NORTHERN TRUST

CAPITAL MARKET ASSUMPTIONS

FIVE-YEAR OUTLOOK: 2016 EDITION

Global equity returns are expected to make slow progress, while global interest rates will remain low over the next five years. Yet, despite investors' worries, the global economy likely will continue its slow growth. Meanwhile, global monetary policy will remain accommodative, aided (or haunted, depending on your profession) by low inflation.

Six key themes emerged in our forward-looking, historically aware global five-year outlook for 2016. Our Capital Market Assumption team believes the primary theme that will affect investors in the years ahead is **Market Cycles in a Cycle-less Economy**. In addition, we believe the economic and financial market landscape will be affected by:

- **Stuck-flation** as supply easily matches demand and leaves central bankers trapped in a low-rate corner.
- **Costs of Ultra-Low Rates**, which are threatening to outweigh the benefits.
- **Slow Growth Angst**, whereby concerns over slow growth are further hurting the growth outlook.
- **Populist Roulette** is leaving global markets unsure of what to expect from the political arena.
- **Technological Turbulence**, which will impede further efficiency gains from the digital era.

These themes – combined with a historical analysis of financial market return drivers and asset class relationships – form the basis for our five-year capital market assumptions. In turn, these assumptions guide our strategic asset allocation recommendations.

HERE'S WHAT INVESTORS NEED TO KNOW IN THE YEARS AHEAD.

Every year, Northern Trust's Capital Market Assumptions (CMA) Working Group develops forward-looking, historically aware forecasts for global economic activity and financial market returns – which drive our five-year asset class return expectations.

OUR OUTLOOK: FIVE-YEAR THEMES TO WATCH

Market Cycles in a Cycle-less Economy

There have been plenty of criticisms of the current regulatory and fiscal policies (many of them fair), but one virtue is the significantly reduced odds of a boom-bust cycle.

Tougher regulations have prevented excess build up in the economy or bubbles in financial markets; austerity can be reversed, acting as a counter-cyclical tool. These dynamics are creating a cycle-less economy. The cycle-less economy also extends to cycle-less monetary policy.

For years, the markets attempted to put a "semi-normal" trajectory for Fed fund rate hikes in place. This trajectory was mostly maintained – just pushed out – in both 2014 and 2015. But now, catalyzed by Brexit, the markets have removed the cycle. Economic upside is limited, but we also believe lack of economic excesses will limit any major downside.

Stuck-flation

The combination of ample available supply, sluggish demand and low future inflation expectations will make it difficult for central bankers to dislodge "stuck" inflation over the next five years.

Central bankers are intent on raising inflation to more-normal levels; doing so assists in debt servicing and provides incentive to consume. But across most developed economies, inflation expectations remain stuck below the widely used 2% target. Even the specter of higher wages and energy prices has failed to lift the market's inflation expectations. Investors seem to believe slow-growing demand will dominate the inflation picture. They are largely looking through the transitory effects of higher wages and energy prices, believing wage pressures and energy costs will be managed through continued jobs automation and more energy-efficient operations.

Costs of Ultra-Low Rates

Central bankers have dug themselves into a zero-rate hole and they may have no choice but to dig deeper.

Concern is mounting that the cost/benefit analysis of ultra-accommodative policy is turning negative – with falling benefits failing to offset rising costs. Negative interest rate policy has hurt bank profitability – banks have found it difficult to pass negative rates on to depositors. Quantitative easing has mostly directed capital to government debt, without "trickling down" to private borrowers as anticipated. In both monetary policy approaches, central bankers are pushing on a string unless they get the economy to demand and supply higher levels of credit. So far, money supply growth has fallen short of previous expansions.

Much as central bankers would like to move away from current ultra-easy monetary policy, the less risky (and more likely) approach is more of the same.

Slow Growth Angst

The current U.S. expansion is four years shy of being the longest in post-World War II history – but it also is the slowest.

Slow growth is the reality globally, as economic expansion across all major advanced regions continues to lag the average growth realized in the pre-financial crisis period (1980-2008). These dynamics are joined by slow growth angst: Unsatisfactory growth is fueling concern about the future, decreasing consumers' willingness to spend and leading to political upheaval; this is increasing uncertainty for businesses already hesitant to invest in a slow-growth environment. In this self-fulfilling cycle, concerns about slow growth are further slowing economic growth.

