

Insights and Innovations:

**A Briefing on the
Technology Sector**

May 2025

MOODY'S
RATINGS



Paloma San Valentin
Managing Director,
Head of North America
Corporate Finance
Moody's Ratings



Welcoming Remarks

Agenda

- 1** **Macroeconomic Outlook**
- 2** **Technology Sector Panel**
- 3** **AI Innovation Trends & JV Structures**
- 4** **Investment-Grade & Speculative-Grade Credit Trends**

Marisa DiNatale
Senior Director -
Economic Research
Moody's Analytics

Raj Joshi
Senior Vice
President,
Corporate Finance
Moody's Ratings



Macroeconomic Outlook

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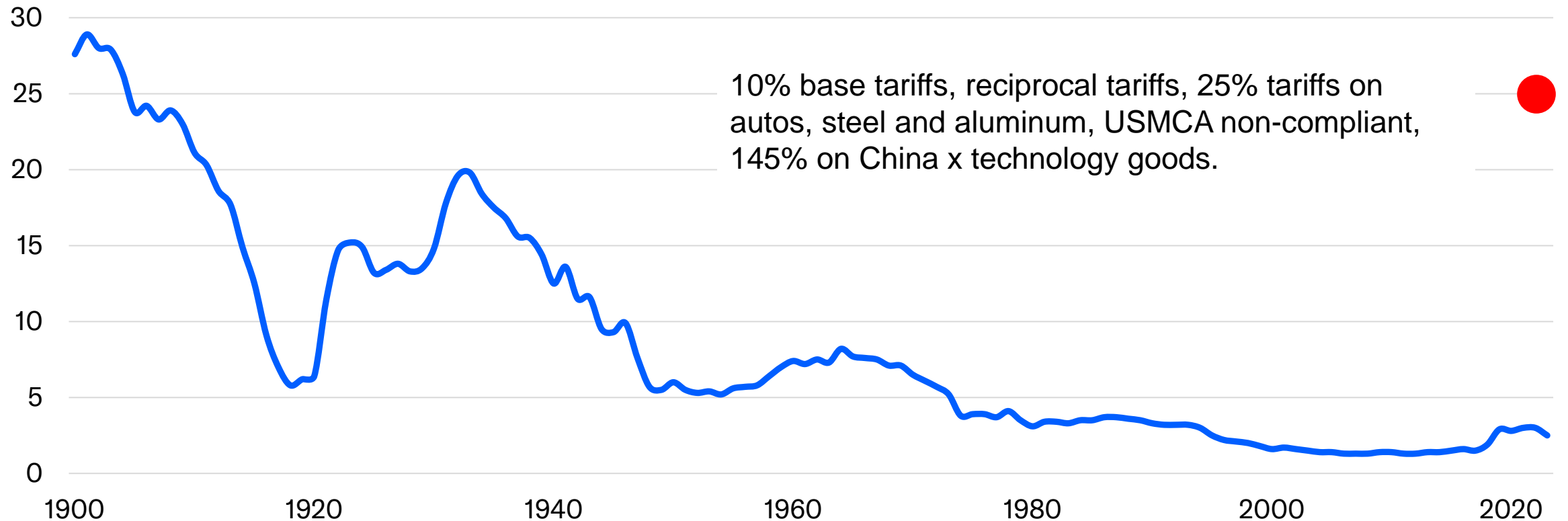
Assessing the Trade War's Economic Impact

Marisa DiNatale, Senior Director, Moody's

Please attribute information in this document to Moody's Analytics, which is a division within Moody's that is separate from Moody's Ratings. Accordingly, the viewpoints expressed herein do not reflect those of Moody's Ratings.

The Global Trade War Takes a Dark Turn

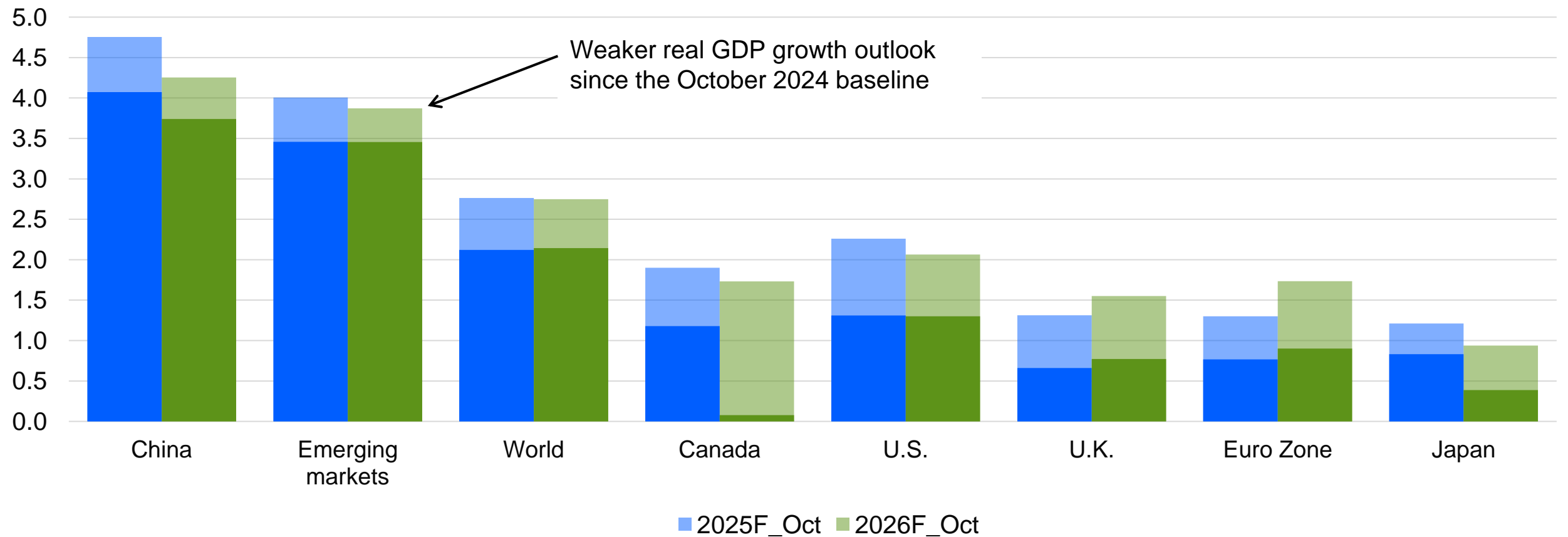
U.S. effective tariff rate, import duties as a % of U.S. imports



Source: Moody's Analytics

Trade War Weighs Heavily on the Global Growth Outlook...

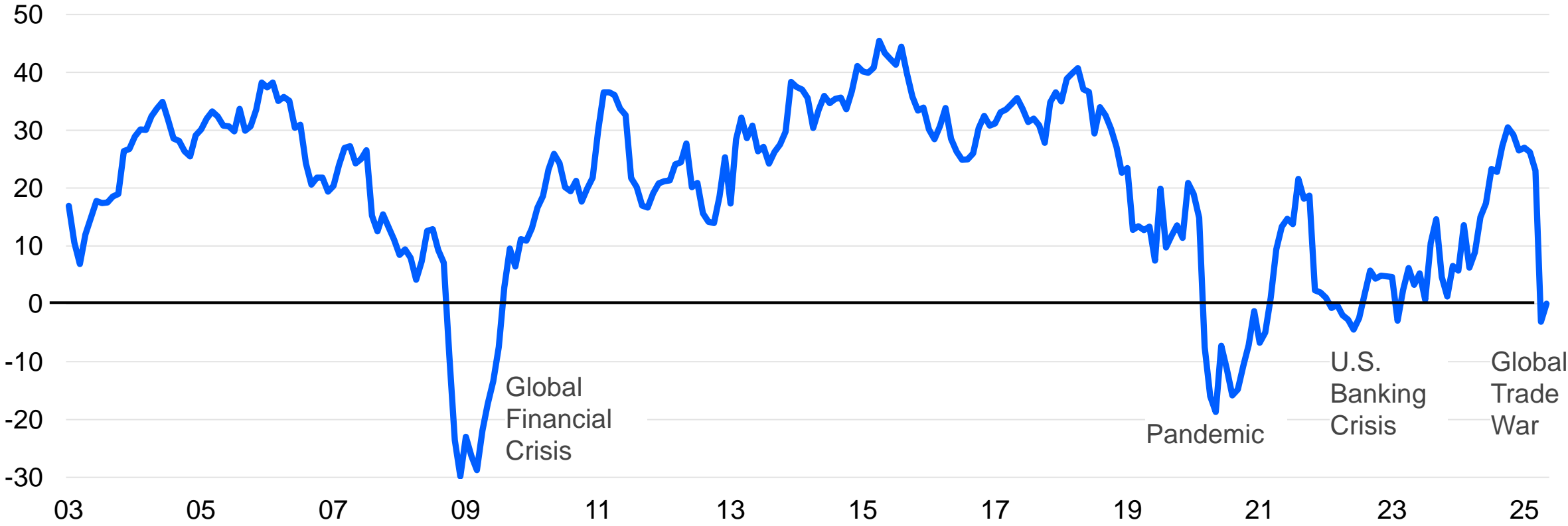
U.S. effective tariff rate, import duties as a % of U.S. imports



Source: Moody's Analytics

Global Business Sentiment Craters...

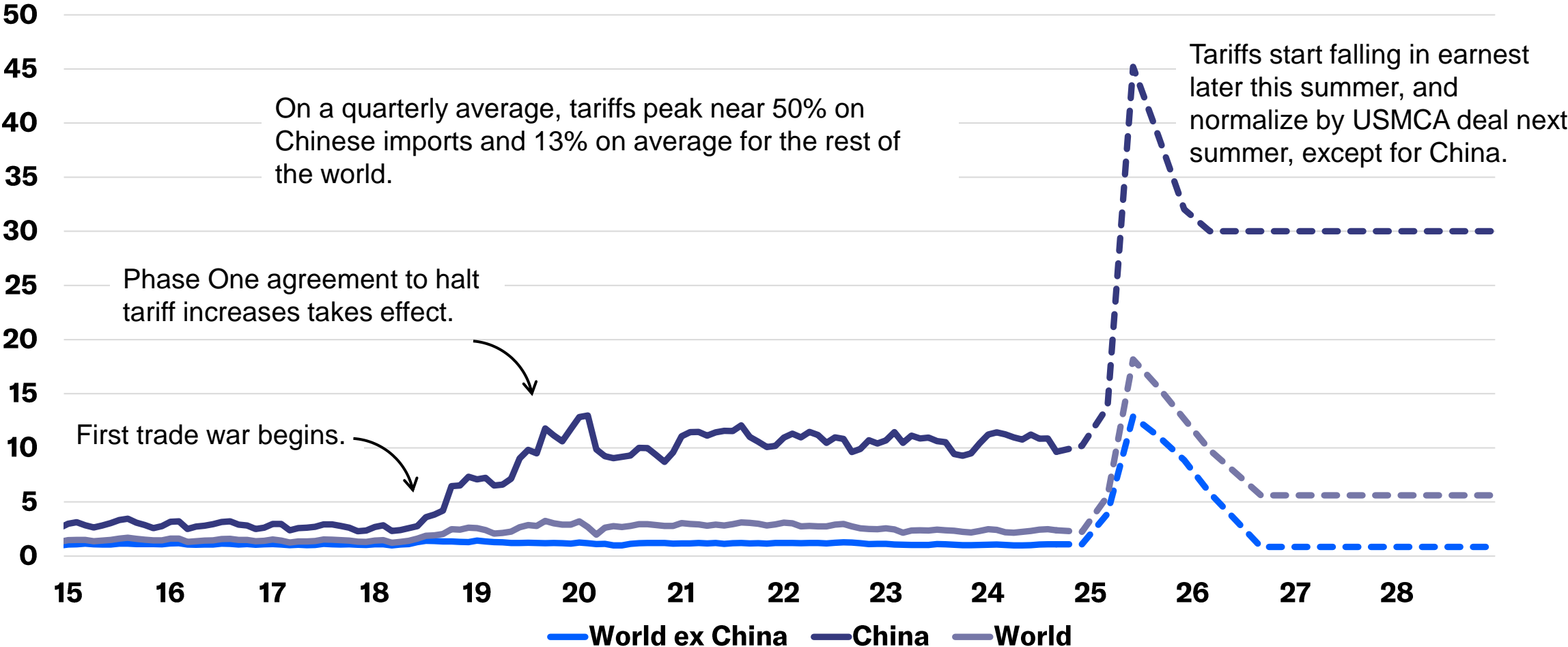
Net % of responses to the nine questions posed in the weekly global business survey



Source: Moody's Analytics

The Administration is Assumed to Take an Off-Ramp...

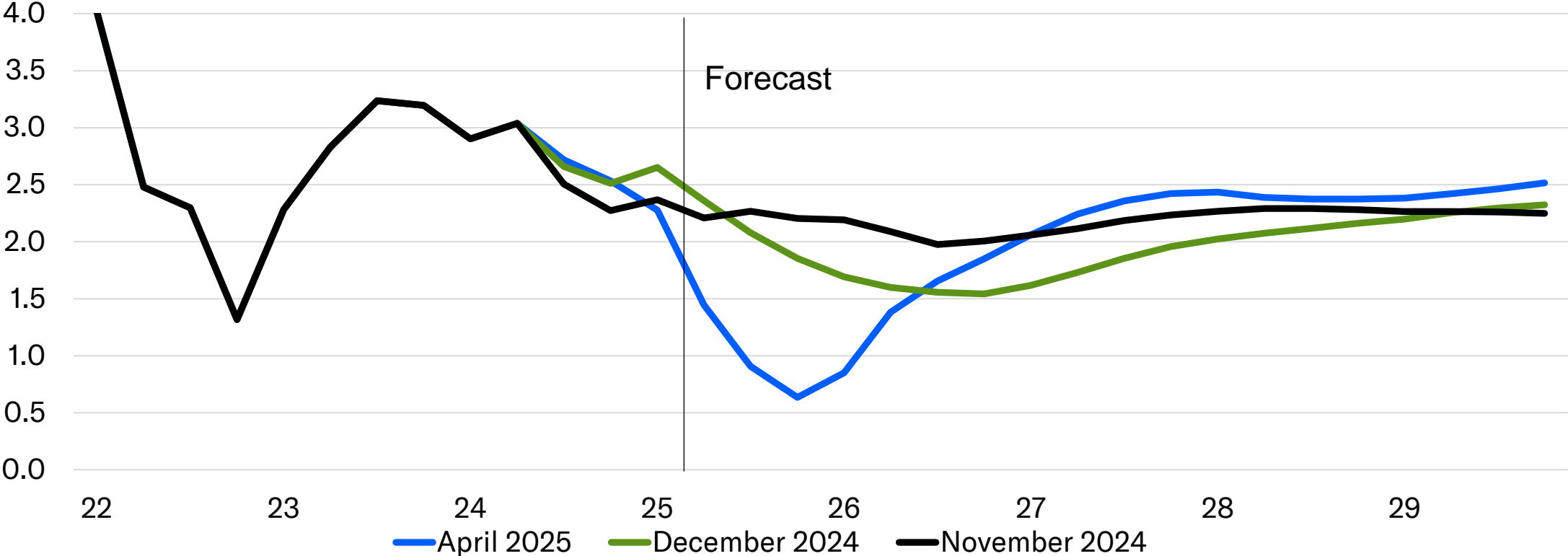
U.S. import duties as a % of U.S. imports, April 2025 baseline scenario



Sources: Census Bureau, Moody's Analytics

...Just in Time to Avoid Outright Recession...

Real U.S.GDP growth, % change year ago, Baseline scenarios



Sources: BEA, Moody's Analytics

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Thank you!

Check out our podcast for weekly updates:

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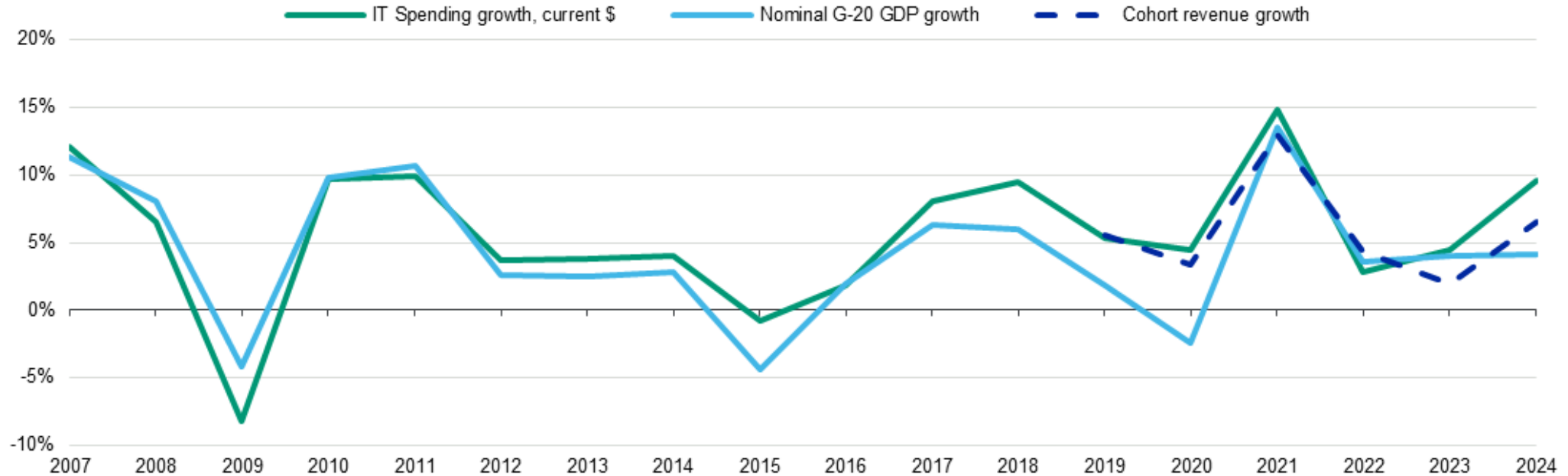
www.economy.com



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IT Spending Has High Correlation With Economic Growth

Annual growth rates for IT spending, G-20 nominal GDP, and revenues for proxy IT companies¹

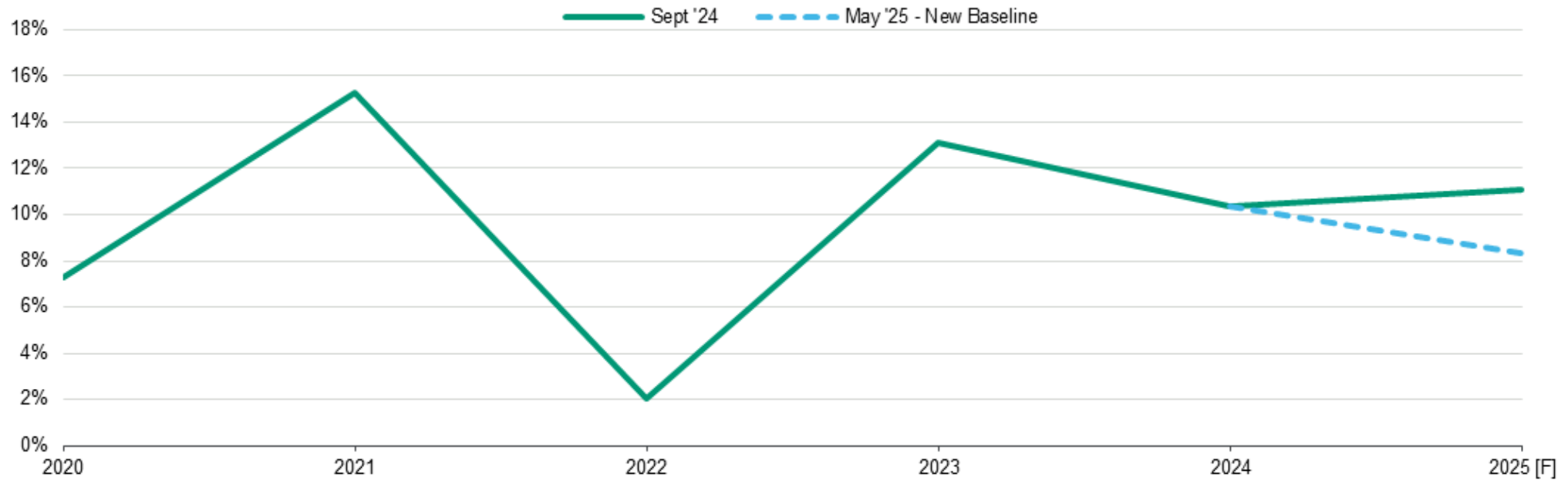


Moody's macroeconomic board expects real GDP growth in 2025 for G-20 countries of 1.9% versus 2.5% at the beginning of the year, and US real GDP growth of 1% versus 2%

[1] Cohort of 25 diversified technology companies rated by Moody's
Sources: IDC for IT spending growth, Moody's Ratings for other data

