Moody's Corp. (MCO)

March 2016

@find_me_value

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Updated 3/11/2016 to add update to bond issuance, update slides 54-56

Overview of Moody's (MCO)

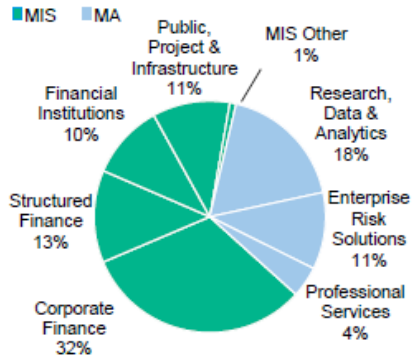
- Separated from Dunn & Bradstreet (D&B) on September 30, 2000
- 50% of revenue is recurring, with 39% at Moody's Investor Services (MIS) and 74% at Moody's Analytics (MA)
- MIS margins are more than twice that of MA, and thus MIS contributes over 75% of MCO's operating income (oftentimes in mid-80%)
- As a whole, MCO has very strong margins – low-to-mid 40% operating margin

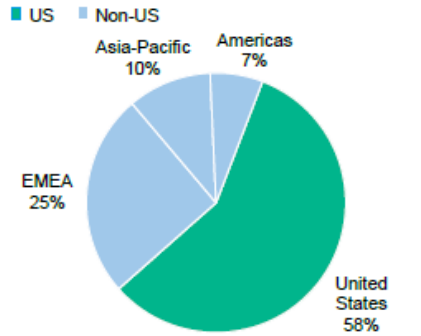
MOODY'S INVESTORS SERVICE

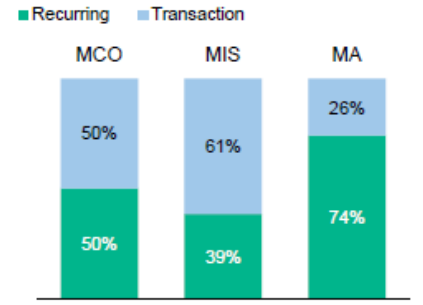
- Independent provider of credit rating opinions and related information for over 100 years
- 67% of total MCO revenue
- 84% of total MCO operating income

MOODY'S ANALYTICS

- Research, data and software for financial risk analysis and related professional services
- 33% of total MCO revenue
- 16% of total MCO operating income







Note: All figures on this page are for full year 2015

Source: 2015 Investor Presentation Moody's

What Matters the Most:

- Investors still have appetites for high-yield, as well as the market is conducive for HY issuance (on average) – **HY is ~highest margin business at MCO** (likely 3-4x the fees versus investment grade issuance)
  - Depends on default rates, risk appetite, credit spreads
- **Structured Products market share**, as fees are lucrative (MCO has strong market share – see “regulation” section)
- **Regulation** around competition and pricing structure
  - Europe CRA3 regulation and desire for increased competition could erode market share; if successful, could see similar regulation in U.S./other regions
  - Market share stability
  - SEC (U.S.) focused on conflicts of interest
- Capital light model leads to **share repurchases**
  - From 2005 to Q2-2015, share reduction contributed 30.3% of the EPS increase. Business performance helped 58.4%, and the remaining delta due to tax planning.

Debt Issuance: YTD 2016

- Despite volatility, energy concerns, and other headwinds, 2016 is still tracking 2013-2015 issuance in USD, which were record years, and slightly behind is Euro denominated issuance

As of March 3, 2016

Figure 7. Issuance: Corporate & Financial Institutions

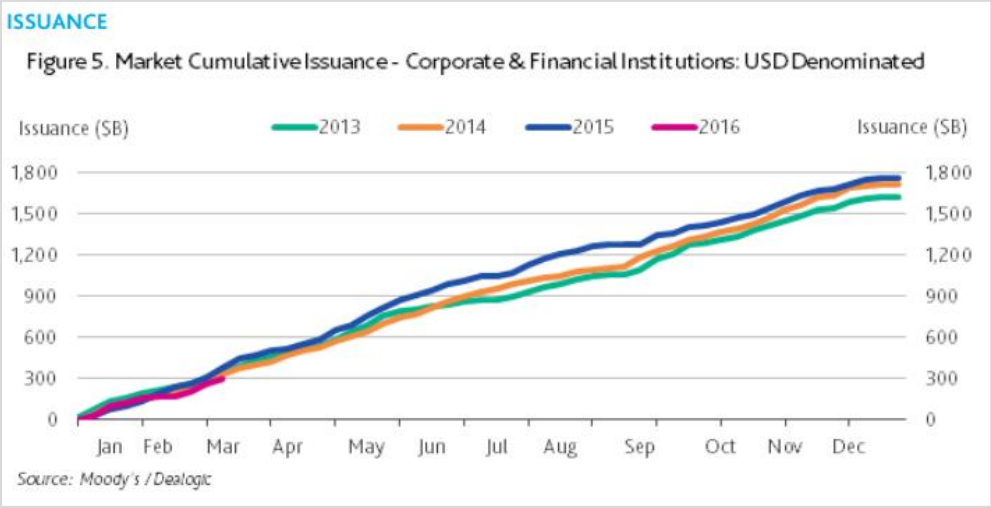
	USD Denominated		
	Investment-Grade	High-Yield	Total*
	Amount $B	Amount $B	Amount $B
Weekly	44.783	6.230	55.068
Year-to-Date	248.036	28.266	289.145

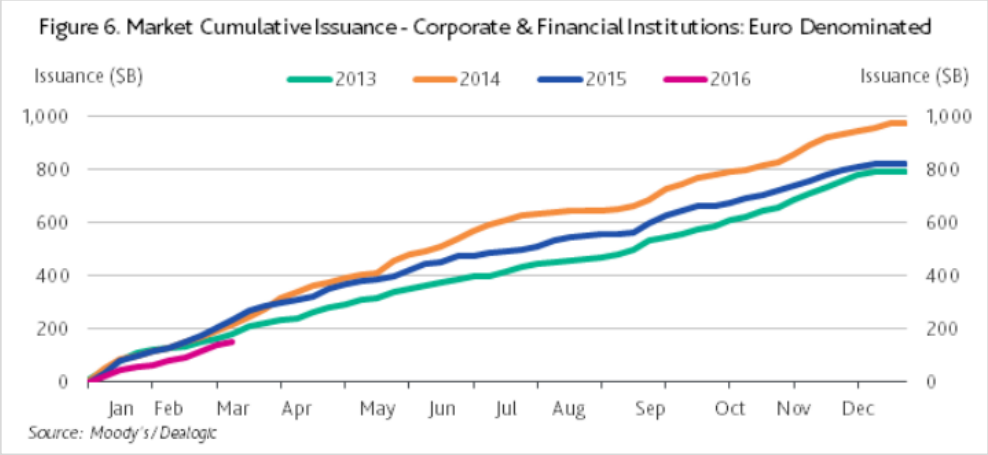
	Euro Denominated		
	Investment-Grade	High-Yield	Total*
	Amount $B	Amount $B	Amount $B
Weekly	22.352	0.853	23.710
Year-to-Date	143.110	3.960	151.759

* Difference represents issuance with pending ratings.

Source: Moody's/ Dealogic

As of March 3, 2016





Source: March 3, 2016 Moody's Analytics Report

Debt Issuance: 2016 *down* versus 2015

- Consensus estimated of lower U.S. bond issuance in 2016 leads to MCO outlook in “corporate finance” sub-segment to be “flat” in revenue
- Although HY issuance expectations seem to change from week-to-week, generally expects issuance down 10-20% from 2015 levels, which deteriorated in 2H 2015

USD Market: Issuance Views From Investment Banks

Views on this page are from four global “bulge bracket” investment banks as of February 3, 2016. Issuance views represent US dollar issuance for both financial and non-financial bonds and leveraged loans.

	January 2015	FY 2016E
Investment Grade	~$125 billion	~$1.2 trillion (about flat YOY)
▪ January was the 4th highest volume month ever ($46bn of this came from the AB-InBev deal) ▪ >$200bn in the visible M&A pipeline though volatility is factoring into the pace of issuance ▪ All-in funding costs remain generally attractive ▪ In addition to M&A, shareholder friendly activities likely to continue as corporates look to boost share prices via buybacks and dividends		
High Yield Bonds	~$7 billion	~$240 billion (down 15% YOY)
▪ The leveraged finance market had a soft December and this tone has continued into early 2016 ▪ >$35bn in the forward pipeline (bifurcated market with higher quality names continuing to see market access) ▪ Continued headwinds expected from commodities-related price volatility and default rate increases ▪ Last week saw positive HY mutual fund inflows for the first time since the start of 2016, which may indicate that the worst is behind us / we have hit wide enough levels for investors to begin buying again		
Leveraged Loans	~$20 billion	~$260 billion (down 10% YOY)
▪ Despite low volumes in the HY bond market, HY loans are keeping pace with 2015 ▪ Leveraged loans saw consistent activity week-to-week in January and banks expect this to continue ▪ >$45bn in the forward pipeline ▪ An uptick in defaults is expected in the loan space but to a lesser extent than in the HY bond market		

Source: Q4-2015 Investor Presentation Moody’s

Why Own Moody's Corp. (MCO):

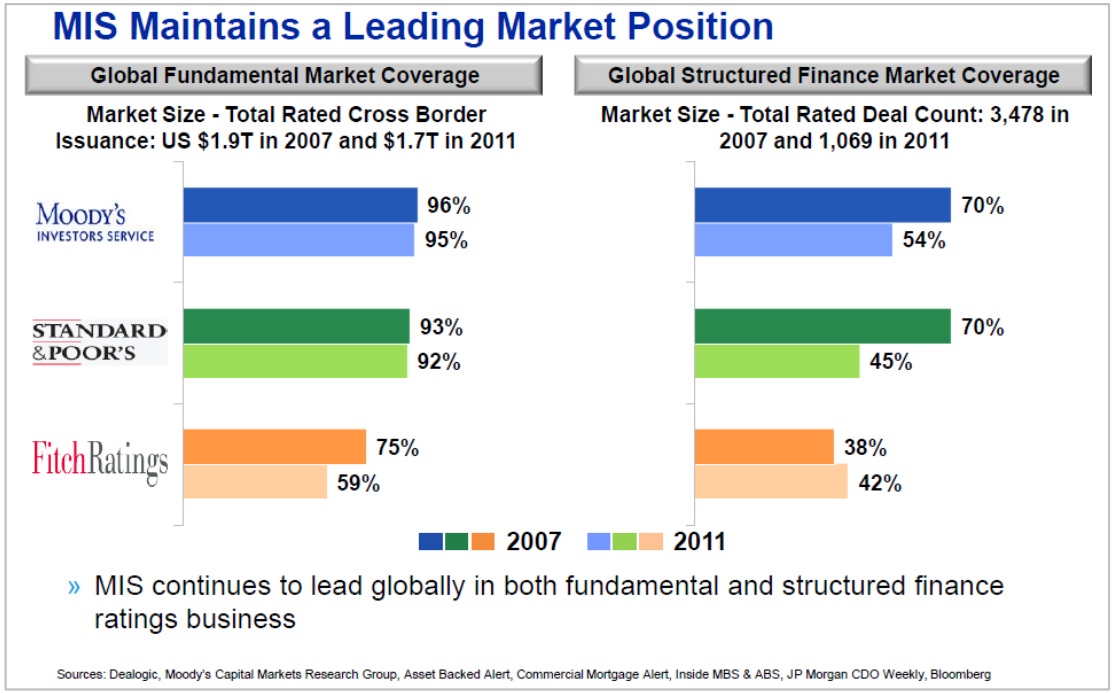
- Strong business model – "the plumbing in the financial system"
- Exceptionally high returns on invested capital (needs very little capital)
- 50% of revenues are recurring, helps mitigate some of the 'cyclical' transaction activity
- Top 2 globally as a Credit Rating Agency (with S&P)
- Barriers to Entry are strong (but not unbreakable)
  - Regulation and fees to become NRSRO, a CRA
  - Deep network effects of MCO and S&P helps global comparability of debt
  - Dependence by investors/IPS mandates to purchase debt only rated by MCO/S&P
  - MCO entrenched in issuers business, know business "inside and out", know capital plans, management, strategy, the industry
- Value proposition to issuers: rating by MCO (or S&P) can significantly lower borrowing costs, around 30-60 bps, versus a cost of <10 bps (varies on numerous factors)
- Necessity to customers: a rating by MCO is imperative to floating debt in public markets. Furthermore, issuers need annual maintenance of debt post-issuance for investors to monitor rating, have independent review
- Industry is not "winner takes all" – helps competitive landscape, as issuers will often get a rating from at least 2 issuers but no more than 3 (which explains why MCO and S&P have such strong market share, with Fitch having a respectable share as well)
- Limited capital needs

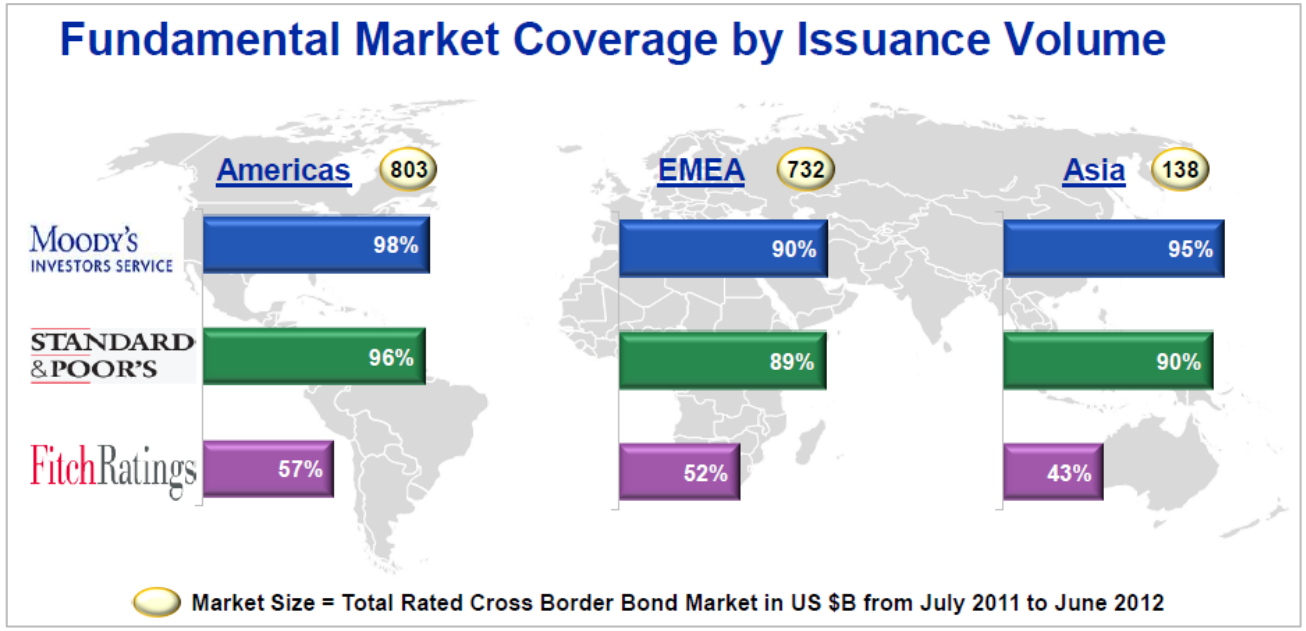
Valuation:

- At ~ $90/share, the shares are priced at *~15.5x 2016 FCFE per share*, which is roughly in-line with the S&P 500. However, MCO is a first-class business based on total shareholder return growth, margins, capital intensity, and market position. It *should* trade at a premium.
- Guidance for 2016 is strong considering the headwinds:
  - Default rates increasing
  - High-yield issuance deteriorating
  - Increased pricing in of a U.S. recession
  - Potentially above-average (pull forward) bond issuance in 2013-2015 for corporates due to low rates
  - Lower GDP growth
  - Potential FX headwinds continuing
- *See end of Slide Deck for more detailed valuation information*

Global Market Share Leader:

- Market share resiliency despite credit quality issues during 2008-9
- MIS "ratings" is a "must have" for issuers
- *More market share information under "Regulation" section*

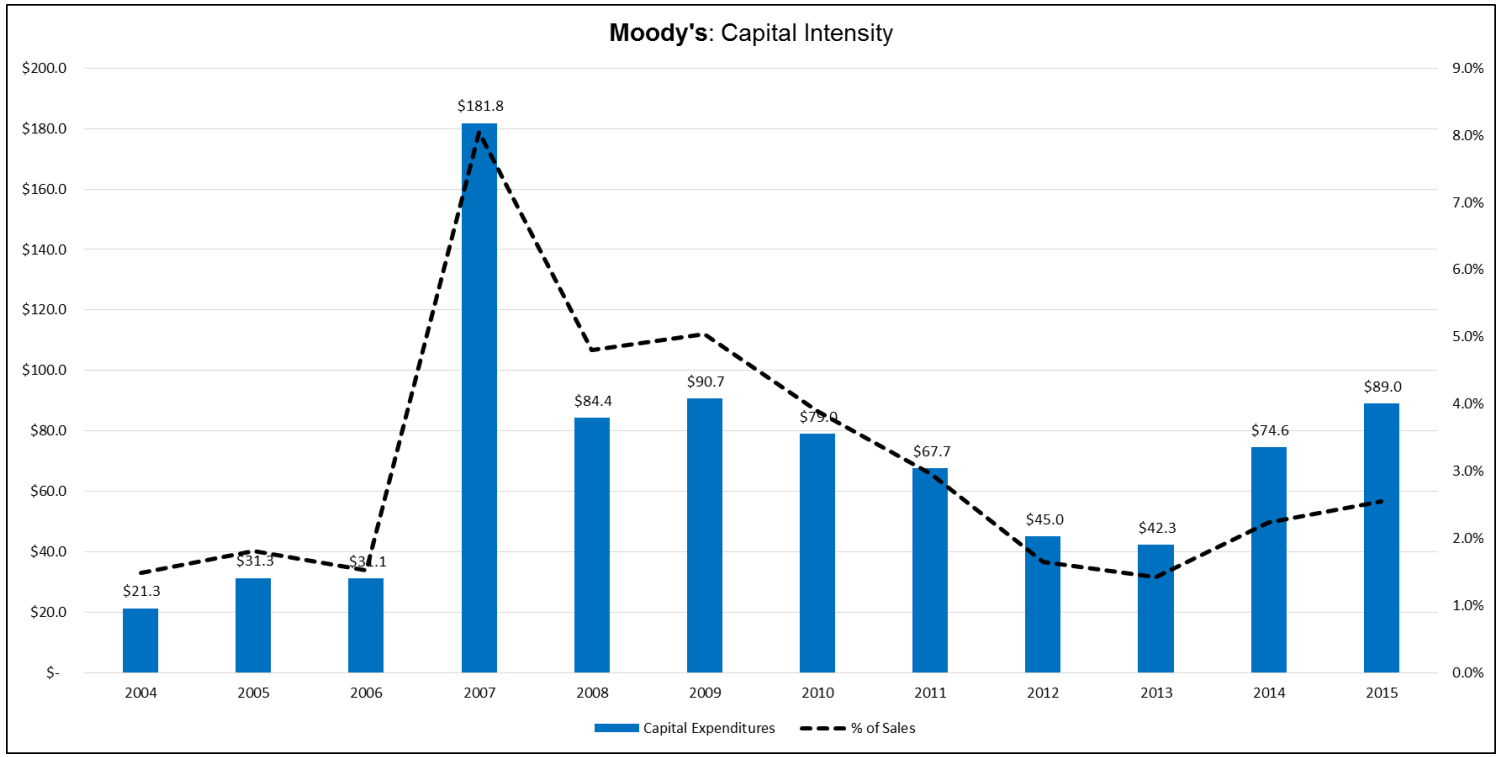




Source: 2011 and 2012 Investor Presentation Moody's

Limited Capital Needs

- Mostly spending on technology for compliance and process improvement
- 2007-2010 include costs to build-out New York and London HQs
- Normalized spending between $70 to $90 million (2-4% of revenues)



Source: Moody's filings and presentation

Moody's 'Credit Rating' Provides Tangible Value

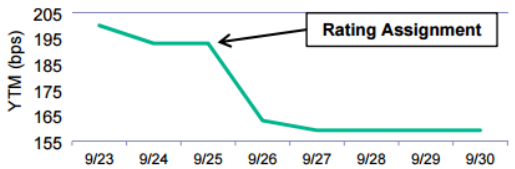
- The value proposition for MCO's customers is strong
- For an investment grade issuer, new issuance fees is approx. 6 bps, but a rating by MCO often lowers funding costs for the issuer far exceeding the fees MCO charges
- Case study illustrating value:

» A Moody's rating provides transparency to investors and may expand an issuer's investor base, thus optimizing the issuer's funding costs

Case Study

» Major European corporate
- Historically unrated
- Moody's and S&P assigned ratings to multi-billion euro medium term note program in 2013

» Impact
- Day of rating assignment, spreads on company's previously unrated existing euro-bond issue tightened by 30 bps



- CFO stated "The credit rating gives us access to the dollar market and gives us lower funding costs in general"
- Third-party research comment stated "We expect the bonds to tighten further due to the inclusion in various indices and the fact that the bonds will now be accessible to investors that have not been able to invest in unrated names"

Source: Moody's Investors Service, Bloomberg.

Rating by MCO immediately tightened existing bond spread by **30 bps**

Rating by MCO is a "must have"

Source: 2015 Investor Presentation Moody's

Sections in Slide Deck:

Slide:

Business Drivers

What to expect from MCO going forward….

Long-Term Growth Expectations

Introduction | **Financial Overview** | Capital Markets Overview | Moody's Investors Service | Moody's Analytics | Conclusion | Appendix

Secular Trends Continue to Provide Long-term Growth Opportunities Despite Near-term Macro Challenges

Debt market issuance driven by **global GDP growth**	**Disintermediation** of credit markets in both developed and emerging economies driving both issuance and demand for new products and services	**Growth in Moody's Analytics** driven by further penetration of MA's client base and expansion of bank and insurance risk regulatory requirements	MA and MIS **pricing initiatives** aligned with value; affected by business volumes and mix
~2-4%	~2-3%	~2-3%	~3-4%

Long-Term Revenue Growth Opportunity: High Single-Digit to Low Double-Digit % (on average)

+

Potential Selective Acquisitions*

+

Potential Operating Income Margin Expansion

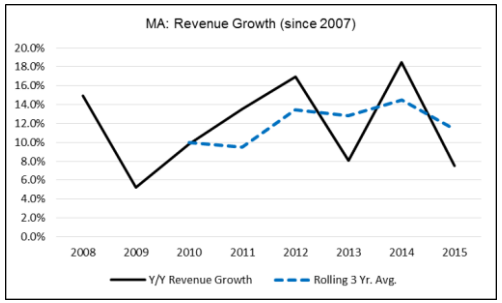
+

Ongoing Share Repurchases*

Long-Term EPS Growth Opportunity: Low-Teens to High-Teens % (on average)**

*Subject to market conditions and other ongoing capital allocation decisions.
**Assumes no material change in effective tax rate, foreign exchange rates, leverage profile and/or capital allocation policy.

2-3% growth in MA segment contribution to overall MCO *(MA = 1/3 of total MCO revenue)*



3-4% pricing power in both MA & MIS segments

MCO targeted **"double digit %"** revenue growth from as early as 2011*

	3 Yr	5 Yr	10 Yr
Revenue	8.5%	11.4%	7.2%
EBIT	11.0%	13.8%	4.6%
Net Income	10.9%	13.1%	5.3%

2015 revenue negatively impacted by FX by ~5%

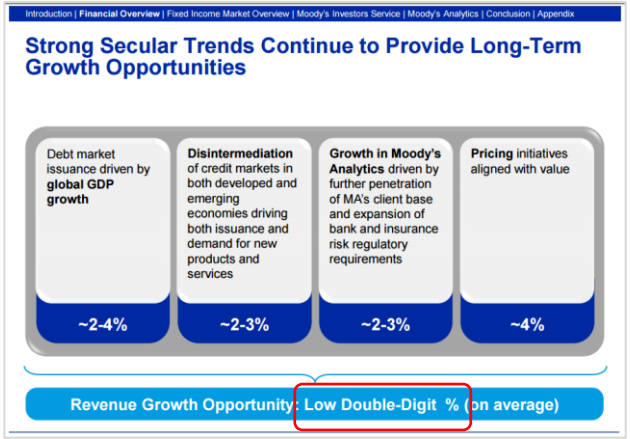
*Investor Presentation from March 2011 (earliest on MCO site), slide 20 http://ir.moodys.com/Cache/1001188548.PDF?Y=&O=PDF&D=&fid=1001188548&T=&iid=108462

Long-Term Growth Expectations

March 2013

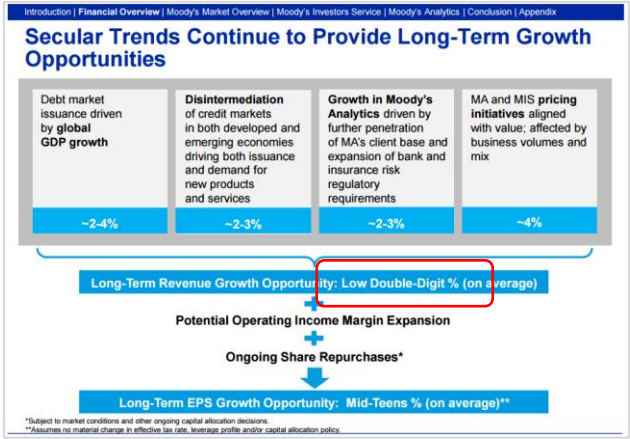
Long-Term Revenue Growth" "Low Double Digit %"

February 2014



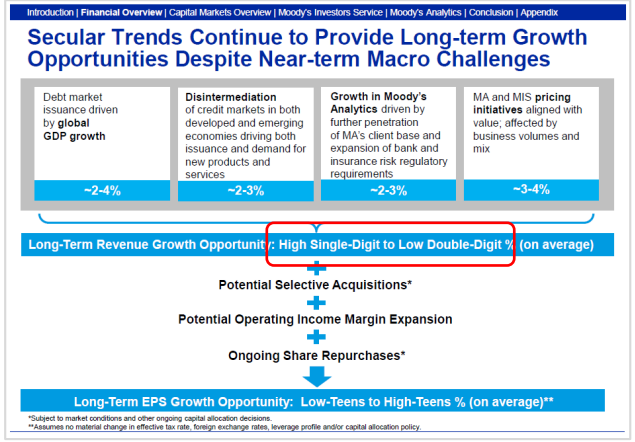
Long-Term Revenue Growth" "Low Double Digit %"

March 2015



Long-Term Revenue Growth" "Low Double Digit %"

February 2016



Long-Term Revenue Growth" "**High Single Digit** to Low Double Digit %"

Summarization from MCO Presentations:

- Long-term revenue growth expectations have *not* changed much. Likely wording adjustment from historical "low double digits" to including "high single digits" was due to 2015 being a year in which FX was unfavorable by about 5%.
- Other wording changes include adjusting pricing opportunities from ~4% to ~3-4%
- Beginning in 2014, MCO began to illustrate operating leverage flow through from revenue growth to enhanced EPS growth, likely to show investors their capital allocation decisions impact on EPS growth – share repurchase & acquisitions

