Late Cycle Credit Investing

GIOA Conference

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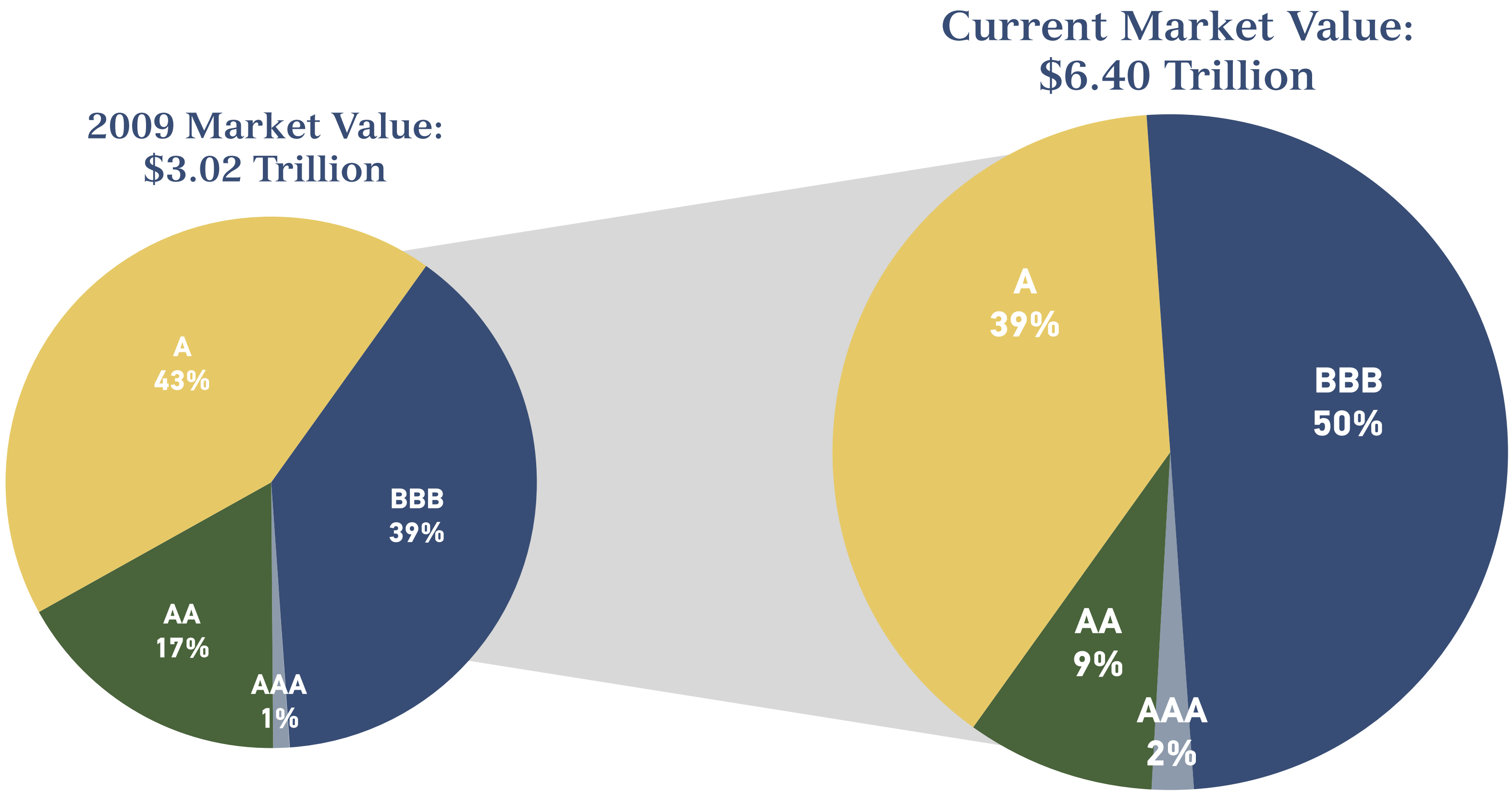
Surveying the U.S. Corporate Bond Markets

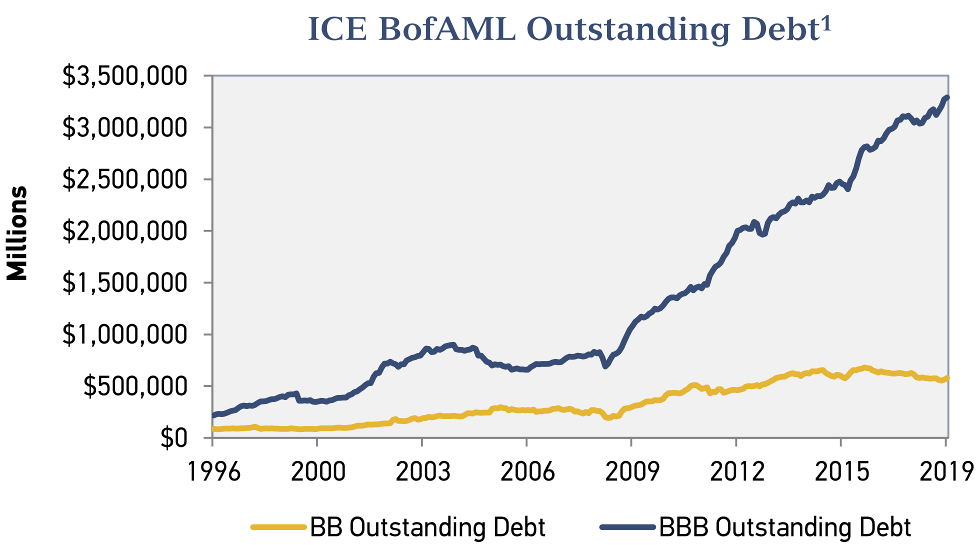
Growth of the U.S. Corporate Bond Market