Such a low-flying economy also increases the risk that an economic air pocket might lead to recession. But the current financial system stability and lack of global economic excesses are likely to keep any recession shallow.

Populist Roulette

Middle class families increasingly feel like they've been left behind – and the data support that feeling.

Household real median income in the United States has fallen by 4.7% annually since the beginning of 2008. Meanwhile, real gross domestic product (GDP) and equity prices grew 1.2% and 5.0% respectively. Politicians have seized on the middle class's growing anger, giving rise to populist political movements globally. These movements are unpredictable – both in terms of how the electorate will vote, and what the populist candidates will do if they are put into office. Not all populist-driven policies would hurt economic growth; new fiscal stimulus to counter potential "secular stagnation" would be welcomed. But it's the uncertainty surrounding these candidates that pressures the outlook for risk-taking. At this point, threats to build walls must be taken as seriously as plans for new infrastructure build-out designed to boost demand.

Technology Turbulence

Recent technological advances have the potential to provide strong support for the global economy through increased efficiencies. However, populist-influenced government officials will be more focused on the likely near-term dislocation of workers, slowing technological advancement with policies aimed at protecting jobs.

The current technological revolution may not follow the path of its predecessors; not everyone accepts the premise that recent technological advancements are making the economy more efficient. Some believe the true gains from the internet revolution may turn out to be small and already realized; for example, year-over-year growth of internet users already has peaked and is now falling. Others don't deny the potential positives, but are skeptical that those positives will ever outweigh the negatives – notably lost jobs. We appreciate the potential of the ongoing technological revolution, but do not see it as an unqualified positive for economic growth given the impediments it may face.

FIVE-YEAR ASSET CLASS FORECASTS

FIXED INCOME ASSUMPTIONS

Cash returns will be low to negative as monetary accommodation is extended. Fixed income returns will be hobbled by a low-yield starting point, but low-yield continuation supports prices. Some pressures on fundamentals will be offset by demand for yield, supporting credit.

We view high yield as attractive in an environment of low interest rates and continued easy monetary policy.

Fixed Income Outlook

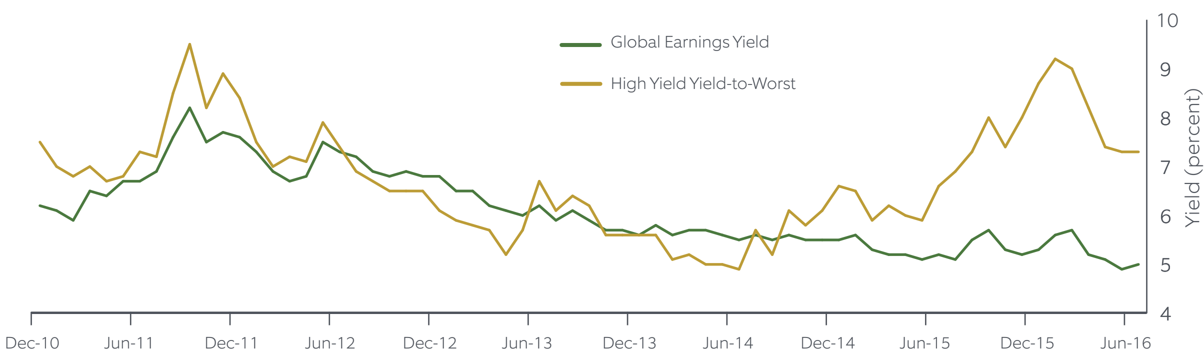
Forecasting fixed income returns is an exercise in understanding the effects of two primary variables: term structure and credit spreads.

Term structure is heavily dependent on future expectations for inflation and central bank policy. Inflation influences central bank decisions on short-term rates, and the expected progression of short-term rates dictates what interest rates lenders are willing to accept on longer-term debt. Our expectation is that continued ultra-accommodative monetary policy, but without the normal growth or inflationary response (see Slow Growth Angst and Stuck-flation), will keep a lid on interest rates across the maturity spectrum.

Turning to credit spreads, we expect an ongoing battle between the demand for yield in a low interest rate environment and some increased concern about corporate fundamentals. Investment-grade fixed income total return forecasts benefit from our expectations for slight credit spread tightening and continued low interest rates (below what is priced into the markets) – allowing expected total returns to outpace the low yield starting point. In high yield, higher yields combined with an expectation for a manageable default environment makes the asset class attractive. We expect total returns in the mid-single digit range.

