

MOODY'S CORPORATION (MCO)

April 13, 2024

Credit Bureaus and Rating Agencies

Stock Rating

Hold

Investment Thesis

Moody's Corporation stands out as a market leader, holding a dominant position in the tightly concentrated credit rating industry, not only within the USA but on a global scale. We recommend a HOLD rating on Moody's with a price target range of \$409 - \$419, representing a potential upside of 11%.

Drivers of Thesis

- Reignition of Debt issuances and Initial Public Offerings⁷ (IPOs) in the wake of strong equity market activities and lower interest rate expectation.
- Moody's Analytics business has proven to be a major diversifier, supporting the credit rating giant in times of economic downturn. We expect the MA segment to grow by 14.7% CAGR over 10 years.
- Moody's financial statement is historically robust and is supported by high return ratios, which enables the company to pursue strategic acquisitions, expand margins and meet shareholder dividend expectations (10% hike YoY).
- Moody's has consistently returned an average of 50% on capital invested and is expected to remain on this trajectory, given its market positioning and drive to maintain market leadership.

Risks to Thesis

- The resurgence of optimism surrounding debt and IPO activities may be dampened in a sustained higher-for-longer interest rate environment.
- The credit rating industry operates within a stringent regulatory framework, indicating that any alterations in regulations have the potential to significantly reshape the business landscape.
- Financial institutions and government agencies can develop their analytical method to calculate credit worthiness of debtors and (or) debt instruments.

Target Price

\$409 - 419

Henry Fund DCF	\$419
Henry Fund DDM	\$306
Relative Multiple	\$367

Price Data

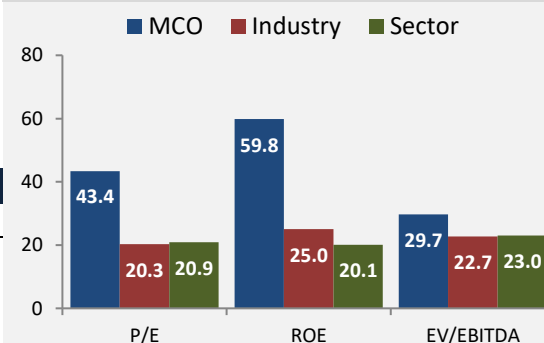
Current Price	\$377.16
52wk Range	\$278.2 – 407.62
Consensus 1yr Target	\$400.50

Key Statistics

Market Cap (B)	\$73.13
Shares Outstanding (M)	183.00
Institutional Ownership	94.30%
Beta	1.36
Dividend Yield	1.40%
Est. 5yr Growth	15.00%
Price/Earnings (TTM)	43.40
Price/Earnings (FY1)	30.31
Price/Sales (TTM)	12.10
Price/Book (mrq)	20.70

Profitability

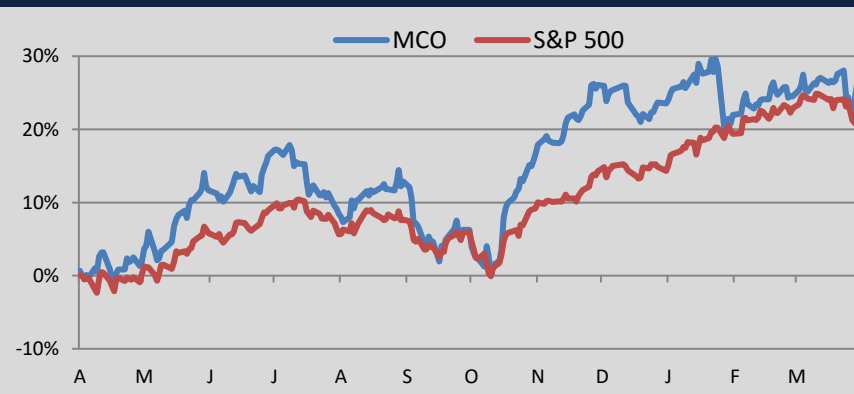
Operating Margin	36.52%
Profit Margin	27.80%
Return on Assets (TTM)	11.21%
Return on Equity (TTM)	59.80%



Earnings Estimates

Year	2021	2022	2023	2024E	2025E	2026E
EPS	\$11.88	\$7.47	\$8.77	\$10.69	\$12.38	\$14.34
HF est.				\$10.68	\$12.29	\$14.61
Growth	25.31%	-37.12%	17.40%	19.50%	14.69%	18.72%

12 Month Performance

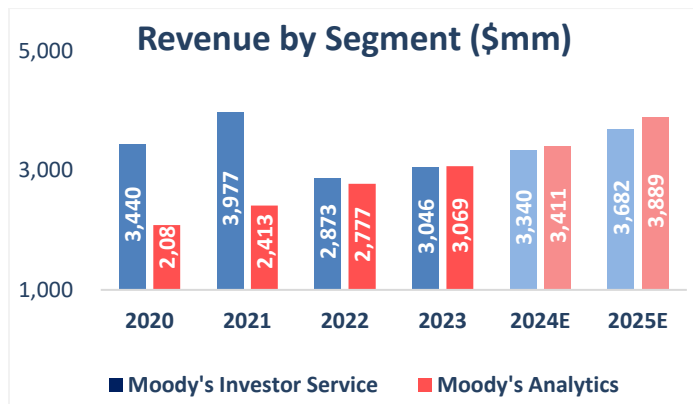


Company Description

Moody's corporation is a credit rating and risk management company with established market leadership within the US and on a global scale. Moody's operates a diversified business model that integrates credit rating (Moody's Investor Services) and data analytics (Moody's Analytics) solution to aid businesses, financial institutions, government agencies and special purpose entities. The rating agency, with over a century of experience, is headquartered in New York, NY and commands a 16.3% market share in the industry.

COMPANY DESCRIPTION

Moody's Corporation is a US-based Rating Agency with strong presence in the global capital market. The century old market leader operates through two broad segments - Moody's Investor Service and Moody's Analytics.



Source: Moody's 10k, HF Research

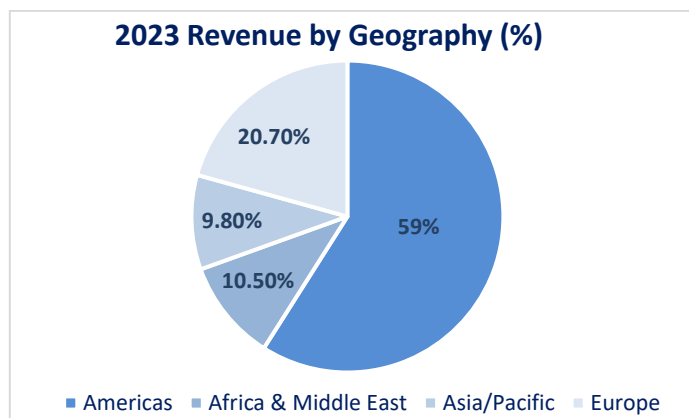
Moody's Investor Services (MIS) assesses creditworthiness of issuers and debt instruments, publishes credit rating based on its assessment and continually checks to ensure creditworthiness is maintained. MIS serves a diverse clientele, covering a broad range of debt issues, corporations, and government agencies in both local and international capital markets. The MIS segment specializes in issuances within corporate finance, structured finance, public project, and infrastructure finance, and financial institutions³.

Moody's Analytics on the other hand, is a software solution segment that leverages many decades of data gathering across global capital markets to provide valuable insights in areas of financial analysis, risk management, research, and decision management. Major areas of expertise for the MA segment include – Data and Information, Research and Insights, and Decision Solutions².

The \$73.13bn market cap company raked in \$5.92bn in revenue whilst retaining 36.12% and 27.18% in Gross profit and Net profit, respectively in 2023². Moody's return on equity during 2023 was an impressive 59.80% with a strong institutional ownership of 93.70%³, signaling confidence from major investors.

In the credit rating industry, Moody's controls 16.30% of market share, second only to Experian Plc (18.40%)⁷. The

century old rating agency diversifies its business with an analytics component that provided a shield against the backdrop of debt issuance and capital market activities in 2023.



Source: FactSet

In 2023, Moody's domestic operations accounted for 52.54% of total revenue, while international dealings contributed 47.46%. In the MIS segment, domestic revenue totaled 60.54% amidst the drag on capital market activities, while international capital markets contributed 39.46% of the credit rating revenue. On the other hand, revenues from international operations (55.25%) dominated the MA segment².

In line with management guidance, we expect overall revenue to grow by 14.00% in 2024 FYE. Our revenue forecast was premised on projecting 9.70% growth for the MIS segment and 11.20% growth in the MA segment. We believe Generative AI capabilities will accelerate growth in the MIS segment, alongside improvement in capital market activities. Similarly, we believe the analytics segment will continue to leverage Moody's robust database and AI enabled software to fill strong market demand for tools to better manage risk and to digitize and transform workflows across financial and non-financial industry groups.

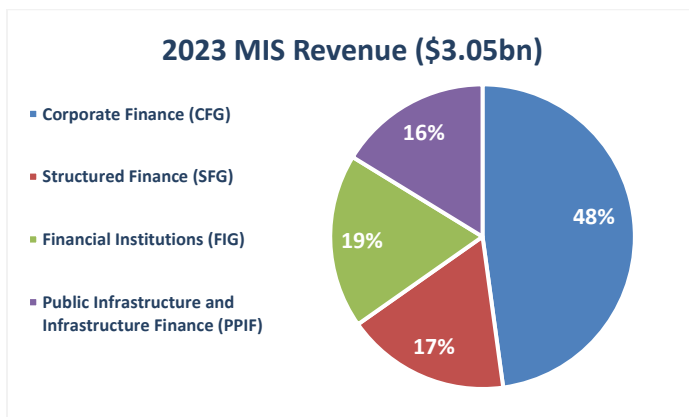
Geographically, we believe domestic operations will continue to dominate Moody's revenue in the near to medium term. Although, we anticipate international operations will continue to scale at a sustainable rate, especially in the EMEA and Americas. We expect Moody's Investor Service to grow its US and International businesses at a CAGR of 7.95% over the 10-year forecast horizon. Meanwhile, Moody's Analytics is forecasted to expand topline from international and domestic businesses at 14.73% CAGR.

Moody's Investor Services

Moody's Investor Services (MIS) is a credit rating agency that publishes credit reports and ratings on corporations, government, and debt securities across global capital markets. The MIS segment consists of four main sub-segments – Corporate Finance, Structured Finance, Financial Institutions and Public Infrastructure and Infrastructure Finance.

Industry wide, credit rating agencies (CRA) saw a declining business environment from the beginning of the battle against inflation in March 2022 through the end of 2023. IPO activities slowed significantly from 397 offerings in 2021 to 71 in 2022, although there was an uptick in IPO activities in 2023 with 108 offerings valued at \$19.4bn⁷. Debt issuers across all sub-segments played mostly on the sidelines, especially due to high and rising cost of debt during the period under review. Rating fees paid by debt issuers account for most of the revenue of MIS². Therefore, a substantial portion of MIS's revenue is dependent upon the dollar-equivalent volume and number of ratable debt securities issued in the global capital markets².

In the MIS segment, corporate finance group (CFG) sub-segment took the biggest hit in terms of revenue growth. CFG Revenue slid by 39.2% in 2022 before rebounding moderately in 2023 by 10.6% largely due to legacy economic factors, the biggest being interest rate hike by the Fed. Revenue from the Financial Institutions declined by 18.4%, Structured finance also slowed by 17.5% and Public infrastructure and infrastructure finance sub-segment shed 17.3% YoY.



Source: Moody's 10k, HF Research

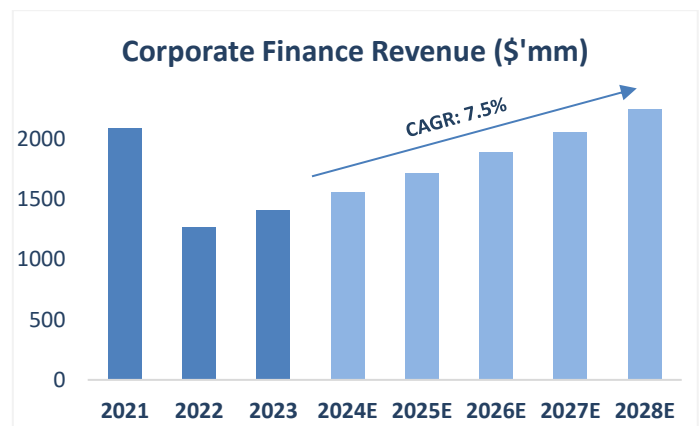
By and large, overall topline decline in the Moody's Investor Services segment printed at 6.02% YoY in 2023,

up from the 27.76% decline recorded in 2022. It was a brutal year for credit rating agencies, especially because the need to perform credit assessment and rating on debt issues slowed significantly. Through 2023, record high interest rates kept corporate issuers on the sidelines and thus dampening growth outlook and performance during the year. However, the later part of 2023 was filled with enthusiasm as Fed held rates steady during the last two meetings, signaling the end to the rate hike regime. Coming into 2024, we are considering at least four-to-six rate cuts towards the second half of the year and thus expect a rebound in capital market activities. This would mean more business for the MIS segment domestically and gradually on the global scale.

Corporate Finance (CFG)

The Corporate Finance segment of Moody's Investor Services provides credit rating, reporting, and monitoring services for Investment grade issuance, High Yield debt instruments and large Bank loans. This segment has strong correlation with deal activities in the corporate debt market. Corporate issuers generally pay Moody's to conduct extensive research and analysis on their financial health and thereafter, issue a credit rating upon which the debt issue would be priced.

The fee structure for corporate finance clients ranges from \$1,500 to \$2.4mm, depending on the complexity of the debt instrument and the depth of analysis needed to adequately assign a credit rating.



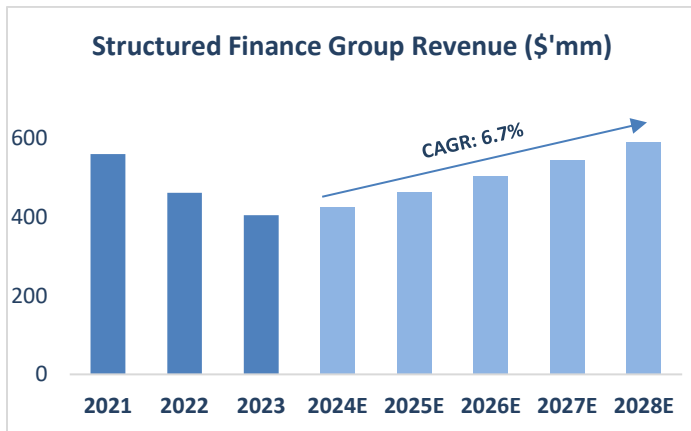
Source: Moody's 10k, HF Research

In 2023, the corporate finance segment recovered from a massive decline in revenue (-39.2%) during 2022. CFG's topline grew by 10.6% to \$1.40bn during 2023, up from \$1.27bn. The drawdown in 2022 was tied to the quiet debt market, thanks to record high interest rates. For additional context, Investment grade issuances dipped from \$1.47trn

in 2021 to \$1.27trn while High yield issuances slid from \$486.9bn in 2021 to \$112.3bn¹⁰. However, Investment grade obligations recovered moderately to \$1.26trn in 2023, while High yield issuances improved to \$183.6bn¹⁰. We believe CFG’s revenue will expand by 11% and 10% in 2024E and 2025E FYE. The growth forecast is premised on resurging debt market and the anticipation of Fed rate cut, especially in the second half of 2024.

Structured Finance (SFG)

The Structured Finance segment of MIS focuses on credit rating and reporting services for issuances in the Asset Backed Securities (ABS) market, Residential Mortgage-Backed Securities (RMBS) and Collateralized Mortgage-Backed Securities (CMBS) domain, and Structured credit market. This segment took a hit in 2022 and 2023 owing to inactivity in the mortgage lending business. CMBS issuance tanked by 73% in 2022 from \$137.2bn to \$36.6bn, and further down by 41% to \$21.7bn in 2023¹⁰. Similarly, issuances in the RMBS market shrank by 93% from \$271.7bn in 2021 to \$18.1bn in 2022, and further down by 37% to \$11.4bn in 2023¹⁰.



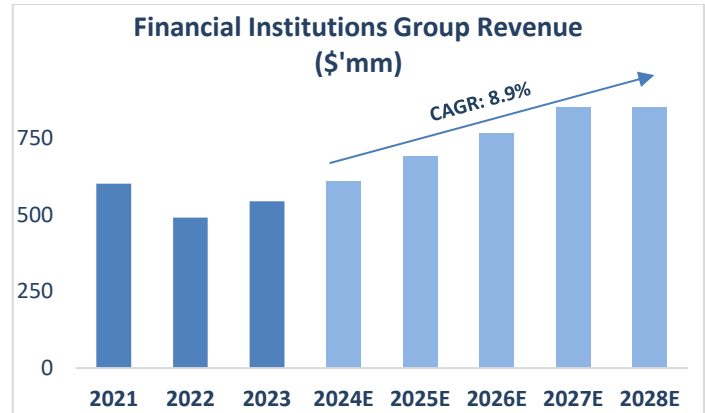
Source: Moody’s 10k, HF Research

As a result, all product lines in the structured finance group took a cut in revenue in 2022 and 2023, respectively. Topline for the SFG group slid by 17.5% in 2022 and further down by 12.3% in 2023. Our projections for the SFG group are also premised on economic recovery and Fed rate cuts. We project a 5% revenue growth for the 2024E FYE and a 7.2% CAGR throughout the forecast horizon.

