INVESTMENT OUTLOOK

David GoerzFirst Quarter 2015

THINGS THAT MATTER

- What are the *Things That Matter* most to capital markets and the forces driving economic change? Below we highlight various key investment themes that will drive capital markets in 2015 and beyond. Among several great inflection points, expectations for higher interest rates and the impact of the rotation to an asynchronous global expansion driving economic dispersion top our list of *Things That Matter*.
- Global growth of 3.3% should accelerate to 3.7% in 2015, even as Europe and Japan are growing less than half the rate of North America. Low interest rates and falling energy prices are a significant tailwind to global growth in 2015. Pent-up demand in housing and capital investment also support accelerating economic growth and job creation in North America.
- Core inflation risk is increasing as slack diminishes, although lower commodity prices may temporarily relieve increasing cyclical pressures. Lower oil prices may temporarily lower inflation, but is not a reason to increase quantitative easing. In fact, the actual boost to growth may be a reason to defer anticipated European QE. We believe promoting low and stable global inflation can extend the economic expansion.
- Global bond markets are significantly overvalued as government yields have overshot on the downside. The Federal Reserve needs to normalize interest rates soon that will likely trigger a correction in U.S. government bonds and drag Canada along too. While we expected U.S. bond yields to rise further in 2014, the decline in yields has only increased our conviction of negative real bond returns until 10-year Treasuries exceed 5.0%. The significant global debt overhang may require a persistent risk premium in yield of at least 0.5% over the next cycle once investors' hunger for yield is choked by a relentless bond bear market. Our concern about excessively tight credit spreads has moderated with the Q4/14 correction in high yield and lower quality investment grade credit.
- We believe Japanese Government Bonds (JGBs), followed by the U.S. and Eurozone bonds, are at the greatest risk for correction based on valuation and

- extended fiscal burdens. Downgrading of Japanese debt had little impact last month, but risk of another downgrade is increasing. Japan's economic and demographic challenges are amplified by its debt burden approaching three times its GDP. Many European countries still need to address long-term structural deficiencies exposed during the European debt crisis. The gap in economic growth is increasing as Europe and Japan stall, failing to reform tax, labor and regulatory policy. Simply devaluing currencies is not a long-term solution to improving competitiveness, particularly when many countries do so concurrently
- · Global equities have benefited from improving profit margins driving stronger earnings growth with various tailwinds, including accelerating innovation containing labor costs. The TSX Composite and S&P 500 indices are trading near their respective historical average Price/Earnings valuation with expected 5.6% earnings growth for the TSX Composite and 8.1% for the S&P 500 in 2015. Canadian earnings forecasts have already been marked down given index exposure to declining energy and commodity prices, but the Canadian dollar weakness also may increase competitiveness of exports. Efforts to maintain profitability may drive investment in oil services to improve efficiency, but benefits of production volume increases are still restrained given limited transport capacity without approval of the Keystone pipeline.
- The 46% decline in WTI oil was the most significant economic surprise in 2014. Cheaper oil prices will be a shot of adrenalin to global growth, but also will likely have significant geopolitical impact. We have warned of the potential for a price correction in overvalued oil and gold. Global consequences for producers and consumers of oil are meaningful, as are the causes.
- We cut our tactical global equity overweight to 1% in December as valuations are closer to equilibrium with still low interest rates, but maintained our 2% underweight to bonds by adding 1% to cash. We also closed our Canadian dollar underweight to just 1%.

OUTLOOK FOR 2015

Economic growth in North America has rebounded in the final three quarters, after a challenging first quarter was adversely impacted by U.S. fiscal sequestration, tax increases, and bad weather. The absence of such headwinds in 2015 with a strong growth trend benefitting from low interest rates, falling energy prices, as well as record household and corporate savings reinforces our expectation of U.S. growth rising from 2.5% to 3.3% this year. U.S. Government spending is now adding to GDP.

Lower commodity prices will limit Canada's rising real growth rate in 2015 to a still rather respectable 2.7%. While investment in oil services will likely decline, currency weakness and lower gasoline prices should help. Canada's economic performance would seem to be better than perceived and trending well in the chart below. On the other hand, disappointing European and Japanese growth has increased uncertainty about global growth, and helped strengthen the U.S. dollar.

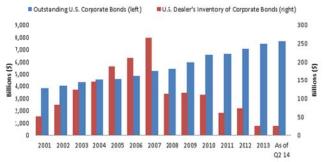


We continue to favor global equities versus bonds with a preference for North American and Emerging Market equities. Global growth should expand 3.3% in 2014, accelerating toward 3.7% in 2015 and 4.0% 2016.