Source: 2012-2015 Investor Presentations Moody's

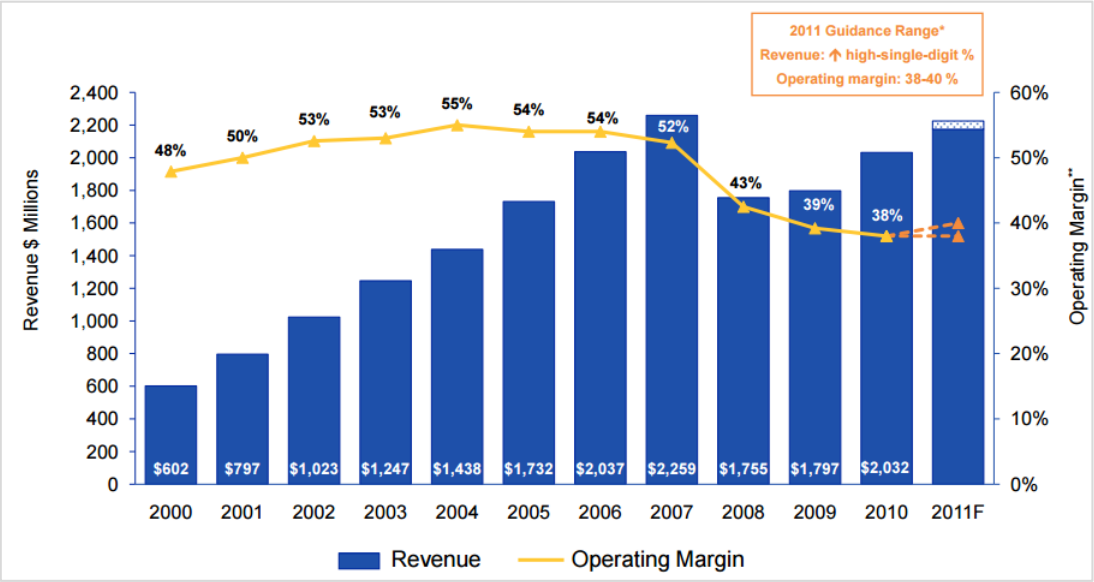
Growth Opportunities for MCO

- Margin expansion at MA and MIS
- Refinancing needs for U.S. High Yield over next 4-5 years
- Disintermediation from banks to public credit markets
- Newly rated global issuers adds to base of maintenance fee programs at MIS, helps cross-sell with MA

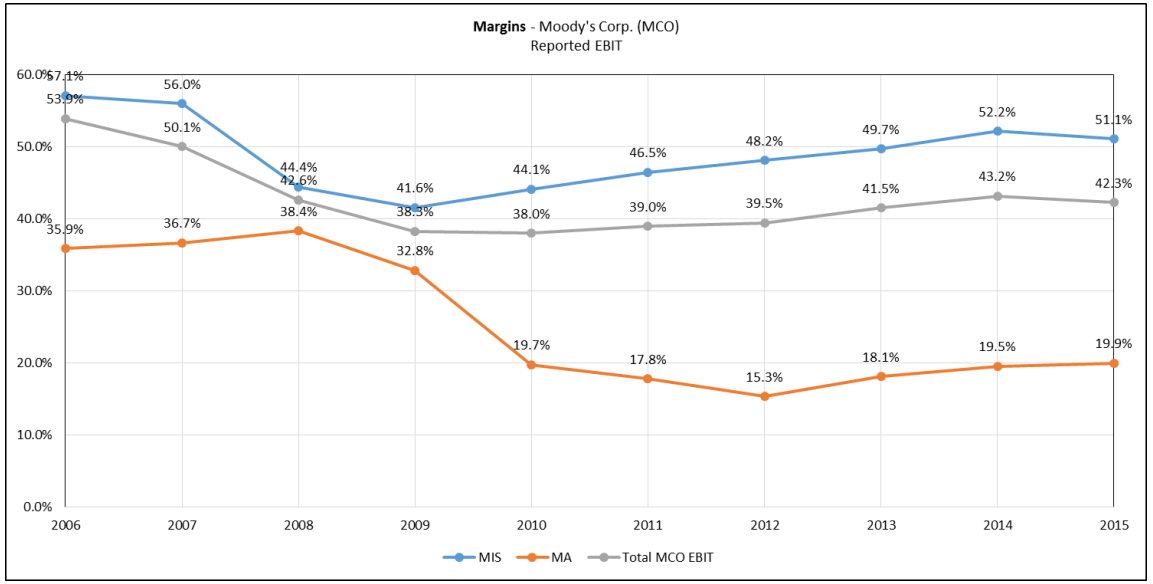
Margin Expansion

- Margins in the early-2000s were much higher than current, for 3 reasons:
  - MIS (ratings business) has much higher margins
  - MA business was immaterial, which currently has much lower margins than MIS
  - MIS margins aided by issuance of structured products, which have high margins, but is just a sliver of what it once was pre-GFC
- Improvements in structured products and “Moody’s Analytics” should drive margins higher
- MA margins are currently ~20%, expected to get to mid-20% in “next few years”

Total Moody’s operating margins: 2000 - 2010



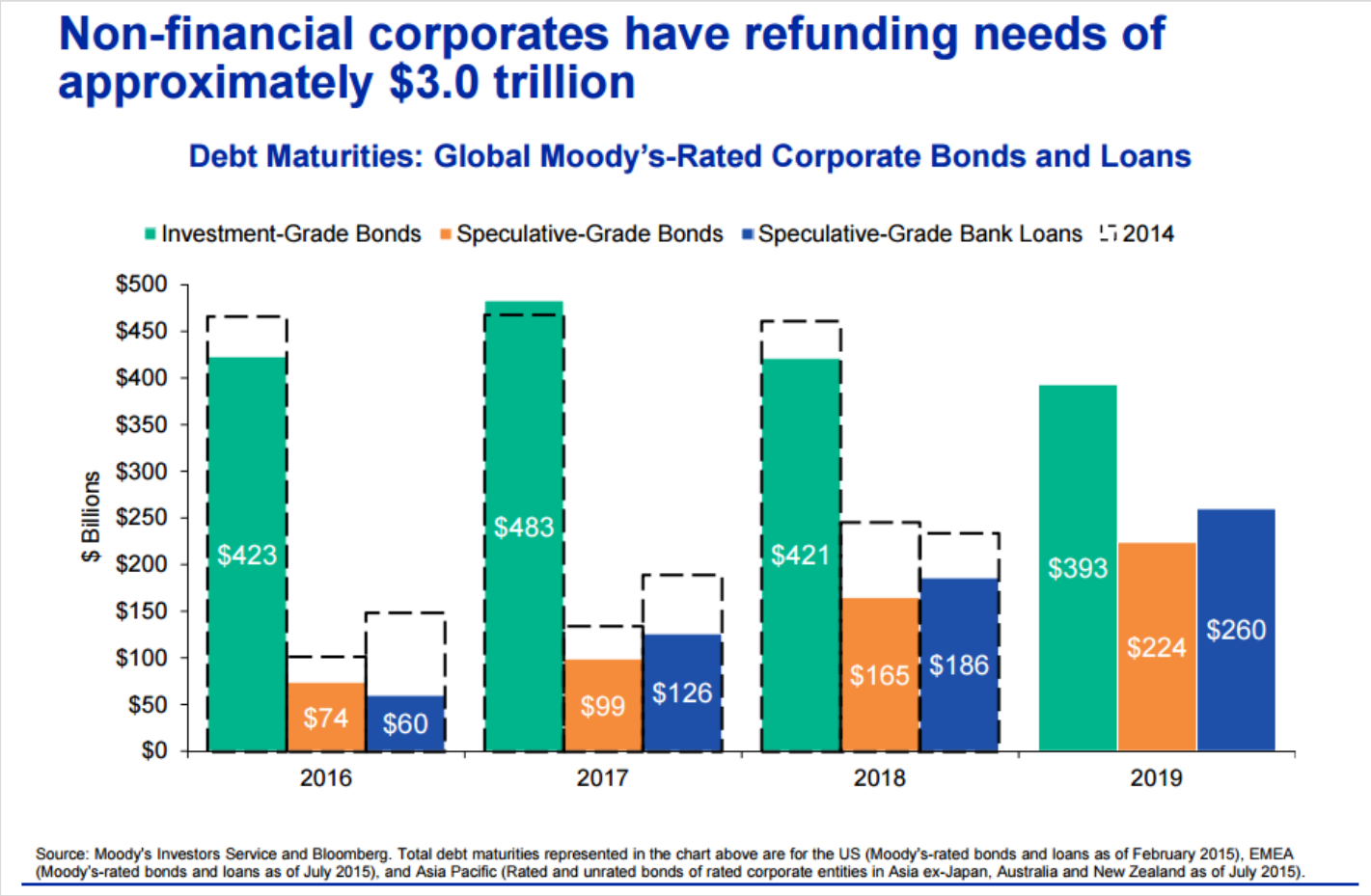
Total Moody’s operating margins: 2006 - 2015



Source: 2010FY Investor Presentation & Filings Moody’s

Refinancing Needs (2016-2019)

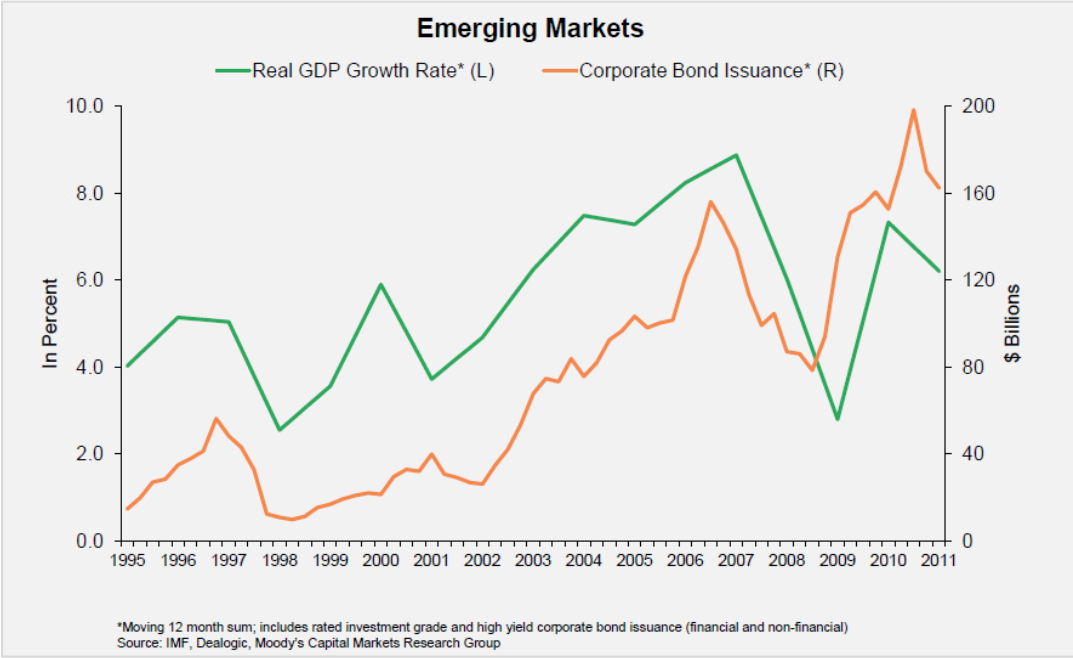
- About $3.0 trillion of refinancing needs from 2016-2019, led by investment grade (lower margin vs. HY)



Source: 2015 Investor Presentation Moody's

Real GDP growth rate drives Corporate Bond Issuance

- As economies grow (driven by corporations), their profits grow, and thus they use the debt markets to help finance some capital spending and projects
- In recent years, global GDP growth has slowed:
  - 2015 global GDP was 2.4%, expected to rise to a mere 2.9% in 2016 (World Bank, Jan. 2016)



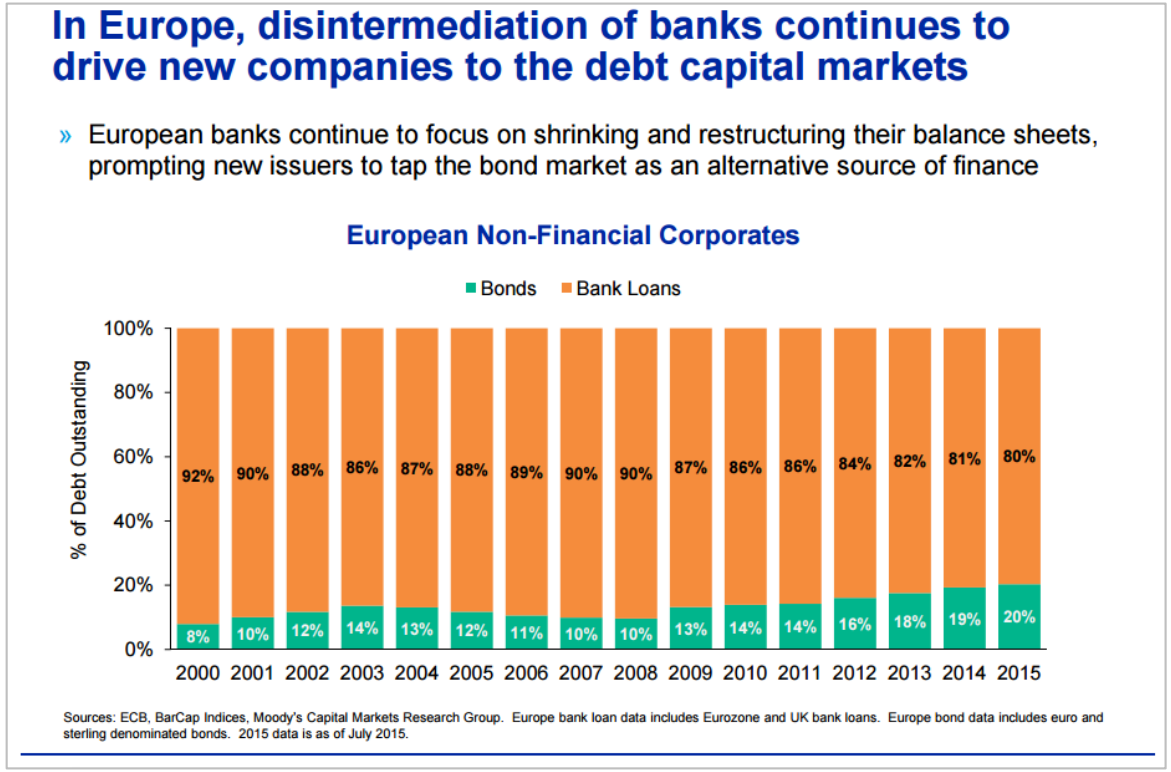
World Bank: Emerging economies have been on decline since 2010

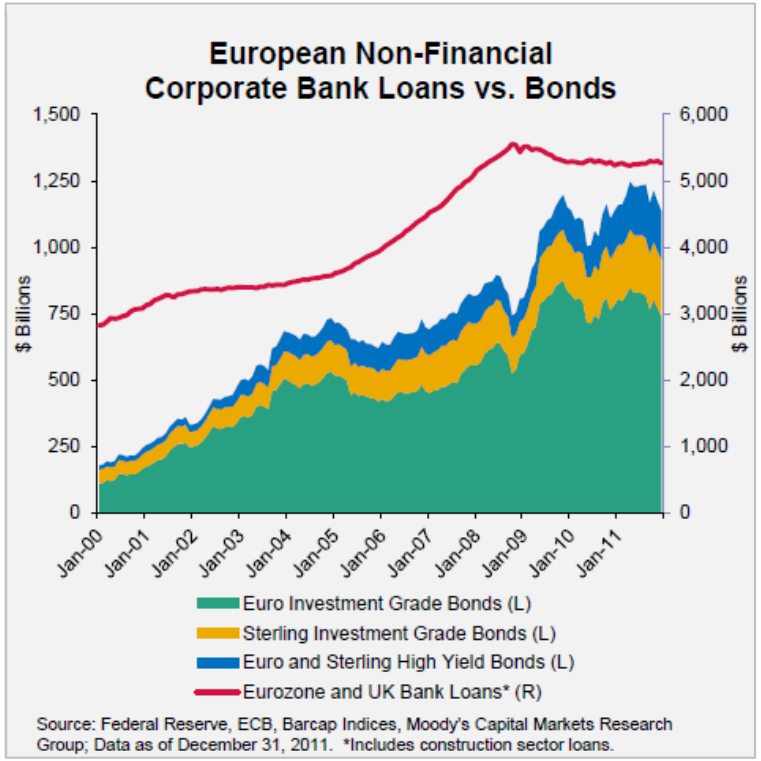
Emerging market economies have been an engine of global growth during the 2000s, especially after the 2007-08 global financial crisis. However, times are changing. Growth rates in several emerging market economies have been declining since 2010. The global economy will need to adapt to a new period of more modest growth in large emerging markets, characterized by lower commodity prices and diminished flows of trade and capital. This is the message that underlies this issue of the World Bank Group's *Global Economic Prospects*.

Source: 2011FY Investor Presentation Moody's, World Bank January 2016 Report

Disintermediation from Banks

- European capital markets largely depend on bank loans versus public markets
- From 2000-2011 CAGR in Europe: Public bonds grew 17%, bank loans at 5% (proving disintermediation in progress)

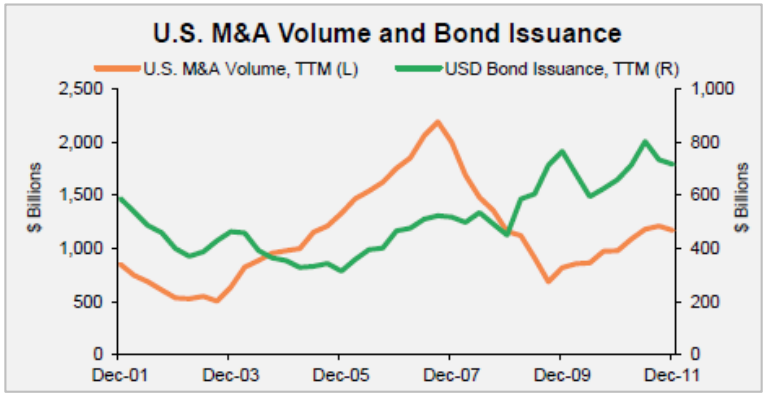


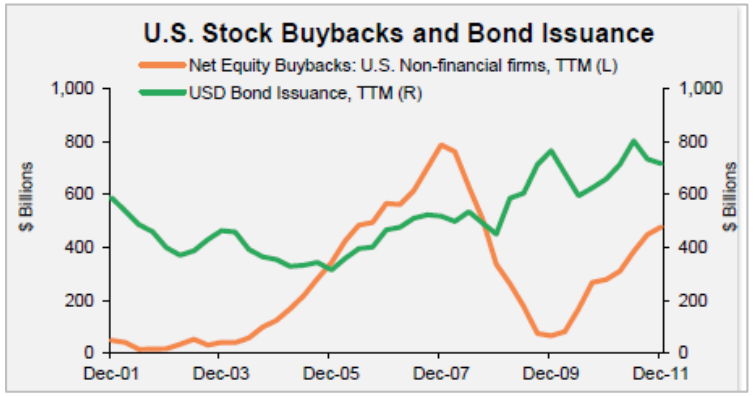


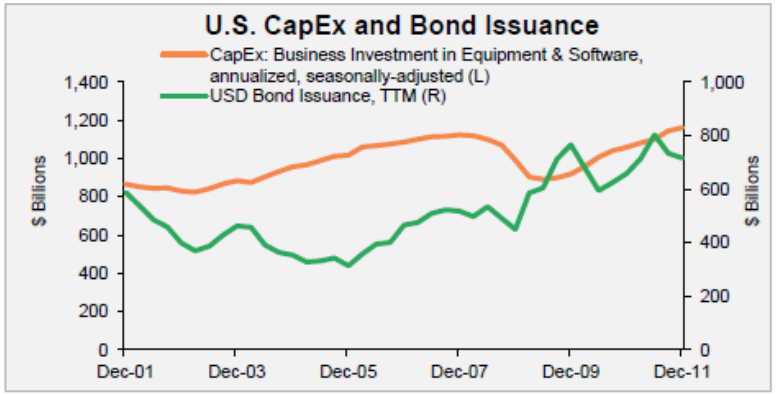
Source: 2011 and 2015 Investor Presentation Moody's

What Contributes to New Bond Issuance?

- New bond issuance makes up a substantial amount of MCO's margins
- Financing (new bond issuance) largely comes from M&A, borrowing to repurchase equity shares, and capital expenditure
  - Cap-Ex spending is more stable than M&A, which is more stable than financing for buybacks







Source: 2011FY Investor Presentation Moody's

Newly Rated Corporate Issuers = Future Recurring Revenue

- MCO gets an initial fee for new issue, and then that issuer pays an annual “maintenance” fee to monitor the debt
  - Investment Grade = ~6 bps for new issuance
- In 2010, newly rated corporate issuers surged compared to 2008/9, essentially doubling in U.S. from about 150 to over 300 (~90% HY)
- Most newly rated companies are high yield

Source: 2012 Investor Presentation Moody’s

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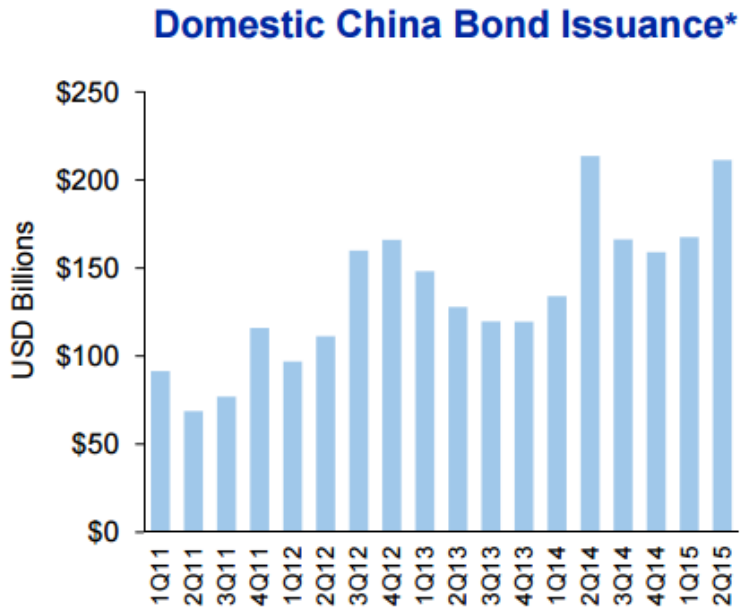
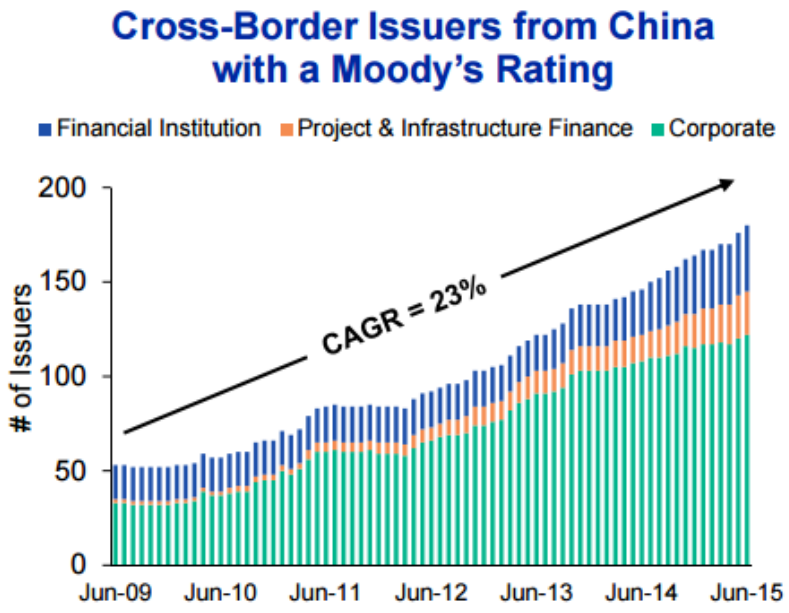
Longer Term Opportunities: China

- China, despite the current economic ‘issues’, is still ways away from having a significant capital market
- Growth is strong for China bond issuance and cross-border issuance



*Non-financial corporate and project and infrastructure issuers.
Source: WIND, Moody's Investors Service



Source: Moody's Investors Service

Source: 2015 Investor Presentation Moody’s

Longer Term Opportunities: Emerging Markets

- Emerging markets revenue is ~ 10% ($250m) of total MIS and ~30% of international revenues at MIS
- Largely driven by: (in order of revenue)
  - Emerging Asia
  - Latin America
  - Middle East
- Moody's is investing to reap benefits of long-term formation of credit markets in emerging economies (*see right*)
- China/India/Latin America equal about 18% of MIS revenue

We continue to invest for the future in high growth markets

	China	India	Latin America
Recent Investments	MIS Shanghai office, Greater China team	Majority control of ICRA	Acquisition of 100% of Equilibrium
MIS Offices	Beijing, Hong Kong, Shanghai	Mumbai + 8 ICRA offices in India	Buenos Aires, Mexico City, Sao Paulo, Lima, Panama City
Moody's Joint Ventures	CCXI (49%)	ICRA (50.1%) Market Cap ~$610mm*	None
MIS Rates Cross-Border Bond Issuance	✓	✓	✓
MIS Rates Domestic Bond Issuance			✓
Moody's Participates in Domestic Bond Market via Joint Venture	✓	✓	
Approximate Annual Revenue**	~$95mm	~$40mm	~$65mm

*ICRA market capitalization as of 09/22/2015.
**Approximate Annual Revenue includes both MIS revenue and that from Moody's affiliates CCXI, ICRA and Equilibrium in 2014, some of which was not consolidated in our financial statements.

Source: 2015 Investor Presentation Moody's

Bond Market

Statistics and Data

Global Corporate Bond: New Issuance

- Worldwide corporate bond offerings: (3/11/2016 Moody's)
  - *Expected to rise 3.6% for Investment Grade (to $2.399 trillion) [US$ is $1.456 trillion of this]*
  - *Expected to plunge -26.8% for high yield ($336 billion) [US$ is $286 billion of this]*

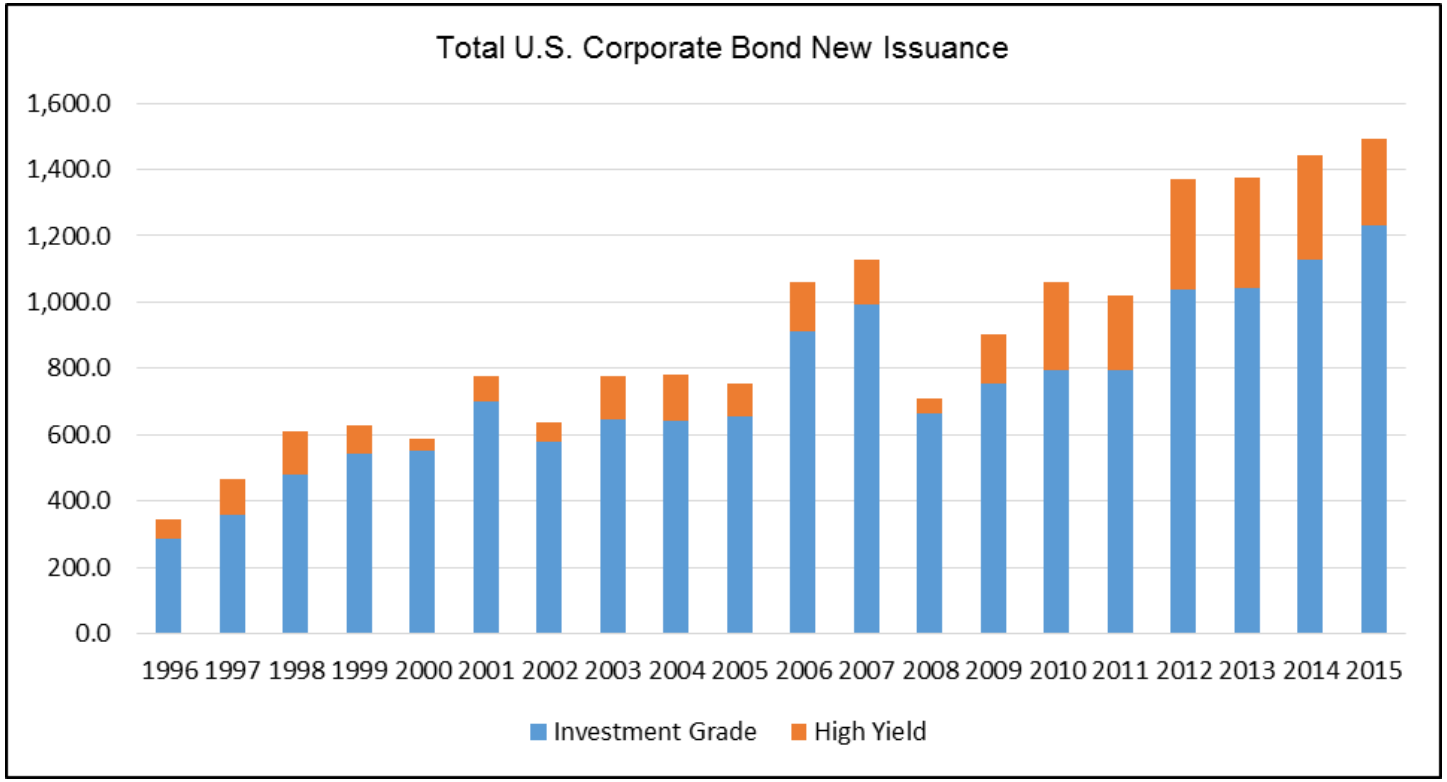
For yearlong 2016, worldwide corporate bond offerings are likely to rise by 3.6% annually for IG (to $2.399 trillion) and plunge by -26.8% for high yield (to $336 billion).