Financial Institutions (FIG)

The Financial Institutions group of MIS provides credit rating and reporting services to Banking, Insurance and Managed Investments. The FIG segment recorded sizable losses across subsegments in 2022, amounting to a

segment topline decline of 18.4%. Business improved for Banks and Insurance firms in 2023, at least moderately. In fact, Banking and Insurance issuers were the most active in terms of new issuances, second only to government obligations⁷. Moody’s FIG segment in turn grew its topline by 11% in 2023. Notable Banking subsegment contributed mostly to the growth seen during 2023, despite unfavorable rate environment.

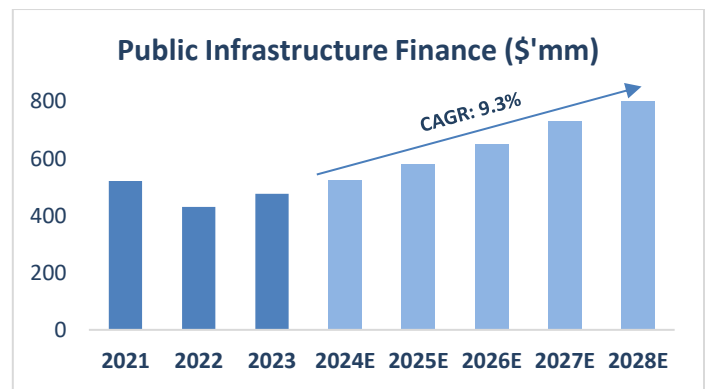


Source: Moody’s 10k, HF Research

Our revenue projections for the Financial Institutions group in 2024E printed at 12%, while we expect the segment to grow by 8.54% on a CAGR basis over the forecast horizon.

Public Infrastructure Finance (PIIF)

Public Infrastructure and Infrastructure finance (PIIF) is a segment of MIS that provides credit rating and reporting services to sovereign issuers and public projects. This segment is important to MIS international business, especially due to facilitation of local and international capital markets. The PIIF segment provides rating services for new issuances, and monitoring of ongoing debt obligations mostly in the public sector within the US and internationally.



Source: Moody’s 10k, HF Research

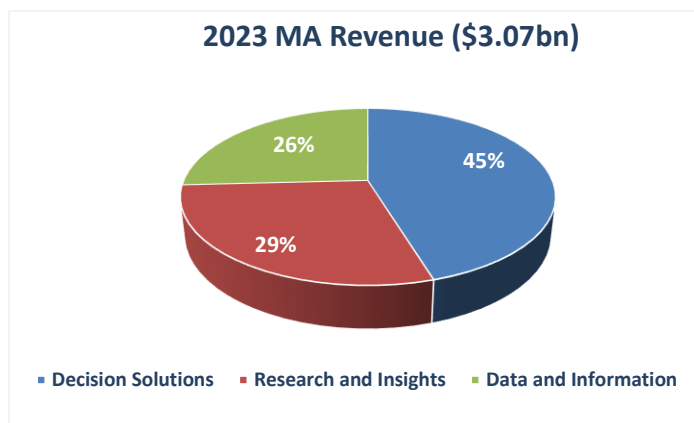
In light of global anticipation of market recovery, we see the PPIF segment growing revenue by 10% in 2024E and 8.74% on CAGR basis over the forecast horizon.

Moody's Analytics

Moody's Analytics (MA) is a global provider of data, offering a comprehensive suite of data, research, and decision solutions to guide clients through the intricate landscape of diverse risks. Moody's Analytics combines data, analytics, and cloud-based software tools to deliver integrated solutions that help customers initiate business relationships, monitor, and manage risk, as well as complying and reporting based on globally applicable laws, rules and regulation. The MA segment empowers financial services, corporate, and public sector customers to anticipate risks, adapt and thrive in a new era of exponential risk².

The MA segment is strategically divided into three dynamic groups – Decision solutions, Research and Insights, and Data and Information.

In 2022, the MA segment saw a 15.1% growth in topline with a big portion of the growth driven by the Decision Solutions subsegment. This growth not only acted as a buffer for the MIS segment but also played a pivotal role in mitigating the overall decline in revenue to 12% YoY. In 2023, the MA segment grew by 10.5%, mostly attributable to growth in the Research and Insights subsegment. We believe strategic partnership, especially the most recent collaboration with Microsoft to deploy generative AI capabilities across all business segment, but most importantly to enhance user experience in research, risk assessment, data, and risk management will continue to drive growth in the MA segment.



Source: Moody's 10k, HF Research

The MA segment over the years has generated recurring revenue with a high retention rate and high potential for upselling by leveraging Moody's proprietary data, research, and analytics to deliver solutions that address current business needs.

Our projections for MA growth in 2024E printed at 11.2% and a CAGR of 14.73% over the forecast period. We expect the MA segment to continue serving as a major diversifier to the MIS segment, largely because of the continuous shift to Data Insights and Decision Solutions software.

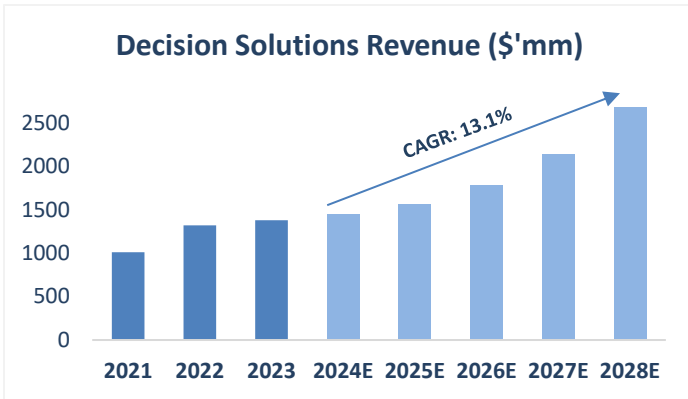
Decisions Solutions

The Decision Solutions subsegment of Moody's Analytics thrives in developing and providing tools, products and services that enhance risk management for mostly institutional participants in the global financial markets. The Decision Solution subsegment provides subscription-based software solutions spanning underwriting, portfolio management, regulatory compliance, lending and origination, investment analysis, and ESG & Climate assessment.

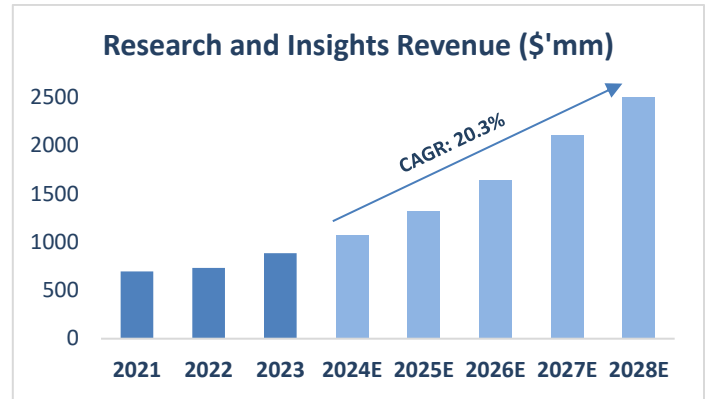
MA's Decision Solutions business combines SaaS, API, and Machine learning capabilities to provide critical business analytics to credit companies, real estate firms, securities dealers, economic analysts, and asset managers. The decision solutions segment taps from over 4800+ client base across 160 countries globally² to steadily scale operations both domestically and internationally.

In 2023, decisions solution's topline grew by 4.5%, following 2022's 31% growth. The growth was primarily driven by continued demand for Know Your Customer (KYC) solutions reflecting increased counterparty risk data usage, including new sales growth from corporates, governments, and insurers. subscription-based revenue for actuarial modeling and regulatory reporting tools that support customers' compliance with certain international accounting standards relating to insurance contracts also contributed to revenue expansion².

With decision solutions representing the largest chunk of the MA basket with strong presence internationally, we expect revenue to grow at a CAGR of 15.9% over the forecast horizon. We also expect the Decision solution segment to be the major driver of growth in the MA basket.



Source: Moody's 10k, HF Research



Source: Moody's 10k, HF Research

Research and Insights

Research and Insights is a premier fixed income and economic research arm of the MA basket. This segment provides subscription-based services to institutional players in the financial market across the globe. The business focuses on Economic forecasts, models, intelligence gathering, financial market research, and analytics. Leveraging on longstanding relationship with key industry players, decades of proprietary data collection, and reputation in the credit and risk assessment domain, the Research and Insights segment provides corporations with insights and analytics on global business atmosphere, financial health and risk scores of corporations, industries, and sovereign.

The research and insights segment of MA delivered a 20.6% topline growth in 2023, most of which was generated in the US. Recurring transactions accounted for 98% of generated revenue while non-US revenue represented 45% of the total segment's revenue². The Driver of growth in this segment according to Moody's remains increased demand for credit default models and economic analytics and steady sales growth from the CreditView product offering. We expect Research and Insights to grow by 15.7% over the forecast horizon.

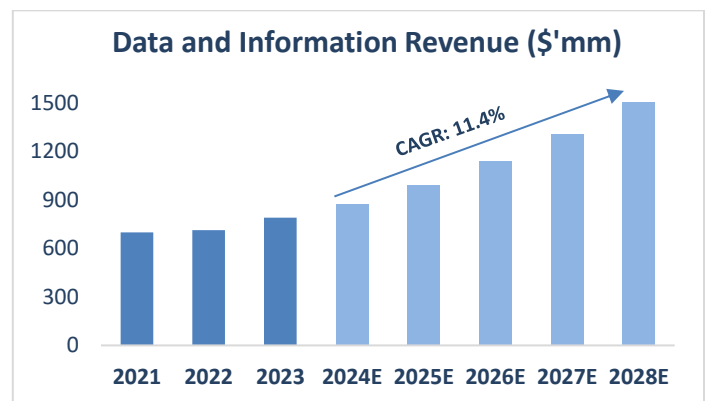
Our growth estimate was premised on the opportunities in sight for the newly launched Generative AI Research Assistant product line.

We believe that the integration of the first Generative AI enabled research platform on a commercial scale (Dec 1, 2023)² will continue to provide significant growth potential for the MA segment at large.

Data and Information

The Data and Information segment of Moody's analytics combines decades of domain expertise with best-in-class risk analytics to provide forward-looking, location specific, climate risk data and transparent ESG insights to diverse groups of clients.

The Data and Information subsegment focuses on credit risk data for MIS related products, entity data solution for detailed corporate ownership, commercial real estate data for players in the US real estate domain, and climate risk data for organizations to make better and more sustainable corporate decisions.



Source: Moody's 10k, HF Research

In 2023, Data and Information segment saw a topline growth of 10.8% , largely driven by strong retention and

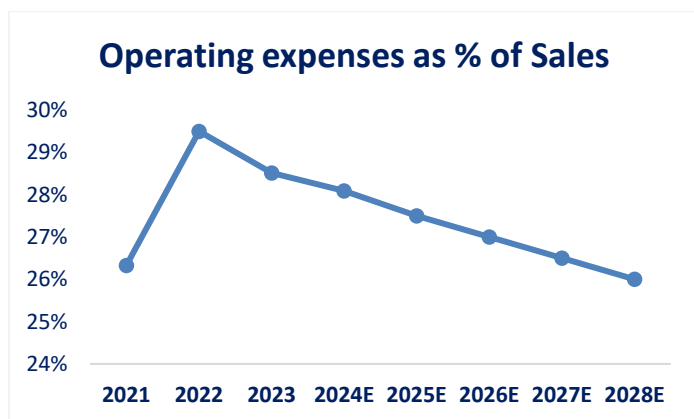
new sales for ratings feeds, higher price realization, and increased demand for company data. We projected a CAGR of 11.2% over the forecast horizon on the back of management guidance and growth potential in sight. Our projections were premised on management guidance to continue enhancing and expanding the massive company database in important ways to create valuable early warning signals for clients and address the increasing demand for third-party risk management.

Additional Company Analysis

Cost Structure

Operating Expenses: Moody's defined operating expenses as costs associated with the development and production of the company's products and services, and their delivery to customers. These expenses generally include employee compensation and benefits, and travel costs that are incurred in connection with delivery of services².

In 2023, operating expenses represented 28.5%² of the revenue generated and 45%² of total operating expenses. Drivers of operating expenses for the 2023 FYE were increases in incentive compensation accruals and performance-based equity compensation that aligns with actual/projected financial and operating performance, and higher salaries and benefits reflecting hiring and salary increases, particularly in the MA segment².



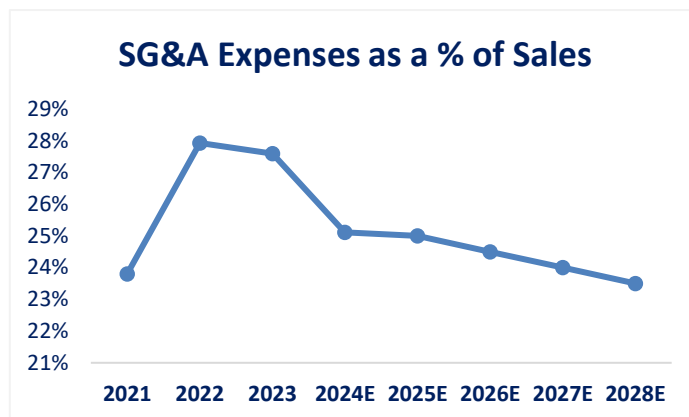
Source: Moody's 10k, HF Research

Non-compensation part of operating expenses remained in line with the prior year, reflecting discipline in cost management. We have forecasted operating expenses to grow in line with expansion in revenue whilst staying relatively within historical band of 25% - 29%. Over the

forecast horizon, we expect operating expenses to grow by 12% CAGR.

Selling General and Administration Expenses

Selling, General and Administrative (SG&A) expenses include such items as compensation and benefits for corporate officers and staff and compensation and other expenses related to sales². They also include items such as office rent, business insurance and professional fees. In 2023, SG&A expenses represented 27.5% of revenue and 43% of total expenses for the period.



Source: Moody's 10k, HF Research

We believe SG&A expenses will remain relatively stable at historical band of 23% - 27%. Over the forecast horizon, we expect SG&A expenses to grow at 11.8% CAGR.

Debt Maturity Analysis

The total outstanding debt of Moody's as of the end of 2023 FYE printed at \$7.0bn and approximately \$1bn of additional capacity available under the Company's Commercial Paper program, which is backstopped by the \$1.25bn 2021 Facility². Future interest payments and fees associated with the Company's debt and credit facility are expected to be \$5.0bn, of which approximately \$300mn is expected to be paid in each of the next five years, and the remaining amount expected to be paid thereafter².

Management noted that they may consider pursuing additional long-term financing for operational, strategic and share repurchase purposes as they deem fit. Moody's is rated BBB+ by S&P global incorporation, compared to FICO and TRU with BB+, and Equifax with BBB rating, all by S&P.

Year	USD debt Maturity (\$'bn)	EUR Debt Maturity (\$'bn)
2025	700	-
2027	-	552
2028	500	-
2029	400	-
2030	-	829
2031	600	-
2032	500	-

Source: Moody's 10k

MCO has remaining payments related to its operating leases of \$442mn as at FYE 2023, primarily related to real estate leases, of which \$118mn in payments are expected over the next twelve months. No significant contribution is expected to be made to the funded pension plan in the next twelve months, largely because the plan is overfunded as at FYE 2023². In our view, Moody's does not face any material risk in terms of servicing future debt or obtaining additional facilities both near and long term. For context, Moody's generated \$1.2bn and \$1.8bn free cash flow in 2022 and 2023, respectively. This highlights Moody's financial strength to service existing near and long-term obligations.

Sustainability and Social Responsibility

Sustainability, societal impact, and responsible governance constitute the core pillars of Environmental, Social, and Governance (ESG) evaluation, crucial factors in assessing the enduring value and societal footprint of an investment in an enterprise. These metrics not only offer insights into a company's future financial trajectory but also gauge its risk exposure.

The ascendancy of ESG considerations in investment decision-making is a direct response to evolving investor expectations, shifting societal perspectives, and a regulatory landscape in flux. These dynamics collectively propel the surge in ESG-focused investments. Consequently, there is a burgeoning demand for ancillary services such as comprehensive data analytics and rating services. Pioneering companies, exemplified by Moody's Corporation, have proactively enhanced their ESG capabilities. Moody's has strategically fortified its position through strategic acquisitions, demonstrating a commitment to meeting the growing needs of an ESG-centric investment landscape.

