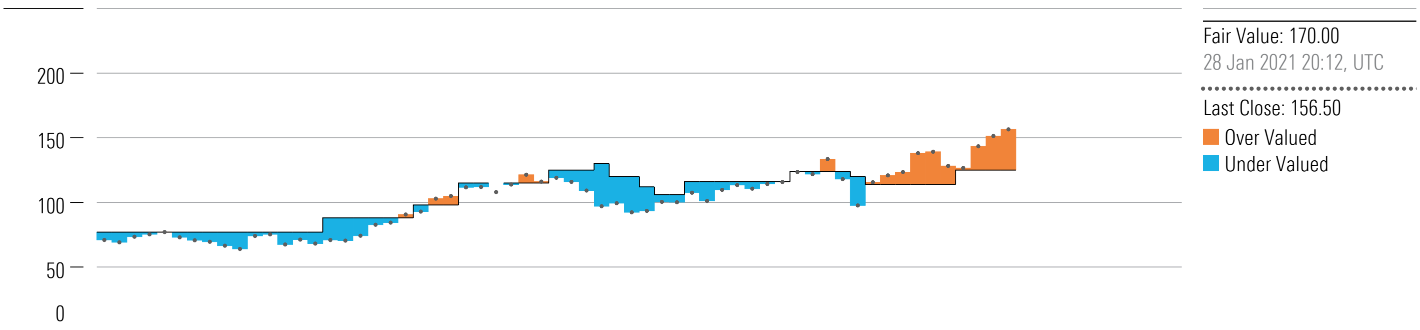
Morningstar Equity Analyst Report | Report as of 28 Jan 2021 20:26, UTC | Reporting Currency: USD | Trading Currency: USD | Exchange: NASDAQ

T. Rowe Price Group Inc TROW ★★ 27 Jan 2021 22:23, UTC

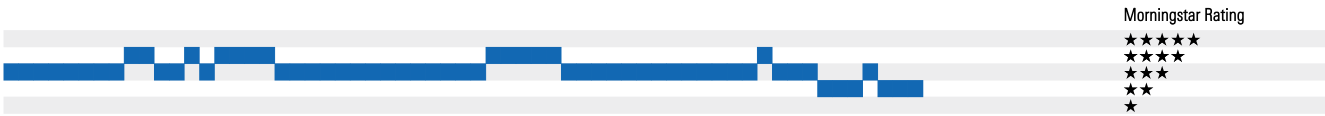
Last Price	Fair Value Estimate	Price/FVE	Market Cap	Economic Moat™	Moat Trend™	Uncertainty	Capital Allocation
156.50 USD 27 Jan 2021	170.00 USD 28 Jan 2021 20:12, UTC	0.92	35.44 USD Bil 27 Jan 2021	Wide	Stable	Medium	Exemplary

Price vs. Fair Value



	2016	2017	2018	2019	2020	YTD	
	0.98	1.07	0.77	0.98	1.21	0.92	Price/Fair Value
	8.29	42.45	-9.35	35.27	27.21	3.38	Total Return %

Morningstar Rating



Total Return % as of 27 Jan 2021. Last Close as of 27 Jan 2021. Fair Value as of 28 Jan 2021 20:12, UTC.

Contents

T. Rowe Price Enters 2021 With Record $1.470 Trillion in AUM; Increased FVE to $170

Analyst Note Greggory Warren, CFA, Sector Strategist, 28 Jan 2021

We've increased our fair value estimate for T. Rowe Price to $170 per share from $125 to account for the continued recovery in the equity, credit, and currency markets following the steep COVID-19-induced sell-off in the March quarter of 2020. Roughly half the change comes from our belief that T. Rowe Price will have more in assets under management during 2021-25 than we previously forecast (especially after adjusting for the timing and severity of near-term market corrections), with the remainder coming from a slightly better fee and margin outlook as well as a slightly lower statutory tax rate (we had expected to see a greater push to increase the U.S. corporate tax rate in the near term). Our fair value estimate implies a P/E multiple of 15.0 times our 2021 earnings estimate and 14.8 times our 2022 earnings estimate, which on a multiple basis is in line with our previous fair value estimate.

T. Rowe Price closed out 2020 with a record $1.470 trillion in managed assets, up 12.2% sequentially and 21.9% year over year. Net inflows of $2.2 billion during the fourth quarter were better than our expectations and on par with the $2.3 billion quarterly run rate we've seen from the firm since the end of the 2008-09 financial crisis. While average AUM was up 20.0% year over year during the December quarter, T. Rowe Price reported an 18.0% increase in fourth-quarter revenue compared with the prior-year period due to product mix shift and a slight decline in the firm's effective fee rate. Full-year top-line growth of 10.5% was better than our forecast of mid- to high-single-digit growth. Adjusted GAAP

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Sector	Industry
Financial Services	Asset Management

Business Description

T. Rowe Price provides asset-management services for individual and institutional investors. It offers a broad range of no-load U.S. and international stock, hybrid, bond, and money market funds. At the end of September 2020, the firm had $1.310 trillion in managed assets, composed of equity (60%), balanced (28%) and fixed-income (12%) offerings. Approximately two thirds of the company's managed assets are held in retirement-based accounts, which provides T. Rowe Price with a somewhat stickier client base than most of its peers. The firm also manages private accounts, provides retirement planning advice, and offers discount brokerage and trust services. The company is primarily a U.S.-based asset manager, deriving just 7% of its AUM from overseas.

operating margins of 44.2% during 2020 were 170 basis points higher than the year-ago period, as expenses rose at a slower rate than revenue. Our new five-year forecast calls for margins of 44%-46% even as the firm invests in key regions and channels to help drive growth.

Business Strategy & Outlook Greggory Warren, CFA, Sector Strategist, 28 Jan 2021

In an environment where active fund managers are under assault for poor relative performance and high fees, we believe wide-moat-rated T. Rowe Price is the best positioned of the U.S.-based active asset managers we cover. The biggest differentiators for the firm are the size and scale of its operations, the strength of its brands, its consistent record of active fund outperformance, and reasonable fees. T. Rowe Price has historically had a stickier set of clients than its peers as well, with two thirds of its assets under management derived from retirement-based accounts. At the end of 2020, 83%, 79%, and 77% of the company's fund AUM were beating peers on a 3-, 5-, and 10-year basis, respectively, with 84% of AUM in the funds closing out the year with an overall rating of 4 or 5 stars, better than just about every other U.S.-based asset manager. T. Rowe Price also has a much stronger Morningstar Success Ratio--which evaluates whether a firm's open-end funds deliver sustainable, peer-beating returns over longer periods--giving it an additional leg up.

