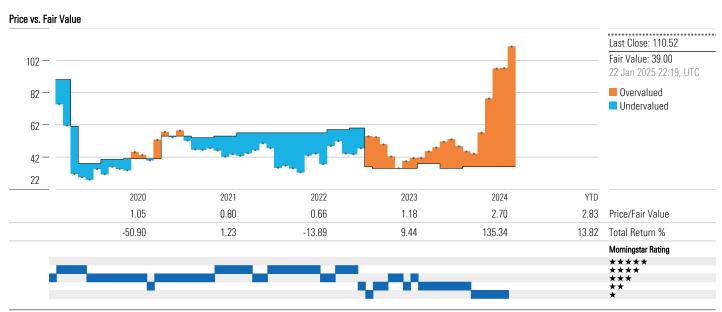
Last Price Price/FVE Economic Moat™ **Equity Style Box** Capital Allocation ESG Risk Rating Assessment<sup>1</sup> Fair Value Estimate Market Cap Uncertainty 35.51 USD Bil (III) None Mid Value High Standard **@@@@** 110.52 USD 39.00 USD 2.83 22 Jan 2025 1 Jan 2025 06:00, UTC 21 Jan 2025 22 Jan 2025 22:19. UTC



Total Return % as of 21 Jan 2025. Last Close as of 21 Jan 2025. Fair Value as of 22 Jan 2025 22:19, UTC.

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#### Important Disclosure

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The primary analyst covering this company does not own its stock.

The ESG Risk Rating Assessment is a representation of Sustainalytics' ESG Risk Rating.

# United Airlines Earnings: Strong 2024 Results and 2025 Outlook; Fair Value Estimate Up 8% to \$39

Analyst Note Nicolas Owens, Equity Analyst, 22 Jan 2025

United booked \$1.5 billion operating profit on \$14.7 billion of revenue in the final quarter of 2024, topping 10% margin due to strong demand in the winter holiday travel rush and a 19% dip in quarterly fuel costs compared with 2023.

**Why it matters:** Airlines don't usually have as good operating margins in the final quarter as during peak summer quarters, but a dip in fuel cost buoyed United's profitability in late 2024. Every other major operating expense at the global airline grew by double-digit percentages.

**The bottom line:** We have raised our fair value estimate for the no-moat-rated airline from \$36 to \$39, mostly due to expanded near-term profit margin. We continue to see the shares as meaningfully overvalued and believe investors overestimate the durability and repeatability of recent results.

**Coming up:** We anticipate some further cost growth to offset cheaper fuel in 2025, since the firm anticipates higher costs from a renewed labor agreement with flight attendants some time soon.

Business Strategy & Outlook Nicolas Owens, Equity Analyst, 16 Oct 2024

Before the pandemic, United Airline's strategy focused on cutting costs to expand margins, which averaged 10.6% between 2015 and 2019. In 2021-22, United announced a series of aircraft orders for up to 200 Boeing 787 Dreamliners and 500 narrow-body aircraft to join its fleet by 2032. The strategy is to



**Last Price**110.52 USD
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Fair Value Estimate
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Economic Moat™

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Sector Industrials

**Industry** Airlines

#### **Business Description**

United Airlines is a major us network carrier with hubs in San Francisco, Chicago, Houston, Denver, Los Angeles, New York/Newark, and Washington, D.C. United operates a hub-and-spoke system that is more focused on international and long-haul travel than its large us peers.

replace less-efficient and smaller jets to radically increase the average number of seats United can sell on an average flight, with more premium seats and legroom for those willing to pay up, and plenty of cheap seats that the company can sell to more leisurely travelers and compete with lower-cost airlines on many of its routes.

A pillar of full-service airlines' strategy before the pandemic was price discrimination between so-called business and leisure travelers. More frequent and shorter-stay travelers who booked through their employers' corporate travel agency received bulk discounts for last-minute bookings and premium seats. The pandemic scrambled this formula as travel habits rapidly evolved — as airlines reengineer their ticketing systems and travel agency relationships to reflect the reality that business and leisure travelers can be the same person, we expect them to find new ways to attract and reward brand-loyal frequent travelers willing to pay up for a more comfortable travel experience.

Our outlook for US airlines is quite rosy in the near term, though these firms are acutely governed by the laws of gravity and economics. As travel restrictions lifted in 2022, demand rebounded more quickly than airlines' capacity to meet it, constrained by shortages of planes and crew. As a result, airlines have recorded unprecedented revenue and profits. These conditions functioned as a boon to the whole industry, and we believe they have begun to even out in the 2024 summer travel season. As they do, we forecast a return to more normal operating conditions, which will erode airline profitability—when airplanes and personnel are no longer a constraint, we expect the incremental incentives that airlines constantly operate under to return to the fore, leading to competition over prices and market share anywhere their route maps overlap, which is almost everywhere.

#### Bulls Say Nicolas Owens, Equity Analyst, 22 Jan 2025

- ▶ The United Next strategy will boost capacity and drive stronger profitability with more efficient planes.
- ▶ Demand for air travel has recovered more rapidly from the covid-19 pandemic than the industry's ability to expand capacity to meet it.
- ▶ Due to United's many long-haul international routes, it gets more mileage than peers from an average flight.

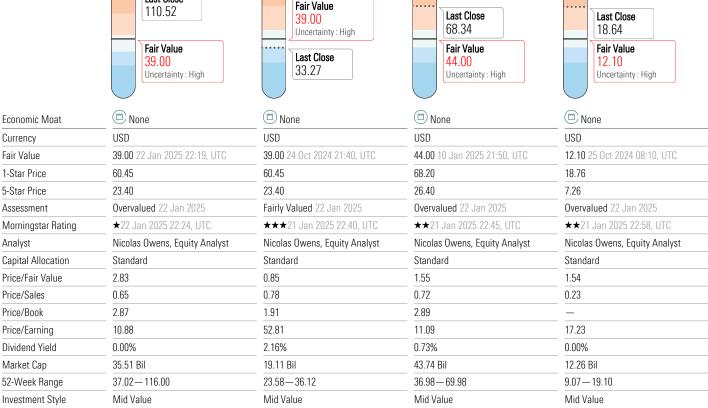
#### Bears Say Nicolas Owens, Equity Analyst, 22 Jan 2025

- ► United's debt burden and fleet investment plans mean shareholders won't likely see buybacks for a while.
- Competition from low-cost airlines and full-service peers put a limit on United's ability to pocket higher fares.
- ► Business travel recoveries tend to lag economic recoveries, and United has high and evolving business travel exposure.

Economic Moat Nicolas Owens, Equity Analyst, 16 Oct 2024



Last Price Fair Value Estimate Price/FVE Market Cap **Equity Style Box Capital Allocation** ESG Risk Rating Assessment<sup>1</sup> Uncertainty 35.51 USD Bil (III) None Mid Value High Standard **@@@@** 110.52 USD 39.00 USD 2.83 22 Jan 2025 21 Jan 2025 22 Jan 2025 22:19. UTC 1 Jan 2025 06:00, UTC Competitors United Airlines Holdings Inc UAL Southwest Airlines Co LUV Delta Air Lines Inc DAL American Airlines Group Inc AAL Last Close



Airlines rent out seats by the hour on aircraft designed to fly for decades, and their operations and financial results are subject to fluctuations beyond their control, including ticket prices, fuel costs, labor costs, weather, and seasonal variation in people's travel plans. Put simply, the airline business is highly price-competitive, capital-intensive, and labor-intensive, all of which make it difficult for an airline to generate any profit beyond its cost of capital. Indeed, IATA, an industry group, estimated in 2018 that return on invested capital had only approached the industry's cost of capital once in the preceding two decades, never exceeding it. Our own modeling reflects the same reality. We conclude that United Airlines does not have an economic moat.