Our outlook for U.S. Treasuries reflects the need to normalize interest rates, even if inflation remains relatively benign. The importance of normalization increases as economic growth stabilizes and capacity slack diminishes, thereby increasing the risk of accelerating inflation. Risk of rising core inflation is increasing, even if falling oil prices reduce headline inflation for a few months. Led by central banks in the United Kingdom and United States, we expect interest rates will begin rising before the end of Q2/2015. Consensus is increasingly in agreement. We believe the Federal Reserve and Bank of Canada (BoC) are already late transitioning to normalizing policy. Hiking U.S. policy interest rates to even 2% is still stimulative, and well below the Taylor Rule's implied target rate of 2.5%. Forward guidance sought to persuade us that crisis-level monetary accommodation was still needed, but is finally yielding to our belief in the need for normalization.

Fixed income volatility should increase as interest rates begin to rise. We believe the inevitable bear market in bonds can cause problematic market dysfunction given the significant increase in debt issuance since 2009 and our concerns about available liquidity in stressed markets. Regulators must recognize that increased capital requirements for broker-dealers have reduced liquidity needed for efficient price discovery. We seem to have forgotten how quickly a credit squeeze morphed into a credit crunch during 2008 with few buyers willing to step in and banks unable to ease liquidity being under siege themselves.

Conditions have only worsened as dealers have reduced bond inventories further. CEO Larry Fink of Blackrock was outspoken about this issue recently as broker-dealer inventory has declined due to the unintended consequences of financial reform. Bond trading remains fragmented and lacks pricing transparency. Financial reform regulations have reduced liquidity and increased risk to fixed income investors with new regulatory capital rules, coverage ratios, and inflexible limitations on proprietary trading, which can be difficult to differentiate from principal market making that dominates bond trading. A bond bear market is now more likely to overshoot further, as a result.



Source: Federal Reserve Bank of New York.

Our Global Tactical Asset Allocation (Global TAA) models imply global equity returns of 7-8%, and negative government bond returns in 2015, particularly for Japan, Canada, and the United States. Equity markets should be relatively resilient to rising interest rates as they were in 1994 and 2004, given still favorable equity valuations and accelerating earnings. We expect sector, regional and country asset class divergences to increase further due to asynchronous rates of growth and inflation, as well as diverging monetary policy. This was a theme for us over a year ago. Many strategists have introduced "increased dispersion" as a primary theme for 2015. This implies increased Global TAA opportunities to and greater diversification within global balanced portfolios.

Global geopolitical risks remain significant, so it is not surprising that confidence surveys reflect this. Visible risks in aggregate do not seem to correlate with equity volatility, as much as with risk premiums implied by inexpensive to fair valued global equity markets and overvalued defensive tilts, including global bonds. While global terrorism risk remains high, the fears of slowing global growth and risk of deflation was the most meaningful lately triggering episodic declines and periods of higher equity volatility. Investors seemed eager for an excuse to take profits without a significant equity correction for several years. The Arab Spring, U.S. debt ceiling downgrade, and the European Sovereign Debt Crisis were all difficult challenges.

Shifting U.S. balance of power in Congress was significant as the Senate flipped to Republican control. Divided Congressional control has exacerbated gridlock for years. We expect Congress to now move quickly on significant legislation in many areas from correcting Obamacare and Financial Reform, to Energy policy, including approving the Keystone Pipeline, as well as tax reform, including foreign earnings repatriation and corporate income tax reform. Given President Obama pronounced he expects to use his veto pen, we don't expect a Clintonesque pivot that came with Gingrich's 1994 Contract with America. Yet, polls suggest there are popular initiatives that have stalled in recent years. Congress could seek to pass legislation with greater bipartisan support to pre-empt veto threats.

Q4/2014 Market Review

Global equities performed well in 2014, better than we had forecast, led by the S&P 500 index (C\$: 24.1%) rising to 2058, and above our year-end target of 2000. The TSX Composite Index returned -1.5% in the fourth quarter, but appreciated 10.6% in 2014. Canadian equities lagged the United States by a lesser margin in 2014 than in 2013, despite underperformance of the TSX Energy sector, which tumbled -21.4% in 2H/2014 as WTI oil prices declined -49.3% to US\$53.45 BBL. In contrast, Consumer Staples (49.1%), Technology (35.1%), and Health Care (30.3%) performed well in 2014. Even we were surprised by the degree of dispersion in sector returns within North American equity markets, although consistent with our theme of an asynchronous global expansion driving increasing return dispersion, and thus greater portfolio diversification. The Canadian dollar suffered with lower oil prices, declining -3.5% in the fourth guarter and -8.4% in 2014. Gold also fell -9.9% in 2H/2014 to US\$1186.