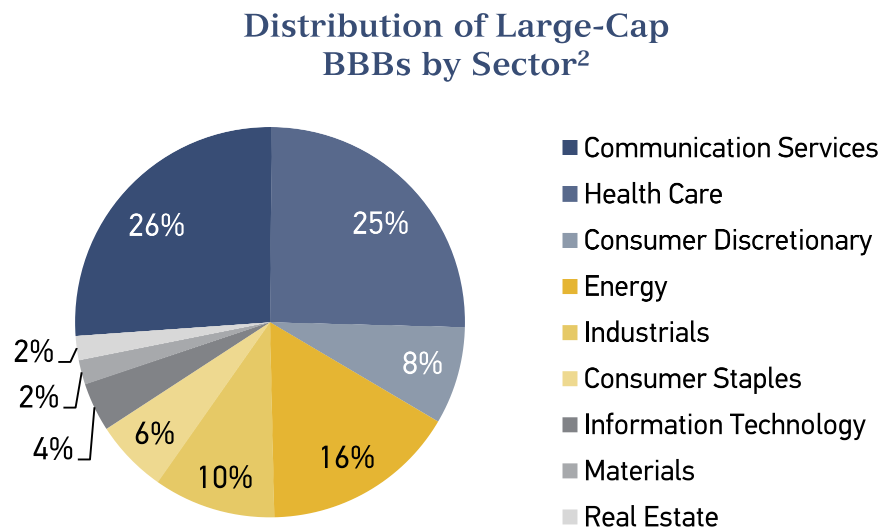


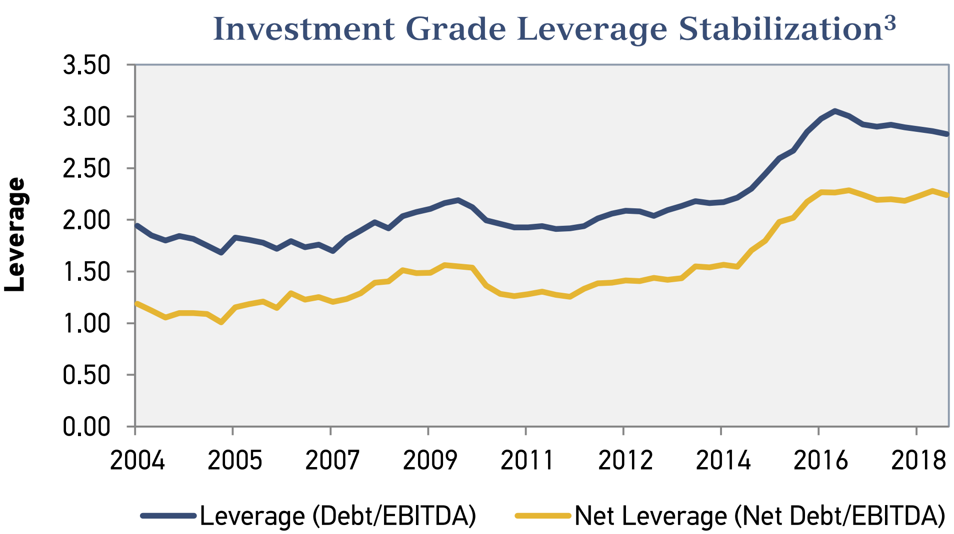
AAA 2%
Johnson & Johnson
New York Life
Microsoft

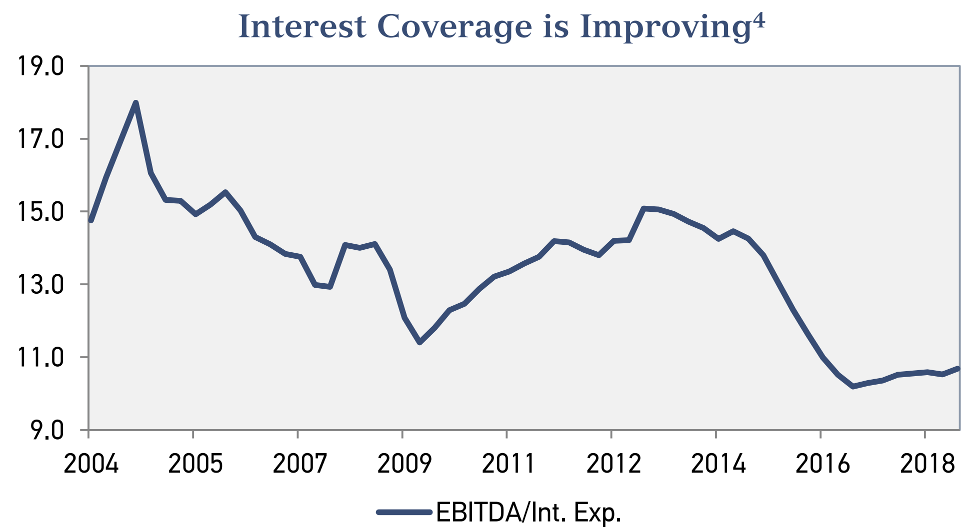
2009 Market Value data as of 12.31.2009 and Current Market Value data as of 12.31.2018. Specific securities identified and described do not represent all of the securities purchased, sold or recommended to clients. There are no assurances that securities identified will be profitable investments. The securities described are neither a recommendation nor a solicitation. Source: ICE Bank of America Merrill Lynch.