What's more, the industry has been pummeled by three of the most severe global macroeconomic events of the last two decades: the terrorist attacks on Sept. 11, 2001, two global pandemics (SARS and SARS-Cov-2), and the great recession of 2007-08. In each case, air carriers experienced drastic and systemic disruptions to their operations, staffing, and financial viability, including bankruptcies and



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increased leverage. Similar macroeconomic events are likely to recur in the foreseeable future, and investors in airlines would risk permanent capital loss in such a situation.

Airlines hire and train thousands of people with specialized skills, including ground crews, technicians, and air crews. They tend to plan their routes from a few months to a year in advance, and we observe that their costs for salaries, wages, and benefits usually total between one quarter and one third of revenue and tend to grow in tandem with their overall route capacity (measured as available seat miles, or ASMs). In the short term, these costs are fixed, even though they flex with capacity in the medium and longer term. Embedded in the cost of doing business as an airline, and exacerbating the challenge of staffing, is the strong seasonality of travel: over the last 20 years, US carriers have collectively faced a 30% January to June spike of monthly demand (or this could be seen as a 23% June to January slump), measured as aggregate monthly revenue passenger miles. International demand is more volatile and brings extra competition from non-US carriers.

The most volatile expense an airline experiences is for fuel—although the amount of fuel required to power a given aircraft on its daily routes is known to the gallon (or by weight at takeoff), the price the airline will have to pay for a gallon can vary widely over a year, seasonally, and even regionally. Airlines were paying more than \$3 per gallon of jet fuel (kerosene) in 2011, and fuel prices spiked in the 2022 aftermath of postpandemic supply shortages as well as macroeconomic stress on the energy market caused by Russia's invasion of Ukraine. In the period from 2011 to 2015, jet fuel prices stayed over \$2 per gallon, and airline industry ticket prices (termed "yield" and measured as cents per passenger mile) approached 25 cents in the period. When jet fuel prices fell in 2016, airline yields did, too. The most important point about fuel prices is that each airline experiences them more or less the same way—they are a commodity. And airlines have shown they can pass this element of their costs on to customers by charging more per mile when fuel prices are high. Over the long term, airline CPI, a measure of inflation, has been remarkably stable, notwithstanding a bit of a bump in the 2022-23 timeframe, which reflects the spike in fuel prices and which we do not believe will persist as competition inevitably heats up again.

The most costly competition airlines engage in is for aircraft. Every handful of years, Boeing and Airbus offer new models of aircraft that can fly a bit farther or carry a few more passengers on almost the same amount of fuel. We observe a steady increase in the available seat miles per gallon consumed across all airlines, as they consistently upgrade their fleets. The major US carriers — Delta, United, and American — were able to fly an average airplane seat about 60 miles on a gallon of fuel in 2012 and are approaching 70 ASMs per gallon in 2023. Southwest, which flies only variants of the narrow-body 737, went from 70 ASMs per gallon a decade ago to approaching 80 in 2023. While this trend reflects ongoing improvements in engine efficiency, wing, and fuselage design, it also represents a competitive ratchet that no airline can afford to ignore: multiplied over many hundreds of millions of seat miles per year, even a small difference in fleet efficiency would represent a structural disadvantage for an airline



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competing on the same routes. Thus, airlines constantly refresh their fleets to stay competitive (new seats, bigger luggage trays, and the like are a side benefit of new planes that may also augment an airline's brand perception for a short time).

Major US carriers have partnered with a credit card issuing bank to promote loyalty programs that feature their "frequent flyer miles." For some, these programs, in which the bank pays the airline more for the miles up front than they are technically worth to redeem, represent the lion's share of ongoing operating profit. We do not see these programs as changing the competitive dynamic or structural profitability of the airline. Put simply, the airlines have time-shifted when they experience the profit of serving one of their most loyal customer segments, in many cases redeeming miles for services such as baggage allowance, priority boarding, and lounge access, that cost incrementally very little to provide over and above the actual cost of the flight.

Airlines provide invaluable service to their customers and communities, often stimulating the economies of those destinations they connect into the global travel network. However, investors in airlines are literally flying on a wing and a prayer, as we see no prospect for maintainable economic profit in this industry. Instead, we observe that Airbus and Boeing, a duopoly of airframe suppliers, reap the economic reward from providing successively more efficient, powerful aircraft, which airlines line up to buy or rent so their service and cost profile can keep up with competing carriers.

Fair Value and Profit Drivers Nicolas Owens, Equity Analyst, 22 Jan 2025

Our fair value estimate for United Airlines Holdings is \$39 per share.

Airlines faced the worst operating environment in history in 2020 due to the covid-19 pandemic and dramatically reduced capacity to respond to steep and sudden drops in demand. Domestic leisure travel demand has recovered and we forecast continued growth with a bustling economy and pent-up demand among consumers for travel. However, airlines have not fully recovered quite yet, as pockets of business travel and international travel are still below prepandemic levels, and ongoing supply chain issues hamper jet deliveries as well as the labor market for specialized talent like air and ground crew. United returned to 2019 levels of capacity in early 2023, and we expect available seat miles to be approximately 32% higher in 2028, our midcycle year, than in 2019.

Over the near term, we still expect strong domestic leisure travel, a strengthening business travel recovery as workers return to offices, and increasing international travel due to fewer travel restrictions compared with 2022. We anticipate United's load factors will approach 85% and yields will remain slightly elevated, considering the constrained supply environment.

Our average operating margin forecast for United is 19.2%, about 160 basis points below the 2015-19 average, which declined steadily over that period. We no longer see evidence that pandemic-related



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restructuring has generated labor efficiencies at United, nor do we believe that the airline or its peers will benefit from elevated yields indefinitely. In fact, we observe airlines rapidly adding unit costs as they rehire necessary crew and renegotiate labor agreements. We forecast about 2 cents more in structural costs per available seat mile in United's midterm future than it experienced in 2015-19 with passenger revenue yields eventually descending from recent highs.

Based on delayed airplane deliveries from Boeing and Airbus, we're expecting capital expenditure to be about \$6.5 billion in 2025 and increase toward \$8 billion or more over the next few years before eventually tapering off as the airline takes delivery of some 250 planned aircraft it has on order, though the timing of these deliveries remains uncertain. We expect capital expenditures will remain elevated over our five-year explicit forecast as United continues to add capacity.

We think a very high cost of equity and above-average cost of debt are still reasonable assumptions for this airline, given United's highly cyclical business model and leveraged balance sheet. The substantial interest tax shield leads us to a 9% weighted average cost of capital.

### Risk and Uncertainty Nicolas Owens, Equity Analyst, 16 Oct 2024

Our Morningstar Uncertainty Rating for United Airlines is High. Airlines are exposed to a variety of risks, including geopolitical risk throughout their networks, commodity price risk from the oil market, the risk of irrational competition, ongoing and occasionally severe operational disruption due to weather, and general cyclical risk because demand for air travel is sensitive to overall economic activity. The geopolitical risk is broad, as any number of unpredictable events such as wars, pandemics, international tension, and natural disasters often disrupt travel.