EBITDA Growth Will be Strong but Slower than Previously Expected

EBITDA growth for proxy IT companies¹

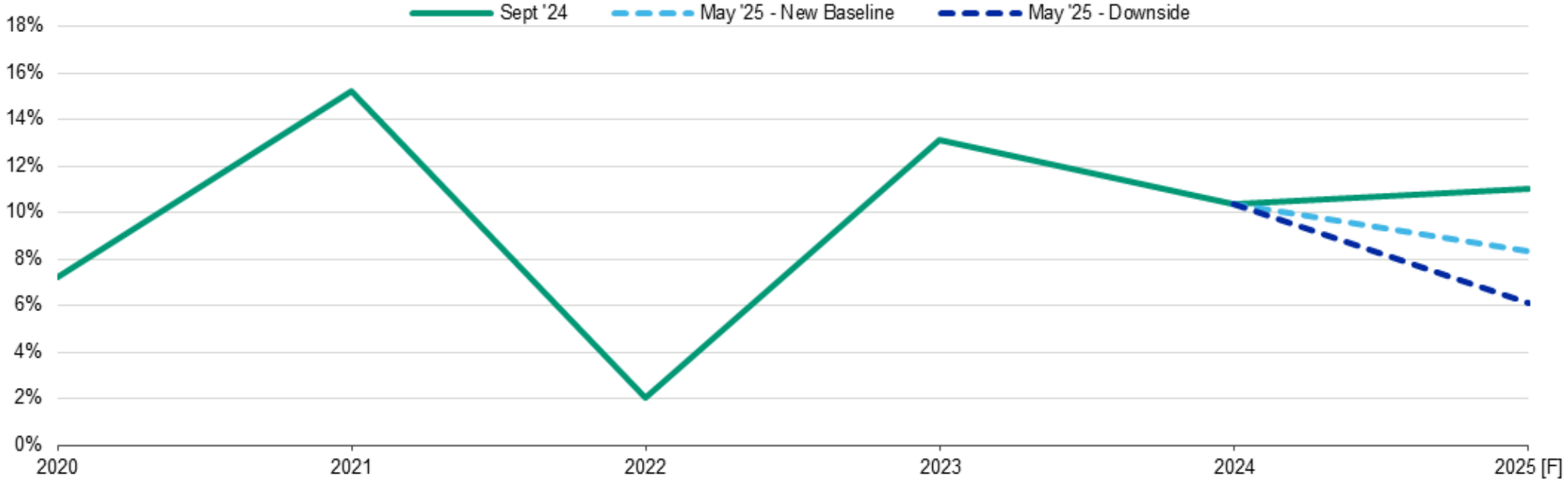


[1] Cohort of 25 diversified technology companies rated by Moody's

Source: Moody's Ratings

...But Heightened Uncertainties Pose Risks

Looming risks influence the downside case for 6% EBITDA growth¹



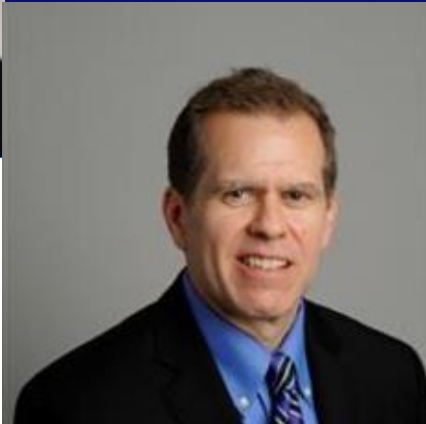
[1] EBITDA growth for Moody's cohort of 25 diversified technology companies

Sources: Moody's Ratings

Carl Salas
Vice President –
Senior Credit
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Moody's Ratings



Matthew Jones
Vice President –
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Areeb Haq
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Jose Healy
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President – Analyst
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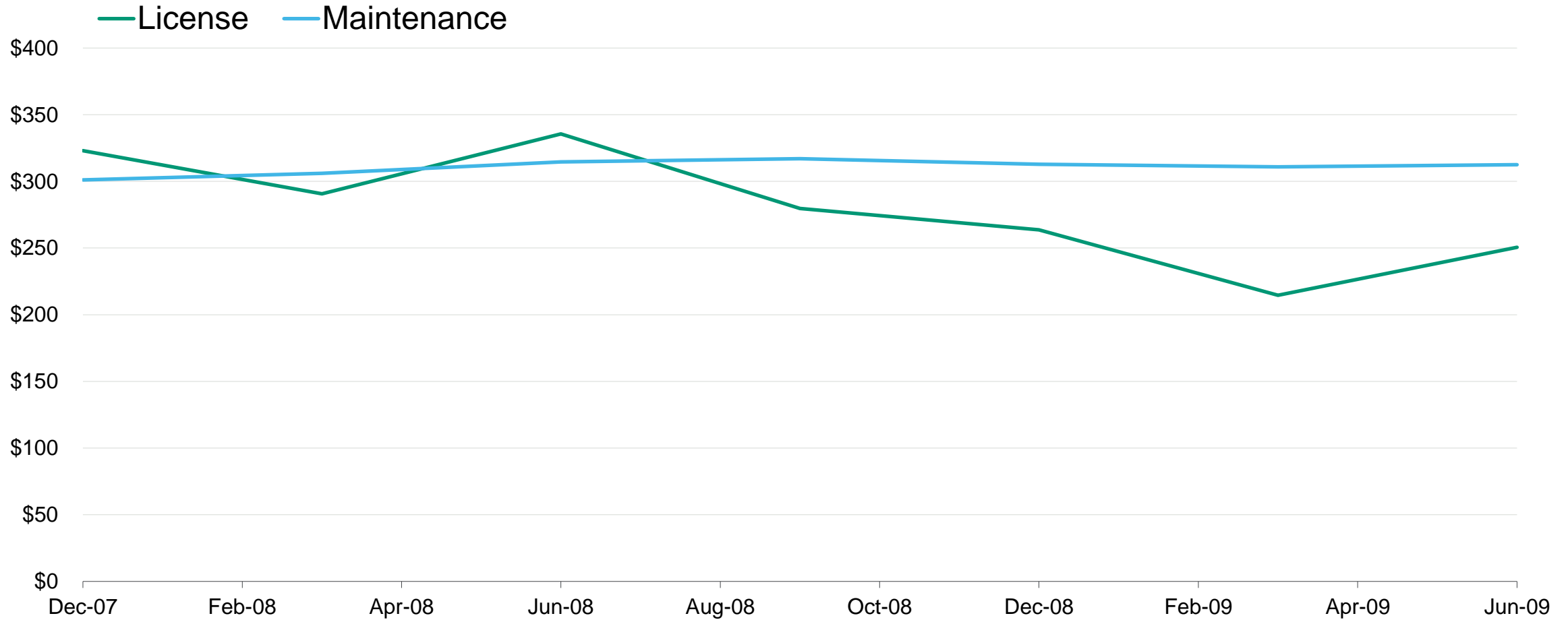


Technology Sector Panel

Bart Walas
Assistant Vice
President – Analyst
Moody's Ratings

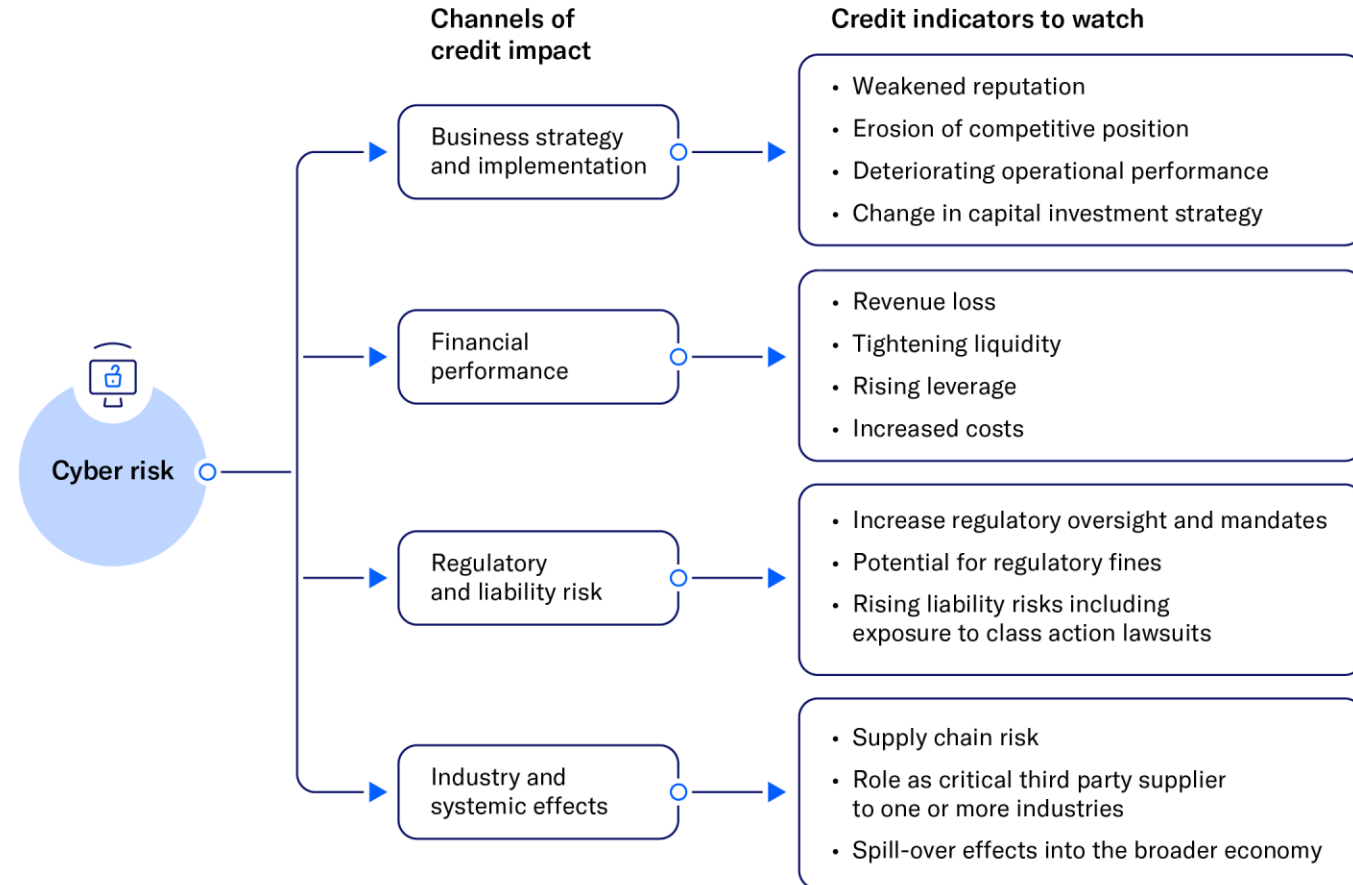


B Rated License and Support Revenue 2007 - 2009



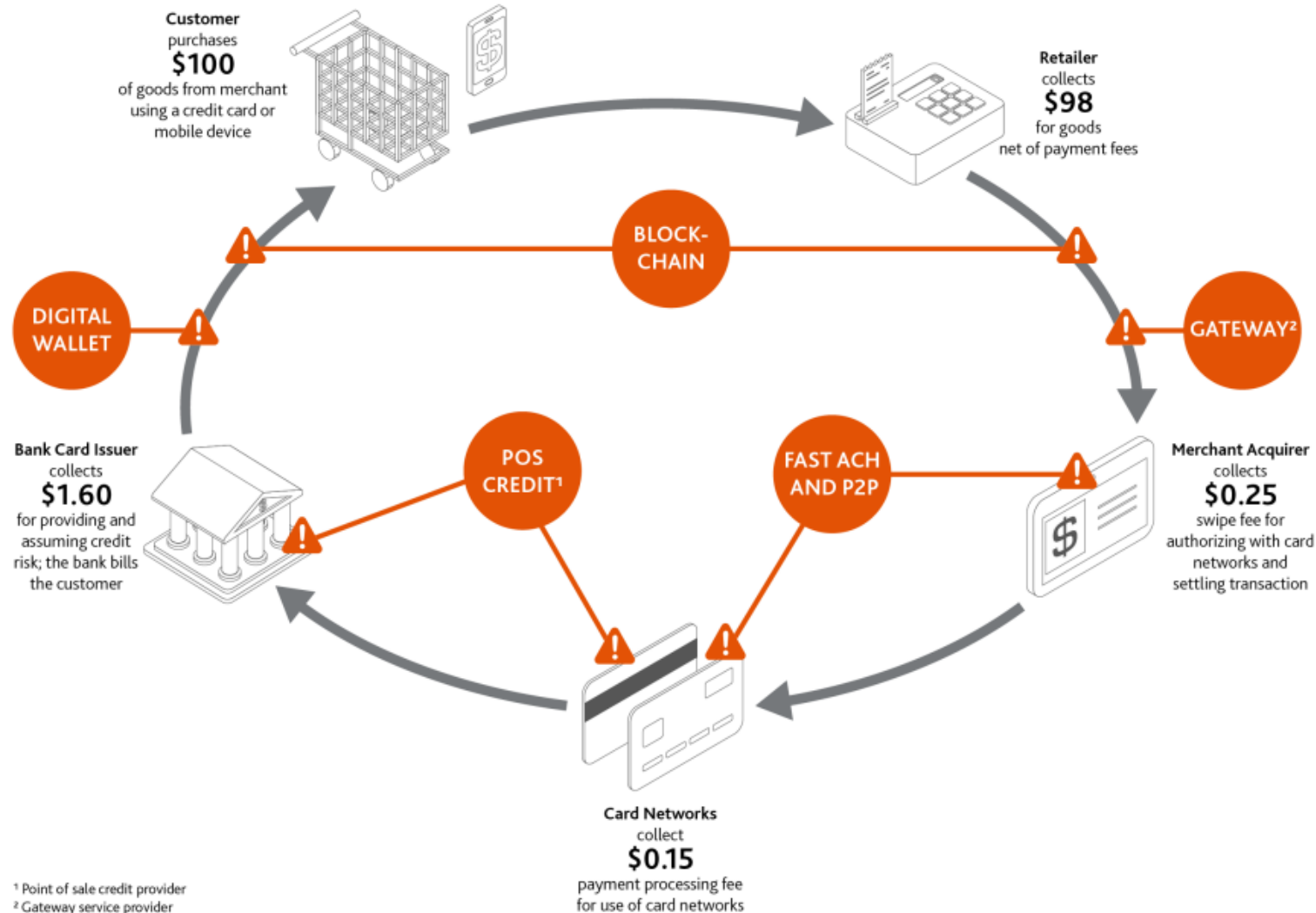
Source: Moody's Ratings

How Cyber Risk Affects Credit Quality



Source: Moody's Ratings

New Tech Continues to Impact Payment Ecosystem



- **Blockchain** being used for cross border payments, in CBDCs, etc.
- **Central Bank Digital Currencies (CBDCs)** have been launched by some countries, while others plan to do so
- **Incumbent payment companies** protected by large networks and preference for intermediated approach to CBDCs

Source: Moody's Ratings

Raj Joshi
Senior Vice
President,
Corporate Finance
Moody's Ratings

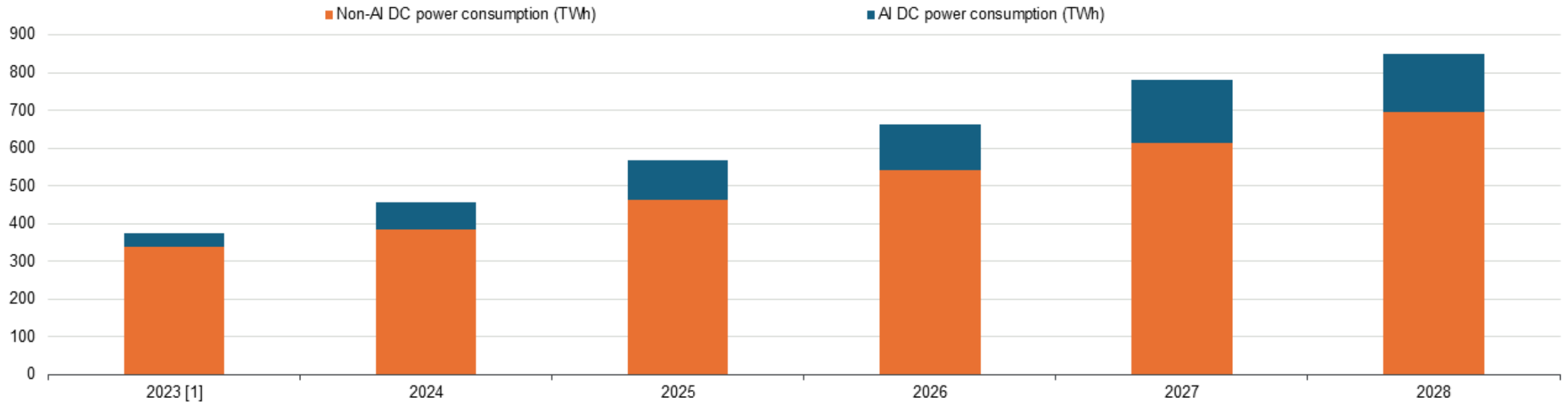
Lenny Ajzenman
Associate
Managing Director
Moody's Ratings

AI Innovation Trends & Joint Venture Structures



Data Center Demand to Increase >2x Between 2023 and 2028, If Supply is Not a Constraint

Our forecast has not changed since mid-2024 despite the rapid pace of innovation in AI stack

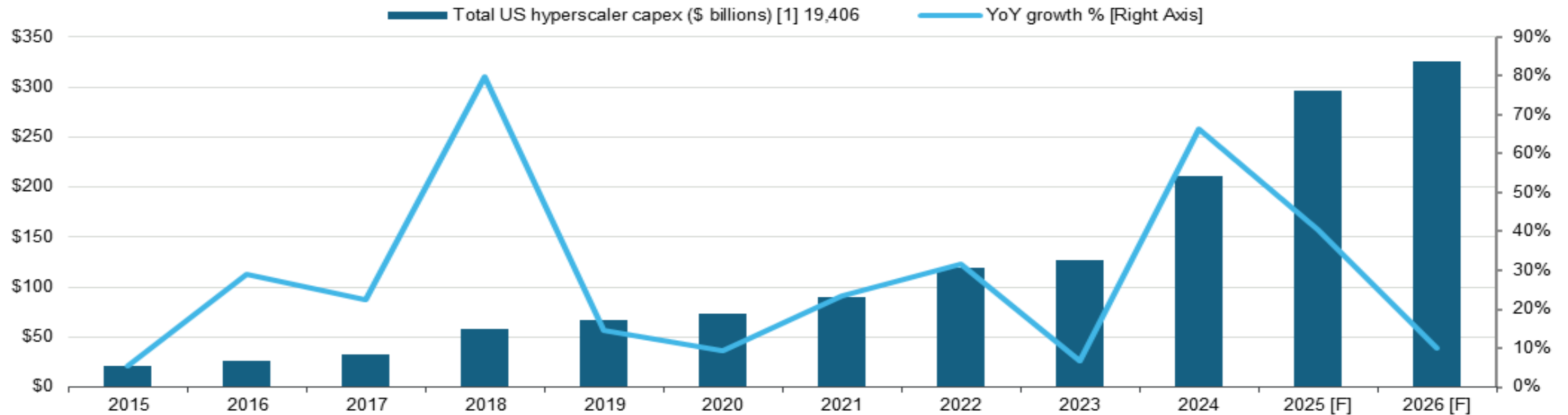


TWh: Terawatt hours

Sources: 2023 actual data based on International Data Corporation; 2024 and future periods are Moody's Ratings forecasts

Hyperscalers and “Neo Clouds” to Play a Dominant Role in Data Center Demand

AI investments expected to be resilient amid macro turmoil but not immune to tariff risks



[1] Includes capital expenditures reported by Microsoft, Alphabet, Meta, and Oracle, and Moody's estimates for AWS' capex. [F] Moody's Ratings forecast

Source: Moody's Ratings and company reports

AI in the Tech Sector: Key Emerging Credit Trends

Credit Positives



Large Market

AI **increases TAM** for all tech sub-sectors

with Expanding Benefits

Benefits expand beyond narrow group of infrastructure providers as **app ecosystem develops** and **adoption grows**



Direct Benefits

Software companies best positioned to capitalize on the large market unlock by AI

and Indirect Benefits

Indirect benefits to tech companies from stepped-up **pace of innovation** across the industry