MSCI EAFE (C\$: 4.3%) lagged the U.S. by a wide margin, but Global Equities (C\$: 15.2%) still exceeded the return to DEX Universe bonds (7.6%). Lower quality credit underperformed as credit spreads versus government bonds widened during the last six months in both the U.S. and Canada. U.S. High Yield (US\$: -1.1%) declined during the fourth quarter. Dispersion within Emerging Markets was also significant. Emerging Europe declined led by Russia and Greece, as did Latin America, led by weakness in Brazil. Emerging Asia

outperformed MSCI EAFE (non-U.S. developed markets), led by India, Indonesia, and China.

We expected U.S. and Canadian 10-year government bond yields would rise toward 3.5% in 2014, extending 2013's significant yield increase. Instead, particularly strong foreign flows and central bank purchases of U.S. Treasuries reversed rising bond yields. Weaker than expected first quarter U.S. growth was attributed to the *Polar Vortex* (bad weather) combined with tax hikes and other fiscal headwinds. A strong U.S. dollar versus Yen and Euro increased foreign appeal of 10-year Treasuries yielding 2.2% given the spread to JGBs yielding 0.3% and Eurobonds yielding 0.5%. Treasury fundamentals must eventually prevail, either decoupling from Japan and Europe or dragging yields higher in these markets.

Perhaps the most unloved and mischaracterized equity bull market of the post-war period played out since 2009. Looking back at U.S. 10-year annualized returns below, we observe the return of normal relative risk premiums. International Equity (MSCI EAFE) lagged, but this is the cost of disappointing economic performance without needed structural reform in Japan and Europe.

 2005-2014
 Large Eqty
 Small-cap
 Int'l Eqty
 Agg Bonds
 Cash

 Return
 7.7%
 7.8%
 4.9%
 4.7%
 1.4%

Economic and Market Outlook

The global economy seems to be on more virtuous footing now, led by accelerating North American and Emerging Market economic growth expected to accelerate to 3.7% in 2015. Low interest rates and falling energy prices should lift discretionary spending, housing, and capital investment. Earnings growth will benefit if elevated profit margins can be maintained. Although this global economic cycle is already quite mature, this cycle should extend longer than normal, as long as inflation remains contained. Stronger activity in Emerging Market countries continues to complement a resilient North American expansion to reinforce global growth.

Economic Forecasts	2011	2012	2013	2014e	2015e	2016e
Canada GDP (Y/Y Real)	2.4	1.1	1.7	2.5	2.7	2.8
Canada CPI Inflation	2.3	0.8	0.9	1.6	2.0	2.5
Canadian Unemployment	7.5	7.1	6.9	6.5	6.0	5.8
10yr Government Yield	1.96	1.81	2.77	1.78	3.10	4.40
BoC Policy Rate	1.00	1.00	1.00	1.00	1.50	3.25
U.S. GDP (Y/Y Real)	2.0	2.0	1.9	2.5	3.3	3.3
S&P500 Earnings Growth	14.7	6.0	5.7	6.7	8.0	10.0
U.S. CPI Inflation (Y/Y)	3.0	1.8	1.8	1.7	2.5	2.8
U.S. Unemployment	8.5	7.8	6.7	5.7	5.3	5.4
Fed Funds Target	0.25	0.25	0.25	0.25	1.25	3.25
10y U.S. Treasury Notes	1.88	1.85	3.00	2.17	3.30	4.50
S&P 500 Target	1258.	1426	1848.	2059.	2170.	2300.

The U.S. unemployment rate has fallen 1% to 5.6% versus a historical average of 6.2%. Lower labor force participation with globalization, evolving demographics, and technological change has likely pushed up the natural unemployment rate closer to its historical average, rather than the 5.2-5.5% normal rate assumed

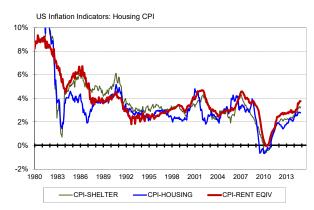
by the Federal Reserve. Capacity utilization of 80% is now in-line with its historical average. So, how is such a radical departure in monetary policy justified given near full employment with diminished excess capacity?



Similarly for Canada, the 6.1% unemployment rate compares to an 8.1% historical average, so the BoC should be concerned about the effect of diminishing slack evident in lower unemployment and 83.4% capacity utilization. Capacity utilization and capital spending growth exhibit a strong correlation of over 70%. Rising capacity utilization has been a reliable leading indicator of increasing inflation and changes in bond yields, which begs the question why is the Federal Reserve maintaining aggressive monetary stimulus?



