

4-2019

# Strategic Audit of Moody's Analytics

Matthew Dottavio

*University of Nebraska - Lincoln*

Follow this and additional works at: <https://digitalcommons.unl.edu/honorstheses>

Part of the [Business Commons](#)

---

Dottavio, Matthew, "Strategic Audit of Moody's Analytics" (2019). *Honors Theses, University of Nebraska-Lincoln*. 130.  
<https://digitalcommons.unl.edu/honorstheses/130>

This Thesis is brought to you for free and open access by the Honors Program at DigitalCommons@University of Nebraska - Lincoln. It has been accepted for inclusion in Honors Theses, University of Nebraska-Lincoln by an authorized administrator of DigitalCommons@University of Nebraska - Lincoln.

Strategic Audit of Moody's Analytics  
Submitted in Partial Fulfillment of  
University Honors Requirements  
University of Nebraska-Lincoln

Submitted by  
Matthew Dottavio, BS  
Computer Science  
College of Arts and Sciences

April 28, 2019

Faculty Mentor:  
Dr. Samuel Nelson  
College of Business

# OVERVIEW

## History of Moody's Corporation

Moody's Corporation has been at the forefront of the ratings industry since its inception. A brief history of the company is included to help the reader better understand the company.

1909: John Moody creates the first bond ratings agency and creates a company that would be the predecessor to Moody's Investors Service (MIS).

1910s – 1930s: The bond rating market explodes, and agencies like Standard Statistics, Poor's, and Fitch enter the market.

1930s: The Great Depression occurs, resulting in the US government implementing disclosure laws on securities and creating the Securities and Exchange Commission. Other legislation, like the Glass-Steagall act, solidifies the importance of credit rating agencies in the United States.

1962: Moody's is acquired by the credit reporting firm Dun & Bradstreet.

1970s: All major credit rating agencies change their business model to charge issuers rather than investors, largely due to the technological advancements of photocopying technology and the increasing complexity of bond ratings. The SEC created a category of credit rating agencies called nationally recognized statistical rating organizations (NRSROs) to be used to assess riskiness for regulatory purposes, helping to further cement the major agencies' place in the market. [Sylla, Richard TODO CITE]

2000-Present: Moody's Corporation is spun off from Dun & Bradstreet. Since that time, Moody's has grown from revenues of just over 600 million to revenues of over 4 billion. (Moody's Corporation, 2001) Moody's corporation is traded on NYSE and has a market cap of over \$35 billion as of April 2019 ("Moody's Corporation (MCO) Stock Price", 2019).

## Operating Divisions

Moody's Corporation consists of two operating divisions: Moody's Investors Services (MIS) and Moody's Analytics (MA). MIS is the bond-rating business of Moody's Corporation. MIS rates debt securities including corporate finance, government finance, and public infrastructure. MA focuses on all non-rating activities for Moody's. MA has three main lines of business: research, data, and analytics (RD&A); enterprise risk solutions (ERS); and professional services (PS).

### Moody's Investor Services

Moody's corporation is most well-known for Moody's Investor Services (MIS), one of the "big three" credit rating agencies, along with S&P and Fitch. Moody's, S&P, and Fitch control the credit rating market, accounting for 33.1%, 49.2%, and 13.5%, respectively, of all outstanding credit ratings at the end of 2017. Combined, these three agencies accounted for 95.8% of outstanding NRSRO credit ratings.

While MIS is one of the largest and most well-respected credit rating agencies in the world, MIS has gone through significant adversity this past decade. In the late 2000s, the US experienced its worst recession since the Great Depression in the 1940s (Krugman and Wells, 2010). The recession stemmed

from the subprime mortgage crisis, which credit rating agencies (CRAs) played a major role in. For example, Moody's rated nearly 45,000 mortgage-related securities its highest grade of AAA between 2000 and 2007, compared to only 6 private-sector companies rated AAA in 2010. However, by 2011 over 80% of mortgage-related securities rated AAA were downgraded. Fitch and S&P similarly had massive amounts of downgrades (Financial Crisis Inquiry Commission, 2011)

In 2017, Moody's Corporation agreed to a settlement with the Department of Justice worth over \$850 million for not maintaining its ratings standards. The settlement also included additional oversight measures. ("Justice Department and State Partners Secure Nearly \$864 Million Settlement", 2017). Present day, there have been several reforms as a result of the financial crisis, but MIS is still a strong figure in the credit rating business, and looks to move forward past the crisis of the late 2000s.