While T. Rowe Price will face headwinds in the near to medium term as baby boomer rollovers affect organic growth in the defined-contribution channel, we think the firm and defined-contribution plans in general have a compelling cost and service argument to make to pending retirees, which should mitigate some of the impact. We also believe T. Rowe Price is uniquely positioned among the firms we cover (as well as the broader universe of active asset managers) to pick up business in the retail-advised channel, given the solid long-term performance of its funds and reasonableness of its fees, exemplified by deals the past few years with Fidelity Investments' FundsNetwork and Schwab's Mutual Fund OneSource platform. With the company likely to generate mid-single-digit AUM growth on average going forward (driven by 1%-3% annual organic growth), we see top-line growth expanding at a positive 5.1% CAGR (influenced by both ongoing mix shift and industry fee pressures) during 2021-25, with operating margins of 44%-46% on average.

Bulls Say Greggory Warren, CFA, Sector Strategist, 28 Jan 2021

- With $1.470 trillion in AUM at the end of 2020, T. Rowe Price is one of the larger U.S.-based asset managers. Retirement accounts and variable-annuity investment portfolios account for two thirds of managed assets.
- At the end of 2020, 96%, 95%, and 96% of T. Rowe Price's multi-asset AUM was beating peers on a 3-, 5-, and 10-year basis, respectively.
- Target-date retirement portfolios have been a significant source of organic growth for T. Rowe Price, generating just under $100 billion in net inflows (equivalent to an 8% rate of annual growth) the past 10

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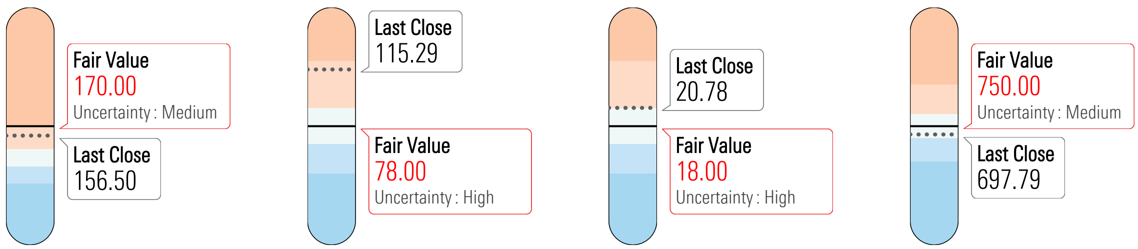
Competitors



	T. Rowe Price Group Inc TROW	Affiliated Managers Group Inc AMG	Invesco Ltd IVZ	BlackRock Inc BLK
Economic Moat	Wide	Narrow	Narrow	Wide
Moat Trend	Stable	Negative	Negative	Stable
Currency	USD	USD	USD	USD
Fair Value	170.00 28 Jan 2021 20:12, UTC	78.00 6 Oct 2020 15:39, UTC	18.00 26 Jan 2021 21:14, UTC	750.00 15 Jan 2021 15:16, UTC
1-Star Price	229.50	120.90	27.90	1,012.50
5-Star Price	119.00	46.80	10.80	525.00
Assessment	Over Valued 27 Jan 2021	Over Valued 27 Jan 2021	Over Valued 27 Jan 2021	Fairly Valued 27 Jan 2021
Morningstar Rating	★★27 Jan 2021 22:23, UTC	★★27 Jan 2021 22:23, UTC	★★27 Jan 2021 22:23, UTC	★★★27 Jan 2021 22:23, UTC
Analyst	Greggory Warren, Sector Strategist	Greggory Warren, Sector Strategist	Greggory Warren, Sector Strategist	Greggory Warren, Sector Strategist
Capital Allocation	Exemplary	Standard	Poor	Exemplary
Price/Fair Value	0.92	1.48	1.15	0.93
Price/Sales	6.14	2.71	1.56	6.67
Price/Book	4.97	1.84	0.66	3.14
Price/Earning	17.60	50.79	18.39	21.91
Dividend Yield	2.30%	0.30%	3.73%	2.08%
Market Cap	35.44 Bil	5.23 Bil	9.54 Bil	106.44 Bil
52-Week Range	82.51—161.31	44.37—120.12	6.38—22.10	323.98—788.00
Investment Style	Mid Core	Small Value	Mid Value	Large Core

years.

Bears Say Greggory Warren, CFA, Sector Strategist, 28 Jan 2021

- T. Rowe Price's fixed-income performance has stumbled, with just 50%, 37%, and 43% of bond fund AUM beating passive peers on a 3-, 5-, and 10-year basis, respectively, at the end of 2020.
- With a large portion of the firm's assets generating fees based on daily AUM levels rather than monthly or quarterly averages, revenue will be more heavily affected during periods of extreme market volatility.
-

Economic Moat Greggory Warren, CFA, Sector Strategist, 28 Jan 2021

In our view, the asset-management business is conducive to economic moats, with switching costs and intangible assets the most durable sources of competitive advantage for firms operating in the industry. Although the switching costs might not be explicitly large, inertia and the uncertainty of achieving better results by moving from one asset manager to another tend to keep many investors invested with the same funds for extended periods of time. As a result, money that flows into asset-management

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firms tends to stay there. For the industry as a whole, the average narrow redemption (retention) rate, which does not include exchange redemptions, has been 25% or less (75% or greater) annually during the past 5-, 10-, 15-, 20-, 25-, and 30-year time frames. Including exchange redemptions, the rate has been less than 30% (greater than 70%). Because T. Rowe Price does not break out its net flows (which are gross sales less investor redemptions) we assume that, based on its historical record of positive organic growth, the company's average annual redemption rate has been at its worst no worse than the industrywide rate, especially given the tailwinds that have been provided at times by defined contribution plans the past couple of decades--noting that redemptions have outpaced inflows into 401(k) plans since the baby boomer retirement phase started in 2011. During the past 5 (10) calendar years, T. Rowe Price's organic growth rate has averaged positive 0.9% (0.9%) with a standard deviation of 0.8% (1.6%), which meant that the firm was in most years compensating for investor redemptions with new flows into its products. We expect T. Rowe Price will generate at least 1.0% average annual organic growth during 2021-25, with a standard deviation of 1.2%, and closer to 3.0% on average during 2021-30, with a standard deviation of 1.4%, driven by recent large investments in retail distribution, enhanced product/vehicles and technology. As a result, T. Rowe Price should continue to have a better-than-average switching cost profile than its peers despite continuing to see redemption rates at or above the industry average due to the continuation of the baby boomer retirement cycle.