AI in the Tech Sector: Key Emerging Credit Trends

Credit Challenges



Rising Risks

Hyperscalers' **risks have increased**, but there are mitigants



Uncertain ROI

Rapid innovations create uncertainty in both the **timeframe & level of ROI**



High Costs

Unit costs for AI are declining but **total costs are high**



Commoditization

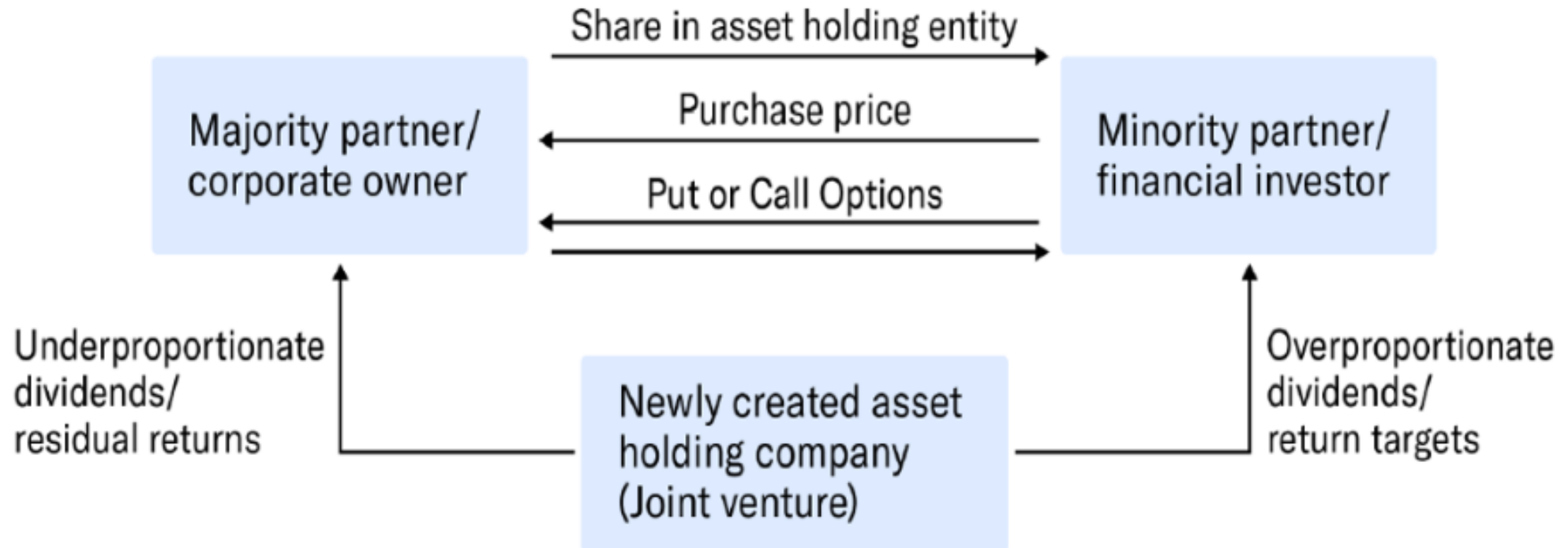
LLMs **trending toward commoditization** but opportunities for differentiation in products



Disruption

AI will **disrupt** some business models and require adaptation, as **tech spending shifts** from non-AI projects to AI

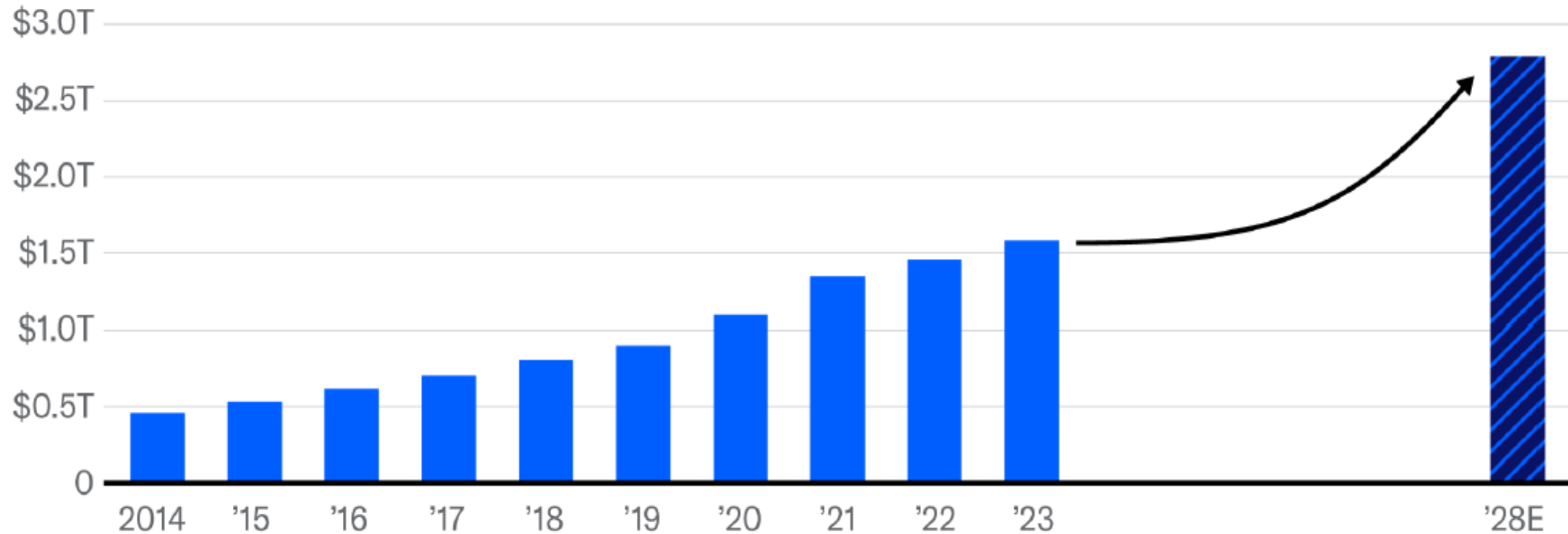
Illustrative Structured Asset Sale



Source: Moody's Ratings

Private Credit Assets Under Management Will Hit \$3 Trillion by 2028

Global private credit AUM



Our estimate uses Prequin's historical private debt fund AUM figures, which are not inclusive of all private credit AUM. Data does not include asset based financing, real estate and infrastructure PC assets, assets in non-fund structures and leverage on these funds.

Source: Prequin, Moody's Ratings

Four Key Factors in Our Assessment of Possible Adjustments to a Company's Reported Financials:



1. Joint venture generates nearly all **cash flows** directly from majority corporate owner



2. Corporate owner is highly likely to **repurchase** asset or buyout minority investor



3. Mechanisms for the minority holder to achieve preset target **returns**



4. Substantial protections to minority who takes little to no downside **risk**

Deals Do Not Typically Improve Credit Quality for Companies Struggling to Deleverage - Some Recent Cases

Company	Industry	Current Rating	Minority Stake		Last Rating Action
			Sale (billions)	Minority Investor	
Intel (SCIP-2)	Technology	Baa1 Neg	\$11.0	Apollo	August 2024; downgrade from A3
Dow Chemical	Chemicals	Baa1 Neg	\$3.0	Macquarie Asset Management	October 2024; outlook changed to negative
EQT	Oil & Gas	Baa3 Neg	\$3.5	Blackstone	January 2025; confirmed with a negative outlook ¹
CPI	Real Estate	Ba1 Neg	\$0.3	Sona Asset Management	July 2024; downgrade from Baa3
Orsted	Unregulated Power	Baa2 Sta	\$2.2	Brookfield	February 2025; downgrade from Baa1
Mineral Resources	Mining	Ba3 Neg	\$0.8	Morgan Stanley Infrastructure Partners	November 2024; outlook changed to negative
Rogers Communications	Telecommunications	Baa3 Sta	\$5.0	Blackstone	April 2025; ratings unaffected after being downgraded from Baa1 ²

¹ EQT's ratings were placed on review for downgrade in November 2024 and then confirmed in January 2025 based, in part, on the expectation of additional (non-structured) asset sales.

² Downgraded after acquisition of Shaw Communications Inc. in 2023.

Source: Moody's Ratings

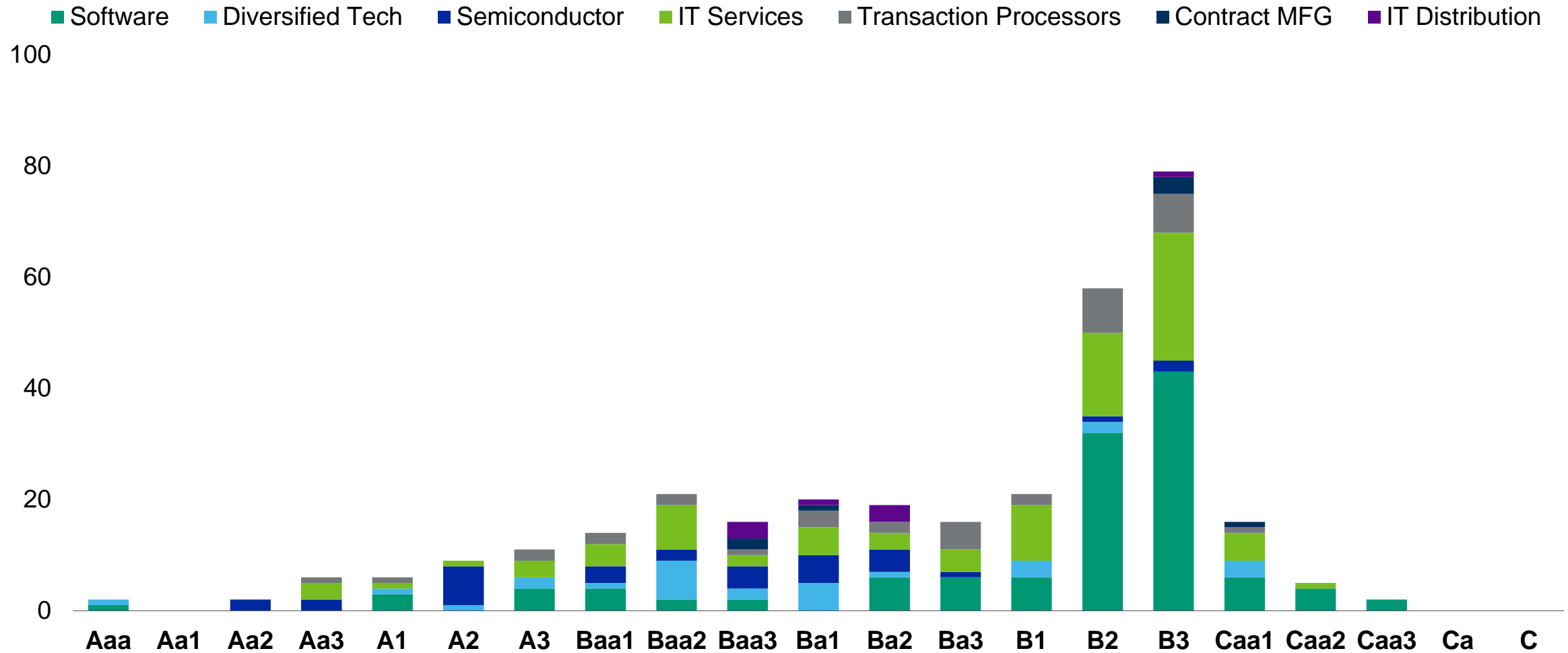
Justin Remsen

Vice President –
Senior Analyst,
Corporate Finance
Moody's Ratings

Credit Trends in the Technology Sector

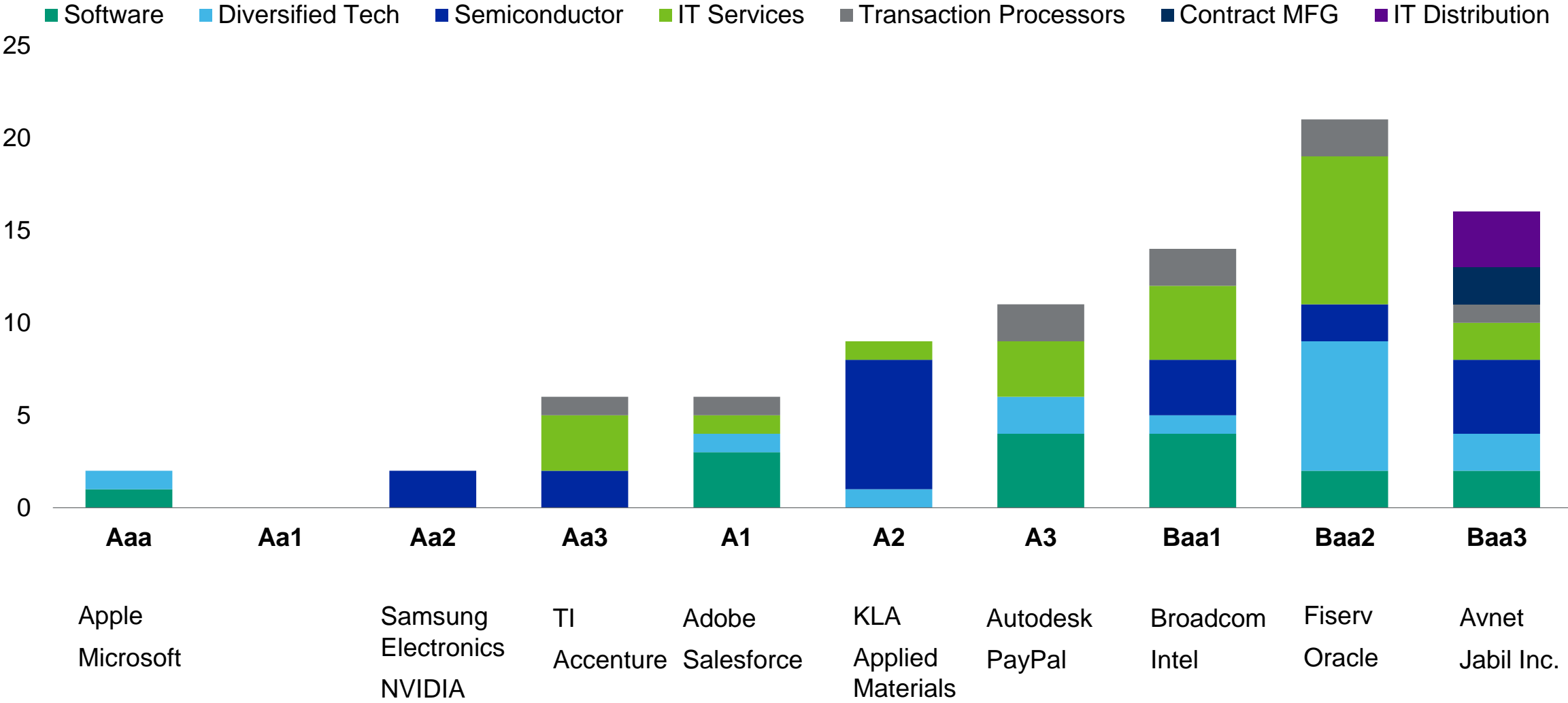


Flying Over the Technology Rated Universe...



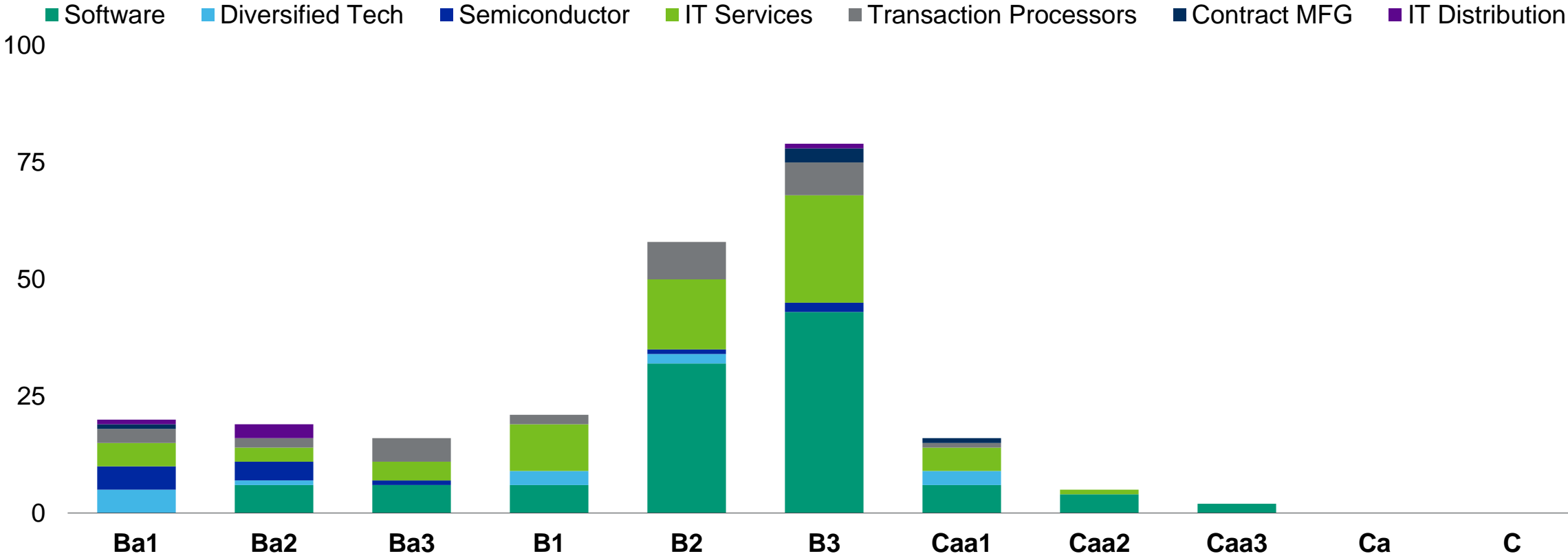
Source: Moody's Ratings Data as of April 2025

...Investment Grade Tilts Toward Baa



Source: Moody's Ratings Data as of April 2025

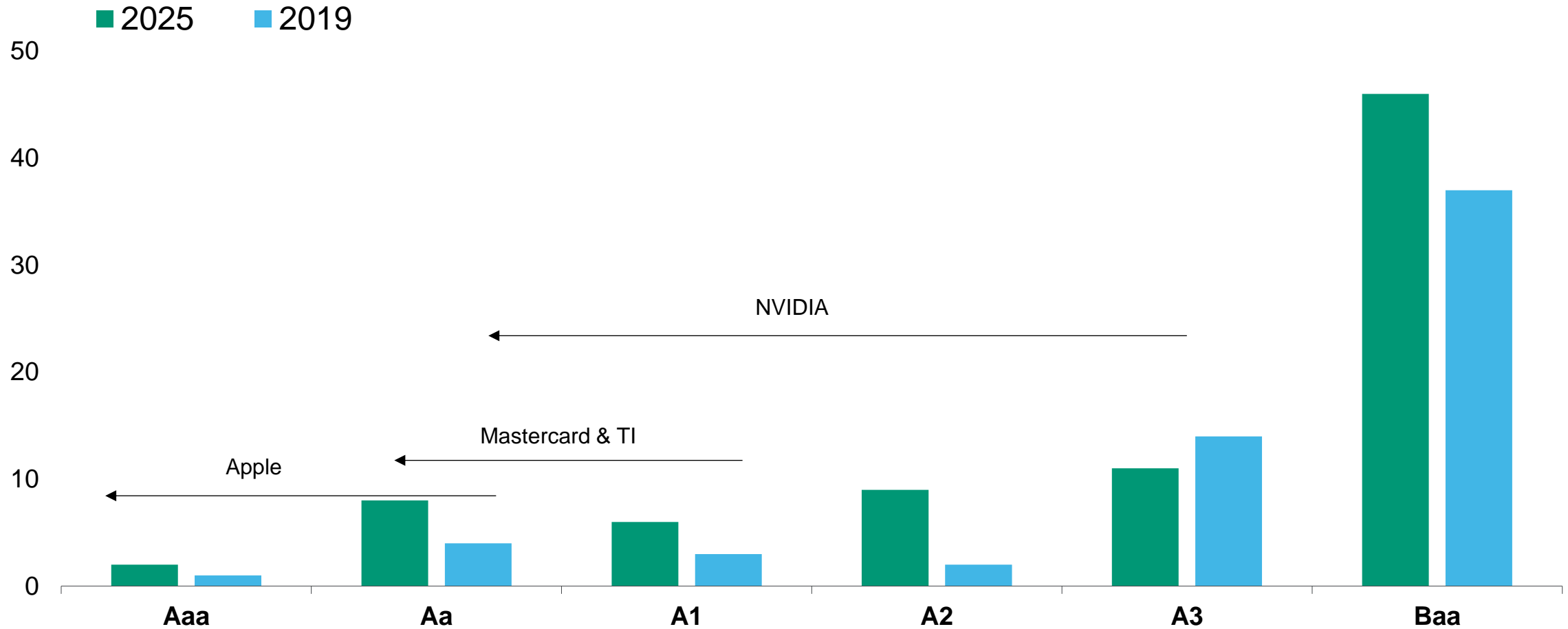
...While B2 and B3 Software Names are the Largest Cohort



Source: Moody's Ratings Data as of April 2025

IG Names Have Seen Upgrades Over Last Several Years...

Aaa – Baa1 (Increased by 6)



Source: Moody's Ratings Data as of April 2025

...With Growing Scale, More Profitable, and Debt/Ebitda Ticking Lower

Investment grade median metrics

(in millions)	2015	2019	2023	2024
Revenue	\$6,981	\$11,619	\$15,796	\$16,592
EBITDA	\$1,875	\$2,843	\$3,801	\$4,470
CFO	\$1,364	\$2,599	\$3,293	\$3,647
Debt/EBITDA	1.81x	1.87x	1.66x	1.60x
FCF/Debt	23.1%	21.6%	27.1%	36.0%
Cash + Marketable Sec/Debt	108%	67%	66%	67%

Source: Moody's Ratings

Modest growth in scale and higher debt loads in spec grade...