### Moody's Analytics

In 2000 Moody's Corporation acquired Crowe, Chizek & Company, whose products would later become the predecessors to the products offered by Moody's Analytics (MA). Over the next 8 years, Moody's made several acquisitions, including KMV, Economy.com, and Wall Street Analytics, significantly increasing their positions in risk management software and analytics. (Moody's Corporation History, n.d.). In 2007 Moody's Corporation separated the non-ratings functions from the ratings functions in the company, forming Moody's Analytics as a separate entity from MIS.

As stated earlier, MA has three lines of business RD&A, ERS, and PS. RD&A offers products including credit ratings by MIS, credit research, economic research and forecasts, business intelligence products, and commercial real estate tools and data. ERS offers software and related risk management solutions. PS offers research and analytics services, and training and certification programs.

### Selected Financials

Moody's Corporation had revenue at just over \$4.4 billion last year. This resulted with an operating income of approximately \$1.86 billion, resulting in an operating margin of 42.1%. Revenue increased 6% from 2017.

MIS accounts for 63% of Moody's revenue, but accounts for nearly 83% of Moody's operating income due to high operating margins of 55%. Revenue decreased 2% from 2017, due to the bond market in 2018.

MA accounts for 37% of Moody's revenue but just 17% of the company's operating income. MA had a 17.7% operating margin in 2018. While MA has lower revenues and operating margin, MA has larger growth numbers. From 2017 to 2018, MA revenue grew 20%. Out of the 20%, six percentage points were organic, while the other 14 percentage points came from the acquisition of Bureau van Dijk.

	Year Ended December 31,		% Change Favorable (Unfavorable)
	2017	2016	
Revenue:			
United States	\$2,348.4	\$2,105.5	12%
Non-U.S.:			
EMEA	1,131.7	904.4	25%
Asia-Pacific	471.4	373.2	26%
Americas	252.6	221.1	14%
Total Non-U.S.	1,855.7	1,498.7	24%
Total	4,204.1	3,604.2	17%

Figure 1: Moody's Corporation US and International Revenues from 2018 annual statement

	Year Ended December 31, 2018			Year Ended December 31, 2017 (1)		
	U.S.	Non-U.S.	Total	U.S.	Non-U.S.	Total
<b>MIS:</b>						
Corporate finance (CFG)	\$ 852.3	\$ 481.8	\$ 1,334.1	\$ 909.7	\$ 483.0	\$ 1,392.7
Structured finance (SFG)	342.9	183.6	526.5	340.1	155.4	495.5
Financial institutions (FIG)	194.6	247.1	441.7	186.1	249.7	435.8
Public, project and infrastructure finance (PPIF)	228.8	162.3	391.1	266.4	164.9	431.3
Total ratings revenue	1,618.6	1,074.8	2,693.4	1,702.3	1,053.0	2,755.3
MIS Other	0.6	18.4	19.0	0.5	18.0	18.5
Total MIS	1,619.2	1,093.2	2,712.4	1,702.8	1,071.0	2,773.8
<b>MA:</b>						
Research, data and analytics (RD&A)	480.4	653.7	1,134.1	424.4	408.3	832.7
Enterprise risk solutions (ERS)	170.0	267.4	437.4	166.6	282.0	448.6
Professional services (PS)	60.0	98.8	158.8	54.6	94.4	149.0
Total MA	710.4	1,019.9	1,730.3	645.6	784.7	1,430.3
Total MCO	\$ 2,329.6	\$ 2,113.1	\$ 4,442.7	\$ 2,348.4	\$ 1,855.7	\$ 4,204.1
<b>Year Ended December 31, 2016 (1)</b>						
	U.S.	Non-U.S.	Total			
<b>MIS:</b>						
Corporate finance (CFG)	\$ 762.9	\$ 359.4	\$ 1,122.3			
Structured finance (SFG)	293.3	143.5	436.8			
Financial institutions (FIG)	160.1	208.8	368.9			
Public, project and infrastructure finance (PPIF)	276.2	136.0	412.2			
Total ratings revenue	1,492.5	847.7	2,340.2			
MIS Other	9.4	21.2	30.6			
Total MIS	1,501.9	868.9	2,370.8			
<b>MA:</b>						
Research, data and analytics (RD&A)	389.3	278.3	667.6			
Enterprise risk solutions (ERS)	162.9	255.9	418.8			
Professional services (PS)	51.4	95.6	147.0			
Total MA	603.6	629.8	1,233.4			
Total MCO	\$ 2,105.5	\$ 1,498.7	\$ 3,604.2			