Airlines have a long history of irrational competition due to low industry entry barriers, high industry exit barriers, and price-sensitive customers. We believe airline consolidation after the 2007-09 financial crisis temporarily reduced the potential for irrational competition, as distressed carriers such as Northwest, Continental, US Air, Airtran, ATA, and Virgin America were all absorbed by incumbents. During the ensuing 2015-19 honeymoon, most US carriers benefited from low tax bills as they used net operating loss carryforwards from previous recessions. However, we expect most of these tax benefits will be used up in the next few years even as most US carriers also took on billions of dollars of debt to weather the pandemic. Thus the probability that one or more carriers could experience financial distress in the next few years and succumb to price competition is much higher today than it was before the pandemic.

We see some environmental, social, and governance risk for United, as for airlines in general, primarily stemming from the greenhouse gas emissions from the company's operations. If carbon taxes or similar carbon reduction incentives were enacted, airlines would likely pass the cost on to the consumer, which we anticipate would reduce aggregate travel demand. At this point, ESG risk does not affect our fair value estimate or scenario analysis.



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#### Capital Allocation Nicolas Owens, Equity Analyst, 16 Oct 2024

We think United Airlines deserves a Standard Morningstar Capital Allocation Rating based on a weak balance sheet rating, a fair investment rating, and an appropriate shareholder distribution rating.

Airlines in general have weak balance sheets because of inherent challenges in the business model. Revenue is highly cyclical and fixed costs represent roughly one half of an airline's cost structure, so cyclical changes in the business environment have an outsize effect. Further, because airplanes are expensive, airlines tend to hold relatively high levels of leverage. The covid-19 pandemic further weakened industrywide balance sheets as a massive downward swing in demand caused the industry to burn billions in cash to support unprofitable operations. United is no exception to industrywide trends. The firm raised about \$13.3 billion of new capital in 2020 and ended 2022 with about \$16.4 billion of cash and short-term investments and about \$31.2 billion of debt (excluding leases) on the balance sheet. We expect rebounding demand will allow United to service its debt adequately.

United has been far more willing than most airlines to experiment with unconventional transactions and investments, which we view positively. We think several of these investments won't make a large difference, particularly the supersonic jet order from Boom, the backing of urban vertical takeoff and landing vehicles, and the investment in Heart Aerospace, an electric aircraft startup, but we recognize that these investments with a low probability of success may yield a high return on total investment if even one is successful. Other transactions, such as United's industry-leading mortgage of its frequent-flyer program in June 2020, allowed the firm to generate about \$6.8 billion of liquidity from its frequent-flyer program without selling frequent-flyer miles forward to banks at a deep discount. While we acknowledge its innovation, we cannot easily tie any of the firm's internal investments to the generation of economic profits, so we think United deserves a Standard, rather than Exemplary, investment rating.

We give United an appropriate shareholder distribution rating. The company has a leveraged balance sheet and will need to return significant capital to debtholders before we would expect it to start returning capital to shareholders. Thus we think United is right to have no shareholder distributions at this time, and we anticipate future distributions will likely recur, at least opportunistically, once United has paid down some of its debt. United has historically returned capital to shareholders in the form of share buybacks, though this program was suspended because of the pandemic. From 2015 to 2019, the company reduced its weighted average shares outstanding by about 30%. To weather the 2020 pandemic, however, United made several stock offerings and issued warrants to the US government. As of the fourth quarter of 2021, United had largely neutralized the share count reduction of 2016-19.

### **Analyst Notes Archive**

United Airlines Earnings: United Will Weather the Oncoming Capacity Storm; Valuation Up \$1 to \$36

Nicolas Owens, Equity Analyst, 18 Jul 2024



**Last Price** 110.52 USD 21 Jan 2025

Fair Value Estimate
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United Airlines reported second-quarter 2024 results that showed more than 5 billion more revenue passenger miles flown in the quarter than we had forecast, though lower prices overall left revenue \$680 million above our model and cost growth left only \$200 million more operating profit than we expected. We refined our remaining 2024 forecast to account for tapering capacity growth later in the year, so our overall profit forecast for United did not change materially, and we have raised our fair value estimate by \$1 to \$36 to account for the time value of money since our last report. As airline capacity grew dramatically over the last few years, along with costs, an inevitable return to more normal travel demand will leave the industry with too much capacity and destroy profitability. Management has been predicting a shakeout of the leisure airline industry for some time, and discussing second-quarter results, Chief Commercial Officer Andrew Nocella estimated that 10% of US airline capacity today is unprofitable and that the spread between the most- and least-profitable airlines' results has never been wider. Nocella indicated that within a few quarters one or more low-fare airlines, which have been slashing prices to fill planes on routes they cannot operate profitably, will exit the industry or permanently reduce capacity one way or another. We see this as validating our thesis that the airline industry remains highly competitive and that no North American airline can create profits above its cost of capital over the entire business cycle. The airline industry does not create economic profit, indeed, usually it does not break even. We reaffirm that United and its peers have no economic moats. Within that, United and Delta are likely to retain profitability in the near term as they have successfully refined their customer segmentation and premium travel offerings while prudently deploying their capacity to draw the most profits within the industry.

United Airlines Earnings: Strong Revenue Offset by Ongoing Investments; Fair Value Estimate Lowered Nicolas Owens, Equity Analyst, 17 Apr 2024

United Airlines reported first-quarter 2024 revenue and profit that somewhat exceeded our forecast even though the company also attributed a \$200 million deficit in the quarter to the temporary grounding of its Boeing 737 MAX 9 fleet. With a \$124 million adjusted operating loss in the quarter, the implication that the no-moat airline would have booked about \$80 million in profit on \$11.3 billion in revenue were it not for the Boeing grounding did not leave us impressed. United has also had to reshuffle its airplane order book to reflect delayed deliveries by Boeing, and as a result of the spaced-out and generally higher capital spending forecast from the company, we have lowered our fair value estimate to \$35 from \$38 per share.CEO Scott Kirby asserted during the earnings call that United has established a "moat around its business" based on its "customer proposition," network, and loyalty program. He went on to describe how United's putative moat had previously been breached by change fees and bundled economy fares. By removing change fees, which all airlines did in the wake of the pandemic, and by offering "disaggregated" pricing for economy fares, that is, unbundling assigned seats and other perks from the core airfare, Kirby claimed United has established stickier relationships with business customers and attracted more price-sensitive ones. Both are true and reflected in the



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company's results, but we don't see either move as garnering an economic moat for the airline, as they do not alter the fundamental competitive dynamic or the long-term prospect for economic profit. Kirby acknowledges that other airlines also possess global networks and loyalty programs, and we see no reason that these features would create economic profits above the company's cost of capital over the entire business cycle for United or any of its peers.