Inflation has been low for a long time, ranging between 2-4% for the last three decades. The Federal Reserve has promoted the idea that there is still too much slack in the economy for inflation to increase, evidenced by a persistent output gap. However, consumer price (CPI) inflation should rise to 2.0% in Canada and 2.5% in the U.S., both an uptick from 2014, but below historical averages. We are concerned cyclical inflationary forces will be more difficult to contain over the next three years. The increase in weekly earnings has accelerated from 1.7% to 2.5% over the last year, and companies indicate in surveys they are increasing pay more than in previous years. We expect pent-up demand to drive tighter housing inventories in 2015, supporting housing inflation. 2014 was the best year for housing starts since 2007, and the deficit to household creation remains significant. Housing is 32% of CPI inflation and 42% of the core rate, thus it will be difficult to keep core inflation low if housing inflation is increasing at its recent pace of 3.8%.



Among *Things that Matter*, policymakers should be more concerned about risk of rising core inflation than deflation, in our opinion. Deflation is defined as a general decline in prices from reduced demand that forces producers of goods and services to cut prices. It is a symptom of recession. However, the benefits of low and stable inflation are significant, and should not be squandered, nor should we expect symmetry in targeting inflation. The cost of high inflation is well known, from loss of purchasing power and higher interest rates to reduced productivity and lower profit margins. We believe low global inflation will continue to extend the economic expansion, already exceeding five years.

The secular stagnation hypothesis may seem an intuitive reason for increasing deflation risk, but we believe the root of observed disinflation lies in accelerating innovation and technological change affecting labor, energy intensity, and commodity demand. Disinflation and higher unemployment is a consequence of an industrial renaissance, communication revolution, and aggressive policy regulation, which can be mistaken for secular stagnation. The effect on disintermediated labor has been difficult, resulting in higher unemployment. Many individuals need to adapt and develop new skills to compete in the workforce. We believe investors would be mistaken to believe that secular stagnation has lowered potential growth and the long-term inflation rate.

Rising labor costs and high energy prices weakened export-dependent Emerging Market profit margins and growth over the last three years, but the decline in oil prices should provide a boost to all energy consumers. Accelerating innovation and technological change has undermined competitiveness of high labor intensive economies, which are increasingly competing against adaptive robotic automation. Companies like Foxconn seek to reduce their costs, but automation is indifferent to geography. Increased on-shoring leverages shorter supply chains and reduced transportation costs. As global labor cost differentials become less significant, job

growth can increase with on-shoring, but still requires evolving skills and educational needs for these new jobs.

The increase in household net worth over this period was remarkable. Record household cash deposits now exceed US\$10 trillion, driving financial assets to US\$67 trillion. Household net worth over US\$81 trillion rose 9.1% over the last year, continuing to benefit from stock appreciation in retirement accounts. Strong earnings growth and corporate buyback activity was significant in keeping equity valuations from becoming extended. U.S. households and corporations have ceased deleveraging with evidence credit has been expanding for several years now. Healthy balance sheets across households and businesses in the U.S. and Canada lower the cost and increase access to investment capital, as well as promote discretionary spending.

Primary concerns that triggered the 2011 European Debt Crisis still have not been resolved. The Eurozone economy is teetering on recession, while many countries with high government spending relative to GDP are unable to close their budget deficits to meet the 3% Maastricht deficit requirement. High unemployment, faltering economic growth and burdensome debt reflects failed tax, labor, and regulatory policies. Market reforms were needed to improve competitiveness. After many failed fiscal and monetary experiments since 2008, prosperity is not attained by spending taxpayers' money, hiking tax rates, pursuing quantitative easing, or shackling banks. There are many lessons to learn from Japan and Europe's experiences and policy mistakes.

Japan's Significant Challenges

Abenomics needed all Three Arrows¹ to be in flight simultaneously for this *confidence game* to work. While foreign investors embraced this hope and redirected massive flows into the stock market in 2014, the hard work of labor and fiscal reform was never tackled – an emboldened PM Abe extended his time in office after a snap election in December, but the window of opportunity has been missed. While the Bank of Japan (BoJ) successfully devalued the Yen, Japan's path to sustainable growth will take years, even after agreement on structural reform. Only after great hardship over many years will debt decline to a manageable level without significant privatization and committed reform.

The BoJ's focus on driving up inflation increases the risk of higher interest expense and adversely impacts the value of its balance sheet if JGB 10-year yields rise materially. MUFG estimates the banking system could further suffer an estimated ¥5.6 trillion loss if interest rates rose by just 1%. Greece and the other PIIGS² paid dearly in 2012 for allowing government spending to

¹ Massive quantitative easing, fiscal policy reform (i.e., welfare, public works, debt service), pro-growth reform (i.e., labor, tax, immigration)

² Portugal, Italy, Ireland, Greece, and Spain – France, too.