(1) Prior period amounts have not been adjusted under the modified retrospective method of adoption for the New Revenue Accounting Standard.

Figure 2: MIS and MA revenues from 2018 annual statement

## Situational Analysis

### PEST Analysis

#### Political

Political factors have a high influence on MA, especially in the ERS segment. Regulations can shape demand and product offerings in the sector. For example, in the wake of the financial crisis several regulations were passed, including Basel III, which introduced new minimum capital requirements, and CCAR, increasing demand in risk management systems and practices.

On the other hand, Moody's does face regulatory risks, especially in the rating segment, which may affect how MA operates or limit its opportunities for acquisitions if it affects cash flows.

Further political factors, like Brexit and the threat of trade wars, also influence regulation, which influences both MA and MIS, and affect the bond market, which affects MIS's number of bond ratings.

#### Economic

Moody's Corporation is directly affected by the strength of the economy. For MIS, the number of ratings issued is strongly affected by the total number of issuances in the bond market, which directly affects

cash flows. Both MA and MIS are affected by economic development in Asia and other regions, which open up more ratings and financial services opportunities.

Additionally, Moody's corporation is affected by strength of currencies. In 2018, 47.6% of revenue came from outside the US. Fluctuations in currency can strongly affect revenue.

## Social

While political and economic factors have a much stronger effect on Moody's, social issues are becoming increasingly important. For MIS has begun rating Environmental, Social and Governance (ESG) issues due to customer demand. ESG ratings look at the sustainability and environmental impact of the issuer. These issues affect the long-term outlook of the company and the issues. For example, environmental issues paired with social awareness has led to the ban of single-use plastics in the EU by 2021, which influences the credit quality of European packaging companies. (Moody's Corporation, "ESG Focus April 2019", 2019).

## Technological

Technological factors also have a large effect on Moody's. For MA, technological changes have led the company to transition from selling on premise products to selling cloud-based software as a service (SaaS) products, resulting in higher rates of recurring revenue. Additionally, advances in machine learning have helped drive technological innovation in this field.

## Competitors

MA's main competitors are in the financial data and analytics industry. The main leaders in this industry are Refinitiv, Bloomberg, and S&P Global Intelligence, with several other players in the industry. MA is relatively small to its competitors. Moody's RD&A revenue came to \$832 million in 2017, compared to estimated turnover of \$6 billion at Refinitiv and Bloomberg's revenue of \$9.6 billion during the same period (Stafford, 2018; "Bloomberg on the Forbes America's Best Employers List.", 2018).

## SWOT

To get a better understanding of Moody's Analytics, this paper will perform a SWOT analysis on the company.

### Strengths

Moody's Corporation has a high operating margin – 42.1 percent operating margin (47% adjusted). This number was carried by MIS, which accounts for 61% of MC's revenue at a 58% operating margin. MA accounts for the other 39%, with a significantly lower operating margin of 26.4%.