Credit Metrics



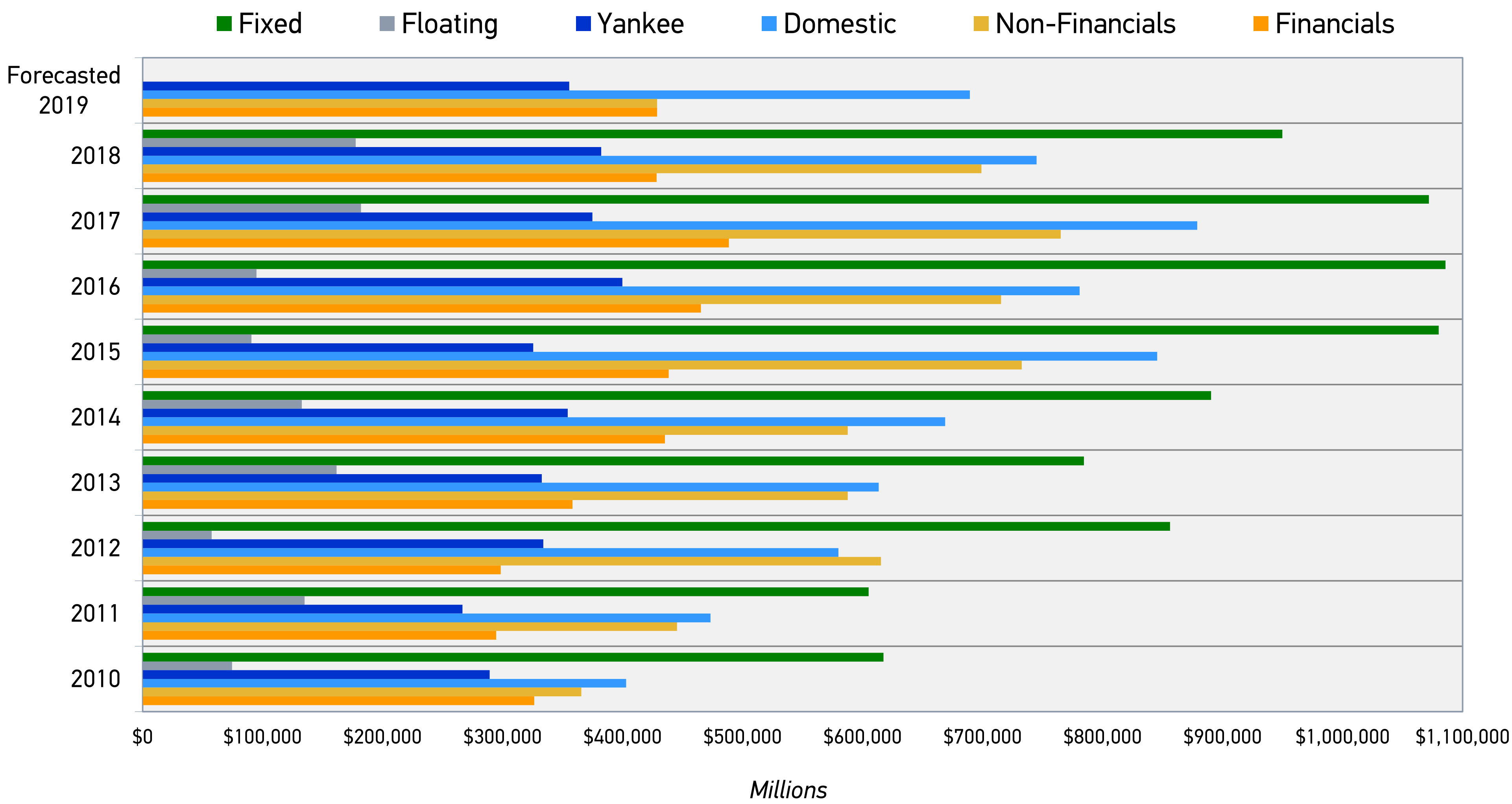






[1] *As of 02.28.2019. Source: J.P. Morgan.* [2] *As of 02.26.2019. Source: Capital IQ, Bloomberg.* [3,4] *As of 09.30.2018. Source: J.P. Morgan.*

Historical High Grade Corporate Bond Issuance



As of 12.31.2018. Forecasted 2019 data as of 02.28.2019 and is not available for Fixed or Floating. The graph above shows Gross Issuance. Issuance data includes MTNs, 144A and Yankees with minimum maturity of 13 months and minimum tranche size of $100 million. Source: Dealogic, J.P. Morgan.

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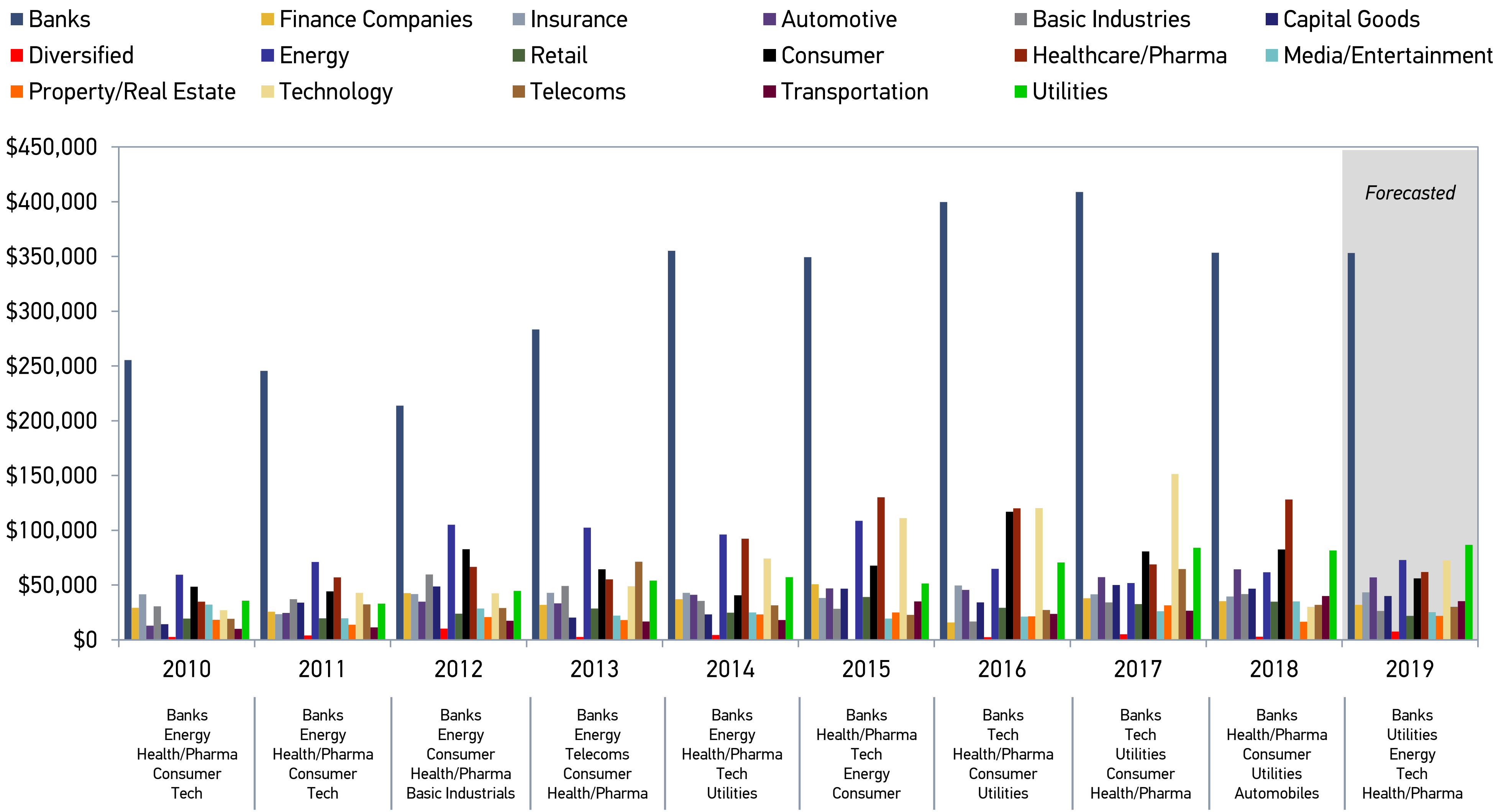
High Grade Corporate Bond Issuance by Sector



As of 12.31.2018. Forecasted data as of 02.28.2019. The graph above shows Gross Issuance. Issuance data includes MTNs, 144A and Yankees with minimum maturity of 13 months and minimum tranche size of $100 million. Source: Dealogic, J.P. Morgan.