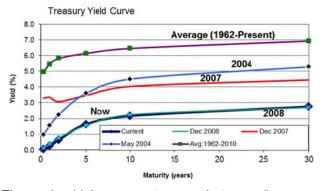
persistently exceed income tax revenues. It is true that foreign holdings of Japanese debt is lower than in the Eurozone, but Japan's GPIF (government pension) and Japan Post Holdings (savings accounts) are reducing JGB holdings materially.

The BoJ is the largest holder of over 20% of Japan's outstanding debt, so losses on rising bond yields accrue to taxpayers. Domestic banks, insurers, and other financial institutions account for 48% of government debt, which could imperil Japan's financial system. If bond yields rise, the interest burden could crush Japan's hope of achieving its desired growth. Further delay of a planned consumption tax increase could be a trigger for another downgrade. A vigilante attack on JGBs remains cheap to finance with a 10-year yield of 0.33%, fundamentally motivated with CPI inflation of 2.5% and a recently reduced credit rating by Moody's of A1, equivalent to Israel, Oman, and the Czech Republic.

With other imperiled governments, particularly in Europe, state owned infrastructure and real estate liquidation may be the only way to pay down debt without raising tax rates. A focus targeting increasing inflation is misguided and dangerous as deflation risk is a symptom of broader malaise, not the cause. Rising fiscal deficits are adding to an insurmountable debt burden as Japan's economy fell back into recession. For these reasons, Japanese bonds are at risk for a correction based on valuation, fiscal imbalances, and another downgrade.

Interest Rate Risk with Normalization

With cyclical inflation pressures building, monetary policy normalization begins with unwinding U.S. quantitative easing and hiking interest rates. Investors should focus on the need for normalizing interest rates as economic conditions have improved significantly since the Financial Crisis more than five years ago. While inflation is a key driver of bond yields, it is secondary to the need for yield curve normalization, as illustrated below.

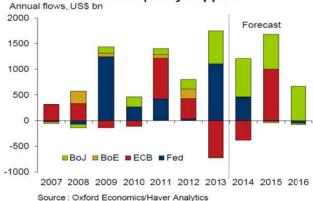


There should be a greater gap between "emergency" monetary policy stimulus needed in 2008 and today. Across the yield curve, interest rates are similar to yearend in 2008, but economic conditions couldn't be more different. Indicators such as declining unemployment

and real GDP over 4.3% hardly suggest the need to continue emergency monetary policy fit for the Financial Crisis. Economic conditions appear at least as robust as 2004, which implies the need for U.S. 10-year Treasury yields of 2.2% to rise above 4.5%. Previous interest rate cycles commencing in 1994 and 2004 began earlier than consensus expected, and with CPI inflation below 3%.

Quantitative easing (QE-I) was productive in the midst of the Financial Crisis, but QE-II and QE-III have done little to stimulate growth or the circulation rate of money³, which has plunged. Now the U.S. has withdrawn from quantitative easing, but the ECB and BoJ are expected to increase QE. We don't believe QE helps with interest rates near 0%. Low interest rates eventually broke the deleveraging cycle with credit growth averaging 6% since the beginning of 2011. Low interest rates promoted financing share buybacks, capital investment, and a housing recovery. Yet, continued quantitative easing seems to do little more than extinguish interest rate risk premiums, interfere with efficient price discovery, and reduce bond liquidity when interest rates are so low.





Having exited QE-III, the Federal Reserve is finally looking forward suggesting the inflection point in interest rates is coming sooner than previously anticipated, bringing forward guidance of low interest rates for an extended period to an end. Investors still seem to be looking back in time, worried about all the reasons the Federal Reserve justified its extraordinary policies. Even if central banks hope to maintain low rates, divergent economic conditions and imbalances are finally exposing the explicit moral hazard of forward guidance. Policymakers that wish to target higher inflation should consider the effect higher labor costs had on declining Emerging Market profit margins and competitiveness. Global investors should be vigilant about the impact of rising yields. Bonds with shorter maturities or floating interest rates will decline less.

Set for More Currency Volatility

Currency market volatility has been low for several years. For portfolio managers, currency effects have been modest, but tactical opportunities for active managers have also been limited. Recent U.S. dollar appreciation began its steady rise in August 2014, just as the Federal Reserve indicated its intention to wind down quantitative easing and the horizon for hiking interest rates came into view. Export growth has slowed, but so has import growth. Declining import prices (-5.4%) are affected by lower oil prices and stronger U.S. dollar. While good for consumers, this force can easily be mistaken as bad deflation.