The financing of acquisitions and shareholder compensation will stand out among 2016's uses of funds obtained via bond issues and newly-rated bank loan programs. Companies will resort to acquisitions and divestitures in order to better cope with the US's subpar recovery. To the degree companies fear significantly higher bond yields, pre-fundings will rise.

Source: Sifma.org

U.S. Corporate Bond: New Issuance

- 2012-2015 each year set new record for U.S. Corporate Bond new issuance
- Improved economy and low rates from central bank policies encouraged issuance
- *Is it possible that issuance from 2012-2015 pulled forward future demand?*



From Moody's: February 26, 2016

For yearlong 2016, worldwide corporate bond offerings are likely to rise by 0.8% annually for IG (to $2.333 trillion) and plunge by -27.0% for high yield (to $336 billion).

The financing of acquisitions and shareholder compensation will stand out among 2016's uses of funds obtained via bond issues and newly-rated bank loan programs. Companies will resort to acquisitions and divestitures in order to better cope with the US's subpar recovery. To the degree companies fear significantly higher bond yields, pre-fundings will rise.

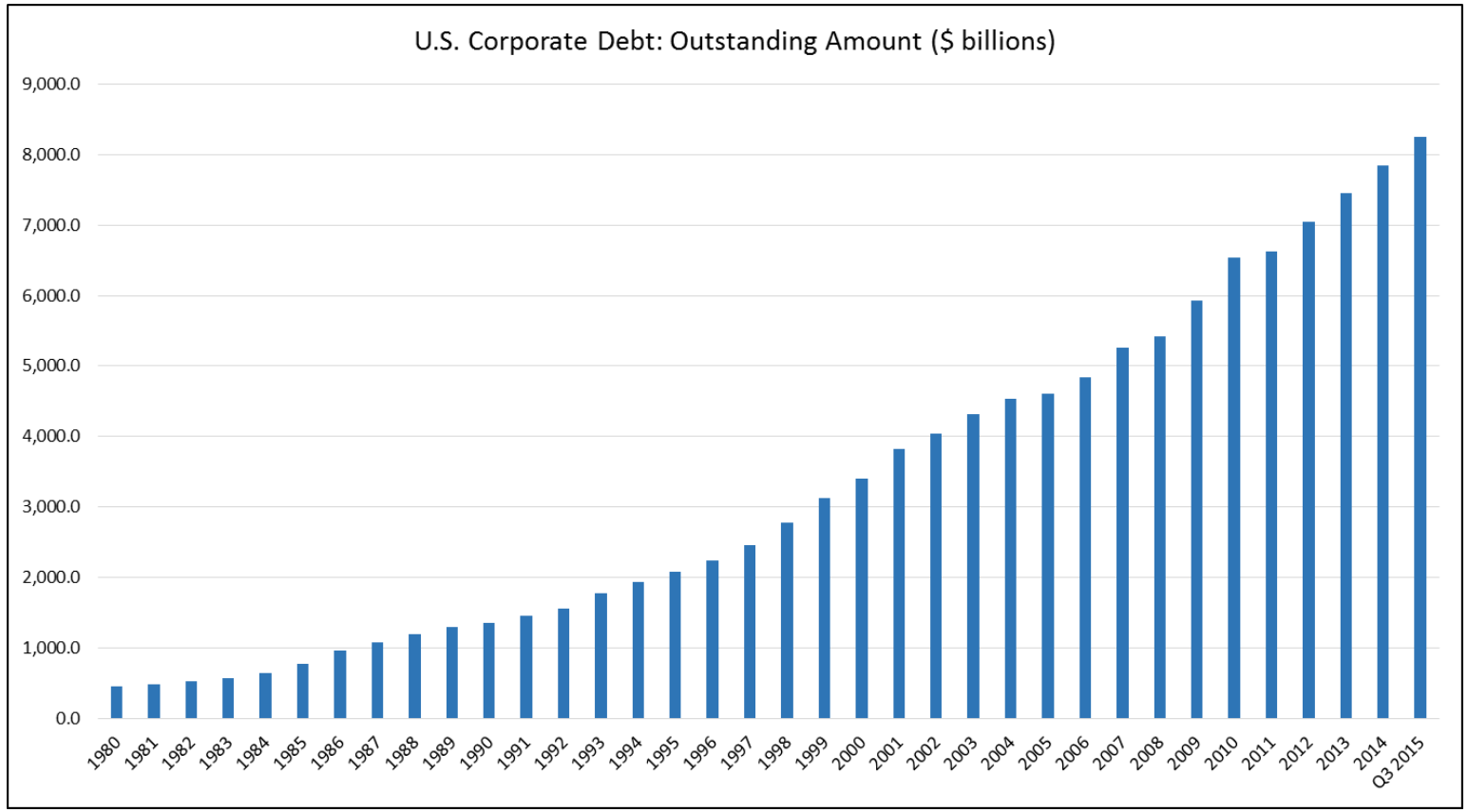
From Moody's: March 11, 2016

Credit Spreads	Investment Grade: Year-end 2016 spread to be less than its recent 174 bp. High Yield: After recent spread of 735 bp, it may approximate 725 bp by year-end 2016.
Defaults	US HY default rate: after February 2016's 3.6%, Moody's Credit Policy Group forecasts 5.5% by January 2017.
Issuance	In 2015, US$-denominated investment-grade (IG) bond offerings advanced by 17.5% to $1.297 trillion, while US$-priced high-yield bond issuance sank by -19.5% to $289 billion. For 2016, US$-denominated IG bond issuance may increase by 9.8.% to $1.456 trillion, while US$-priced high-yield bond issuance may plunge by -19.2% to $286 billion.

Source: Sifma.org

U.S. Corporate Bond: Total Outstanding

- Through Q3-2015, total corporate debt outstanding has doubled since 2002
- Corporate Debt makes up 20.8% of total U.S. Bond Market through Q3-15. up slightly from 19.6% in 2000, and up from 17.1% in 1990

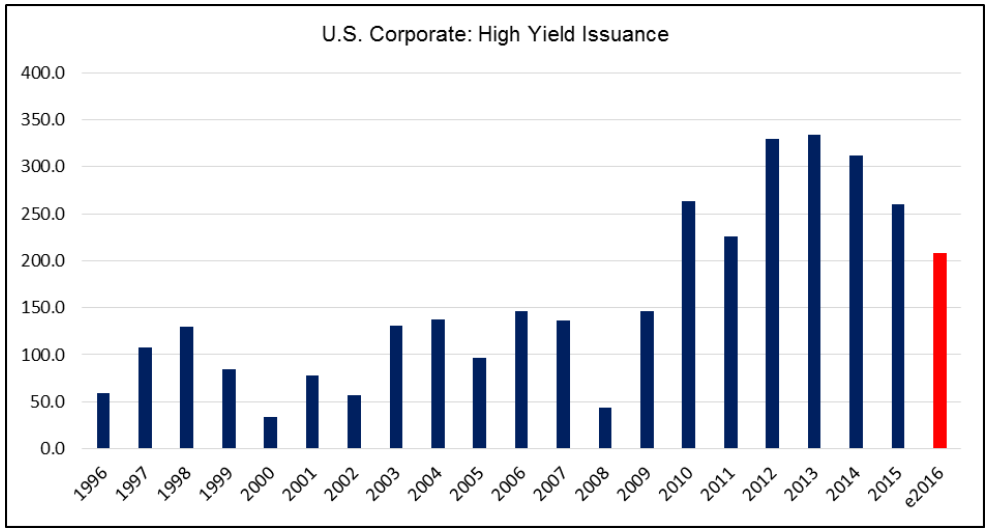


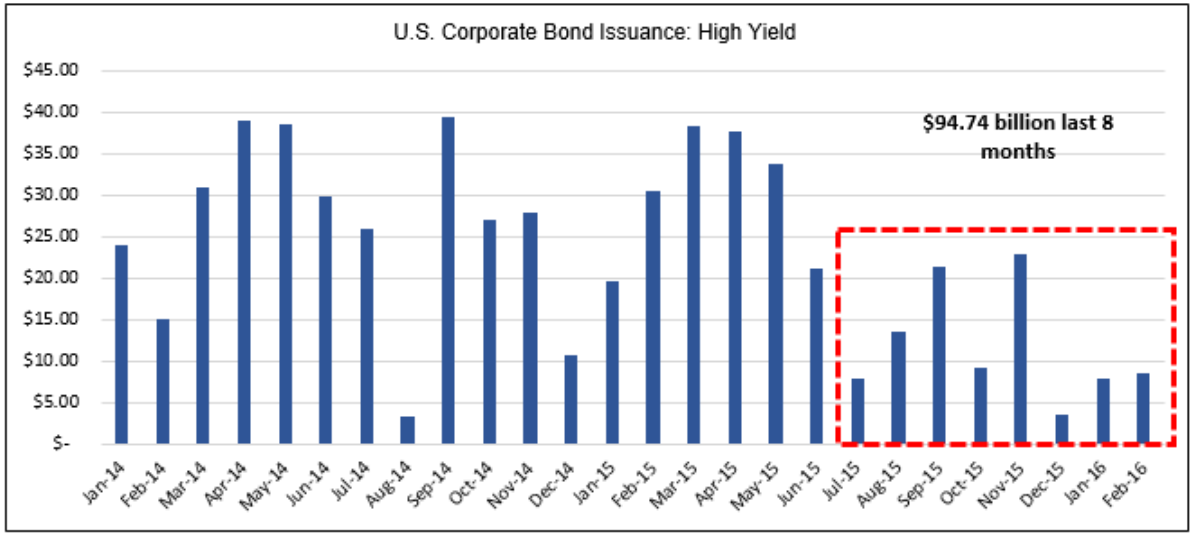
Source: Sifma.org

MOODY'S

U.S. Corporate: High Yield *Slowdown*

- The last 8 months for high yield have been *very* slow
- 2 decent drawdowns in the U.S. and global stock markets since summer 2015 have created more risk-averse appetite
- Increasing credit spreads and anticipated higher default rates hurting high yield market
- 2016 new issuance expected to be down 15-30% according to Moody's. (est. -20%)
  - 2015 was down 16.5% from 2014, which was down 6.7% from 2013

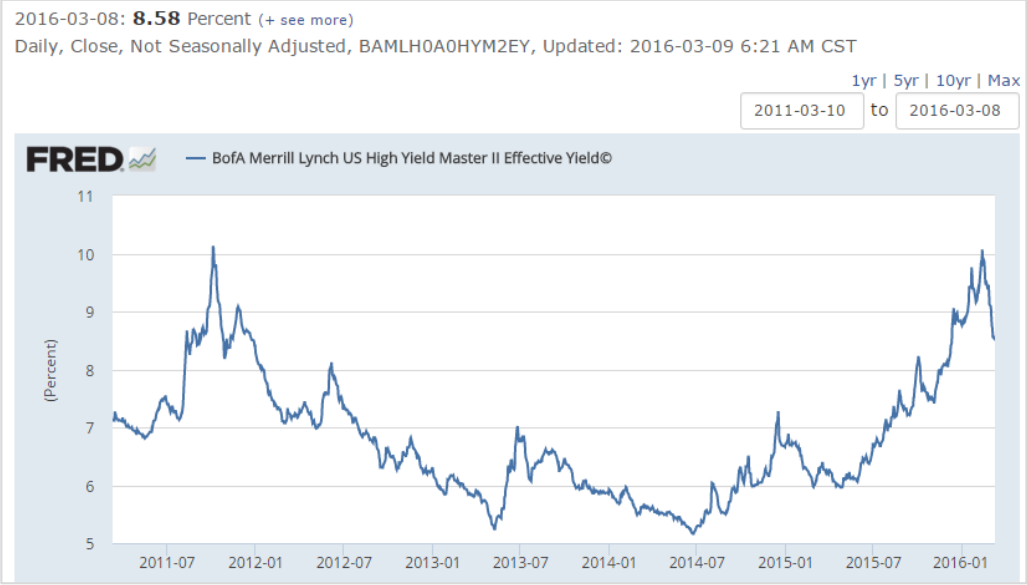


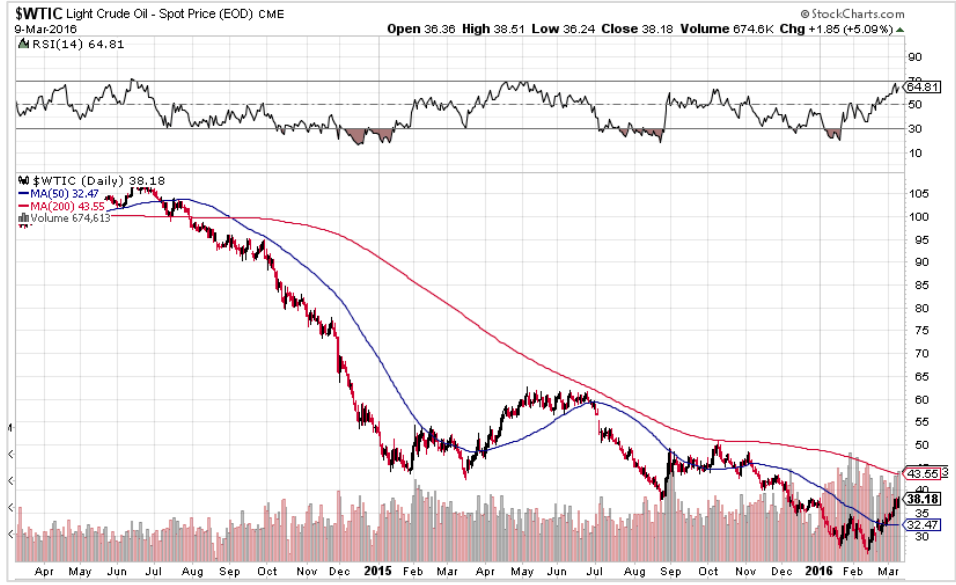


Source: Sifma.org

U.S. Corporate: High Yield *following Crude?*

- High yield bond index at levels not seen since the Euro-crisis (Greek, etc.) in late 2011
- **8.58% yield** reflects concern over default rates and risk
- Higher yield impacts new issuance, thus the slowdown in high-yield new issuance as of recent
- However, it has recovered from 9.93% on February 12, 2016 (recovery also seen in equity markets, likely due to large increase in WTI Crude prices from mid-February)

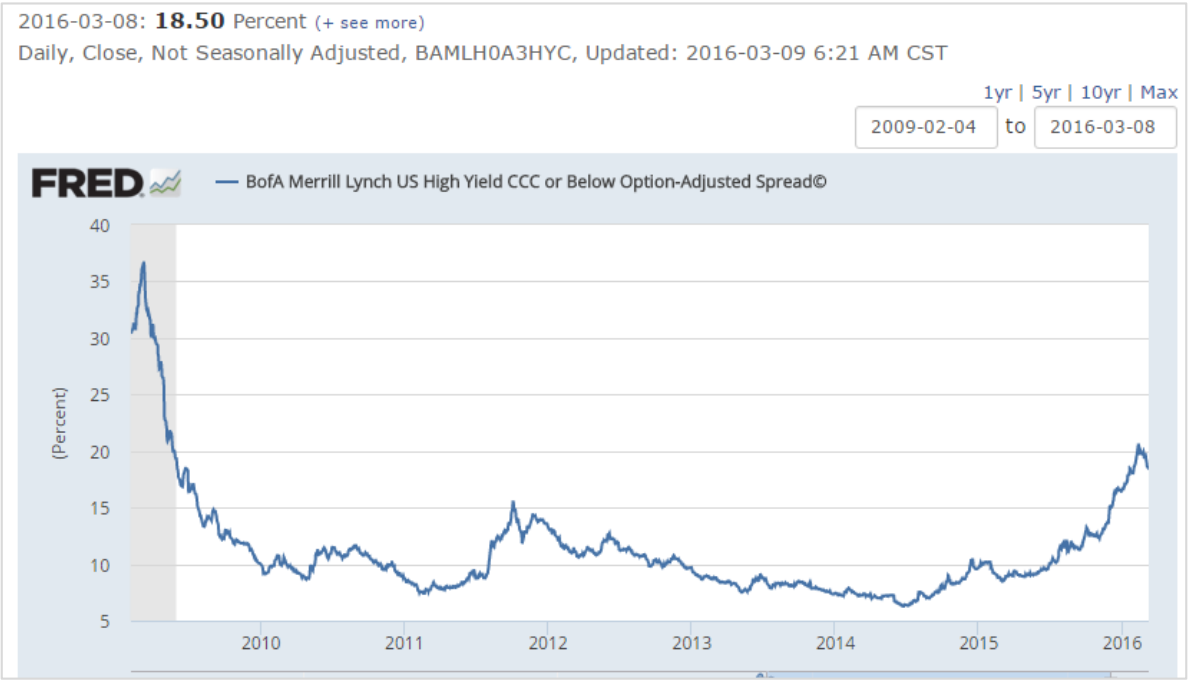


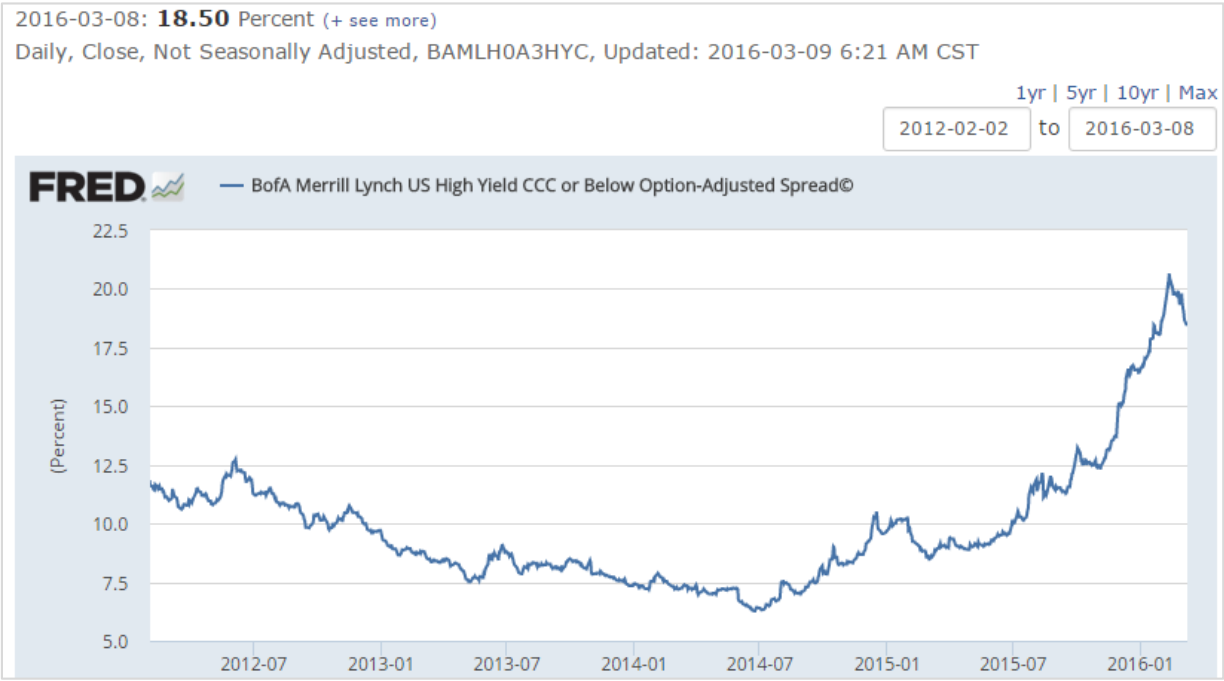


Source: Sifma.org

U.S. Corporate: High Yield CCC or below OAS

- High yield CCC or below option-adjusted spread at the highest level since 2009
- This spread – **18.5%** - reflects obvious concern and potential recessionary fears in the near term
- Heightened spread is *negative* driver of high yield new issuance





Source: Sifma.org

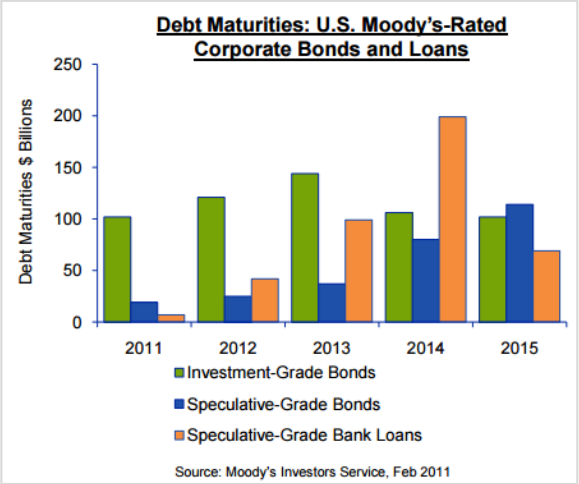
The Impact of the “Global Financial Crisis”

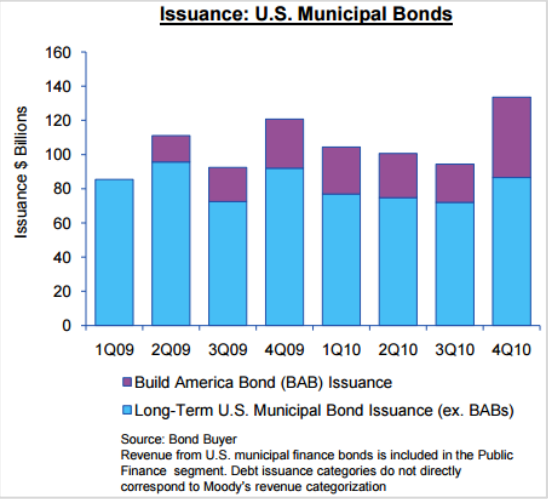
The years post-2008

Evolution of Moody's Business – Post GFC

2010:

- Expectations of heavy refunding requirements over next 5 years – specifically in HY – will drive issuance activity
- Expected growth in capital spending
- FIG revenue is ~65% recurring, is "largely inelastic to issuance debt" due to predominance of frequent issuer contracts with larger financial institutions
- Expect FIG Revenue to grow in 2011(*Actual: +5.8%)* due to smaller financial institutions returning to market due to more favorable financing costs
- Public Finance (PPIF) revenue in 2010 driven by "Build America Bonds" issuance
- Lower Baa credit spreads had strong correlation to M&A activity



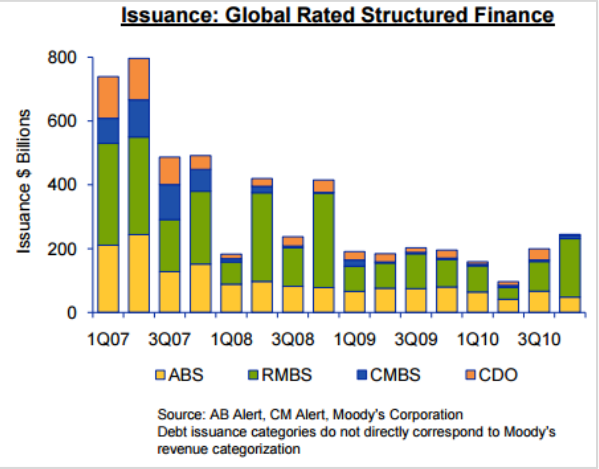


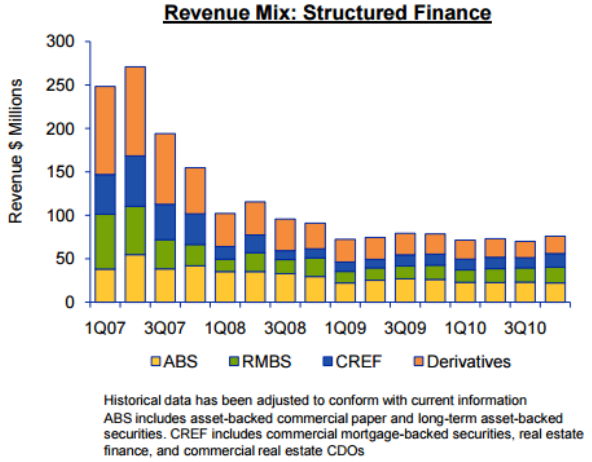
Source: 2010FY Investor Presentation Moody's

Evolution of Moody's Business – Post GFC

2010:

- Regulatory uncertainty weighing on structured finance activity
- U.S. RMBS recovery unlikely
- Pre-GFC structured finance driven by derivatives and RMBS
- RD&A (MA segment) showing resiliency through 2008-2010
- Risk Management (ERS) showing strong growth due to increased/new regulatory requirements
- Professional Services was slow during GFC as companies deferred spending, but picked up post-2009 (*Actual: 5 year revenue CAGR of 52% - 2009 to 2014)*



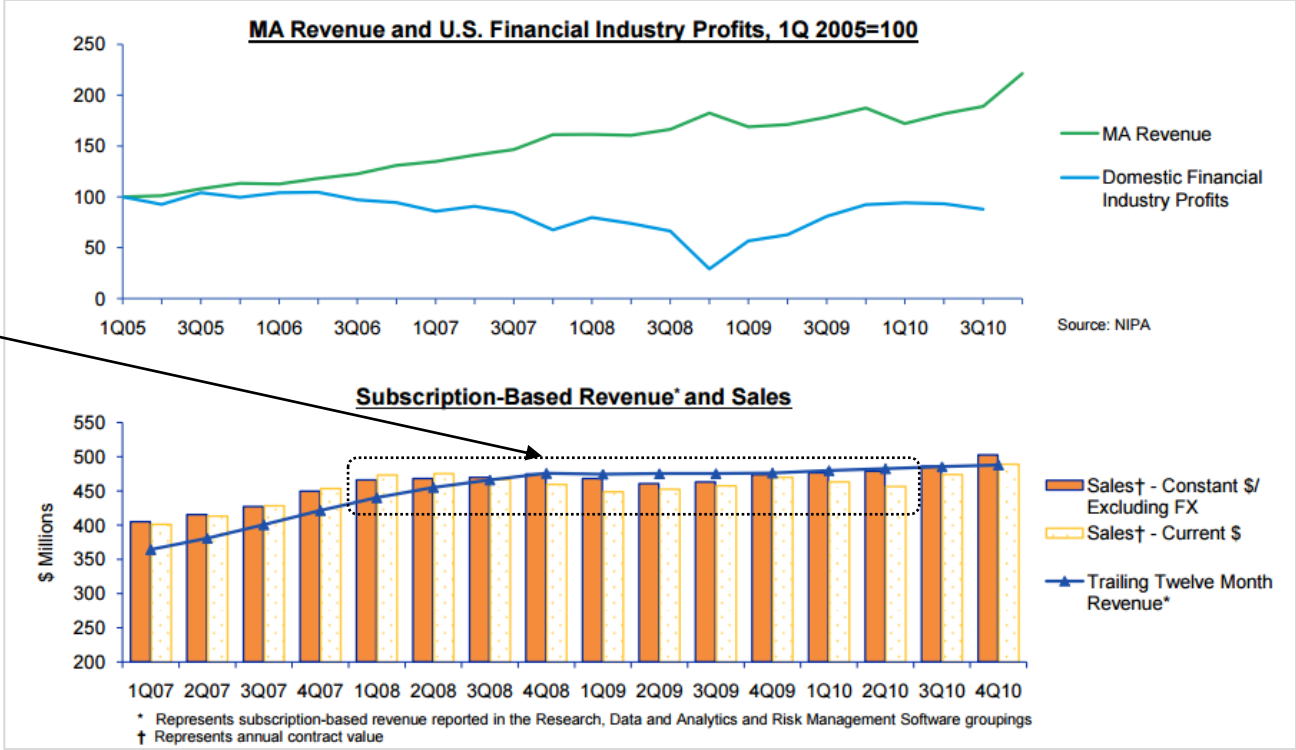


Source: 2010FY Investor Presentation Moody's

Evolution of Moody's Business – Post GFC

2010:

- Strength of business model illustrated through turbulent 2008-2010 with strong MA revenue growth vs. industry
- Sales in RD&A and Risk Management barely declined during most daunting time period of 2008-2009, showing resiliency, necessity, and strength of products

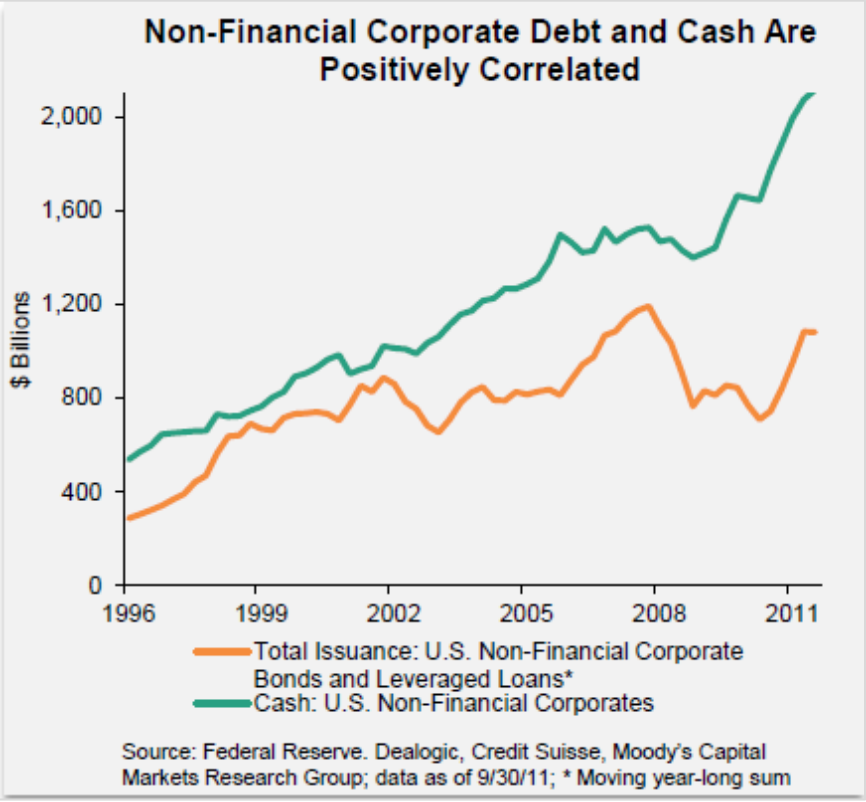


Source: 2010FY Investor Presentation Moody's

Evolution of Moody's Business – Post GFC

2011:

- 1H of 2011 things were strong, but macro uncertainty and widening spreads hurt activity in Europe and the U.S. HY debt markets, almost drying up HY issuance
- U.S. IG issuance retreated somewhat, but low rates helped activity
- U.S. companies had record cash levels – about 50% held overseas – and still decided to borrow
- Build America Bond program ended in 2010, contributed to decline in US Munciiapl bond issuance

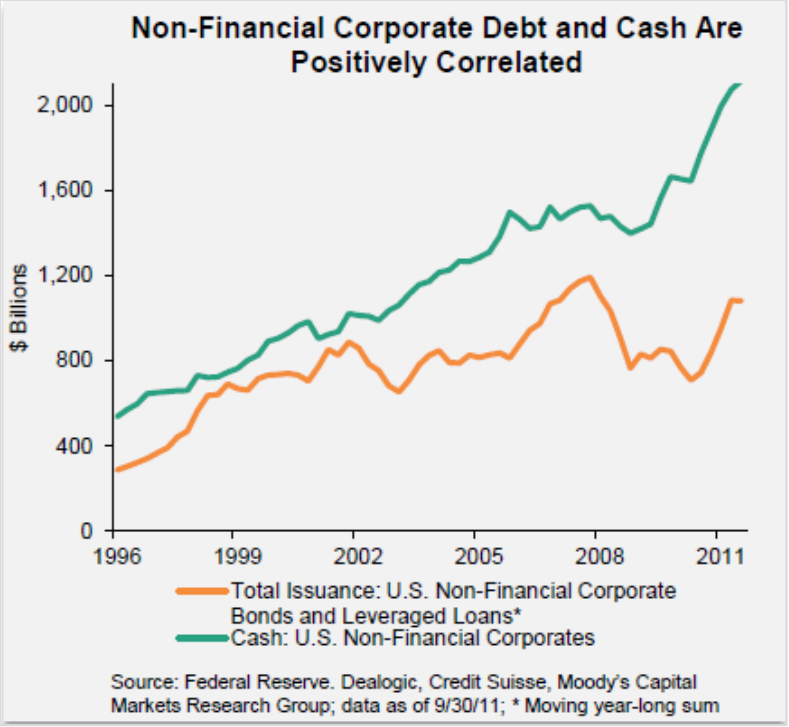


Source: 2011/2 Investor Presentation Moody's

Evolution of Moody's Business – Post GFC

2012:

- Strong corporate IG and HY issuance
- Similar to prior year, significant refunding remains for next 5 years, mostly backend loaded on speculative grade bonds/bank loans



Source: 2012 Investor Presentation Moody's

Regulation and Market Share

SEC & ESMA

Regulation in U.S.: Credit Rating Agency

- CRAs subject to Reform Act and the Financial Reform Act
- SEC required to publish two annual reports to Congress on the NRSROs
- Financial Reform Act requires SEC to examine each NRSRO once a year and issue annual report summarizing the findings
- Annual report discusses state of competition, transparency and conflicts of interest among NRSROs
- Conflicts of Interest
  - Operate under an “issuer pay” model, whereby potential conflict in that CRA may be influenced to determine more favorable ratings than warranted to retain the obligors or issuers as clients
  - “Subscriber Pay” model also has conflicts of interest problems

Source: 2015 SEC NRSRO Report

U.S. Focus: Conflicts of Interest

- SEC notices both issuer-pay and subscriber-pay model have conflicts of interest
- New rules:

The New NRSRO Rules supplemented and strengthened the prior existing rules related to conflicts of interest. For example, the New NRSRO Rules:

(1) prohibit conflicts of interest relating to sales and marketing activities;[137]
(2) address conflicts of interest relating to employment of former analysts;[138]
(3) require, with respect to each rating action, disclosure of certain information related to conflicts of interest and an attestation affirming the independence of such rating action;[139]
(4) require each NRSRO to assess and report on the effectiveness of its internal controls;[140] and
(5) provide that an NRSRO could have its registration suspended or revoked for violating the rules governing conflicts of interest.[141]

Source: 2015 SEC NRSRO Report

NRSRO (U.S.)

- NRSRO began in 1975 to reflect bank capital requirements being appropriately determined by credit rating agencies
- In the 1980s there were 7 NRSROs, which declined to 3 in the 1990s due to mergers
- NRSRO is essentially the U.S. government blessing that the credit rating agency is "official"
- Annual Reports required by the Credit Rating Agency Reform Act of 2006 and Dodd-Frank Act, discussing competition, market share, conflicts of interest
- Total of ten (10) NRSRO's in the U.S. as of 2015 SEC Report

"While this information indicates the high percentage of outstanding ratings that continue to be issued by Moody's, S&P, and Fitch, other information demonstrates *that smaller NRSROs have been able to make competitive inroads in certain rating categories*." – 2015 SEC Annual Report on CRAs

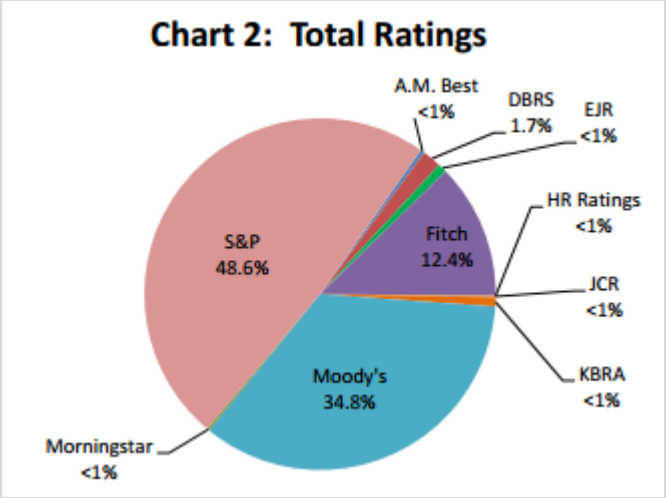
NRSRO's as of 2015 SEC Annual Report on CRAs

NRSRO / Categories of Credit Ratings	Registration Date	Principal Office
A.M. Best Company, Inc. ("A.M. Best") Categories (ii), (iii), and (iv)	September 24, 2007	U.S.
DBRS, Inc. ("DBRS") Categories (i) through (v)	September 24, 2007	U.S.
Egan-Jones Ratings Company ("EJR")[5] Categories (i) through (iii)	December 21, 2007	U.S.
Fitch Ratings, Inc. ("Fitch") Categories (i) through (v)	September 24, 2007	U.S.
HR Ratings de México, S.A. de C.V. ("HR Ratings") Category (v)	November 5, 2012	Mexico
Japan Credit Rating Agency, Ltd. ("JCR") Categories (i), (ii), (iii), and (v)	September 24, 2007	Japan
Kroll Bond Rating Agency, Inc. ("KBRA") Categories (i) through (v)	February 11, 2008	U.S.
Moody's Investors Service, Inc. ("Moody's") Categories (i) through (v)	September 24, 2007	U.S.
Morningstar Credit Ratings, LLC ("Morningstar") Category (iv)	June 23, 2008	U.S.
Standard & Poor's Ratings Services ("S&P")[6] Categories (i) through (v)	September 24, 2007	U.S.

Source: 2015 SEC NRSRO Report

U.S. Market Share Leader:

- #2 in terms of outstanding credit ratings in U.S. (behind S&P)
- Top 3 in U.S. command large market share (which doesn't really seem to be changing much, except for the structured market, which it can shift more often than in other categories)



2015 SEC Annual Report on CRA's

Chart 1: Number of Outstanding Credit Ratings as of December 31, 2014 by Rating Category*

NRSRO	Financial Institutions	Insurance Companies	Corporate Issuers	Asset-Backed Securities	Government Securities	Total Ratings
A.M. Best	N/R	7,910	1,526	26	N/R	9,462
DBRS	10,176	147	3,732	11,497	16,650	42,202
EJR	11,956	1,025	7,013	N/R	N/R	19,994
Fitch	46,260	3,011	15,558	42,237	194,086	301,152
HR Ratings	N/R	N/R	N/R	N/R	277	277
JCR	807	57	2,206	N/R	399	3,469
KBRA	14,809	49	2,856	2,626	37	20,377
Moody's	52,049	3,336	41,364	71,504	673,166	841,419
Morningstar	N/R	N/R	N/R	5,542	N/R	5,542
S&P	61,000	6,800	53,000	85,200	970,200	1,176,200
Total	**197,057**	**22,335**	**127,255**	**218,632**	**1,854,815**	**2,420,094**

*N/R indicates that the NRSRO is not registered for the rating category indicated.
Source: NRSRO annual certifications for the 2014 calendar year, Item 7A on Form NRSRO[34]

Source: 2015 SEC NRSRO Report

U.S. Market Share Leader:

- In U.S., the "big three CRAs" issued *95.8% of all ratings* outstanding as of 12/2014, compared to 96.6% in 2013, and 98.8% from 2007 (year NRSROs began reporting)
- While the market share is largely dominated by the same CRAs – S&P, Moody's, and Fitch – there has been some ***minor market share erosion*** over the last 7-8 years
- HHI Inverse has a concentration of 2.68 (If it were 3.0 then means concentration is equal to an industry where entire market evenly divided among three firms).
  - Comparing to 2008, the industry has become **less** concentrated

Chart 10: HHI Inverses for Each Rating Category

Year	Financial Institutions *	Insurance Companies **	Corporate Issuers**	Asset-Backed Securities *	Government Securities*	Total (all rating categories)	Total Excluding Government Securities
2008	3.72	4.05	3.79	2.82	2.83	2.99	3.56
2009	3.85	3.84	3.18	3.18	2.65	2.86	3.58
2010	3.99	3.37	3.17	3.20	2.69	2.88	3.55
2011	4.16	3.76	3.02	3.38	2.47	2.74	3.70
2012	4.04	3.72	3.00	3.44	2.50	2.75	3.68
2013	3.99	3.68	3.03	3.48	2.46	2.72	3.65
2014	4.30	3.83	3.35	3.34	2.40	2.68	3.81

* Seven credit rating agencies are registered in this rating category. Therefore, the highest possible HHI Inverse (in a perfectly competitive market where all firms have an equal share of business) would be 7.0.

** Eight credit rating agencies are registered in this rating category. Therefore, the highest possible HHI Inverse (in a perfectly competitive market where all firms have an equal share of business) would be 8.0.

Source: NRSRO annual certifications for the 2008-14 calendar years, Item 7A on Form NRSRO

Since 2008:

More concentrated:
- Insurance companies
- Corporate issuers
- Government securities
- Total

Less Concentrated:
- Financial institutions
- ABS

Source: 2015 SEC NRSRO Report

U.S. Market Share Leader:

- In U.S., revenue numbers largely favor the top three – S&P, Moody's and Fitch – and that has not changed much, illustrating a continuation of market share dominance

Chart 12: NRSRO Revenue Information Fiscal Year Percentage of Total Reported NRSRO Revenue

	2011	2012	2013	2014
S&P, Fitch, and Moody's	94.0%	94.7%	94.5%	94.3%
All Other NRSROs	6.0%	5.3%	5.5%	5.7%
Total	100.0%	100.0%	100.0%	100.0%

Source: Financial reports provided to the Commission under Rule 17g-3 for the fiscal years ended 2011-14

Source: 2015 SEC NRSRO Report

Barriers to Entry

- Barriers to entry remain for NRSROs in the U.S.
- At the 2013 CRA RoundTable, a study by Morningstar found that approx. 42% of fixed income funds have investment guidelines referring to ratings specifically referred to S&P and Moody's or a "major NRSRO"
- Fixed income indices – to be included, securities must be rated by specific NRSROs
- Dodd-Frank Act increases compliance and other costs in order to become a NRSRO and maintain the status
  - Newer rules exempt some smaller NRSROs from certain requirements, such as relating to conflicts of interest/revenue % concentration

C. Barriers to Entry

Despite the notable progress made by smaller NRSROs in gaining market share in some of the ratings classes (see Section IV(B) of this Report), economic and regulatory barriers to entry continue to exist in the credit ratings industry, making it difficult for the smaller NRSROs to compete with the larger NRSROs.

One such potential barrier that is consistently referred to by certain smaller NRSROs is the minimum ratings requirements that specify use of the ratings of particular rating agencies in the investment management contracts of institutional fund managers and the investment guidelines of fixed income mutual fund managers, pension plan sponsors, and endowment fund managers.[89] The effect of these requirements can be to increase the demand and liquidity for

Source: 2015 SEC NRSRO Report

Regulation in Europe: MIS

- The European Securities and Markets Authority (ESMA) has direct supervisory responsibility for the registered CRA industry throughout the EU
- Report to ESMA regarding fees, restrictions, guidelines, conflicts of interest avoidance
- CRA3 requires that ESMA report on industry structure and use of ratings, will monitor industry over next 3-5 years

Competition: MIS (Europe)

- Table to right is from ESMA on categories of credit ratings offered by registered CRAs in Europe
- Truly only <u>four</u> (4) comprehensive independent CRAs in Europe:
  - Moody's (MIS)
  - S&P
  - Fitch Ratings
  - DBRS Ratings Limited
- In reality, only Moody's, S&P, and Fitch are the predominant players in the space, with almost 90% share

	2011									2012									2013									2014									2015 (First Semester)								
CRA	FI	IN	CO	SV	SS	PE	SN	SF	CB	FI	IN	CO	SV	SS	PE	SN	SF	CB	FI	IN	CO	SV	SS	PE	SN	SF	CB	FI	IN	CO	SV	SS	PE	SN	SF	CB	FI	IN	CO	SV	SS	PE	SN	SF	CB
AM Best Europe-Rating Services Ltd. (AMBERS)		IN	CO								IN	CO								IN	CO								IN	CO								IN	CO						
ARC Ratings, S.A.			CO							FI		CO									CO									CO	SV								CO	SV				SF	
ASSEKURATA Assekuranz Rating-Agentur GmbH		IN									IN									IN									IN									IN							
Axesor SA												CO									CO									CO									CO					SF	
BCRA-Credit Rating Agency AD	FI	IN	CO		SS					FI	IN	CO		SS					FI	IN	CO		SS					FI	IN	CO	SV	SS					FI	IN	CO	SV	SS				
Capital Intelligence (Cyprus) Ltd	FI		CO	SV						FI		CO	SV						FI		CO	SV						FI		CO	SV						FI		CO	SV					
CERVED Group S.p.A.			CO									CO									CO									CO									CO						
Creditreform Rating AG			CO						CB			CO					SF	CB			CO					SF	CB			CO					SF	CB			CO					SF	CB
CRIF S.p.A.			CO									CO									CO									CO									CO						
Dagong Europe Credit Rating Srl (Dagong Europe)																			FI									FI	IN	CO							FI	IN	CO						
DBRS Ratings Limited	FI	IN	CO	SV	SS	PE		SF	CB	FI	IN	CO	SV	SS	PE	SN	SF	CB	FI	IN	CO	SV	SS	PE	SN	SF	CB	FI	IN	CO	SV	SS	PE	SN	SF	CB	FI	IN	CO	SV	SS	PE	SN	SF	CB
The Economist Intelligence Unit Ltd																						SV									SV									SV						
Euler Hermes Rating GmbH	FI		CO							FI		CO							FI		CO							FI		CO							FI		CO						
European Rating Agency, a.s.					SS									SS									SS									SS									SS				
EuroRating Sp. z o.o.																												FI		CO							FI		CO						
Feri EuroRating Services AG				SV									SV						FI		CO	SV						FI		CO	SV						FI		CO	SV				SF	
Fitch Ratings Limited	FI	IN	CO	SV	SS	PE	SN	SF	CB	FI	IN	CO	SV	SS	PE	SN	SF	CB	FI	IN	CO	SV	SS	PE	SN	SF	CB	FI	IN	CO	SV	SS	PE	SN	SF	CB	FI	IN	CO	SV	SS	PE	SN	SF	CB
GBB-Rating Gesellschaft für Bonitätsbeurteilung mbH	FI		CO							FI		CO							FI		CO							FI		CO							FI		CO						
ICAP Group SA			CO									CO									CO									CO									CO						
INC Rating Sp. z o.o.																																									SS				
modeFinance S.r.l.																																							CO						
Moody's Investors Service Ltd	FI	IN	CO	SV	SS	PE	SN	SF	CB	FI	IN	CO	SV	SS	PE	SN	SF	CB	FI	IN	CO	SV	SS	PE	SN	SF	CB	FI	IN	CO	SV	SS	PE	SN	SF	CB	FI	IN	CO	SV	SS	PE	SN	SF	CB
Rating-Agentur Expert RA GmbH																																					FI	IN	CO	SV		PE			
Scope Ratings AG			CO									CO									CO					SF		FI		CO					SF		FI		CO					SF	
Spread Research SAS																					CO									CO									CO						
Standard & Poor's Credit Market Services Europe Limited	FI	IN	CO	SV	SS	PE	SN	SF	CB	FI	IN	CO	SV	SS	PE	SN	SF	CB	FI	IN	CO	SV	SS	PE	SN	SF	CB	FI	IN	CO	SV	SS	PE	SN	SF	CB	FI	IN	CO	SV	SS	PE	SN	SF	CB

Legend:

- FI Corporate - Financial
- IN Corporate - Insurance
- CO Corporate - Non Financial
- SV Sovereign
- SS Sub-sovereign
- PE Public entities
- SN Supranational
- SF Structured Finance
- CB Covered Bonds
- Non registered

https://www.esma.europa.eu/sites/default/files/library/2015-1879_esma_cra_market_share_calculation.pdf

Competition: MIS (Europe)

- Table to right is from ESMA on the market share of credit ratings offered by registered CRAs in Europe, using revenues
- Market Share:
  - S&P = 40.42%
  - Moody's Corp. = 34.67%
  - Fitch Group = 16.80%
  - All other: 8.11%

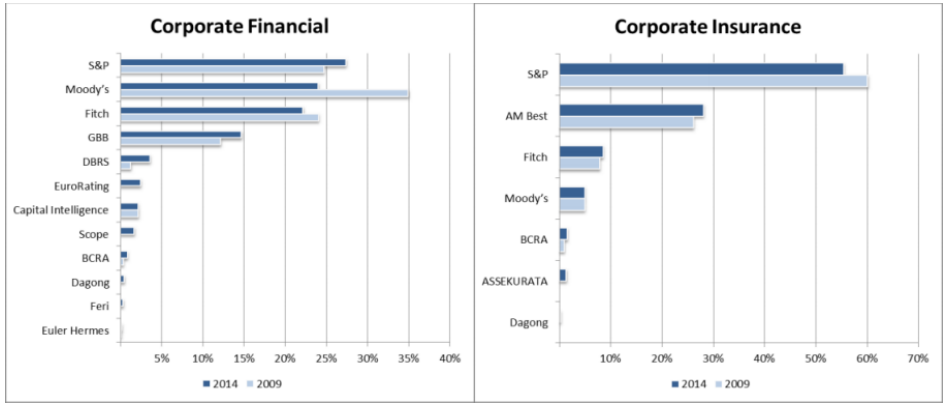
Table 2: Market share calculation based on 2014 turnover from credit rating activities and ancillary services at group level in the EU

Registered Credit Rating Agency	Market share
AM Best Europe-Rating Services Ltd. (AMBERS)	0.79%
ARC Ratings, S.A.	0.02%
ASSEKURATA Assekuranz Rating-Agentur GmbH	0.21%
Axesor S.A.	0.61%
BCRA-Credit Rating Agency AD	0.02%
Capital Intelligence (Cyprus) Ltd	0.12%
CERVED Group S.p.A.	1.20%
Creditreform Rating AG	0.50%
CRIF S.p.A.	0.33%
Dagong Europe Credit Rating Srl	0.02%
DBRS Ratings Limited	1.47%
Euler Hermes Rating GmbH	0.20%
European Rating Agency, a.s.	0.00%
EuroRating Sp. Zo.o.	0.00%
Feri EuroRating Services AG	0.64%
Fitch Group[9]	16.80%
GBB-Rating Gesellschaft für Bonitätsbeurteilung mbH	0.32%
ICAP Group SA	0.55%
INC Rating Sp. Zo.o.[10]	0.00%
ModeFinance S.A.[11]	0.00%
Moody's Group[12]	34.67%
Rating-Agentur Expert RA GmbH[13]	0.00%
Scope Credit Rating GmbH	0.14%
Spread Research SAS	0.11%
Standard & Poor's Group[14]	40.42%
The Economist Intelligence Unit Ltd	0.87%
TOTAL	**100**

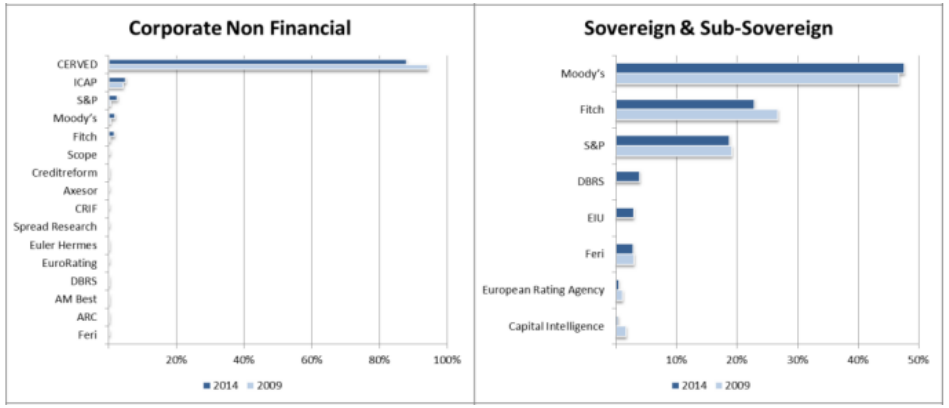
Source: ESMA

https://www.esma.europa.eu/sites/default/files/library/2015-1879_esma_cra_market_share_calculation.pdf

Competition & Market Share: MIS (Europe)



Moody's has *lost* about 11% market share in Europe on "corporate financial" bonds, losing share to S&P, GBB, DBRS, EuroRating and Scope. Moody's has small market share in corporate insurance, which they haven't gained share on since 2009. This is dominated by S&P and AM Best.



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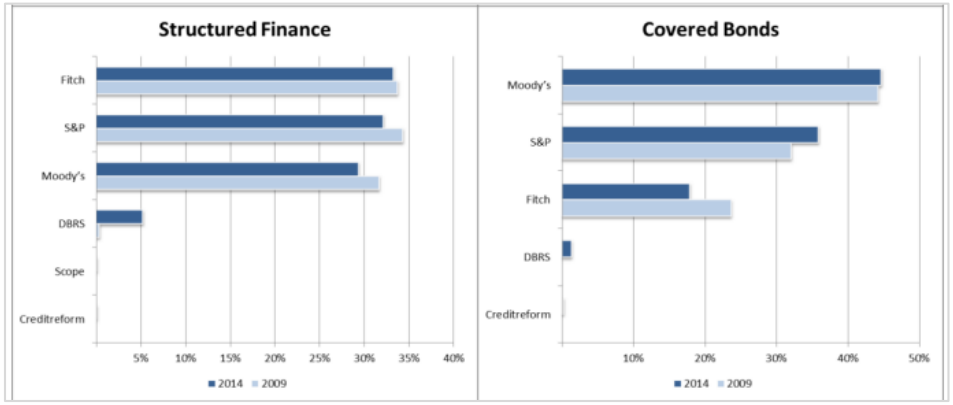


Moody's has *lost* about 3% market share in structured finance (dominated by the 3, which all lost share to DBRS. In covered bonds, they are #1, and have slightly gained share.

