Nebraska Investment Council

Macroeconomic Overview and Indexing Trends

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BLACKROCK®

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I. BlackRock Relationship Summary

Nebraska Investment Council
BlackRock Relationship Summary

As of 31 January 2019

		Return[1] vs Index (bps)				
Mandates	**AUM (MM)**	**1-year**	**3-year**	**5-year**	**Since Inception**	**Inception Date**
FTSE Russell 1000 Index[2]	$3,828	1	3	3	4	10/2007
MSCI ACWI ex-U.S. IMI Index[2]	$1,803	25	31	26	24	4/2011
Bloomberg Barclays U.S. Aggregate Bond Index[2]	$1,281	8	7	10	8	3/1995
Active Core Fixed Income Portfolio[2]	$652	10	17	20	38	3/1998
S&P 500 Index[3]	$380	4	3	3	9	6/2006
FTSE Russell 1000 Value Index[2]	$189	10	5	6	5	11/2012
MSCI ACWI ex-U.S. Index[3]	$85	33	-3	22	23	6/2005
FTSE Russell 1000 Growth Index[3]	$66	1	3	3	11	6/2006
Total AUM	**$8,284**					
Defined Benefit Plan and Endowment Trust AUM	**$7,566**					
Defined Contribution Plan AUM	**$718**					

1: Figures shown are the portfolio returns, net of estimated fees, versus the index. Figures are annualized for all periods except 1-year.
2: Return stream shown is for defined benefit assets
3: Return stream shown is for defined contribution assets

II. Macroeconomic Overview

US Economy and Markets in Review

January 2019

Duration Adjusted Excess Returns versus Treasuries by Sector

Duration adjusted excess returns by sector (in basis points)								
	2012	2013	2014	2015	2016	2017	2018	Jan 19
Bloomberg Barclays Agg Index	226	93	10	-53	138	121	-101	58
Agency (US and xUS)	166	1	10	-133	121	148	-78	31
MBS	91	98	40	-5	-11	52	-59	32
ABS	246	24	53	44	95	92	13	16
CMBS	841	97	108	-28	236	158	-39	51
Credit	693	226	-18	-169	442	335	-280	165
High Yield**	1394	923	-112	-577	1573	610	-358	408
Emerging Markets***	1503	-32	-120	3	880	614	-345	268

Note: Index performance is shown for illustrative purposes only. You cannot invest directly in an index. **Past performance is not indicative of future returns**. Please refer to Important Notes section for disclosure information. Source: Bloomberg, Barclays; data as of January 31, 2019. The opinions expressed are of BlackRock as of January 31, 2019 and can change with market conditions.

* Unannualized

** Bloomberg Barclays US Corporate High Yield Index

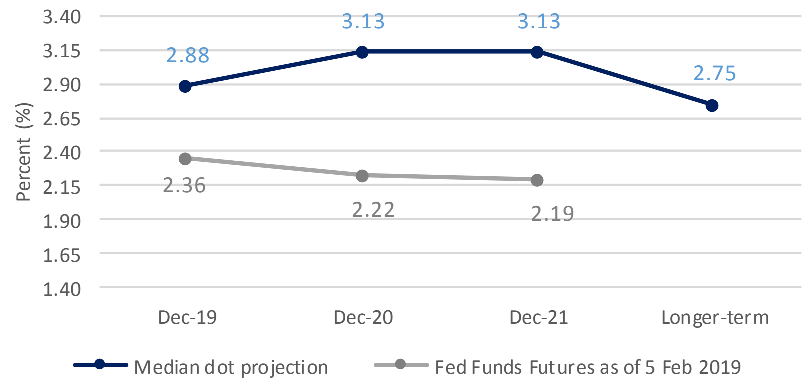
*** Bloomberg Barclays emerging markets USD Aggregate Index (USD)