Volatility in currency markets has increased with strength in the U.S. dollar, while the case for the U.S. dollar remaining the world's reserve currency is stronger than ever. Until Japan and Eurozone countries embark on needed tax and structural labor reforms to improve competitiveness and lagging growth versus the U.S. narrows, we expect the strength in the trade-weighted U.S. dollar should continue. Relative growth and interest rate differentials favor Australian, Canadian, and U.S. dollar currencies versus the Euro and Yen. While underweighting the Canadian dollar has paid off handsomely versus the U.S. dollar, Canada's positive interest rate differential and strengthening economic conditions suggest to us it will become increasingly important to hedge our U.S. dollar exposures. We have closed our underweight to just 1% now.

With rising expectations that the ECB is considering asset purchases in January, the Swiss National Bank (SNB) surprised everyone with probably the most logical policy shift by a central bank in years, if only because it reaffirmed maintaining the policy of the fixed SFr/Euro rate in December, and suggested the SFr was still overvalued after tracking recent Euro/US\$ devaluation. Despite a relatively healthy economy⁴ in Switzerland since 2011 with real GDP of ~2%, the SNB has expanded its balance sheet to defend the 1.20 SFr/Euro peg. By year-end, the central bank's balance sheet was holding SFr500 billion or about 80% of Swiss GDP, and high relative to the 25% held by the Federal Reserve.

The SNB's announcement to no longer hold the peg abruptly stopped the expansion of its balance sheet and caused the Swiss Franc to rapidly appreciate toward 1.00 SFr/Euro. We are delighted to welcome back the Swiss Franc as a free-floating currency and independence for Swiss bond market, which has traded in lock-step with Eurobonds since the peg was introduced in 2011. There has been no benefit being subject to ECB policy decisions. With the ECB about to embark on a noteworthy QE journey itself, the SNB

³ Velocity of Money = GDP/Money Supply

⁴ Immigration of higher income households increased as many fled France to escape confiscatory income tax rates, irrational incentive compensation rules, and uncompetitive private sector labor policies.

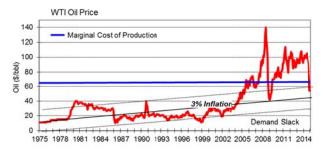
chose to pursue greater central bank independence with a freely traded currency and market set interest rates. We can only wonder if Germany had the right to choose, if it also might follow the SNB's lead.

Oil and Commodities

Impact of severe commodity price changes on inflation is usually transitory. Oil prices collapsed 49% in just the last six months. Broad commodities (CRB Index: -18%) followed suit. Falling energy prices should provide a massive boost to the global economy, particularly oil-importers such as the U.S., South Korea, Japan, and the Eurozone. It will be fiscally challenging for Canada, Russia, Iran, Venezuela, and other OPEC members. We highlighted the risk to oil prices much greater than \$60 over several years, but few anticipated this severe a correction.

Many reasons have been cited for the decline in oil prices. Some suggest "sluggish demand" to describe the imbalances observed, but this is hardly rational with global economic growth in excess of 3%. Anticipated tightening of U.S. monetary policy and stronger U.S. dollar has undermined oil prices and other commodities. In our opinion, prices collapsed due to significant coincident market supply and demand shocks. While negative real commodity prices are often a precursor to slowing global growth, accelerating global real growth suggests to us such concerns are misguided. Central bankers should look through any deflationary impact of lower commodity prices for now.

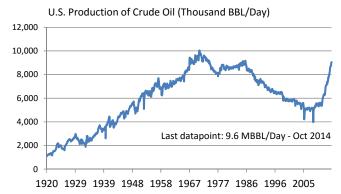
Falling oil prices are the result of a supply shock and falling demand due to desirable structural forces of innovation and increasing energy efficiency. Excess global production capacity should limit the significance of geopolitical risk premiums in oil prices we estimate to be \$20-30, which have persisted since 2006. With excess global supply, we believe it is more likely WTI Oil should trade in a US\$50-70 range for the foreseeable future.



Conservation, substitution, and innovation have driven simultaneous gains in production and consumption efficiency, increasing the imbalance in supply-demand, thereby driving oil and commodity prices lower. If indeed demand growth is declining in the absence of slowing economic growth, while supply is increasing, then the adjustment in oil prices is likely more permanent. Over

the long-run, changes in input prices can't exceed changes in output prices, therefore commodity returns can't exceed inflation. Over the last 100 years, commodity returns have returned 2.5%, equivalent to inflation of 3% less holding costs of 0.5%.