Comments:

1. In each category in Europe, they are heavily dominated by 3 or fewer CRAs, which makes sense due to issuers "double checking" the rating and providing additional ratings information for investors to gain confidence
2. Moody's is top 3 in 4 of the 6 categories
3. Moody's is #1 in two categories: covered bonds and sovereign & sub-sovereign.
4. Only in corporate financial bonds has Moody's lost a decent amount of share since 2009, which is also the most competitive category
5. Besides corporate financial category, their market share is at best stable since the global financial crisis and concerns over their reputation being disputable

https://www.esma.europa.eu/sites/default/files/library/2015-1879_esma_cra_market_share_calculation.pdf

MIS: Europe

- The number of outstanding credit ratings has decline in Europe since 2013, mostly in corporate non-financial, the largest category.
- However, all three large categories saw declines in outstanding ratings

Table 1: Total number of outstanding credit ratings in the EU by category

Category of credit rating	2013	2014	First half 2015
Corporate financial	1,239	1,283	1,277
Corporate insurance	556	519	495
Corporate non-financial	33,195	32,844	28,098
Sovereign	893	896	904
Structured Finance Instruments	13,140	12,580	12,173
Covered bonds	14,290	13,729	13,236
Total outstanding	**63,313**	**61,851**	**56,183**

Source: CEREP, ESMA

Source: ESMA

About the Business:

Moody’s Investor Service (MIS)
Moody’s Analytics (MA)

Moody's Investor Service (MIS)

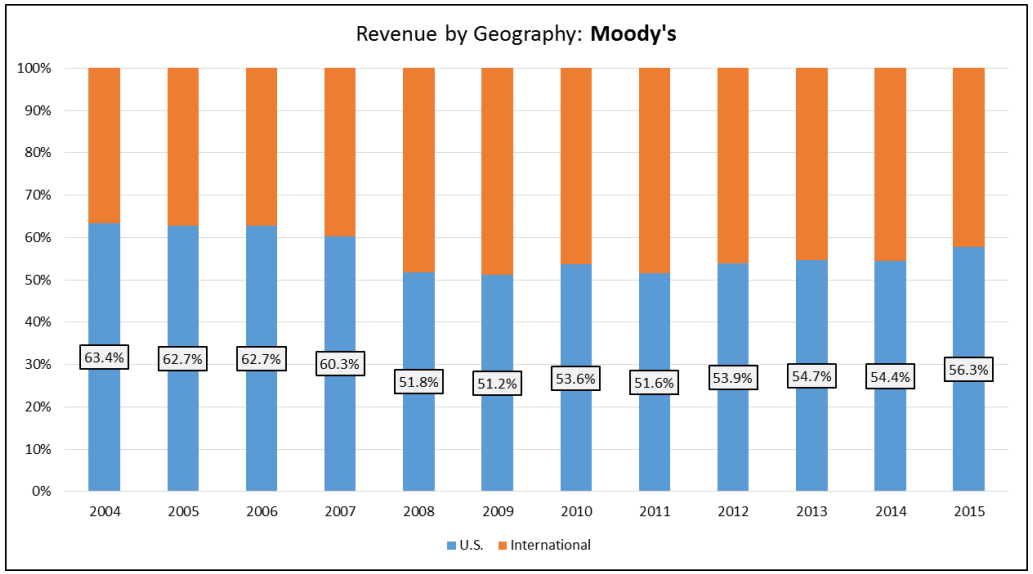
- Publishes **credit ratings** on a wide range of debt obligations globally
- Revenue derived from originators and issuers of debt who uses MIS ratings to support the distribution of their debt issues to investors
- Ratings in more than 120 countries
- Ratings are disseminated via press releases to the public through a variety of means
- As of Dec. 2015, MIS:
  - Relationships with approx. 11,000 corporate issuers
  - Relationships with approx. 20,000 public finance issuers
  - Monitors ratings on approx. 68,000 structured finance obligations (representing 12,000 transactions)
- Other revenue sources:
  - Non-ratings operations, such as distribution of research and financial instruments pricing services in A-P
  - ICRA's non-ratings operations

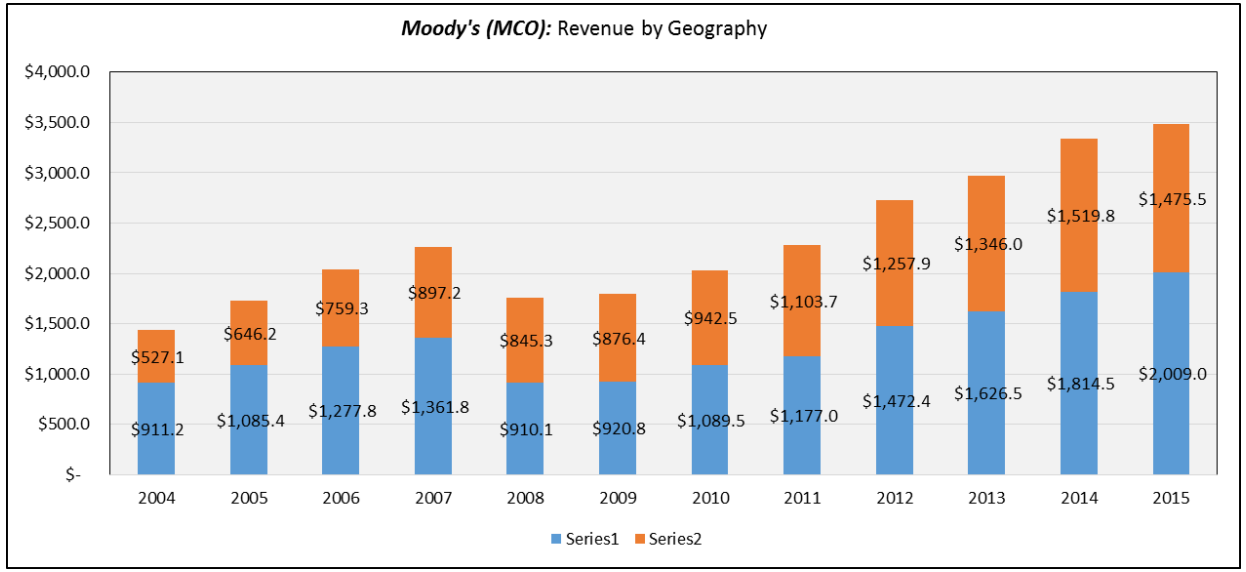
Moody's Analytics (MA)

- Develops wide range of products/services that supports financial analysis and risk management
- Lower margin than MIS, around 19-20% operating
- About 55% of sales from outside the U.S.
- **Three** Segments:
  - Research, Data and Analytics
  - Enterprise Risk Solutions
  - Professional Services
- MA customers represent more than 4,700 institutions worldwide, in 140 countries
- Moody's research website in 2015 accessed by 259,000 individuals and 34,000 client users
- Average fees range from $125k (corporates) to $650k (commercial banks)

Revenues by Geography

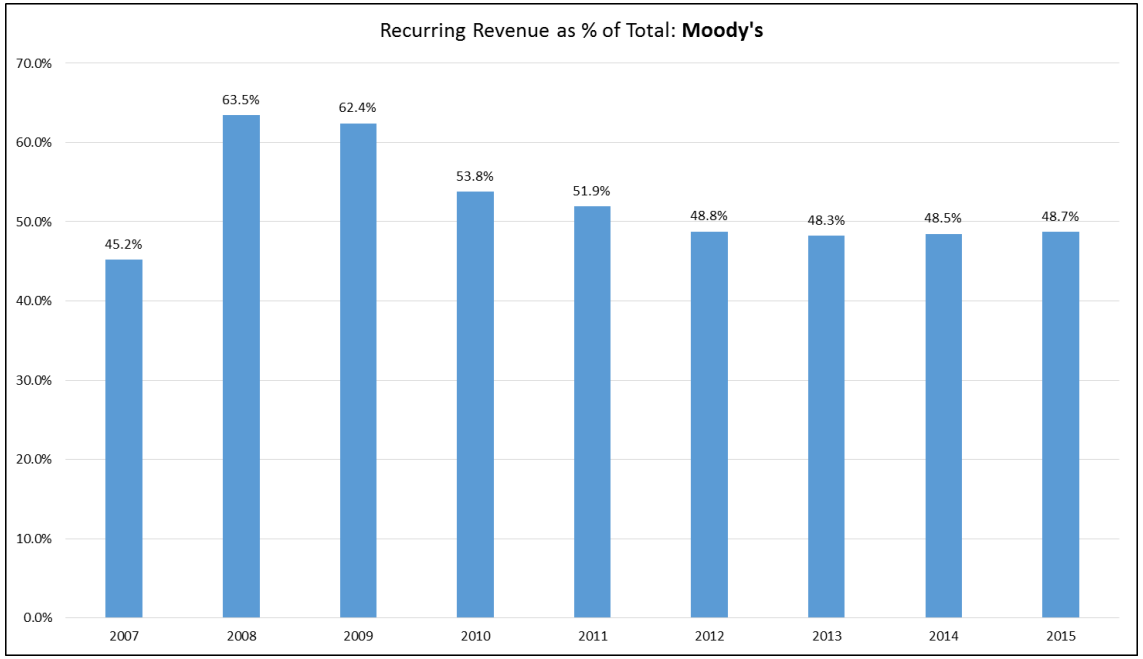
- Moody's generates most revenue from the U.S., specifically MIS business in the U.S.
- Never has there been more than 50% of revenues generated outside the U.S.

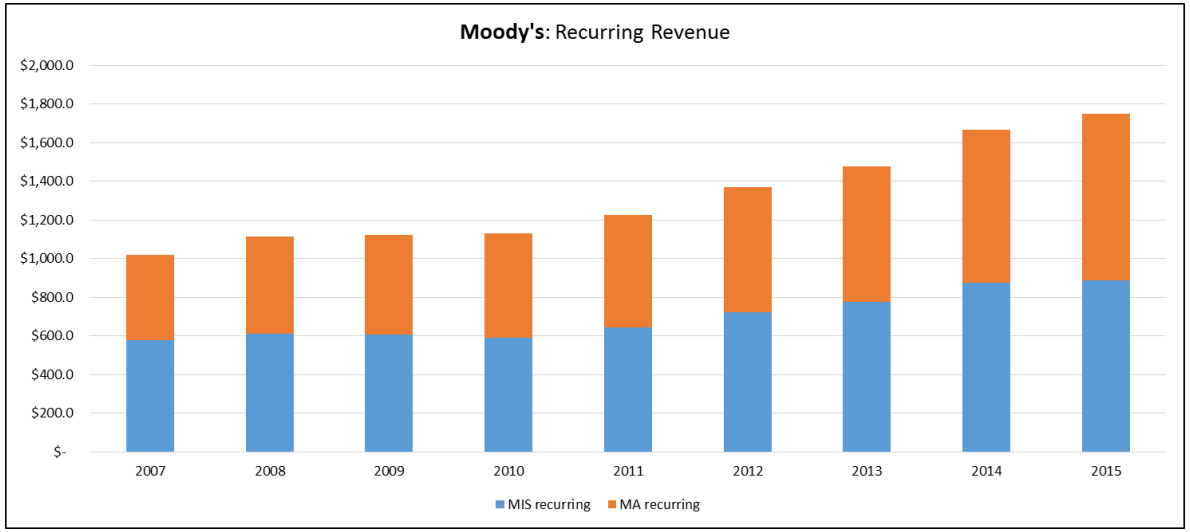




Revenues: ~49% “Recurring”

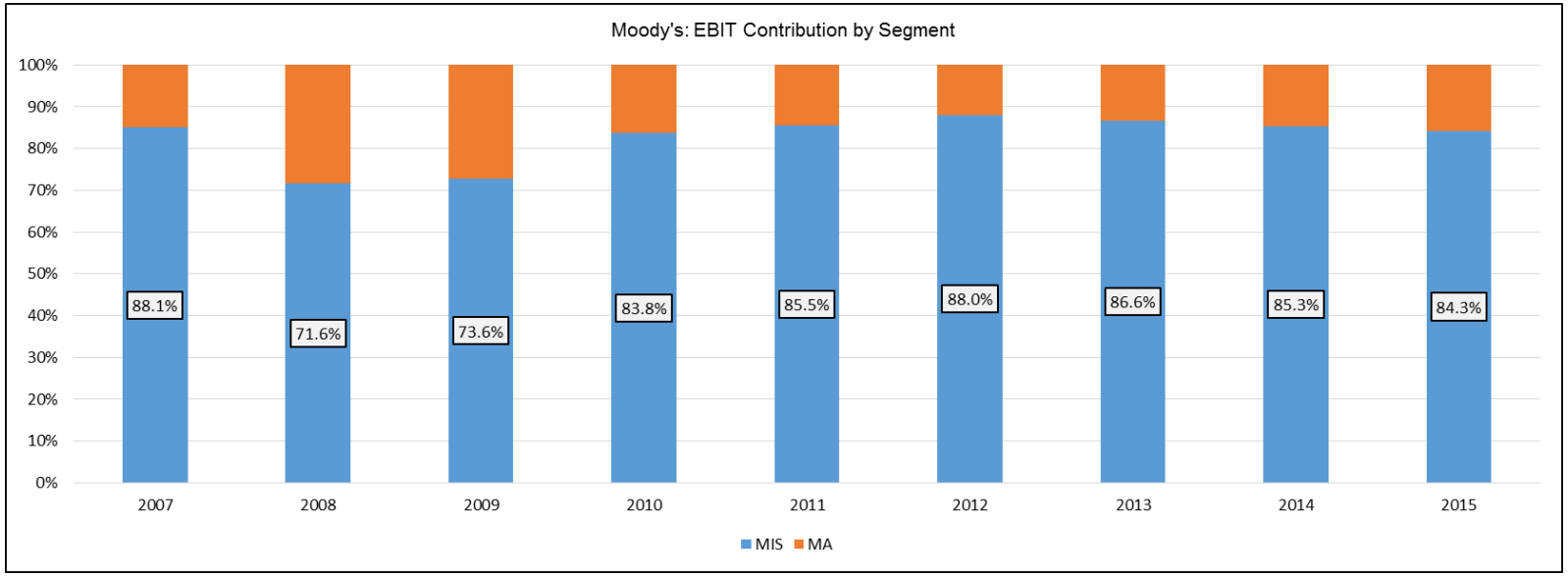
- ~49% of Moody’s revenue is “recurring” – from maintenance contracts and subscriptions
- MA business is 74% recurring, led by ~100% of RD&A segment
- MIS (rating) is largely transactional (~61%)





But….MIS (transactional) = 85% of Margins

- Moody's talks often about how their business is more diversified, less at-risk from interest rate movement, and so on.
- Despite their business being (revenue) being highly recurring, all of the margins are in the transaction (cyclical) part of the business
- MIS contributes about 85% of the total MCO margins, and those margins largely occur in "new issuance" of bond ratings

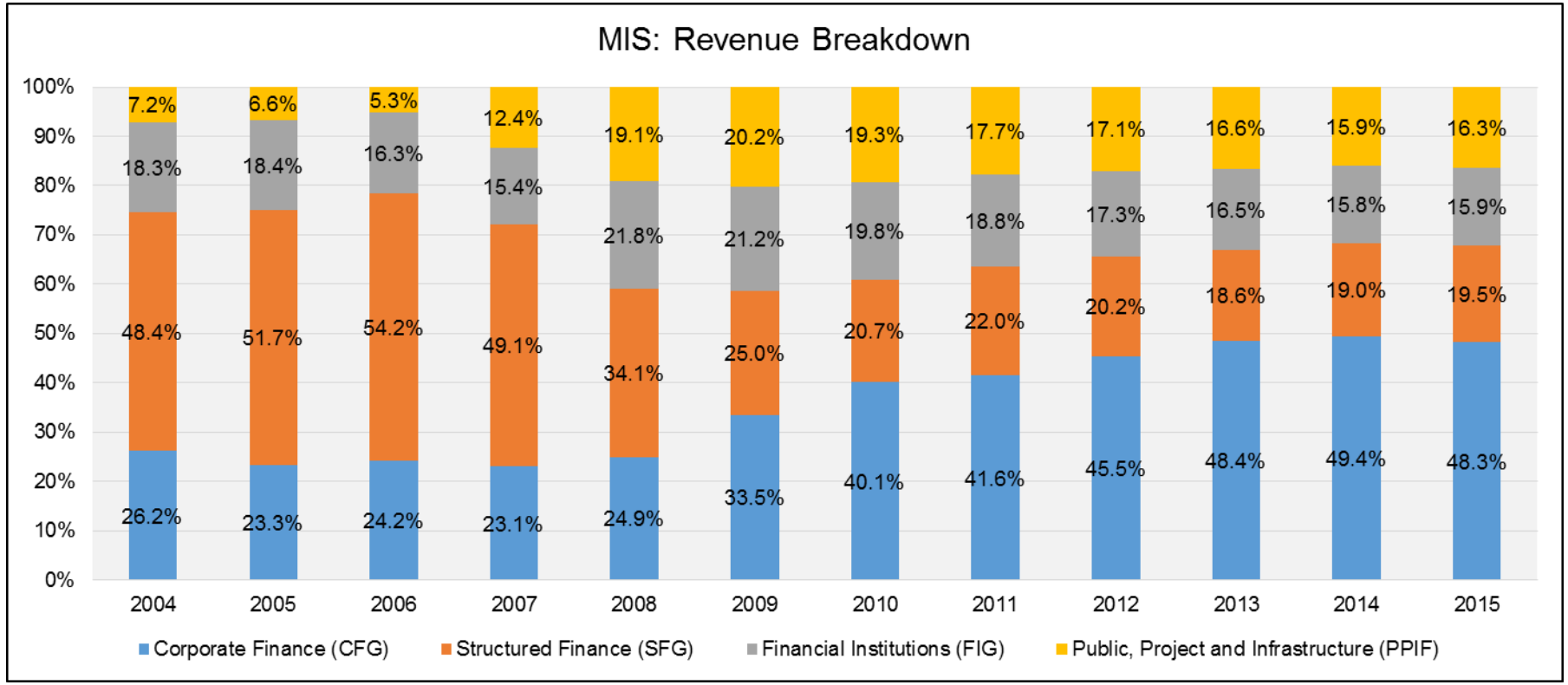


Global Leader – Credit Rating Agency (CRA)

Moody’s Investor Service (MIS)

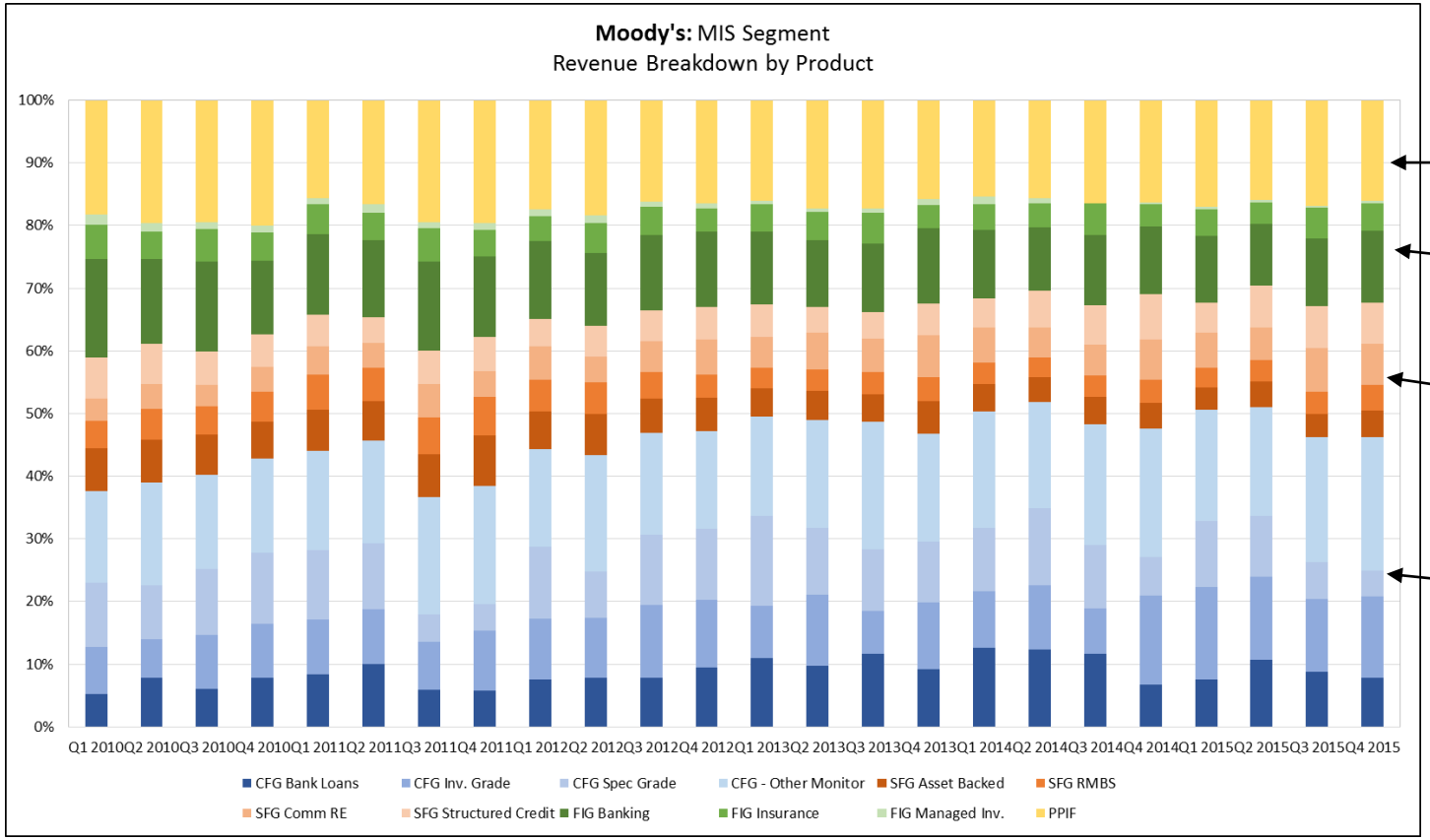
MIS: Revenue

- Prior to the global financial crisis, “structured finance” produces contributed a substantial part of MIS revenue, at about 50% pre-2008. This has diminished to around 20%.
- The largest revenue contributor to MIS is “corporate” at about 48-49%



MIS: Revenue Breakdown by Product

- Corporate is the largest contributor of MIS revenues at about 48-49%
- Anemic growth in 2015 of 0.3% masked by FX; excl. FX revenue growth was 4%



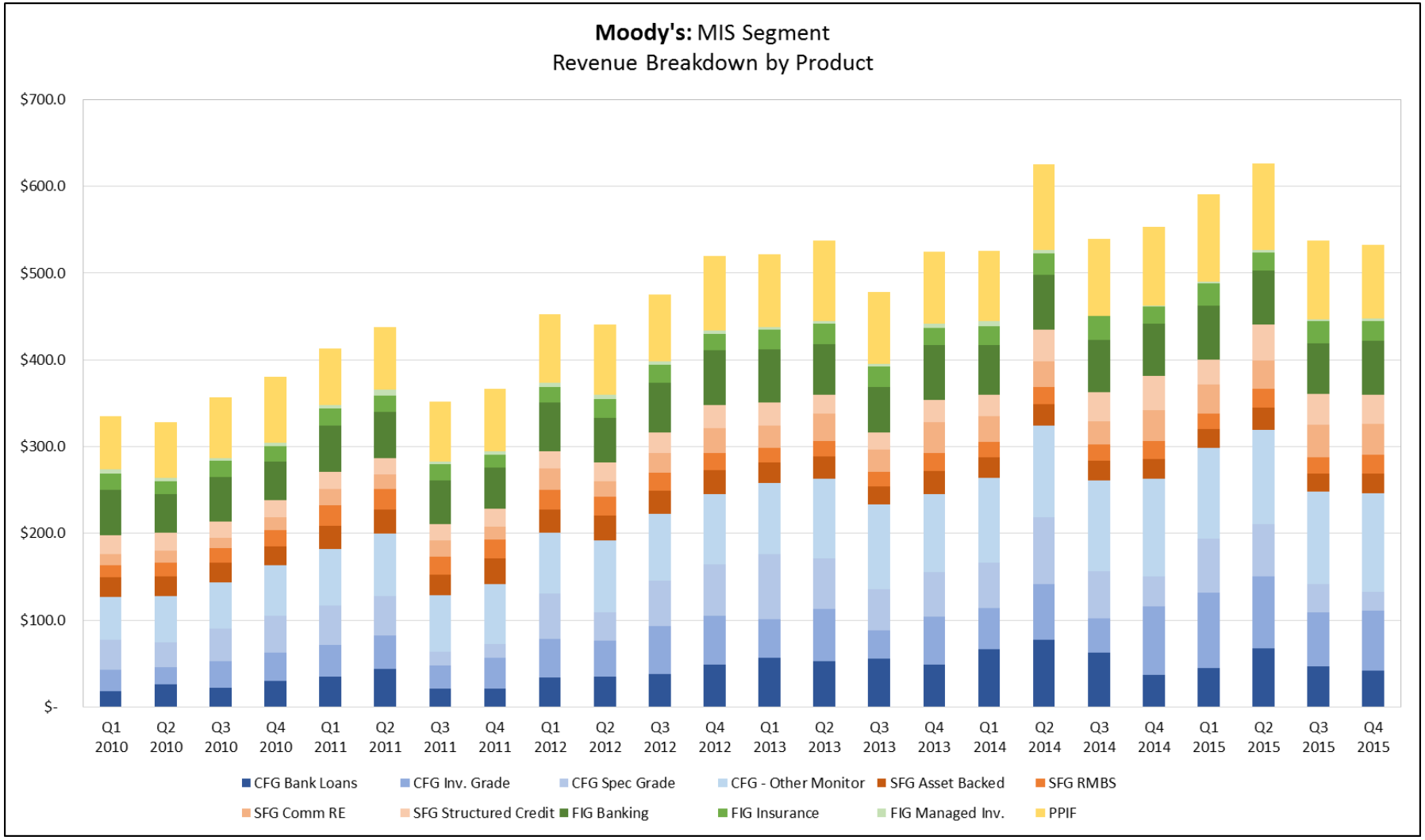
Public Projects/Munis

Financial (Banking/Insurance)

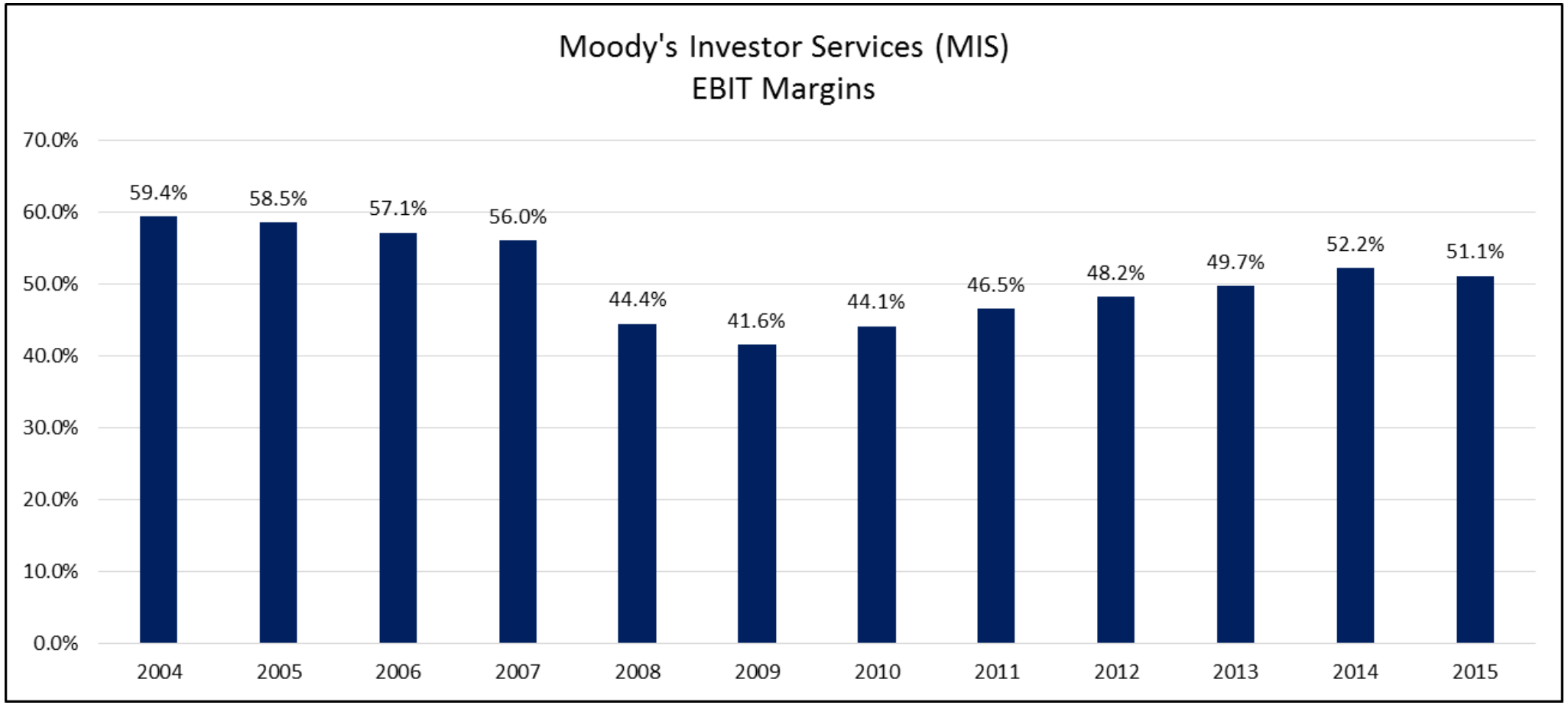
Structured Finance (ABS/ RMBS/CRE)