This high operating margin has led to strong cash flows—in 2018 Moody's Corporation reported a free cash flow of 1.371 billion. Moody's is able to utilize these cash flows along with debt financing to make a number of acquisitions to help promote growth. For example, in 2017 the European business intelligence firm Bureau van Dijk was acquired by Moodings using \$1.3 million in offshore cash and \$2 billion in debt financing (Moody's Corporation, "4Q and Full Year 2018 Investor Presentation", 2019).

Moody's second strength is its size. As MA increases in size, it can increase value to consumers, especially in RD&A due to increased size in datasets and overlapping products. For example, the acquisition of BvD was expected to result in \$45 million in synergies due to its data network of over 200 million companies, its relationship with European companies, and the overlapping products that MA and BvD serves to customers.

Moody's Analytics last strength is its association with MIS. MIS is one of the 'big three' credit rating industries, which gives Moody's the reputation of being one of the best companies to assess risk of credit.

### Weaknesses

One of Moody's Analytics biggest weaknesses is that the income of Moody's Corporation is largely dependent on the strength of the bond market, or more specifically the number of issuances. If the number of issuances goes down for any of a variety of reasons, be it political, economic or other, MA may have to deal with the weak income of Moody's Corporation, which could restrict their operations.

Another weakness is size relative to MA's largest competitors. For example, competitor Refinitiv had an estimated revenue of over \$6 billion, compared to revenue at just over \$800 million for MA. The size of some of MA's competitors gives MA a potential disadvantage.

### Opportunities

There are several opportunities for MA in emerging markets across the world. The biggest opportunities seem to be in the ratings business right now for Moody's. For example, in China Moody's Corporation owns 30% of the country's largest Chinese rating agency, named CXXI. The company has 39% coverage in China as of Dec 2018. China announced in 2017 that it would allow foreign rating agencies to provide rating services. MIS currently has an application in progress. These opportunities can build relationships that may allow MA to get a larger share of the Chinese market (Moody's Corporation, 2017).

Another source of opportunities for MA comes from their acquisition of BvD. The addition of BvD's customer base increased EMEA (Europe, Middle East, and Africa) revenue by approximately 25%. This gives MA a stronger footing in the region, allowing them to offer their products in addition to BvD's products in the region.

The BvD acquisition also provides exciting opportunities to new customer segments. While MA's main customers are financial institutions, 72% of BvD's customers are not financial institutions. This gives MA opportunities to diversify their customer base.

Lastly, the shift in demand towards software as a service (SaaS) creates new opportunities to develop technology and creates a source of recurring revenue less dependent on the strength of credit markets. The acquisition of BvD helped increase this trend for MA. Recurring revenue increased from 78% to 84% from 2017 to 2018 in MA, largely due to the BvD acquisition

### Threats

There are several threats in the credit rating industry, which affect MA due to affecting Moody's Corporation's free cash flows. One such threat is political uncertainty causing volatility in credit market. For example, Brexit and the US-China trade dispute have both caused uncertainty in the credit market.

Conflicts of interest in the rating industry also threaten Moody's operations. The Annual Report on Nationally Recognized Statistical Rating Organizations notes that the "issuer-pay" model is subject to a potential conflict in interests since it may incentivize credit rating agencies to boost ratings to keep or gain issuers as clients (Securities and Exchange Commission, 2017). As noted earlier, this conflict of interest has led to issues in the past. In 2017 Moody's paid a \$863 million settlement charge due to not adhering to their standards in the 2000s, leading to inflated ratings and contributing to the subprime mortgage crisis ("Justice Department and State Partners Secure Nearly \$864 Million Settlement", 2017).

The risk of "issuer-pay" has similar conflicts of interest with MA. If clients pay for non-rating services, a credit rating agency may be incentivized to give higher ratings to retain them as a client for both ratings and non-ratings services. There is evidence that this potential conflict of interest may result in inflating ratings. A 2017 study of the bond market in India found that issuers that hire CR agencies for non-rating services rate higher and default more often than issuers that do not (Baghai and Becker, 2018).