Risk sentiment, supply increases, and inflation expectations are driving rates

Interest rate volatility has increased as rates have risen*

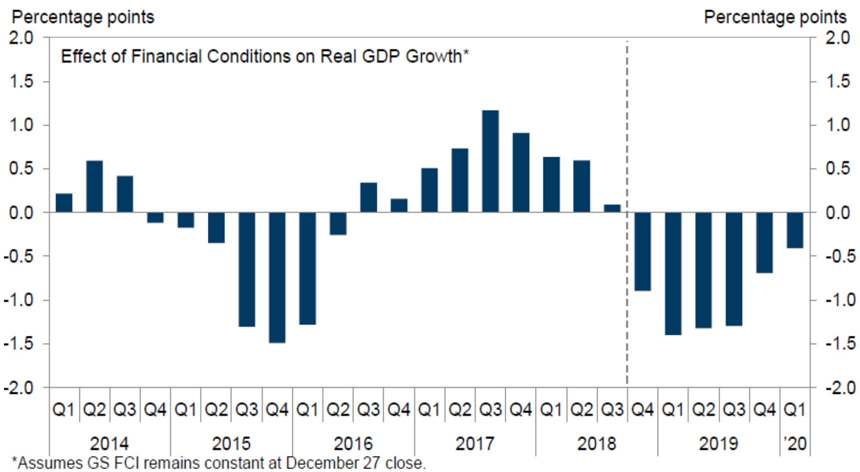
- The FOMC increased its policy rate range in the December 2018 meeting.
- The Fed's policy path holds some significant implication for rate markets.
- Lower inflation risk premiums have driven rates from their highs (bottom right chart)
- The Fed has attempted to diminishing any impact from its balance sheet reduction (quantitative tightening - QT). The Fed is debating the optimal size of its balance sheet, as evidenced by the December FOMC minutes.

Fed guidance vs. market expectations of rates



Source: Federal Reserve, Bloomberg, BlackRock, Data as of Feb. 5, 2019

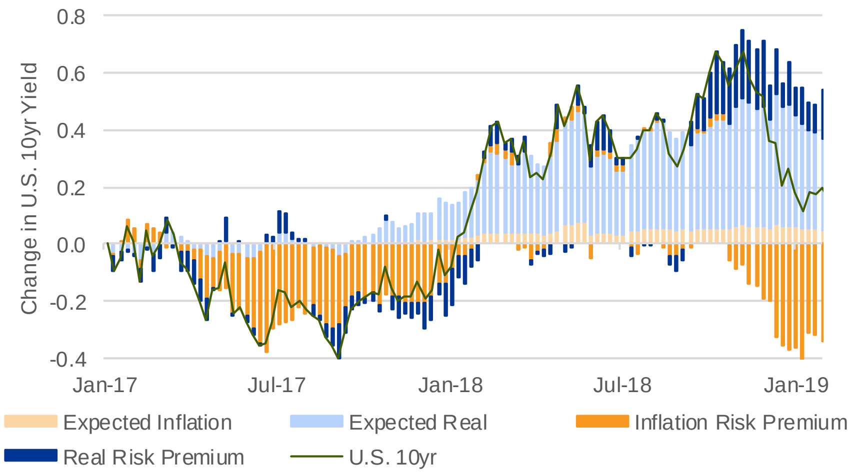
Impulse from fiscal stimulus is waning



*Assumes GS FCI remains constant at December 27 close.

Source: Goldman Sachs, Data as of Dec. 27, 2018
*Source: Bloomberg, as of Jan. 31, 2019

Decomposition of US 10Yr yield since 2017

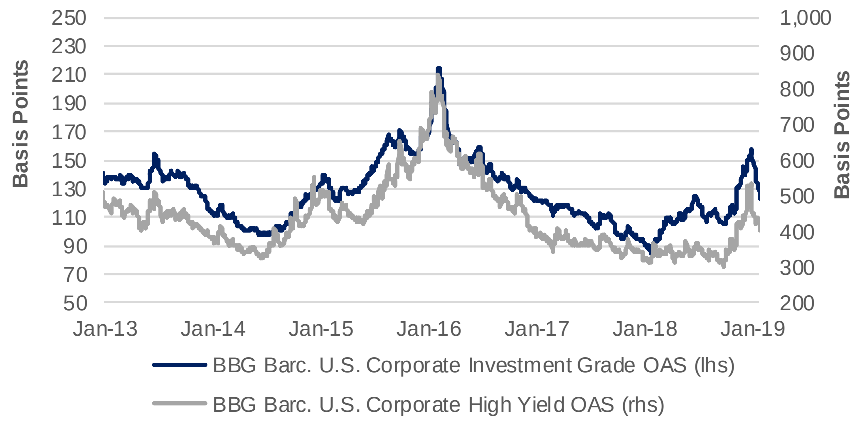


Source: Bloomberg, BlackRock Investment Institute, as of Jan. 31, 2019.