Significant increases in supply have been observed, including Libya now producing over 700,000 barrels daily versus just 200,000 in July. Iraq increased production from 3 Mbbl to almost 4 Mbbl in 2014. U.S. oil production was in decline after peaking in 1970 at 10 Mbbl until 2008, bottoming out at 5.0 million. The U.S. is now producing over 9.6 Mbbl. Thus, global oil production is increasing with the marginal cost of production falling below \$60. With excess production capacity from Canada to the Middle East, the risk premium in oil prices has naturally declined, and will be difficult to restore in the foreseeable future. While the rise of ISIS is concerning, without a significant new geopolitical risk emerging, oil prices are more likely to trade in a new range of \$50-70, with a midpoint reflective of the actual marginal cost of production believed to be ~\$60/BBL.



Source: EIA

Even if global economic growth remains quite normal, weaker energy demand has hinged on declining energy intensity, including increasing efforts in conservation, efficiency, and fuel economy. Lower demand for gasoline, diesel, heating oil, natural gas, and electricity has been observed. We highlighted rising fuel economy requirements as having a significant effect on gasoline demand. Fuel and food subsidies have become expensive to maintain and undermine efforts to promote conservation. Significant fuel subsidies in Iran, India, China, Russia, Indonesia and most other OPEC nations has encouraged inefficient consumption, but many countries have already or are considering taking advantage of lower oil prices to reduce fuel subsidies.

There are many questions why oil tumbled recently. Some attribute the price drop to the US shale-energy boom. Others cite OPEC's failure to agree on restricting supply. Of course, the price of iron ore to gold, silver, and platinum, as well as sugar, cotton, and soybeans have been falling too. The fact that commodity price declines are so broad based suggests that something

bigger is at work. Slack in demand for energy, minerals, and agricultural products is the most common cause for declining inflation expectations. We think something else is causing commodity prices to fall, rooted in innovation.

Investors significantly increased the proportion invested in commodities and other alternative investments over the last 10 years, despite difficulty valuing commodities and straining investment capacity. In our opinion, investor speculation, hording, and flawed public policy contributed to driving up global commodity prices, particularly oil and gold. A discounted cash flow valuation that works well for stocks and bonds cannot be applied to commodities. However, we can compare the price of oil to natural gas, which was at its widest spread of 27:1 ever in 2014. The oil price equivalence of natural gas is roughly \$25/BBL, so a WTI oil price of \$50 is more reasonable. Tight excess supply encouraged speculative investor demand that intensified over the last decade, despite the inefficiency of including commodities in a strategic policy allocation (i.e., 2.5% return, 12% risk).

Yet, over the long-run, rising input prices can't exceed changes in output prices, thus commodity price increases can't exceed the inflation rate. Given an expected 2.5% return⁵ and a standard deviation over 12%commodities seem to be an inefficient asset class to include in a strategic policy. Furthermore, monthly return correlation with the CRB Index over the last 40 years tends to be modestly positive (+4%) with respect to equities and only slightly negative (-14%) relative to bonds in U.S. dollars. Of course, diversification benefits diminish for Canadian-based investors given a positive correlation between the currency and commodity indices. It is not be surprising the diversification benefit of commodities tends to be overstated.

Battle Lines in Asset Allocation Preferences

Forecasting volatility and correlation are becoming more difficult as they evolve more quickly now with many econometric inflection points. This should increase portfolio diversification as country and factor correlations within asset classes decline, while return dispersion increases. Risk allocation strategies such as risk parity rave about being an alternative to having to forecasting return, but what if risk parameters are increasingly difficult to estimate? Modern Portfolio Theory (MPT) has stood the test of time for over five decades. While have sought to address refinements certain shortcomings⁶, MPT is deeply-rooted in decision making under uncertainty with objectives rightly balancing individual preferences between return versus risk. Over allocation to lower volatility assets can require leveraging bond exposures to compensate for lower return versus

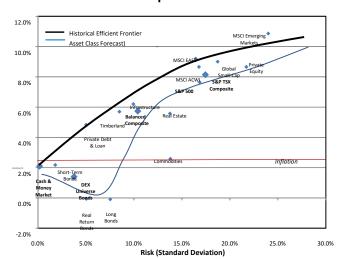
⁵ 2.5% price change plus 0.5% holding cost of a broad commodity index is consistent with 3% inflation observed over the last 100 years ⁶ Including research into optimal empirical resampling this author has developed to provide more robust strategic asset allocation solutions.

balanced portfolios. Popularity of strategies relying solely on increasingly variable risk parameters becoming more difficult to forecast reinforce why over-emphasizing risk allocation over maximizing return subject to a risk budget can be suboptimal.