Company	ESG Score	Rating
S&P Global	5.66	Leading
Moody's	4.72	Leading
TransUnion	4.72	Leading
Experian	3.97	Leading
Equifax	2.75	Above Median
FICO	1.97	Below Median

Source: Bloomberg

According to Bloomberg, Moody's is a leading player in the credit rating industry with a 4.72 ESG score, second only to S&P Global Incorporation. In February 2024, Moody's received three recognitions from JUST Capital and CNBC (second consecutive year), Dow Jones Sustainability Index (second consecutive year) and CDP 2023 Climate Change "A" list (fourth consecutive year) for sustainable business practices and continued progress towards sustainability commitments. Moody's also supports sustainability efforts through its corporate social investing arm, as it recently announced partnership with four new non-profit partners across emerging markets.

Moody's is not only ESG compliant, but also integrates ESG and climate considerations into insights and adaptable solutions. The credit rating veteran leverages longstanding record in credit risk analysis, deep ESG domain expertise and innovative technologies to address evolving business needs and inform responsible investing decisions.

RECENT DEVELOPMENTS

Technological Integration

Major players in the credit rating industry are strategically embracing emerging technologies, notably artificial intelligence, and big data analytics, to optimize and enhance service quality. This industry-wide shift towards technological integration is instrumental in diversifying cyclical risks associated with economic fluctuations and the demand for credit services. Specifically, Moody's joined forces with Microsoft Azure in June 2023 to develop innovative products and services for research and risk assessment, leveraging the capabilities of Azure OpenAI Service. The partnership resulted in the creation of "Moody's CoPilot," an internal tool deployed across Moody's 14,000 global employees. This tool combines Moody's proprietary data, analytics, and research with

cutting-edge large language models (LLMs) and Microsoft's top-tier generative AI technology. The goal is to drive firm-wide innovation and boost employee productivity within a secure digital sandbox. Moody's also announced the launch of Mood's Research Assistant on December 1, 2023, a first-of-its-kind search and analytical tool powered by generative artificial intelligence (Gen AI)¹. This innovation represents the first Gen AI powered research tool commercially available for financial market participants to synthesize vast amounts of information so users can assess lending or investment opportunities, monitor developments, compare entities, and enhance analytical workflows rapidly and at scale.

We expect continued adoption of artificial intelligence and technological integration to not just aid Moody's rating operations but also provide other avenues to diversify and generate more revenue whilst improving margins.

Strategic Partnership

Major players in the credit rating industry are continually seeking strategic partnerships to retain competitiveness, especially with Generative Artificial Intelligence software providers. Moody's for instance partnered with Google Cloud to explore large language models (LLMs) and AI applications that provide faster and deeper proprietary insights internally and to financial market participants. In 2023, Moody's partnership with Microsoft birthed Moody's Copilot, an internal tool aimed at redefining analysis and assessment whilst improving employee productivity firm wide. Similarly, S&P announced partnership with Amazon Web Services (AWS) in February 2023. The partnership was aimed at enhancing S&P's cloud infrastructure, accelerating business growth and engineering new innovations for key industry segments.

Diversification of Services

In recent years, operators in the credit rating industry have opted to diversify traditional credit rating business by integrating advanced analytics and offering additional risk-related services. Moody's for instance, diversifies its traditional credit rating business by incorporating an

analytics segment that combines Gen AI capabilities with decades of experience in assessing risk for corporate and sovereign entities.

The analytics division, as previously discussed, played a crucial role in bolstering Moody's revenue and profits throughout 2022 and 2023. This period was marked by persistent inflation and interest rate challenges, leading to a downturn in capital market activities and a decline in credit rating revenue.

Management Team

Moody's announced that Mark Kaye will step down as Executive Vice President and Chief Financial Officer effective September 5, 2023, to join another firm. The credit rating veteran, however, named Caroline Sullivan, the Chief Accounting Officer and Corporate controller as the interim Chief Financial Officer whilst still maintaining her current responsibilities.

Moody's named Noemie Heuland as the new CFO to assume duties starting April 1, 2024. Noemie Heuland joined Moody's from Dayforce, a global human capital management software company where she served as Executive Vice President and CFO since 2020. The new CFO is vast in scaling high-growth, category leading public software companies both domestically and internationally.

This development is in line with Moody's effort to ensure continued funding and growth of its subscription-based analytics business and expand its rating footprint across the globe.

Industry Trends

Transparency and Independence

In recent years, regulators have consistently urged more transparency in the methods used by credit rating agencies and emphasized the need for their independence. The enactment of the Dodd-Frank Act marked a substantial change in the regulatory guidelines governing the activities of credit rating agencies. For additional context, the Dodd-Frank Act was enacted to

reinforce financial market regulations and prohibit reoccurrence of 2008 financial crisis. This shift aims to enhance the credibility of industry players and increase consumer trust. Additionally, notable failures in the banking sector have served as a catalyst for increased regulatory oversight of operations within the credit rating industry.

Regulators now place a greater emphasis on monitoring and evaluating the methodologies, practices, and internal controls of credit rating agencies. This heightened scrutiny is designed to identify and address potential vulnerabilities and risks that could have broader implications for the financial system. Issues of transparency and independence have in recent times fueled “Do it Yourself” discussions across the globe. If this concept continues to grow in popularity, Moody’s credit rating business would be significantly affected. Although, we do not expect the impact of DIYs to take effect in the near term.

Technological Advancement

Artificial intelligence (AI) and big data analytics are continuously changing how the credit rating industry operates. Given the data-centric nature of the industry, major players, particularly the leading four firms, are actively exploring ways to streamline processes and improve the accuracy of risk assessments. In the last quarter of 2023, Moody's collaborated with Google Cloud to leverage Generative AI applications, aiming to expedite data processing and enhance insights generation. Similarly, S&P Global Inc incorporated Generative AI search into its global data solutions platform, focusing on improving insights generation through natural language queries. This shift towards optimizing data and integrating AI is expected to redefine industry standards and ultimately increase demand.

Competitive landscape

The credit rating industry is tightly concentrated with the two biggest contenders – Moody’s and S&P Global striving hard to retain market leadership. Technological changes and dynamic consumer demand is rapidly lowering the barrier to entry and thus, increasing competition. Although, factors like decades of gathering proprietary data, market/investor preferences, industry standards and fierce regulation will be key cutting edge for major industry players. Continuous strategic acquisitions by the top firms in the industry corroborates the fierce

competition and drive to deliver accurate and credible assessment of risk and creditworthiness of securities, corporations, and sovereign issues.

Diversification of service offering

In recent times, credit rating agencies have been expanding their service portfolios to navigate economic downturns and adapt to challenging cycles within the rating business. Moody's, for instance, has incorporated data analytics into its credit rating operations, providing financial analysis, risk management, and valuable insights for institutional participants in the global financial market. This strategic adaptation not only bolsters the agencies' resilience but also positions them as proactive partners for financial institutions seeking robust solutions in dynamic market conditions.

PEER COMPARISON

Return Ratios Comparison:

To assess the performance of the credit rating industry, a peer comparison among key players offers valuable insights into their respective financial strengths.

Company	ROA (%)	ROE (%)
Moody's Corp.	9.5	53.0
Experian Plc	7.1	25.5
Equifax Inc	4.6	12.6
S&P Global Inc	8.5	16.9
Fair Isaac Corp	27.6	-
Transunion	2.1	(4.4)

Source: FactSet

Moody’s corporation lead the sect with a 53% return on equity, while Experian and S&P global Inc trailed with 25.5% and 16.9% respectively. Elsewhere, Fair Isaac records the biggest return on asset of 27.6% with Moody’s and S&P global trailing with 9.5% and 8.5% respectively. Barring any major changes to industry norms, companies like Moody’s are best positioned to continue squeezing the best return margin in the near to medium term.

Profitability Comparison: The credit rating industry generally enjoys high profitability margin with an industry-wide average profitability margin of 28.6%.

Company	EBITDA Margin (%)	Net Margin (%)
Fair Isaac Corp	43.3	28.4
Moody's Corp	42.6	25.1
S&P Global Inc	39.8	29.0
Experian Plc	34.4	11.6
Transunion	32.0	6.8
Equifax Inc	29.3	10.4

Source: FactSet

Fair Isaac Corporation (FICO) led the pack with a 43.3% EBITDA margin and a 28.4% Net margin in 2023. Moody's Corporation and S&P Global Inc. trailed closely, with EBITDA margins of 42.6% and 39.8%, respectively. While Moody's and S&P ended FY22 with strong operational profitability, their Net Margins of 25.1% and 29.0% printed close to the industry average.

Experian Plc, TransUnion, and Equifax Inc. also contributed to the industry's solid average, each with distinctive EBITDA and Net Margin figures.

Experian Plc

Experian Plc operates globally as an information services company, specializing in providing data and analytical tools for credit risk management, fraud prevention, targeted marketing, and automated decision-making. Experian Plc commands approximately 21,700 employees with significant presence in the US across multiple industries, notably in Management Consulting and Credit Bureaus & Rating Agencies. It controls a noteworthy 18.4% market share in the Credit Bureaus & Rating Agencies industry, positioning itself as an incumbent due to its strong market share.

\$millions	2020	2021	2022	2023
Revenue	5179	5372	6288	6619
EBITDA	1792	1842	2155	2275
EBITDA Margin	34.6%	34.3%	34.3%	34.4%
Net Income	677	803	1149	770
Net Margin	13.1%	14.9%	18.3%	11.6%

Source: FactSet

Experian However, Experian exhibits comparatively lower profit and revenue growth than some industry counterparts. The company's business is organized into four main global segments: Credit Services, Decision

Analytics, Marketing Services, and Consumer Services. Experian demonstrated consistent growth in revenue and net margin, with revenue increasing from \$5,179 million in 2020 to \$6,619 million in 2023. The net margin saw a progressive rise from 13.1% in 2020 to 18.3% in 2022, indicating an increased demand for credit services and a surge in the number of issuances post-COVID-19. Despite these positive trends, the EBITDA margin remained relatively stable, hovering around 34% throughout the reviewed period.

S&P Global Incorporation

S&P Global, Inc. is a renowned provider of transparent and unbiased ratings, benchmarks, analytics, and data for global capital and commodity markets. The company operates across various segments, including Market Intelligence, Ratings, Commodity Insights, Mobility, Indices, and Engineering Solutions.

In Market Intelligence, S&P Global offers data and analytics with workflow solutions. The Ratings segment focuses on credit ratings, research, and analytics, furnishing investors and market participants with valuable information, ratings, and benchmarks, especially in public and private securities domain. Commodity Insights focuses on commodity and energy market information. Mobility serves the automotive value chain, and Engineering Solutions uses technology for innovation.

\$millions	2020	2021	2022	2023
Revenue	7442	8297	11181	12497
EBITDA	3990	4419	4453	5197
EBITDA Margin	53.6%	53.3%	39.8%	41.6%
Net Income	2339	3024	3248	2626
Net Margin	31.4%	36.4%	29.0%	21.0%

Source: Factset

S&P Global had consistent growth in revenue from \$7.4 billion in 2020 to \$12.5 billion in 2023. The EBITDA also increased steadily from \$3.99 billion in 2020 to \$5.2 billion in 2023. However, in margin terms, EBITDA contracted moderately from 53.6% level seen in 2020 and 2021 to 41.6% in 2023. Given the positioning of S&P in the credit rating industry, we expect profitability margins to return historical averages as credit activities and demand return.

The credit rating veteran was established in 1917 by James McGraw and John Hill with its headquarters located in New York.

Fair Isaac Corporation

Fair Isaac Corporation (FICO) is an active player in the decision management solutions space, operating primarily through the Software and Scores segments. The Software segment encompasses focuses on analytics and decision management solutions tailored for specific business needs or processes. On the other hand, the Scores segment concentrates on providing business-to-business credit scoring solutions and services, along with business-to-consumer credit scoring solutions and services. FICO also operates myFICO solutions tailored for consumers, coupled with associated professional services.

During the period under review, FICO had a consistent but slow revenue growth from \$1.295bn in 2020 to \$1.51bn in 2023. Although EBITDA margin grew from 30% level seen in 2020 to 43% level in 2023. Net margin averaged 26% during the period under review.

\$millions	2020	2021	2022	2023
Revenue	1295	1317	1377	1513
EBITDA	391	455	579	656
EBITDA Margin	30.2%	34.6%	42.0%	43.3%
Net Income	236	392	374	429
Net Margin	18.3%	29.8%	27.1%	28.4%

Source: FactSet

TransUnion

TransUnion is a provider of information and risk management solutions, offering services such as consumer reports, risk scores, analytical services, and decision-making capabilities to businesses. Its operational framework embeds several segments, namely U.S. Markets, International, Consumer Interactive, and Corporate.

Within the U.S. Markets segment, TransUnion delivers consumer reports, risk scores, analytical services, and decision-making capabilities to businesses. The

International segment focuses on offering credit reports, analytics, decision-making services, and other value-added risk management services. Meanwhile, the Consumer Interactive segment provides solutions aimed at helping consumers manage their personal finances and safeguard against identity theft. The Corporate segment plays a supportive role by providing services to each operational segment, managing investments, and handling enterprise functions.

\$millions	2020	2021	2022	2023
Revenue	2531	2960	3709.9	3779
EBITDA	886.7	1009.8	1186.1	1185
EBITDA Margin	35.0%	34.1%	32.0%	31.4%
Net Income	306	370	268	-164
Net Margin	12.1%	12.5%	7.2%	-4.3%

Source: FactSet

During the period under review, TransUnion saw steady growth in revenue as well as a healthy EBITDA margin. Revenue grew from \$2.53bn in 2020 to \$3.78bn in 2023, while EBITDA margin averaged 33% during the same period. Net margin, however, shrank significantly from 12% in 2020 to -4.3% in 2023.

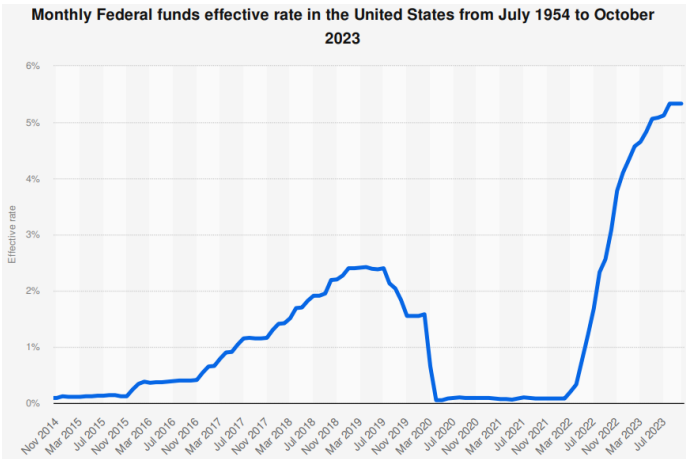
ECONOMIC OUTLOOK

Interest Rates

Interest rate is a big driver of business for credit rating agencies. Throughout 2023, the Fed combatted sticky inflation by raising the policy rates by an additional 75bps to a target range of 5.00% - 5.25%.

The pace of activities in the capital markets, particularly regarding debt issuances, refinancing, and Initial Public Offers, experienced a slowdown in 2023. Analysts are of the view that the Federal Reserve will adhere to a higher-for-longer policy rate, buoyed by the robust and resilient U.S. economy.

Recent announcements and policy guidance from The Fed's Chair and principal officials suggest that the era of rate hikes might be behind us, with the possibility of a cut being closer than initially anticipated.

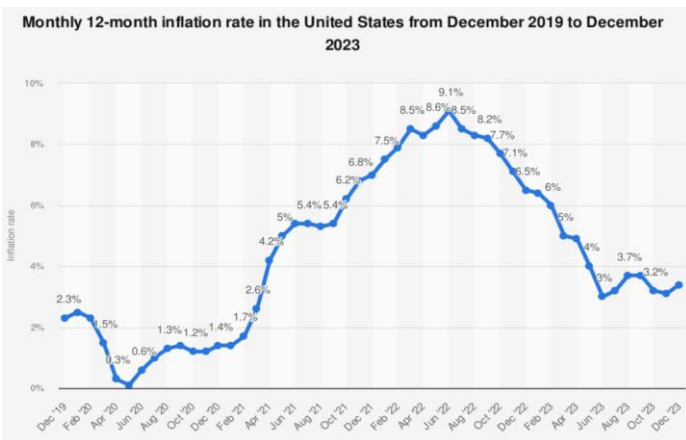


Source: Statista

In a bullish scenario, we are factoring in the expectation of two-to-three rate cuts, predominantly in the latter half of the year. Conversely, the bear case scenario anticipates at least one rate cut in 2024. For the credit rating industry, such a shift signifies a potential resurgence in activities, paving the way for a rebound in revenue and margins. These considerations underscore the industry's sensitivity to monetary policy shifts and its potential for renewed vitality based on evolving economic conditions.

Inflation

Inflation in the US jumped from 0.33% in April 2020 when the pandemic hit, to a peak of 9.06% in June of 2022. One of the legacy factors contributing to sticky prices during the period was geopolitical faction in western Europe – Russia’s invasion of Ukraine. The conflict disrupted supply chain within the energy markets and led to myriad of sanctions, causing overall prices to sky.