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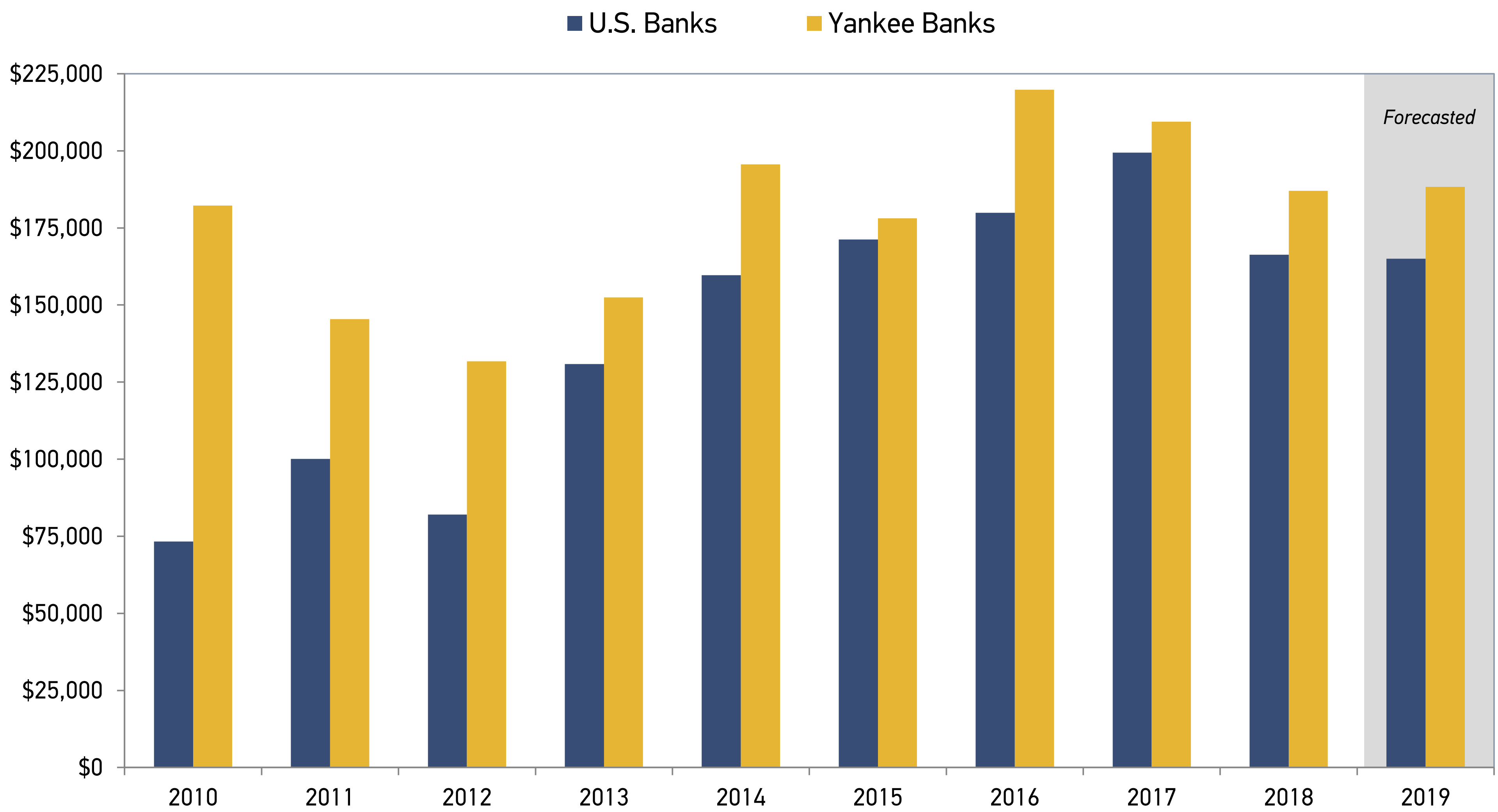
High Grade Corporate Bond Issuance | Banks



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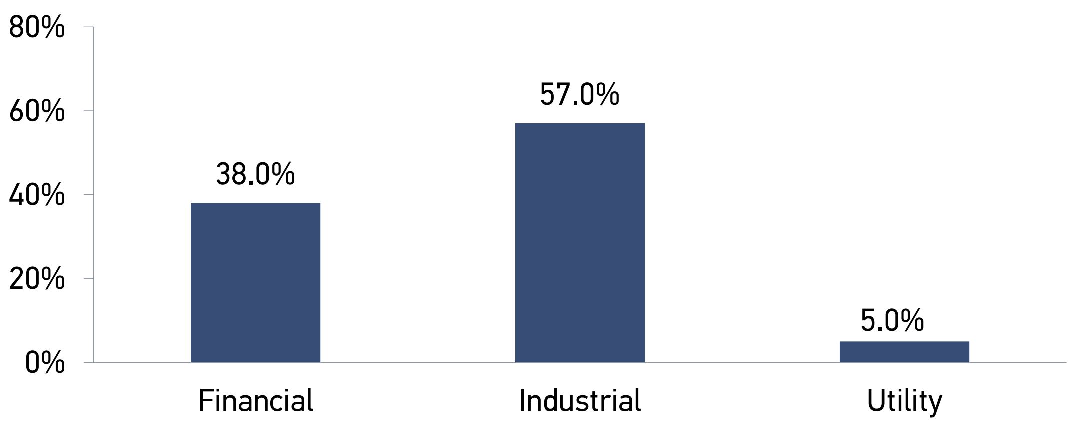
Characteristics
ICE BofAML 1-5 Year Corporate Index

Characteristics

	ICE BofAML 1-5 Year Corp Index
# of issues	3,116
Effective Duration	2.67 Years
Average Quality	A3
Yield-to-Maturity	3.37%

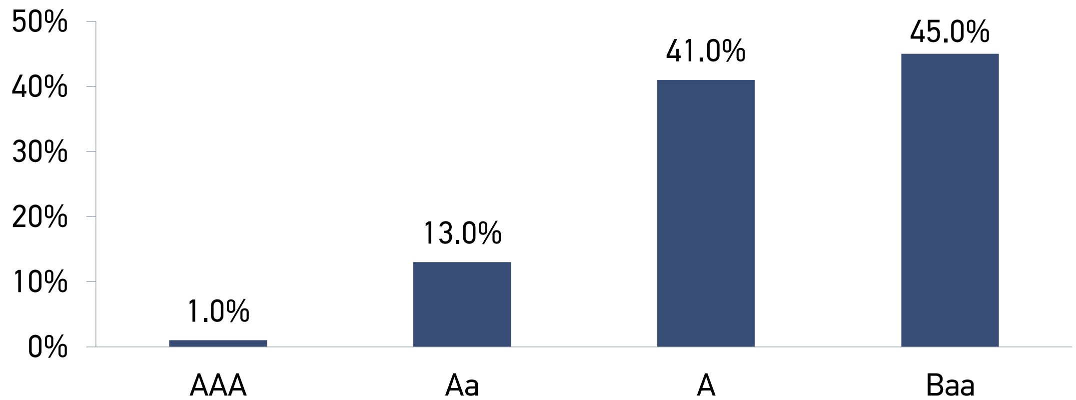
Sector Composition



Duration Composition

	ICE BofAML 1-5 Year Corp Index
0-1 Year	1.8%
1-2 Years	29.3%
2-3 Years	28.8%
3-4 Years	29.5%
4-5 Years	10.6%
Total	**100.0%**

Credit Quality



As of 02.28.2019. Source: ICE Bank of America Merrill Lynch.