Credit spread outlook

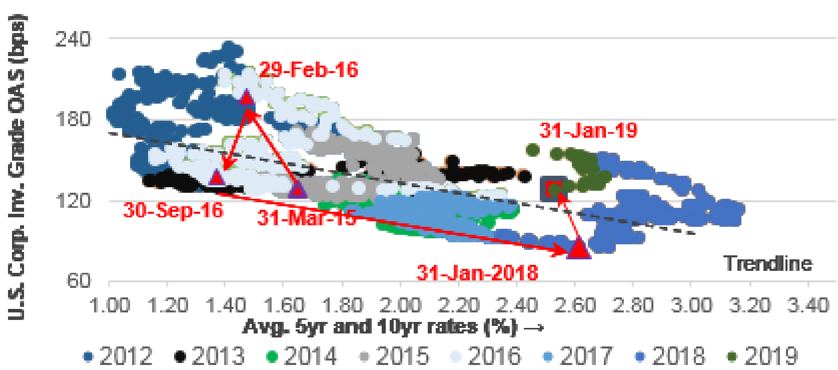
- Credit spreads have narrowed after moving to twelve month wides in 4Q18. It would seem that risks – potential policy changes, geopolitical uncertainty, earnings slowdown, the state of the credit cycle, global growth outlook, etc. – were a bit overblown, though remain under the surface.*
- The risk parity trade, measured by corporate spreads and US Treasuries (as measured by avg. 5yr and 10yr rates), has had a wild ride over the last year (see chart on bottom left*).
- In the context of slower but steady growth, BBB-rated credit is not as scary as it first appears (see bottom right chart*).

Both IG and HY credit spreads have widened significantly in recent months



Source: Bloomberg, Data as of Jan. 31, 2019

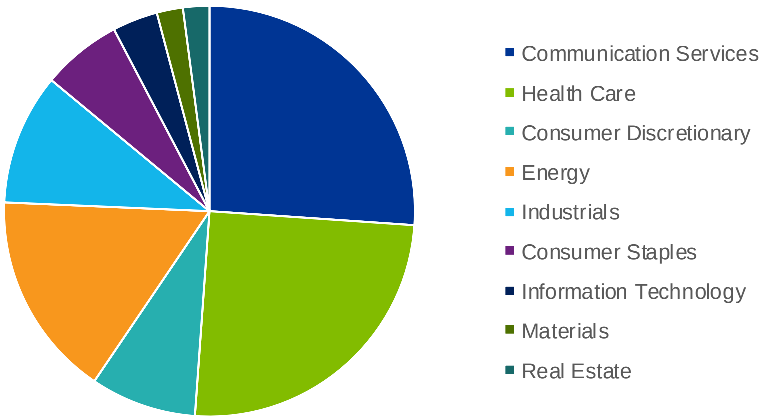
Risk-parity appears attractive again



Source: Bloomberg (BBG. Barc. US Corp. Investment Grade Index OAS, Data as of Jan 31, 2019. Historical yields are not necessarily indicative of future levels.

*Source: Bloomberg, as of Jan. 31 2018

Decomposition of large cap BBB-rated bonds by sector

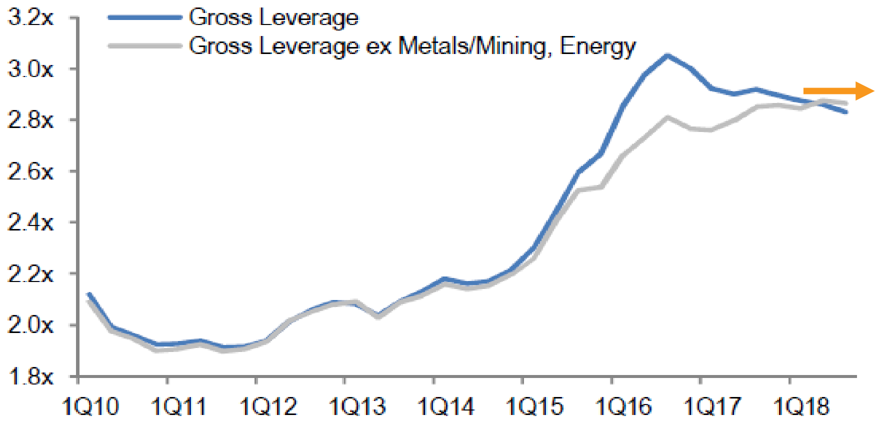


Source: BlackRock, Bloomberg. Data as of Dec. 31, 2018

Corporate earnings remain solid and leverage has peaked creating a sound environment for corporate credit