United Airlines Earnings: Still Benefiting From Industry Capacity Constraints; Fair Value Up to \$38 Nicolas Owens, Equity Analyst, 24 Jan 2024

United Airlines reported final 2023 results closely in line with our previous expectations. Management's discussion focused on a few industry trends that we believe United is positioned to benefit from, while they last. We've extended the time frame in which no-moat United is likely able to maintain high-singledigit operating margins, and we have raised our fair value estimate to \$38 from \$35 per share. In the drawn-out aftermath of the pandemic's industrial disruption, two industry capacity constraints are keeping airlines' unit revenue and profitability elevated. Insufficient staffing of Federal Aviation Administration air traffic controllers has led the agency to cap the number of daily flights it allows into the busiest hubs like New York and San Francisco, which allows United and its competitors to maximize yields in those markets rather than add more capacity. Second, for the time being, they can't readily add capacity anyway because they can't get new aircraft. Boeing, in particular, has suffered prolonged delays in delivering its 737 MAX planes; the temporary grounding of the 737 MAX 9 because a door panel fell off an Alaskan Airlines plane has hit United because it operates the largest fleet of that model and will hit first-quarter 2024 profitability. However, the airline also has hundreds of 737 MAX 10 jets on order through 2030 and that model has not been certified by the FAA—yet the airline said delayed delivery of these jets will crimp its growth trajectory. CEO Scott Kirby also highlighted "cost convergence" as the gap between unit costs of full-service and low-cost airlines has narrowed in the last two years. As United eventually takes delivery of its new, longer, and fuel-efficient planes we see it offering not just more premium seats, but many more regular seats, which may lure passengers from low-cost airlines. Therefore, we forecast United's earnings to reflect some market share gains, but at yields and margins closer to historical averages.

United Airlines Earnings: Cost Growth Portends Industry Drama as CEO Predicts a Shakeout Nicolas Owens, Equity Analyst, 18 Oct 2023

United Airlines reported third-quarter capacity and revenue right in line with our expectations, but growth in the no-moat airline's unit costs again outstripped our expectations. We maintain our \$35 fair value estimate. We see a scenario emerging that may favor full service airlines like United, who can defray their costs across multiple segments of travelers. By contrast, no-frills airlines are experiencing similar cost growth but have nowhere to hide from sudden fuel price spikes this summer and a leveling off of domestic demand.Our thesis for the airline industry is that it will return to historical competitive



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dynamics and will not generate economic profit over a cycle. The scenario does not preclude one or more airlines achieving profitability while others lose money or worse-essentially a zero-sum game. During the third-quarter earnings call, United Airlines CEO Scott Kirby said, "we also expect ... the domestic market is going to see a shakeout that leads to an improvement in (United's) margins over the medium to long term. It's impossible to call the timing exactly. But I guess that we'll see meaningful industry changes about 2H '24." The scenario he describes entails one or more low-cost airlines failing from their simplified business model that does not offer price segmentation options, while industrywide cost growth brings their unit costs closer to those of the full service airlines. Kirby describes United as well positioned to eventually benefit from this scenario. The airline will take delivery of hundreds of planes in the coming years that will offer not just more premium seats, but also many more regular seats to pick off customers from distressed low-cost airlines. We believe it is a mostly plausible scenario, though we expect it will weigh on the company's margins. Therefore, we reforecast United's earnings to reflect some market share gains, but at yields and margins closer to historical averages.

United Airlines Earnings: Summer Starts Very Busy; Maintenance, Labor Costs Reduce Our Fair Value Nicolas Owens, Equity Analyst, 20 Jul 2023

United Alrlines reported robust second-quarter results on July 19, slightly surpassing our expectations for passenger revenue and all but selling out capacity, but also outstripping our estimate of labor and maintenance costs, especially over coming quarters, resulting in a fair value estimate of \$35 per share, down \$1.As this busy and nearly fully booked summer unfolds, the seeds of our longer-term thesis are playing out. As long as industry capacity is constrained by pilot hiring, delayed delivery of planes from Boeing, and capacity cutbacks imposed by a shortage of air traffic controllers at the Federal Aviation Administration—all of which affect U.S. airlines essentially equally—we see the competitive dynamics as stable, and revenue yields and booking rates boosted across the board. Meanwhile, as airlines continue to plot their capacity expansion beyond 2019 levels, spending billions on airport upgrades and new planes, they are also renegotiating their labor agreements with pilots, flight attendants, and other employee groups, which is beginning to add cost as their wage agreements catch up to cost-of-living and other adjustments. Low fuel prices and unusually full planes will pay for these increases in wages and capacity, but once either wavers we expect lower profitability and the return of risky price competition. We give United full credit for its prudent deployment of capacity, especially in its very lucrative international network, and we forecast healthy profits and eventual deleveraging of the company's balance sheet over several years. We've decreased our Morningstar Uncertainty Rating to High from Very High because the current operating environment is so favorable and for the time being would warrant less margin of safety for the (albeit overvalued) stock. Our Uncertainty Rating change was also informed by a quantitative methodology to help calibrate our fundamentals-based assessments of uncertainty across a broad universe of stocks.



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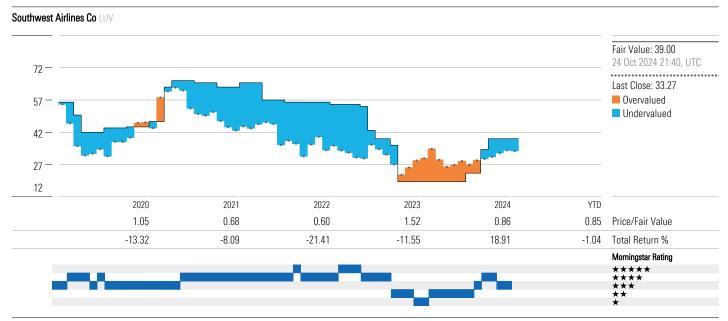
### United Airlines: New Planes To Deliver Efficient Capacity but Drain Cash Flow; Lowering Fair Value

Nicolas Owens, Equity Analyst, 9 Jun 2023

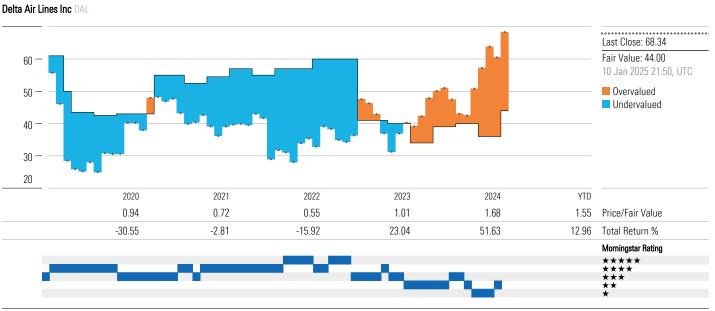
We have taken a fresh look at North American airlines and instituted an industry-based demand model for air travel, capacity, and airline revenue yields. As a result, we have lowered no-moat United Airlines' fair value estimate to \$36 from \$60 per share. We now expect the medium-term operating environment for U.S. airlines to return to normal competitive dynamics after current supply constraints moderate, likely in a year or two. In many ways, we forecast 2023-27 as resembling the 2015-19 period before the pandemic, with declining fuel costs, a mostly consolidated industry, and robust demand for air travel. But three key differences temper this outlook: the industry piled on billions of dollars of debt to withstand the pandemic, the current period of high profitability will have erased tax shields airlines enjoyed in the previous era, and postpandemic labor agreements are adding structural costs to airlines' income statements. Though United may have the dubious distinction of enjoying its tax loss shields longer than some peers, its debt and outlays for new planes constrain our valuation. Our 2027 midcycle forecasts for United project \$0.178 passenger revenue yield per mile—almost a 22% share of a growing pool of revenue passenger miles — and load factors in the mid-80s. They also include \$0.018 per available seat mile of additional structural costs than the airline booked between 2015 and 2019, the socalled honeymoon prepandemic period for airlines. Our forecast maintains more than \$0.03 of spread between United's passenger revenue and nonfuel recurring costs per mile, which allows for moderate operating margin expansion over the next several years. We reaffirm our view that there are no durable competitive advantages to be had in this industry and that long-term investors should seek exposure to air travel elsewhere, such as with the wide-moat suppliers of airframes and jet engines, whose products airlines compete with one another to purchase years in advance. IM