Corporate

MIS: Revenue Breakdown by Product

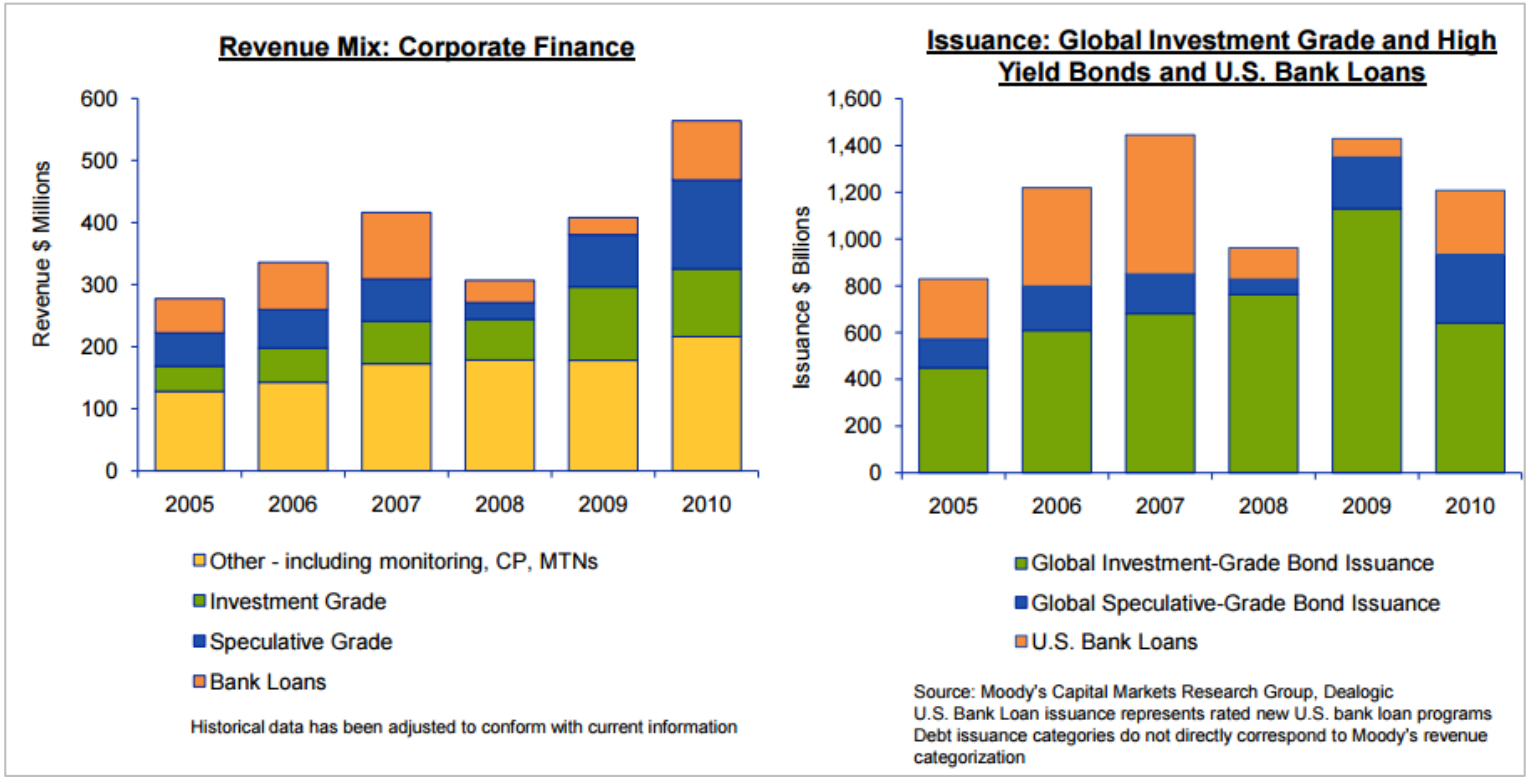


MIS: Margins


Moody's Investor Services (MIS)
EBIT Margins
70.0%
60.0%
50.0%
40.0%
30.0%
20.0%
10.0%
0.0%
59.4%
58.5%
57.1%
56.0%
44.4%
41.6%
44.1%
46.5%
48.2%
49.7%
52.2%
51.1%
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015

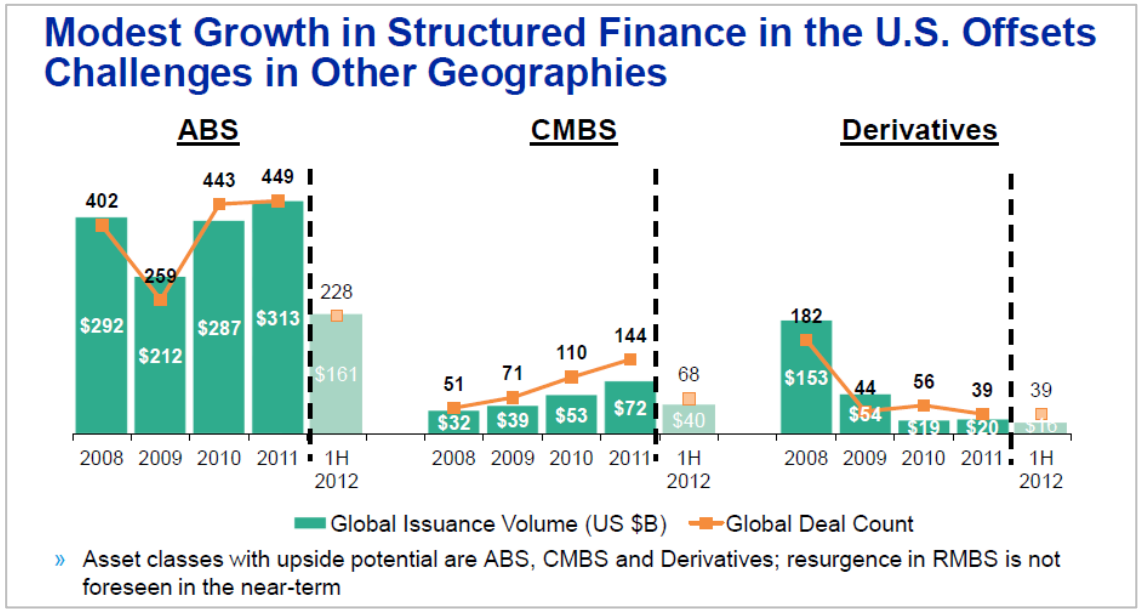
MIS: Revenue & Issuance (Corporate Finance)

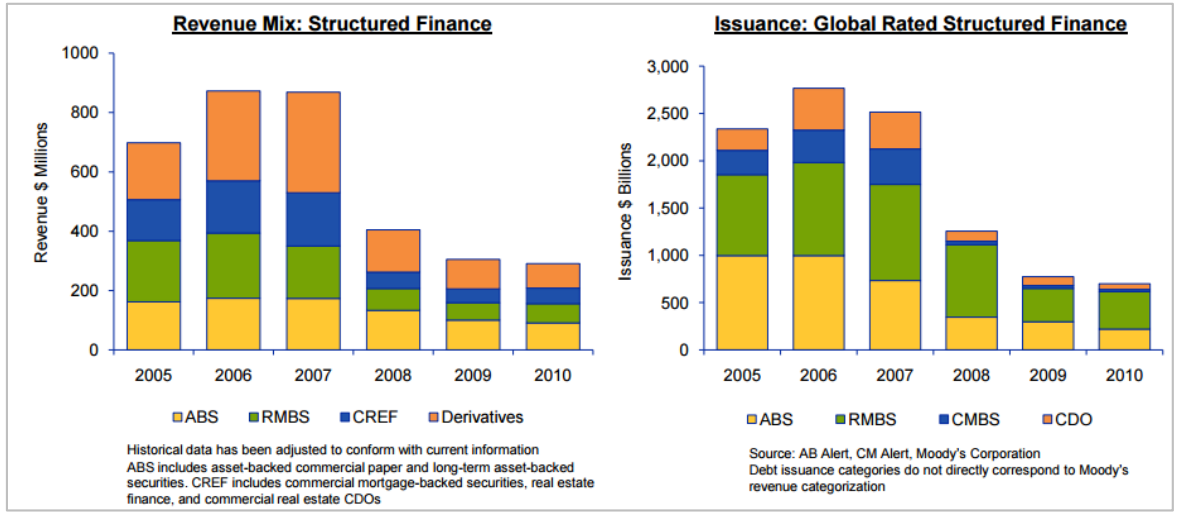
- Given the history of revenue mix and issuance, small changes in “speculative- HY” issuance can have a profound impact on revenue – appears (*estimate*) that HY new issuance fees are around 3x or more than IG new issuance fees



MIS: Revenue & Issuance (Structured Finance)

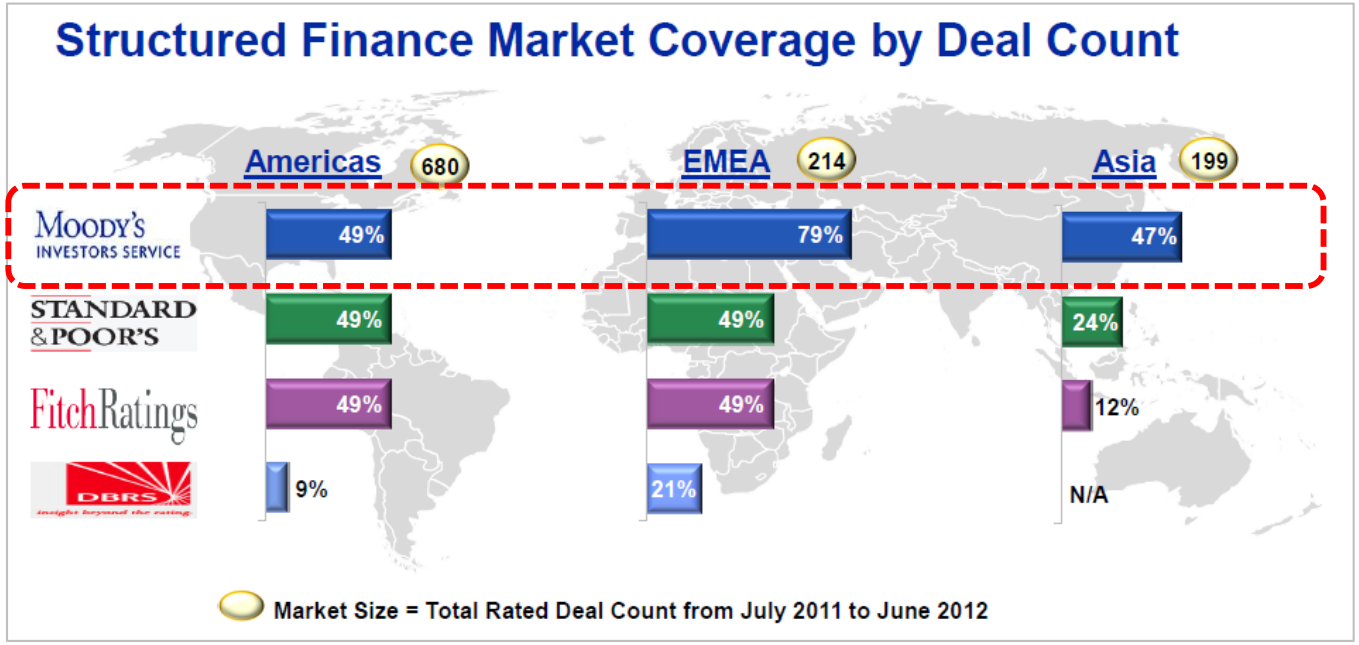
- The decline in global issuance in RMBS, ABS, CMBS, and CDOs since 2008 is the cause for the decline in SFG revenue
- The decline in structured products also had a profound impact on MIS margins, which were in the mid-high 50%, and declined to the low-40% in 2009





MIS: Structured Finance

- Structured product issuance was strong pre-2008, and was a large contributor of revenue and margins
- The structured market all but dried up since 2008
- From 2012, MCO was the market leader globally in structured products, with a commanding lead in EMEA and Asia



MIS: Structured Finance

- Moody's extended its market share in certain structured products categories in 2015 from 2014
  - Global CMBS issuance: 69.1% from 62.7% (#1 market share)
  - U.S. CMBS issuance: 70.8% from 65.9% (#1 market share)
  - ABS/MBS issuance: stable at 53.6% from 53.8% (#2 market share)
  - ABS: slightly lower to 57.9% from 58.7%, mostly due to all losing share to DBRS (#2 market share)
  - MBS: substantial increase in share to 23.6% from 4.5% (#3 market share)

Global CMBS		2015 Issuance ($Mil.)	No. of Deals	Market Share (%)	2014 Issuance ($Mil.)	No. of Deals	Market Share (%)	'14-'15 % Chg.
1	Moody's	73,370.3	81	69.1	62,582.2	68	62.7	17.2
2	Kroll	58,557.6	70	55.1	53,790.1	65	53.9	8.9
3	Fitch	58,511.7	73	55.1	49,742.7	58	49.8	17.6
4	Morningstar	44,179.0	56	41.6	31,129.7	45	31.2	41.9
5	DBRS	31,003.2	44	29.2	40,807.0	52	40.9	-24.0
6	S&P	28,666.3	51	27.0	33,699.5	58	33.8	-14.9
	TOTAL	106,210.9	174	100.0	99,838.0	148	100.0	6.4

US CMBS		2015 Issuance ($Mil.)	No. of Deals	Market Share (%)	2014 Issuance ($Mil.)	No. of Deals	Market Share (%)	'14-'15 % Chg.
1	Moody's	71,525.7	77	70.8	62,036.7	66	65.9	15.3
2	Kroll	58,557.6	70	58.0	53,790.1	65	57.2	8.9
3	Fitch	55,720.2	67	55.2	45,406.6	48	48.3	22.7
4	Morningstar	44,179.0	56	43.7	31,129.7	45	33.1	41.9
5	DBRS	28,429.5	35	28.1	37,183.5	43	39.5	-23.5
6	S&P	25,900.9	43	25.6	31,614.2	53	33.6	-18.1
	TOTAL	101,008.5	160	100.0	94,084.4	134	100.0	7.4

https://www.cmalert.com/rankings.pl?Q=78

Competition: MIS

- As a “credit rating agency”, MCO competes with other CRAs, as well as investment banks and brokerage firms that offer credit opinions and research
- Many users of MIS have in-house credit research capabilities
- Largest competitor: McGraw-Hill Financial subsidiary “**S&P Ratings Services**”
- In some markets, MCO has made investments and obtained higher market share than S&P, while in other markets the reverse is true
- Other CRAs:
  - Fitch Ratings
  - Dominion Bond Rating Service
  - A.M. Best Company (specializes in insurance)
  - Japan Credit Rating Agency
  - Kroll Bond Rating
  - Morningstar Inc. (MORN)
  - Egan-Jones Ratings

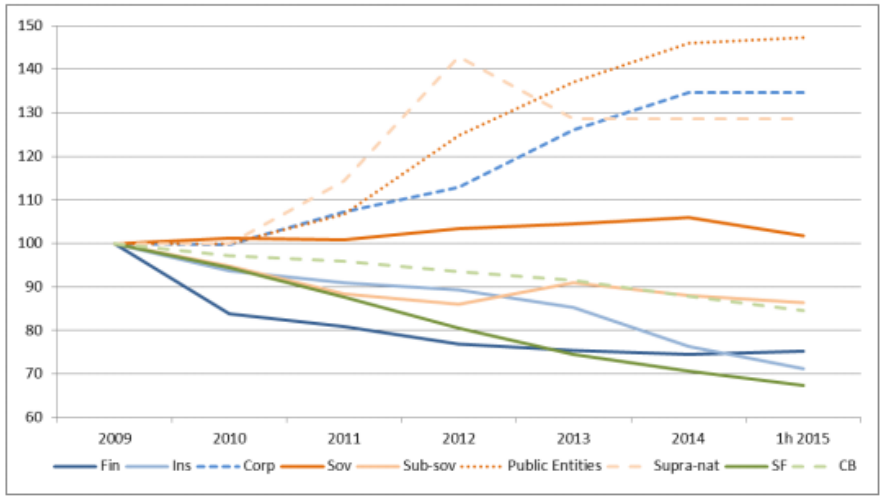
Competition: MIS

- In Europe, the regulatory landscape is different than in U.S., where regulators desire more competition. Thus, there are 30 companies registered with ESMA.
- MCO competes in other geographies, occasionally through a joint venture (such as China)
- China = 4 local CRAs

MIS: Europe

- Looking at the evolution of outstanding ratings from Europe's "big three CRAs", there are some categories of declining outstanding ratings and some categories of increased ratings since 2009
- Increases in:
  - Sovereign
  - Corporate
  - Public entities

Figure 2: Evolution of outstanding ratings – S&P, Moody's and Fitch (2009=100)*



Source: CEREP, ESMA

** The chart displays the percentage variation in outstanding ratings for each year compared to the base year (2009)*

Source: ESMA

Moody’s Analytics (MA)

Research, Data & Analytics (RD&A)

Enterprise Risk Solutions (ERS)

Professional Services (PS)

Research, Data and Analytics (RD&A)

- Largest component of MA (>50% MA rev.)
- Has very high renewal rates/recurring revenue, mid-90% (*improving each year!)*
- Built on the successes of MIS, uses MIS research, data, and ratings feeds
- Slowest growing MA line at ~8% CAGR last 5 years
- 2011 had 27,000 subscribers
- Covers 12,000+ corporate issuers, 25,000+ public finance issuers, and 16,000 structured finance deals
- Competitive advantage: uses exclusive content from MIS, as well as Moody's expertise on credit analysis

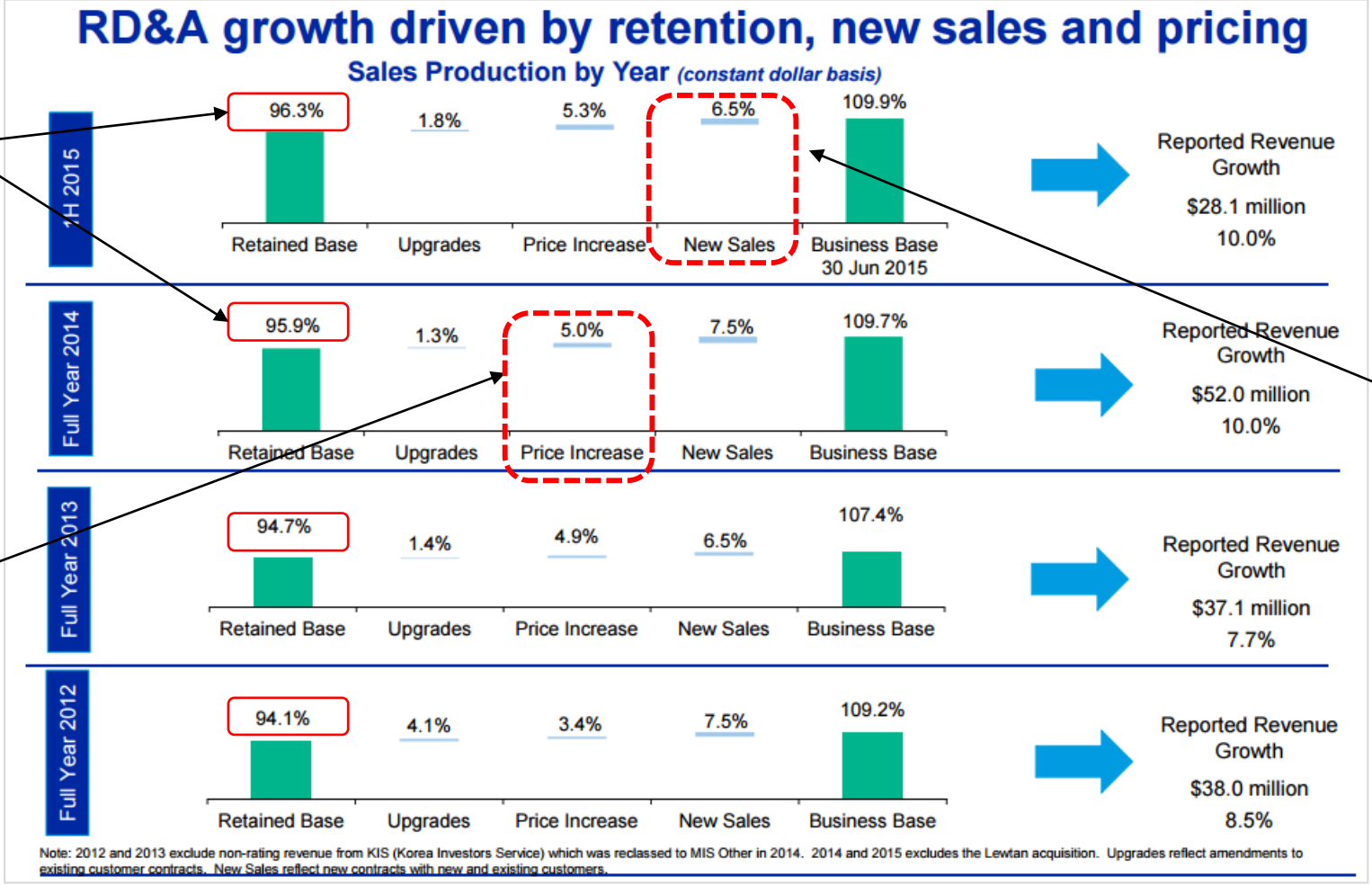
Research, Data and Analytics (RD&A)

Moody's Analytics

Improved retention rates each year

Ability to increase prices 3-5%

Continued growth in "new sales" continues growth above previous base



Source: 2015 Investor Day Presentation Moody's

Research, Data and Analytics (RD&A)

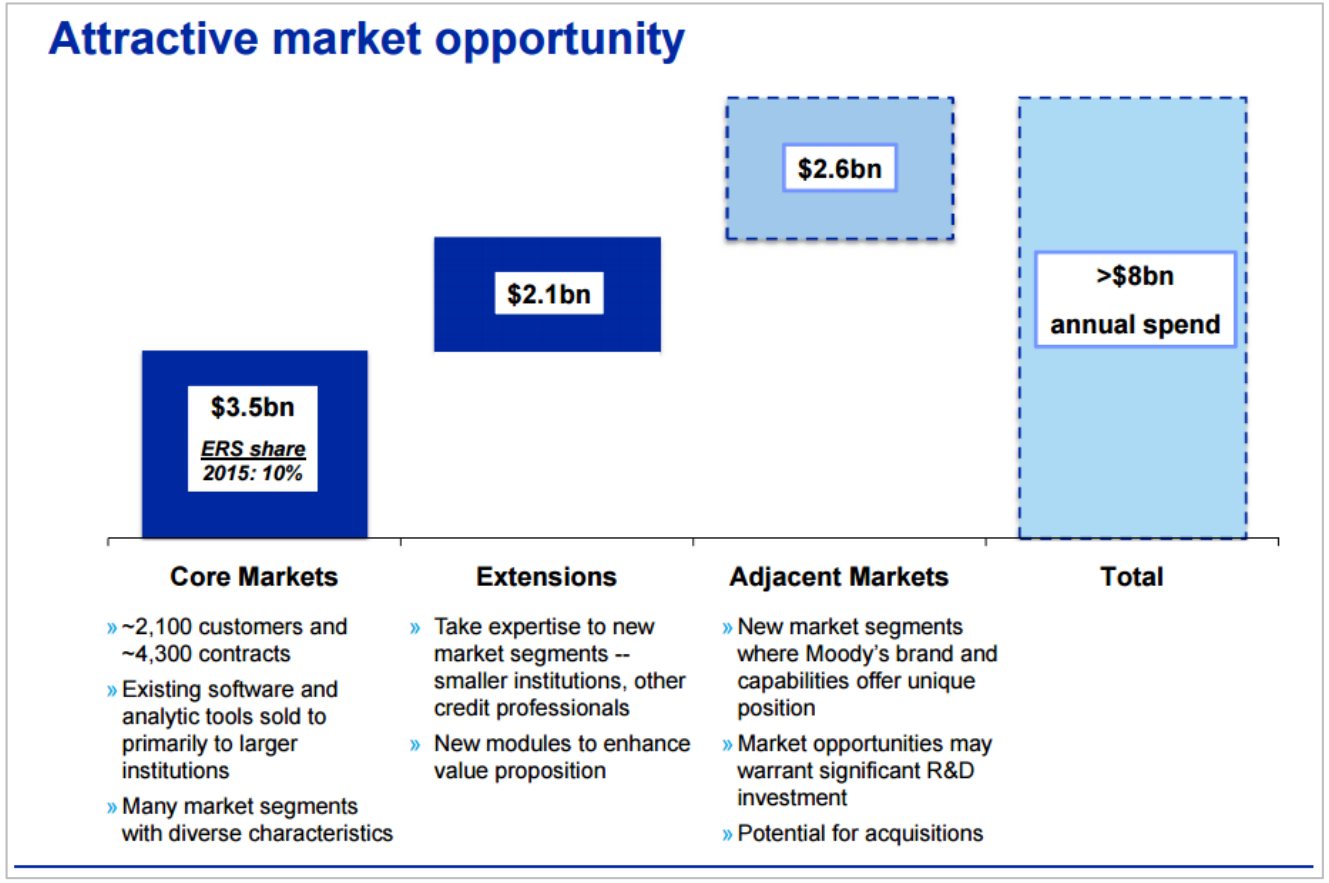
- Sales from 1H 2015 = about 450 sales through first 6 months (annualize ~900)
- Average of $40,000 per sale (additional ~ $35m)
- Of these new sales, about 1/4th are to "new customers", 3/4th to current customers
  - Shows value proposition/stickiness when ~75% of new sales are from current customers
- About 70% are to financial institutions, who use this product to leverage the MIS data

Enterprise Risk Solutions (ERS)

- Mix of maintenance, subscriptions, and one-off "license and service" projects
- Recurring = ~2/3 of ERS revenue
- Mix of one-time projects in which revenue is recognized when implementation projects are completed (12-24 months after contract)
- Quarterly revenue is "lumpy" due to revenue recognition from one-time projects; however, over time revenue should be "smoother" as increased sales leads to higher recurring revenue from maintenance and installed base
- 2011: 1,400+ clients
- New contract sales provides 12-24 months of visibility of revenue
- Demand drivers:
  - New regulations, accounting standards increasing complexity
  - Systems upgrades in developed markets
  - Has capability to monitor and implement country-specific regulatory developments as they emerge

Enterprise Risk Solutions (ERS)

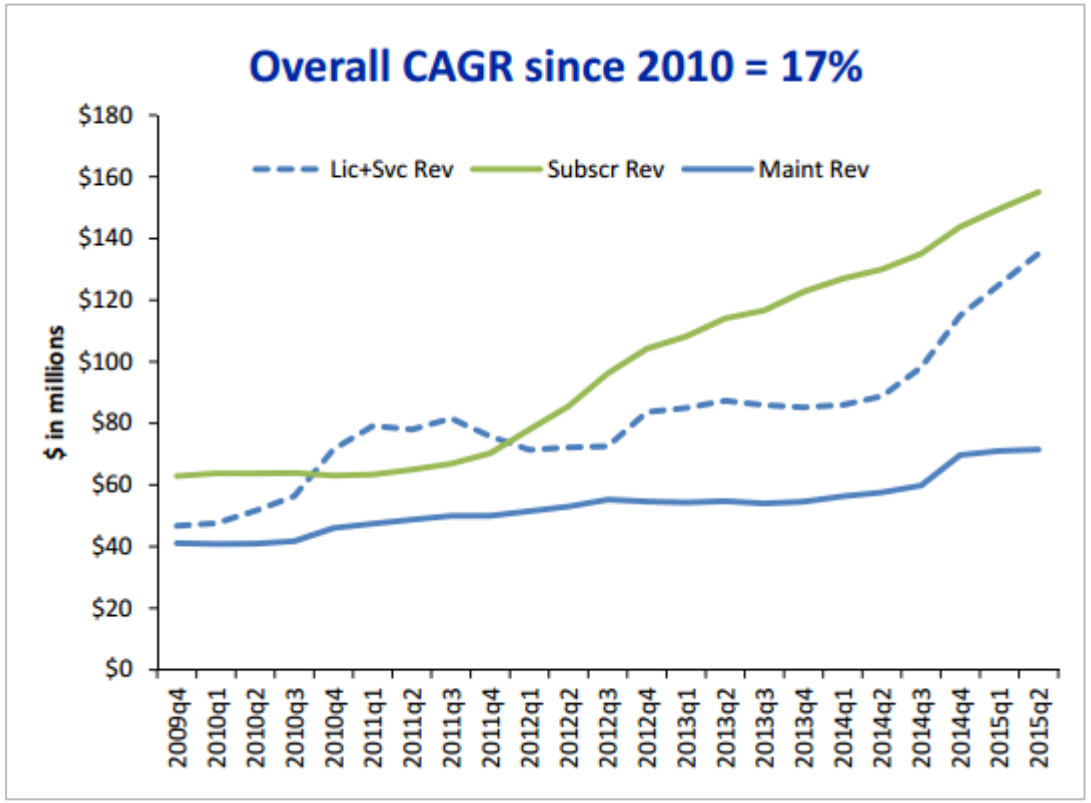
- Current "core market" is **~$3.5 billion** (ERS has sales of $374m in 2015 = 10-11% share)
- Software and analytic tools sold to larger financial institutions
- Another **$4.5 billion** in tangent markets
- Estimated total market = ~$8 billion