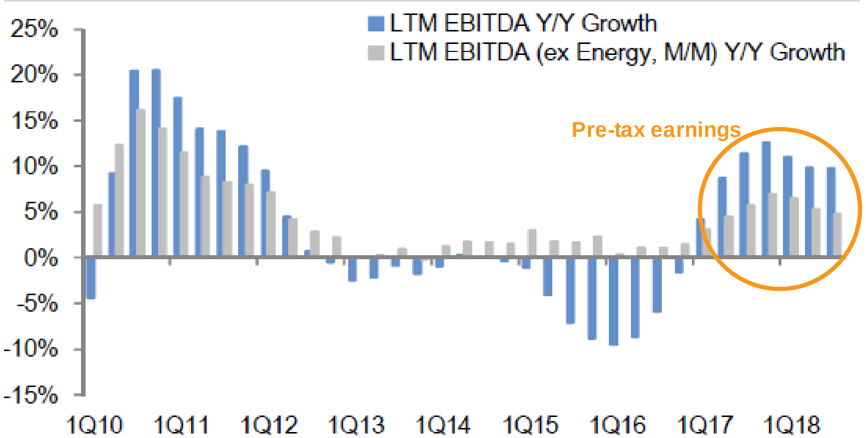
- Revenue and profit increases are expected to moderate as a result of waning fiscal stimulus. Slower growth and higher wages could pressure margins further.*
- Leverage ratios have moderated at an elevated level and interest coverage has settled near post-crisis lows. We expect to see modest improvement over the next few quarters, as measured on a post-tax basis.*
- Will trade tensions reduce business confidence and lead to reduced CapEx?*

Gross leverage flattened out in recent quarters, but remains elevated



Source: JPMorgan, Capital IQ, BlackRock, Data as of Q3 2018

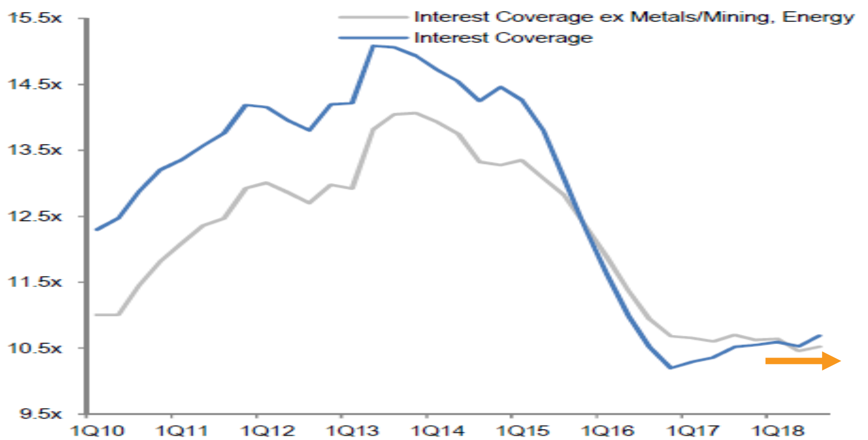
Earnings have been healthy for eight consecutive quarters



Source: JPMorgan, Capital IQ, BlackRock, Data as of Q3 2018

* BlackRock views as of Dec. 31, 2018

Interest coverage declined as earnings slowed more than debt growth, while coupons are increasing for issuers



Source: JPMorgan, Capital IQ, BlackRock, Data as of Q3 2018

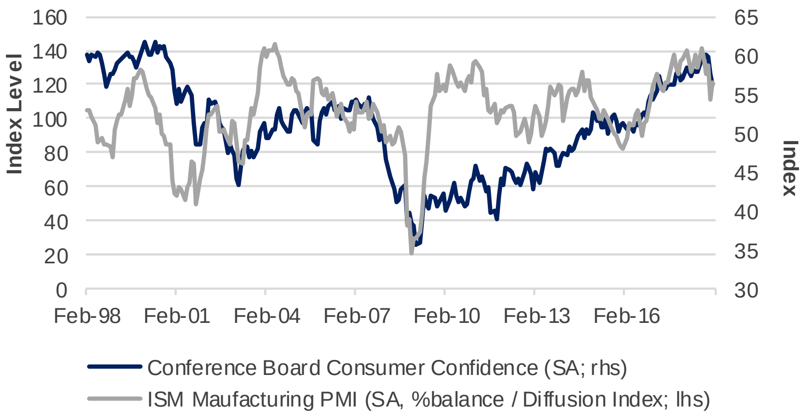
US growth has been operating at a remarkable level for the past couple years, with a slowdown largely expected in the coming quarters

- Economic data in the U.S. has been strong as evidenced by the GDP chart on the right.
- Consumer spending remains in a solid range as Confidence measures and PMIs continue to hover near post-crisis highs, although have moved lower recently. *
- Fiscal initiatives have been a tailwind for markets, most notably tax reform and a large discretionary budget. That dynamic is set to reverse towards the latter part of 2019, which may weaken economic data.
- GDP growth has risen as a function of greater consumer activity and a decline in the unemployment rate. Productivity growth has been weak, but is slowly improving.* The key question is will this continue?