### Competitors Price vs. Fair Value



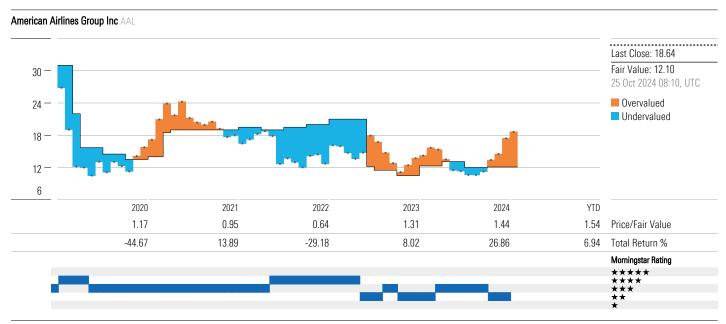
Total Return % as of 21 Jan 2025. Last Close as of 21 Jan 2025. Fair Value as of 24 Oct 2024 21:40, UTC



Total Return % as of 21 Jan 2025. Last Close as of 21 Jan 2025. Fair Value as of 10 Jan 2025 21:50, UTC.



### Competitors Price vs. Fair Value



Total Return % as of 21 Jan 2025. Last Close as of 21 Jan 2025. Fair Value as of 25 Oct 2024 08:10, UTC



<b>Last Price</b> 110.52 USD 21 Jan 2025	Fair Value Estimate 39.00 USD 22 Jan 2025 22:19, UTC	Price/FVE 2.83	35.5	ket Cap 51 USD an 2025	Bil	Economic None			<b>ity Style Box</b> Mid Value		-	Capital Allocation Standard	(1)	Risk Rating <i>F</i>	
Morningstar Hi	storical Summary														
Financials as of 30	Sep 2024														
Fiscal Year, ends 31 [	Dec	20	15	2016	2017	2018	2	2019	2020	2021	2022	2023	2024	YTD	TTM
Revenue (USD K)		37,864,0	00 36,55	3,000 3	7,784,000	41,303,000	43,259	,000	15,355,000	24,634,000	44,955,000	53,717,000	_	42,368,000	55,994,000
Revenue Growth %		-2	.7	-3.5	3.4	9.3		4.7	-64.5	60.4	82.5	19.5	_	5.7	6.7
EBITDA (USD K)		6,658,0	00 6,35	2,000	5,671,000	5,418,000	6,848	,000	-5,342,000	1,505,000	5,119,000	7,832,000	_	3,948,000	5,147,000
EBITDA Margin %		17	.6	17.4	15.0	13.1		15.8	-34.8	6.1	11.4	14.6	_	9.3	9.2
Operating Income (	USD K)	5,492,0	00 5,08	9,000	3,794,000	3,716,000	4,547	,000	-5,439,000	-368,000	2,477,000	5,160,000	_	3,638,000	4,682,000
Operating Margin 9	6	14	.5	13.9	10.0	9.0		10.5	-35.4	-1.5	5.5	9.6	_	8.6	
Net Income (USD K			00 2,23		2 143 000	2,122,000			-7,069,000	-1 964 000	737,000	2,618,000	_	2,165,000	
Net Margin %	1	19		6.1	5.7	5.1	0,000	7.0	-46.0	-8.0	1.6	4.9	_	5.1	4.9
Diluted Shares Outs	standing (K)	376,9		0,300	303,600	276,700	259		279,400	321,900	330,100	331,900		333,300	
Diluted Earnings Pe		19.		6.76	7.06	7.67		1.58	-25.30	-6.10	2.23			6.49	
													_		
Dividends Per Share	e (USD)	0.	JU	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00		0.00	0.00
Valuation as of 31	Dec 2024														
5. (0.)		20		2016	2017	2018	2	2019	2020	2021	2022			Recent Otr	
Price/Sales Price/Earnings			.6 .3	0.7 9.2	0.6 10.7	0.6 10.6		0.5 8.2	0.5 -2.6	0.7 -4.2	0.3 -16.2	0.3 4.8	0.6 11.6	0.6 11.6	
Price/Cash Flow			.5	4.2	6.2	4.1		3.4	-15.0	87.0	2.6		5.1	5.1	
Dividend Yield %			_	_	-			_	-	-		_	_		_
Price/Book		2	.4	2.7	2.2	2.4		2.0	1.9	2.6	2.5	1.5	2.8	2.8	2.8
EV/EBITDA		(	.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Operating Perform	ance / Profitability as	of 30 Sep 202	:4												
Fiscal Year, ends 31 [	Dec	20	15	2016	2017	2018		2019	2020	2021	2022	2023	2024	YTD	TTM
ROA %		19	.0	5.5	5.2	4.6		5.9	-12.6	-3.1	1.1	3.8	_	_	3.8
ROE %		1	29	25.4	24.6	22.6		27.9	-80.8	-35.7	12.4	32.3	_	_	27.2
ROIC %		43		12.5	11.5	9.5		11.0	-17.9	-1.9	4.0		_	_	7.8
Asset Turnover			.0	0.9	0.9	0.9		0.9	0.3	0.4	0.7	0.8			8.0
Financial Leverage															
Fiscal Year, ends 31 [	Jec	20		2016	2017	2018		2019	2020	2021	2022			Recent Otr	
Debt/Capital %		53 21		55.4 21.6	59.3 20.6	63.8 20.5		61.4 21.9	83.5 10.0	87.7 7.4	82.7 10.2	76.1 13.1	_	70.0 15.7	_
Equity/Assets % Total Debt/EBITDA			.8	1.8	2.5	3.7		3.0	-6.1	26.2	7.1	4.4		7.7	
EBITDA/Interest Exp	pense	1(		10.6	10.3	9.0		10.6	-5.4	1.0	3.1	4.4	Infinite	3.6	
	•														
_	nalyst Historical/Fo	recast Sur	nmary	as of 22	2 Jan 2025										
Financials			E	stimate				For	ward Valua	tion	2022		stimates	2026	2027
Fiscal Year, ends 31 [		2023	2024				2027	Prin	e/Sales		<b>2023</b> 0.2	0.2	<b>2025</b> 0.6		
Revenue (USD Mil)			57,063	57,3			,890		e/Earnings		5.2		10.8		
Revenue Growth %		19.5	6.2	C	0.6	2.2	3.8		e/Cash Flow	V	_			_	_
EBITDA (USD Mil)		6,882	8,024	8,0	42 8,	876 9,	,556		dend Yield 9	%	_	_	_	_	_
EBITDA Margin %		12.8	14.1	14	1.0 1	15.1	15.7		e/Book		2.7		3.7		
Operating Income (	USD Mil)	4,346	5,208	5,3	05 5,	830 6,	,118	EV/I	EBITDA		4.4	3.9	6.6	5.9	5.5
Operating Margin 9		8.1	9.1				10.1								