Speculative grade median metrics

(in millions)	2015	2019	2023	2024
Revenue	\$897	\$787	\$943	\$987
EBITDA	\$180	\$160	\$213	\$225
CFO	\$89	\$84	\$95	\$85
Debt/EBITDA	4.95x	5.62x	5.84x	6.09x
FCF/Debt	4.6%	2.9%	2.8%	2.7%
Cash + Marketable Sec/Debt	11%	9%	12%	11%

Source: Moody's Ratings

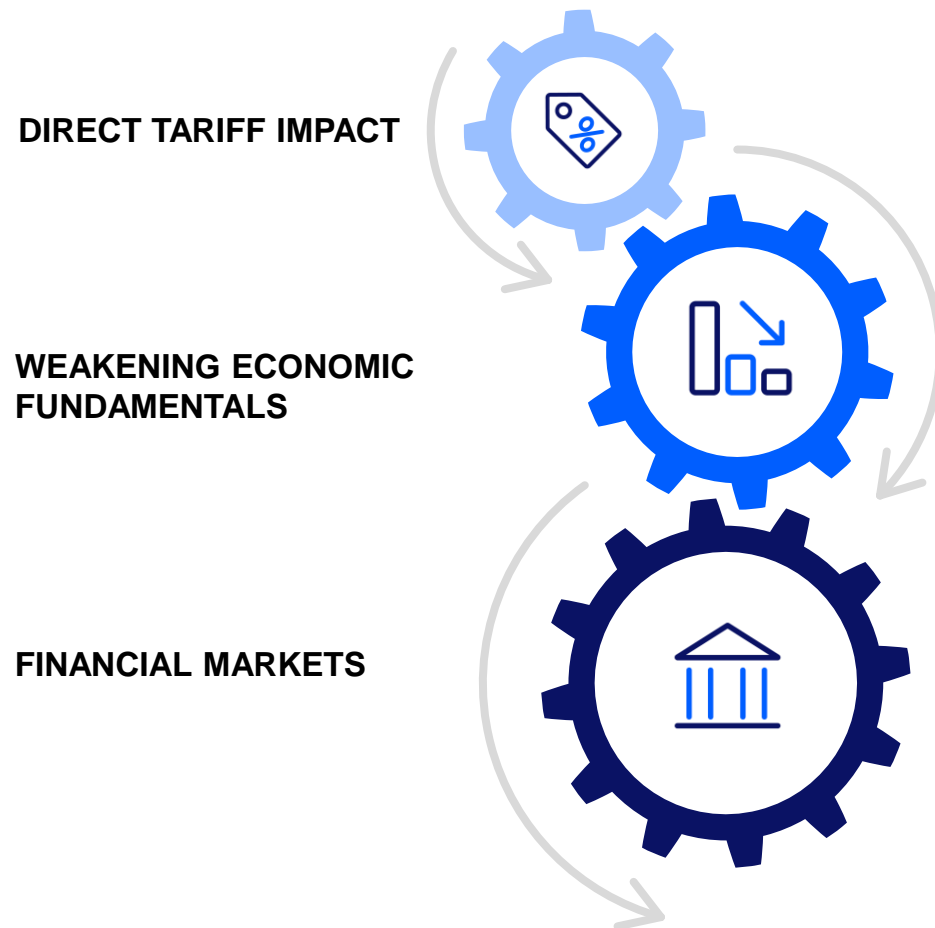
....and metrics show a linear relationship with ratings

(in millions)	Revenue	EBITDA	CFO	Debt/EBITDA	FCF/Debt	Cash + Marketable Sec/ Debt
Aaa/Aa	\$78,692	\$42,648	\$37,722	0.75x	55.7%	86%
A	\$24,214	\$6,601	\$5,769	1.25x	50.1%	102%
Baa	\$10,116	\$2,762	\$2,370	2.12x	19.6%	42%
Ba	\$3,696	\$681	\$659	3.40x	19.9%	38%
B	\$758	\$184	\$53	6.75x	1.2%	8%
Caa	\$560	\$135	(\$17)	10.58x	-3.0%	2%
Ca/C	N/A	N/A	N/A	N/A	N/A	N/A

Source: Moody's Ratings Data as of April 2025

The lens we're thinking through tariffs...

Risk transmission channels



Impact for consumers

→ Increased prices on goods

→ Lower confidence
→ Reduced discretionary spending, bigger decisions postponed

→ Negative wealth effect

Impact for business

→ Lower sales / margins

→ Suspend or slow investment decisions
→ Supply chain disruptions

→ High yield debt more costly
→ Financial conditions tighten

Brian Oak
Managing Director,
Corporate Finance
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Closing Remarks



Thank You!

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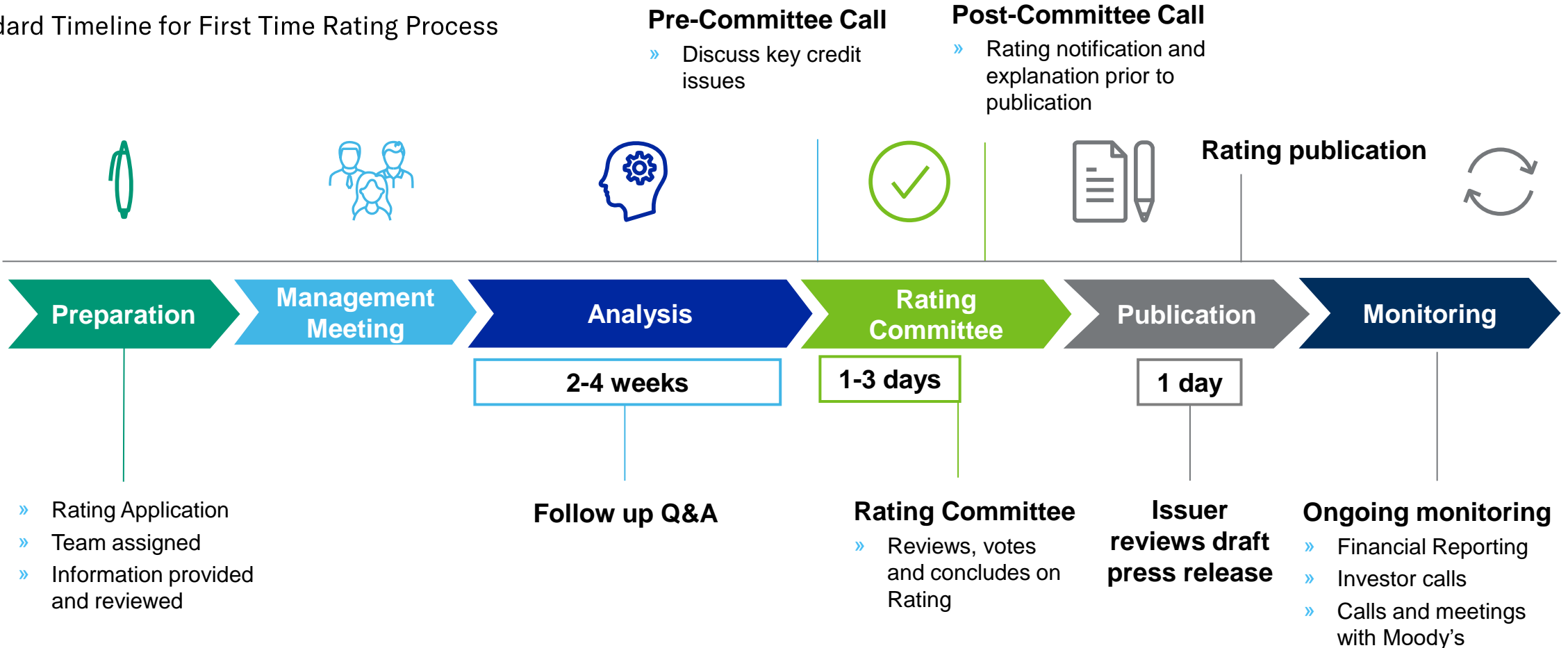
Pre-Event Workshop: Navigating Moody's Ratings Process



Standard Timeline for First Time Rating Process

Our process is efficient, timely and focused

Standard Timeline for First Time Rating Process



Moody's Corporate Rating Process



Foundational Information

- » Moody's Macro-Economic Projections
- » Company Financials and Projections
- » Quantitative Information and Moody's Models
- » Transaction Structure and Documents



In-depth Analysis

- » Fundamental Credit and Liquidity Analysis
- » Moody's Industry Methodologies
- » Peer Comparisons



Rating Committee

- » Outcome, expressed through Moody's ratings



Ongoing Review

- » Published research for the debt community
- » Potentially, a new committee recommendation

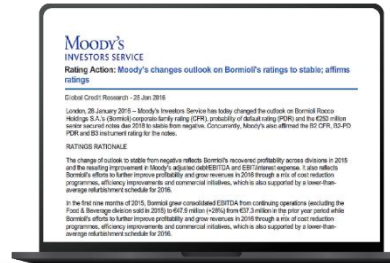
Moody's Flagship Publications

Press Release

- » Public announcements of a rating action

Credit Opinion

- » Explanation of our credit view; published annually



<https://www.moodys.com/>

The Rating Process

- » Moody's credit ratings are opinions of future relative creditworthiness, derived by fundamental credit analysis.
- » Moody's ratings are determined through the rating committee process.
- » The rating committee process is designed to foster consistency and efficiency across Moody's and to ensure that the integrity of the ratings process is maintained.
- » The committee focuses on the specific issuer and is not formulaic.



Rating Methodology

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What are Moody's Rating Methodologies?



Framework for a **consistent** and **transparent** analytical approach



Each industry has a rating scorecard: a summary of the main quantitative and qualitative **factors** considered

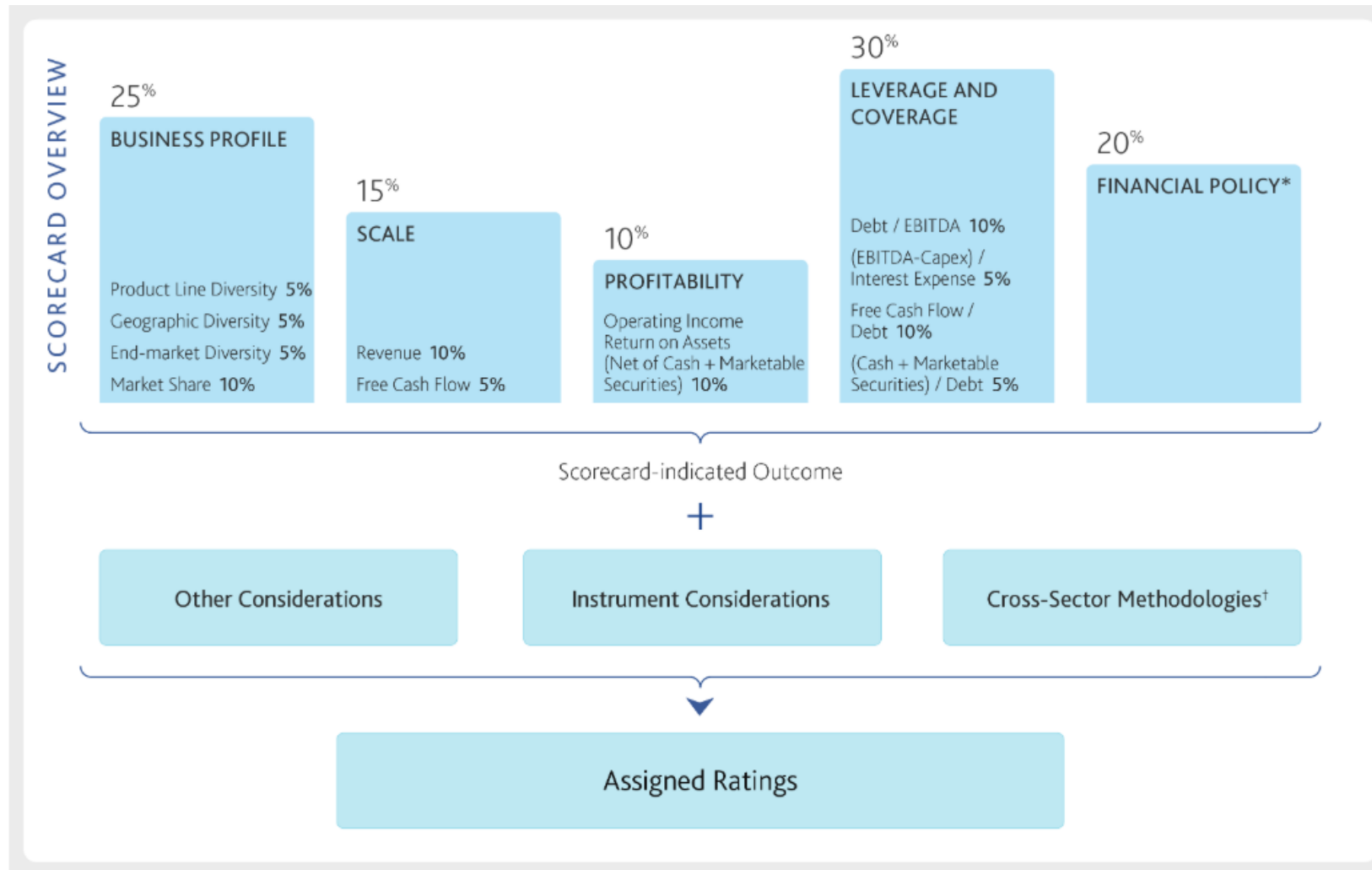


Is not an **exhaustive** treatment of all factors reflected in the ratings: the indicated outcome from the grid can and often does differ from the actual assigned rating.



Rating assignments/changes are made by **rating committees**, considering a wide range of factors, which are not restricted to credit metrics or the methodology

Software Methodology



*This factor has no sub-factors.

† Some of the methodological considerations described in one or more cross-sector rating methodologies may be relevant to ratings in this sector. A link to a list of our sector and cross-sector methodologies can be found in the "Moody's related publications" section.

Source: Moody's Ratings

Additional technology industry scorecards available in the Appendix

Software Methodology Example

Example Issuer

Software Industry Scorecard [1][2]

Current LTM 3/31/2025

Factor 1 : Business Profile (25%)	Measure	Score
a) Product Line Diversity	B	B
b) Geographic Diversity	Ba	Ba
c) End - Market Diversity	Ba	Ba
d) Market Share	B	B
Factor 2 : Scale (15%)		
a) Revenue (USD Billion)	\$1.0	Ba
b) Free Cash Flow (USD Billion)	\$0.1	B
Factor 3 : Profitability (10%)		
a) Operating Income ROA (Net of Cash + Marketable Securities)	6.5%	B
Factor 4 : Leverage and Coverage (30%)		
a) Debt / EBITDA	6.0x	B
b) (EBITDA - CapEx) / Interest Expense	1.5x	B
c) FCF / Debt	5.7%	B
d) (Cash + Marketable Securities) / Debt	6.0%	Caa
Factor 5 : Financial Policy (20%)		
a) Financial Policy	B	B
Rating:		
a) Scorecard-Indicated Outcome		B2
b) Actual Rating Assigned		

[1] All ratios are based on 'Adjusted' financial data and incorporate Moody's Global Standard Adjustments for Non-Financial Corporations.

[2] As of 3/31/2025; Source: Moody's Financial Metrics™

[3] This represents Moody's forward view; not the view of the issuer; and unless noted in the text, does not incorporate significant acquisitions and divestitures

Moody's 12-18 Month Forward View As of May 2025 [3]

Measure	Score
B	B
Ba	Ba
Ba	Ba
B	B
\$1.1	Ba
\$0.2	B
6.0%	B
5.5x	B
1.5x	B
6.9%	B
6%	Caa
B	B
	B2
	B1












Analytical Adjustments

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EBITDA Analytical Adjustments

Common EBITDA addbacks and how likely we are to add them

Add-back	Pros of adding back	Cons of adding back	Likely to add?
Acquisition and integration related expenses	<ul style="list-style-type: none"> Helps capture run-rate view of cost structure 	<ul style="list-style-type: none"> Companies can be serial acquirers Integrations can take longer than expected Impact of integration on revenues 	
Restructuring costs	<ul style="list-style-type: none"> Helps capture run-rate view of cost structure 	<ul style="list-style-type: none"> Restructuring can end up a recurring expense Impact of the restructuring on revenues 	
Stock compensation	<ul style="list-style-type: none"> Is a non-cash expense Private company income statement treatment varies widely 	<ul style="list-style-type: none"> Economic value is needed to compensate employees Could eventually be replaced with cash compensation 	
Management fees	<ul style="list-style-type: none"> Is not a business related expense 	<ul style="list-style-type: none"> Is a recurring expense and cost of running the business 	
Purchase accounting related adjustments	<ul style="list-style-type: none"> Shows a more representative view of the business than what GAAP accounting shows 	<ul style="list-style-type: none"> Few 	
Anticipated synergies	<ul style="list-style-type: none"> Helps capture go-forward view of cost structure 	<ul style="list-style-type: none"> Costs haven't yet been cut Impact of cuts on business//revenues remain to be seen 	
Change in deferred revenue	<ul style="list-style-type: none"> GAAP can underrepresent performance of growth businesses GAAP can over represent performance of declining businesses 	<ul style="list-style-type: none"> Deferred revenues changes not always representative of run rate business Distortions caused by changing contract length 	
Capitalized software	<ul style="list-style-type: none"> Is a capital improvement to company's software assets 	<ul style="list-style-type: none"> Is an expense that can be viewed as part of R&D Expensing would level the playing field with companies that do not capitalize software 	

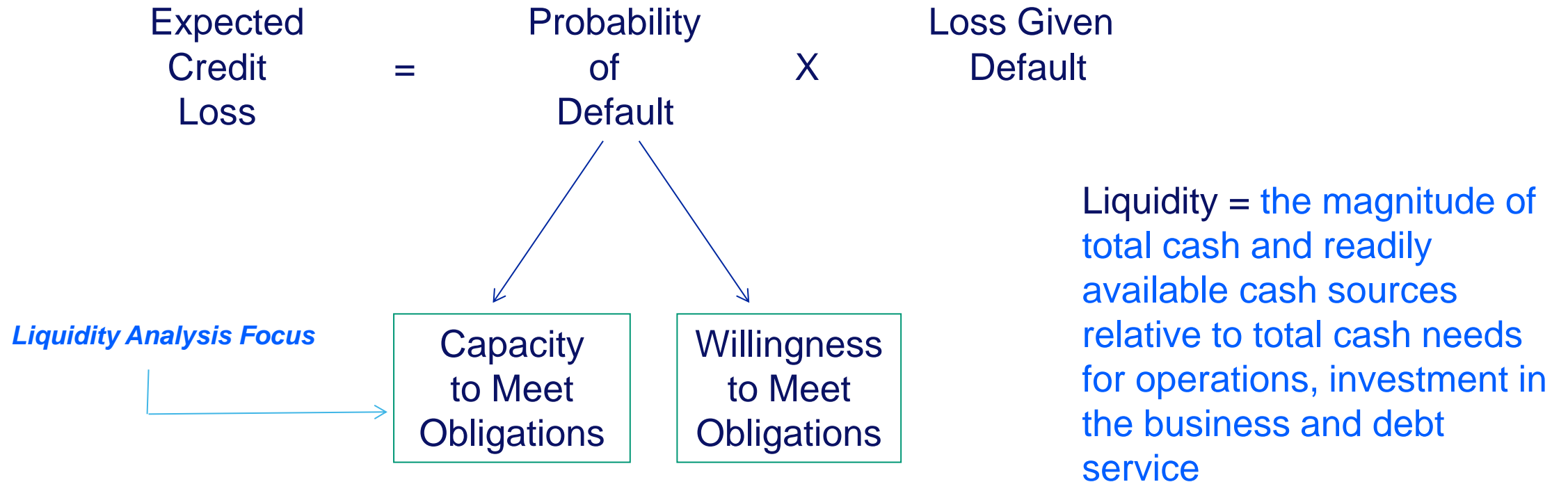
Likely 
 Sometimes 
 Unlikely 



Liquidity

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Liquidity is an Aspect of our Credit Risk Analysis