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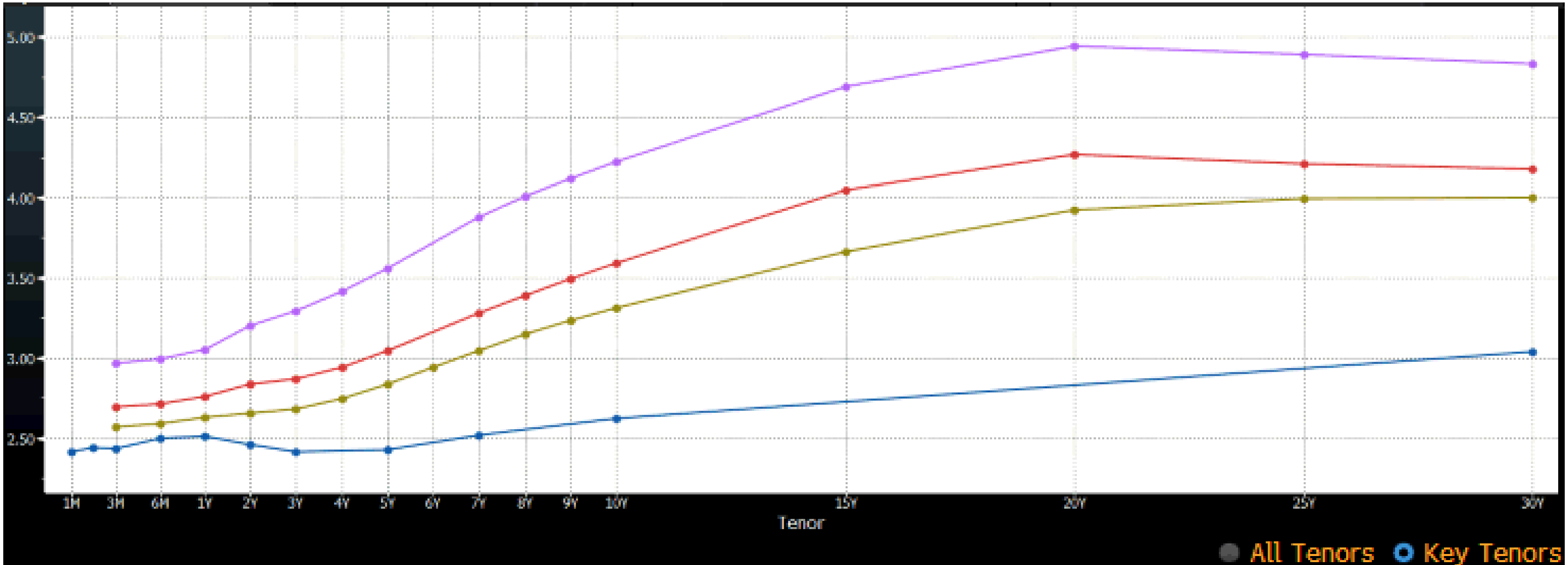
U.S. Corporate Investment Grade Credit Curve



	Curve Id	3M	1Y	2Y	3Y	5Y	10Y	15Y	30Y
11)	I25	2.432	2.513	2.458	2.416	2.424	2.623		3.037
12)	BS74	2.695	2.757	2.833	2.871	3.041	3.591	4.044	4.177
13)	BS73	2.568	2.630	2.656	2.678	2.838	3.309	3.663	4.003
14)	BS75	2.965	3.049	3.197	3.292	3.560	4.224	4.687	4.831