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2,618

4.9

332

7.89

0.00

3,149

5.5

333

9.45

0.00

3,362

5.9

327

10.27

0.00

3,745

6.4

319

11.73

0.00

3,307

5.4

310

10.66

0.00

Net Income (USD Mil)

Diluted Shares Outstanding (Mil)

Diluted Earnings Per Share(USD)

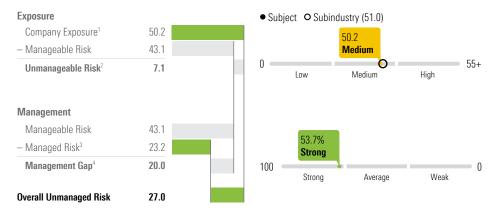
Dividends Per Share(USD)

Net Margin %



Last Price Fair Value Estimate Price/FVE Market Cap Economic Moat<sup>™</sup> **Equity Style Box** Uncertainty **Capital Allocation** ESG Risk Rating Assessment<sup>1</sup> 35.51 USD Bil (III) None Mid Value High Standard **@@@@** 110.52 USD 39.00 USD 2.83 22 Jan 2025 21 Jan 2025 22 Jan 2025 22:19, UTC 1 Jan 2025 06:00, UTC

### **ESG Risk Rating Breakdown**



- Exposure represents a company's vulnerability to ESG risks driven by their business model
- ► Exposure is assessed at the Subindustry level and then specified at the company level
- ➤ Scoring ranges from 0-55+ with categories of low, medium, and high-risk exposure
- ► Management measures a company's ability to manage ESG risks through its commitments and actions
- Management assesses a company's efficiency on ESG programs, practices, and policies
- Management score ranges from 0-100% showing how much manageable risk a company is managing

### ESG Risk Rating Assessment<sup>5</sup>







more information, please visit: sustainalytics.com/esg-ratings/





ESG Risk Rating is of Jan 01, 2025. Highest Controversy Level is as of Jan 08, 2025. Sustainalytics Subindustry: Airlines. Sustainalytics provides Morningstar with company ESG ratings and metrics on a monthly basis and as such, the ratings in Morningstar may not necessarily reflect current Sustainalytics' scores for the company. For the most up to date rating and



ESG Risk Ratings measure the degree to which a company's value is impacted by environmental, social, and governance risks, by evaluating the company's ability to manage the ESG risks it faces.

1. A company's Exposure to material ESG issues 2. Unmanageable Risk refers to risks that are inherent to a particular business model that cannot be managed by programs or initiatives 3. Managed Risk = Manageable Risk multiplied by a Management score of 53.7% 4. Management Gap assesses risks that are not managed, but are considered manageable 5. ESG Risk Rating Assessment = Overall Unmanaged Risk = Management Gap plus Unmanageable Risk

Peer Analysis 01 Jan 2025	Peers are selected f	Peers are selected from the company's Sustainalytics-defined Subindustry and are displayed based on the closest market cap values								
Company Name	Exposure		Management		ESG Risk Rating					
United Airlines Holdings Inc	50.2   Medium	0 55+	53.7   Strong	100 - 0	27.0   Medium	0				
Exelon Corp	51.6   Medium	0	68.6   Strong	100 - 0	18.8   Low	0 — 40+				
Southwest Airlines Co	47.1   Medium	0 55+	47.3   Average	100 0	28.4   Medium	0 — 40+				
American Airlines Group Inc	51.4   Medium	0 55+	64.7   Strong	100 0	23.7   Medium	0 — 40+				
Delta Air Lines Inc	52.6   Medium	0	50.5   Strong	100 0	30.4   High	0 — 40+				



### **Appendix**

# Historical Morningstar Rating

United Airli	nes Holdings lı	nc UAL 21 Jan 2	2025 22:41, UTC								
Dec 2025	Nov 2025	Oct 2025	Sep 2025	Aug 2025	Jul 2025	Jun 2025	May 2025	Apr 2025	Mar 2025	Feb 2025	Jan 2025
—	—	—	—	—	—	—	—	—	—	—	★
Dec 2024	Nov 2024	Oct 2024	Sep 2024	Aug 2024	Jul 2024	Jun 2024	May 2024	Apr 2024	Mar 2024	Feb 2024	Jan 2024
★	★	★	★	★★	★★	★★	★★	★★	★★	★★	★★★
Dec 2023	Nov 2023	0ct 2023	Sep 2023	Aug 2023	Jul 2023	Jun 2023	May 2023	Apr 2023	Mar 2023	Feb 2023	Jan 2023
★★	★★★	★★★	★★	★★	★	★★	★★★	★★★	★★★	★★★	★★★
Dec 2022	Nov 2022	0ct 2022	Sep 2022	Aug 2022	Jul 2022	Jun 2022	May 2022	Apr 2022	Mar 2022	Feb 2022	Jan 2022
★★★★	★★★★	★★★★	★★★★	★★★	★★★★	★★★★	★★★	★★★	★★★★	★★★	★★★★
Dec 2021	Nov 2021	0ct 2021	Sep 2021	Aug 2021	Jul 2021	Jun 2021	May 2021	Apr 2021	Mar 2021	Feb 2021	Jan 2021
★★★★	★★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★	★★★
Dec 2020	Nov 2020	0ct 2020	Sep 2020	Aug 2020	Jul 2020	Jun 2020	May 2020	Apr 2020	Mar 2020	Feb 2020	Jan 2020
★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★★	★★★	★★★★	★★★★	★★★
Southwest /	Airlines Co LUV	/ 21 Jan 2025 2	2:40, UTC								
Dec 2025	Nov 2025	Oct 2025	Sep 2025	Aug 2025	Jul 2025	Jun 2025	May 2025	Apr 2025	Mar 2025	Feb 2025	Jan 2025
—	—	—	—	—	—	—	—	—	—	—	★★★
Dec 2024	Nov 2024	0ct 2024	Sep 2024	Aug 2024	Jul 2024	Jun 2024	May 2024	Apr 2024	Mar 2024	Feb 2024	Jan 2024
★★★	★★★	★★★★	★★★	★★	★★	★★	★★	★★	★★	★	★
Dec 2023	Nov 2023	Oct 2023	Sep 2023	Aug 2023	Jul 2023	Jun 2023	May 2023	Apr 2023	Mar 2023	Feb 2023	Jan 2023
★★	★★	★★	★★★★	★★★	★★★	★★★	★★★★	★★★★	★★★★	★★★	★★★★
Dec 2022	Nov 2022	0ct 2022	Sep 2022	Aug 2022	Jul 2022	Jun 2022	May 2022	Apr 2022	Mar 2022	Feb 2022	Jan 2022
★★★★	★★★★	★★★★	★★★★	★★★	★★★	★★★★	★★★★	★★★★	★★★	★★★	★★★
Dec 2021	Nov 2021	0ct 2021	Sep 2021	Aug 2021	Jul 2021	Jun 2021	May 2021	Apr 2021	Mar 2021	Feb 2021	Jan 2021
★★★★	★★★★	★★★★	★★★★	★★★★	★★★	★★★★	★★★	★★★	★★★	★★★	★★★
Dec 2020	Nov 2020	Oct 2020	Sep 2020	Aug 2020	Jul 2020	Jun 2020	May 2020	Apr 2020	Mar 2020	Feb 2020	Jan 2020
★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★★	★★★	★★★★	★★★	★★★
Delta Air Lir	nes Inc DAL 21	Jan 2025 22:45	, UTC								
Dec 2025	Nov 2025	Oct 2025	Sep 2025	Aug 2025	Jul 2025	Jun 2025	May 2025	Apr 2025	Mar 2025	Feb 2025	Jan 2025
—	—	—	—	—	—	—	—	—	—	—	★★
Dec 2024	Nov 2024	0ct 2024	Sep 2024	Aug 2024	Jul 2024	Jun 2024	May 2024	Apr 2024	Mar 2024	Feb 2024	Jan 2024
★	★	★	★★	★★★	★★★	★★	★★	★★	★★	★★	★★
Dec 2023	Nov 2023	0ct 2023	Sep 2023	Aug 2023	Jul 2023	Jun 2023	May 2023	Apr 2023	Mar 2023	Feb 2023	Jan 2023
★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★★	★★★★	★★★★	★★★	★★★★
Dec 2022	Nov 2022	0ct 2022	Sep 2022	Aug 2022	Jul 2022	Jun 2022	May 2022	Apr 2022	Mar 2022	Feb 2022	Jan 2022
★★★★	★★★★	★★★★	★★★★	★★★	★★★	★★★	★★★★	★★★	★★★★	★★★	★★★★
Dec 2021	Nov 2021	0ct 2021	Sep 2021	Aug 2021	Jul 2021	Jun 2021	May 2021	Apr 2021	Mar 2021	Feb 2021	Jan 2021
★★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★
Dec 2020	Nov 2020	0ct 2020	Sep 2020	Aug 2020	Jul 2020	Jun 2020	May 2020	Apr 2020	Mar 2020	Feb 2020	Jan 2020
★★★	★★★	★★★	★★★★	★★★★	★★★	★★★	★★★★	★★★★	★★★★	★★★★	★★★