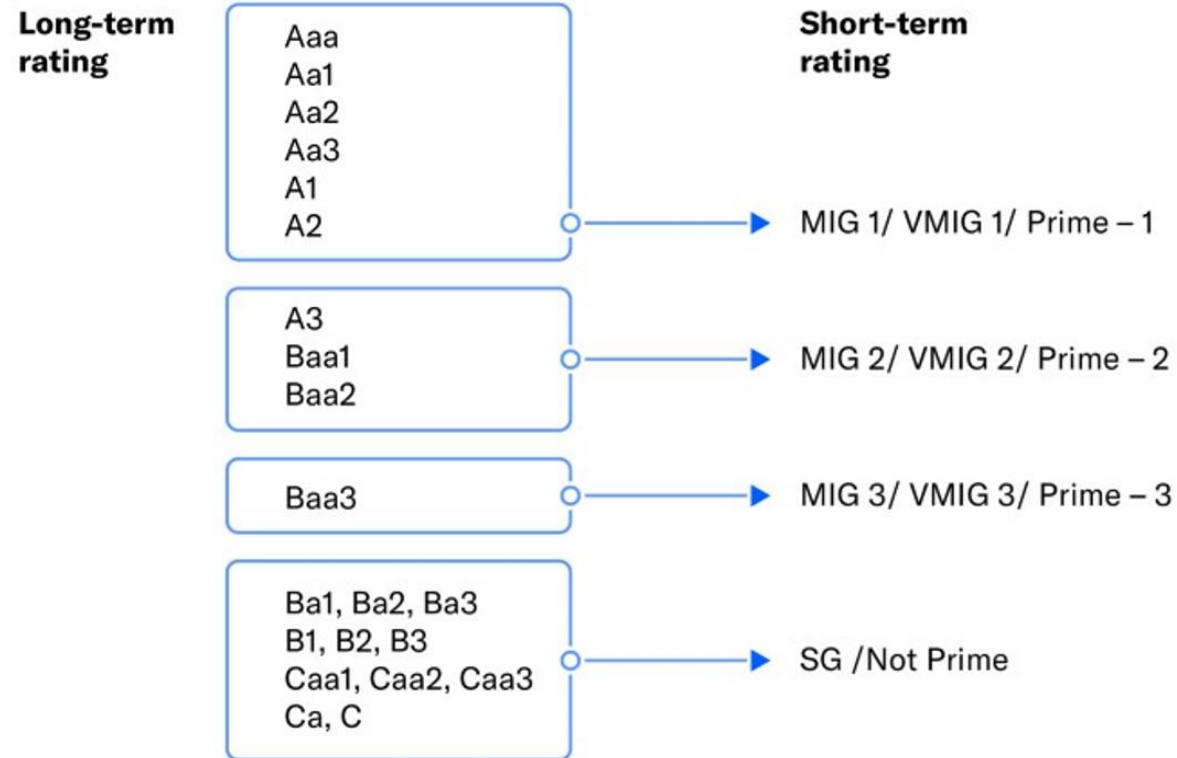
Liquidity is an Aspect of our Credit Risk Analysis

- Sources and Uses of Cash
- Amount and size of committed credit lines
- Conditions to accessing credit lines
 - Covenants
 - Borrowing conditions
 - MAC clauses

Top rated or Prime 1 issuers of commercial paper generally maintain exceptionally strong liquidity characteristics, including:

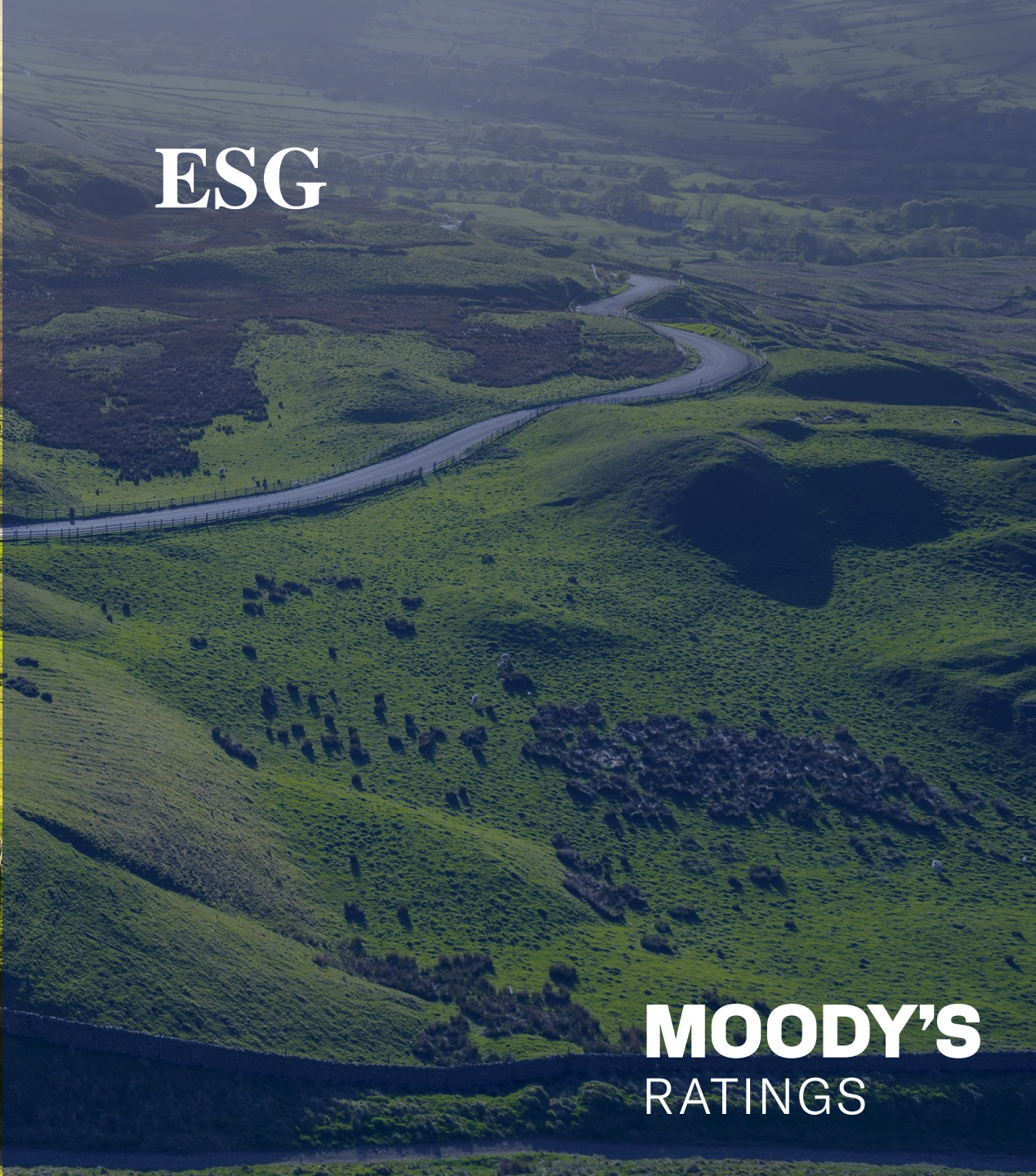
- Committed bank facilities at least as large as short term debt based on estimated maximum commercial paper issuance,
- Access to same day funds in the market of commercial paper issuance, and
- No restrictions on funding related to material adverse changes in the borrower's financial condition

Moody's Rating Scale – Short-Term Ratings



Speculative Liquidity Grade (SGL) framework

	SGL – 1	SGL – 2	SGL – 3	SGL – 4
Internal Sources	Expected to fund through internally generated cash flow and existing cash balances all basic and other cash obligations at all times during the next 12 months.	Expected to fund through internally generated cash flow and existing cash balances all basic and other cash obligations (excluding extraordinary capital expenditures) during the next 12 months but not necessarily for all interim quarterly periods.	Can fund all basic cash requirements through internal sources but requires external liquidity for capital expenditures above and beyond maintenance capital expenditures.	Not likely to fully cover the basic cash requirements from internal sources, and likely to need external financing to remain liquid
External Sources	Has committed liquidity facility that is largely undrawn.	Liquidity facility may be needed for working capital and project-based and/or extraordinary capital expenditures and investments.	Liquidity facility is not needed to cover basic cash requirements but is needed to help fund project-based and/or extraordinary capital expenditures and investments; facility is utilized although not fully.	There is clear reliance on external sources of financing to cover basic cash requirements including maintenance capital expenditures and scheduled debt maturities.
Covenant Compliance	Expected to be well in compliance with covenants.	Expected to be in and maintain compliance with covenants.	Prospective ability to comply with covenants is less certain (modest cushion/potential need to renegotiate covenants).	Is likely to, or may already be in violation of covenants; debt may be currently due or lenders could accelerate in the near-term.
Alternate Liquidity	There is a “back door” – there are alternatives for the company to raise cash – could sell a product line or assets without any pressure that would otherwise impair value. Assets are largely unencumbered.	There is a “back door” but it is more limited – there may not be assets that could be readily sold without impairment to value. Assets are mostly encumbered.	Alternate liquidity is limited to the sale of assets at distressed value due to obvious liquidity pressures. Assets are largely or fully encumbered. Proceeds from asset sales would likely go to secured lenders leaving little liquidity for the company. Company may be allowed to reinvest a portion of asset sale proceeds as opposed to the repayment of debt.	Assets are fully encumbered and do not have realizable cash value independent of the company’s primary operations. Proceeds from asset sales have to be applied to the repayment of debt. No alternatives available to raise cash.



ESG

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Four Components to ESG Integration into Credit

ESG scores assist in transparently and systematically demonstrating the impact of ESG on credit ratings



Credit Ratings & Research

How is ESG integrated into credit ratings?

ESG factors taken into consideration for all credit ratings. Greater transparency in PRs, as well as Credit opinions. Credit Impact Score (CIS) is an output of the rating process that indicates the extent, if any, to which ESG factors impact the rating of an issuer or transaction.



ESG Analytical Tools



ESG Scores

How is a specific issuer exposed to ESG risks/benefits?

Issuer Profile Scores (IPS) are issuer-specific scores that assess an entity's exposure to the categories of risks in the ESG classification from a credit perspective. IPSs, where available, are inputs to credit ratings.

ESG Classification

What is ESG?

Our classification reports describe how we define and categorize E, S and G considerations that are material to credit quality. New environmental classification sharpens focus on physical climate risks.



Heat Maps

Is ESG material to credit quality?

Heat maps provide relative ranking of various sectors along the E and S classification of risks.



Appendix

Recent Research

TMT Related

- » [Technology Outlook update - staying positive as growth continues, though higher tariffs pose risk](#)
- » [B2, B3 software companies can weather uncertainty; rates are key to credit metrics](#)
- » [AI innovations point to strong spending on IT infrastructure despite macro turmoil](#)
- » [Rise in structured asset sales will reshape corporate balance sheets](#)
- » [Cash pile rises slightly to \\$2.17 trillion on lower acquisition spend, healthy cash flow](#)
- » [Risk of significant IT spending slowdown, demand destruction from steep tariffs](#)
- » [AI innovations could slow infrastructure spending but accelerate broader adoption](#)
- » [Global Data Centers - Growing scale of new projects highlights overbuild, tech risks amid booming demand](#)
- » [Data Center 2025 Outlook – Developer leverage, regulatory risk to rise as growth surges](#)
- » [IT Services: Macroeconomic uncertainty postpones recovery in discretionary spend](#)
- » [‘Disrupters’ can benefit from innovation even before their credit metrics catch up](#)
- » [Sizable Bitcoin holdings could have negative credit implications, riskiest for smaller firms](#)
- » [AI 2025 Outlook: Broadening AI capabilities will unlock new use cases](#)
- » [Credit will evolve as digital transformation reshapes companies and economies](#)
- » [Large streamers thriving amid intense competition, smaller streamers at risk](#)
- » [More telecom competition, media shift to streaming will limit revenue growth, profit](#)
- » [Largest digital challengers forge ahead to compete head-to-head with incumbents](#)

Other Related Research

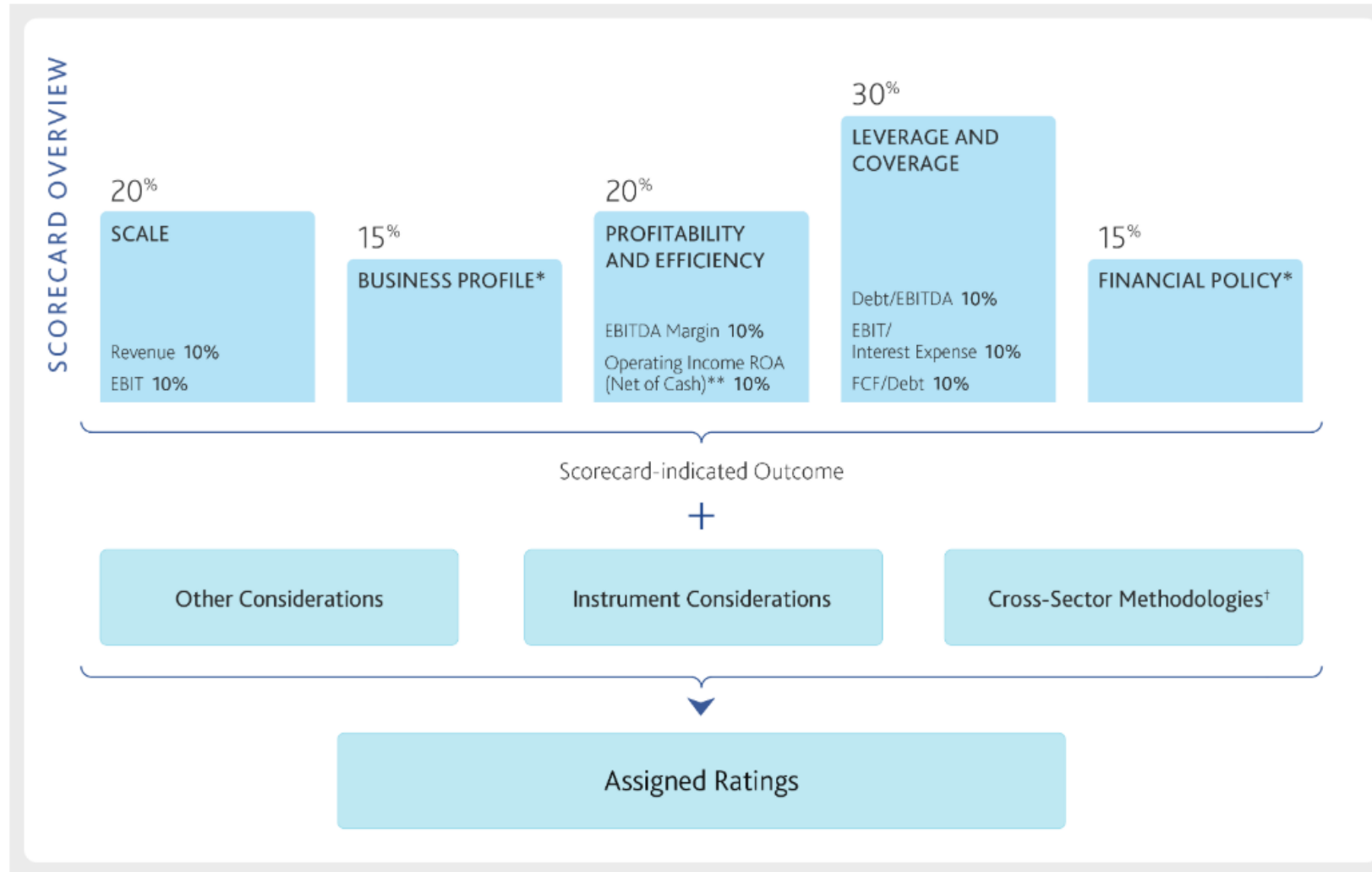
- » [Global growth slowdown underway, policy uncertainty adds risks](#)
- » [Tariffs and trade turmoil: how we gauge the credit consequences](#)
- » [Sweeping US trade tariffs will spark broad negative impact on credit](#)
- » [Tit-for-tat tariffs will slow growth, intensify deflationary pressure, raise corporate costs](#)
- » [US tariffs and foreign-policy shifts will reshape relationship with Asia-Pacific](#)
- » [US labor market remains stable as federal policy shocks mount](#)
- » [Private credit, a refuge in turbulent times, set to take share again](#)
- » [As LBO hopes fizzle, PE-backed firms face liquidity challenges](#)
- » [Rating downgrades are associated with high credit exposure to governance risks](#)

Moody's Analytics

- » [Trade War Turns Decidedly Darker](#)

Pre-event workshop: Navigating the Moody's Ratings Process Appendix

Diversified Technology Methodology



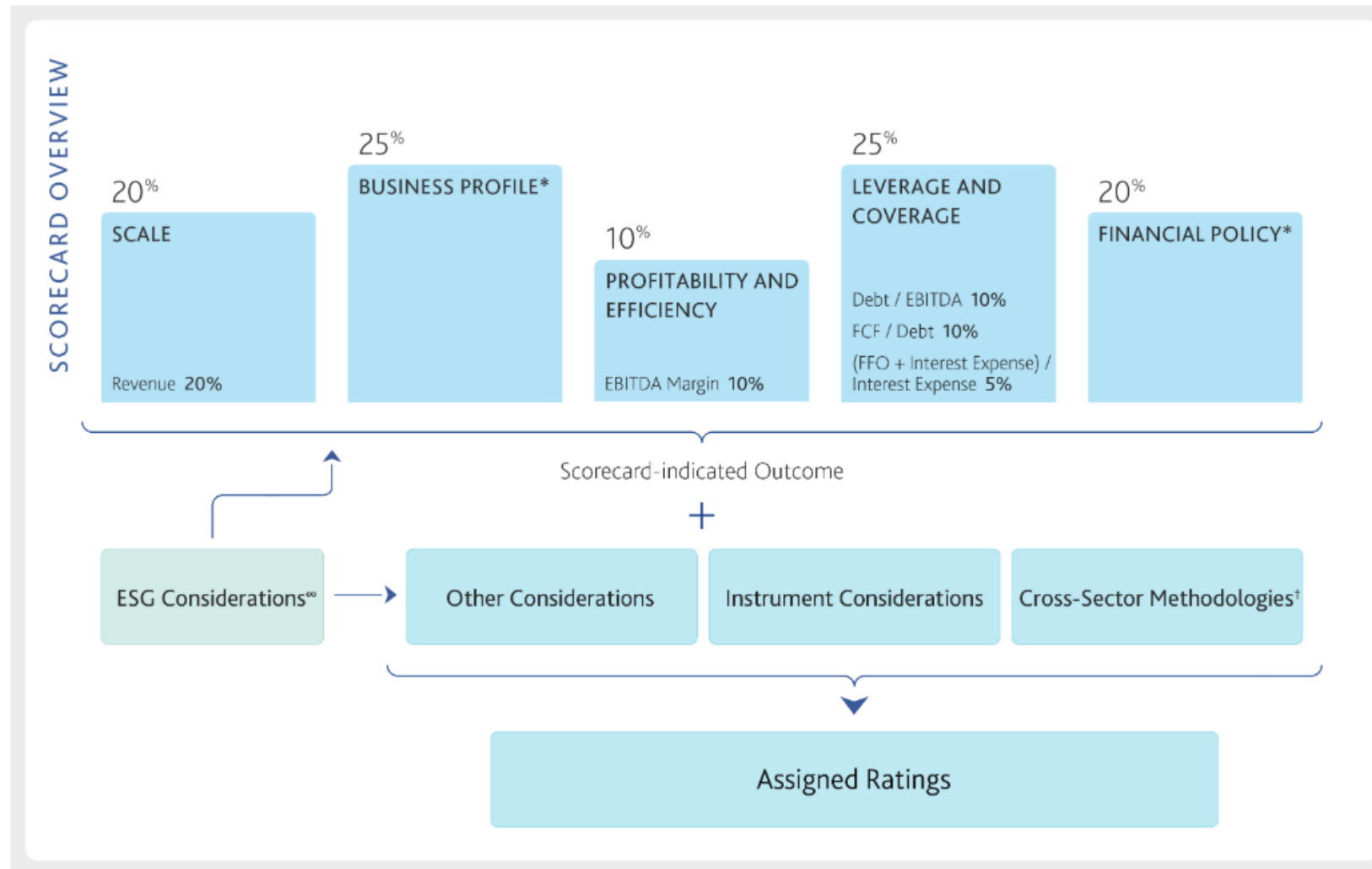
This factor has no sub-factors.

** Cash is defined as cash plus liquid short-term and long-term investments, which are typically marketable securities. Some companies report liquid investments under different names and we may make adjustments when calculating or estimating this ratio.

† Some of the methodological considerations described in one or more cross-sector rating methodologies may be relevant to ratings in this sector. A link to a list of our sector and cross-sector methodologies can be found in the "Moody's related publications" section.