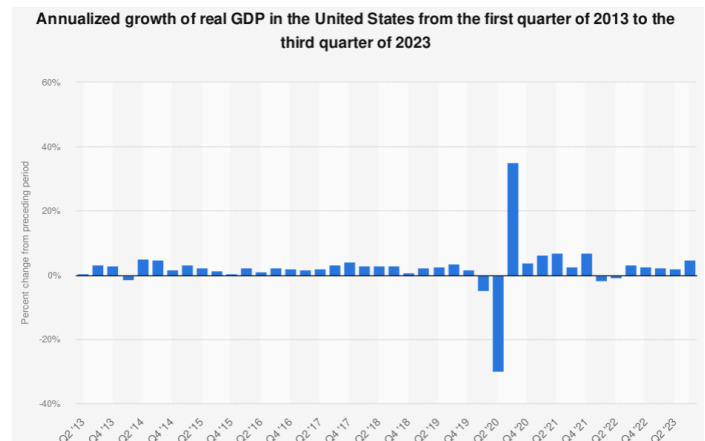
Source: Statista

Fed’s effort to bring back inflation to target range of 2% yielded positive results as inflation slid from 9.06% in June of 2022 to 3% in the second half of 2023. We believe the 2% target range will take longer to achieve, especially due to the resilience of the US economy.

However, we do not anticipate any significant explosion in general prices in the near term, barring unforeseen economic situations. For additional context, we see inflation staying above 3% in the near term, although our long-term inflation forecast is currently sitting at 2.76%.

GDP Growth

The credit rating industry thrives in a growing economic situation. GDP growth translates to a thriving business environment and as such, improves capital appetite of the real sector.

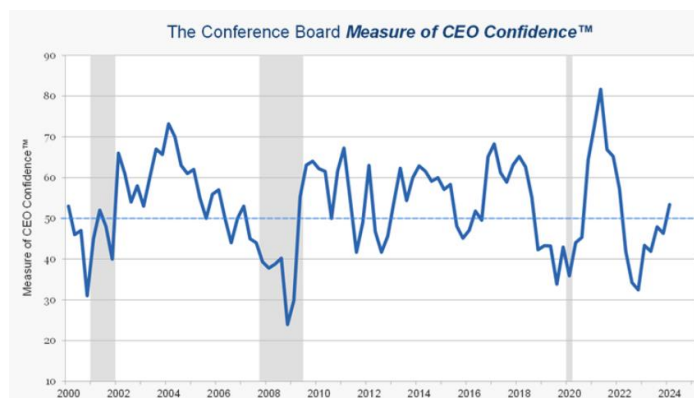


Source: Statista

The slowing trend of GDP growth since the third quarter of 2022 was overturned by the 4.9% growth seen in the third quarter of 2023. In line with market consensus, we expect the real sector growth to remain positive in the near term. While our short-term GDP growth forecast stands at 2.82%, we hold a more optimistic outlook for the economy in the long term, with our GDP growth forecast printing at 3.03%. As a result, we have integrated these growth assumptions into Moody's credit rating and analytics line of business's overall revenue model.

CEO Confidence

CEO confidence as measured and reported by The Conference Board in collaboration with The Business Council depicted upward trajectory, especially since the second half of 2023. This metric serves as an important gauge of CEO confidence, reflecting their optimism about future economic conditions. Notably, CEO confidence improved to 53 in the first quarter of 2024, compared to 46 recorded during the fourth quarter of 2023, marking the first-time optimism prevailed in the measure since Q1 of 2022.



Source: The Conference Board

This aligns with our expectation of businesses rebounding at least in the second half of 2024. The positive trend in CEO confidence underscores a potential shift in sentiment and bodes well for economic prospects in the coming months, and in turn the credit rating industry.

Valuation

Revenue Decomposition

In the past three years, Moody’s revenue has declined by 8.67% on a compound annual growth rate (CAGR) basis. This is due to significant decline in business activities in the rating environment, especially in 2022, when rising interest rate environment dampened capital market activities at large. The narrative shifted in 2023 as the MIS segment saw a boost of 6% compared to 2022 lows of -28%. Despite the drought in capital market activities globally, the MIS segment was able to ramp up revenue figures largely due to resurgence of credit activities mostly from downstream banking institutions and federal and state governments.

For the MIS segment, our revenue growth forecast was largely driven by the anticipation of resurgence in capital market activities, underscored by our expectation of a 25bps to 75bps cut in Fed funds rate. We believe the MIS segment will grow by 7.89% on a CAGR basis over 2024E to 2033E.

The MA segment supported the overall growth with a 10.5% growth in revenue during 2023, mostly derived from increased earnings from the Research and Insights sub-segment. For the MA segment, our growth forecast was premised on opportunities in the Data Solutions, Research, and Insights subsegments. Through strategic partnership, we see Moody’s leveraging Generative AI capabilities to provide tailored data and research solutions, and improved risk assessment at corporate level. Based on this, we forecasted a 14.73% growth on a CAGR basis over 2024E to 2033E.

In 2023, Moody’s domestic operations accounted for 52% of total revenue, while international dealings contributed 48%. In the MIS segment, domestic revenue totaled 61% amidst the drag on capital market activities, while international capital markets contributed 39% of the credit rating revenue. On the other hand, revenues from international operations (56%) dominated the MA segment². In our forecast, we believe domestic operations will continue to dominate both segments in the near to medium term.

Intangible Assets

Intangible Assets represent the second largest non-current asset on Moody’s Balance sheet. For additional context, intangible assets represented 54% of total assets in 2023. Approximately 95% of the goodwill and intangible assets reside in the MA business and are allocated to the two reporting units within MA². The remaining 5% of goodwill and intangible assets reside in MIS and primarily relate to ICRA².

For Moody’s, acquisition is a strategy to maintain market leadership not just in the rating and analytics business, but to as well tap into new markets to diversify revenue streams. This is a key part of Moody’s recent strategy aimed at riding waves of economic downturn and (or) slowdown. On September 15, 2021, the Company acquired

100% of RMS, a global provider of climate and natural disaster risk modeling and analytics. The acquisition expands Moody’s insurance data and analytics business and accelerates the development of the Company’s global integrated risk capabilities to address the next generation of risk assessment². Some of the other strategic acquisitions in recent times include Bureau van Dijk in 2017, Reis in 2018, Regulatory DataCorp (RDC) in 2020.

Upon a close examination of intangible assets, we found that it encompasses customer relationships, product technology, trade name, intellectual capital, contracts, and agreements, and other intangible yet measurable assets inherited from acquisitions and acquisition related activities. This asset line is important because of its impact on invested capital over our forecast horizon.

Although we have not factored acquisitions into our model, we see this as an evolving strategic objective that will continue to shape the future of MCO. In our valuation model, we reduced intangibles by the annual amortization expense forecast.

Cost Assumptions

Moody’s cost of operations is dominated by operating expenses and SG&A expenses. Whilst considering historical trend of these costs, we factored future benefit of scale into the projections. Although operating expenses as a percentage of sales averaged 28% from 2018-2023, we projected within 23% and 28% over the forecast horizon. In line with management guidance, operating expenses were forecasted to remain at 28% range in 2024 due to expanded budget for investments across the MA related products¹. We, however, expect operating expenses to decline gradually throughout the forecast period.

		Operating Expenses as a % of sale (2033)							
		419.20	20.00%	21.00%	22.00%	23.00%	24.00%	25.00%	26.00%
SG&A as a % of Sales (2033)	20.00%	465.16	457.50	449.84	442.18	434.52	426.86	419.20	411.53
	21.00%	457.50	449.84	442.18	434.52	426.86	419.20	411.53	403.87
	22.00%	449.84	442.18	434.52	426.86	419.20	411.53	403.87	396.21
	23.00%	442.18	434.52	426.86	419.20	411.53	403.87	396.21	388.55
	24.00%	434.52	426.86	419.20	411.53	403.87	396.21	388.55	380.89
	25.00%	426.86	419.20	411.53	403.87	396.21	388.55	380.89	373.23
	26.00%	419.20	411.53	403.87	396.21	388.55	380.89	373.23	

Similarly, we projected SG&A expenses as a percentage of revenue to stay within 23% and 25% over the forecast horizon after considering the average SG&A as a

percentage of sales between 2018 and 2023 of 25.11%. We expect SG&A expenses to remain at 25% range in 2024 but gradually return to 23% between 2028 and 2032.

Our DCF and EP model exhibited high sensitivity to changes in operating and SG&A expenses, especially because these two expense item accounts for approximately 90% of total expenses historically and over the forecast horizon.

WACC

The weighted average cost of capital (WACC) was estimated using a mix of estimates. For the equity part of the WACC, we used the Henry Fund’s Equity risk premium of 5%, which is based off Damodaran’s forward looking Equity Risk Premium (ERP) estimates as well as historical geometric average. We estimated the Beta by taking the average of 2year, 3year and 5year weekly Beta of MCO. The 10-year US treasury bond rate represented the risk-free element in our computation resulting in a cost of equity of 10.81%. On the Debt part of the equation, we adopted the implied YTM on MCO’s long term bond, resulting in a cost of debt of 4.45%. Debt-to-value ratio for the computation amounted to 9.49%, while the Equity-to-value ratio printed at 90.51%. Overall, we arrived at a WACC estimate of 10.21%.

Payout Policy

Moody’s dividend payout policy over the years has mirrored its performance and remained fairly consistent within the range of 29%-37%. We do not expect any significant downside to Moody’s performance in the near term and as such maintained the upper bound of the range throughout the forecast period.

DCF and EP Valuation

The discounted cash flow (DCF) technique and Economic profit (EP) methodology was the primary model for deriving Moody’s valuation. Our DCF and EP model returned an intrinsic value of \$383.25. Our key assumptions for arriving at this value were:

- Continuing value free cashflow of \$130bn
- Continuing value economic profit of \$129bn

- Continuing value growth of NOPLAT of 5.3%
- Weighted average cost of capital of 10.2%

We discounted free cash flow and economic profit with WACC assumptions explained above. We then arrived at value of operating assets of \$78.73bn, after which we adjusted for non-operating items. We arrived at a value of equity of \$71.84bn, which was then applied to shares outstanding of 181.8mn to derive our intrinsic value of \$419.

While the DCF and EP methods are generally used for valuation, they are limited by sensitivity to assumptions, discount rate estimation, terminal value assumptions and market conditions/dynamics.

Dividend Discount Model (DDM) Valuation

The dividend discount model is premised on a fundamental assumption that a firm will continue paying dividends into the future. Historically, MCO has delivered not just value but consistent dividend to shareholders, hence, the reason for conducting a DDM valuation. Our assumption factored ROE growth of 31.36%, whilst using a cost of equity of 10.8% - similar to our DCF model – to discount projected dividend per share to present day. Based off these assumptions, we arrived at an intrinsic value of \$306. The DDM is also a widely used metric in the investment community, particularly for companies that pay dividends. However, it is limited by heavy dependency on dividend payment and stable dividend disbursement, market conditions, and the perpetual growth assumption.

Relative Valuation

Relative valuation technique for deriving intrinsic value of a share is one that groups peer companies to provide a close-to-accurate range for any typical company within the pack. Our relative valuation considered peer companies like Experian, S&P global, Equifax, TransUnion, and Fair Isaac corporation to arrive at an average P/E, P/S and EV/EBITDA metric to determine a target range for Moody's. The peer comparison is premised on operators in the credit rating industry, risk assessment and insights solutions in the USA and on a global scale. S&P represents the largest contender with Moody's MIS business locally

and on a global scale. Although Experian, Equifax, TransUnion, and FICO operate in the individual credit rating domain, they also form an integral part of the credit bureaus and rating agency industry.

Based on this valuation technique, we derived a target price range of \$353 - \$367 for MCO.

Pricing publicly traded companies using relative valuation is limited by sensitivity of valuation metrics to market conditions, cyclical nature of industries, muting growth prospects among other notable limitations.

Valuation Summary

To derive an accurate intrinsic value for Moody's, we have employed the discounted cash flow method (DCF), economic profit (EP) method, dividend discount method (DDM) and relative valuation technique. We rely more on results derived from the DCF and EP valuation methodology largely because we were able to line up our story into the valuation assumptions. Our DCF and EP intrinsic value of \$419 is above FactSet consensus estimate of \$405.78³ and Yahoo finance average analyst expectation of \$408.74⁵.

However, Our valuation is below Yahoo finance analysts' "high" expectation of \$450. Although our valuation only represents 11% upside from the current price, we believe the near and long-term potential of Moody's will continue to drive prices closer to the upper bound of analyst's expectation.

CATALYSTS AND KEYS TO MONITOR

Bull Case

Overall, interest rate dent is now behind the credit rating industry, and we believe operators are warming up for resurgence of capital market activities.

In our optimistic scenario, we see the Fed cutting rates by 75bps to 125bps in 2024, a development that will significantly impact number of debt issuances, credit refinancing, Initial public offerings, and government issuances. This will intensify demand for credit rating services and boost demand for companies like Moody's.

We also expect the trend of acquisition in the industry to remain on an upward trajectory, especially as major players strive to retain market leadership and keep a larger share of the industry's profitability.

Lastly, we believe technological integration into credit rating services, risk management and decision solutions across the industry will keep revenues and margin growing, barring any significant changes in the industry landscape.

Bear Case

Given the escalating geopolitical tensions globally, coupled with supply chain disruptions and an unprecedented economic shock, there is a looming possibility of a return to an era of rising prices. Should this scenario unfold, interest rates are likely to stay elevated for an extended period, impacting the overall industry outlook significantly.

The industry's optimism is heavily reliant on the Federal Reserve's ability to orchestrate a soft landing. Striking the right balance in interest rates—avoiding a recession while preventing the economy from overheating—is crucial. Failure to achieve this delicate equilibrium may cast a shadow on the industry's prospects, at least in the short term. Another factor to closely monitor is the upcoming US election. While we don't anticipate any major surprises, the market's response during periods of political transition can be inherently unpredictable. These dynamic factors contribute to an environment where industry players must navigate carefully and stay attuned to the broader economic landscape.

CONCLUSION

Moody's is a key player in the credit rating industry with over a century old proprietary database. The MIS segment of the company's operation is situated in a tightly concentrated industry with significant control of the overall market share. The company has in recent years diversified its service offering with the Analytics business

that now serves as a buffer, especially during slowdown in capital market activities. We are confident that the Analytics segment will continue to expand whilst leveraging strategic partnership to stay ahead of competitors.

We have a HOLD rating on Moody's with a DCF price target range of \$409 - \$419, representing a potential upside of 11%. Our conviction lies in the company's demonstration of market leadership in the credit rating segment whilst leading innovation in the Moody's Analytics business.

REFERENCES

1. Moody's Investor Relations
2. Moody's 10k
3. FactSet
4. Statista
5. Yahoo Finance.
6. The Conference Board
7. IBIS World
8. Refinitiv
9. S&P Capital Global Intelligence
10. SIMFA
11. US Department of Treasury
12. Trading Economics
13. Renaissance Capital

DISCLAIMER

Henry Fund reports are created by graduate students in the Applied Securities Management program at the University of Iowa's Tippie College of Business. These reports provide potential employers and other interested parties with an example of the analytical skills, investment knowledge, and communication abilities of our students. Henry Fund analysts are not registered investment advisors, brokers, or licensed financial professionals. The investment opinion contained in this report does not represent an offer or solicitation to buy or sell any of the aforementioned securities. Unless otherwise noted, facts and figures included in this report are from publicly available sources. This report is not a complete compilation of data, and its accuracy is not guaranteed. From time to time, the University of Iowa, its faculty, staff, students, or the Henry Fund may hold an investment position in the companies mentioned in this report.

