela. Driven mostly by currency depreciation, local currency emerging market debt declined 5.7% during the quarter, as measured by the JPMorgan GBI-EM Global Diversified Index. The JPMorgan EMBI Plus Index, representing external currency debt, outperformed local currency debt, but still lost 0.9%.

Fixed Income Index Returns as of 12/31/2014				
Global Fixed Income	**Quarter**	**1 Year**	**3 Yrs**	**5 Yrs**
Citi WGBI	-1.5%	-0.5%	-1.0%	1.7%
JPM EMBI Plus	-0.9%	6.2%	5.0%	8.1%
Domestic Fixed Income	**Quarter**	**1 Year**	**3 Yrs**	**5 Yrs**
BC Aggregate Bond	1.8%	6.0%	2.7%	4.5%
BC US Agg. Treasury	1.9%	5.1%	1.4%	4.2%
BC US Credit	1.8%	7.5%	5.1%	7.1%
BC Mortgage Backed	1.8%	6.1%	2.4%	4.0%
BC Interm. Gov't/Credit	0.9%	3.1%	2.1%	3.8%
BC 1-10 Yr TIPS	-1.0%	0.9%	0.0%	2.8%
BC High Yield	-1.0%	2.5%	8.4%	9.0%
S&P LSTA Lev. Loan	-0.5%	1.6%	5.8%	6.2%
3 Month T-Bills	0.0%	0.0%	0.1%	0.1%
10-Year Bond Yields	**Dec-14**	**Sep-14**	**Dec-13**	**Dec-12**
US	2.2%	2.5%	3.0%	1.8%
Germany	0.5%	0.9%	1.9%	1.3%
UK	1.8%	2.4%	3.0%	1.8%
Japan	0.3%	0.5%	0.7%	0.8%

Currency Markets

The US dollar rallied against all major currencies. Its rise was supported by the Fed's withdrawal of its quantitative easing program, better economic prospects at home, and the aggressive new liquidity measures by the Bank of Japan and the ECB. Poor economic numbers and weakening global demand for commodities particularly hurt the commodity-dependent currencies. Potential shifts in monetary policy, fiscal deficits, downgrades of sovereign debt, political uncertainty, changes in risk appetite, and carry-trade adjustments continued to dominate price behavior. Currencies will likely witness significant price movements due to diverging economic prospects and policy measures across various nations.

Commodity Markets

In 2014, commodities can best be viewed as a tale of two acts. After a strong start, the Bloomberg Commodity index returned 7% by April. This was followed by a sharp drop in the second act, ending the year with a 17.1% decline, which included the poorest return in the fourth quarter in five years. Weakening or flat global economic growth outside of the US, dysfunction in OPEC and a strengthening US dollar fueled underperformance. Within energy, WTI crude sold off nearly 40% and natural gas 33%. Also affecting prices were lower demand from China and growing energy independence of the US.

In agriculture, wheat was the best performer with gains of 21.8%, followed by corn and soybeans. The sector benefitted from strong export demand, wet weather and transportation issues limiting supply.

Pension Liability

Liabilities are estimated to have increased by 8.2% in the fourth quarter, with pension rates dropping to 3.95% as of December 31, from 4.32% on September 30. This brings the total increase in liabilities over the year to an estimated 25.9% with pension rates falling 1% year-over-year.

Funded status for many plans likely fell during the quarter as modest market returns were challenged by steadily declining pension rates. Liabilities posted their strongest performance since 2011 and, despite another year of solid returns, assets likely failed to keep pace in 2014. As we have mentioned in the past, the Society of Actuaries finalized new mortality tables and these assumptions will likely increase liabilities in 2015 or 2016 by 4% to 8%.

Clients with Liability Driven Investment, or LDI, strategies in place may have been less impacted by falling pension rates as long-duration fixed income and other interest rate-hedging assets gained over the quarter, offsetting some of the increase in liabilities. In this continued low-rate environment, clients considering implementing an initial LDI strategy should discuss any future implementation strategies with their NEPC investment consultant.