American Airlines Group Inc	AAL 21 Jan 2025 22:58, UTC
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Dec 2025	Nov 2025	Oct 2025	Sep 2025	Aug 2025	Jul 2025	Jun 2025	May 2025	Apr 2025	Mar 2025	Feb 2025	Jan 2025
—	—	—	—	—	—	—	—	—	—	—	★★
Dec 2024	Nov 2024	0ct 2024	Sep 2024	Aug 2024	Jul 2024	Jun 2024	May 2024	Apr 2024	Mar 2024	Feb 2024	Jan 2024
★★	★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★	★★	★★
Dec 2023	Nov 2023	0ct 2023	Sep 2023	Aug 2023	Jul 2023	Jun 2023	May 2023	Apr 2023	Mar 2023	Feb 2023	Jan 2023
★★	★★	★★★	★★★	★★	★★	★★	★★★★	★★★★	★★★	★★★	★★★★
Dec 2022	Nov 2022	0ct 2022	Sep 2022	Aug 2022	Jul 2022	Jun 2022	May 2022	Apr 2022	Mar 2022	Feb 2022	Jan 2022
★★★★	★★★★	★★★	★★★	★★★★	★★★★	★★★	★★★	★★★	★★★	★★★	★★★
Dec 2021	Nov 2021	0ct 2021	Sep 2021	Aug 2021	Jul 2021	Jun 2021	May 2021	Apr 2021	Mar 2021	Feb 2021	Jan 2021
★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★
Dec 2020	Nov 2020	0ct 2020	Sep 2020	Aug 2020	Jul 2020	Jun 2020	May 2020	Apr 2020	Mar 2020	Feb 2020	Jan 2020
★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★★	★★★★	★★★★	★★★★	★★★



#### Overview

At the heart of our valuation system is a detailed projection of a company's future cash flows, resulting from our analysts' research. Analysts create custom industry and company assumptions to feed income statement, balance sheet, and capital investment assumptions into our globally standardized, proprietary discounted cash flow, or DCF, modeling templates. We use scenario analysis, indepth competitive advantage analysis, and a variety of other analytical tools to augment this process. Moreover, we think analyzing valuation through discounted cash flows presents a better lens for viewing cyclical companies, high-growth firms, businesses with finite lives (e.g., mines), or companies expected to generate negative earnings over the next few years. That said, we don't dismiss multiples altogether but rather use them as supporting cross-checks for our DCF-based fair value estimates. We also acknowledge that DCF models offer their own challenges (including a potential proliferation of estimated inputs and the possibility that the method may miss shortterm market-price movements), but we believe these negatives are mitigated by deep analysis and our longterm approach.

Morningstar's equity research group ("we," "our") believes that a company's intrinsic worth results from the future cash flows it can generate. The Morningstar Rating for stocks identifies stocks trading at a discount or premium to their intrinsic worth—or fair value estimate, in Morningstar terminology. Five-star stocks sell for the biggest risk adjusted discount to their fair values, whereas 1-star stocks trade at premiums to their intrinsic worth.

Four key components drive the Morningstar rating: (1) our assessment of the firm's economic moat, (2) our estimate of the stock's fair value, (3) our uncertainty around that fair value estimate and (4) the current market price. This process ultimately culminates in our singlepoint star rating.

#### 1. Economic Moat

The concept of an economic moat plays a vital role not only in our qualitative assessment of a firm's long-term investment potential, but also in the actual calculation of our fair value estimates. An economic moat is a structural feature that allows a firm to sustain excess profits over a long period of time. We define economic profits as re-

turns on invested capital (or ROIC) over and above our estimate of a firm's cost of capital, or weighted average cost of capital (or WACC). Without a moat, profits are more susceptible to competition. We have identified five sources of economic moats: intangible assets, switching costs, network effect, cost advantage, and efficient scale.

Companies with a narrow moat are those we believe are more likely than not to achieve normalized excess returns for at least the next 10 years. Wide-moat companies are those in which we have very high confidence that excess returns will remain for 10 years, with excess returns more likely than not to remain for at least 20 years. The longer a firm generates economic profits, the higher its intrinsic value. We believe low-quality, no-moat companies will see their normalized returns gravitate toward the firm's cost of capital more quickly than companies with moats.

When considering a company's moat, we also assess whether there is a substantial threat of value destruction, stemming from risks related to ESG, industry disruption, financial health, or other idiosyncratic issues. In this context, a risk is considered potentially value destructive if its occurrence would eliminate a firm's economic profit on a cumulative or midcycle basis. If we deem the probability of occurrence sufficiently high, we would not characterize the company as possessing an economic moat.

#### 2. Estimated Fair Value

Combining our analysts' financial forecasts with the firm's economic moat helps us assess how long returns on invested capital are likely to exceed the firm's cost of capital. Returns of firms with a wide economic moat rating are assumed to fade to the perpetuity period over a longer period of time than the returns of narrow-moat firms, and both will fade slower than no-moat firms, increasing our estimate of their intrinsic value.

Our model is divided into three distinct stages:

#### Stage I: Explicit Forecast

In this stage, which can last five to 10 years, analysts make full financial statement forecasts, including items such as revenue, profit margins, tax rates, changes in workingcapital accounts, and capital spending. Based on these projections, we calculate earnings before interest, after taxes (EBI) and the net new investment (NNI) to de-

rive our annual free cash flow forecast.