U.S. Corporate BBB Yield Curve

U.S. Corporate A Yield Curve

U.S. Corporate AA Yield Curve

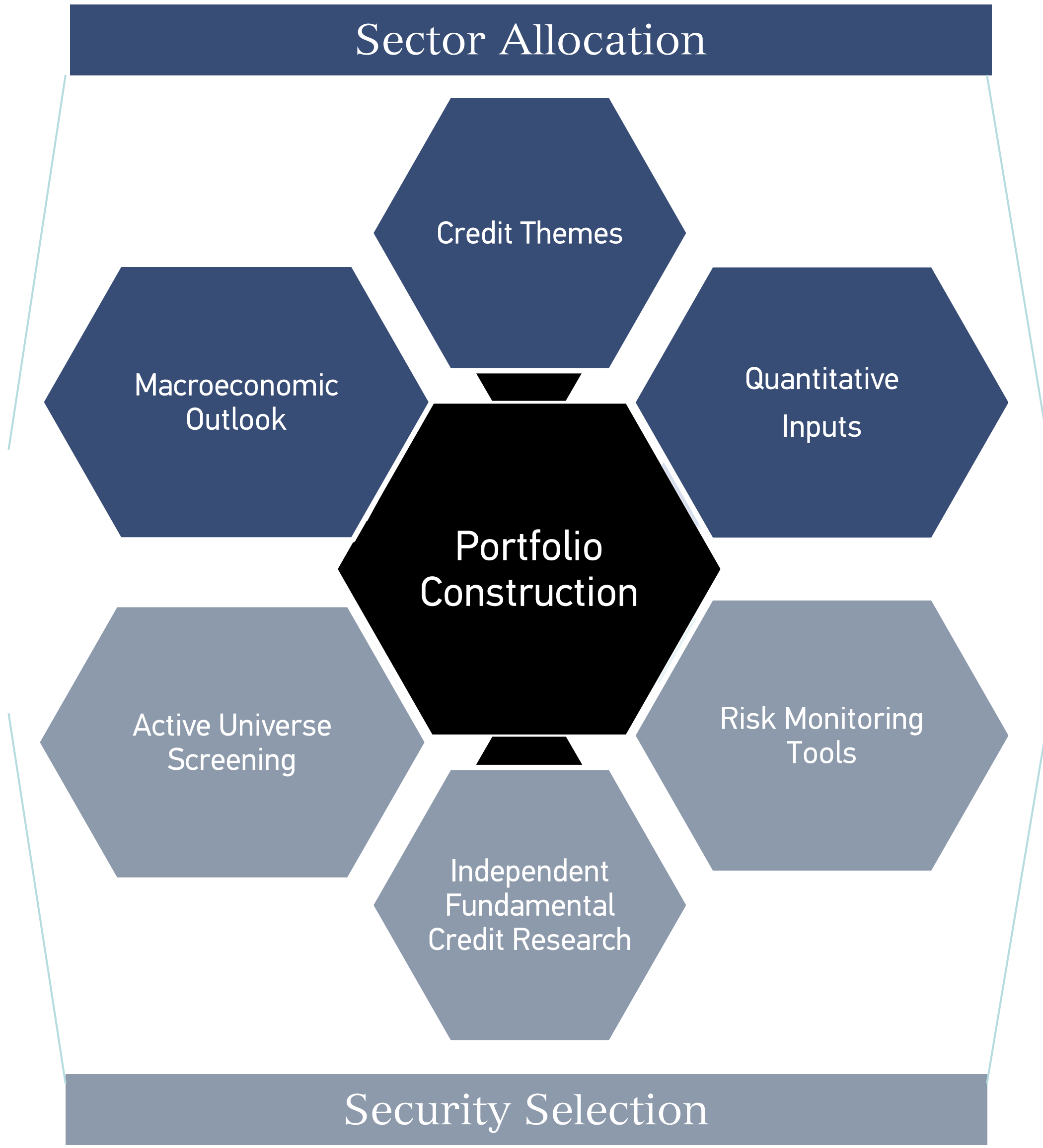
U.S. Treasury Yield Curve

As of 03.15.2019. Source: Bloomberg.

A Framework for
Fundamental and Quantitative Credit Analysis

Credit Portfolio Strategy

- Disciplined Portfolio Construction - Top-Down and Bottom-Up Analysis
- Quantitative Inputs - Proprietary Sector-Level and Security-Level Models and Screens
- Independent Fundamental Credit Research
- Focus On Risk Management



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Credit Portfolio Strategy

Macroeconomic Forecast

- US/global growth projections created by Sterling's Fixed Income Team
- Growth drivers
- Stage of business cycle
- Inflation outlook
- Interest rate outlook

Credit Themes

- Effects of macro outlook on credit markets
- Portfolio strategies structured to outperform in projected macro environment

Foundation for Portfolio Construction

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Sector Allocation – Quantitative Inputs

Sector Fundamentals Model:

How strong are the credit metrics of each sector?

- Evaluates sector-level fundamental strength
- Unique five-factor model for each sector
- Each variable individually scored and weighted
- Ratings compared across sectors to gauge relative fundamental strength

Sector Valuations Model:

Where are credit spreads trading versus the rest of the universe, and how does this compare historically?

- Assesses relative value between corporate sectors
- Model utilizes sector-level option-adjusted spread (OAS) data from Barclays Corporate Index
- Sector OAS evaluated versus overall corporate universe, sector's "parent" sector and sector itself over multiple time periods

Security Selection – Quantitative Inputs

Corporate Bond Relative Value Model

Which companies and securities appear rich/cheap to their fair value?

Event Risk Model

Which companies may carry greater risk of credit-damaging corporate behavior?

LBO Model

How susceptible is a company to a leveraged buyout?

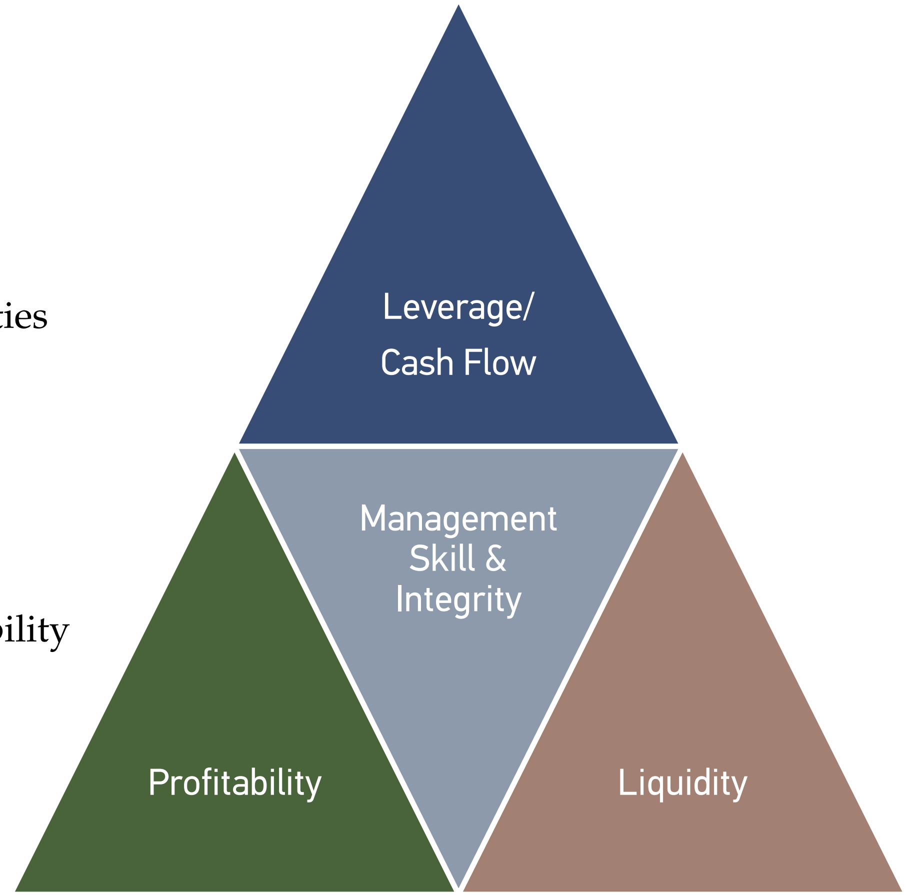
Investment Focus Is On Stable-To-Improving Credit Stories

Leverage/Cash Flow
- Declining total debt compared to operating cash flow
- Cash flow generated vs. interest expense on total debt
- Capital expenditures – magnitude and quality
- Probability of positive free cash flow in the near future

Liquidity
- Sufficient liquidity to service interest expense and maturities
- Appraisable assets
- Ability to access public debt markets in times of volatility
- Debt maturities appropriately laddered

Profitability
- Stability and trend of gross and operating profit margins
- Prefer companies with moderate sales and higher profitability versus scale and low margins
- Peer comparisons

Management Skill & Integrity
- Past attitudes and behavior around debt reduction
- Peer comparison of equity performance
- Organic sales growth versus M&A-driven expansion
- Strategic "moat" of company business model



Evaluating Improving Credit Stories

Is the delevering plan credible?

What is the value of "non-core" assets? How much free cash flow can the issuer generate?

↓

Model capex needs, compare recent sales of similar assets

Is there potential for near term operational improvement?