US GDP exhibiting moderate growth and picking up in recent quarters, unsurprisingly

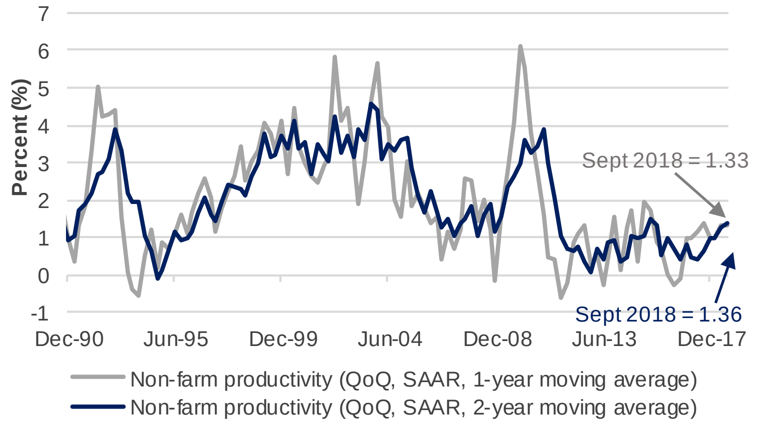
Source: Bloomberg, Data as of Jan. 31 2019

Confidence measures and PMIs remain near post-crisis highs. Recent data is notably weaker, however.



Source: Bloomberg, Data as of Jan. 31, 2019
*Source: Bloomberg, as of Jan. 31, 2019

Non-farm productivity has improved from muted levels, though remains historically low



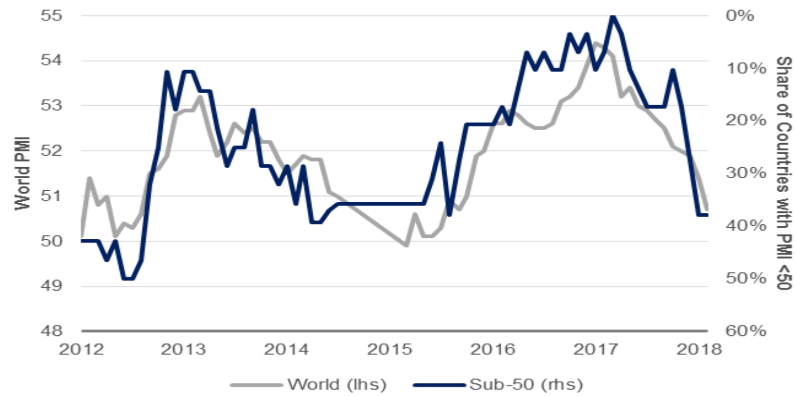
Source: Bloomberg, Data as of Jan. 31, 2018.

Global capital markets: Convergence or more of the same?

Developments in the Euroarea, Japan and China have diverged from the U.S. in recent quarters

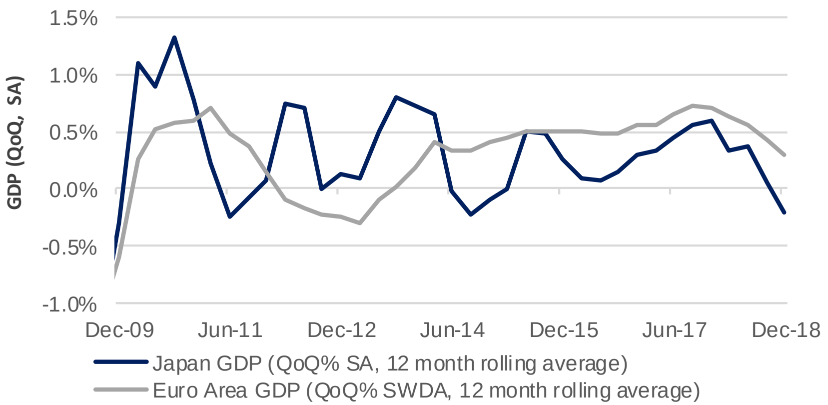
- Risks include the potential for a Chinese slowdown, having a big impact on emerging markets asset performance. China's biggest challenges include trade tensions, further moderating the property market, curbing excess leverage and transitioning to a more consumer driven economy; a tenuous exercise in any environment. (See chart on right bottom).
- Japanese growth and European data have slowed in recent prints (See GDP chart below).
- Trade tensions and increased tariffs may add to increased market volatility. We do not see trade risks dissipating quickly and this is likely to curb growth prospects.*

Global PMI has receded, but growth remains broad based



Source: Bloomberg, Data as of Jan. 31, 2019. PMI stands for Purchasing Managers' Indexes. PMI is an economic indicator that is derived from monthly surveys of private sector companies. An Index level above 50 indicates an improvement in manufacturing activity.