We believe that traditional asset managers like T. Rowe Price can improve on the switching cost advantage inherent in their business models with organizational attributes (such as product mix, distribution channel concentration, and geographic reach) and intangible assets (such as strong and respected brands and manager reputations derived from successful, sustainable track records of investment performance). This can provide them with a degree of differentiation from their peers. While the barriers to entry are not all that significant for the industry, the barriers to success are extremely high, as it not only takes time and skill to put together a long enough record of investment performance to start gathering assets but even more time to build the scale necessary to remain competitive in the industry. This has generally provided the larger, more established asset managers with an advantage over the smaller players in the industry, especially when it comes to gaining cost-effective access to distribution platforms. Competition for investor inflows can be stiff and has traditionally centered on investment performance, especially in the retail channel. Although institutional investors and retail gatekeepers are exerting pressure on pricing, competition based on price has been rare, aside from what we've seen in the U.S. market for exchange-traded funds. While compensation remains the single-largest expense for most asset managers, supplier power has been manageable as many firms have reduced their reliance on star managers and have tied manager and analyst pay to both portfolio and overall firm performance. Asset stickiness (the degree to which assets remain with a manager over time) tends to be a differentiator between wide- and narrow-moat firms, as those asset managers that have demonstrated an ability to gather and retain investor assets during different market cycles have tended

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to produce more stable levels of profitability, with returns exceeding their cost of capital for longer periods. While the more broadly diversified asset managers are structurally set up to hold on to assets regardless of market conditions, it has been firms with solid product sets across asset classes (built on repeatable investment processes), charging reasonable fees, and with singular corporate cultures dedicated to a common purpose that have done a better job of gathering and retaining assets. Firms offering niche products with significantly higher switching costs--such as retirement accounts, funds with lockup periods, and tax-managed strategies--have tended to hold on to assets longer.

T. Rowe Price, in our view, has a wide economic moat around its operations. We think the company's size and scale, the strength of its brands, and its consistent record of active fund outperformance provides the firm with a huge leg up over competitors. While T. Rowe Price's product mix is not overly diverse, with 88% of its $1.470 trillion in AUM at the end of 2020 dedicated to equity (61%) and multi-asset/balanced (28%) strategies, the company derives a significant portion (just over two thirds) of its AUM from defined contribution retirement assets (52%) and deferred annuity and direct retail retirement assets (15%). With the switching costs for these tax-deferred products being significantly higher than those for most other accounts (the majority of which are non-tax-deferred), T. Rowe Price has traditionally had a much stickier set of assets than its peers. Benefiting from a steady stream in investor inflows into defined contribution and other retirement plans, the firm has recorded net long-term outflows in only 15 calendar quarters the past two decades. Furthermore, the firm's cost-conscious culture and stable AUM and revenue levels have allowed it to consistently generate operating margins of 40% or more (the highest among the U.S.-based asset managers we cover). T. Rowe Price's ability to generate more stable revenue, profitability, and cash flows than its peers has, in our view, provided the company with more than enough excess capital to continue building on the competitive advantages that it already possesses. The firm has been fairly effective managing its scale, with adjusted operating margins of 43.0% (44.5%) on average during 2016-20 (2011-20), allowing it to generate around $1.9 billion ($1.6 billion) in annual free cash flow on average, with adjusted ROICs exceeding 60% (and ROICs with goodwill exceeding 45%).

T. Rowe Price's biggest advantage over peers has been the level and consistency of its investment performance. The firm currently has 59% of its rated U.S. mutual funds (across primary share classes) rated 4 or 5 stars. Additionally, 84% of AUM in the firm's rated U.S. mutual funds (across primary share classes) closed out 2020 with an overall rating of 4 or 5 stars. With most broker/dealer and advisory platforms tending to give deferential treatment to 4- and 5-star funds, T. Rowe Price is well positioned. With solid three- and five-year relative investment performance generated on a consistent basis also tending to be an important benchmark for the gatekeepers of retail-advised and institutional platforms, T. Rowe Price is also well-positioned, with more than three quarters of its funds tending to outperform peers on a 3-, 5-, and 10-year basis for much of the past two decades. With 83%, 79%, and 77% of T.

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Rowe Price's sponsored U.S. mutual funds beating their passively managed peers on a 3-, 5-, and 10-year basis, respectively, at the end of 2020, we expect the firm to continue to generate better organic growth from its active fund platform than the industry as a whole. Another measure that demonstrates the strength of T. Rowe Price's investment acumen is the Morningstar Success Ratio, which measures the potential for a firm's funds to generate sustainable, peer-beating returns over the long run. Morningstar calculates two different success ratios--the Morningstar Success Ratio and the Morningstar Risk-Adjusted Success Ratio--over 3-, 5-, and 10-year time frames, with the former considering each fund's category rank based on total return and the latter looking at a fund's category rank based on Morningstar Risk-Adjusted Return. The higher the Success Ratio, the greater chance that investors will see sustainable, peer-beating returns. By this measure, T. Rowe Price is the only winner among the U.S.-based asset managers we cover, with a five-year Risk-Adjusted Success Ratio of 74.0 compared with a group average (median) of 44.1 (42.0). Compared with the broader universe of fund families, T. Rowe also scores well, with its five-year Risk-Adjusted Success Ratio beating the industry average (median) of 45.1 (43.0).