RECENT HIGH YIELD SPREAD WIDENING CREATES OPPORTUNITY IN LOW-RATE WORLD

High yield yield-to-worst vs. equity market earnings yield



Source: Northern Trust, Bloomberg, MSCI

EQUITIES ASSUMPTIONS

Developed-market equity returns will be modest; slow global growth hurts the revenue outlook, but low inflation and low interest rates support profit margins and ease valuation contraction. A better emerging market revenue outlook is slightly offset by earnings dilution.

We believe solid emerging market growth - void of a China hard landing - will allow for a reversal of fortunes in emerging market equities.

Equities Outlook

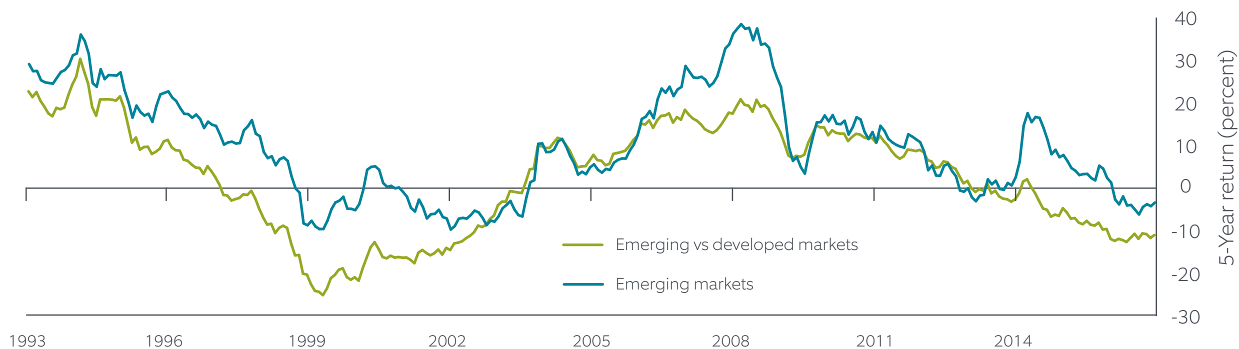
Equity return assumptions require four primary forecasts: revenue growth, profit margins, valuations and dividend yields.

Our Slow Growth Angst theme suggests modest developed-market revenue growth. But low financing costs and modest operational efficiencies – to help offset any increase in input costs – should support profit margins. Valuations are expensive, but we expect them to remain that way because most fixed income investments do not offer a compelling alternative in a continued low-rate environment. We have maintained dividend yield assumptions at current levels, resulting in a 5.4% total return expectation.

Our expectation for solid emerging market growth, void of a China hard landing, should support emerging market revenues. But we expect per-share income to come under pressure by continuing liberal share issuance policies and margin contraction from rising labor costs. Valuations should remain steady over the next five years. Emerging market valuations are well below those of developed markets, but we find this to be justified due to the risks that remain in emerging markets. A 2.8% dividend yield projection results in a 7.3% total return expectation.

HISTORY SUGGESTS POTENTIAL EMERGING MARKET REVERSAL

Emerging vs. developed market returns



Source: Northern Trust, Bloomberg, MSCI

REAL ASSETS ASSUMPTIONS

Natural resource returns benefit from a supply response to lower prices. Global real estate will face demand challenges, but returns will be supported by a diversified set of risk exposures. Global listed infrastructure will remain a highly-valued "bond market proxy."

Forecasting real asset returns means understanding the risk factors to which these asset classes are exposed, while also understanding how our themes will affect those relationships.

Real Assets Outlook

Our primary "real asset" asset classes – natural resources, global real estate and global listed infrastructure – are all equity-based and, therefore, have significant equity market exposure. But they face other exposures as well: natural resources has commodity and emerging market equity exposure; global real estate and listed infrastructure have interest rate exposure. We keep these exposures in mind when making forecasts.

Natural Resources

We expect the slow-growth environment to act as a headwind to natural resource demand. Also, the continued emerging market shift to consumer demand from investment-driven growth should begin to reduce the link to emerging market equity returns. However, natural resource demand is not dead and underinvestment has constrained supply, mitigating the negative effects. We forecast a 6.9% total return.