Global GDP growth is normalizing from its highs in late 2017



Source: Bloomberg, Data as of Jan. 31, 2019
* Source: BlackRock views as of Jan. 31, 2019

Chinese assets have declined meaningfully as forward growth is questioned

Source: Bloomberg, Data as of Jan. 31, 2019

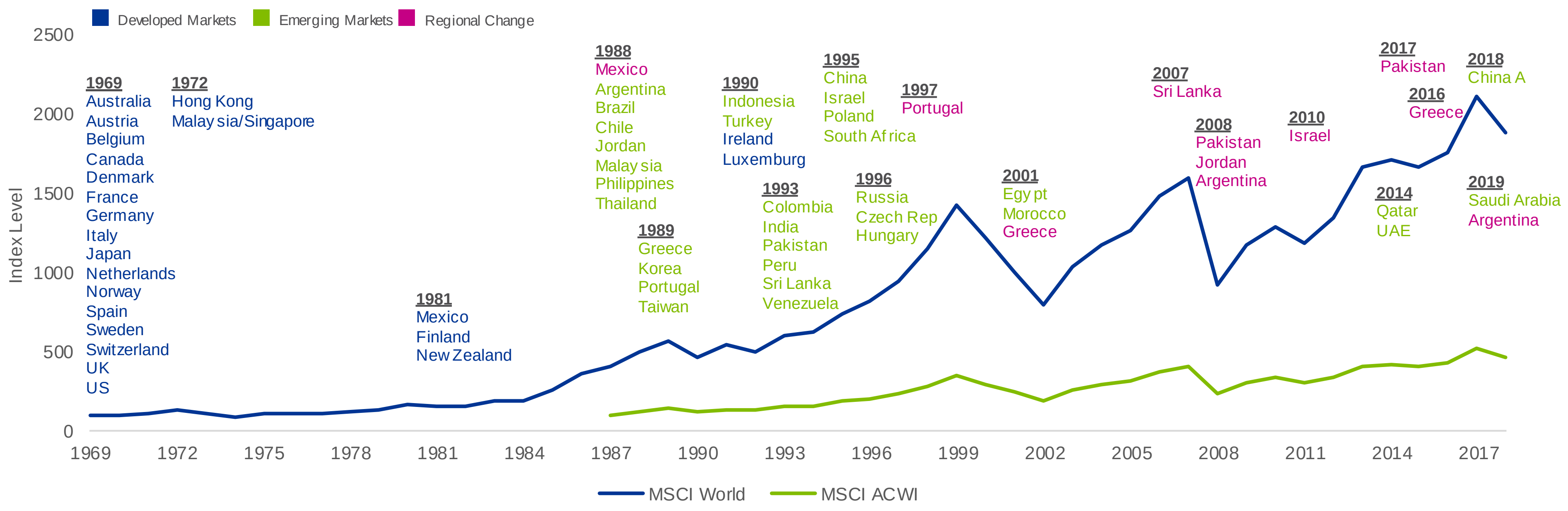
III. Indexing Trends & Investment Stewardship

Indexes evolve with the markets

Indexes are rules-based and systematic, but that doesn't mean they can't change. Common amendments include:

- Country promotion, demotion, inclusion or deletion
- Sector evolution
- Market cap calculation and cut-off procedures
- Treatment of corporate actions
- Treatment of certain security types