Source: 2015 Investor Day Presentation Moody's

Enterprise Risk Solutions (ERS)

- Expects double-digit growth over long-term (15.7% CAGR last 5 years)
- Growth + increased standardization of projects will lead to improved margins
- Much stronger sales outside the U.S./Japan
- More prevalent in emerging markets, which is beneficial as it gives MCO traction in markets with undeveloped capital markets
- "subscription revenue" + "maintenance revenue" = 2/3 recurring



Enterprise Risk Solutions (ERS)

- Shift in focus to higher value projects and business, where the work is less commoditized
- Product features can be shared – making it simpler for MCO – and thus margins can be improved due to leveraging the similarities
- ERS segment is one of the primary drivers for MA business getting to mid-20% operating margin (from <20% currently)
- Copal Amba deal
  - Based in Gurgaon, India
  - 1,500+ employees
- Serves high end of outsourced research and consulting market ($1 billion market, fast growing)
- Strong sticky customer based

Professional Services

- Fastest growing MA segment at ~48% CAGR last 5 years
- Smallest segment, ~13% of MA sales
- Driver = margin pressures (doing more with less) at investment banks, buy-side firms
- Offerings/Products: *Targeting financial institutions*
  - Risk advisory and professional development
  - Credit processes reengineering and advisory for banks and insurance companies
  - Professional skills training for financial institution staff
  - iRSQ Certification (launched in 2010), endorsed by UK Financial Services Skills Council
- Revenue drivers:
  - Increased regulations, scrutiny around risk management, liquidity, capital ratios
  - Focus by regulators on processes
  - Improved profitability of businesses and financial institutions leads to more hiring, need for training
  - Growth in capital markets in emerging economies

Competition: MA (overall)

- Broad competitors for financial information:
  - Thomson Reuters
  - Bloomberg
  - S& Capital IQ
  - Fitch Solutions
  - Dun & Bradstreet
  - IBM
  - Wolters Kluwer
  - SunGard
  - SAS
  - Fiserv
  - MSCI
  - Markit Group

Competitors: MA (RD&A segment)

- S&P Capital IQ
- CreditSights
- Thomson Reuters
- Intex
- HIS Global Insight
- BlackRock Solutions
- FactSet
- Equifax

Competitors: MA (ERS segment)

- From both large and small software providers
- IBM Algorithmics
- SunGArd
- SAS
- Oracle
- Misys
- Oliver Wyman
- Verisk

Competitors: MA (Professional Solutions segment)

- Omega Performance
- DC Gardner
- Other financial training and education firms
- Evalueserve and CRISIL Global Research & Analytics for outsources research and professional services

Moody's Analytics: "Potential Market Opportunities"

- There are multiple product lines within the MA umbrella, some of which compete in a concentrated market, some are highly fragmented
- Within each product line, MA has strong market positions

Moody's Analytics Competes for Market Opportunities Estimated at Nearly $12 billion

	Market Size	Expected Growth	Competitive Landscape	MA's Position
Enterprise Risk Solutions	$5.0 billion	High	Fragmented	Strong
Financial Services Knowledge Process Outsourcing	$1.8 billion	High	Fragmented	Strong
Financial Training & Certification	$1.8 billion	Moderate	Fragmented	Strong
Credit Research	$1.4 billion	Low	Concentrated	Leader
Consumer Credit Analytics	$0.8 billion	Moderate	Concentrated	Niche player
Economic Information	$0.5 billion	Medium	Fragmented	Strong
Quantitative Credit Scoring	$0.2 billion	Low	Concentrated	Leader
Structured Finance Analytics	$0.2 billion	Low	Highly Concentrated	#2 player

Source: 2012 Investor Day Presentation Moody's

Risks

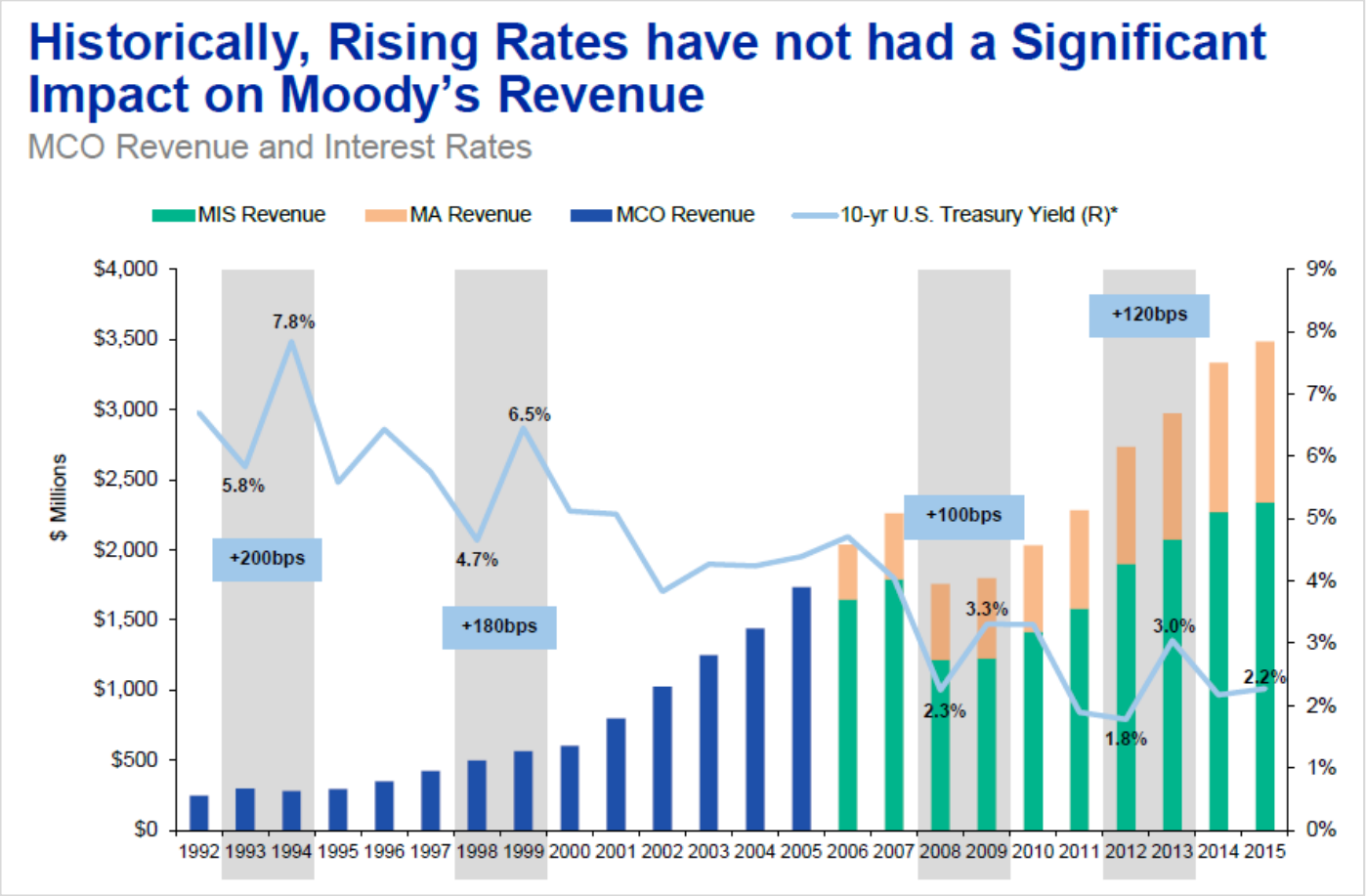
Why would the investment underperform?

Largest Risks to MCO

- Decline in new issuance hurts margin much more than revenue growth
  - MCO has about ~50% of revenue recurring: *MIS is 39% recurring, MA is 74% recurring*
  - Total MCO margins are ~42%, with **MIS contributing mid-high 80%** of total MCO operating income, due to MIS margins being ~51% and MA margins around 19-20%
  - The largest margins from MIS come from “new issuance” of debt (transaction related), which is influenced by external factors such as strength of the global economies, interest rates, fiscal and monetary policies, credit spreads, M&A activity – i.e. macro related fundamentals
- Regulation in U.S. around conflicts of interest or pricing structure
- Regulation in Europe around competition, encouraging issuers to essentially not use MCO (or S&P, Fitch)
- Strength in smaller CRAs (reputation, depth of analysis, respect by investors of independence and accuracy of rating) combined with lower pricing could take market share from MCO

Risk: “Rising Rates”

- Some investors may be concerned that interest rates rising makes it less economical for companies to issue debt, refinance debt
- Issuing debt (transaction based) constitutes low-40% of total MCO revenues
- MCO’s response is they are a more diversified company, and that “Moody’s Analytics” is a larger part of Moody’s
- **My issue with this response**: new issue revenue is the highest margin business, much higher than the “recurring revenue” and MA business.
- *Furthermore*, high yield and structured products are likely the most sensitive “products” to interest rates and are also the highest margin of all new issuance types (my estimate)



Source: 2015 Investor Day Presentation Moody’s

Risk: “Rising Rates”

- Factors impacting corporate debt issuance:
  - Business cycle
  - Credit spreads
  - Defaults
  - Interest rates/fed policy
  - Issuer profits
  - Refinancing needs
  - M&A desires
  - Capital spending (economic growth)

Risk: Declining Global Growth = Less New Issuance

- According to the World Bank, **2015 global GDP growth was ~2.4%,** similar to 2013 and 2014
- Unfortunately, global growth is not expected to increase much over the next few years
- As global growth slows, corporate profits will slow, as will the desire to increase debt outstanding at a faster pace
- Slower emerging economy real GDP will also hurt Moody's, as these economies are "the future" to capital market growth/ cross-border transactions, etc.

TABLE 1.1 Global real GDP growth[1]
(Percent)

	2013	2014	2015e	2016f	2017f	2018f	(Percentage point difference from June 2015 projections) 2015e	2016f	2017f
World	**2.4**	**2.6**	**2.4**	**2.9**	**3.1**	**3.1**	**-0.4**	**-0.4**	**-0.1**
High income[2]	**1.2**	**1.7**	**1.6**	**2.1**	**2.1**	**2.1**	**-0.3**	**-0.2**	**-0.1**
United States	1.5	2.4	2.5	2.7	2.4	2.2	-0.2	-0.1	0.0
Euro Area	-0.2	0.9	1.5	1.7	1.7	1.6	0.0	-0.1	0.1
Japan	1.6	-0.1	0.8	1.3	0.9	1.3	-0.3	-0.4	-0.3
United Kingdom	2.2	2.9	2.4	2.4	2.2	2.1	-0.2	-0.2	0.0
Russia	1.3	0.6	-3.8	-0.7	1.3	1.5	-1.1	-1.4	-1.2
Developing countries[2]	**5.3**	**4.9**	**4.3**	**4.8**	**5.3**	**5.3**	**-0.4**	**-0.6**	**-0.2**
East Asia and Pacific	7.1	6.8	6.4	6.3	6.2	6.2	-0.3	-0.4	-0.4
China	7.7	7.3	6.9	6.7	6.5	6.5	-0.2	-0.3	-0.4
Indonesia	5.6	5.0	4.7	5.3	5.5	5.5	0.0	-0.2	0.0
Thailand	2.8	0.9	2.5	2.0	2.4	2.7	-1.0	-2.0	-1.6
Europe and Central Asia[2]	3.9	2.3	2.1	3.0	3.5	3.5	0.3	-0.4	-0.2
Kazakhstan	6.0	4.4	0.9	1.1	3.3	3.4	-0.8	-1.8	-0.8
Turkey	4.2	2.9	4.2	3.5	3.5	3.4	1.2	-0.4	-0.2
Romania	3.5	2.8	3.6	3.9	4.1	4.0	0.6	0.7	0.6
Latin America and the Caribbean[2]	3.0	1.5	-0.7	0.1	2.3	2.5	-1.5	-2.3	-0.6
Brazil	3.0	0.1	-3.7	-2.5	1.4	1.5	-2.4	-3.6	-0.6
Mexico	1.4	2.3	2.5	2.8	3.0	3.2	-0.1	-0.4	-0.5
Colombia	4.9	4.6	3.1	3.0	3.3	3.5	-0.4	-0.9	-0.9
Middle East and North Africa	0.6	2.5	2.5	5.1	5.8	5.1	0.1	1.4	2.0
Egypt, Arab Rep.[3]	2.1	2.2	4.2	3.8	4.4	4.8	0.0	-0.7	-0.4
Iran, Islamic Rep.	-1.9	4.3	1.9	5.8	6.7	6.0	0.9	3.8	4.7
Algeria	2.8	3.8	2.8	3.9	4.0	3.8	0.2	0.0	0.0
South Asia	6.2	6.8	7.0	7.3	7.5	7.5	-0.1	0.0	0.0
India[3]	6.9	7.3	7.3	7.8	7.9	7.9	-0.2	-0.1	-0.1
Pakistan[3 4]	4.4	4.7	5.5	5.5	5.4	5.4	-0.5	1.8	0.9
Bangladesh[3]	6.1	6.5	6.5	6.7	6.8	6.8	0.2	0.0	0.1
Sub-Saharan Africa[2]	4.9	4.6	3.4	4.2	4.7	4.7	-0.8	-0.3	-0.3
South Africa	2.2	1.5	1.3	1.4	1.6	1.6	-0.7	-0.7	-0.8
Nigeria	5.4	6.3	3.3	4.6	5.3	5.3	-1.2	-0.4	-0.2
Angola	6.8	3.9	3.0	3.3	3.8	3.8	-1.5	-0.6	-1.3

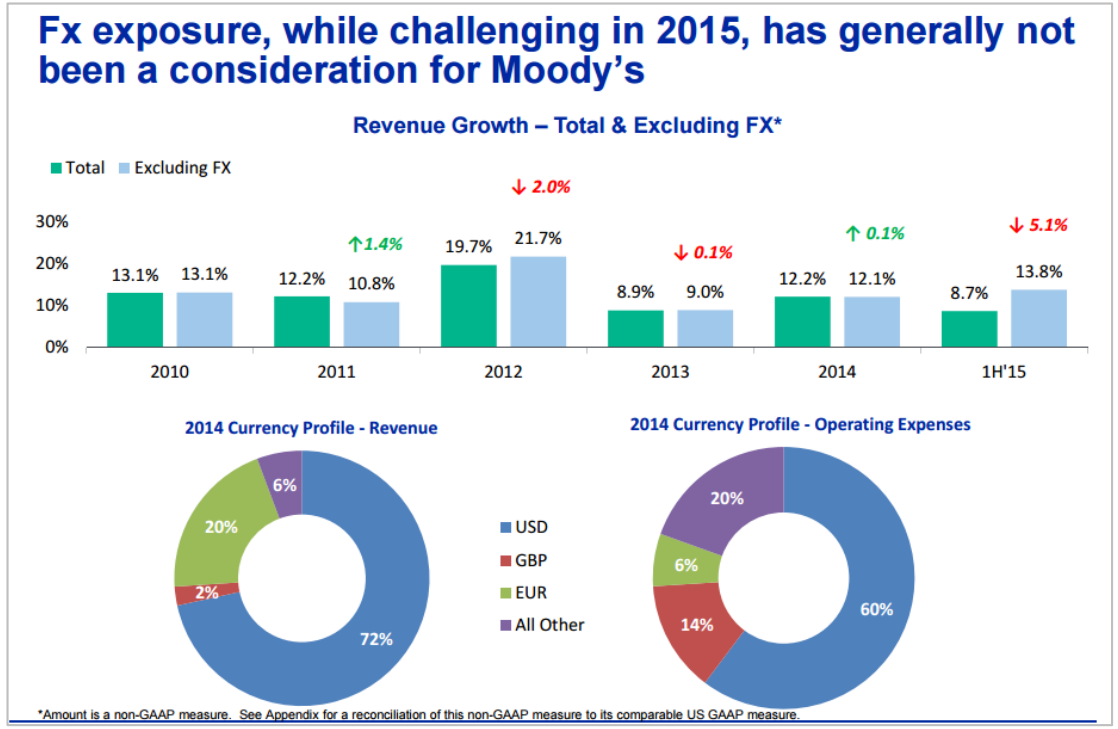
Source: January 2016 World Bank Report

Risks to MCO

- U.S. regulation regarding conflicts of interest
- Europe regulation focused on competition, encouraging smaller independent CRAs to be used versus “big three”
- Reputation of MCO due to another “2008/2009” event similar to MCO’s poor ratings quality on certain CDO/MBS
- Tightening credit globally creates declines in issuance activity
- Change in pricing structure of the CRAs (this has/is continuously evaluated, have yet to find better pricing structure)
- Increased regulatory oversight increases costs, IT, support
- Future litigation over the ratings
- Difficulty reinvesting cash flow in organic opportunities
- Majority of MIS revenue is transaction based, which could decline in event of economic slowdown or market disruptions

Risks to MCO

- Foreign currency
  - 46% of revenue, 60% of expenses are reported in functional currencies other than US dollar, mostly the British pound and the Euro (2015 10-K)
  - 58% of assets outside the U.S.
  - Of the $2.2 billion in cash, $1.5 billion located outside the U.S. and would need to be repatriated if MCO desired one time ASR/dividend/acquisition
  - 2015 = largest FX impact on record, with >5% unfavorable impact



Source: 2015 Investor Day Presentation Moody's

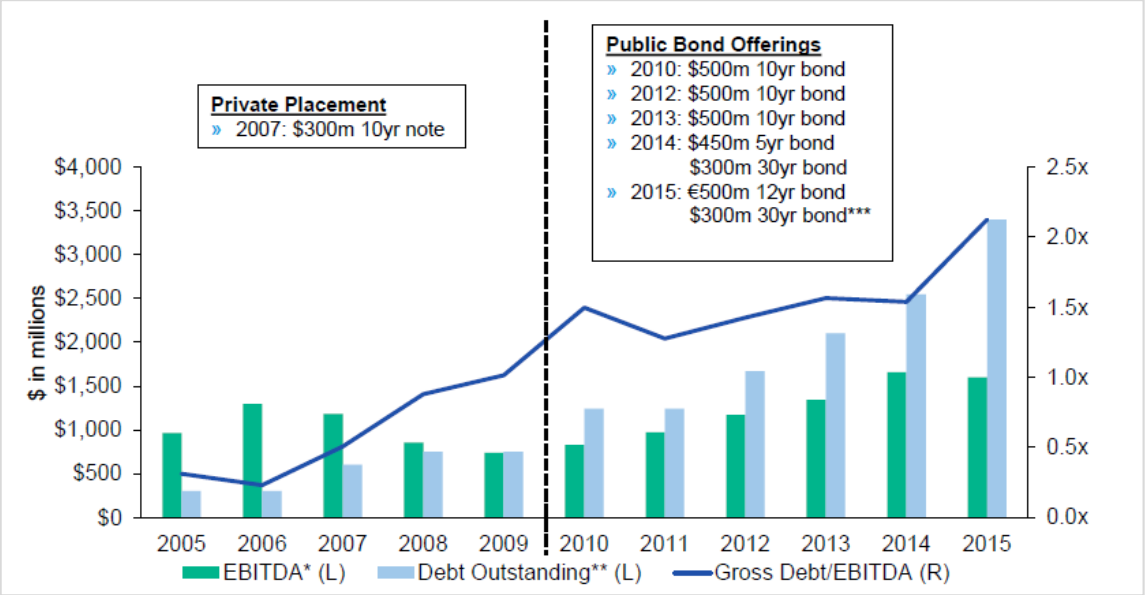
Litigation

- Since 2007, nearly 5 dozen cases in U.S. were filed, less than 20% remain
- Outside the U.S. – 6 open cases, and 21 cases have been dismissed or withdrawn
- Common themes:
  - MCO rating = “opinion”
  - Cannot give rise to “underwriter” or “control person” liability
  - MCO has lack of direct contact with investors, cannot be sued for negligent misrepresentation under NY law
  - Cannot be viewed as misrepresentation unless MCO internally misguided the public on the ratings (thus the importance of the S&P emails)
- MCO has made IT and compliance enhancements over past several years
- MCO now examined by:
  - SEC in U.S.
  - ESMA in Europe

Source: 2015 Investor Day Presentation Moody’s

Debt

	December 31, 2015	December 31, 2014
Notes payable:		
6.06% Series 2007-1 Notes due 2017	$ 300.0	$ 300.0
5.50% 2010 Senior Notes, due 2020, net of unamortized discount of $1.7 million in 2015 and $2.0 million in 2014; also includes a fair value adjustment on an interest rate hedge of $9.4 million in 2015 and $5.8 million in 2014	507.8	503.8
4.50% 2012 Senior Notes, due 2022, net of unamortized discount of $2.8 million in 2015 and $3.1 million in 2014	497.2	496.9
4.875% 2013 Senior Notes, due 2024, net of unamortized discount of $2.3 million in 2015 and 2.5 million in 2014	497.7	497.5
2.75% 2014 Senior Notes (5-Year), due 2019, net of unamortized discount of $0.5 million in 2015 and $0.7 million in 2014; also includes a fair value adjustment on an interest rate hedge of $2.3 million in 2015 and $1.4 million in 2014	451.8	450.7
5.25% 2014 Senior Notes (30-Year), due 2044, net of unamortized discount of $1.6 million in 2015 and 2014; also includes an unamortized premium of $5.0 million relating to additional issuance under the notes in 2015	603.4	298.4
1.75% 2015 Senior Notes, due 2027	543.1	—
Total long-term debt	$ 3,401.0	$ 2,547.3



Source: 2015 Investor Presentation, 2015 10-K

MOODY'S

Shareholder Base & Capital Allocation

Shareholder Base

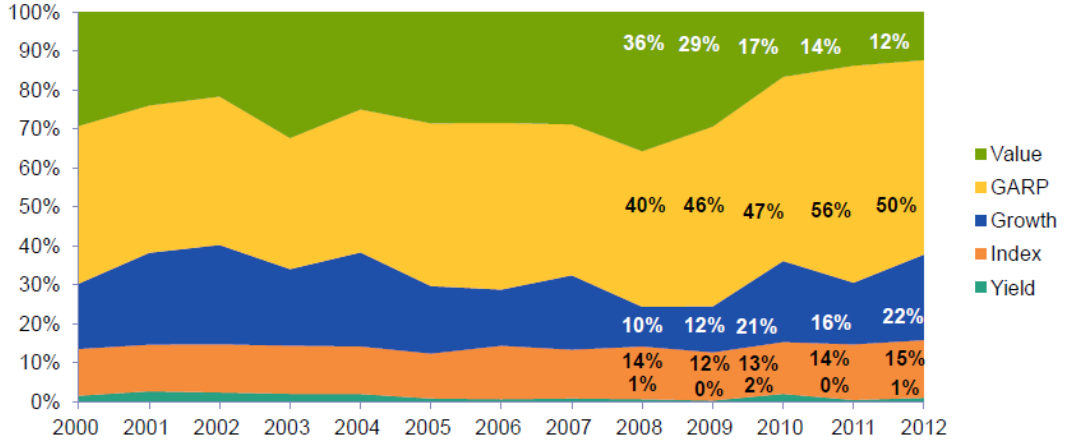
- From 2012 Investor Day
- Shareholder base largely driven by “GARP” investors
  - Risk: MCO growth slowdown would impact ~70-75% of shareholder base

Moody’s Shareholders are Increasingly Growth- and GARP-oriented Investors

» Continuing shift toward Growth- and GARP-oriented investors with improvement in business fundamentals, regulatory trends and litigation environment

» 2008 marked recent peak of value investor interest

MCO Ownership By Investment Style



Source: SEC filings. 2000-2011 as of 12/31; 2012 as of 6/30

Source: 2012 Investor Day Presentation Moody’s

MOODY’S

Shareholder Base

- Mark Massey: AltaRock Partners (2014, Manual of Ideas)

Despite being over 100 years old, Moody's is still growing its revenues organically at a double-digit rate. We think this will be sustained for a while – at least another ten years. The business essentially grows with global GDP, but faster since the capital markets are continuing to slowly take market share from the banking industry as intermediaries of credit. In addition to this we (shareholders) also enjoy an underpriced product, which is a tremendous hidden treasure, if you can ever find one. Buffett and Munger found one when they bought See's Candy. And Michael Eisner found one when he took over as CEO at Disney. He discovered that prices could be raised faster than inflation for many years at the Magic Kingdom with no discernable falloff in traffic. We believe Moody's has this kind of power and that management will continue to judiciously exercise it.

Like MasterCard and Visa, Moody's costs are also largely fixed so earnings will grow a bit faster for a while. And as with most of our investments, management at Moody's will be returning at least 100% of free cash flow to us via stock buybacks and dividends. In any event, we think that Moody's ($87) will generate a 15% IRR for us over the coming decade.

Source: http://www.beyondproxy.com/mark-massey-altarock-partners/

Shareholder Base

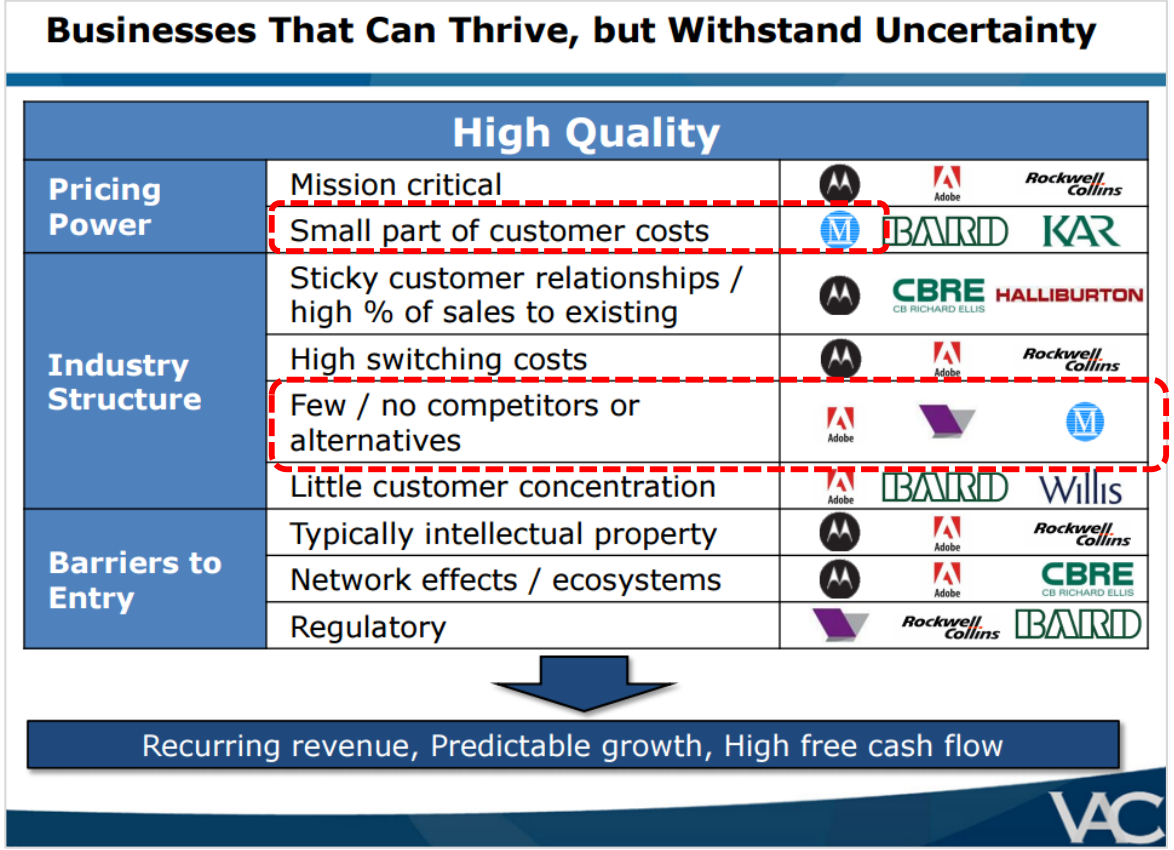
- Warren Buffett, Berkshire Hathaway (2010 FCIC hearing)

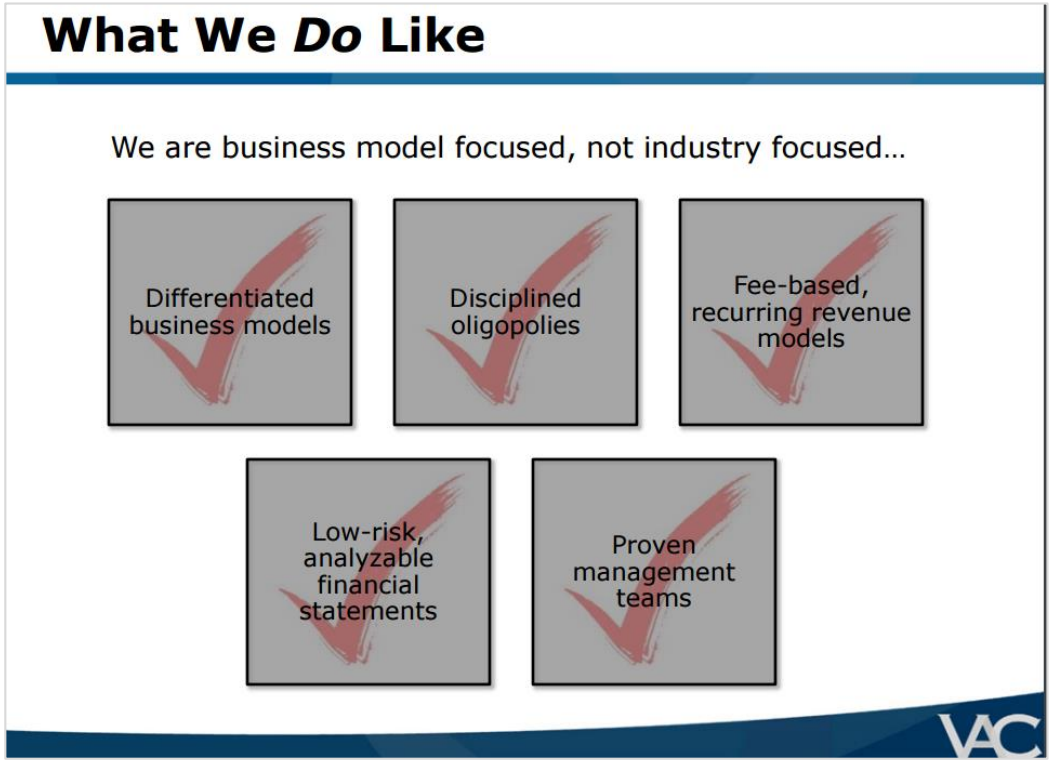
> "I've never been to Moody's," he said at a hearing of the Financial Crisis Inquiry Commission, which is investigating the causes of the global crisis that led to the government bailout of big banks. "I don't even know where they're located. I just know that their business model is extraordinary."