Hedge Fund Industry Performance Overview as of 12/31/2014				
Composite	**Quarter**	**1 Year**	**3 Yrs**	**5 Yrs**
DJCS Hedge Fund Composite	0.7%	4.1%	7.2%	5.9%
Relative Value	**Quarter**	**1 Year**	**3 Yrs**	**5 Yrs**
DJCS Convertible Arbitrage	-3.0%	-1.7%	4.0%	4.8%
DJCS Fixed Income Arbitrage	0.0%	4.4%	6.4%	7.2%
DJCS Equity Market Neutral	0.3%	-1.2%	2.9%	2.4%
DJCS Multi-Strategy	1.1%	6.1%	9.5%	7.9%
Event Driven	**Quarter**	**1 Year**	**3 Yrs**	**5 Yrs**
DJCS Event Driven	-2.2%	1.6%	9.1%	5.8%
DJCS Event Driven - Distressed	-2.3%	2.5%	10.0%	7.0%
DJCS Event Driven - Risk Arbitrage	-1.7%	-1.3%	2.1%	2.1%
DJCS Event Driven - Multi-Strategy	-2.1%	1.1%	8.7%	5.3%
Equity Hedge	**Quarter**	**1 Year**	**3 Yrs**	**5 Yrs**
DJCS Long-Short Equity	2.3%	5.5%	10.4%	6.4%
DJCS Emerging Markets	0.8%	1.5%	6.8%	4.8%
DJCS Dedicated Short Bias	-2.5%	-5.6%	-17.4%	-14.6%
Tactical	**Quarter**	**1 Year**	**3 Yrs**	**5 Yrs**
DJCS Global Macro	0.5%	3.1%	4.0%	6.3%
DJCS Managed Futures	11.3%	18.4%	3.8%	3.8%
Traditional Markets	**Quarter**	**1 Year**	**3 Yrs**	**5 Yrs**
BC Aggregate Bond	1.8%	6.0%	2.7%	4.5%
S&P 500	4.9%	13.7%	20.4%	15.5%

Hedge Funds

Performance among hedge funds was varied in the fourth quarter, with the Credit Suisse Hedge Fund Composite returning 0.7%, compared to 4.9% for the S&P 500 Index and 1.8% for the Barclays Aggregate Bond Index. The overall composite return hides the greater dispersion within the hedge fund universe and among the individual sub-indices. Mounting concerns around global economic growth and the end of the Fed's quantitative easing program increased volatility across asset classes. Energy stocks and bonds took a hit as oil prices plummeted.

The Credit Suisse Managed Futures Index was the best performing hedge fund strategy, up 11.3% in the fourth quarter and 18.4% in 2014; gains of 7.5% in November were driven by long-US dollar positions against developed currencies and commodities. The Credit Suisse Global Macro Index rose 0.5% during the quarter.

The Credit Suisse Event Driven Index lost 2.2% as some special-situation strategies were affected by persisting concerns around inversion and other merger deals. The Credit Suisse Fixed Income Arbitrage Index was flat, while the Bank of

America Merrill Lynch US High Yield Master II Index was down 1.1% as spreads widened in the energy sector. Managers benefited from widening credit spreads and idiosyncratic opportunities in corporate securities and structured products.

The Credit Suisse Long-Short Equity Index returned 2.3% during the quarter and 5.5% for 2014. Healthcare strategies, particularly biotechnology, remain a strong performer as merger activity continued into the fourth quarter. We still believe there is merit in a diversified hedge fund approach that has exposure to equity, credit, global macro and event-driven strategies.

Private Markets

Signs of a recovery were evident in the private equity industry in 2014: fundraising was up, distributions were the largest in years, buyout valuations in the US were at levels last seen before the financial crisis, and venture capital valuations have some suggesting the presence of a bubble. On the fundraising front, nearly $350 billion of capital was raised for investing in new private equity funds last year, according to Thomson Reuters, up 8% from 2013. While the capital overhang increased, the amount raised in 2014 is below the more than $450 billion raised in 2006 and then 2007. Amounts committed to new buyout and growth equity funds last year remained relatively unchanged from 2013, with venture capital, energy, infrastructure and secondary funds generating the largest increases. Geographically, Europe, Asia and emerging markets posted larger fundraising gains in 2014; however, the US remains the dominant market for private equity, accounting for two-thirds of all new private equity funds raised last year. With interest in private equity expanding across all strategies and regions, investors need to be prepared to make quick decisions as many top-tier fund managers are able to meet their capital fundraising targets within a few months of marketing.

Last year saw strong distributions from US private equity funds. With average transaction multiples approaching highs seen before the financial crisis, the volume of new investment transactions was not as robust; add-on acquisitions were more frequent. Secondary private equity and venture capital valuations continued to rise in 2014.