Global Real Estate

Our expectations for continued low interest rates and modest credit-spread tightening create a historically constructive global real estate return environment, compared to the broader global equity market. But valuations are extended and future demand may face some technology-enabled pressures (online shopping, office space rationalization, etc.). We moderated our quantitative forecast to a 6.3% total return.

Global Listed Infrastructure

Valuations across infrastructure-related sectors (e.g., utilities) have benefited from falling interest rates, and energy-related components are recovering from the fall in oil prices. Assuming stable-to-higher oil prices over the next five years, listed infrastructure's role as a "bond market proxy" should continue to attract investors in a low-rate world. Developed economy infrastructure needs also support demand. We expect a 5.6% total return.

ALTERNATIVES ASSUMPTIONS

While varying by strategy, the return of the "average" hedge fund will be hurt by lower risk exposure returns and lower alpha, magnifying the importance of manager selection. Private equity will see a slight moderation in its illiquidity premium as asset class interest grows.

Alternative asset classes enhance risk-adjusted portfolio returns by introducing non-traditional risks.

Alternatives Outlook

We define alternative investments as asset classes that enhance risk-adjusted portfolio returns by introducing nontraditional risks. We focus on two primary asset classes – hedge funds and private equity investments.

Hedge Funds

Hedge strategies vary greatly by risk exposures and alpha potential. With that caveat, we forecast the expected return of the HFRI Fund Weighted Composite Index – a vast collection of hedge fund strategies. Our 3.4% hedge fund return forecast represents the combination of expected alpha (0.5%) and returns from risk exposures (2.9%).

Private Equity Investments

Forecasting private equity returns is difficult; the absence of public pricing inhibits quantitative analysis. But it is intuitive to expect equity-like returns with a return premium to compensate for asset class illiquidity. Academic research suggests this premium has historically been 2.5%. In this year's CMA effort, we trimmed the premium to 2.0% to reflect concerns over heightened investor interest (making "deals" more difficult to find) and expensive valuations, recognizing that global equity valuations (off which our private equity return forecast is based) are also elevated. Our private equity forecast comes in at 7.4%.

FIVE-YEAR OUTLOOK AT A GLANCE

- Market Cycles in a Cycle-less Economy
- Stuck-flation
- Costs of Ultra-Low Rates

2.1%

expected total returns for global investment - grade fixed income

5.4%

expected total returns for developed market equities

5.6% - 6.9%

expected total real asset returns

3.4% - 7.4%

expected total returns for alternatives

- Slow Growth Angst
- Populist Roulette
- Technology Turbulence

See our full asset class return forecasts on page 9.