The geographic evolution of MSCI's global indexes



Source: MSCI as of 12/31/2018

The Index Fund Revolution

What to know about index funds

1 Indexing has democratized investing.

2 Indexes come in all shapes and sizes – including those that track the same market.

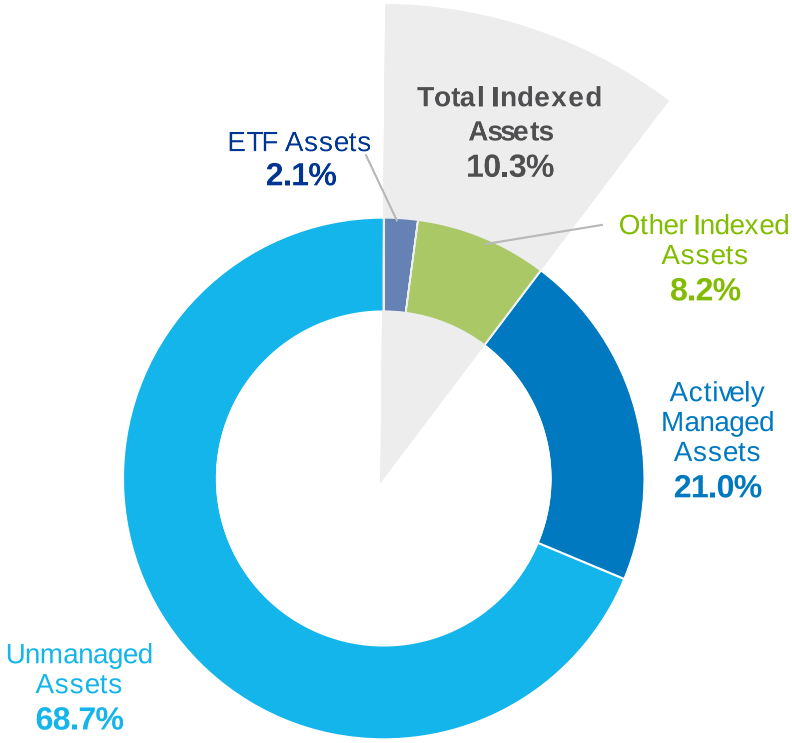
3 Index funds can offer access to many of the same outcomes that actively managed funds do.

4 Cost is only one consideration in choosing a fund.

5 Index funds are professionally managed.

Room to grow

Index funds are still a small portion of stock and bond markets



Source: iShares.com. BlackRock estimates based on McKinsey, Markit, Bloomberg, Simfund and Broadridge data as of 12/31/16

Be deliberate in combining *Index, Factors*, & *Alpha* to enhance portfolio design

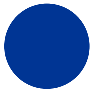
Index strategies provide the anchor for strategic stock/bond benchmarks in target risk allocation

Active risk can be allocated to *Factor strategies* and *Alpha-seeking strategies*

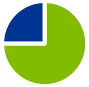
- The higher the conviction in alpha, the higher allocation to alpha-seeking strategies
- The more fee sensitive, the higher the allocation to factors
- Robust portfolios are a result of considering alpha expectations, fee sensitivity, active risk budget and due diligence capabilities

Investment Performance Drivers

Cap-weighted Index strategies



Index + Deliberate Factors



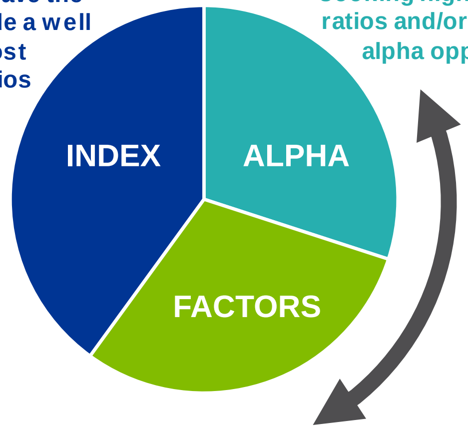
Index + Differentiated Alpha

***Complementary* Index + Deliberate Factors + Alpha**

Combining all three brings together complementary sources of return, which may result in more efficient portfolios

Index strategies have the potential to provide a well diversified, low cost anchor for portfolios

Consider tilting towards more alpha-seeking for investors seeking higher information ratios and/or concentrated alpha opportunities



Consider tilting towards more factors for investors seeking lower base fees

For illustrative purposes only. There is no guarantee that a positive investment outcome will be achieved.

BlackRock Investment Stewardship

As a fiduciary investor, we work on behalf of our clients, the asset owners:

- **Engaging with companies -** Emphasizing direct dialogue with companies on governance issues that have a material impact on long-term performance.
- **Using our vote -** Perform independent research and analysis, carefully arriving at proxy vote decisions that are consistent with our voting guidelines and that we believe are in the best long-term economic interest of our clients.
- **Promoting thought leadership -** Engage in public policy issues and participate in market-level dialogue to contribute to the development of policies and practices that support stewardship, long-term investing and value creation.

40+ dedicated specialists in 7 locations: San Francisco, New York, London, Tokyo, Hong Kong, Singapore, and Sydney.