#### Stage II: Fade

The second stage of our model is the period it will take the company's return on new invested capital - the return on capital of the next dollar invested ("RONIC")—to decline (or rise) to its cost of capital. During the Stage II period, we use a formula to approximate cash flows in lieu of explicitly modeling the income statement, balance sheet, and cash flow statement as we do in Stage I. The length of the second stage depends on the strength of the company's economic moat. We forecast this period to last anywhere from one year (for companies with no economic moat) to 10-15 years or more (for wide-moat companies). During this period, cash flows are forecast using four assumptions: an average growth rate for EBI over the period, a normalized investment rate, average return on new invested capital (RONIC), and the number of years until perpetuity, when excess returns cease. The investment rate and return on new invested capital decline until a perpetuity value is calculated. In the case of firms that do not earn their cost of capital, we assume marginal ROICs rise to the firm's cost of capital (usually attributable to less reinvestment), and we may truncate the second stage.

#### Stage III: Perpetuity

Once a company's marginal ROIC hits its cost of capital, we calculate a continuing value, using a standard perpetuity formula. At perpetuity, we assume that any growth or decline or investment in the business neither creates nor destroys value and that any new investment provides a return in line with estimated WACC.

Because a dollar earned today is worth more than a dollar earned tomorrow, we discount our projections of cash flows in stages I, II, and III to arrive at a total present value of expected future cash flows. Because we are modeling free cash flow to the firm—representing cash available to provide a return to all capital providers—we discount future cash flows using the WACC, which is a weighted average of the costs of equity, debt, and preferred stock (and any other funding sources), using expected future proportionate long-term, market-value weights.

### 3. Uncertainty Around That Fair Value Estimate

Morningstar's Uncertainty Rating is designed to capture the range of potential outcomes for a company's intrinsic value. This rating is used to assign the margin of safety required before investing, which in turn explicitly drives our stock star rating system. The Uncertainty Rating is aimed at identifying the confidence we should have in assigning a fair value estimate for a given stock.

Our Uncertainty Rating is meant to take into account anything that can increase the potential dispersion of future outcomes for the intrinsic value of a company, and any-

### Morningstar Equity Research Star Rating Methodology





thing that can affect our ability to accurately predict these outcomes. The rating begins with a suggested rating produced by a quantitative process based on the trailing 12-month standard deviation of daily stock returns. An analyst overlay is then applied, with analysts using the suggested rating, historical rating data, and their own knowledge of the company to inform them as they make the final Uncertainty Rating decision. Ultimately, the rating decision rests with the analyst. Analysts take into account many characteristics when making their final decision, including cyclical factors, operational and financial factors such as leverage, company-specific events, ESG risks, and anything else that might increase the potential dispersion of future outcomes and our ability to estimate those outcomes.

Our recommended margin of safety—the discount to fair value demanded before we'd recommend buying or selling the stock—widens as our uncertainty of the estimated value of the equity increases. The more uncertain we are about the potential dispersion of outcomes, the greater the discount we require relative to our estimate of the value of the firm before we would recommend the purchase of the shares. In addition, the Uncertainty Rating provides guidance in portfolio construction based on risk tolerance.

Our Uncertainty Ratings are: Low, Medium, High, Very High, and Extreme.

	Margin of Safety							
Qualitative Analysis Uncertainty Ratings	<b>★★★★</b> Rating	★Rating						
Low	20% Discount	25% Premium						
Medium	30% Discount	35% Premium						
High	40% Discount	55% Premium						
Very High	50% Discount	75% Premium						
Extreme	75% Discount	300% Premium						

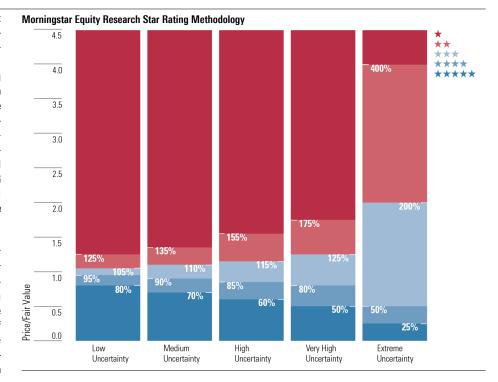
Our uncertainty rating is based on the interquartile range, or the middle 50% of potential outcomes, covering the 25th percentile–75th percentile. This means that when a stock hits 5 stars, we expect there is a 75% chance that the intrinsic value of that stock lies above the current market price. Similarly, when a stock hits 1 star, we expect there is a 75% chance that the intrinsic value of that stock lies below the current market price.

#### 4. Market Price

The market prices used in this analysis and noted in the report come from exchange on which the stock is listed which we believe is a reliable source.

For more details about our methodology, please go to https://shareholders.morningstar.com

### **Morningstar Star Rating for Stocks**



Once we determine the fair value estimate of a stock, we compare it with the stock's current market price on a daily basis, and the star rating is automatically re-calculated at the market close on every day the market on which the stock is listed is open. Our analysts keep close tabs on the companies they follow, and, based on thorough and ongoing analysis, raise or lower their fair value estimates as warranted.

Please note, there is no predefined distribution of stars. That is, the percentage of stocks that earn 5 stars can fluctuate daily, so the star ratings, in the aggregate, can serve as a gauge of the broader market's valuation. When there are many 5-star stocks, the stock market as a whole is more undervalued, in our opinion, than when very few companies garner our highest rating.

We expect that if our base-case assumptions are true the market price will converge on our fair value estimate over time generally within three years (although it is impossible to predict the exact time frame in which market prices may adjust).

Our star ratings are guideposts to a broad audience and individuals must consider their own specific investment goals, risk tolerance, tax situation, time horizon, income needs, and complete investment portfolio, among other factors

The Morningstar Star Ratings for stocks are defined below:

★★★★★ We believe appreciation beyond a fair risk ad-

justed return is highly likely over a multiyear time frame. Scenario analysis developed by our analysts indicates that the current market price represents an excessively pessimistic outlook, limiting downside risk and maximizing upside potential.

- ★★★★ We believe appreciation beyond a fair risk-adjusted return is likely.
- $\star\star\star$  Indicates our belief that investors are likely to receive a fair risk-adjusted return (approximately cost of equity).
- ★★ We believe investors are likely to receive a less than fair risk-adjusted return.
- ★ Indicates a high probability of undesirable risk-adjusted returns from the current market price over a multiyear time frame, based on our analysis. Scenario analysis by our analysts indicates that the market is pricing in an excessively optimistic outlook, limiting upside potential and leaving the investor exposed to Capital loss.

### Other Definitions

**Last Price**: Price of the stock as of the close of the market of the last trading day before date of the report.

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Capital Allocation (or Stewardship) analysis published prior to Dec. 9, 2020, was determined using a different process. Beyond investment strategy, financial leverage, and dividend and share buyback policies, analysts also considered execution, compensation, related party transactions, and accounting practices in the rating.

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starting at zero (no risk) with lower scores representing less unmanaged risk and, for 95% of cases, the unmanaged ESG Risk score is below 50.

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The ESG Risk Rating Assessment is a visual representation of Sustainalytics ESG Risk Categories on a 1 to 5 scale. Companies with Negligible Risk = 5 Globes, Low Risk = 4, Medium Risk = 3 Globes, High Risk = 2 Globes, Severe Risk = 1 Globe. For more information, please visit sustainalytics.com/esg-ratings/

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