Much of the success T. Rowe Price has had historically has been built on the firm having a single corporate culture dedicated to a common purpose, which has been reflected in the level and consistency of its investment performance, the rate of organic growth the company has been able to generate, and the relatively small amount of employee turnover through the years. Morningstar views the management team at T. Rowe Price as being highly insular and very protective of the culture that the firm has built--one that has cultivated a disciplined, risk-conscious investment process that has consistently produced successful results across its fund lineup, often with less volatility than peers. As part of ongoing efforts to enhance the company's competitive positioning, management has been willing to evolve, though, focusing for much of the past several years on building additional scale through new investment products, expanding the reach of its investment advisory business by further penetrating domestic distribution channels (like the retail-advised channel) and moving into non-U.S. markets (especially emerging and developing economies in the Asia-Pacific region), and bolstering technology in an effort to improve performance outcomes, drive down incremental costs, and improve product distribution. Chairman and CEO Bill Stromberg maintains an investment focus while recognizing that the business must evolve to flourish in an industry that's gravitated toward passive investing. All of this explains why T. Rowe Price receives some of the highest marks for corporate culture among the U.S.-based asset managers we cover. Our manager research group has also consistently awarded it a Positive Parent rating, owing not only to its ability to produce repeatable investment strategies but to prudently adapt to the changing competitive landscape all while attracting and retaining quality investment talent. We continue to believe that T. Rowe Price is well positioned to navigate the headwinds that the U.S.-based asset managers will face during the next decade and expect it to be one of the rare organic growth generators in the group.

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Fair Value and Profit Drivers Greggory Warren, CFA, Sector Strategist, 28 Jan 2021

We've increased our fair value estimate to $170 per share from $125 to account for the continued recovery in the equity, credit, and currency markets following the steep COVID-19-induced sell-off in the March quarter of 2020. Roughly half the change comes from our expectation that T. Rowe Price will have more in AUM during 2021-25 than we previously forecast (especially after adjusting for the timing and severity of near-term market corrections), with the remainder coming from a slightly better fee and margin outlook, as well as a slightly lower statutory tax rate than we previously forecast (we had expected to see a push to increase the U.S. corporate tax rate in the near term). Our fair value estimate implies a price/earnings multiple of 15.0 times our 2021 earnings estimate and 14.8 times our 2022 earnings estimate (which from a multiple basis is basically in line with our previous fair value estimate). For some added perspective, during the past 5 (10) years, the shares have traded at an average of 15.7 (17.5) times trailing earnings. We use a 9% cost of equity in our valuation.

T. Rowe Price closed out 2020 with a record $1.47 trillion in managed assets, up 21.9% on a year-over-year basis--remarkable given the steep sell-off in the equity markets in the first quarter. Net inflows of $5.6 billion during 2020 reflected a 0.5% rate of organic AUM growth, with strong positive flows from the firm's fixed-income operations offset by outflows from its equity and multi-asset platforms. While we expect equity flows to remain constrained in the near to medium term (as passive equity products continue to take share from active funds), we still see the firm generating 1%-3% annual organic AUM growth on average during 2021-30, with flows picking up after 2025, when millennials start to hit their peak earnings years. Our five-year CAGR for overall AUM growth is 4%-6% annually during 2021-25. With management fees continuing to be pressured by industry dynamics, we expect only a 5.1% CAGR for revenue over our five-year forecast. We expect operating margins of 44%-46% (up from 40%-44% previously), even as the firm invests in key regions and channels to help drive growth. By our calculations, though, T. Rowe Price should still be able to generate $2.8 billion in free cash flow annually on average.

Risk and Uncertainty Greggory Warren, CFA, Sector Strategist, 28 Jan 2021

With more than 80% of annual revenue derived from management fees levied on AUM, dramatic market movements, shifts in product mix, and/or changes in fund flows can have a significant impact on operating income and cash flows. T. Rowe Price's investment offerings are overwhelmingly tied to U.S. equity markets, with more than three fourths of its AUM invested in equity and balanced strategies. Additionally, 10 T. Rowe Price funds--Blue-Chip Growth, Growth Stock, Capital Appreciation, Mid-Cap Growth, New Horizons, Value, Emerging Markets Stock, Overseas Stock, Equity Income, and Institutional Large-Cap Growth--accounted for more than 25% of the firm's AUM at the end of 2020, as well as 35% of the company's investment advisory revenue during the year. As T. Rowe Price increases its investment in overseas asset managers, especially in emerging and developing economies like China

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and India, it is exposing itself to myriad cultural, economic, political, and currency risks that exist in the markets these managers serve.

Capital Allocation Greggory Warren, CFA, Sector Strategist, 28 Jan 2021

Our stewardship rating for T. Rowe Price is Exemplary. This assessment was conducted using our prior stewardship methodology. We will be transitioning our assessment mechanism for our stock coverage to a new capital allocation methodology (which will be primarily focused on balance sheet health, investment efficacy, and shareholder distributions) by the end of September.

T. Rowe Price is unique among the publicly traded U.S.-based asset managers in that it has traditionally been run by a group of top officers (the management committee) who consult one another before making major decisions. President and CEO William Stromberg started working for T. Rowe Price in 1987 and previously served as head of equity (2008-15), director of U.S. equity (2007-15), and director of global equity research (2004-15) before taking the top job at the firm in January 2016. He became chairman of the board of directors at the end of April 2019.

The management committee, which is responsible for guiding, implementing, and reviewing major policy and operating initiatives, has in our view done an exemplary job over the years. Capital allocation has been prudent, with the company carrying little to no debt on its books, engaging in very little acquisition activity, and tending to return cash to shareholders as share repurchases and dividends. In the asset-management industry, debt can be a net negative, as was seen during the 2008-09 global financial crisis when several firms that were carrying larger levels of debt had to scramble to raise capital (including issuing additional equity) after seeing revenue and profitability drop dramatically in response to the market decline, so T. Rowe Price's financial prudence has been commendable. Compensation, which tends to be the biggest cost center for asset managers, has tended to be reasonable at T. Rowe Price, with executive pay being in line with most of the larger asset managers we cover. The only issue we have with the firm is that it has been a heavy user of stock options over the years, which not only dilutes existing shareholders but also blunts the impact of its share-repurchase programs.