Greater country and risk factor dispersion is expected and important among *Things That Matter*. Significant changes to asset class volatility and correlation risk measures are a direct consequence of *Great Inflection Points*, including a reversal in the interest rate trend and rotation to an asynchronous global expansion. Thus, any shift toward emphasizing risk allocation strategies over traditional 60/40 balanced allocations, thereby more dependent on risk parameter estimation, is concerning.

Compounding greater equity returns is significant over long time horizons, closing any funding shortfall faster. Equities are positively correlated with economic growth and have less negative correlation with wage earnings than bonds. In these exceptional times, expected bond returns are well below their historical average (see 10-year Return Expectations). With rising interest rates, leveraging fixed income to compensate for less equity is a bad idea⁷. Increasing pension liabilities are a function of inflationary effects, plus real economic growth. Among Things That Matter, unusually low bond returns over the next 10 years suggest the equity-bond return differential will be much greater than normal.

10-Year Expected Returns

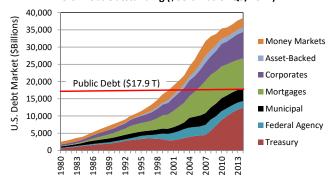


Excessive global debt issuance has driven a 40% increase in global debt outstanding over the last six years to US\$100 Trillion, including \$38.4 trillion in the U.S. We haven't been challenged by an extended bear market in bonds recently, as in the 1970s. Estimates of risk parameters are skewed toward persistently positive

 $^{^7}$ In 1994, Orange County declared bankruptcy due complacency about its modestly leveraged \$7.5 billion long duration bond portfolio within ten months of the Federal Reserve beginning to hike interest rates.

returns. Preference for yield over the last decade, particularly of taxable investors, must be questioned. Differential tax rates between long-term capital gains, dividends, and interest income is too often ignored in choosing between stocks and bonds. We expect the significant global debt overhang may require a persistent risk premium in yield of at least 0.5% over the next cycle once investor yield preference is choked by a relentless bond bear market. This could spur a *Great Rotation* in asset allocation from fixed income to equities.

U.S. Debt Outstanding (\$38.6 T as of Q3/2014)



Source: SIMFA

Final Thoughts

Low interest rates and falling energy prices are a tailwind to stronger global growth in 2015. Global growth will continue to be led by Emerging Markets and North America – U.S., China, Korea, India, and Latin America enjoy supportive conditions, but we continue to avoid Russia, Brazil, Venezuela, and other OPEC oil exporters under increasing fiscal duress. Primary 2014 headwinds to U.S. growth has moderated, and now reversed. U.S. profit margins should remain resilient with S&P 500 earnings growth of 9-10% in 2015. Higher U.S. interest rates may limit any increase in Price/Earnings, but we expect a global equity return of 7-8% this year. Below we included a draft of our latest 10-year return forecast.

Improving confidence and a trough in declining profit margins for Emerging Markets should encourage equity flows and drive Emerging Market indices higher. With compelling valuations, inflation contained, and generally stronger economic growth than developed markets, the case for overweighting Emerging Market valuations are compelling and economic conditions are improving. Loss

of competitiveness has undermined profit margins since 2011, but with margin stability now, many markets are attractive, while Russia, Brazil, and OPEC nations should be avoided. However, lower energy costs and interest rates suggest to us China, India, South Korea, and Eastern European countries are most compelling.

Central bankers have used every conceivable tool to extinguish the interest rate risk premium and drive bond yields lower seeking to stimulate growth. Instead of driving up wages, new jobs, and growth, QE inflated bond prices, compelled corporations to increase debt issuance with low interest rates, and increased inflation risk. Investors have piled into fixed income without regard to increasing risks. Central banking credibility has become increasingly strained, even as policymakers expressed concern about financial sector imbalances they plainly exacerbated. The suggestion such imbalances are concentrated in global equities deflects attention from overvalued government bonds and record debt levels that must eventually be reduced.

Central banks need room to maneuver before the onset of the next recession or crisis, which implies real interest rates should be positive, not negative as they are today. Among the *Things That Matter*, the risk of accelerating core inflation is increasing in North America with lower unemployment and higher capacity utilization. Thus, Federal Reserve needs to normalize interest rates soon, which will likely trigger a correction in U.S. government bonds, and drag Canada along too. We are likely entering a period that long bonds are more risky than equities, and fixed income leverage is perilous.

Traditional balanced 60% global equity and 40% fixed income policy portfolios continue to perform well, particularly relative to risk allocation and other de-risking strategies. We expect the divergence in return-risk performance gap between strategic policy choices will notably increase as bonds underperform average returns enjoyed over the last 30 years with much higher risk. Within asset classes, we observe increasing opportunity to tactically allocate assets and add value. With strong performance of equity markets near record highs, concerns about equity valuations are not surprising, although we believe fixed income markets are of much greater concern.

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