Source: Moody's Ratings

Semiconductors Methodology



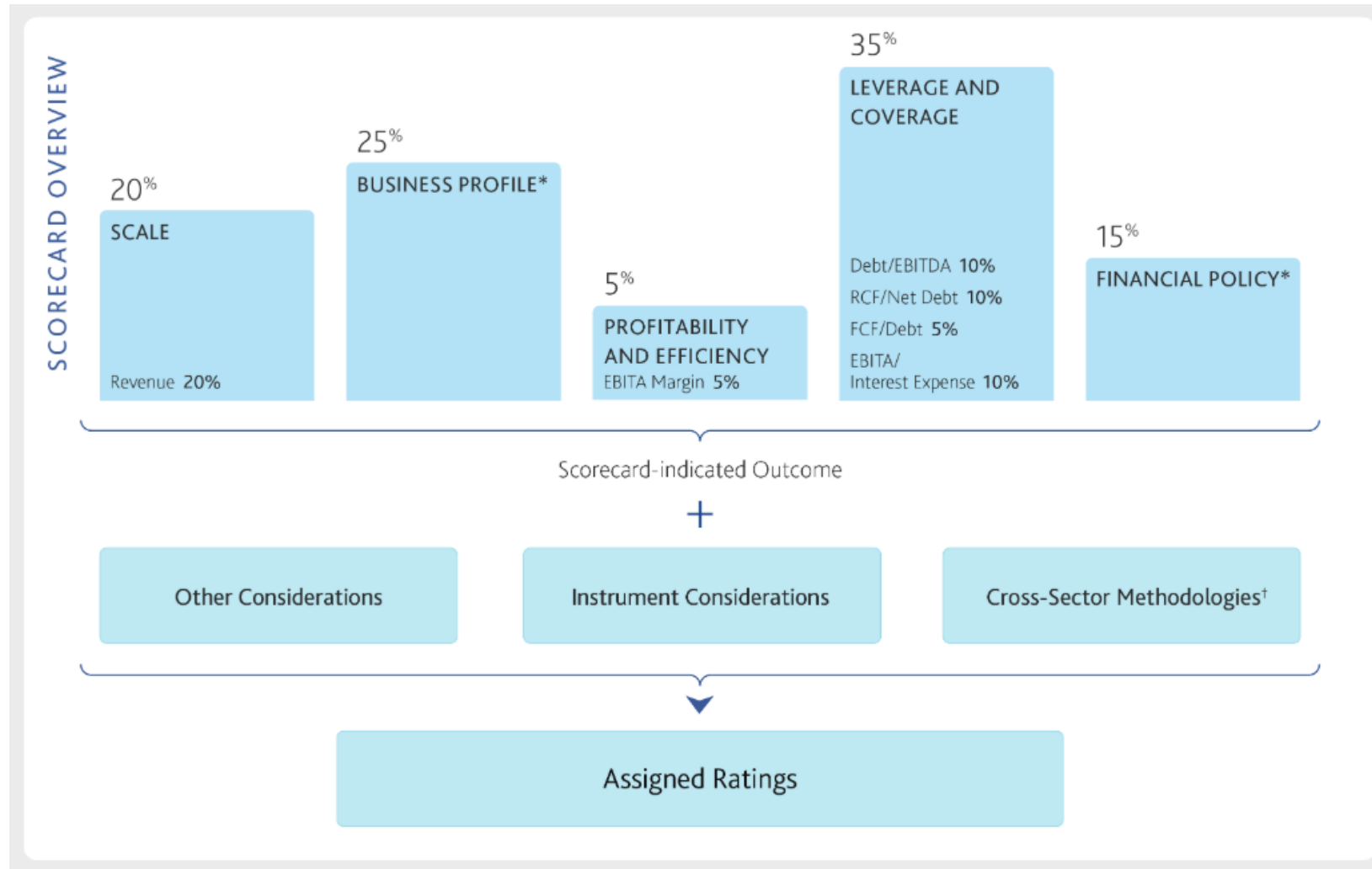
* This factor has no sub-factors.

[∞] Environmental, social and governance (ESG) considerations, including, where available, our opinions of exposure to them as expressed in Issuer Profile Scores (IPs), may affect scorecard factors and other considerations outside of the scorecard. For more information, see the "Other considerations" section.

[†] Some of the methodological considerations described in one or more cross-sector rating methodologies may be relevant to ratings in this sector. A link to a list of our sector and cross-sector methodologies can be found in the "Moody's related publications" section.

Source: Moody's Ratings

Manufacturing Methodology

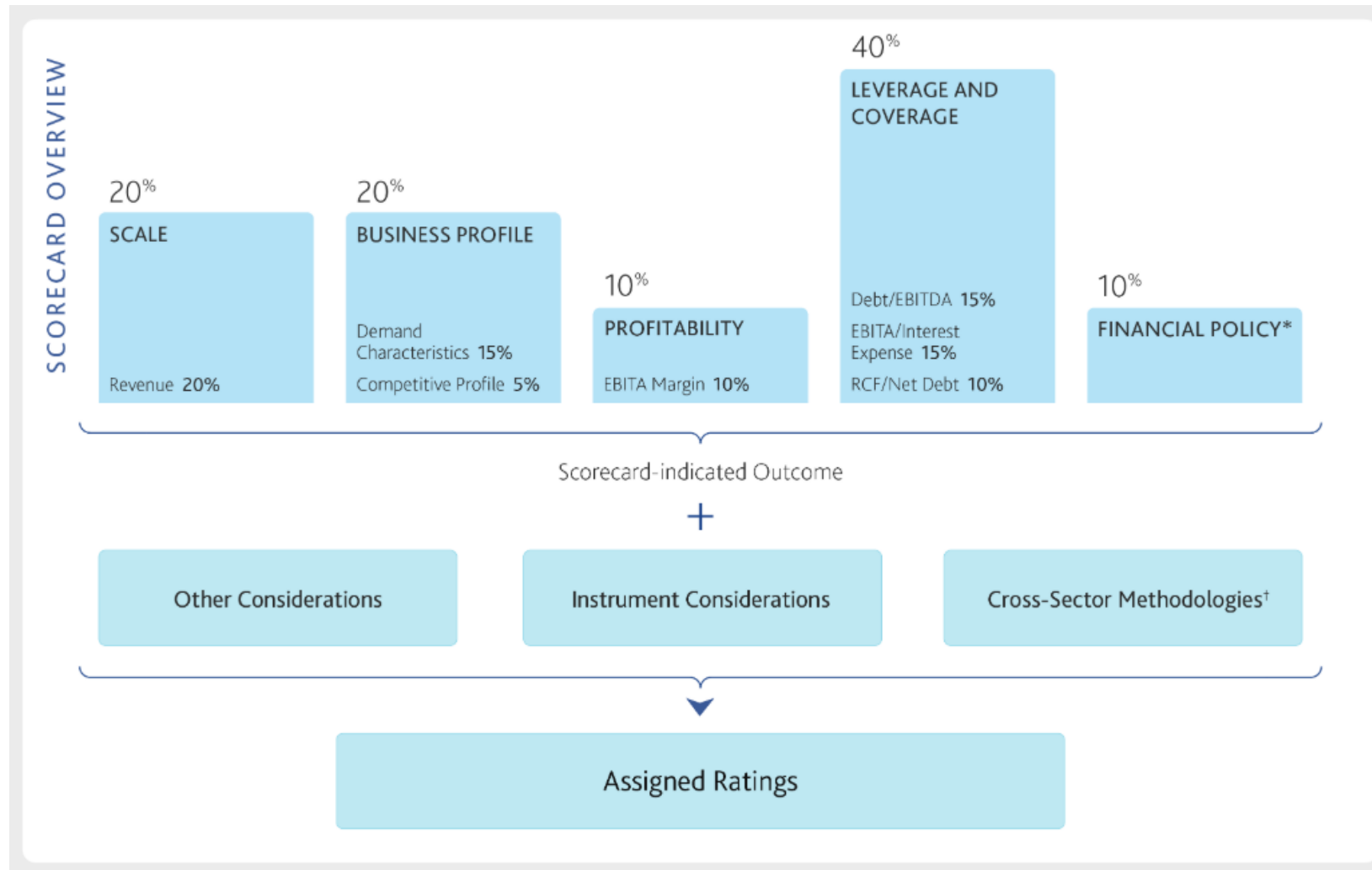


*This factor has no sub-factors.

† Some of the methodological considerations described in one or more cross-sector rating methodologies may be relevant to ratings in this sector. A link to a list of our sector and cross-sector methodologies can be found in the "Moody's related publications" section

Source: Moody's Ratings

Business and Consumer Services Methodology

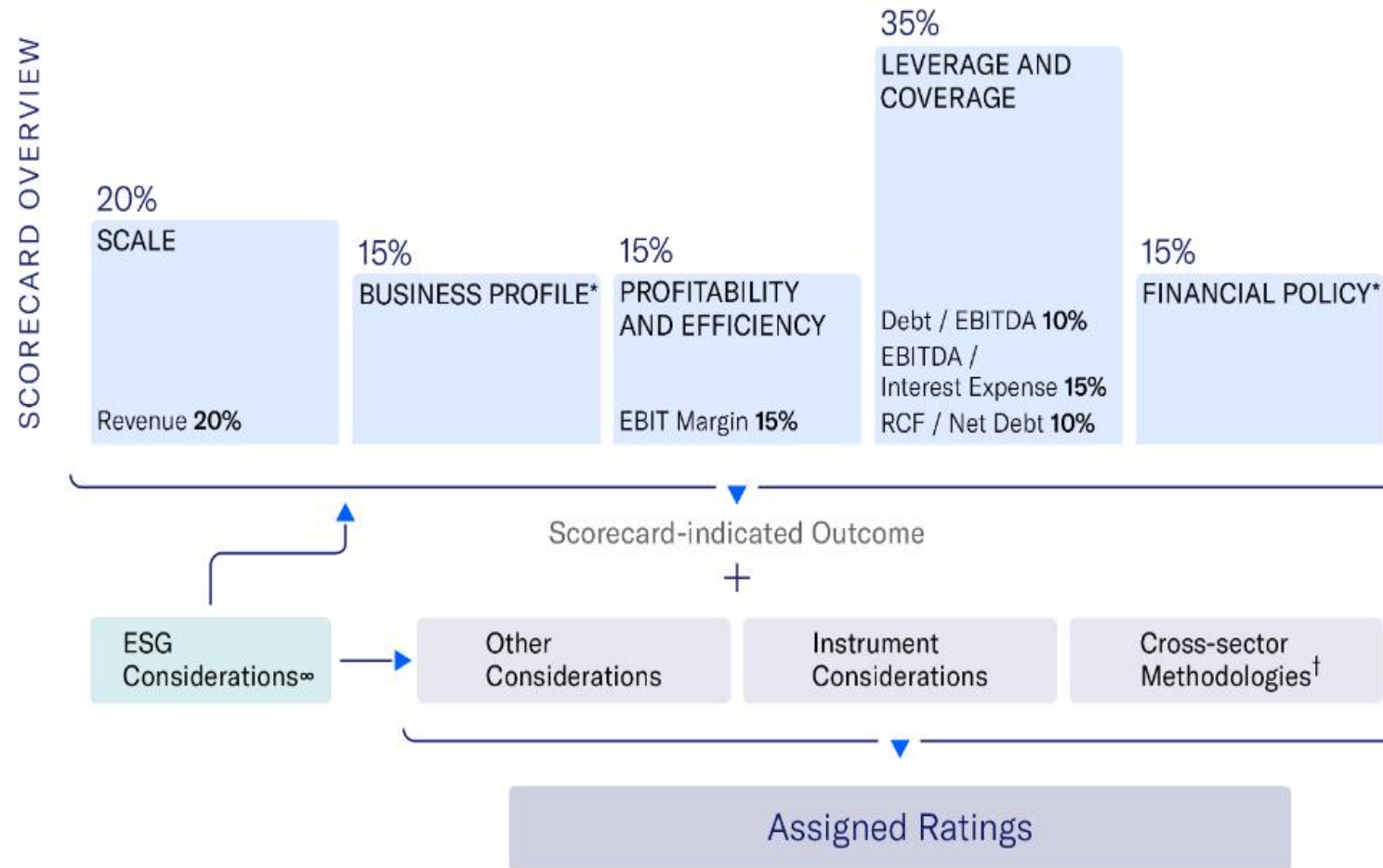


* This factor has no sub-factors.

† Some of the methodological considerations described in one or more cross-sector rating methodologies may be relevant to ratings in this sector. A link to a list of our sector and cross-sector methodologies can be found in the "Moody's related publications" section.

Source: Moody's Ratings

Distribution and Supply Chain Services Methodology



[∞] Environmental, social and governance (ESG) considerations, including, where available, our opinions of exposure to them as expressed in Issuer Profile Scores (IPSs), may affect scorecard factors and other considerations outside of the scorecard. For more information, see the “Other considerations” section.

[†] Some of the methodological considerations described in one or more cross-sector methodologies may be relevant to ratings in this sector. A link to a list of our sector and cross-sector methodologies can be found in the “Moody’s related publications” section.

Source: Moody’s Ratings

CFG standard adjustments

We adjust companies' reported financial statements to improve analytical insight from the perspective of assessing credit risk and to improve the comparability between peer entities. When computing credit-relevant ratios, we use adjusted data and base our ratings, in part, on those ratios.

All accounting regimes	Defined benefit pension plan liability to debt
	Lease liability to debt
	Expense capitalized interest
	Hybrid securities
	Net debt adjustment – restricted cash
	Sales of AR to debt
	Decrease FFO for non-intangible asset amortization
	On-balance sheet guarantees to debt
Removal of unusual and non-recurring items	
IFRS only	Expense capitalized development costs
	Remove interest expense related to certain discounted liabilities
	Consistent measurement of FFO
	Align cashflow presentation of interest and dividends with US GAAP
US GAAP only	Remove the LIFO reserve from inventory balances

Moody's Analytics Macroeconomic Outlook Appendix

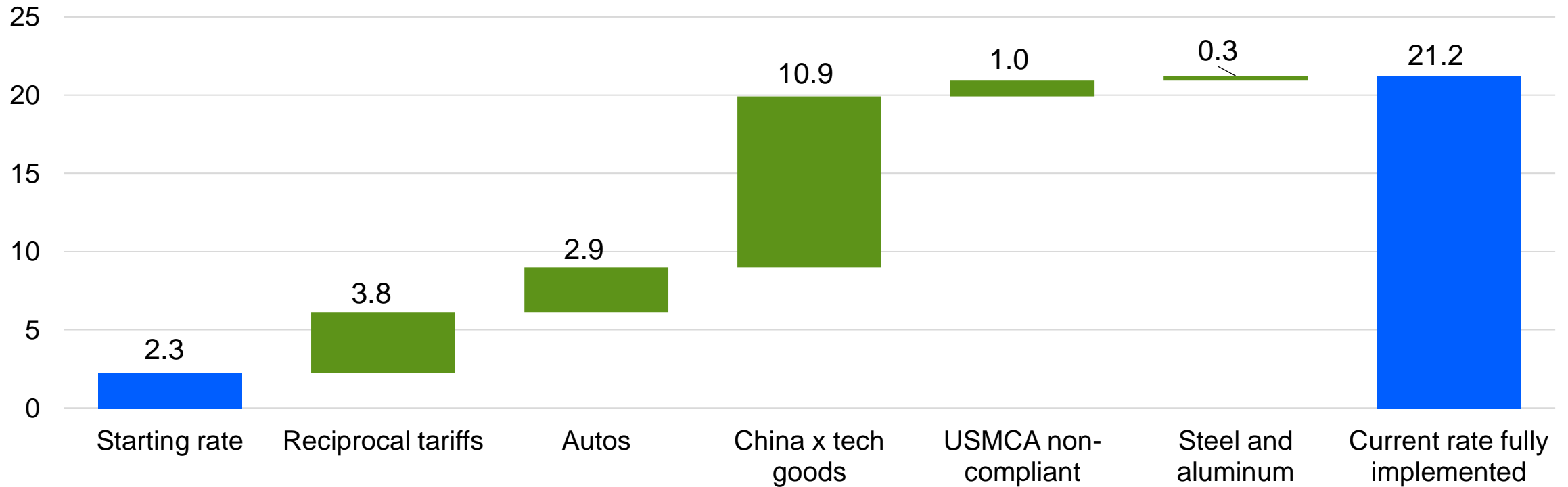
How Does the Trade War Impact the U.S. Economy

Rank ordered based on chronology of the impact

- Heightened Uncertainty & Weaker Confidence
- Financial Conditions Tighten
- Tax Increase on Consumers & Businesses
- Retaliation By Trading Partners
- Supply Chain Disruptions
- Negative Wealth Effect On Consumers
- Supply Chain Diversion
- Decoupling & Heightened Geopolitical Tensions

Adding Up the Higher U.S. Tariffs

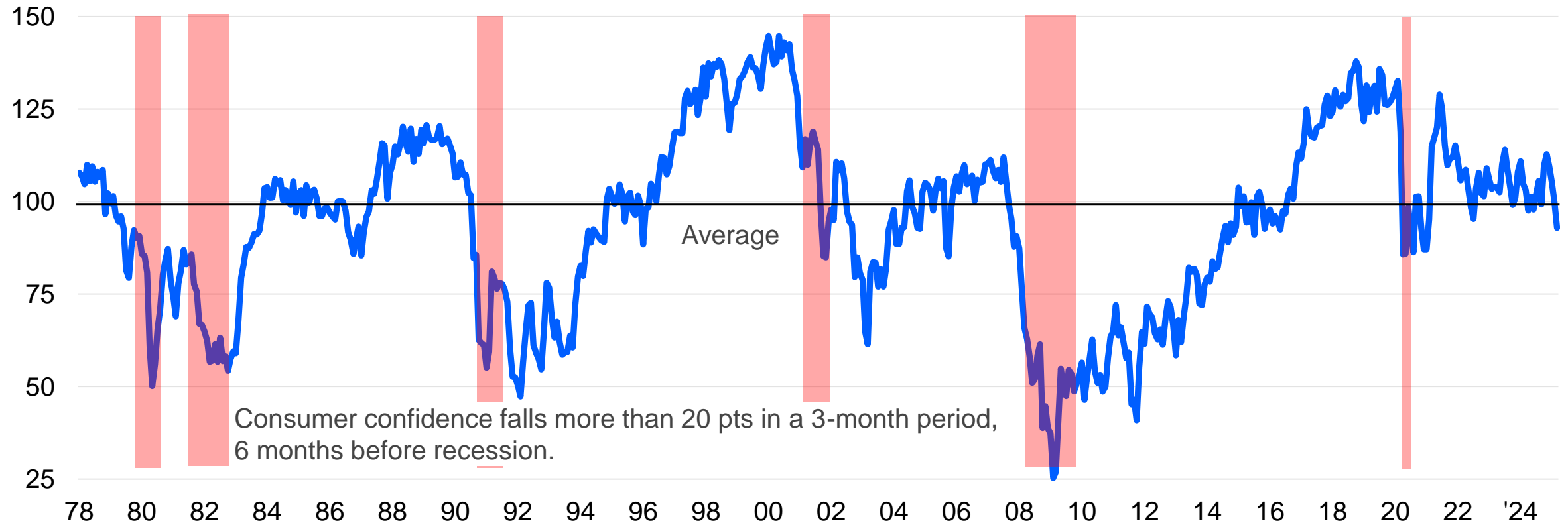
Contribution to U.S. effective tariff rate contribution (as of April 15, 2025), ppt



Sources: Moody's Analytics

The Consumer Psyche is Fragile

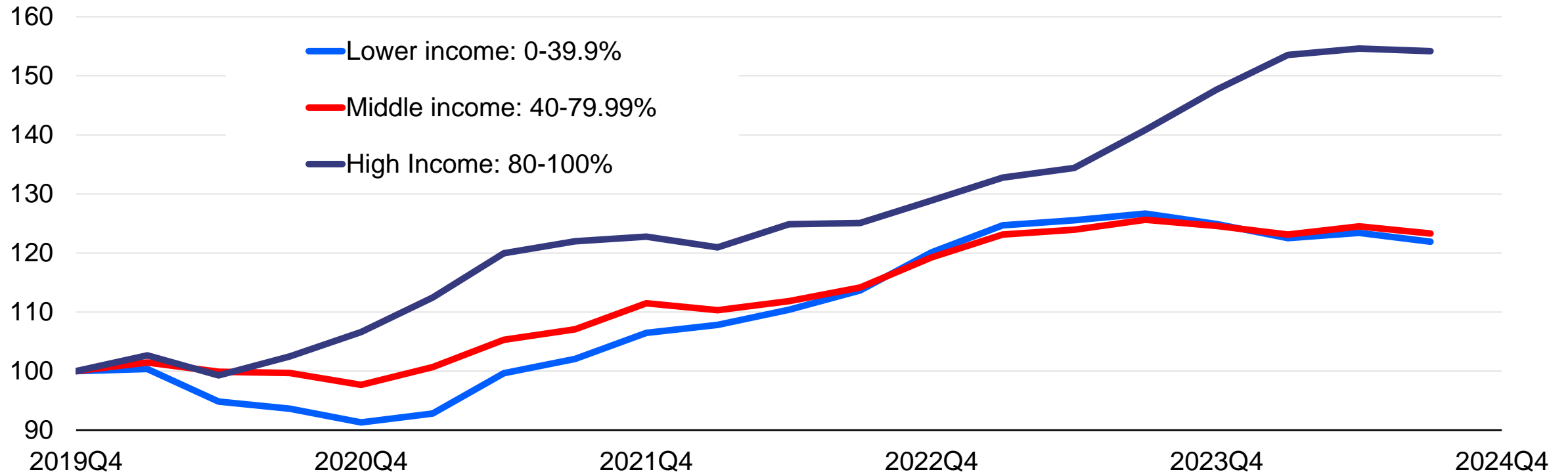
Conference Board consumer confidence index