As part of ongoing efforts to enhance the company's competitive positioning, management has been focused on building additional scale through new investment products, like its target-date retirement funds, expanding the reach of its investment advisory business by further penetrating domestic distribution channels and moving into non-U.S. markets (especially in emerging and developing economies), and investing in technology and business transformation aimed at improving client experiences and delivering operating efficiencies across the enterprise. Some of these efforts have paid off handsomely, as T. Rowe Price has seen investor outflows from its long-term AUM in just 15 calendar quarters the past two decades. More important, the firm has generated average quarterly inflows of

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$2.3 billion since the start of 2009 and has been one of only a handful of large-cap equity managers to generate active product inflows since the financial crisis, driven by the strong relative performance of its funds and effectiveness of its sales efforts.

Target-date retirement portfolios remain the largest driver of growth for T. Rowe Price. During the past decade, the firm has pulled in just under $100 billion in managed assets via inflows into its target-date retirement portfolios, which currently account for 23% of firmwide AUM. The company has also made some headway in the retail advice channel by highlighting its record of active fund performance to advisors, many of whom are more focused on low-cost index funds and exchange-traded funds as they've moved to fee-based account models to serve their clients. T. Rowe Price also remains focused on expanding its international business (currently around 7% of total AUM), making strategic investments in products and personnel as it looks to build up its brand as well as broaden its reach in the EMEA and Asia-Pacific regions. And with its technology investments, the firm aims to be able to not only improve investment performance and better target end users but build tools that allow advisors to build better portfolios.

Analyst Notes Archive

T. Rowe Price's New Entity Brings Opportunities and Trade-Offs; No Change to Moat or FVE

Greggory Warren, CFA, Sector Strategist, 19 Nov 2020

We do not anticipate making any meaningful changes to our moat rating or fair value estimate for wide-moat-rated T. Rowe Price following the company's announcement that it will be splitting its investment-research organization in two--leading to the launch of T. Rowe Price Investment Management in the second quarter of 2022. Six constrained or closed investment strategies and their supporting analytical resources will be moving over to the new entity. T. Rowe Price Investment Management is expected to be completely separate from legacy T. Rowe Price Associates, with the two teams expected to no longer share research and investment resources and corporate not providing much in the way of assets under management, flow, or fee data for the new entity.

Our initial thoughts here are that the move adheres to our longstanding argument about increased size/scale not necessarily being a benefit for active managers (exemplified by T. Rowe Price's long-running practice of closing funds once they get too large). Those attributes are great for index fund or exchange-traded fund shops where increased size/scale doesn't affect performance and allows those firms to drive down costs/fees but can be detrimental for active performance. Where increased size/scale works for active managers is where they've decided to run certain funds for cash, expecting to continue to lose AUM at a low- to mid-single-digit range annually to outflows and need the added AUM from consolidation to offset fee/margin pressure.

This move will create additional costs for T. Rowe Price, primarily over the next couple of years as things

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get set up. However, the firm has enough leeway with its operating margins (which we had expected to be 40%-44% during 2020-24 before this announcement) relative to peers (expected to post margins below 30% longer term) to sacrifice some in the pursuit of organic growth, especially in strategies where it may have been capacity-constrained in the past.

Outflows Mar T. Rowe Price's 3Q Results; No Change to FVE at $125 per Share Greggory Warren, CFA, Sector Strategist, 29 Oct 2020

There was little in wide-moat T. Rowe Price's third-quarter results that would alter our long-term view of the firm. We are leaving our $125 per share fair value estimate in place. The company closed out the September quarter with a near-record $1.310 trillion in managed assets, up 7.4% sequentially and 16.3% on a year-over-year basis. Net outflows of $5.3 billion during the quarter were worse than our expectations, as well as the positive $2.4 billion quarterly run rate we've seen for net flows from the firm since the end of the 2008-09 financial crisis. Target-date funds saw an uncharacteristic $5.5 billion in outflows during the third quarter (which is likely why the stock is trading down hard today), marking the second straight quarter of outflows from what has been a reliable growth vehicle for the firm over the past decade. This could be a sign, in our view, that the firm is losing share to lower-cost passively managed target date offerings in the retirement market.

While average AUM was up 14.4% year over year during the September quarter, T. Rowe Price reported an 11.9% increase in third-quarter revenue when compared with the prior year's period, due to product mix shift and a slight decline in the firm's effective fee rate to 0.455% (from 0.461% during the year-ago period). Year-to-date top-line growth of 7.8% was in line with our full-year forecast calling for a mid- to high-single-digit revenue increase. As for profitability, adjusted GAAP operating margins of 44.5% during the first three quarter of 2020 were about 90 basis points higher than the year-ago period, as expenses rose at a slower rate than revenues. Our current five-year forecast calls for operating margins in a 40% to 44% range, as the firm continues to make upfront investments in key regions and channels to help drive growth (and is likely to continue to take advantage of its better margin profile relative to peers to make additional investments that will help spur organic growth).

Strong Flows and Market Gains Lift T. Rowe Price's AUM Back to Record Levels in 2Q Greggory Warren, CFA, Sector Strategist, 29 Jul 2020

While there was little in wide-moat T. Rowe Price's second-quarter results that would alter our long-term view of the firm, we are likely to raise our $114 fair value estimate on improvements seen in the firm's near-term results that will positively impact our medium-term forecast. T. Rowe Price closed out the June quarter with a record $1.220 trillion in managed assets, up 20.9% sequentially and 8.4% on a year-over-year basis. Net inflows of $14.7 billion during the quarter were better than our expectations, as well as the positive $2.4 billion quarterly run rate we've seen for net flows at T. Rowe Price since the end of the 2008-09 financial crisis. Target-date funds saw an uncharacteristic $200 million in outflows during the second quarter, with most of the positive flows actually coming from the firm's subadvisory

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T. Rowe Price Group Inc TROW ★★ 27 Jan 2021 22:23, UTC

Last Price	Fair Value Estimate	Price/FVE	Market Cap	Economic Moat™	Moat Trend™	Uncertainty	Capital Allocation
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and separate account portfolios.

Even though average AUM was up 8.4% year over year during the June quarter, T. Rowe Price reported a 1.4% increase in revenue when compared with the prior-year's period, due to product mix shift and a decline in the firm's effective fee rate to 0.456% from 0.463% during the second quarter of 2019. First-half top-line growth of 5.7% was much better than our full-year forecast, even after adjusting for a difficult back half of the year (as the firm faces higher AUM and revenue hurdles). As for profitability, adjusted GAAP operating margins of 43.8% during the first two quarters of 2020 were about 170 basis points higher than the year-ago period, as expenses rose at a slower rate than revenue during the first half of the year. Our current five-year forecast (which we may need to revise upward) calls for operating margins in a 38% to 40% range, as the firm continues to make upfront investments in key regions and channels to help drive growth (and is likely to continue to take advantage of its better margin profile relative to peers to make additional investments that will help spur organic growth).