Moody's
Revenue Decomposition

Fiscal Years Ending Dec. 31	2021	2022	2023	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E
Revenue by Business Segment													
Moody's Investor Service:													
Corporate Finance (CFG)	2087.0	1269.0	1404.0	1558.4	1714.3	1885.7	2055.4	2240.4	2442.1	2661.8	2901.4	3133.5	3290.2
% Growth Rate	12.4%	-39.2%	10.6%	11.0%	10.0%	10.0%	9.0%	9.0%	9.0%	9.0%	9.0%	8.0%	5.0%
Investment Grade	439.0	294.0	335	372	409	450	490	535	583	635	692	748	785
<i>% growth rate</i>	<i>-31.0%</i>	<i>-33.0%</i>	<i>13.9%</i>	<i>11.0%</i>	<i>10.0%</i>	<i>10.0%</i>	<i>9.0%</i>	<i>9.0%</i>	<i>9.0%</i>	<i>9.0%</i>	<i>9.0%</i>	<i>8.0%</i>	<i>5.0%</i>
High Yield	411.0	108.0	150	167	183	201	220	239	261	284	310	335	352
<i>% growth rate</i>	<i>16.8%</i>	<i>-73.7%</i>	<i>38.9%</i>	<i>11.0%</i>	<i>10.0%</i>	<i>10.0%</i>	<i>9.0%</i>	<i>9.0%</i>	<i>9.0%</i>	<i>9.0%</i>	<i>9.0%</i>	<i>8.0%</i>	<i>5.0%</i>
Bank loans	606.0	275.0	292	324	357	392	427	466	508	554	603	652	684
<i>% growth rate</i>	<i>111.1%</i>	<i>-54.6%</i>	<i>6.2%</i>	<i>11.0%</i>	<i>10.0%</i>	<i>10.0%</i>	<i>9.0%</i>	<i>9.0%</i>	<i>9.0%</i>	<i>9.0%</i>	<i>9.0%</i>	<i>8.0%</i>	<i>5.0%</i>
Other accounts	631.0	592.0	627	696	766	842	918	1001	1091	1189	1296	1399	1469
<i>% growth rate</i>	<i>8.4%</i>	<i>-6.2%</i>	<i>5.9%</i>	<i>11.0%</i>	<i>10.0%</i>	<i>10.0%</i>	<i>9.0%</i>	<i>9.0%</i>	<i>9.0%</i>	<i>9.0%</i>	<i>9.0%</i>	<i>8.0%</i>	<i>5.0%</i>
Structured Finance (SFG)	560.0	462.0	405.0	425.3	463.5	505.2	545.7	589.3	642.3	700.2	763.2	816.6	857.4
%Growth Rate	54.7%	-17.5%	-12.3%	5.0%	9.0%	9.0%	8.0%	8.0%	9.0%	9.0%	9.0%	7.0%	5.0%
Asset Backed Securities	118.0	116.0	121	127	138	151	163	176	192	209	228	244	256
<i>% growth rate</i>	<i>20.4%</i>	<i>-1.7%</i>	<i>4.3%</i>	<i>5.0%</i>	<i>9.0%</i>	<i>9.0%</i>	<i>8.0%</i>	<i>8.0%</i>	<i>9.0%</i>	<i>9.0%</i>	<i>9.0%</i>	<i>7.0%</i>	<i>5.0%</i>
RMBS	123.0	106.0	92	97	105	115	124	134	146	159	173	185	195
<i>% growth rate</i>	<i>28.1%</i>	<i>-13.8%</i>	<i>-13.2%</i>	<i>5.0%</i>	<i>9.0%</i>	<i>9.0%</i>	<i>8.0%</i>	<i>8.0%</i>	<i>9.0%</i>	<i>9.0%</i>	<i>9.0%</i>	<i>7.0%</i>	<i>5.0%</i>
CMBS	102.0	98.0	60	63	69	75	81	87	95	104	113	121	127
<i>% growth rate</i>	<i>67.2%</i>	<i>-3.9%</i>	<i>-38.8%</i>	<i>5.0%</i>	<i>9.0%</i>	<i>9.0%</i>	<i>8.0%</i>	<i>8.0%</i>	<i>9.0%</i>	<i>9.0%</i>	<i>9.0%</i>	<i>7.0%</i>	<i>5.0%</i>
Structured Credit	215.0	140.0	129	135	148	161	174	188	205	223	243	260	273
<i>% growth rate</i>	<i>104.8%</i>	<i>-34.9%</i>	<i>-7.9%</i>	<i>5.0%</i>	<i>9.0%</i>	<i>9.0%</i>	<i>8.0%</i>	<i>8.0%</i>	<i>9.0%</i>	<i>9.0%</i>	<i>9.0%</i>	<i>7.0%</i>	<i>5.0%</i>
Other accounts	2.0	2.0	3.0	3	3	4	4	4	5	5	6	6	6
<i>%growth rate</i>	<i>0.0%</i>	<i>0.0%</i>	<i>50.0%</i>	<i>5.0%</i>	<i>9.0%</i>	<i>9.0%</i>	<i>8.0%</i>	<i>8.0%</i>	<i>9.0%</i>	<i>9.0%</i>	<i>9.0%</i>	<i>7.0%</i>	<i>5.0%</i>
Financial Institutions (FIG)	602.0	491.0	545.0	610.4	689.8	765.6	849.8	934.8	1028.3	1131.1	1232.9	1319.3	1385.2
%Growth Rate	13.6%	-18.4%	11.0%	12.0%	13.0%	11.0%	11.0%	10.0%	10.0%	10.0%	9.0%	7.0%	5.0%
Banking	411.0	337.0	378	423	478	531	589	648	713	785	855	915	961
<i>%growth rate</i>	<i>15.8%</i>	<i>-18.0%</i>	<i>12.2%</i>	<i>12.0%</i>	<i>13.0%</i>	<i>11.0%</i>	<i>11.0%</i>	<i>10.0%</i>	<i>10.0%</i>	<i>10.0%</i>	<i>9.0%</i>	<i>7.0%</i>	<i>5.0%</i>
Insurance	145.0	113.0	123	138	156	173	192	211	232	255	278	298	313
<i>%growth rate</i>	<i>5.8%</i>	<i>-22.1%</i>	<i>8.8%</i>	<i>12.0%</i>	<i>13.0%</i>	<i>11.0%</i>	<i>11.0%</i>	<i>10.0%</i>	<i>10.0%</i>	<i>10.0%</i>	<i>9.0%</i>	<i>7.0%</i>	<i>5.0%</i>
Managed Investments	36.0	28.0	32	36	40	45	50	55	60	66	72	77	81
<i>%growth rate</i>	<i>28.6%</i>	<i>-22.2%</i>	<i>14.3%</i>	<i>12.0%</i>	<i>13.0%</i>	<i>11.0%</i>	<i>11.0%</i>	<i>10.0%</i>	<i>10.0%</i>	<i>10.0%</i>	<i>9.0%</i>	<i>7.0%</i>	<i>5.0%</i>
Other accounts	10.0	13.0	12	13	15	17	19	21	23	25	27	29	31
<i>%growth rate</i>	<i>0.0%</i>	<i>30.0%</i>	<i>-7.7%</i>	<i>12.0%</i>	<i>13.0%</i>	<i>11.0%</i>	<i>11.0%</i>	<i>10.0%</i>	<i>10.0%</i>	<i>10.0%</i>	<i>9.0%</i>	<i>7.0%</i>	<i>5.0%</i>
Public Infrastructure and Infrastructure Finance (PIIF)	521.0	431.0	476.0	523.6	581.2	650.9	729.1	816.5	898.2	988.0	1076.9	1152.3	1209.9
%Growth Rate	5.0%	-17.3%	10.4%	10.0%	11.0%	12.0%	12.0%	12.0%	10.0%	10.0%	9.0%	7.0%	5.0%
Public Finance/Sovereign	244.0	197.0	205	226	250	280	314	352	387	426	464	496	521
<i>%growth rate</i>	<i>-2.4%</i>	<i>-19.3%</i>	<i>4.1%</i>	<i>10.0%</i>	<i>11.0%</i>	<i>12.0%</i>	<i>12.0%</i>	<i>12.0%</i>	<i>10.0%</i>	<i>10.0%</i>	<i>9.0%</i>	<i>7.0%</i>	<i>5.0%</i>
Project and Infrastructure	277.0	234.0	271	298	331	371	415	465	511	563	613	656	689
<i>%growth rate</i>	<i>12.6%</i>	<i>-15.5%</i>	<i>15.8%</i>	<i>10.0%</i>	<i>11.0%</i>	<i>12.0%</i>	<i>12.0%</i>	<i>12.0%</i>	<i>10.0%</i>	<i>10.0%</i>	<i>9.0%</i>	<i>7.0%</i>	<i>5.0%</i>
Total Ratings Revenue	3770.0	2653.0	2830.0	3117.7	3448.8	3807.5	4180.0	4581.1	5010.9	5481.2	5974.5	6421.7	6742.8

%Growth Rate	16.2%	-29.6%	6.7%	10.2%	10.6%	10.4%	9.8%	9.6%	9.4%	9.4%	9.0%	7.5%	5.0%
MIS Other	42.0	46.0	30	31	32	35	38	42	45	50	53	57	60
<i>%growth rate</i>	-10.6%	9.5%	-34.8%	3.0%	5.0%	8.0%	9.0%	9.0%	9.0%	10.0%	7.0%	7.0%	5.0%
Intersegment Royalty	165.0	174.0	186	192	201	217	237	258	281	309	331	354	372
<i>%growth rate</i>	11.5%	5.5%	6.9%	3.0%	5.0%	8.0%	9.0%	9.0%	9.0%	10.0%	7.0%	7.0%	5.0%
Total MIS Other	207.0	220.0	216.0	222.5	233.6	252.3	275.0	299.7	326.7	359.4	384.6	411.5	432.0
%Growth Rate	6.2%	6.3%	-1.8%	3.0%	5.0%	8.0%	9.0%	9.0%	9.0%	10.0%	7.0%	7.0%	5.0%
Total MIS	3977.0	2873.0	3046.0	3340.2	3682.4	4059.8	4455.0	4880.8	5337.6	5840.5	6359.0	6833.2	7174.8
%Growth Rate	15.6%	-27.8%	6.0%	9.7%	10.2%	10.3%	9.7%	9.6%	9.4%	9.4%	8.9%	7.5%	5.0%
Moody's Analytics:													
Decision Solutions	1011.0	1324.0	1383.0	1452.2	1568.3	1787.9	2145.5	2681.8	3352.3	4190.4	5238.0	6023.6	6324.8
%Growth Rate	21.1%	31.0%	4.5%	5.0%	8.0%	14.0%	20.0%	25.0%	25.0%	25.0%	25.0%	15.0%	5.0%
Research and Insights	697.0	733.0	884.0	1069.6	1315.7	1644.6	2105.1	2694.5	3287.2	3780.3	4158.4	4366.3	4584.6
%Growth Rate	7.2%	5.2%	20.6%	21.0%	23.0%	25.0%	28.0%	28.0%	22.0%	15.0%	10.0%	5.0%	5.0%
Data and Information	698.0	712.0	789.0	875.8	989.6	1138.1	1308.8	1505.1	1745.9	2007.8	2309.0	2424.5	2545.7
%Growth Rate	17.5%	2.0%	10.8%	11.0%	13.0%	15.0%	15.0%	15.0%	16.0%	15.0%	15.0%	5.0%	5.0%
Intersegment Revenue	7.0	8.0	13.0	13.8	14.9	16.4	18.0	19.8	21.8	22.9	24.0	25.2	26.5
%Growth Rate	0.0%	14.3%	62.5%	6.0%	8.0%	10.0%	10.0%	10.0%	10.0%	5.0%	5.0%	5.0%	5.0%
Total MA	2413.0	2777.0	3069.0	3411.4	3888.5	4586.9	5577.3	6901.2	8407.3	10001.4	11729.4	12839.6	13481.6
%Growth Rate	15.7%	15.1%	10.5%	11.2%	14.0%	18.0%	21.6%	23.7%	21.8%	19.0%	17.3%	9.5%	5.0%
Total Revenue	6218.0	5468.0	5916.0	6751.5	7570.9	8646.7	10032.3	11782.1	13744.9	15842.0	18088.4	19672.8	20656.4
%Growth Rate	15.8%	-12.1%	8.2%	14.1%	12.1%	14.2%	16.0%	17.4%	16.7%	15.3%	14.2%	8.8%	5.0%
Revenue by Geography													
Moody's Investor Service:													
Total MIS	3812.0	2699.0	2860.0	3136.2	3457.5	3811.9	4182.9	4582.8	5011.7	5483.9	5970.7	6415.9	6736.7
%Growth Rate	15.8%	-29.2%	6.0%	9.7%	10.2%	10.3%	9.7%	9.6%	9.4%	9.4%	8.9%	7.5%	5.0%
Moody's Analytics:													
Total MA	2406.0	2769.0	3056.0	3396.9	3872.0	4567.5	5553.7	6872.0	8371.7	9959.0	11679.7	12785.2	13424.5
%Growth Rate	15.7%	15.1%	10.4%	11.2%	14.0%	18.0%	21.6%	23.7%	21.8%	19.0%	17.3%	9.5%	5.0%

Moody's
Income Statement
Reported in \$millions

<i>Fiscal Years Ending Dec. 31</i>	2021	2022	2023	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E
Revenue	6,218.0	5,468.0	5916.0	6751.5	7570.9	8646.7	10032.3	11782.1	13744.9	15842.0	18088.4	19672.8	20656.4
Expenses													
Operating expenses	1,637.0	1,613.0	1687.0	1896.7	2082.0	2334.6	2658.6	3063.3	3436.2	3802.1	4341.2	4524.7	4751.0
Selling, general & administrative expenses	1,480.0	1,527.0	1632.0	1695.5	1892.7	2118.4	2407.8	2768.8	3161.3	3643.7	4160.3	4524.7	4751.0
Depreciation & amortization	257.0	331.0	373.0	374.3	495.6	616.1	736.4	852.8	970.9	1090.6	1212.0	1335.0	1459.8
Total expenses	3,374.0	3,585.0	3779.0	3966.5	4470.3	5069.2	5802.7	6685.0	7568.4	8536.3	9713.5	10384.5	10961.8
Operating income	2,844.0	1,883.0	2137.0	2785.0	3100.6	3577.6	4229.6	5097.1	6176.4	7305.6	8374.9	9288.3	9694.6
Interest income (expense), net	(171.0)	(231.0)	(251.00)	(298.78)	(241.83)	(178.40)	(99.18)	1.27	129.13	287.96	478.81	699.48	943.36
Other non-operating income (expense), net	82.0	38.0	49	-	-	-	-	-	-	-	-	-	-
Non-operating income (expense), net	(89.0)	(123.0)	(202.0)	-298.8	-241.8	-178.4	-99.2	1.3	129.1	288.0	478.8	699.5	943.4
Income (loss) before provision for income taxes	2,755.0	1,760.0	1935.0	2486.3	2858.7	3399.2	4130.4	5098.4	6305.6	7593.6	8853.7	9987.7	10638.0
Provision for income taxes	541.0	386.0	327.0	537.0	617.5	734.2	892.2	1101.2	1362.0	1640.2	1912.4	2157.4	2297.8
Net income (loss)	2,214.0	1,374.0	1608.0	1949.2	2241.3	2665.0	3238.2	3997.1	4943.6	5953.4	6941.3	7830.4	8340.2
Less: net loss (income) attributable to noncontrolling interests	-	-	1.0	-	-	-	-	-	-	-	-	-	-
Net income attributable to Moody's	2,214.0	1,374.0	1607.0	1949.2	2241.3	2665.0	3238.2	3997.1	4943.6	5953.4	6941.3	7830.4	8340.2
Weighted Average Shares Outstanding	186.4	183.9	183.20	182.43	182.39	182.38	182.39	182.34	182.21	182.10	182.00	181.91	181.82
Year end shares outstanding	185.6	183.2	182.47	182.39	182.38	182.38	182.40	182.27	182.16	182.05	181.95	181.86	181.78
Net earnings (loss) per share - basic	11.88	7.47	8.77	10.68	12.29	14.61	17.75	21.92	27.13	32.69	38.14	43.05	45.87
Dividends declared per share	2.48	2.80	3.08	3.29	4.00	4.61	5.48	6.65	8.22	10.17	12.26	14.30	16.14