DETAILED FIVE-YEAR ASSET CLASS FORECASTS

All Returns in % Annualized				5-Year Return Forecasts By CMA Year						5-Year Actual Return
		Asset Class	Index	2016	2015	2014	2013	2012	2011	
Fixed Income	United States	Cash	3-Month U.S. T-Bill	0.5	1.5	0.9	0.5	0.5	1.5	0.1
		Inf. Linked	BarCap U.S. TIPS	2.5	2.5	3.0	2.7	1.4	2.7	2.6
		Inv. Grade	BarCap U.S. Aggregate	3.0	3.0	3.0	2.8	2.0	3.3	3.8
		High Yield	BarCap U.S. High Yield	5.3	5.6	5.6	6.1	6.1	5.6	5.8
		Municipal	BarCap Municipal	2.8	3.5	4.0	3.0	2.9	3.5	5.3
	Canada	Cash	3-Month Canada T-Bill	0.7	1.5	1.3	1.5	1.5	3.0	0.8
		Inf. Linked	FTSE TMX Real Return Bond	2.5	2.5	3.2	3.2	2.3	3.3	5.7
		Inv. Grade	FTSE TMX Universe	2.6	2.7	3.4	3.5	2.5	3.5	5.6
		High Yield	ML Canadian High Yield	5.0	5.6	5.6	6.1	6.1	5.6	8.1
	UK	Cash	3-Month Gilts	0.3	1.5	1.3	0.6	1.0	2.3	0.5
		Inf. Linked	BarCap UK Inflation Linked	2.0	2.6	3.0	3.2	2.7	2.8	9.8
		Inv. Grade	BarCap Sterling Aggregate	2.6	3.0	3.7	3.5	3.1	2.6	7.8
	Europe	Cash	3-Month Bunds	-0.5	0.0	0.4	1.0	1.3	2.4	-0.1
		Inf. Linked	BarCap Euro Inflation Linked	1.4	1.8	2.8	3.2	3.1	3.3	5.3
		Inv. Grade	BarCap Euro Aggregate	1.4	2.0	2.8	3.0	2.9	3.6	6.5
	Japan	Cash	3-Month JGB	-0.3	0.0	0.1	0.1	0.3	0.3	0.0
		Inf. Linked	BarCap Inflation Linked JGB	0.8	1.2	1.5	0.6	0.5	0.8	2.3
		Inv. Grade	BarCap Japanese Aggregate	0.5	1.0	1.2	0.8	0.7	0.5	3.6
	Aus.	Cash	3-Month Australia Gov't Bond	2.0	2.2	2.8	3.3	4.0	*	3.0
		Inv. Grade	BarCap Australian Composite	3.3	3.5	4.0	3.6	3.3	*	6.9
	Global	Global IG	BarCap Global Aggregate	2.1	2.5	2.7	2.6	2.0	2.1	4.8
		Global HY	BarCap Global High Yield	5.3	5.8	5.8	6.5	6.5	*	6.8
		EM Debt	JP Morgan GBI-EM Diversified	5.5	6.5	6.0	7.0	6.1	6.9	-2.2
Equities	Developed Markets	United States	MSCI United States	4.8	5.6	6.6	7.1	8.5	7.5	12.0
		Canada	MSCI Canada	6.0	6.9	7.1	7.6	8.0	7.5	3.9
		United Kingdom	MSCI United Kingdom	5.9	7.0	8.6	8.4	8.0	7.5	5.6
		Europe	MSCI Europe ex-U.K.	5.3	6.8	8.2	7.8	7.0	7.0	5.5
		Japan	MSCI Japan	5.6	6.2	6.6	5.8	5.0	4.0	9.6
		Australia	MSCI Australia	8.0	8.1	9.1	9.4	8.5	8.0	7.1
		Developed Markets	MSCI World	5.4	6.1	7.2	7.4	7.8	7.3	9.4
	Emerging	Asia	MSCI EM Asia	8.0	8.5	10.0	9.9	11.5	11.5	2.2
		Latin America	MSCI EM Latin America	5.6	5.7	7.0	10.6	11.0	10.0	1.6
		EMEA	MSCI EM EMEA	6.0	6.5	7.9	10.4	9.5	8.5	-1.5
		Emerging Markets	MSCI Emerging Markets	7.3	7.8	9.0	10.1	11.1	10.7	2.4
	Global	Global Equities	MSCI All Country World	5.8	6.5	7.4	7.7	8.4	9.4	8.6
Real		Natural Resources	Morningstar Upstream NR	6.9	7.0	7.0	7.2	7.9	*	-5.0
		Listed Real Estate	FTSE EPRA/NAREIT Global RE	6.3	6.9	8.0	8.0	8.4	9.4	7.7
		Listed Infrastructure	S&P Global Infrastructure	5.6	6.2	7.0	7.5	8.9	*	6.2
Alts		Private Equity	Blend: 75% Buyout/25% VC	7.4	8.6	9.2	9.6	11.0	11.0	N/A
		Hedge Funds	HFRI Fund Weighted Comp	3.4	4.4	4.3	4.4	5.5	8.4	2.5

WHO DEVELOPS THE CAPITAL MARKET ASSUMPTIONS, AND HOW THE ASSUMPTIONS ARE USED

The “forward looking, historically aware” themes that arise each year from our CMA process spring from an examination of the historical relationships between asset classes and the drivers of their returns, and how these relationships may evolve in the future. These themes are then combined with our quantitative analysis to guide our expectations for five-year asset class returns. The CMA return forecasts become one of the portfolio construction tools we use to help shape the recommended strategic asset allocations for all Northern Trust managed portfolios and multi-asset class products.

The CMA Working Group is composed of senior professionals from across Northern Trust globally, including our chief investment officers and chief economist, top-down investment strategists, bottom-up research analysts and client-facing investment professionals.

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To learn more about Northern Trust's market outlook and how it affects our strategic and tactical asset allocation recommendations, contact your relationship manager.

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