Sources: The Conference Board, Moody's Analytics

Negative Wealth Effects Threaten To Be Large

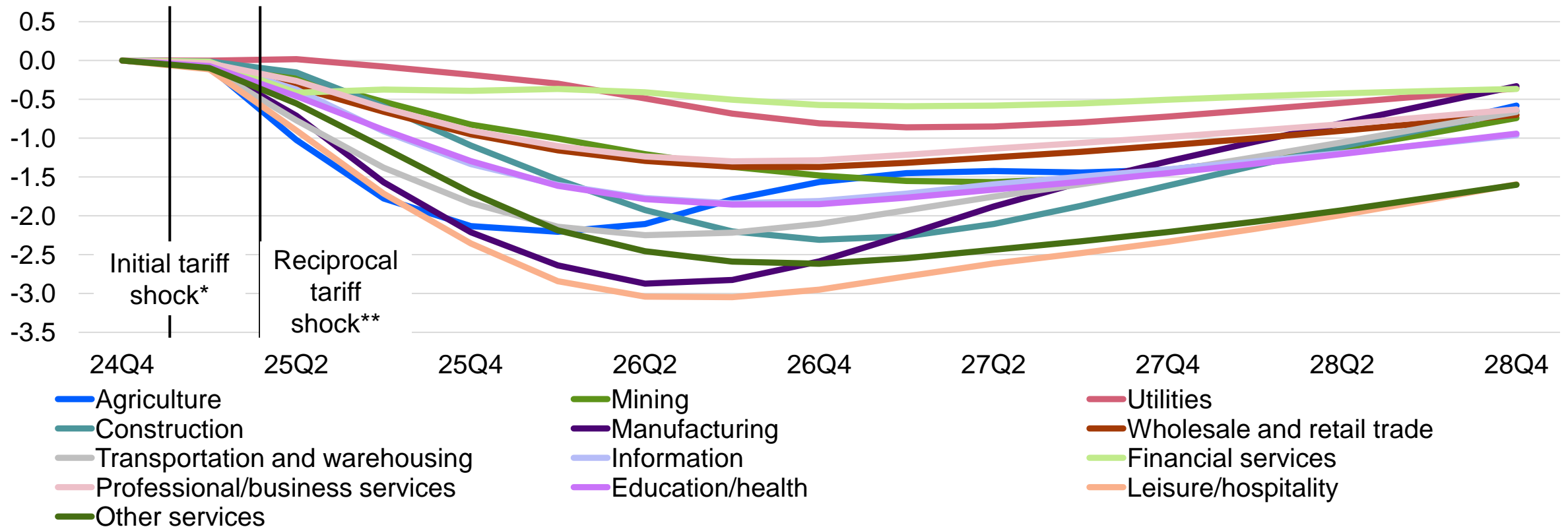
Personal outlays by income group, 2019Q4 = 100



Sources: BLS, Moody's Analytics

Industry Impact of Tariffs

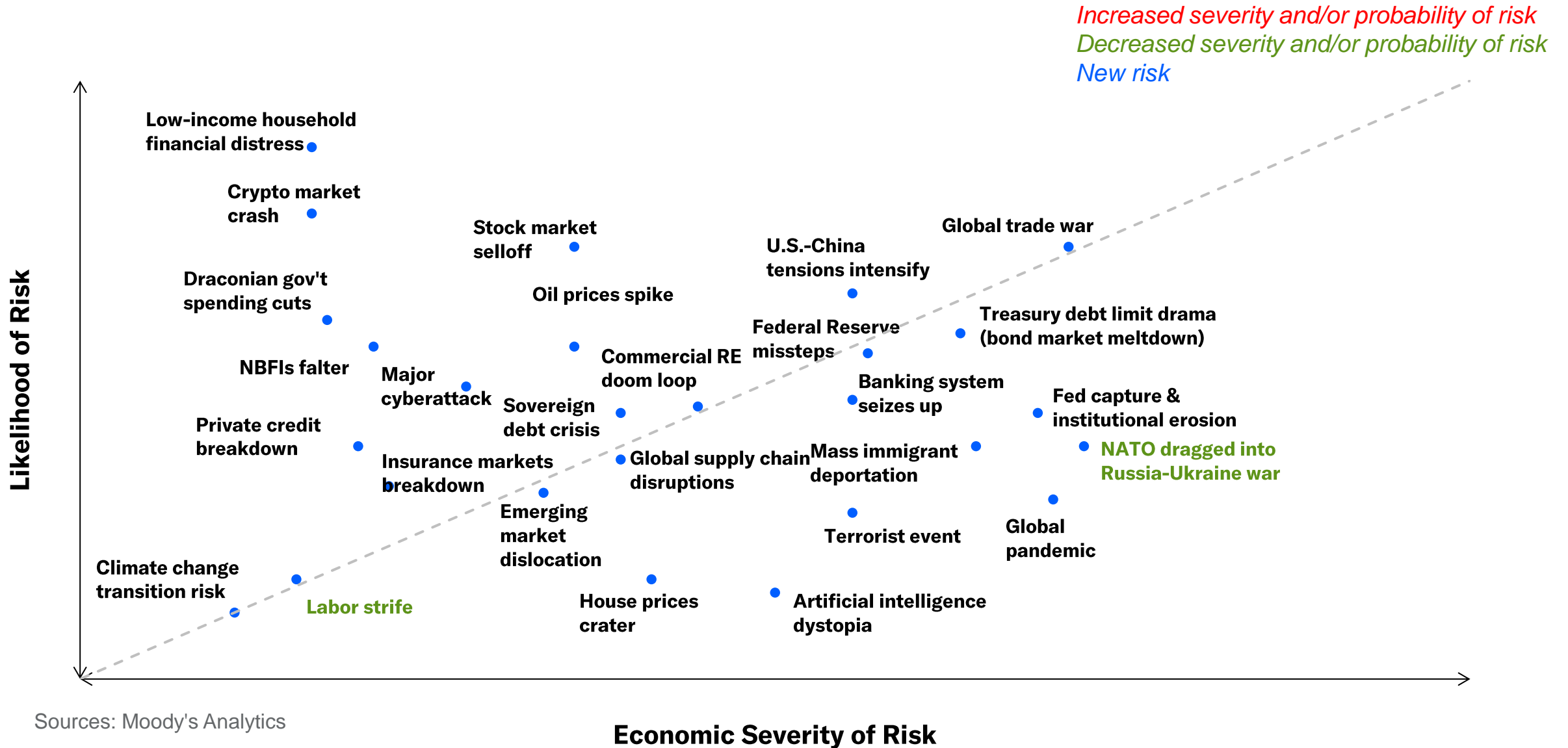
Real GDP, % deviation from pre-Trump



*Tariffs on Canada, Mexico, China, autos, steel, and aluminum; **10% baseline tariff plus reciprocal tariffs

Sources: Moody's Analytics

U.S. Risk Matrix –April 2025

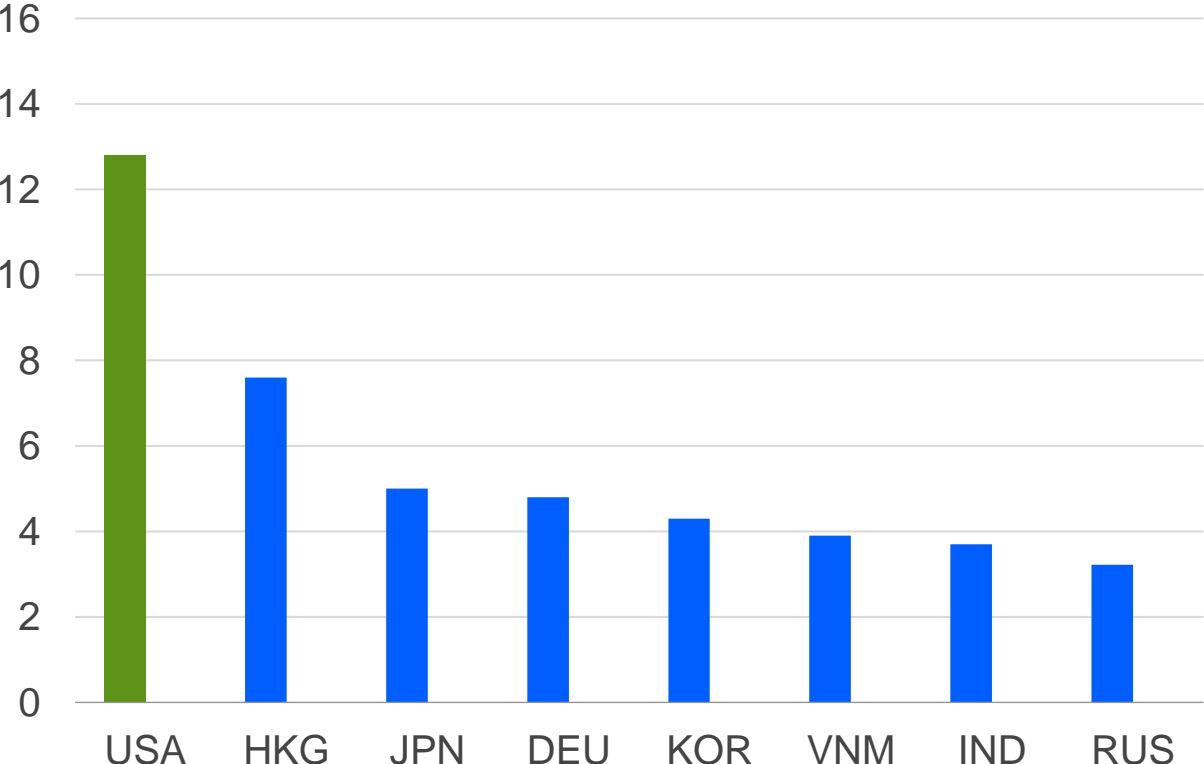


Sources: Moody's Analytics

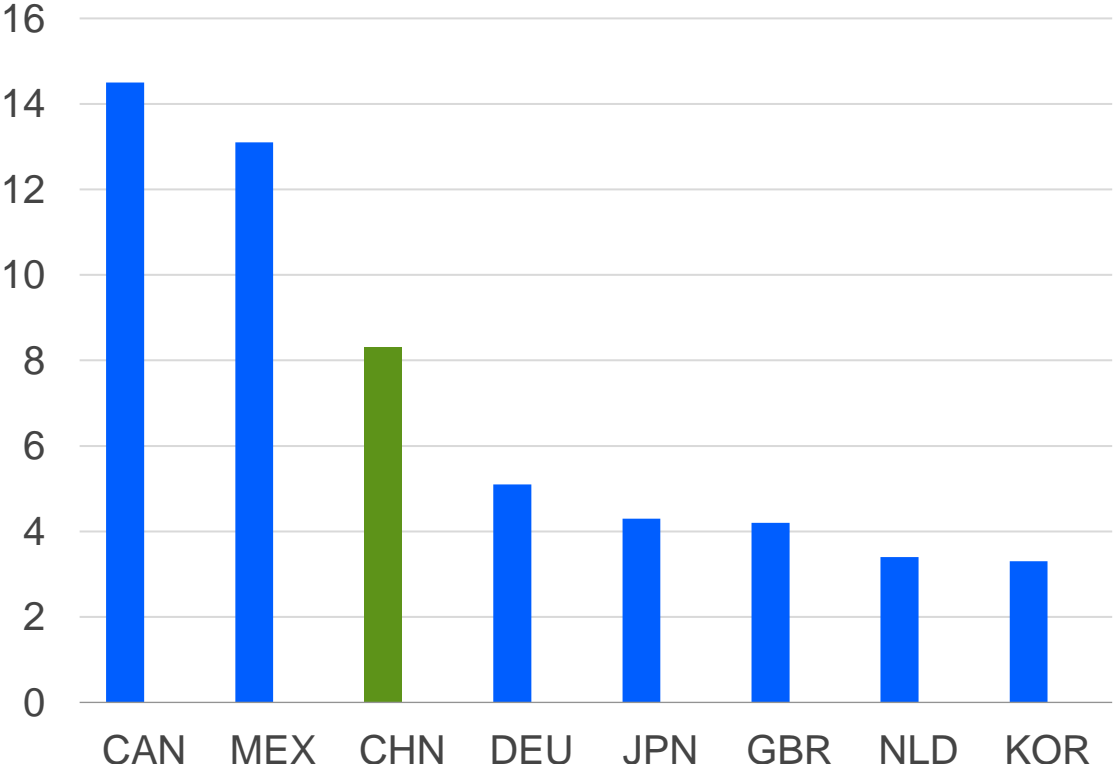
China

China Depends Upon U.S. Market for Exports

China export destinations, % of total exports value, 2023



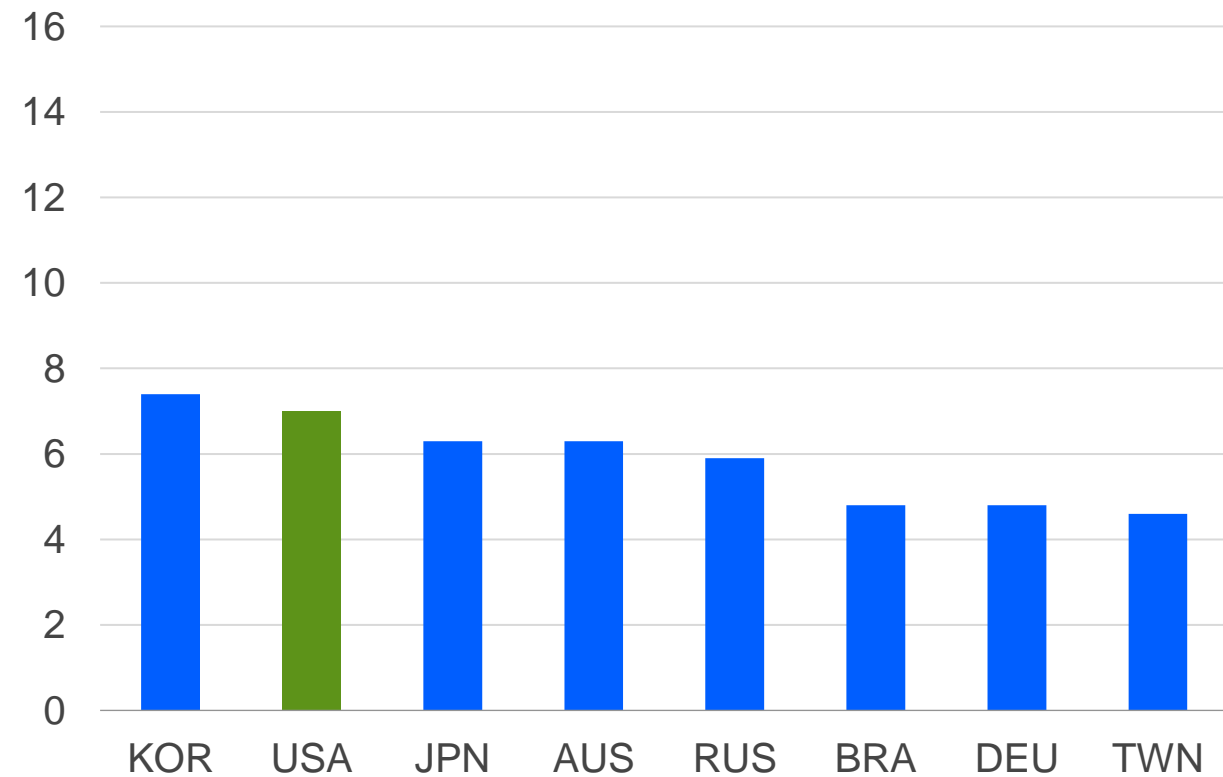
U.S. export destinations, % of total exports value, 2023



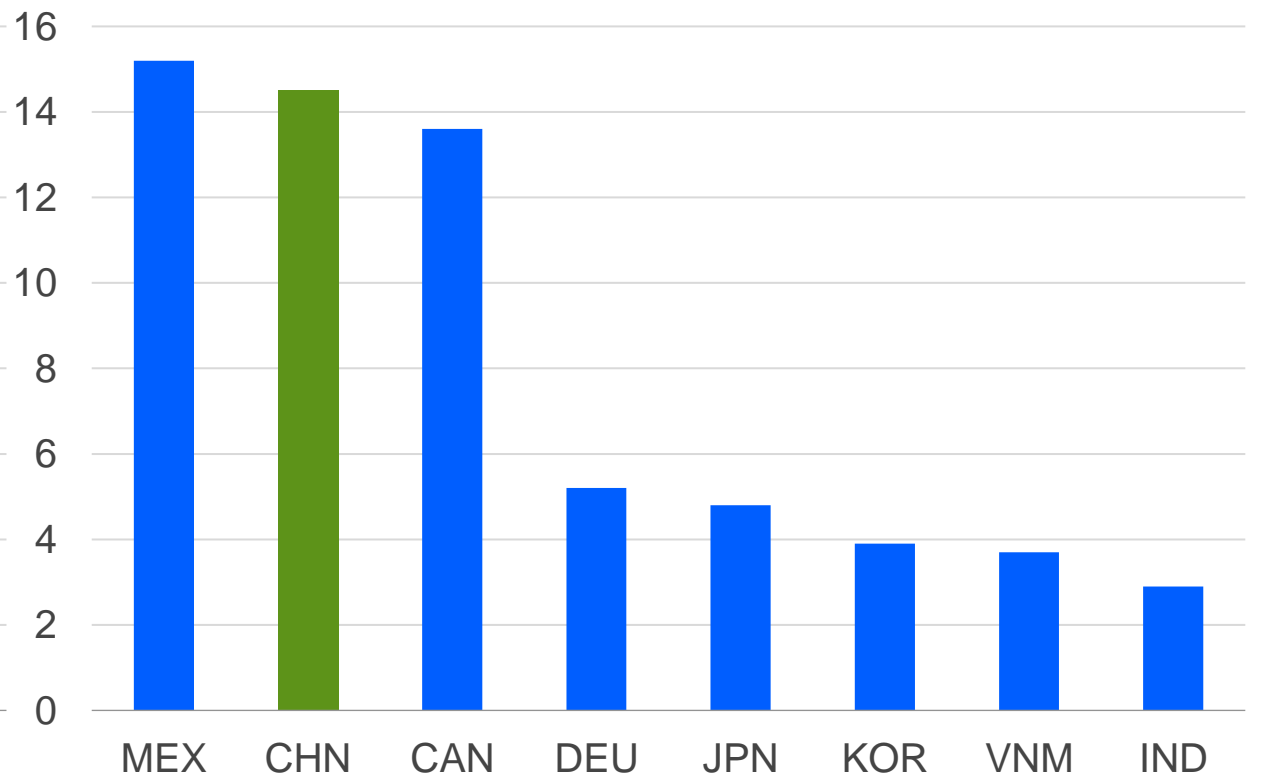
Sources: The Observatory of Economic Complexity, Moody's Analytics

U.S. Depends Upon China for Imports

China imports by source, % of total exports value, 2023



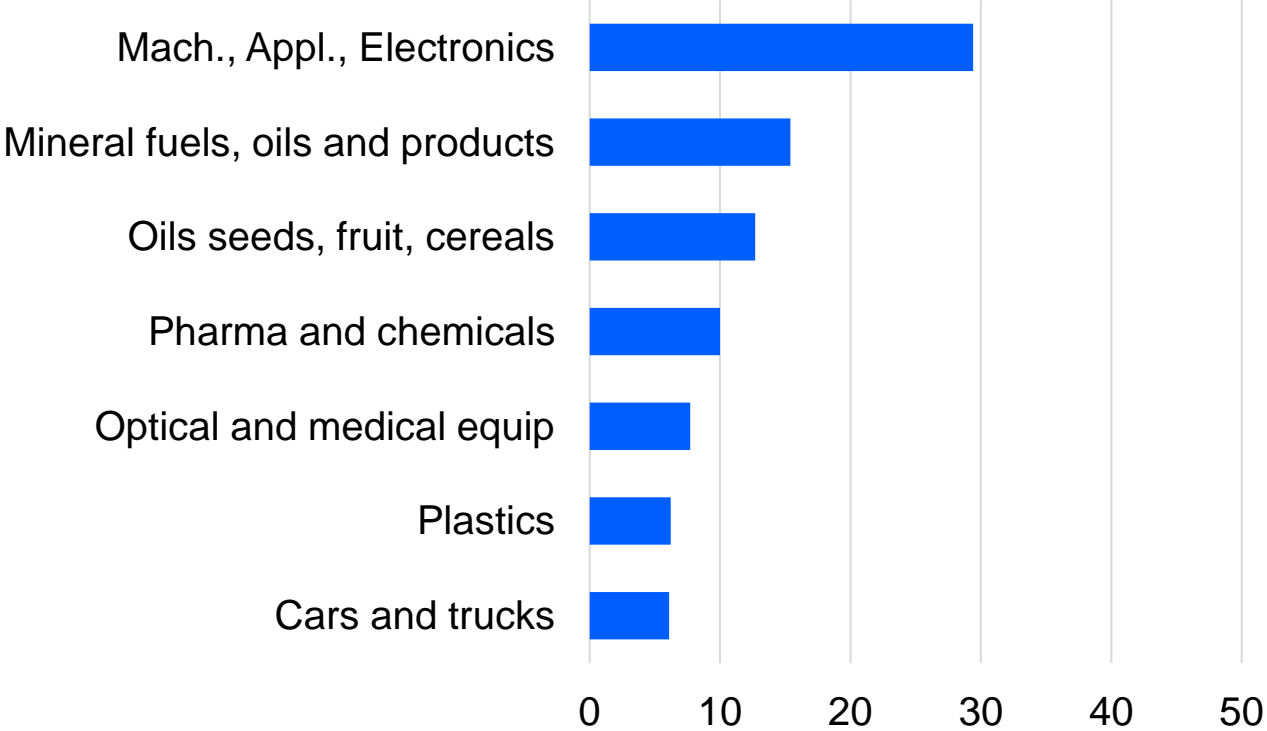
U.S. imports by source, % of total exports value, 2023