Outflows and Market Losses Mar T. Rowe Price's Q1 Results; No Change to $114 per Share FVE

Greggory Warren, CFA, Sector Strategist, 28 Apr 2020

There was little in wide-moat T. Rowe Price's first-quarter results that would alter our long-term view of the firm. We are leaving our $114 per share fair value estimate in place. T. Rowe Price closed out the March quarter with a record $1.009 trillion in managed assets, down 16.4% sequentially and 6.7% on a year-over-year basis. Net outflows of $6.0 billion during the quarter were on par with our expectations, and well off the positive $2.4 billion quarterly run rate we've seen for net flows at T. Rowe Price since the end of the 2008-09 financial crisis. Target-date funds still pulled in $300 million on a net basis during the first quarter, despite the pressure from more volatile equity and credit markets.

While average AUM was up 11.4% year over year during the March quarter, T. Rowe Price reported a 10.2% increase in revenue when compared with the prior year's period, due to product mix shift and a decline in the firm's effective fee rate to 0.459% from 0.464% during the first quarter of 2019. At this point, we still expect full-year revenue to decline at a high-single to double-digit rate, driven by our expectations for continued volatility in the equity and credit markets in response to the COVID-19 pandemic.

As for profitability, adjusted operating margins of 44.2% during the first quarter of 2020 were 110 basis points higher than the year-ago period, as expenses rose at a slower rate than revenue during the March quarter. Our current five-year forecast calls for operating margins in a 38% to 40% range, as the firm continues to make upfront investments in key regions and channels to help drive growth (and is likely to continue to take advantage of its better margin profile relative to peers to make additional investments that will help spur organic growth).

Positive Flows and Market Gains Lift T. Rowe Price's AUM to Record $1.206 Trillion in Fourth Quarter Greggory Warren, CFA, Sector Strategist, 29 Jan 2020

While there was little in wide-moat T. Rowe Price's fourth-quarter results that would alter our long-term view of the firm, we are likely to raise the company's fair value estimate more than 10% to reflect our expectations for better AUM levels and fees than we had forecast for the near to medium term. T. Rowe Price closed out the December quarter with a record $1.206 trillion in managed assets, up 7.1% sequentially and 25.4% on a year-over-year basis (as the company lagged a difficult fourth quarter of 2018). Net inflows of $2.8 billion during the quarter were slightly above the $2.4 billion quarterly run rate we've seen for flows at T. Rowe Price since the end of the 2008-09 financial crisis. Target-date funds continue to generate the bulk of the firm's organic growth, bringing in $2.8 billion during the fourth quarter. While average AUM was up 14.9% year over year during the December quarter, T. Rowe Price reported a 12.5% increase in revenue when compared with the prior-year's period, due to product mix shift and a decline in the firm's effective fee rate to 0.459% from 0.464% during the fourth quarter of 2018. Full-year revenue growth of 4.6% was at the upper end of our call for low- to mid-single-digit top-line growth during 2019, driven by the equity market recovery during the course of the year as well as easier comparables in the final quarter of the year. As for profitability, adjusted operating margins of 42.5% during 2019 were 120 basis points lower than 2018 levels, as compensation and occupancy expenses expanded at a much faster rate than revenue. While this was at the lower end of our full-year (as well as our five-year) forecast calling for operating margins of 42%-44%, we would note that the firm continues to make upfront investments in key regions and channels to help drive growth (and is likely to continue to take advantage of its better margin profile relative to peers to make additional investments that will help spur organic growth).

Four Traits Asset Managers Need to Be Focused on to Be Successful in the Long Run Greggory Warren, CFA, Sector Strategist, 2 Jan 2020

Despite most of the traditional U.S.-based asset managers we cover continuing to hit record levels of assets under management, which has been driven by the bull market in U.S. equities since the 2008-09 financial crisis, the past decade has been difficult for the industry, and the next decade looks like it will be much harder, especially for active large-cap equity managers. Between the financial crisis and the increased scrutiny of investment management conflicts of interest, the balance of power in the retail channel has shifted toward the fund distributors in the past 10 years, leading not only to increased fee compression, with investors (put off by the poor relative performance of actively managed funds) increasingly seeking out lower-cost index-based options, but product rationalization on the major retail distribution platforms, with broker/dealer and advisory networks culling funds with poor performance records, high expense ratios, and/or low inclusion rates. The recently announced merger of Charles Schwab and TD Ameritrade, two of the largest U.S. discount brokers, will only add to the woes of the U.S.-based asset managers.

We continue to believe firms will be better served in the long run if they are capable of differentiating themselves from the competition by offering cost-competitive funds with repeatable investment strategies, have enough diversification and/or specialization in their product mix to cater to a wider array of investors, and can prudently adapt their cultures and processes to the more competitive

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T. Rowe Price Group Inc TROW ★★ 27 Jan 2021 22:23, UTC

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landscape. In view of this, we expect the largest passive managers--with Vanguard, BlackRock, and Schwab standing out from the pack--and active managers that have scale, established brands, solid long-term performance, and reasonable fees--with Dodge & Cox, American Funds, and T. Rowe Price standing out--to face fewer hard decisions about fees and margins, widening the competitive gap in the industry.