### Moody's Analytics Purpose

"Moody's corporate mission is to be the world's most respected authority serving financial risk-sensitive markets" (Moody's Corporation, "Form 10-K", 2019).

Moody's Analytics contributes to the company and its mission in three primary ways:

1. MIS provides a source of recurring revenue that offsets the cyclicity of ratings issuances that affects the revenue of MIS.
2. MIS provides entry into emerging markets that may not be mature enough for debt capital for MIS.
3. MIS provides an avenue of growth for Moody's Corporation in a different industry from credit rating.

While there are some available avenues for growth, especially internationally, the credit rating industry is very mature. MA gives Moody's Corporation more opportunities for growth, as seen when comparing the revenue growth of MA to MIS. From 2008 to 2018 MA's revenue had a compound annual growth rate (CAGR) of 12% (55% organic), while MIS's revenue had a CAGR of 8.95% (Moody's Corporation, 2009; Moody's Corporation, "4Q and Full Year 2018 Investor Presentation", 2019).

Finally, Moody's Analytics lists its mission, vision, and values:

Our Mission: Empowering our customers to make better, faster decisions.

Our Vision: To be the global leader in solving critical business problems.

Our Values: Customer focus, excellence, open mindset, and teamwork.

Ultimately, Moody's Analytics' goal is to strengthen Moody's Corporation by providing avenues of growth, along with providing stability by offering its clients tools for effective decision making.

### Shareholder and Financing Strategies

Moody's Corporation is publicly traded under the ticker MCO. Moody's repurchases shares and gives quarterly dividends to provide value back to its shareholders. From 2014-2016 Moody's repurchased an average of \$987 million shares per year, reducing the weighted average number of shares outstanding from 215 million to 191 million (Moody's Corporation, 2015). In the years 2017 and 2018, share repurchases were reduced to approximately \$200 million per year due to the DOJ settlement and the purchase of Bureau Van Dijk. In February 2019, an accelerated share repurchase was announced,

bringing expected share repurchases back up to approximately \$1 billion. Moody's has also consistently increased dividends for shareholders. Total dividends have increased every year since 2009, at a CAGR of 18% (Moody's Corporation, "4Q and Full Year 2018 Investor Presentation", 2019; Business Insider, 2019).

Moody's has a history of using debt financing. Moody's 2018 net debt was \$3.8 billion, 1.8x Moody's net operating income. Most recently, Moody's used \$2 billion in debt financing along with \$1.5 million in cash to acquire Bureau Van Dijk (Moody's Corporation, 2017).

## Recommendation Goals

Based on the mission of MA to be "the global leader in solving critical business problems," the role of MA in being a stable source of recurring revenue and growth in Moody's Corporation, and the job of Moody's Corporation in providing value to stakeholders, three evaluation criteria are established for judging a strategy:

1. How does the strategy improve MA's offerings to businesses?
2. How does the strategy increase operating margin?
3. How does the strategy give value to shareholders?

Possible alternatives

1. *Continue with the current strategy of MA.* MA's strategy has been to build its position in its products by both making strategic investments to increase its offerings and reach, while also internally developing products. To this point, this strategy has worked out fairly well. There is evidence that MA's offerings have improved, as MA has added more products over the years and customers are willing to upgrade features at a cost (use number from financials).
2. *Reduce share repurchases and/or dividends, use these funds to more aggressively pursue R&D, acquisitions, and strategic partnerships for MA.* This strategy is quite similar to strategy 1), however, instead of using \$1 billion for share repurchases, approximately \$800 million would be used toward either expanding R&D teams, or be added to cash reserves to be used in future acquisitions, while approximately \$200 million would continue to be used for stock repurchases to keep the shares outstanding constant. This could fulfill requirement 1) more since more capital would be used to improve products, and 2) could be improved by increased synergies. For example, the recent Bureau Van Dijk acquisition is expected to create \$80 million in synergies by 2021 for Moody's.