In 2018* the team:

- Participated in 2,049 company engagements in 34 countries with 1453 companies
- Voted at over 17,000 shareholder meetings on approximately 160,000 proposals in over 85 markets
- Presented BlackRock's perspective on governance at over 190 conferences and public events globally

* Source: BlackRock, July 1, 2017 – June 30, 2018

IV. Appendix

I. Presenter Biographies

II. Disclosures

Presenter Biographies

Diane Parish

Managing Director

Diane Parish, Managing Director, is a member of the US and Canada Institutional team within BlackRock's Institutional Client Business. She is responsible for developing and maintaining relationships with institutional investors, including corporations and public and private pension plans.

Previously Ms. Parish was a fixed income portfolio manager in BlackRock's Portfolio Management Group, specializing in managing insurance company portfolios. Prior to joining BlackRock in 1995, Ms. Parish was a Director and fixed income portfolio manager at CS First Boston Investment Management Corporation, with responsibility for institutional portfolios. Before joining the investment affiliate, Ms. Parish was a Vice President in the fixed income research department of The First Boston Corporation. She began her career at the Frank Russell Company, where she advised pension fund clients on fixed income managers and investment strategies.

Ms. Parish earned a BA degree in business administration from the University of Washington and an MBA degree in finance from Columbia University.

Akiva Dickstein

Managing Director

Akiva Dickstein, *Managing Director,* is Head of Customized Multi-Sector Portfolios and co-Head of Global Inflation Linked Portfolios within BlackRock's Global Fixed Income (GFI) group, and a member of the Global Fixed Income executive team. He is also a portfolio manager of BlackRock's Core Bond Fund. Prior to taking on his current responsibilities, Mr. Dickstein was the lead portfolio manager on BlackRock's mortgage portfolios.

Before joining BlackRock in 2009, Mr. Dickstein spent eight years at Merrill Lynch, where he served as Managing Director and head of the U.S. Rates & Structured Credit Research Group. He was responsible for the team that produced MBS, ABS, CMBS, Treasuries, swaps, and interest rate derivatives research. Mr. Dickstein's publications on MBS strategy included the weekly Mortgage Investor as well as numerous lengthier articles on topics such as optimal loan modifications, the valuation of credit-sensitive MBS and ABS, and the pricing of mortgage derivatives, options, and pass-throughs. In addition, he developed Merrill's prepayment models for fixed rate and hybrid MBS. From 1993 to 2001, Mr. Dickstein was with Lehman Brothers, most recently as a Senior Vice President in Mortgage Derivatives Trading. In this role, he traded mortgage derivatives and developed Lehman's credit default model. He joined Lehman as a mortgage and asset-backed securities analyst and was named to Institutional Investor's All American Fixed Income Research Team in pass-throughs, non-agency mortgages, and asset-backed securities.

Mr. Dickstein earned a BA degree in economics, summa cum laude, from Yale University in 1990, and an MA degree in physics from Princeton University in 1993.

Presenter Biographies

Timothy Murray, CFA
Director

Timothy Murray, CFA, Director, is an Index Equity strategist within BlackRock's ETF & Index Investments group.

Mr. Murray's service with the firm dates back to 2007, including his years with Barclays Global Investors (BGI), which merged with BlackRock in 2009. Prior to moving to his role as a product strategist, Mr. Murray was a senior portfolio manager and team leader in BlackRock's Institutional Index Equity Portfolio Management Group. Before joining BGI, Mr. Murray was a manager at State Street working with asset managers on trade processing and settlement.

Mr. Murray earned a BS degree in finance from California State University, Sacramento, in 2002, and an MBA degree from the University of California, Davis, in 2013.

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Past performance does not guarantee future results.

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Important Notes cont'd

Index
It is not possible to directly invest in an unmanaged index.

Risk
Investing in the bond market is subject to certain risks including market, interest-rate, issuer, credit, and inflation risk. Equities may decline in value due to both real and perceived general market, economic, and industry conditions. Mortgage and asset-backed securities may be sensitive to changes in interest rates, subject to early repayment risk, and while generally backed by a government, government-agency or private guarantor there is no assurance that the guarantor will meet its obligations. High-yield, lower-rated, securities involve greater risk than higher-rated securities; portfolios that invest in them may be subject to greater levels of credit and liquidity risk than portfolios that do not. Investors will, at times, incur a tax liability. Income from municipal bonds may be subject to state and local taxes and at times the alternative minimum tax. Derivatives may involve certain costs and risks such as liquidity, interest rate, market, credit, management and the risk that a position could not be closed when most advantageous. Investing in derivatives could lose more than the amount invested.

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