Moody's

Balance Sheet

Reported in \$millions

Fiscal Years Ending Dec. 31

	2021	2022	2023	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E
Cash & cash equivalents	1,811.0	1,769.0	2130.0	3504.6	5077.1	7044.5	9517.3	12637.4	16446.0	20947.4	26099.4	31592.4	37100.9
Short-term investments	91.0	90.0	63.0	66.1	69.3	72.6	76.2	79.9	83.8	87.8	92.1	96.6	101.3
Accounts receivable, net	1,720.0	1,652.0	1,659.0	1,923.0	2,146.9	2,452.0	2,844.9	3,341.0	3,897.6	4,492.3	5,129.3	5,578.6	5,857.5
Deferred tax assets, net	-	-	-	-	-	-	-	-	-	-	-	-	-
Prepaid taxes	112.0	235.0	115.0	12.2	14.5	17.2	20.9	25.9	32.0	38.5	44.9	50.6	53.9
Prepaid expenses	99.0	119.0	133.00	120.28	127.81	145.98	169.37	198.91	232.04	267.45	305.37	332.12	348.73
Capitalized costs to obtain & fulfill sales contracts	103.0	106.0	116.0	122.7	135.4	154.7	179.5	210.8	245.9	283.4	323.6	351.9	369.5
Foreign exchange forwards on certain assets & liabilities	1.0	19.0	13.0	13.6	14.3	15.0	15.7	16.5	17.3	18.1	19.0	19.9	20.9
Other current assets	74.0	104.0	112.0	117.4	123.2	129.1	135.4	142.0	148.9	156.1	163.7	171.7	180.0
Total current assets	4,011.0	4,094.0	4,341.0	5,880.0	7,708.4	10,031.1	12,959.2	16,652.3	21,103.4	26,291.1	32,177.3	38,193.8	44,032.8
PPE													
Total property & equipment, at cost	1,357.0	1,625.0	1,875.0	2,257.7	2,764.4	3,394.4	4,147.4	5,019.4	6,012.2	7,127.3	8,366.5	9,731.6	11,224.3
Less: accumulated depreciation & amortization	1,010.0	1,123.0	1,272.0	1,459.3	1,771.9	2,208.0	2,773.4	3,455.2	4,255.1	5,174.7	6,215.7	7,379.7	8,668.5
Property & equipment, net	347.0	502.0	603.0	798.4	992.6	1,186.4	1,374.0	1,564.2	1,757.0	1,952.6	2,150.8	2,351.9	2,555.7
Operating lease right-of-use assets	438.0	346.0	277.0	366.8	456.0	545.0	631.2	718.5	807.1	897.0	988.0	1,080.4	1,174.0
Goodwill	5,999.0	5,839.0	5,956.0	5,956.0	5,956.0	5,956.0	5,956.0	5,956.0	5,956.0	5,956.0	5,956.0	5,956.0	5,956.0
Intangible assets, net	2,467.0	2,210.0	2,049.0	1,862.0	1,679.0	1,499.0	1,328.0	1,157.0	986.0	815.0	644.0	473.0	302.0
Deferred tax assets, net	384.0	266.0	258.0	250.0	242.0	234.0	226.0	218.0	210.0	202.0	194.0	186.0	178.0
Other Assets	1,034.0	1,092.0	1,138.0	1,193.3	1,251.3	1,312.1	1,375.9	1,442.8	1,512.9	1,586.4	1,663.5	1,744.3	1,829.1
Total assets	14,680.0	14,349.0	14,622.0	16,306.5	18,285.2	20,763.6	23,850.3	27,708.8	32,332.5	37,700.1	43,773.7	49,985.4	56,027.6
Accounts payable & accrued liabilities	1,142.0	1,011.0	1076.0	1193.3	1330.3	1519.3	1762.8	2070.2	2415.1	2783.6	3178.3	3456.7	3629.6
Current portion of operating lease liabilities	105.0	106.0	108.0	89.9	111.8	133.6	154.7	176.1	197.8	219.9	242.2	264.8	287.8
Deferred revenue	1,249.0	1,258.0	1316.0	1449.5	1613.7	1843.0	2138.3	2511.3	2929.7	3376.6	3855.4	4193.2	4402.8
Commercial paper & Current portion of long-term debt	-	-	-	-	-	-	-	-	-	-	-	-	-
Total current liabilities	2,496.0	2,375.0	2500.0	2732.7	3055.7	3495.9	4055.8	4757.7	5542.6	6380.1	7276.0	7914.7	8320.1
Non-current portion of deferred revenue	86.0	75.0	65.00	120.97	146.14	166.91	193.65	227.43	265.32	305.80	349.16	379.74	398.73
Notes payable	7,413.0	7,389.0	7,001.0	7,173.8	7,400.9	7,686.8	8,030.6	8,444.4	8,901.4	9,387.0	9,903.7	10,306.0	10,604.0
Total debt	-	-	-	-	-	-	-	-	-	-	-	-	-
Less: current portion	-	-	-	-	-	-	-	-	-	-	-	-	-
Long-term debt	7,413.0	7,389.0	7,001.0	7,173.8	7,400.9	7,686.8	8,030.6	8,444.4	8,901.4	9,387.0	9,903.7	10,306.0	10,604.0
Deferred tax liabilities, net	488.0	457.0	402.0	347.0	292.0	237.0	182.0	127.0	72.0	17.0	(38.0)	(93.0)	(148.0)
Uncertain tax positions	388.0	322.0	196.0	137.2	96.0	67.2	47.1	32.9	23.1	16.1	11.3	7.9	5.5
Operating lease liabilities	455.0	368.0	306.0	307.1	308.1	309.2	310.3	311.3	312.4	313.4	314.5	315.6	316.6
Other liabilities	438.0	674.0	676.0	708.9	743.3	779.4	817.3	857.0	898.7	942.4	988.2	1036.2	1086.5
Total liabilities	11,764.0	11,660.0	11,146.0	11,527.6	12,042.2	12,742.5	13,636.7	14,757.8	16,015.4	17,361.8	18,804.8	19,867.1	20,583.6
Redeemable noncontrolling interest	-	-	-	-	-	-	-	-	-	-	-	-	-
Common stock	888.0	1,057.0	1,231.0	1,265.0	1,298.9	1,332.9	1,366.9	1,400.8	1,400.8	1,400.8	1,400.8	1,400.8	1,400.8
Retained earnings (accumulated deficit)	12,762.0	13,618.0	14,659.0	16,008.6	17,519.5	19,344.3	21,583.6	24,367.7	27,814.4	31,916.3	36,627.7	41,857.8	47,264.2
Treasury stock, at cost	10,513.0	11,513.0	12,005.0	12,085.7	12,166.4	12,247.1	12,327.8	12,408.5	12,489.2	12,569.9	12,650.6	12,731.3	12,812.0
Accumulated other comprehensive income (loss)	(410.0)	(643.0)	(567.0)	(567.0)	(567.0)	(567.0)	(567.0)	(567.0)	(567.0)	(567.0)	(567.0)	(567.0)	(567.0)
Total Moody's shareholders' equity (deficit)	2,727.0	2,519.0	3,318.0	4,620.9	6,085.0	7,863.1	10,055.6	12,793.0	16,159.0	20,180.3	24,810.9	29,960.3	35,286.0
Noncontrolling interests	189.0	170.0	158.0	158.0	158.0	158.0	158.0	158.0	158.0	158.0	158.0	158.0	158.0
Total shareholders' equity (deficit)	2,916.0	2,689.0	3,476.0	4,778.9	6,243.0	8,021.1	10,213.6	12,951.0	16,317.0	20,338.3	24,968.9	30,118.3	35,444.0
Total Liabilities and Shareholders' Equity	14,680.0	14,349.0	14,622.0	16,306.5	18,285.2	20,763.6	23,850.3	27,708.8	32,332.5	37,700.1	43,773.7	49,985.4	56,027.6

Moody's
Historical Cash Flow Statement
Reported in \$millions
Fiscal Years Ending Dec. 31

	2013	2014	2015	2016	2018	2019	2020	2021	2022	2023
Net income (loss)	815.9	1,006.0	949.6	275.8	1,319.4	1,429.0	1,777.0	2,214.0	1,374.0	1,608.0
Depreciation & amortization	93.4	95.6	113.5	126.7	191.9	200.0	220.0	257.0	331.0	373
Stock-based compensation	67.1	80.4	87.2	98.1	130.3	136.0	154.0	175.0	169.0	193
Deferred income taxes	(27.2)	29.9	18.1	(153.1)	(98.9)	(38.0)	(44.0)	(218.0)	48.0	(38.0)
ROU asset impairment & other non-cash restructuring or impairment charges	-	-	-	-	-	38.0	36.0	-	29.0	35
Loss pursuant to the divestiture of Moody's Analytics Knowledge Services	-	-	-	-	-	14.0	9.0	-	-	-
Prepayment penalty relating to early redemption of debt	-	-	-	-	-	-	24.0	13.0	(70.0)	-
Non-cash gain related to minority interest in BitSight	-	-	-	-	-	-	-	(36.0)	-	(4.0)
Settlement of treasury rate lock	-	-	-	-	-	-	(68.0)	-	-	-
Excess tax benefits from exercise of stock-based compensation awards	(38.8)	(58.7)	(44.5)	(33.1)	-	-	-	-	-	-
ICRA loss (gain)	-	(102.8)	-	-	-	-	-	-	-	-
Legacy tax matters	(19.2)	(6.4)	(6.4)	(1.6)	-	-	-	-	-	-
Accounts receivable	(67.0)	(98.3)	(25.4)	(104.8)	(136.1)	(134.0)	31.0	(257.0)	34.0	(12.0)
Other current assets	(21.7)	(41.0)	(28.9)	37.0	(8.4)	(88.0)	(38.0)	(12.0)	(223.0)	-
Other assets	(0.7)	(1.7)	(13.1)	6.6	(16.6)	(69.0)	(49.0)	(26.0)	(48.0)	(69.0)
Lease obligations	-	-	-	-	-	(16.0)	(10.0)	(11.0)	(19.0)	(26.0)
Accounts payable & accrued liabilities	(2.9)	59.2	51.4	908.7	(92.1)	77.0	247.0	80.0	(161.0)	76
Deferred revenue	66.1	38.4	31.6	74.9	138.9	76.0	(29.0)	65.0	20.0	24
Unrecognized tax positions & other non-current tax liabilities	30.9	-	-	2.2	58.6	8.0	(12.0)	(184.0)	(33.0)	(129.0)
Unrecognized tax benefits	-	30.6	(10.9)	-	-	-	-	-	-	-
Other liabilities	30.9	(12.6)	31.4	25.3	(25.9)	42.0	(102.0)	(55.0)	3.0	(21.0)
Net cash flows from operating activities	926.8	1,018.6	1,153.6	1,226.1	1,461.1	1,675.0	2,146.0	2,005.0	1,474.0	2,151.0
Cashflow from Investing	-	-	-	-	-	-	-	-	-	-
Capital additions	(42.3)	(74.6)	(89.0)	(115.2)	(90.4)	(69.0)	(103.0)	(139.0)	(283.0)	(271.0)
Purchases of investments	(225.9)	(406.3)	(688.2)	(379.9)	(193.0)	(138.0)	(181.0)	(437.0)	(320.0)	-
Sales & maturities of investments	57.0	134.0	653.1	699.5	160.6	174.0	104.0	147.0	218.0	-
Receipts from purchase price hedge	-	-	-	-	-	-	-	-	-	-
Cash received upon disposal of a business, net of cash transferred to purchaser	-	-	-	1.5	5.7	226.0	-	-	-	-
Cash paid for acquisitions, net of cash acquired	(50.7)	(239.7)	(7.6)	(80.8)	(289.3)	(162.0)	(897.0)	(2,179.0)	(97.0)	(3.0)
Payments for settlements of net investment hedges	-	(0.5)	-	(26.9)	-	(7.0)	(2.0)	(48.0)	-	(143.0)
Receipts from settlements of net investment hedges	-	22.2	39.7	3.8	-	12.0	2.0	37.0	220.0	162
Net cash flows from (used in) investing activities	(261.9)	(564.9)	(92.0)	102.0	(406.4)	36.0	(1,077.0)	(2,619.0)	(262.0)	(247.0)
Cashflow from Financing Activities	-	-	-	-	-	-	-	-	-	-
Issuance of notes	497.2	747.7	852.8	-	1,089.9	824.0	1,491.0	1,672.0	988.0	-
Repayment of notes	(63.8)	(300.0)	-	-	(800.0)	(950.0)	(800.0)	(500.0)	(626.0)	(500.0)
Issuance of commercial paper	-	-	-	-	988.7	1,317.0	789.0	-	-	-
Repayment of commercial paper	-	-	-	-	(1,120.0)	(1,320.0)	(792.0)	-	-	-
Proceeds from stock-based compensation plans	136.0	98.0	89.2	77.8	46.9	45.0	51.0	38.0	26.0	50.0
Repurchase of shares related to stock-based compensation	-	-	(59.5)	(44.4)	(62.2)	(77.0)	(104.0)	(83.0)	(87.0)	(71.0)
Excess tax benefits from exercise of stock based compensation awards	38.8	58.7	44.5	33.1	-	-	-	-	-	-
Treasury shares	(893.1)	(1,220.5)	(1,098.1)	(738.8)	(202.6)	(991.0)	(503.0)	(750.0)	(983.0)	(490.0)
Dividends	(197.3)	(236.0)	(272.1)	(285.1)	(337.2)	(378.0)	(420.0)	(463.0)	(515.0)	(564.0)
Dividends to noncontrolling interests	(12.2)	(11.8)	(6.8)	(6.7)	(4.4)	(3.0)	(1.0)	(5.0)	(1.0)	(9.0)
Payment for noncontrolling interest	-	(183.8)	-	(45.4)	-	(12.0)	(23.0)	-	-	-
Contingent consideration	(0.3)	(10.3)	(1.5)	(0.2)	-	-	-	-	-	-

Debt issuance costs, extinguishment costs & related fees	(4.1)	(6.5)	(9.5)	(0.1)	(10.6)	(18.0)	(39.0)	(31.0)	(10.0)	-
Net cash flows from (used in) financing activities	(498.8)	(1,064.5)	(461.0)	(1,009.8)	(411.5)	(1,563.0)	(351.0)	(122.0)	(1,208.0)	(1,584.0)
Effect of exchange rate changes on cash & cash equivalents	(2.0)	(89.2)	(62.7)	(24.2)	(29.7)	(1.0)	47.0	(50.0)	(46.0)	41
Increase (decrease) in cash & cash equivalents	164.1	(700.0)	537.9	294.1	613.5	147.0	765.0	(786.0)	(42.0)	361
Cash & cash equivalents, beginning of period	1,755.4	1,919.5	1,219.5	1,757.4	1,071.5	1,685.0	1,832.0	2,597.0	1,811.0	1,769
Cash & cash equivalents, end of the period	1,919.5	1,219.5	1,757.4	2,051.5	1,685.0	1,832.0	2,597.0	1,811.0	1,769.0	2,130

Moody's
Forecasted Cash Flow Statement

Fiscal Years Ending Dec. 31	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E
Net Income	1949.2	2241.3	2665.0	3238.2	3997.1	4943.6	5953.4	6941.3	7830.4	8340.2
Operating Activities										
Depreciation and Amortization	374.3	495.6	616.1	736.4	852.8	970.9	1090.6	1212.0	1335.0	1459.8
Changes in working capital accounts										
Changes in Recievables	-264.0	-223.8	-305.1	-392.9	-496.2	-556.6	-594.7	-637.0	-449.3	-278.9
Changes in Prepaid Taxes	102.8	-2.3	-2.7	-3.7	-4.9	-6.1	-6.5	-6.4	-5.8	-3.3
Changes in Prepaid Expenses	12.7	-7.5	-18.2	-23.4	-29.5	-33.1	-35.4	-37.9	-26.7	-16.6
Changes in Other Current Assets	-5.4	-5.7	-6.0	-6.3	-6.6	-6.9	-7.2	-7.6	-8.0	-8.3
Changes in Capitalized Costs	-6.7	-12.7	-19.2	-24.8	-31.3	-35.1	-37.5	-40.2	-28.3	-17.6
Changes in Foreign Exchange Forwards	-0.6	-0.7	-0.7	-0.7	-0.8	-0.8	-0.8	-0.9	-0.9	-1.0
Changes in Deferred Tax Assets	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
Changes in Accounts Payable & Accrued Liabilities	117.3	137.0	189.0	243.5	307.5	344.9	368.5	394.7	278.4	172.8
Changes in Deferred Revenue	133.5	164.2	229.3	295.3	373.0	418.4	447.0	478.8	337.7	209.7
Changes in Income Tax Payable	-58.8	-41.2	-28.8	-20.2	-14.1	-9.9	-6.9	-4.8	-3.4	-2.4
Changes in Current Portion of Operating Lease Liabilities	-18.1	21.9	21.8	21.1	21.4	21.7	22.0	22.3	22.6	23.0
Changes in Non-current Portion of Deffered Revenue	56.0	25.2	20.8	26.7	33.8	37.9	40.5	43.4	30.6	19.0
Changes in Deferred Tax Liabilities	-55.0	-55.0	-55.0	-55.0	-55.0	-55.0	-55.0	-55.0	-55.0	-55.0
Changes in Lease Liability	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
Changes in Other liabilities	32.9	34.5	36.1	37.9	39.7	41.7	43.7	45.8	48.0	50.4
Net Cash Provided by Operating Actiities	2378.9	2779.7	3351.5	4081.3	4996.0	6084.5	7230.6	8357.5	9314.4	9900.8
Cash from Investing Activities:										
Changes in Short Term Investments	-3.1	-3.2	-3.4	-3.5	-3.7	-3.9	-4.1	-4.3	-4.5	-4.7
Changes in Gross PPE	-382.7	-506.7	-630.0	-753.0	-872.0	-992.7	-1115.1	-1239.2	-1365.1	-1492.7
Changes in Other Assets	-55.3	-58.0	-60.8	-63.8	-66.9	-70.1	-73.5	-77.1	-80.8	-84.8
Changes in ROU Lease Asset	-89.8	-89.2	-89.1	-86.2	-87.4	-88.6	-89.8	-91.1	-92.4	-93.6
Net Cash Used for Investing	-530.8	-657.1	-783.2	-906.5	-1030.0	-1155.3	-1282.6	-1411.7	-1542.7	-1675.8
Cash from Financing Activities:										
Proceeds from Notes Payable	172.8	227.0	285.9	343.8	413.8	456.9	485.6	516.8	402.3	298.0
Payment of dividend	-599.6	-730.4	-840.1	-999.0	-1213.0	-1496.8	-1851.5	-2229.9	-2600.3	-2933.8
Proceeds from Issuance of common stock	34.0	34.0	34.0	34.0	34.0	-	-	-	-	-
Repurchases of common stock	-80.7	-80.7	-80.7	-80.7	-80.7	-80.7	-80.7	-80.7	-80.7	-80.7
Net cash provided by financing activities	-473.5	-550.1	-600.9	-702.0	-845.9	-1120.6	-1446.6	-1793.9	-2278.7	-2716.5
Increase in cash	1374.6	1572.4	1967.4	2472.8	3120.1	3808.6	4501.4	5152.0	5493.0	5508.5
Beginning Cash and Cash Equivalent	2130	3504.6	5077.1	7044.5	9517.3	12637.4	16446.0	20947.4	26099.4	31592.4
End of the period Cash and Cash Equivalent	3504.6	5077.1	7044.5	9517.3	12637.4	16446.0	20947.4	26099.4	31592.4	37100.9