However, there would be restructuring expenses, and challenges from integrating multiple cultures on one team. Also, many investors would like to have value returned to them in the form of stock repurchases.

3. *Spin off Moody's Analytics from Moody's Corporation*

This option is interesting, but also the least likely to happen. Benefits from this would include a decreased chance of conflict of interest due to the Agency problem of selling MA products to issuers. Additionally, while MIS is in a very mature industry, MA is still going through solid growth. While the ideas MA's growth and MIS returning money to stakeholders in the form of dividends and stock repurchases are not mutually exclusive, both companies do have goals that differ. Ultimately, it seems unlikely that the benefits from spinning of MA would be greater than the cost of restricting, paired with the loss of synergy from the two companies in the cash flows from MIS and the recurring revenue from MA.

## Strategic Recommendation

Moody's Corporation should pursue option two for Moody's Analytics; they should reduce share repurchases in order to invest more in R&D and acquisitions. One of Moody's biggest strengths is the

cash flows from MIS, with Moody's free cash flows totaling approximately 1.3 billion in 2018. However, using \$1 billion of this over the next year for share repurchases may limit opportunities for investment in future growth of Moody's Analytics.

MA has grown significantly since its creation in 2008, and there are several opportunities for growth that have arisen in recent years. MA has grown significantly internationally; the acquisition of Bureau Van Dijk grew MA revenue by 14%, and provides several opportunities for growth in Europe and other regions. Additionally, while MA's main customers have historically been financial institutions, Bureau Van Dijk provides opportunities to extend MA's reach to different market categories.

There are many opportunities that exist for MA, and leveraging more of Moody's cash toward strategic investments will better lead them toward their vision: *To be the global leader in solving critical business problems.*

## Implementation Plan

1. Identify opportunities for acquisition
2. Reduce planned share repurchases from \$1 billion to \$200 - \$400 million, depending on market conditions
3. Use extra cash, in addition to leveraging debt financing, to hire additional talent and acquire companies that strengthen MA's position in the market

The first step to this plan is identifying opportunities for acquisition or additional R&D opportunities. While this paper does not identify potential acquisition targets, attractive opportunities should be able to enhance MA's current offerings, while also providing opportunities in adjacent markets. Moody's already identifies potential targets, however this strategy may allow Moody's to more aggressively pursue larger targets.

The next step would be reducing planned share repurchases from approximately \$1 billion to \$200 - \$400 million, depending on market conditions. \$200 million is the approximate amount needed to buy back all shares given as compensation. Allowing with up to \$400 million in repurchases allows Moody's to still return value to shareholders in the form of share repurchases, but it increases cash flows able to be used for acquisitions by \$600 - \$800 million annually.

The final step would be to use the additional cash to hire additional talent and acquire companies to strengthen MA's position. By acquiring complementary companies and adding to MA's offerings, MA can provide more value to their customers, helping to gain more customers and being able to offer more to existing customers.

## Conclusion

Moody's Corporation's has several major strengths in Moody's Investors Services, making large amounts for the company. While significantly less mature, Moody's Analytics has also been successful for Moody's Corporation, and has several opportunities for growth. Moody's Corporation should utilize the company's strengths in its cash flows to drive further growth in Moody's Analytics.