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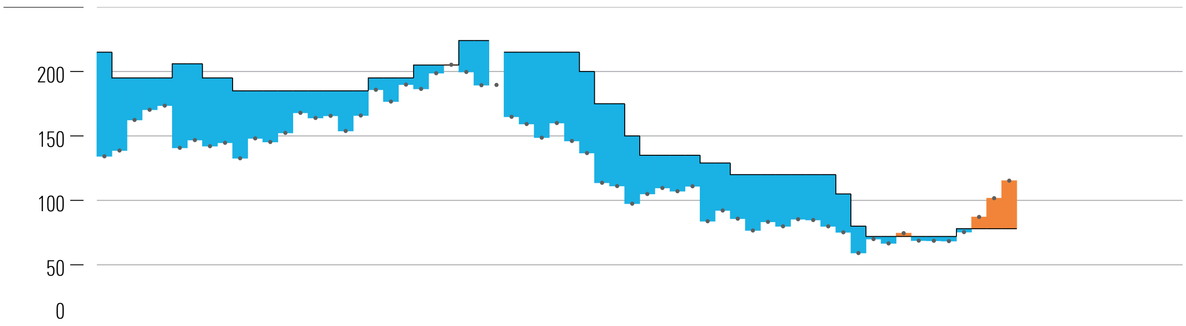
T. Rowe Price Group Inc TROW ★★ 27 Jan 2021 22:23, UTC

Competitors Price vs. Fair Value

Affiliated Managers Group Inc AMG



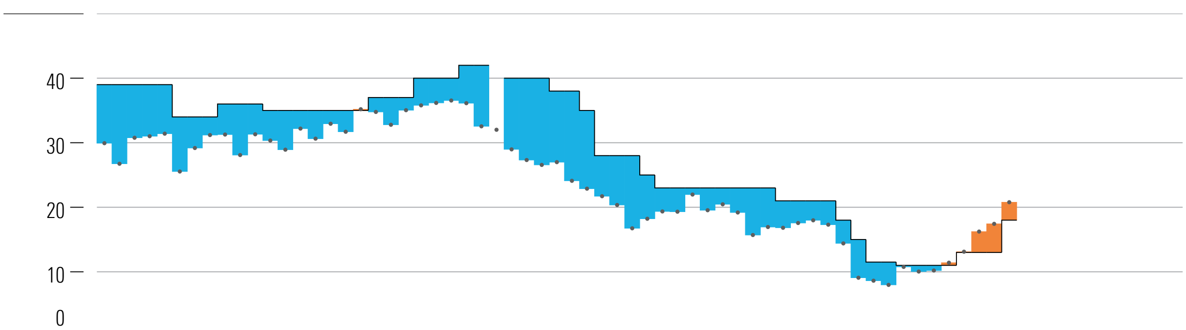
Last Close: 115.29
Fair Value: 78.00
6 Oct 2020 15:39, UTC
Over Valued
Under Valued

	2016	2017	2018	2019	2020	YTD
Price/Fair Value	0.79	1.00	0.65	0.71	1.30	1.48
Total Return %	-9.05	41.81	-51.94	-11.72	20.43	13.36

Morningstar Rating

Total Return % as of 27 Jan 2021. Last Close as of 27 Jan 2021. Fair Value as of 6 Oct 2020 15:39, UTC.

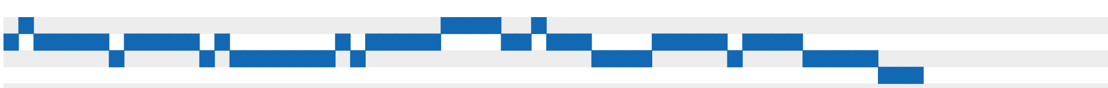
Invesco Ltd IVZ



Last Close: 20.78
Fair Value: 18.00
26 Jan 2021 21:14, UTC
Over Valued
Under Valued

	2016	2017	2018	2019	2020	YTD
Price/Fair Value	0.87	0.91	0.60	0.86	1.34	1.15
Total Return %	-6.06	24.23	-50.93	14.76	1.25	19.22

Morningstar Rating



Total Return % as of 27 Jan 2021. Last Close as of 27 Jan 2021. Fair Value as of 26 Jan 2021 21:14, UTC.

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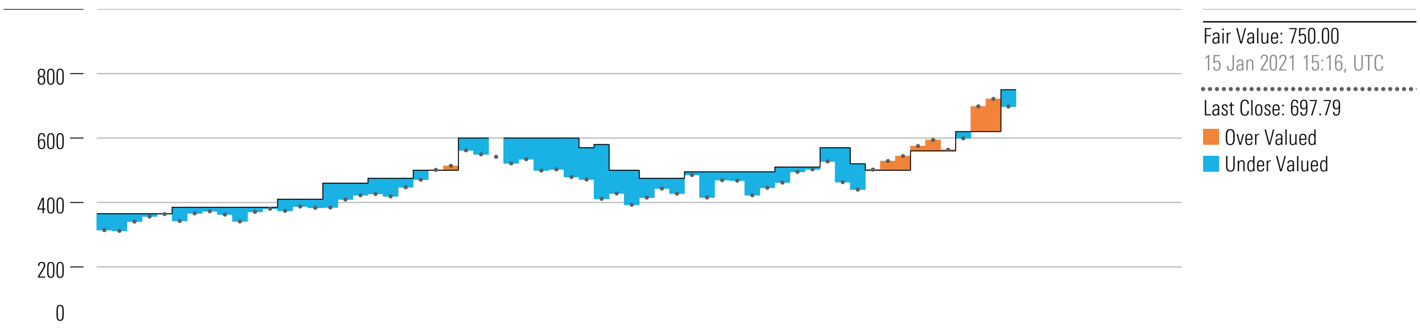
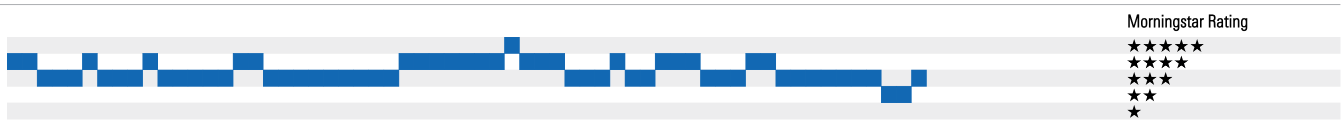
T. Rowe Price Group Inc TROW ★★ 27 Jan 2021 22:23, UTC

BlackRock Inc BLK



	2016	2017	2018	2019	2020	YTD	
	0.99	1.03	0.79	0.99	1.16	0.93	Price/Fair Value
	14.44	37.62	-21.19	31.33	46.42	-3.29	Total Return %



Total Return % as of 27 Jan 2021. Last Close as of 27 Jan 2021. Fair Value as of 15 Jan 2021 15:16, UTC.