Do growth opportunities exist? Can costs be realistically cut without effecting operations?

↓

Compare profitability and performance metrics to most efficient competitors'

Will credit improvement be temporary or secular in duration?

Serial acquirers require a spread "premium"

↓

Is the industry in a consolidation phase? What is the current regulatory environment?

Determining Ultimate Fair Value

Establish a target spread where issuer's debt should trade once delevering target has been achieved

↓

Create "stress test" analyses to determine if leverage goals are realistic. Develop a timeline to map progress

↓

Is the company on track to meet its target? If not, reexamine thesis and consider selling position

↓

If ratings have been upgraded and fair value met, consider selling position

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Credit – Sell Discipline

WRITTEN INVESTMENT THESIS

- Defines Fundamental Expectations
- Progress Measured to Original Expectations
- Target Relative Value Analysis vs. Sector & Index
- "Trigger Events"

SURVELLIANCE

- Quarterly & Annual Review
- Real-time Bloomberg
- Moody's & S&P Alerts
- Research & Article Review
- Management Meetings & Research Conferences

Credit is Sold

- Fundamentals Violate Investment Thesis
- Spreads Tighten to "Rich" Valuations
- More Attractive Investment Alternatives
- Company Grows Beyond Max Constraint Limitations

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Credit Portfolio Strategy

Sample Portfolio Strategy Template

Credit themes, quantitative models and independent fundamental credit research combine for coherent sector allocation and security selection

	% of Index	OAS	Weighting	Fundamentals (1-weak, 5-strong)	Valuation (1-rich, 5-cheap)	Largest Index Issuers	Sterling Top Picks
Financials	32.0	113					
Banking	23.1	108	Market Weight	3	2.5	BAC, C, GS, JPM, MS, WFC	BAC, MS
Brokerage/Asset Managers/Exchanges	0.9	111	Market Weight	3	2.7	JEF, SCHW	BLK, CG
Finance Companies	1.0	138	Market Weight	3.5	4.2	AER, GE	AER
Insurance	4.5	127	Overweight	3.5	3.6	AIG, ANTM, UNH	HMN, WRB, Y
REITS	2.6	130	Overweight	3.5	3.7	BXP, SPG, VTR	GMGAU, SRC
Industrial	60.9	119					
Basic Industry	3.1	142	Overweight	3.5	3.9	DOW, IP, VALEBZ	WLK

The sample template above is shown for illustrative purposes only and does not represent an actual portfolio.

Sterling Corporate Bond Relative Value Model

- Multi-factor regression model used to predict bond-level fair value OAS based on key characteristics:
    - Quality/credit rating
    - Duration
    - Industry
    - Liquidity
- Can screen universe or any subset or capital structure for rich/cheap bonds

“Reverse engineering” tool

- Model impact of potential ratings changes
- Assess fair value of potential new issues

cusip	description	ticker	coupon	maturity_date	oas	predicted_oas	residual
49446RAJ	Kimco Realty Corporation	KIM	6.875	10/01/2019	59	62	(3)
49446RAL	Kimco Realty Corporation	KIM	3.2	05/01/2021	67	72	(5)
49446RAN	Kimco Realty Corporation	KIM	3.4	11/01/2022	75	82	(7)
49446RAK	Kimco Realty Corporation	KIM	3.125	06/01/2023	88	88	(0)
49446RAR	Kimco Realty Corporation	KIM	2.7	03/01/2024	94	95	(1)
49446RAU	Kimco Realty Corporation	KIM	3.3	02/01/2025	111	100	11
49446RAP	Kimco Realty Corporation	KIM	2.8	10/01/2026	129	109	20
49446RAS	Kimco Realty Corporation	KIM	3.8	04/01/2027	133	118	15
49446RAM	Kimco Realty Corporation	KIM	4.25	04/01/2045	168	160	8
49446RAQ	Kimco Realty Corporation	KIM	4.125	12/01/2046	162	168	(6)
49446RAT	Kimco Realty Corporation	KIM	4.45	09/01/2047	169	170	(1)

Corporate Relative Value Model Inputs

Cusip	30212PAN5
Quality	Investment Grade
Duration	8.325
Rating	BBB2
Industry	Retail
Country	US
Face Value	1000
Issuer Debt Outstanding	2999.552
144a	Yes
Issue Date	9/21/2017
Actual OAS	201
Predicted OAS	156.86
Residual	44.14

Pull Cusip Data

The above chart is for illustrative purposes only. Specific securities identified and described do not represent all of the securities purchased, sold or recommended to clients. There are no assurances that securities identified will be profitable investments. The securities described are neither a recommendation nor a solicitation. Security information is being obtained from resources the firm believes to be accurate, but no warrant is made as to the accuracy or completeness of the information.

Dollar Tree

- We bought Dollar Tree (DLTR) bonds in November 2016, a little more than a year after its merger with Family Dollar (FDO). The acquisition of FDO caused a spike in DLTR debt levels and leverage climbed to 5.5x.

- We believed in the strategic merit of the acquisition: the combined company would have greater scale and geographic reach.

    - DLTR, where everything is priced at $1 would have access to a multi-price-point model (FDO items priced $1-10).

    - FDO stores weren't managed as well as DLTR, so DLTR could leverage their expertise regarding store design, product selection, hiring practices and staff retention.

    - There were significant cost synergies to be captured like cutting out duplicative back office functions, combining shipments to lower freight expenses and greater scale, leading to procurement savings.

- Over the past 2.5 years, we've seen DLTR successfully integrate the two brands, improve sales at FDO, exceed original synergy targets, grow earnings and pay off over $2.5B of debt.

- Leverage has declined three turns and is now in the mid-2x area. The credit has been upgraded two notches by both Moody's and S&P during our ownership.

Diamondback Energy

- We have owned Diamondback Energy bonds since late 2016 and have added to the position as the company has tapped the new issue market. We identified the company as a smaller-scale but high quality E&P company, focused on the Permian region.

- In addition to the company's creative use of stock tickers for the company and its midstream subsidiaries (FANG, VIPR and VNOM) we were attracted to the company by its quality management team, conservative financial policies and focus on horizontal development in the low-cost regions of the Permian including the Wolfcamp, Spraberry and Bone Spring formations in the Midland and Delaware Basins.

- Diamondback's ratings have been constrained primarily by the company's smaller scale. During the last two years the company has made several acquisitions and has funded the majority of these with equity, which we view as a strong credit positive.

- The company's unsecured bonds were rated B1/BB- when we initially became involved and have subsequently been upgraded to current ratings of Ba2/BB+ with Stable and Positive outlooks respectively at Moody's and S&P.