Moody's
Common Size Income Statement

Fiscal Years Ending Dec. 31	2021	2022	2023	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E
Revenue	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Expenses													
Operating expenses	26.33%	29.50%	28.52%	28.09%	27.50%	27.00%	26.50%	26.00%	25.00%	24.00%	24.00%	23.00%	23.00%
Selling, general & administrative expenses	23.80%	27.93%	27.59%	25.11%	25.00%	24.50%	24.00%	23.50%	23.00%	23.00%	23.00%	23.00%	23.00%
Depreciation & amortization	4.13%	6.05%	6.30%	5.54%	6.55%	7.13%	7.34%	7.24%	7.06%	6.88%	6.70%	6.79%	7.07%
Total expenses	54.26%	65.56%	63.88%	58.75%	59.05%	58.63%	57.84%	56.74%	55.06%	53.88%	53.70%	52.79%	53.07%
Operating income	45.74%	34.44%	36.12%	41.25%	40.95%	41.37%	42.16%	43.26%	44.94%	46.12%	46.30%	47.21%	46.93%
Interest income (expense), net	-2.75%	-4.22%	-4.24%	-4.43%	-3.19%	-2.06%	-0.99%	0.01%	0.94%	1.82%	2.65%	3.56%	4.57%
Other non-operating income (expense), net	1.32%	0.69%	0.83%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Non-operating income (expense), net	-1.43%	-2.25%	-3.41%	-4.43%	-3.19%	-2.06%	-0.99%	0.01%	0.94%	1.82%	2.65%	3.56%	4.57%
Income (loss) before provision for income taxes	44.31%	32.19%	32.71%	36.83%	37.76%	39.31%	41.17%	43.27%	45.88%	47.93%	48.95%	50.77%	51.50%
Provision for income taxes	8.70%	7.06%	5.53%	7.95%	8.16%	8.49%	8.89%	9.35%	9.91%	10.35%	10.57%	10.97%	11.12%
Net income (loss)	35.61%	25.13%	27.18%	28.87%	29.60%	30.82%	32.28%	33.93%	35.97%	37.58%	38.37%	39.80%	40.38%

Moody's

Common Size Balance Sheet

Fiscal Years Ending Dec. 31

	2021	2022	2023	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E
Cash & cash equivalents	29.13%	32.35%	36.00%	51.91%	67.06%	81.47%	94.87%	107.26%	119.65%	132.23%	144.29%	160.59%	179.61%
Short-term investments	1.46%	1.65%	1.06%	0.98%	0.91%	0.84%	0.76%	0.68%	0.61%	0.55%	0.51%	0.49%	0.49%
Accounts receivable, net	27.66%	30.21%	28.04%	28.48%	28.36%	28.36%	28.36%	28.36%	28.36%	28.36%	28.36%	28.36%	28.36%
Deferred tax assets, net	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Prepaid taxes	1.80%	4.30%	1.94%	0.18%	0.19%	0.20%	0.21%	0.22%	0.23%	0.24%	0.25%	0.26%	0.26%
Prepaid expenses	1.59%	2.18%	2.25%	1.78%	1.69%	1.69%	1.69%	1.69%	1.69%	1.69%	1.69%	1.69%	1.69%
Capitalized costs to obtain & fulfill sales contracts	1.66%	1.94%	1.96%	1.82%	1.79%	1.79%	1.79%	1.79%	1.79%	1.79%	1.79%	1.79%	1.79%
Foreign exchange forwards on certain assets & liabilities	0.02%	0.35%	0.22%	0.20%	0.19%	0.17%	0.16%	0.14%	0.13%	0.11%	0.11%	0.10%	0.10%
Other current assets	1.19%	1.90%	1.89%	1.74%	1.63%	1.49%	1.35%	1.21%	1.08%	0.99%	0.91%	0.87%	0.87%
Total current assets	64.51%	74.87%	73.38%	87.09%	101.82%	116.01%	129.18%	141.34%	153.54%	165.96%	177.89%	194.15%	213.17%
PPE													
Total property & equipment, at cost	21.82%	29.72%	31.69%	33.44%	36.51%	39.26%	41.34%	42.60%	43.74%	44.99%	46.25%	49.47%	54.34%
Less: accumulated depreciation & amortization	16.24%	20.54%	21.50%	21.61%	23.40%	25.54%	27.64%	29.33%	30.96%	32.66%	34.36%	37.51%	41.97%
Property & equipment, net	5.58%	9.18%	10.19%	11.83%	13.11%	13.72%	13.70%	13.28%	12.78%	12.33%	11.89%	11.96%	12.37%
Operating lease right-of-use assets	7.04%	6.33%	4.68%	5.43%	6.02%	6.30%	6.29%	6.10%	5.87%	5.66%	5.46%	5.49%	5.68%
Goodwill	96.48%	106.78%	100.68%	88.22%	78.67%	68.88%	59.37%	50.55%	43.33%	37.60%	32.93%	30.28%	28.83%
Intangible assets, net	39.68%	40.42%	34.63%	27.58%	22.18%	17.34%	13.24%	9.82%	7.17%	5.14%	3.56%	2.40%	1.46%
Deferred tax assets, net	6.18%	4.86%	4.36%	3.70%	3.20%	2.71%	2.25%	1.85%	1.53%	1.28%	1.07%	0.95%	0.86%
Other Assets	16.63%	19.97%	19.24%	17.67%	16.53%	15.17%	13.71%	12.25%	11.01%	10.01%	9.20%	8.87%	8.85%
Total assets	236.09%	262.42%	247.16%	241.52%	241.52%	240.13%	237.74%	235.18%	235.23%	237.98%	242.00%	254.08%	271.24%
Liabilities													
Accounts payable & accrued liabilities	18.37%	18.49%	18.19%	17.67%	17.57%	17.57%	17.57%	17.57%	17.57%	17.57%	17.57%	17.57%	17.57%
Current portion of operating lease liabilities	1.69%	1.94%	1.83%	1.33%	1.48%	1.54%	1.54%	1.49%	1.44%	1.39%	1.34%	1.35%	1.39%
Deferred revenue	20.09%	23.01%	22.24%	21.47%	21.31%	21.31%	21.31%	21.31%	21.31%	21.31%	21.31%	21.31%	21.31%
Commercial paper & Current portion of long-term debt	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total current liabilities	40.14%	43.43%	42.26%	40.48%	40.36%	40.43%	40.43%	40.38%	40.32%	40.27%	40.22%	40.23%	40.28%
Non-current portion of deferred revenue	1.38%	1.37%	1.10%	1.79%	1.93%	1.93%	1.93%	1.93%	1.93%	1.93%	1.93%	1.93%	1.93%
Notes payable	119.22%	135.13%	118.34%	106.25%	97.75%	88.90%	80.05%	71.67%	64.76%	59.25%	54.75%	52.39%	51.34%
Total debt	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Less: current portion	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Long-term debt	119.22%	135.13%	118.34%	106.25%	97.75%	88.90%	80.05%	71.67%	64.76%	59.25%	54.75%	52.39%	51.34%
Deferred tax liabilities, net	7.85%	8.36%	6.80%	5.14%	3.86%	2.74%	1.81%	1.08%	0.52%	0.11%	-0.21%	-0.47%	-0.72%
Uncertain tax positions	6.24%	5.89%	3.31%	2.03%	1.27%	0.78%	0.47%	0.28%	0.17%	0.10%	0.06%	0.04%	0.03%
Operating lease liabilities	7.32%	6.73%	5.17%	4.55%	4.07%	3.58%	3.09%	2.64%	2.27%	1.98%	1.74%	1.60%	1.53%
Other liabilities	7.04%	12.33%	11.43%	10.50%	9.82%	9.01%	8.15%	7.27%	6.54%	5.95%	5.46%	5.27%	5.26%
Total liabilities	189.19%	213.24%	188.40%	170.74%	159.06%	147.37%	135.93%	125.26%	116.52%	109.59%	103.96%	100.99%	99.65%
Equity													
Redeemable noncontrolling interest	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Common stock	14.28%	19.33%	20.81%	18.74%	17.16%	15.42%	13.62%	11.89%	10.19%	8.84%	7.74%	7.12%	6.78%
Retained earnings (accumulated deficit)	205.24%	249.05%	247.79%	237.11%	231.41%	223.72%	215.14%	206.82%	202.36%	201.47%	202.49%	212.77%	228.81%
Treasury stock, at cost	169.07%	210.55%	202.92%	179.01%	160.70%	141.64%	122.88%	105.32%	90.86%	79.35%	69.94%	64.72%	62.02%
Accumulated other comprehensive income (loss)	-6.59%	-11.76%	-9.58%	-8.40%	-7.49%	-6.56%	-5.65%	-4.81%	-4.13%	-3.58%	-3.13%	-2.88%	-2.74%
Total Moody's shareholders' equity (deficit)	43.86%	46.07%	56.09%	68.44%	80.37%	90.94%	100.23%	108.58%	117.56%	127.38%	137.17%	152.29%	170.82%
Noncontrolling interests	3.04%	3.11%	2.67%	2.34%	2.09%	1.83%	1.57%	1.34%	1.15%	1.00%	0.87%	0.80%	0.76%
Total shareholders' equity (deficit)	46.90%	49.18%	58.76%	70.78%	82.46%	92.77%	101.81%	109.92%	118.71%	128.38%	138.04%	153.10%	171.59%

Total Liabilities and Shareholders' Equity	236.09%	262.42%	247.16%	241.52%	241.52%	240.13%	237.74%	235.18%	235.23%	237.98%	242.00%	254.08%	271.24%
---	----------------	----------------	----------------	----------------	----------------	----------------	----------------	----------------	----------------	----------------	----------------	----------------	----------------

Moody's
Value Driver Estimation

Fiscal Years Ending Dec. 31	2021	2022	2023	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E
NOPLAT:													
Revenue	6218.0	5468.0	5916.0	6751.5	7570.9	8646.7	10032.3	11782.1	13744.9	15842.0	18088.4	19672.8	20656.4
Less: Operating expenses	1637.0	1613.0	1687.0	1896.7	2082.0	2334.6	2658.6	3063.3	3436.2	3802.1	4341.2	4524.7	4751.0
Less: Selling, general & administrative expenses	1480.0	1527.0	1632.0	1695.5	1892.7	2118.4	2407.8	2768.8	3161.3	3643.7	4160.3	4524.7	4751.0
Less: Depreciation & amortization	257.0	331.0	373.0	374.3	495.6	616.1	736.4	852.8	970.9	1090.6	1212.0	1335.0	1459.8
Plus: Implied interest on Operating leases	27.7	29.5	25.1	16.0	21.2	26.4	31.6	36.5	41.6	46.7	51.9	57.2	62.6
EBIT	2871.7	2026.5	2249.1	2801.1	3121.8	3604.0	4261.1	5133.6	6218.1	7352.4	8426.8	9345.5	9757.2
Income tax provision	541.0	386.0	327.0	537.0	617.5	734.2	892.2	1101.2	1362.0	1640.2	1912.4	2157.4	2297.8
Plus: Interest Expense	36.9	49.9	54.2	64.5	52.2	38.5	21.4	-0.3	-27.9	-62.2	-103.4	-151.1	-203.8
Plus: Taxes on Lease interest	6.0	6.4	5.4	3.5	4.6	5.7	6.8	7.9	9.0	10.1	11.2	12.4	13.5
Plus: Taxes on Acquisition related expense	0.0	24.6	18.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Plus: Taxes on Loss Pursuant to Divestiture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Plus: Taxes on Settlement Charge	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Less: Other Non-operating income (expense)	23.2	10.8	13.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Less: CCXI, ICRA and other gains	0.0	19.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Adjusted Taxes	560.7	436.3	391.6	605.0	674.3	778.5	920.4	1108.9	1343.1	1588.1	1820.2	2018.6	2107.6
Deferred Tax Asset	384.0	266.0	258.0	250.0	242.0	234.0	226.0	218.0	210.0	202.0	194.0	186.0	178.0
Deferred Tax Liabilities	488.0	457.0	402.0	347.0	292.0	237.0	182.0	127.0	72.0	17.0	-38.0	-93.0	-148.0
Net Deferred Taxes	-104.0	-191.0	-144.0	-97.0	-50.0	-3.0	44.0	91.0	138.0	185.0	232.0	279.0	326.0
Change in Net Deferred Taxes	-34.0	-87.0	47.0	47.0	47.0	47.0	47.0	47.0	47.0	47.0	47.0	47.0	47.0
NOPLAT	2277.0	1503.2	1904.6	2243.0	2494.5	2872.5	3387.7	4071.8	4922.0	5811.3	6653.6	7373.8	7696.6
Invested Capital (IC):													
Operating Current Assets:													
Normal Cash	1584.8	1393.6	1507.8	1720.8	1929.6	2203.8	2556.9	3002.9	3503.2	4037.6	4610.2	5014.0	5264.7
Plus: Prepaid Taxes	112.0	235.0	115.0	12.2	14.5	17.2	20.9	25.9	32.0	38.5	44.9	50.6	53.9
Plus: Capitalized cost to obtain contract	103.0	106.0	116.0	122.7	135.4	154.7	179.5	210.8	245.9	283.4	323.6	351.9	369.5
Plus: Accounts Receivable	1720.0	1652.0	1659.0	1923.0	2146.9	2452.0	2844.9	3341.0	3897.6	4492.3	5129.3	5578.6	5857.5
Plus: Prepaid Expenses	99.0	119.0	133.0	120.3	127.8	146.0	169.4	198.9	232.0	267.4	305.4	332.1	348.7
Plus: Other current asset	74	104	112	117	123	129	135	142	149	156	164	172	180
Operating Current Liabilities:													
Less: Accounts payable & Accrued Liabilities	1142	1011	1076	1193	1330	1519	1763	2070	2415	2784	3178	3457	3630
Less: Deferred Revenue	1249	1258	1316	1450	1614	1843	2138	2511	2930	3377	3855	4193	4403
Less: Income tax payable	388	322	196	137	96	67	47	33	23	16	11	8	6
NOWC	1302	1341	1251	1374	1533	1740	2006	2340	2715	3115	3543	3849	4042
Plus: Net PPE	347	502	603	798	993	1186	1374	1564	1757	1953	2151	2352	2556
Plus: PV of operating leases	438	346	277	367	456	545	631	719	807	897	988	1080	1174
Plus: Intangible Assets	2467	2210	2049	1862	1679	1499	1328	1157	986	815	644	473	302
Plus: Other Assets	1034	1092	1138	1193	1251	1312	1376	1443	1513	1586	1663	1744	1829
Less: Other Liabilities	438	674	676	709	743	779	817	857	899	942	988	1036	1087

Invested Capital	5149.8	4816.6	4641.8	4885.3	5168.9	5503.6	5897.6	6365.4	6879.2	7423.7	8001.5	8462.5	8816.4
Free Cash Flow (FCF):													
NOPLAT	2277.0	1503.2	1904.6	2243.0	2494.5	2872.5	3387.7	4071.8	4922.0	5811.3	6653.6	7373.8	7696.6
Change in IC	1706.9	-333.2	-174.8	243.5	283.6	334.7	394.0	467.8	513.8	544.6	577.8	461.0	353.9
FCF	570.1	1836.3	2079.4	1999.5	2210.9	2537.8	2993.7	3604.0	4408.2	5266.7	6075.8	6912.8	7342.8
Return on Invested Capital (ROIC):													
NOPLAT	2277	1503	1905	2243	2495	2873	3388	4072	4922	5811	6654	7374	7697
Beginning IC	3442.91	5149.78	4816.63	4641.81	4885.33	5168.90	5503.57	5897.61	6365.38	6879.16	7423.74	8001.50	8462.51
ROIC	66.14%	29.19%	39.54%	48.32%	51.06%	55.57%	61.56%	69.04%	77.32%	84.48%	89.63%	92.16%	90.95%
Economic Profit (EP):													
Beginning IC	3442.9	5149.8	4816.6	4641.8	4885.3	5168.9	5503.6	5897.6	6365.4	6879.2	7423.7	8001.5	8462.5
x (ROIC - WACC)	55.92%	18.98%	29.33%	38.11%	40.85%	45.36%	51.34%	58.83%	67.11%	74.26%	79.41%	81.94%	80.74%
EP	1,925.4	977.2	1,412.7	1,769.0	1,995.6	2,344.6	2,825.6	3,469.5	4,271.9	5,108.7	5,895.4	6,556.7	6,832.4

Moody's*Weighted Average Cost of Capital (WACC) Estimation***Cost of Equity:**

Risk-Free Rate	4.25%
Beta	1.31
Equity Risk Premium	5.00%
Cost of Equity	10.80%

Cost of Debt:

Risk-Free Rate	4.25%
Implied Default Premium	1.54%
Pre-Tax Cost of Debt	5.79%
Marginal Tax Rate	22%
After-Tax Cost of Debt	4.54%

Market Value of Common Equity:

Total Shares Outstanding	182.47
Current Stock Price	\$387.01
MV of Equity	70,618.49

MV Weights

90.62%

Market Value of Debt:

Short-Term Debt	0
Current Portion of LTD	0
Long-Term Debt	7001
PV of Operating Leases	306
MV of Total Debt	7,307.00

9.38%

Market Value of the Firm**77,925.49**

100.00%

Estimated WACC

10.21%

Moody's*Discounted Cash Flow (DCF) and Economic Profit (EP) Valuation Models*

Key Inputs:

CV Growth of NOPLAT	5.30%
CV Year ROIC	90.95%
WACC	10.21%
Cost of Equity	10.80%

Fiscal Years Ending Dec. 31	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E
------------------------------------	--------------	--------------	--------------	--------------	--------------	--------------	--------------	--------------	--------------	--------------

DCF Model:

Free Cash Flow (FCF)	1999.5	2210.9	2537.8	2993.7	3604.0	4408.2	5266.7	6075.8	6912.8	7342.8
Continuing Value (CV)										147531.2
PV of FCF	1814.2	1820.2	1895.7	2029.0	2216.3	2459.6	2666.3	2790.9	2881.1	61488.0

Value of Operating Assets:	82061.3
Add: Excess Cash	622.2
Add: Short Term investments	63.0
Add: Foreign Exchange forwards	13.0
Add: Overfunded pension plan	42.0
Less: Total Debt	7001.0
Less: ESOP	162.1
Less: Non-controlling interests	158.0
Less: PV of Operating Leasees	306.0

Value of Equity	75174.3
Shares Outstanding	181.8
Intrinsic Value of Last FYE	\$ 413.45
Implied Price as of Today	\$ 419.20

EP Model:

Economic Profit (EP)										
Continuing Value (CV)	1769.0	1995.6	2344.6	2825.6	3469.5	4271.9	5108.7	5895.4	6556.7	6832.4
PV of EP	1605.1	1642.9	1751.4	1915.1	2133.5	2383.5	2586.3	2708.0	2732.7	57961.0

Total PV of EP	77419.4
Invested Capital (last FYE)	4641.8
Value of Operating Assets:	82061.3
Add: Excess Cash	622.2
Add: Short Term investments	63.0
Add: Foreign Exchange forwards	13.0
Add: Overfunded Pension plan	42.0
Less: Total Debt	7001.0
Less: ESOP	162.1
Less: Non-controlling interests	158.0
PV of Operating Leasees	306.0

Value of Equity	75174.3
Shares Outstanding	181.8
Intrinsic Value of Last FYE	\$ 413.45
Implied Price as of Today	\$ 419.20

Moody's

Dividend Discount Model (DDM) or Fundamental P/E Valuation Model

Fiscal Years Ending	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E
----------------------------	--------------	--------------	--------------	--------------	--------------	--------------	--------------	--------------	--------------	--------------

EPS	\$ 10.68	\$ 12.29	\$ 14.61	\$ 17.75	\$ 21.92	\$ 27.13	\$ 32.69	\$ 38.14	\$ 43.05	\$ 45.87
-----	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------

Key Assumptions

CV growth of EPS	5.00%
CV Year ROE	31.36%
Cost of Equity	10.80%

Future Cash Flows

P/E Multiple (CV Year)										14.49
EPS (CV Year)										\$ 45.87
Future Stock Price										\$ 664.77
Dividends Per Share	3.29	4.00	4.61	5.48	6.65	8.22	10.17	12.26	14.30	
Discounted Cash Flows	2.97	3.26	3.39	3.63	3.99	4.44	4.96	5.40	5.68	264.13

Intrinsic Value as of Last FYE \$ 301.84

Implied Price as of Today \$ 306.04

Moody's

Relative Valuation Models

Ticker	Company	Price	EPS		P/E 24	P/E 25	P/S	EV/EBITDA
			2024E	2025E				
EXPGY	Experian Plc	\$43.42	\$1.44	\$1.59	30.15	27.31	4.60	15.00
SPGI	S&P Global Inc	\$438.27	\$14.01	\$16.00	31.28	27.39	11.20	26.60
EFX	Equifax Inc	\$265.98	\$7.61	\$9.80	34.95	27.14	5.80	21.40
TRU	TransUnion	\$77.44	\$3.69	\$4.44	20.99	17.44	3.50	13.60
FICO	Fair Isaac Corp	\$1,282.33	\$23.57	\$29.01	54.41	44.20	14.30	30.50
			Average		34.36	28.70	7.88	21.42

MCO	Moody's	\$387.01	10.68	12.29	36.2	31.5	12.0	32.7
------------	----------------	-----------------	--------------	--------------	-------------	-------------	-------------	-------------

Implied Relative Value:

P/E (EPS24) \$ 367.08

P/E (EPS25) \$ 352.64

P/S (2024) \$ 94.44

Moody's
Key Management Ratios

Fiscal Years Ending Dec. 31	2021	2022	2023	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E
Liquidity Ratios:													
Current Ratio (Current Asset/Current Liabilities)	1.61	1.72	1.74	2.15	2.52	2.87	3.20	3.50	3.81	4.12	4.42	4.83	5.29
Cash Ratio (Cash/Current Liabilities)	0.73	0.74	0.85	1.28	1.66	2.02	2.35	2.66	2.97	3.28	3.59	3.99	4.46
Quick Ratio (Cash & Short term Investments/Current Liabilities)	0.76	0.78	0.88	1.31	1.68	2.04	2.37	2.67	2.98	3.30	3.60	4.00	4.47
Asset-Management Ratios:													
Receivables Turnover (Revenue/Account Receivable)	3.62	3.31	3.57	3.51	3.53	3.53	3.53	3.53	3.53	3.53	3.53	3.53	3.53
Average Collection Period (365/Revenue/Account Receivable)	100.96	110.27	102.36	103.96	103.50	103.50	103.50	103.50	103.50	103.50	103.50	103.50	103.50
Total Asset Turnover (Revenue/Total Asset)	0.42	0.38	0.40	0.41	0.41	0.42	0.42	0.43	0.43	0.42	0.41	0.39	0.37
Financial Leverage Ratios:													
Debt to Asset Ratio (Total Debt/Total Asset)	0.50	0.51	0.48	0.44	0.40	0.37	0.34	0.30	0.28	0.25	0.23	0.21	0.19
Debt to Capital Ratio (Total Debt/Total Liabilities & Equity)	0.51	0.52	0.48	0.44	0.41	0.37	0.34	0.31	0.28	0.25	0.23	0.21	0.19
Debt to EBIT (Total Debt/Operating Income)	2.61	3.92	3.28	2.58	2.39	2.15	1.90	1.66	1.44	1.28	1.18	1.11	1.09
Debt to Equity (Total Debt/Total Equity)	2.72	2.93	2.11	1.55	1.22	0.98	0.80	0.66	0.55	0.47	0.40	0.34	0.30
Profitability Ratios:													
Return on Equity (NI/Beg TSE)	125.58%	47.12%	59.80%	56.08%	46.90%	42.69%	40.37%	39.14%	38.17%	36.49%	34.13%	31.36%	27.69%
Profit Margin (Net Income/Revenue)	35.61%	25.13%	27.18%	28.87%	29.60%	30.82%	32.28%	33.93%	35.97%	37.58%	38.37%	39.80%	40.38%
Return on Assets (Net Income/Total Assets)	17.84%	9.36%	11.21%	13.33%	13.74%	14.57%	15.60%	16.76%	17.84%	18.41%	18.41%	17.89%	16.69%
Payout Policy Ratios:													
Dividend Payout Ratio (Dividend/EPS)	20.88%	37.48%	35.12%	30.77%	32.59%	31.52%	30.85%	30.36%	30.29%	31.11%	32.13%	33.22%	35.18%
Total Payout Ratio ((Divs. + Repurchases)/NI)	10.87%	17.58%	42.31%	34.90%	36.19%	34.55%	33.34%	32.37%	31.91%	32.45%	33.29%	34.24%	36.14%
Dividend Yield	0.64%	0.72%	0.80%	0.85%	1.03%	1.19%	1.42%	1.72%	2.12%	2.63%	3.17%	3.69%	4.17%

Moody's*Present Value of Operating Lease Obligations*

Fiscal Years Ending Dec. 31	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Year 1	78.0	93.4	94.8	101.9	108.3	105.9	107.0	110.0	121.0	119.0	118.0
Year 2	68.0	80.9	88.7	85.9	87.1	102.3	103.0	99.0	118.0	111.0	108.0
Year 3	59.6	78.2	83.2	75.1	80.8	95.6	91.0	93.0	109.0	98.0	89.0
Year 4	58.0	72.7	72.7	70.0	75.7	84.4	85.0	84.0	93.0	79.0	71.0
Year 5	58.0	64.9	68.7	67.2	72.6	81.0	79.0	76.0	74.0	64.0	20.0
Thereafter	484.0	447.3	417.4	343.8	290.6	246.5	183.0	117.0	95.0	40.0	36.0
Total Minimum Payments	805.6	837.4	825.5	743.9	715.1	715.7	648.0	579.0	610.0	511.0	442.0
Less: Cumulative Interest	247.3	231.7	217.1	181.6	160.5	148.7	124.6	101.4	100.8	76.6	61.9
PV of Minimum Payments	558.3	605.7	608.4	562.3	554.6	567.0	523.4	477.6	509.2	434.4	380.1
Implied Interest in Year 1 Payment		32.3	35.1	35.2	32.6	32.1	32.8	30.3	27.7	29.5	25.1
Pre-Tax Cost of Debt	5.79%	5.79%	5.79%	5.79%	5.79%	5.79%	5.79%	5.79%	5.79%	5.79%	5.79%
Years Implied by Year 6 Payment	8.3	6.9	6.1	5.1	4.0	3.0	2.3	1.5	1.3	1.0	1.8
Expected Obligation in Year 6 & Beyond	58	64.9	68.7	67.2	72.6	81	79	76	74	40	20
Present Value of Lease Payments											
PV of Year 1	73.7	88.3	89.6	96.3	102.4	100.1	101.1	104.0	114.4	112.5	111.5
PV of Year 2	60.8	72.3	79.3	76.8	77.8	91.4	92.0	88.5	105.4	99.2	96.5
PV of Year 3	50.3	66.1	70.3	63.4	68.2	80.7	76.9	78.6	92.1	82.8	75.2
PV of Year 4	46.3	58.0	58.0	55.9	60.4	67.4	67.9	67.1	74.3	63.1	56.7
PV of Year 5	43.8	49.0	51.8	50.7	54.8	61.1	59.6	57.4	55.8	48.3	15.1
PV of 6 & beyond	283.4	272.0	259.4	219.2	190.9	166.2	125.9	82.2	67.2	28.5	25.1
Capitalized PV of Payments	558.3	605.7	608.4	562.3	554.6	567.0	523.4	477.6	509.2	434.4	380.1

Moody's*Effects of ESOP Exercise and Share Repurchases on Common Stock Account and Number of Shares Outstanding*

Number of Options Outstanding (shares): 0.80
Average Time to Maturity (years): 5.00
Expected Annual Number of Options Exercised: 0.16

Current Average Strike Price: \$ 212.29
Cost of Equity: 10.80%
Current Stock Price: \$387.01

Fiscal Years Ending Dec. 31	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E	2033E
Increase in Shares Outstanding:	0.16	0.16	0.16	0.16	0.16	0.00	0.00	0.00	0.00	0.00	0.00
Average Strike Price:	\$ 212.29	\$ 212.29	\$ 212.29	\$ 212.29	\$ 212.29	\$ 212.29	\$ 212.29	\$ 212.29	\$ 212.29	\$ 212.29	\$ 212.29
Increase in Common Stock Account:	34	34	34	34	34	-	-	-	-	-	-
Share Repurchases (\$)	80.7	80.7	80.7	80.7	80.7	80.7	80.7	80.7	80.7	80.7	80.7
Expected Price of Repurchased Shares:	\$ 387.01	\$ 425.71	\$ 468.28	\$ 515.11	\$ 566.62	\$ 623.28	\$ 685.61	\$ 754.17	\$ 829.59	\$ 912.55	\$1,003.80
Number of Shares Repurchased:	0.21	0.19	0.17	0.16	0.14	0.13	0.12	0.11	0.10	0.09	0.08
Shares Outstanding (beginning of the year)	182.5	182.4	182.4	182.4	182.4	182.4	182.3	182.2	182.0	182.0	181.9
Plus: Shares Issued Through ESOP	0.2	0.2	0.2	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0
Less: Shares Repurchased in Treasury	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Shares Outstanding (end of the year)	182.4	182.4	182.4	182.4	182.4	182.3	182.2	182.0	182.0	181.9	181.8

Moody's*Valuation of Options Granted under ESOP*

Current Stock Price	\$387.01
Risk Free Rate	4.25%
Current Dividend Yield	0.80%
Annualized St. Dev. of Stock Returns	21.07%

Range of Outstanding Options	Number of Shares	Average Exercise Price	Average Remaining Life (yrs)	B-S Option Price	Value of Options Granted
Range 1	1	212.29	5.00	\$ 202.65	\$ 162
Total	1	\$ 212.29	5.00	\$ 217.36	\$ 162

Market Risk Premium

	419.20	3.50%	4.00%	4.50%	5.00%	5.50%	6.00%	6.50%
CV growth of EPS	4.40%	574.72	488.34	421.85	369.15	326.41	291.07	261.41
	4.70%	612.11	514.93	441.46	384.02	337.93	300.17	268.70
	5.00%	656.03	545.49	463.61	400.59	350.65	310.13	276.62
	5.30%	708.37	580.97	488.84	419.20	364.75	321.06	285.26
	5.60%	771.79	622.66	517.84	440.21	380.47	333.12	294.70
	5.90%	850.24	672.35	551.51	464.16	398.12	346.50	305.07
	6.20%	949.77	732.60	591.10	491.68	418.07	361.42	316.52

Operating Expenses as a % of sale (2033)

	419.20	20.00%	21.00%	22.00%	23.00%	24.00%	25.00%	26.00%
SG&A as a % of Sales (2033)	20.00%	465.16	457.50	449.84	442.18	434.52	426.86	419.20
	21.00%	457.50	449.84	442.18	434.52	426.86	419.20	411.53
	22.00%	449.84	442.18	434.52	426.86	419.20	411.53	403.87
	23.00%	442.18	434.52	426.86	419.20	411.53	403.87	396.21
	24.00%	434.52	426.86	419.20	411.53	403.87	396.21	388.55
	25.00%	426.86	419.20	411.53	403.87	396.21	388.55	380.89
	26.00%	419.20	411.53	403.87	396.21	388.55	380.89	373.23

Risk Free Rate

	419.20	3.25%	4.25%	5.25%	6.25%	7.25%	8.25%	9.25%
Equity Risk Premium	2.00%	5,569.20	1,767.40	1,019.03	700.27	524.11	412.62	335.86
	3.00%	1,446.39	895.80	635.71	484.57	385.99	316.77	265.59
	4.00%	797.24	580.97	449.87	362.11	299.37	252.38	215.94
	5.00%	533.96	419.20	340.57	283.46	240.17	206.30	179.11
	6.00%	391.89	321.06	268.85	228.86	197.29	171.78	150.78
	7.00%	303.30	255.41	218.35	188.86	164.89	145.04	128.36
	8.00%	242.99	208.55	180.96	158.39	139.61	123.76	110.23

Pre-tax cost of debt

	419.20	2.79%	3.79%	4.79%	5.79%	6.79%	7.79%	8.79%
Marginal Tax rate	21.00%	445.11	437.37	429.87	422.60	415.54	408.69	402.04
	21.20%	443.87	436.17	428.70	421.46	414.44	407.63	401.01
	21.40%	442.62	434.96	427.53	420.33	413.34	406.56	399.98
	21.60%	441.37	433.75	426.36	419.20	412.24	405.49	398.94
	21.80%	440.12	432.54	425.19	418.06	411.14	404.43	397.91
	22.00%	438.87	431.33	424.02	416.92	410.04	403.36	396.87
	22.20%	437.62	430.12	422.85	415.79	408.94	402.29	395.83

SG&A as a % of sales (Average)

	419.20	22.11%	23.11%	24.11%	25.11%	26.11%	27.11%	28.11%
Inflation (5year average)	1.25%	422.71	422.44	422.17	421.90	421.64	421.37	421.10
	2.25%	420.00	419.73	419.46	419.20	418.93	418.66	418.39
	3.25%	417.19	416.92	416.66	416.39	416.12	415.85	415.59
	4.25%	414.28	414.01	413.74	413.48	413.21	412.94	412.67
	5.25%	411.26	410.99	410.73	410.46	410.19	409.92	409.66
	6.25%	408.13	407.86	407.60	407.33	407.06	406.79	406.53
	7.25%	404.89	404.62	404.35	404.08	403.82	403.55	403.28

Implied Depreciation Rate (Average)

	419.20	59.07%	60.07%	61.07%	62.07%	63.07%	64.07%	65.07%
Inflation Rate (5yr Average)	1.25%	425.51	424.31	423.11	421.90	420.70	419.49	418.29
	2.25%	423.04	421.76	420.48	419.20	417.91	416.62	415.33
	3.25%	420.48	419.12	417.75	416.39	415.02	413.64	412.26
	4.25%	417.83	416.38	414.93	413.48	412.01	410.54	409.07
	5.25%	415.09	413.55	412.01	410.46	408.90	407.33	405.76
	6.25%	412.26	410.62	408.98	407.33	405.67	404.00	402.32
	7.25%	409.32	407.59	405.84	404.08	402.32	400.54	398.75