Looking ahead, we are advising clients to balance their commitments between strategies likely to benefit from long-term economic recovery with those that can capitalize on near-term volatility in stocks and debt. We remain guarded on the large buyout sector as an active high yield market, elevated transaction prices, and the return of covenant-lite term sheets leave little room for operational missteps and provide scant protection in the event of a prolonged recession. We favor managers with demonstrated price discipline, strong value orientation, and operational capabilities to enhance portfolio company performance. US investors in European private equity could benefit from a weakening euro as the ECB embarks on its plan to provide monetary stimulus. With several key countries in Asia in the early stages of significant economic, financial and social reforms, private equity seems well positioned to purchase businesses at attractive valuations. On the private debt side, direct lending is an attractive fixed income alternative for investors, particularly in Europe and Asia where competition for capital is less fierce than in the US.

For real estate, NEPC remains neutral on US core real estate for private strategies and REITs. US core real estate generated strong returns in 2014, continuing the trend of above-average performance following the global financial crisis. Real estate fundamentals remain strong and core real estate is priced at attractive income yields relative to interest rates, though absolute yields are low based on historical averages. Our main concerns for US core real estate are large inflows of capital that have driven up pricing (especially in major markets), the market's expectation for higher interest rates and the impact this would have on capitalization rates (and asset values), and some new construction in certain locations. US REITs have traded up relative to net asset values and are now trading at slight premiums to NAV. At year end, US REITs were trading at funds from operations, or FFO, multiples of 17.5x, well above the long-term average of 12.5x. To this end, NEPC's five-to-seven year assumptions for core real estate remain slightly below long-term average core returns. We remain neutral on real estate debt. Yields have generally remained low and lenders continue to loosen credit standards. In addition, competition from more traditional lending sources, such as banks, has increased and net new debt issuance remained strong last year despite a decline in issuance of commercial mortgage-backed securities. This has generally limited the opportunity for private debt/ mezzanine strategies, outside of managers with unique sourcing capabilities. NEPC remains positive on value-add and opportunistic real estate. We still view Europe as the best candidate for a marginal dollar of real estate investment; however, many other groups have seen this as well. As a result, the opportunity, which is focused on asset mispricing (and not future expected growth), is limited in duration. For non-core real estate in the US, we continue to favor niche-focused managers and those with a proven ability to understand local markets and invest conservatively while avoiding overheated markets.

In real assets, we are positive on energy, and neutral on agriculture, infrastructure, timber, and metals and mining. Falling oil prices have created a dislocation in the energy sector that continues to play out in 2015. Oil prices are expected to remain depressed through most of 2015 as supply continues to outpace demand, putting additional stress on energy companies, specifically the exploration and production and oilfield services sub-sectors. Over the mid- to-long-term, we expect global supply and demand to rebalance, primarily driven by low oil prices leading to cuts in production (for instance, crude oil rig counts in the US are expected to decline by up to 30% in the first quarter). Debt yields of energy companies remain high and bank credit lines will be re-priced with a new oil price outlook in spring. There are a number of ways to take advantage of this dislocation within a client's portfolio, and NEPC is actively working to identify the most attractive investment prospects in this area as the story evolves.

Of note, our outlook on timber has been revised to neutral. This is a result of a positive view on new housing starts, which are correlated to timber prices and should provide a tailwind for timberland investments over the next few years. We continue to look for selective opportunities across other sectors within real assets.

Final Thoughts

Investors should savor the robust investment gains of the last few years. At the same time, they should resist the urge to duplicate those returns by relying on investments coming off a strong rally, for instance, US stocks and credit. The outlook for US stocks and bonds is subdued as these asset classes have seen signification appreciation in prices, likely taking away from future returns and, thus, damping our return expectations going forward. While still too early to gauge, we believe there will be compelling prospects in various areas of the energy market. Additionally, we advocate active management strategies with reduced constraints across markets to capitalize on the growing divergences within the emerging and developed world. Where applicable, niche private market strategies, including direct lending, sector-focused growth equity, and European real estate continue to provide interesting return opportunities. While we recommend remaining diversified and allocating risk capital efficiently, the time for moderation may ultimately pass; until such time, we urge investors to remain patient as possibilities unfold in public and private markets.