- As a result of production growth and acquisitions, we believe the company is on the cusp of an upgrade to investment grade. The bonds have performed well this year and we have been working down our position in the bonds as spreads are now trading at implied investment grade levels. We continue to like the story and will increase our position again on any market weakness.

Under Armour

- We sold Under Armour in September 2016 as we believed there were a lack of catalysts that would lead the bonds to outperform the market. Additionally, there were a few things that gave us pause:

  - The company didn't have a leverage target, so we didn't have a complete picture of capital priorities;
  - We worried the founder and CEO, Kevin Plank, would become distracted from his management duties due to his increasing involvement in non-UA activities like real estate development and commercial whiskey distilling; and
  - Street estimates were overly optimistic and assumed UA growth rates would be similar to the retailer's historical levels. But we believed UA was evolving from a high growth company into a more mature company and would experience a deceleration in sales. Also, there were a number of external headwinds that could further pressure sales, like retail bankruptcies (Sports Authority, Sport Chalet) and an abrupt fashion shift to lifestyle wear from performance wear. We were concerned that any reset to expectations could have an outsized impact on their bonds- and the current yield wasn't enough to compensate for less-than-stellar execution.

- Cracks in the armor began to show in October 2016 when the company gave weaker-than-expected margin guidance. To us, the soft guidance reflected UA's desperation to maintain high sales growth, even if it meant discounting excess merchandise and sacrificing margins.

- But the real wake-up call occurred during the Q4 earnings announcement in January 2017. Q4 revenue only grew 12%, compared to the 20% growth the company had guided to. This was UA's slowest growth since 2009, and the poor results were mostly driven by the changing retail landscape. Headwinds would continue into 2017 and management provided disappointing full year guidance of +11-12% revenue growth, which was well below analyst expectations in the low-20% area.

- Over the following year and a half UA was plagued by issues like a weaker industry backdrop, the departure of their CFO, higher costs to support growth, product flops like the "Curry 3" basketball shoes, and high-profile reports of employee misbehavior suggested insufficient corporate governance.

- Weaker operational performance and credit metrics led to a downgrade to Baa3 by Moody's, the lowest level of investment grade; and a downgrade to high yield by S&P. Some investors weren't permitted to hold high yield securities and had to sell their bonds at losses.

Credit Research Example 4

PG&E

- We began closely following PG&E in mid-2017 as the California wildfire season was ramping up. By midway through the season, PG&E was estimated to potentially be on the hook for up to $4 billion in damages, well within the company's ability to pay.
- As the season progressed, the wildfires became catastrophic and damage estimates escalated. PG&E's potential liability rose to nearly $10 billion. We continued to believe the company was capable of funding these costs through insurance, increased customer rates, and debt issuance without significant balance sheet damage. Nevertheless, we expected the company's credit ratings to come under pressure and, in early 2018, we began selling our PG&E positions, particularly those held in portfolios with A3/A- ratings constraints.
- As anticipated, in February 2018, S&P downgraded PG&E to BBB+, from A-, and left the ratings on negative watch. Moody's followed suit in March and lowered their A3 ratings to Baa1 with a negative outlook. At that time, more than 20 fires had burned more than 240,000 acres in PG&E territory and had destroyed 9,000 homes and caused 44 fatalities. PG&E equipment had not yet been found to have caused any of the wildfires and we believed any damage costs would be manageable.
- In 2Q18, the California state legislature began discussing remedies to alleviate the financial risk to the state's utilities associated with catastrophic wildfires. Under the state's legal doctrine of inverse condemnation, if a utility's facilities are determined to be the substantial cause of a wildfire, the utility could be liable for all of the wildfire's property damage and other associated costs without the utility being negligent. This obviously places significant and substantial risk on the utilities and needs to be addressed. The fact that the legislature was taking up the issue gave us some confidence that this burden would be taken off the utilities. States and regulators generally work to protect the financial strength of their utilities. Utilities need market access to capital in order to ensure the safety and integrity of the electric grid and to avoid placing an undue financial burden on customers by raising rates.
- In mid-June, Cal Fire released their findings relating to the causes of 16 of the 2017 season wildfires. The department determined that PG&E's utility equipment was at least partially to blame for 16 of the fires and that the causes of the most damaging fires was yet to be determined. In response, S&P again downgraded PG&E's ratings to BBB from BBB+.
- It was at this time that we sold all of our remaining PG&E positions.
- At the time we sold, California's utility regulators had joined the state's legislature in attempting to devise a solution to protect the utilities' credit quality. Our analysis and parsing of the rhetoric from state legislators led us to conclude, however, that there was little chance they would pass a substantive bill prior to the August 31st end of the legislative session.
- Since we exited the name, the state's legislature eventually passed SB 901, which was later signed into law. This bill did nothing to protect the utilities from damages associated with the 2017 wildfires, however, and left many questions unanswered regarding remedies for the 2018 wildfires. Following the law's passage, on September 6th Moody's downgraded their ratings on the utility. As cost estimates for PG&E ballooned to over $30 billion after the outbreak of the deadly Camp Fire in November, it was downgraded to junk by both S&P and Moody's and, in January 2019, filed for bankruptcy under Chapter 11.

A Case for Investing

Beyond Treasuries and Active Management

A Case for Investing Beyond Treasuries

- As shown in the table below, diversifying your fixed income portfolio outside of Treasuries can improve risk-adjusted performance over time.

	Average Total Return	Standard Deviation	Sharpe Ratio
Bloomberg Barclays Capital U.S. Corporate 1-3 Year	2.33%	1.08%	2.15
Bloomberg Barclays Capital U.S. ABS	2.56%	1.51%	1.70
Bloomberg Barclays Capital Municipal Taxable Bonds 1-3 Year	2.46%	0.92%	2.67
Bloomberg Barclays Capital U.S. Treasury 1- 3 Year	1.00%	0.75%	1.33

As of 12.31.2009 to 12.31.2018. Source: Bloomberg Barclays Capital.

A Case for Active Management

- Credit research takes an experienced team of professionals with a disciplined process to cover/ follow companies, sectors, and market dislocations over multiple market cycles.

- The U.S. Corporate Bond universe has grown in size and moved down in quality over past 10 years.

- A budget for technology is needed for handling increasing data, trading, compliance, reporting, and accounting.

- Proprietary modeling is key to understanding credit risk at portfolio level, sector differences, and relative value for security selection.

- A decline in management fees over the past 10 years is worthy of considering active management.

Appendix

Disclosures

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Sterling Capital cover page – designation descriptions:

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The **Certified Treasury Professional® (CTP)** designation is recognized as the leading credential in corporate treasury worldwide and awarded by the Association for Financial Professionals® (AFP). To earn the CTP designation, candidates must: 1) pass the examination, 2) have at least two years of qualified work/education/teaching experience, and 3) meet continuing requirements.