Source: http://www.nytimes.com/2010/06/03/business/03rating.html?_r=0

Shareholder Base

- Jeffrey Ubben, ValueAct (2012 VIC) *(no longer a shareholder)*





Source: http://csinvesting.org/wp-content/uploads/2013/09/Ubben-VIC-Presentation-VALUE_ACT.pdf

Shareholder Base

- Jeffrey Ubben, ValueAct (10-3-2012 Wealth Strategies) *(no longer a shareholder)*
  - *Moody's is "the plumbing in the financial markets that can't be ripped out"*
  - *Unique asset*
  - *A currency, as it changes a companies cost of capital*
  - *Moody's is protected by the First Amendment on opinions*
  - *Moody's litigation risk is low*

Source: https://www.youtube.com/watch?v=v5QfCLeloEg&ebc=ANyPxKofGJ1zO9MKbPR28WPswzQs6ErlsSlCNjQWouSyJ9YIXn0TMyXUPmSjeiJfkeMvXaPzN5JKqYfNMhW4Xjzy4uZOMKYtAg

Bear thesis: Reputation Risk?

- According to FCIC Chairman Phil Angelides during the 2010 hearing over the credit rating agencies, said 89% of securities given a top rating AAA were later downgraded during the financial crisis
- David Einhorn of Greenlight Capital bet against Moody's in 2009 in a presentation called "The Curse of the AAA", saying that MCO will be damaged reputationally for their poor ratings quality during the financial crisis

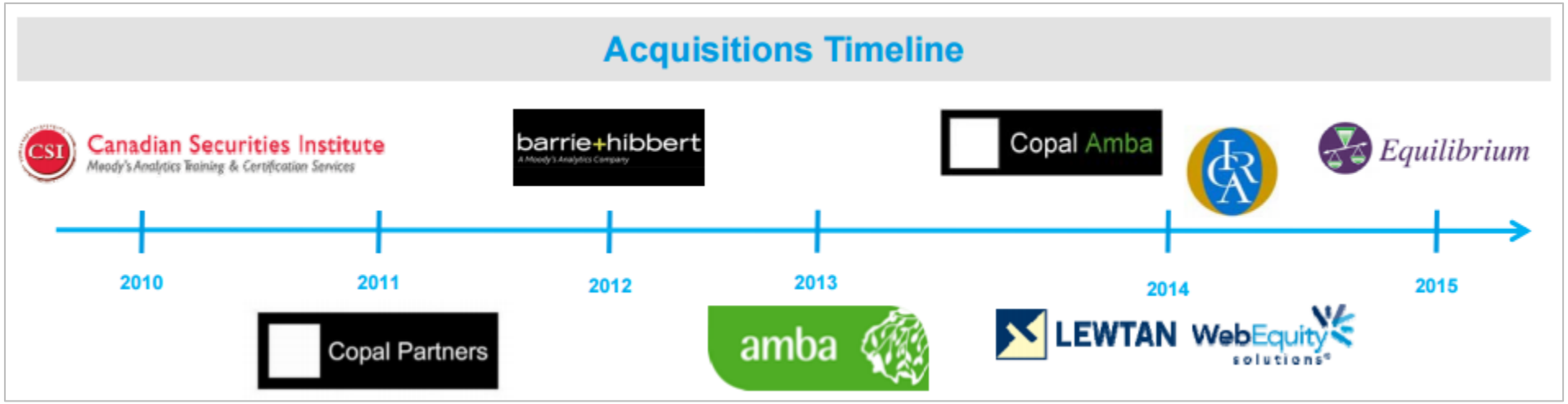
> We are short Moody's Investor Service. If your product is a stamp of approval where your highest rating is a curse to those that receive it, and is shunned by those who are supposed to use it, you have problems.
>
> Moody's says that it has enormous incentive to do a good job with the ratings because the ratings are the brand. Imagine yourself the head of Moody's a decade ago. If your goal was to destroy the brand, would you have done anything differently?
>
> The truth is that nobody I know buys or uses Moody's credit ratings because they believe in the brand. They use it because it is part of a government created oligopoly and, often, because they are required to by law. As a classic oligopolist, Moody's earns exceedingly high

> Regulators can improve the stability of the financial markets by eliminating the formal credit rating system.
>
> Credit analysts don't believe in credit ratings; equity analysts do. Moody's shares trade at 19x estimated earnings that, *wink-wink*, they are supposed to beat. Ironically, for a firm that evaluates credit, its balance sheet is upside down, with a negative net worth of $900 million.

Source: http://www.beyondproxy.com/mark-massey-altarock-partners/ http://www.manualofideas.com/files/content/einhornspeech200905.pdf

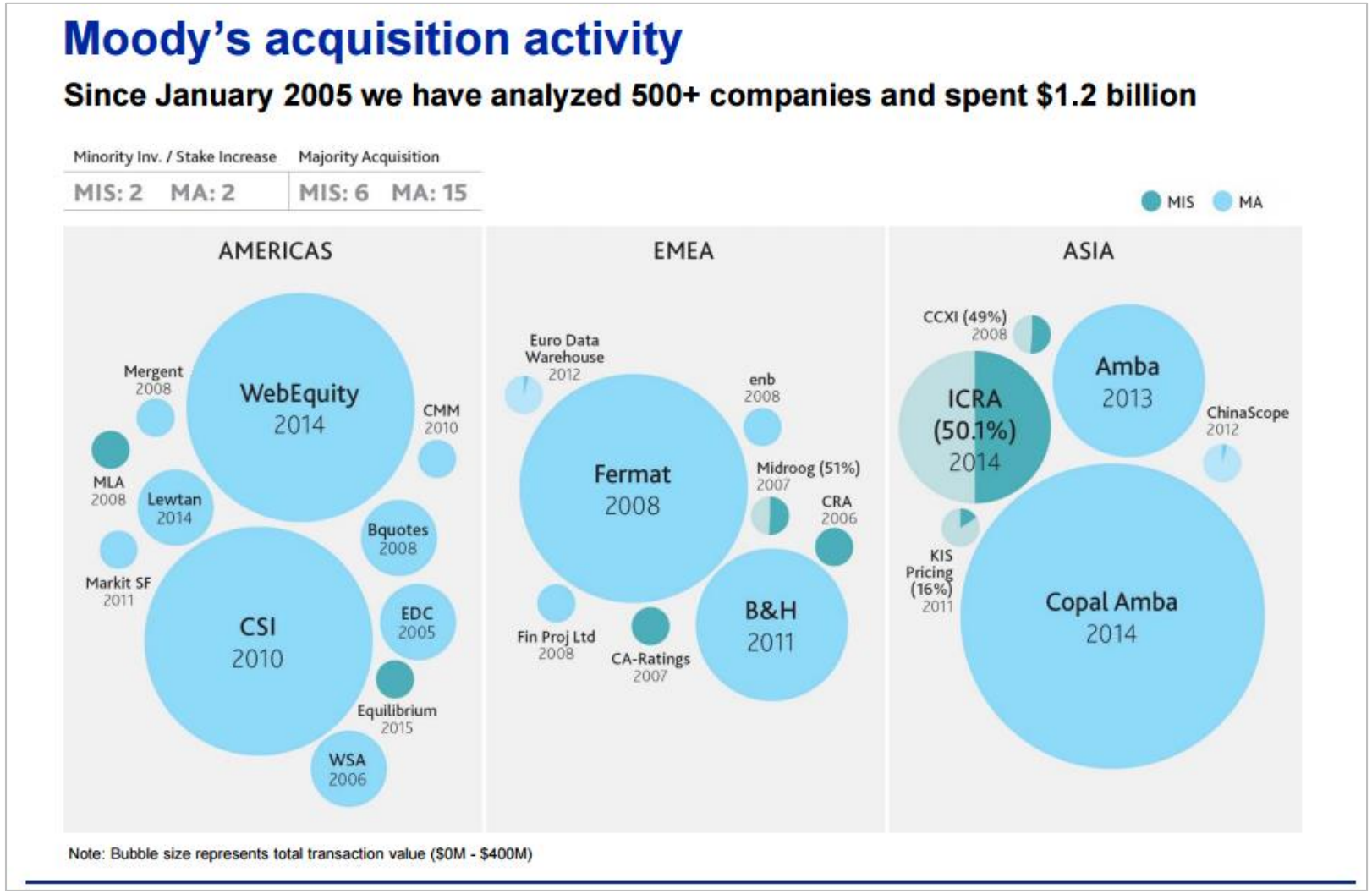
Capital Allocation: Acquisitions

- Acquisition criteria
  - IRR > cost of capital
  - Cash-on-cash return of >10% within 3-5 years
  - 7-9 years payback
  - GAAP accretive by year 3
- Target profile
  - High growth market
  - $25m - $200m purchase price
  - Typically low capital intensity
  - Recurring revenue
  - Synergies



Source: 2015 Investor Day Presentation Moody's

Capital Allocation: Acquisitions



Source: 2015 Investor Day Presentation Moody's

Return of Capital

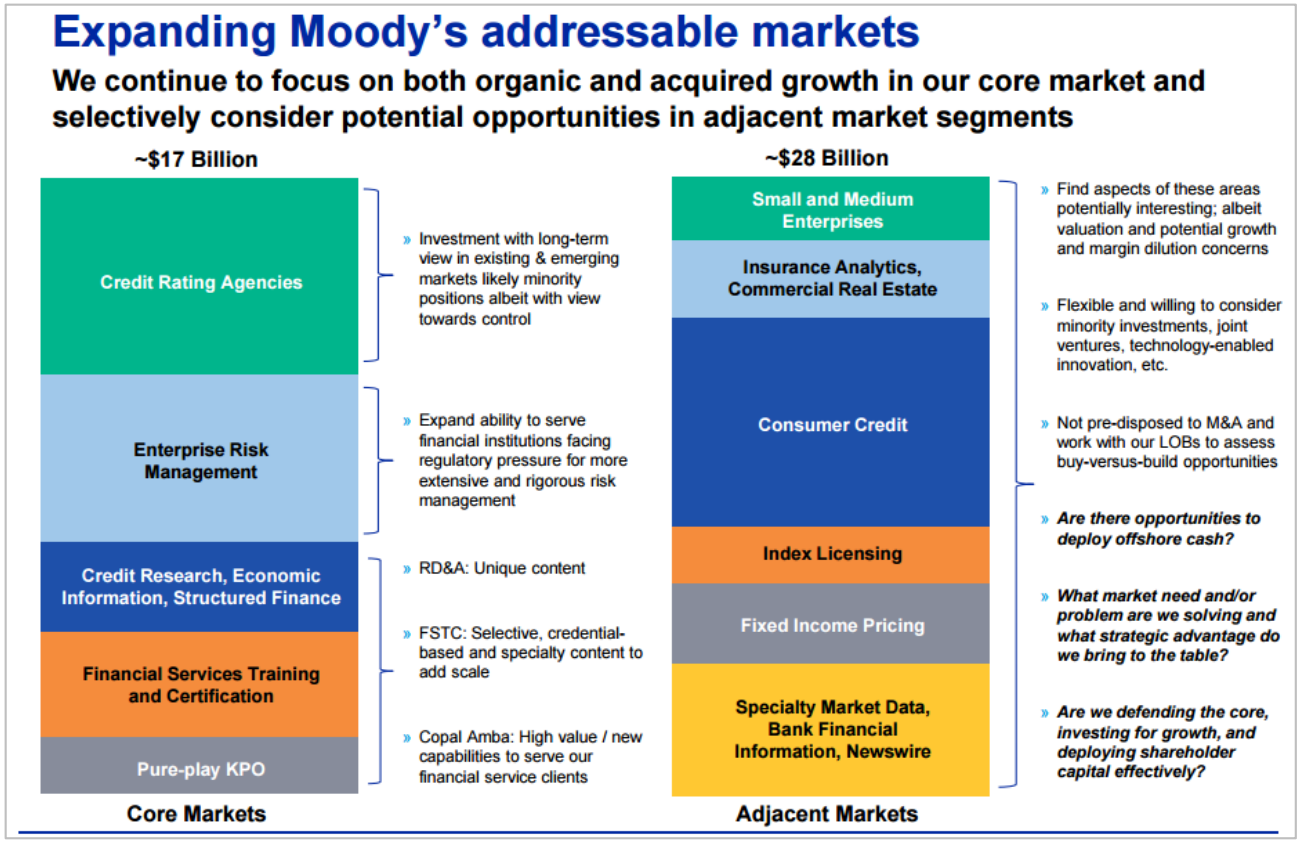
- Moody's focuses on paying out 25-30% of net income in the form of a dividend
- Majority of the remaining FCF/Net Income goes towards share repurchases (~4% of float average last 3 years)
  - Repurchased ~13% from 2010 – Q2-2015
- About $1.3 billion in total return of capital in 2015 = ~6% of current market value
- $2.32 billion spent in share repurchases 2014-2015 at average price of $93.87

Reinvestments: People + Software + Brand

- Added 1,300 people from ICRA, Lewtan, and WebEquity acquisitions (low cost jurisdictions)
- Current "core markets" has addressable market of ~$17 billion
- Adjacent markets value of ~$28 billion

My comments:

- Not sure there are ample reinvestment opportunities through M&A going forward
- Most reinvestment will likely be to be participant in growing capital markets in emerging economies
- Expect future growth to come from:
  - Pricing
  - GDP growth
  - Share repurchase



Source: 2015 Investor Day Presentation Moody's

Valuation:

How do you value a company with “infinite” returns on capital?

How to Value MCO:

- Despite revenues being 2/3 MIS and 1/3 MA, operating margins are even more weighted towards MIS segment (ratings)
  - MIS = 85% of total MCO operating income
- Between 45-50% of MIS revenue comes from “Corporate” = 40-43% of total MCO
- Moody’s does not breakdown margin between sub-segments within MIS; however it is suggested that *high yield, structured, derivative business are the higher margin ‘products’*
- About 30% of “corporate” is recurring/maintenance business; The largest sub-segment at MCO is majority transaction-based (new issuance)

How to Value MCO:

- Revenue, in general, should be less choppy in any given year, largely due to the highly-sensitive ‘products’ (high yield, structured, RMBS, ABS) having less revenue contribution compared to MA and the remaining “corporate CFG” segment of MIS
  - Worst year on record = 2008. CFG declined 27% and SFG declined 53%. MA segment still grew 5% but was only a small contributor at that point. Total MCO revenue declined 22%, operating income declined 34%, and net income declined 35%. Negative operating leverage as MCO is largely personnel based.
- Due to importance of corporate “new issuance” on margins/CF, but considering it very difficult to time new issuance, easier to focus on refinancing pipeline

Valuation

Financials updated as of:	*Q4 2015*		
Current Stock Price	$ 90.00		
Shares Outstanding (Diluted)	194.9	187	
Market Capitalization	$ 17,541		
(minus) Cash & Equiv.	$ 1,757		
(minus) Investments in Aff.	*$ 475*		
(add) Long Term Debt	$ 3,401		
(add) Commercial Borrowing			
(add) Pension & OPEB	$ 400		
Enterprise Value	$ 19,110		

Leverage (EBITDA)	
Gross Debt	2.14
Net Debt	0.74

LTM		EV-to:	Market Cap-to:	Yield
FCF - Firm (post-tax)	$ 1,185.2	16.12		*6.2%*
FCFE	$ 1,064.6		16.48	*6.1%*
OCF (EBDA)	$ 1,155.0		15.19	*6.6%*
EBIT	$ 1,473.4	12.97		*7.7%*
Net Income	$ 941.3		18.63	*5.4%*
FCF (OCF- CapEx)	$ 944.0	20.24		*4.9%*
EPS	$ 4.61		19.54	*5.1%*
FCFE Per Share	$ 5.46		16.48	*6.1%*
FCFF Per Share	$ 6.08	16.12		*6.2%*
EBITDA	$ 1,586.9	12.04		*8.3%*

NTM		EV-to:	Market Cap-to:	Yield
Operating Cash Flow	$ 1,200.0	15.92		*6.3%*
Free Cash Flow	$ 1,100.0		15.95	*6.3%*
FCFE per Share	$ 5.88		15.30	*6.5%*
EPS	$ 4.80		18.75	*5.3%*

Average Yield	*6.3%*
Multiple	*16.0*

Conclusion:
Trading at ~15.5x 2016 EPS (FCFE per share) in a "below average" environment:

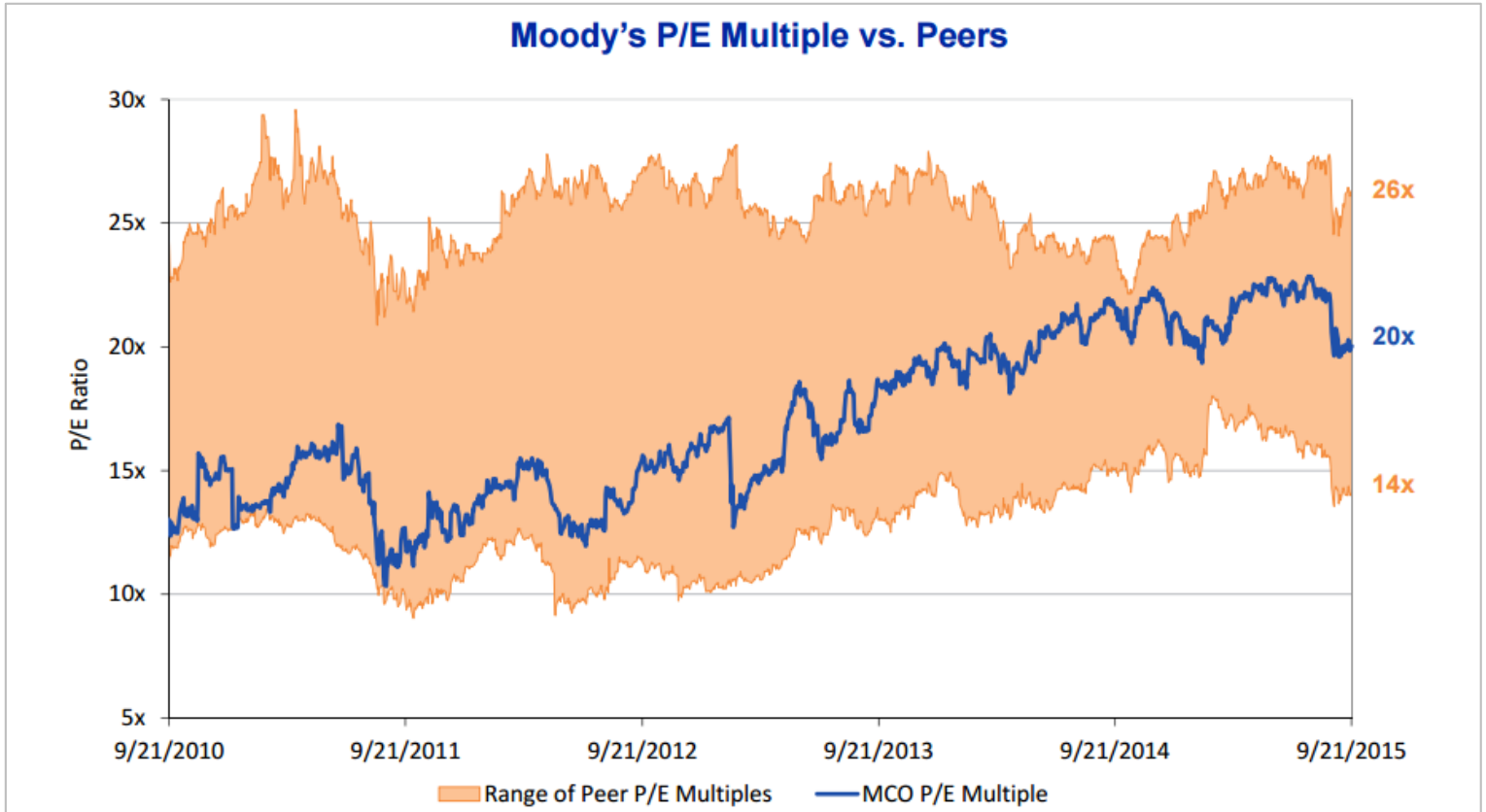
- Expectations of higher default rates
- Commodity prices creating issues in both domestic and emerging markets
- Declines of ~20% in HY issuance for 2016
- Flat to slightly lower IG issuance for 2016
- Lower global GDP expectations
- Political uncertainty in U.S. with election and candidates
- Lower revenue and profit growth from corporates will subdue issuance
- Market volatility August 2015 + January 2016 will decrease investor appetite for risk
- MCO still targeting ~mid-high single digit growth in weaker environment – imagine what would happen if some of these uncertainties/headwinds were removed.
- MCO still targets double digit EPS growth on average, well above S&P 500 growth rates, yet MCO trades in-line with the S&P 500

Current Thoughts:

- More headwinds than tailwinds for the bond market
  - Expected increased volatility in the equity markets
  - Much higher credit spreads make it less economical for less credit-worthy issuers
  - All-time highs for most corporate issuance in U.S.
  - Increased economic uncertainty due to election year in U.S.
  - Expected increase in default rates to 2008-9 levels, led by energy-related issuers
  - Commodity price declines globally impacting emerging economies, companies within these economies
- Despite these known headwinds, Moody's still guided to all-time high FCF of ~ $1.1 billion for FY2016
- MCO has stated the pipeline for high yield bonds is "above average"
- Global GDP estimates are coming down

Moody's Returns due to ~ P/E expansion?

- In 2011, MCO's P/E multiple was almost 10x, and is most recently ~19x LTM net income, and ~16.5x NTM free-cash-flow
- During 2010-2013 there were more concerns over litigation (litigation reserve/regulation)
- The multiple is back to where it was circa 2013



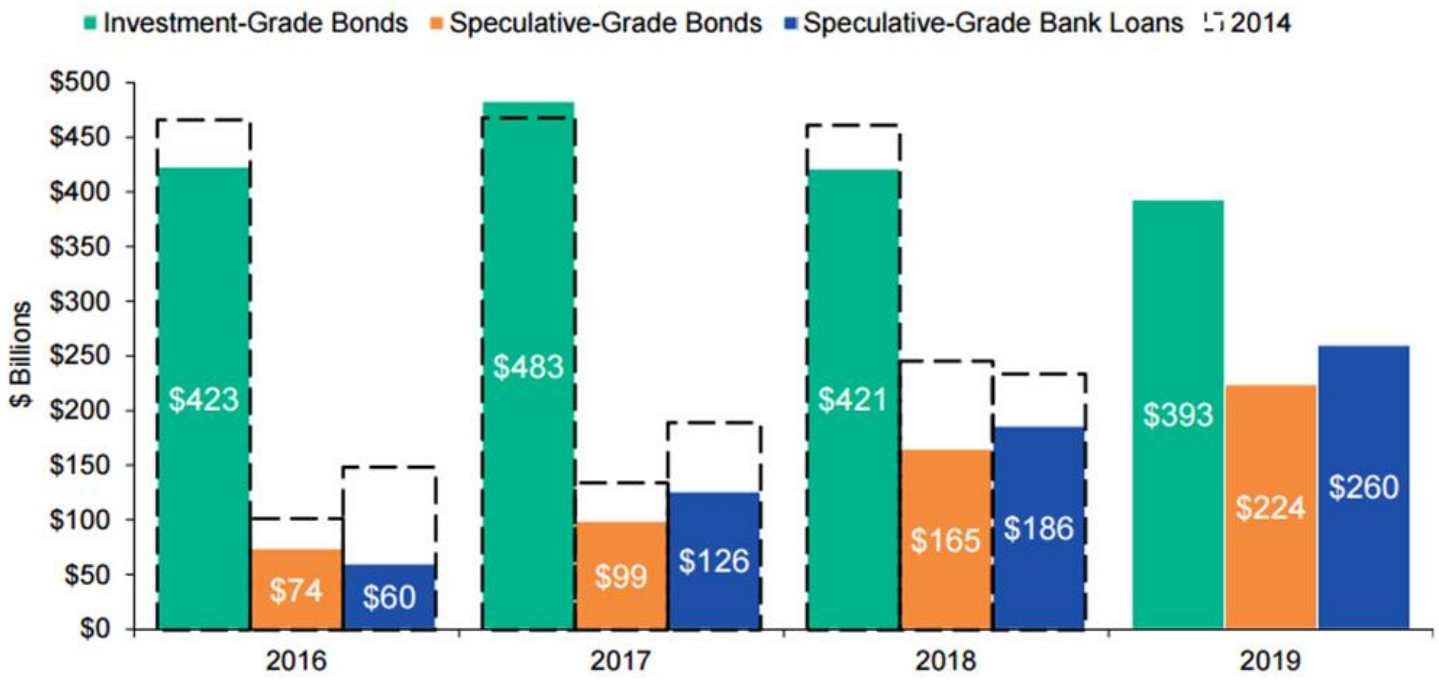
Source: FactSet. Peer group includes CLGX, DNB, EXPN, FDS, IHS, MHFI, MORN, MSCI, TRI, VRSK. P/E multiple in chart represents NTM P/E multiple.

Source: 2015 Investor Day Presentation Moody's

Refinancing Pipeline

Non-financial corporates have refunding needs of approximately $3.0 trillion

Debt Maturities: Global Moody's-Rated Corporate Bonds and Loans



Source: Moody's Investors Service and Bloomberg. Total debt maturities represented in the chart above are for the US (Moody's-rated bonds and loans as of February 2015), EMEA (Moody's-rated bonds and loans as of July 2015), and Asia Pacific (Rated and unrated bonds of rated corporate entities in Asia ex-Japan, Australia and New Zealand as of July 2015).

Source: 2015 Investor Day Presentation Moody's

MOODY'S

Thank You

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@find_me_value