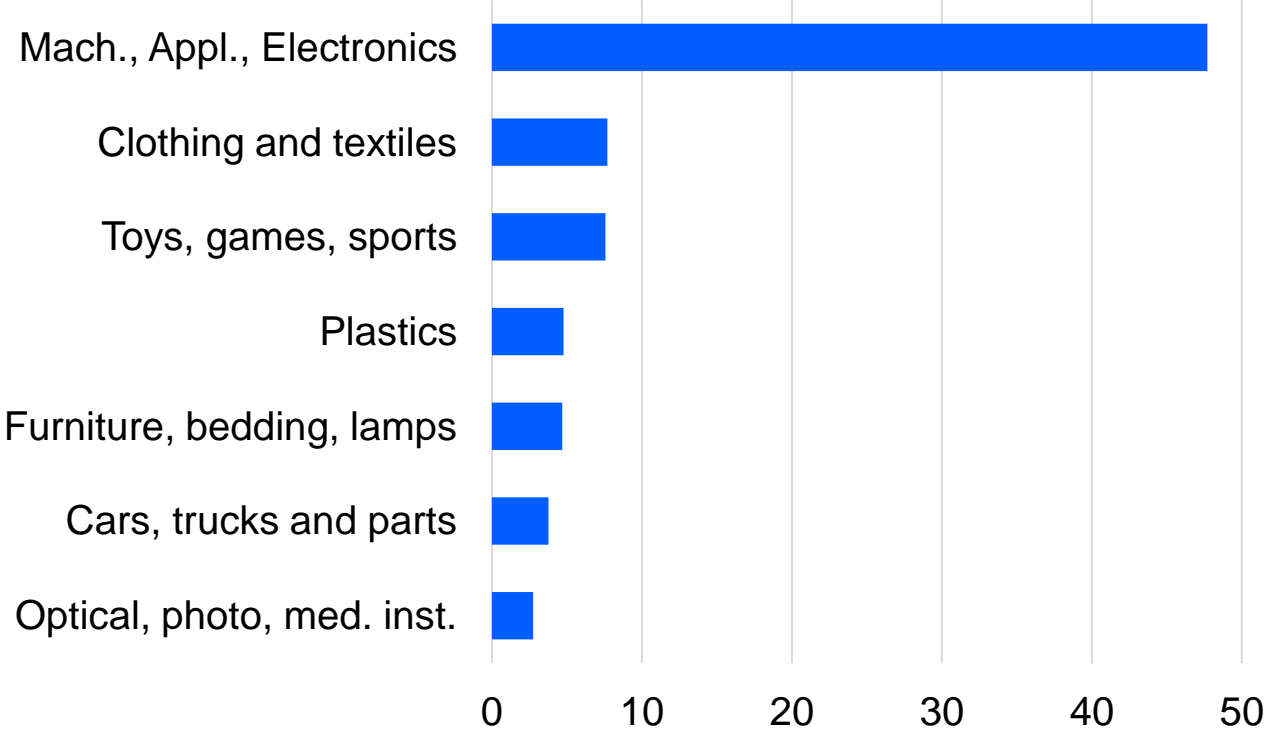
Sources: The Observatory of Economic Complexity, Moody's Analytics

China Can Substitute Sources Easier Than The U.S.

China imports from U.S., % of total imports, 2023



China exports to U.S., % of total exports, 2023



Sources: Observatory of Economic Complexity, Moody's Analytics

China's Increasingly Powerful Policy Response

More policy levers to pull than in the 2018-2019 trade war

Plans announced by Premier Li Qiang to:

- 1) Boost consumer spending
- 2) Fund technology innovation; invest in high-tech industries
- 3) Broaden sources of imported agricultural commodities

— Discussions with EU and ASEAN about a coordinated response to U.S.

Reduction of U.S. films allowed in China—a direct hit to U.S. service industries.

Outright ban on certain critical mineral exports to the U.S.

Travel warnings to Chinese tourists and students going to the U.S.

Restrictions on 13 U.S. defense and aerospace firms; executives barred from entering China.

Shipments of dual-use goods blocked to 28 U.S. defense firms, mirroring U.S. policy.

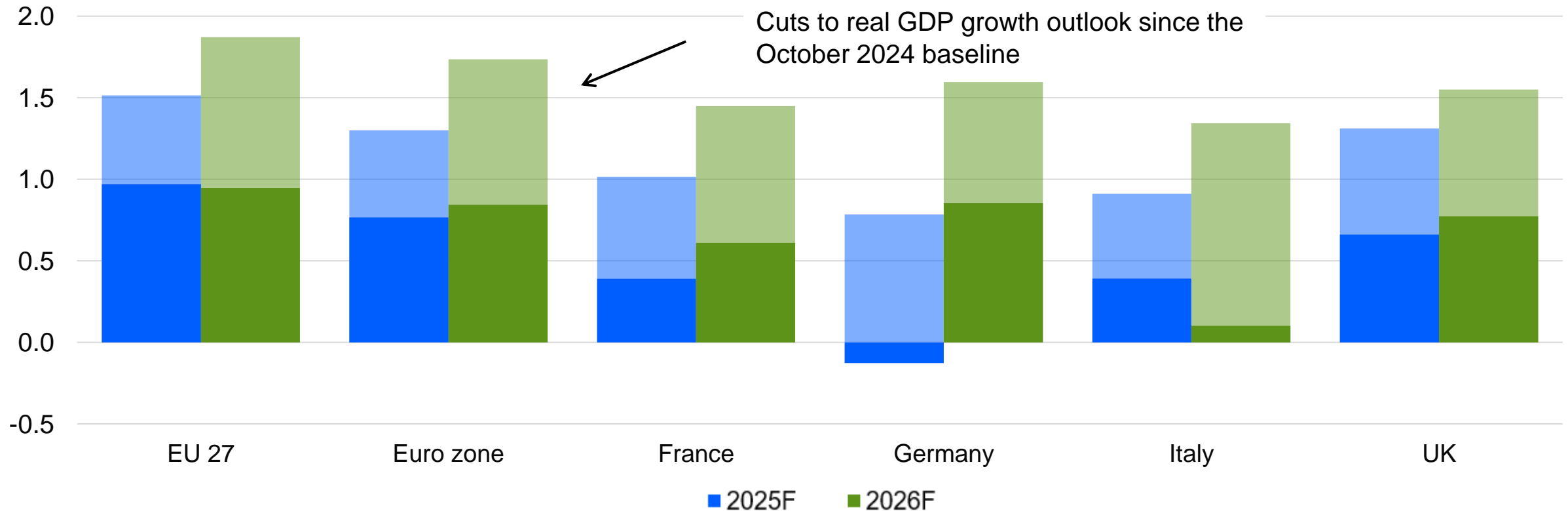
Boeing, General Dynamics and others banned from trading and investing in China.

The background of the slide is a dark blue color. It features several abstract, wavy, light blue lines that create a sense of movement and depth. These lines are composed of many thin, overlapping curves that flow across the page. The lines are most prominent in the upper left and right areas, with some extending towards the center. The overall effect is a modern, digital aesthetic.

European Union

Significant Downward Revisions to European Growth

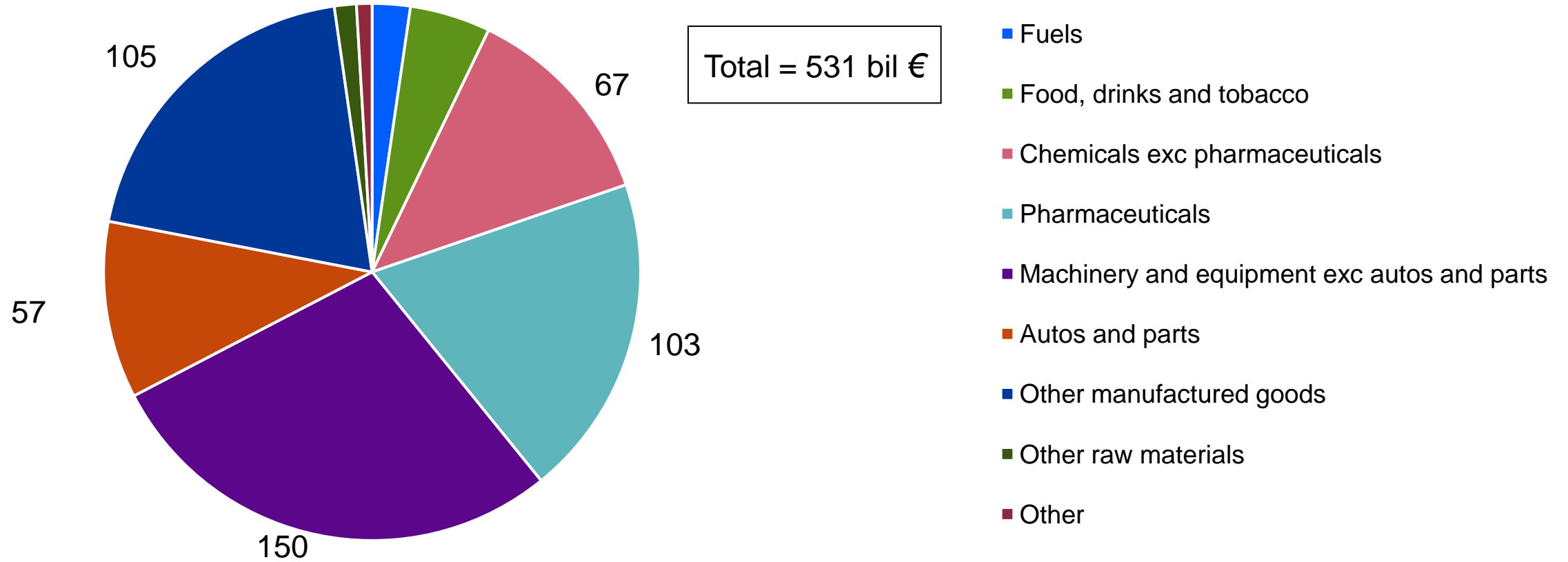
Real GDP growth, % change, April 2025 baseline



Source: Moody's Analytics

U.S. Exemptions Provide Some Relief for EU Exports

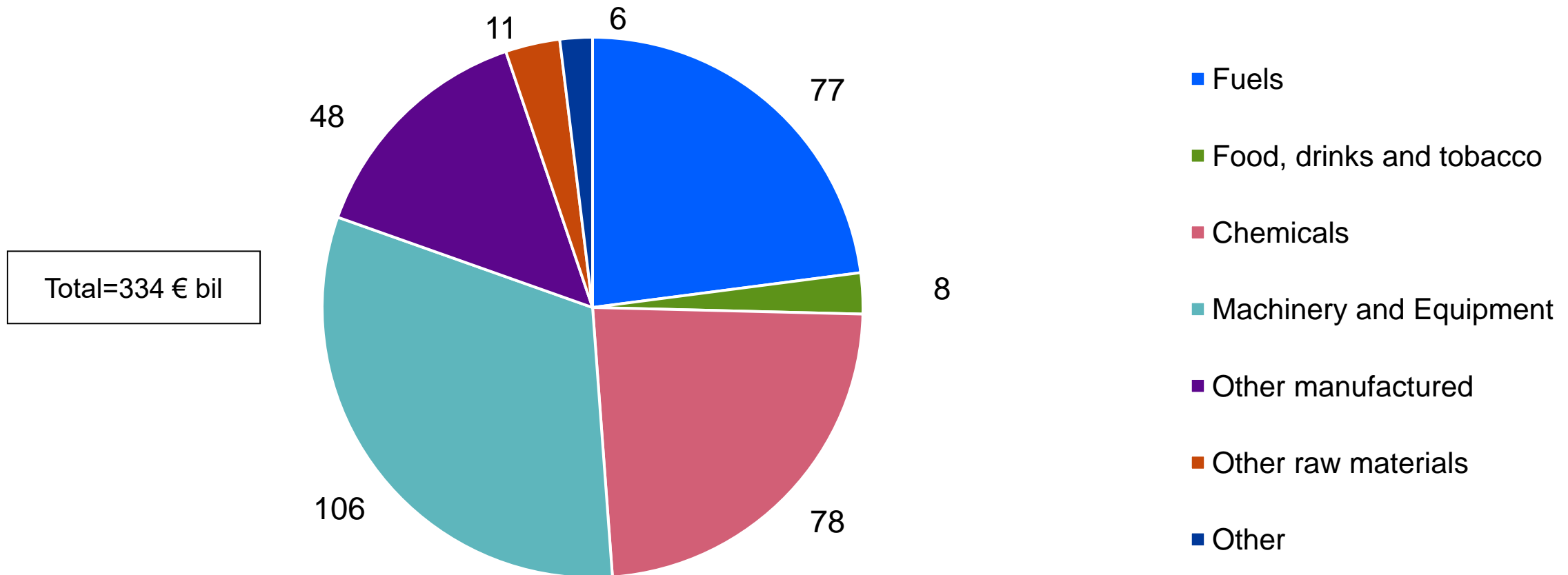
EU exports to U.S., 2024, € bil



Sources: Eurostat, Moody's Analytics

A Smaller Basket of Imports Makes Retaliation Harder

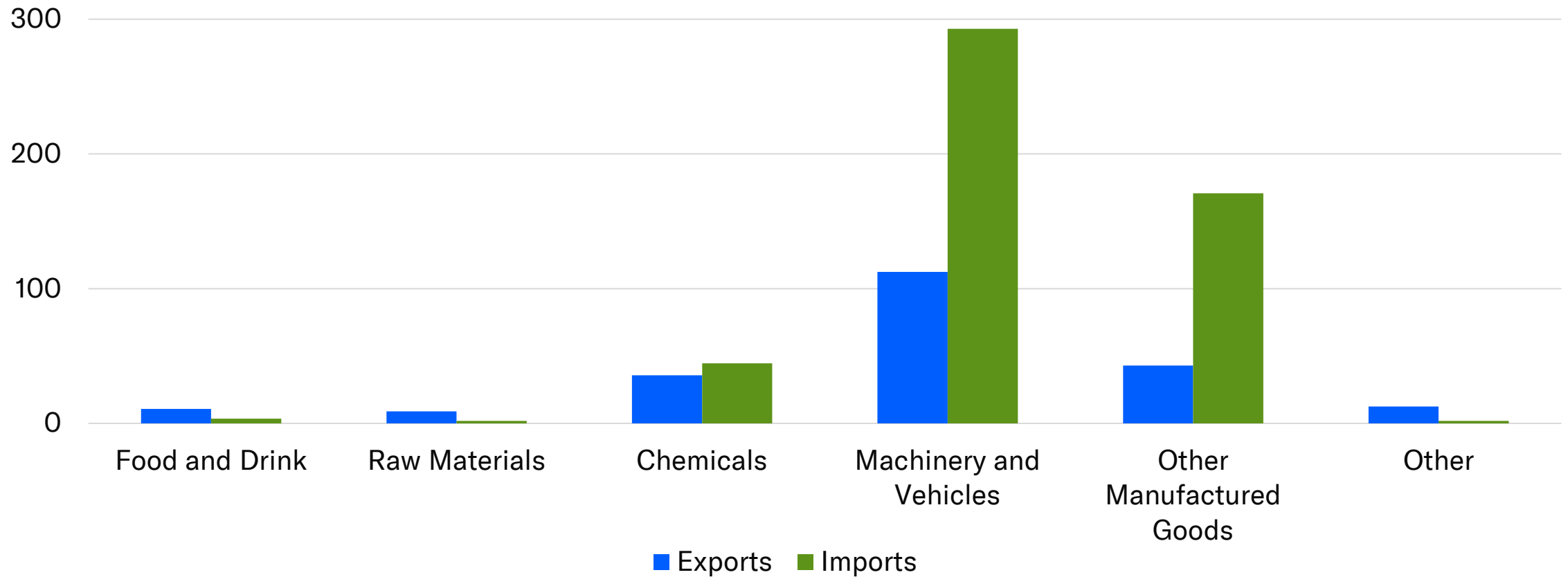
EU imports from U.S., 2024, € bil



Sources: Eurostat, Moody's Analytics

EU-China Imports and Exports 2024, euro billions

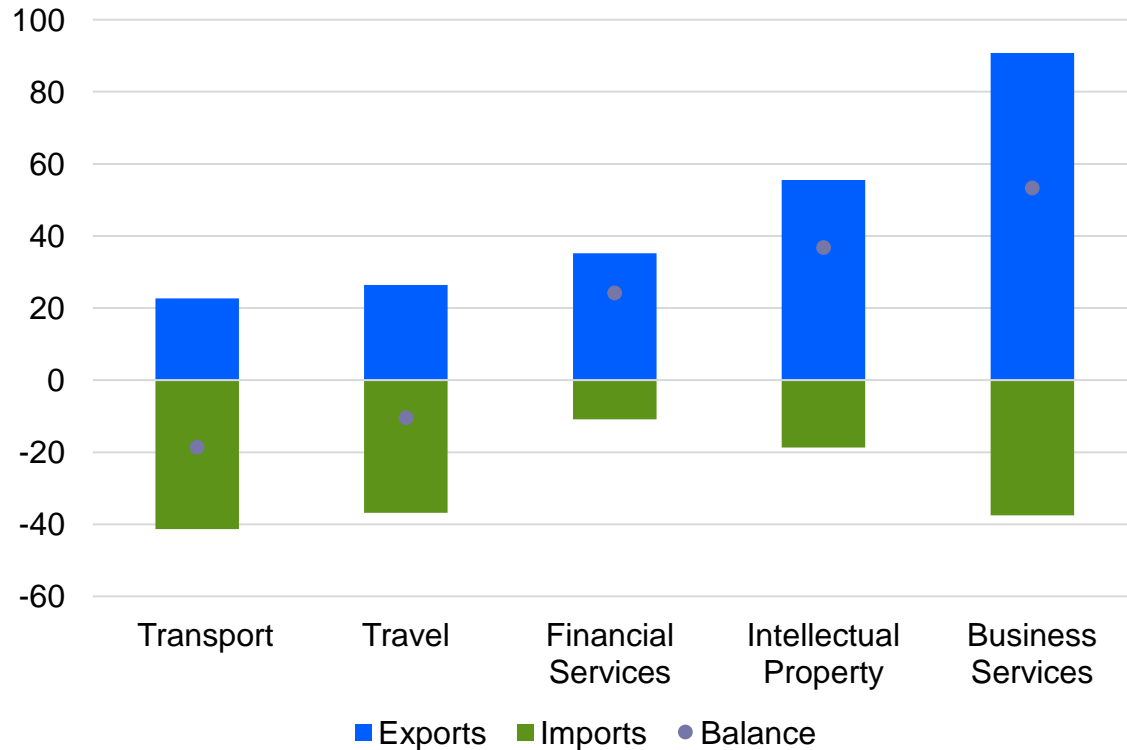
Contribution to U.S. effective tariff rate contribution (as of April 15, 2025), ppt



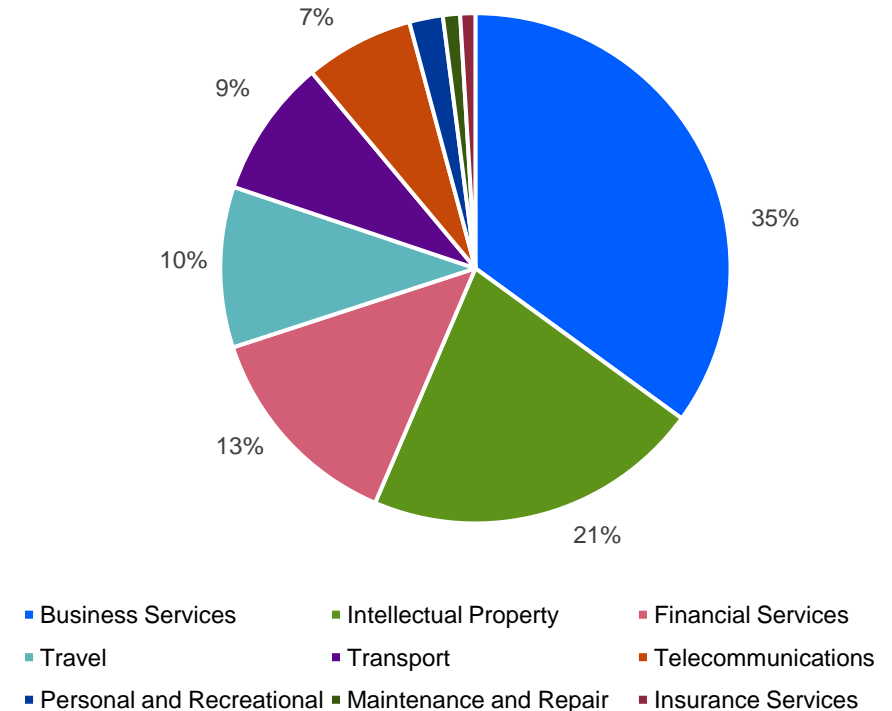
Sources: Eurostat, Moody's Analytics

Will the EU Target Services?

2023 U.S. services trade balance with EU, bil US \$



2023 U.S. services exports to EU, share of total



Sources: US Bureau of Economic Analysis, Moody's Analytics

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