## Works Cited

- Baghai, R. P., & Becker, B. (2018). Non-rating revenue and conflicts of interest. *Journal of Financial Economics*, 127(1), 94-112.
- Bloomberg on the Forbes America's Best Employers List. (2018). Retrieved from <https://www.forbes.com/companies/bloomberg/#798f6c3774a1>
- Financial Crisis Inquiry Commission. (2011). *The financial crisis inquiry report: The final report of the National Commission on the causes of the financial and economic crisis in the United States including dissenting views*. Cosimo, Inc..
- Justice Department and State Partners Secure Nearly \$864 Million Settlement With Moody's Arising From Conduct in the Lead up to the Financial Crisis. (2017, March 17). Retrieved from <https://www.justice.gov/opa/pr/justice-department-and-state-partners-secure-nearly-864-million-settlement-moody-s-arising>
- Krugman, P., & Wells, R. (2010). *World Economic Outlook, April 2009: Crisis and Recovery*. International Monetary Fund.
- Moody's Corporation (2008). 2007 Annual Report. Retrieved from [https://s21.q4cdn.com/431035000/files/doc\\_financials/annual/1001187668.pdf](https://s21.q4cdn.com/431035000/files/doc_financials/annual/1001187668.pdf).
- Moody's Corporation (2009). 2008 Annual Report. Retrieved from [https://s21.q4cdn.com/431035000/files/doc\\_financials/annual/1001187670.pdf](https://s21.q4cdn.com/431035000/files/doc_financials/annual/1001187670.pdf).
- Moody's Corporation (2015). 2014 Annual Report. Retrieved from [https://s21.q4cdn.com/431035000/files/doc\\_financials/annual/1500069041.pdf](https://s21.q4cdn.com/431035000/files/doc_financials/annual/1500069041.pdf).
- Moody's Corporation (2017). *Moody's Acquisition of Bureau van Dijk*. Retrieved from [https://s21.q4cdn.com/431035000/files/doc\\_presentations/2017/05/BvD-Investor-Webcast-Presentation-vFINAL.pdf](https://s21.q4cdn.com/431035000/files/doc_presentations/2017/05/BvD-Investor-Webcast-Presentation-vFINAL.pdf).
- Moody's Corporation. (2001). 2000 Annual Report. Retrieved from [https://s21.q4cdn.com/431035000/files/doc\\_financials/annual/1001187665.pdf](https://s21.q4cdn.com/431035000/files/doc_financials/annual/1001187665.pdf)
- Moody's Corporation. (2019). 4Q and Full Year 2018 Investor Presentation. Retrieved from [https://s21.q4cdn.com/431035000/files/doc\\_presentations/2019/4Q-FY-2018-Investor-Presentation-vFinal.pdf](https://s21.q4cdn.com/431035000/files/doc_presentations/2019/4Q-FY-2018-Investor-Presentation-vFinal.pdf)
- Moody's Corporation. (2019). *ESG Focus, April 2019*. Retrieved from [https://www.moody.com/researchdocumentcontentpage.aspx?docid=PBC\\_1170097](https://www.moody.com/researchdocumentcontentpage.aspx?docid=PBC_1170097).
- Moody's Corporation. (2019). Form 10-K. Retrieved from <http://d18rn0p25nwr6d.cloudfront.net/CIK-0001059556/9f1d8328-72fb-444c-8adc-82c8f0562039.pdf>
- Moody's Analytics: About Us. (2019). Retrieved from <https://www.moodyanalytics.com/about-us>
- Moody's Corporation (MCO) Stock Price, Quote, History & News. (2019, April 29). Retrieved from <https://finance.yahoo.com/quote/MCO/>.
- Moody's Corporation History. (n.d.). Retrieved from <https://www.moodyanalytics.com/about-us/history>.

Moody's Hikes Dividend; Announces \$500 Mln Accelerated Share Buyback | Markets Insider. (2019). Retrieved from <https://markets.businessinsider.com/news/stocks/moody-s-hikes-dividend-announces-500-mln-accelerated-share-buyback-1027956540>

Securities and Exchange Commission. (2017). Annual Report on Nationally Recognized Statistical Rating Organizations. Retrieved from <https://www.sec.gov/ocr/reportspubs/annual-reports/2017-annual-report-on-nrsros.pdf>

Stafford, P. (2018, October 02). Refinitiv aims to spend to take on Bloomberg. Retrieved from <https://www.ft.com/content/ed3bc55e-c490-11e8-8670-c5353379f7c2>

Sylla, Richard. "An historical primer on the business of credit rating." Ratings, rating agencies and the global financial system. Springer, Boston, MA, 2002. 19-40.