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Morningstar Historical Summary

Financials as of 30 Sep 2020

Fiscal Year, ends 31 Dec	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	YTD	TTM
Revenue (USD Mil)	2,747	3,023	3,484	3,982	4,201	4,285	4,855	5,373	5,618	—	4,474	5,943
Revenue Growth %	16.1	10.0	15.3	14.3	5.5	2.0	13.3	10.7	4.6	—	7.8	9.0
EBITDA (USD Mil)	1,299	1,445	1,728	2,003	2,025	1,933	2,202	2,506	2,578	—	2,134	2,773
EBITDA Margin %	47.3	47.8	49.6	50.3	48.2	45.1	45.4	46.6	45.9	—	47.7	46.7
Operating Income (USD Mil)	1,227	1,364	1,637	1,891	1,899	1,800	2,059	2,346	2,387	—	1,990	2,570
Operating Margin %	44.7	45.1	47.0	47.5	45.2	42.0	42.4	43.7	42.5	—	44.5	43.3
Net Income (USD Mil)	773	884	1,048	1,230	1,223	1,215	1,498	1,838	2,131	—	1,589	2,135
Net Margin %	28.2	29.2	30.1	30.9	29.1	28.4	30.2	33.4	37.0	—	34.5	34.9
Diluted Shares Outstanding (K)	263,300	261,000	266,300	267,400	260,900	250,300	245,100	246,900	238,600	—	231,900	233,275
Diluted Earnings Per Share (USD)	2.92	3.36	3.90	4.55	4.63	4.75	5.97	7.27	8.70	—	6.66	8.89
Dividends Per Share (USD)	1.24	1.36	1.52	1.76	2.08	2.16	2.28	2.80	3.04	—	2.70	3.46

Valuation as of 31 Dec 2020

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Recent Qtr	TTM
Price/Sales	5.5	5.6	6.6	5.9	4.5	4.5	5.6	4.3	5.4	5.9	5.9	5.9
Price/Earnings	19.5	19.4	22.6	19.3	15.4	17.0	17.2	12.8	15.4	17.0	17.0	17.0
Price/Cash Flow	15.7	18.8	18.5	17.8	13.0	49.8	101.0	16.8	17.9	18.2	18.2	18.2
Dividend Yield %	2.18	2.09	1.81	2.05	2.91	2.87	2.17	3.03	2.5	2.38	2.38	2.38
Price/Book	4.4	4.4	4.8	4.3	3.8	3.8	4.7	3.4	4.2	4.8	4.8	4.8
EV/EBITDA	10.3	11.0	11.7	10.4	8.3	8.8	10.7	7.9	10.3	0.0	0.0	0.0

Operating Performance / Profitability as of 30 Sep 2020

Fiscal Year, ends 31 Dec	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	YTD	TTM
ROA %	20.9	22.2	22.7	23.0	22.8	21.4	21.3	23.6	24.4	—	—	21.3
ROE %	23.0	24.3	24.2	24.1	24.1	24.9	27.0	30.0	31.4	—	—	29.7
ROIC %	23.0	24.3	24.2	24.1	24.1	24.9	27.0	30.0	31.1	—	—	29.0
Asset Turnover	0.7	0.8	0.8	0.7	0.8	0.8	0.7	0.7	0.7	—	—	0.6

Financial Leverage

Fiscal Year, ends 31 Dec	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Recent Qtr	TTM
Debt/Capital %	—	—	—	—	—	—	—	—	2.0	—	2.4	—
Equity/Assets %	90.7	91.5	95.7	95.6	93.2	80.5	77.3	79.6	76.1	—	70.3	—
Total Debt/EBITDA	—	—	—	—	—	—	—	0.0	0.1	—	0.1	—
EBITDA/Interest Expense	—	—	—	—	—	—	—	—	—	Infinite	—	—

Morningstar Analyst Historical/Forecast Summary as of 27 Oct 2020

Financials

Fiscal Year, ends 31 Dec	2018	2019	Estimates 2020	2021	2022
Revenue (USD Bil)	5	6	6	6	7
Revenue Growth %	10.7	4.6	7.2	5.3	3.5
EBITDA (USD Bil)	3	3	3	3	3
EBITDA Margin %	46.6	45.9	47.4	46.4	45.7
Operating Income (USD Bil)	2	2	3	3	3
Operating Margin %	43.7	42.5	44.2	43.3	42.7
Net Income (USD Bil)	2	2	2	2	2
Net Margin %	32.9	34.3	32.1	33.1	27.5
Diluted Shares Outstanding (Mil)	247	239	232	225	219
Diluted Earnings Per Share(USD)	7.15	8.07	8.33	9.32	8.23
Dividends Per Share(USD)	2.80	3.04	3.60	3.78	4.06

Forward Valuation

	2018	2019	Estimates 2020	2021	2022
Price/Sales	4.1	5.1	5.9	5.6	5.4
Price/Earnings	12.9	15.1	18.8	16.8	19.0
Price/Cash Flow	11.6	12.7	16.4	16.4	18.7
Dividend Yield %	3.03	2.50	2.30	2.42	2.59
Price/Book	—	—	—	—	—
EV/EBITDA	7.9	10.3	11.7	11.4	11.1

Research Methodology for Valuing Companies

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 returns 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.

To assess the sustainability of excess profits, analysts perform ongoing assessments of the moat trend. A firm's moat trend is positive in cases where we think its sources of competitive advantage are growing stronger; stable where we don't anticipate changes to competitive advantages over the next several years; or negative when we see signs of deterioration.

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 derive 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

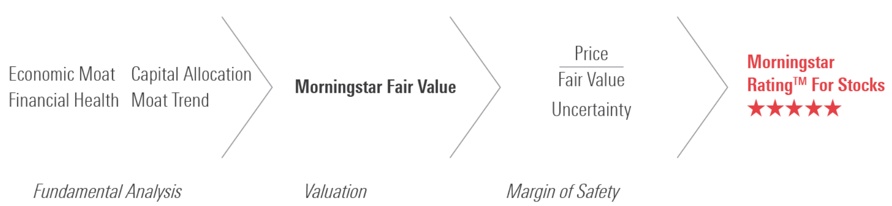
Once a company's marginal ROIC hits its cost of capital, we calculate a continuing value, using a standard perpetuity formula. At perpetuity, we assume that any growth or decline or investment in the business neither creates nor destroys value and that any new investment provides a return in line with 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 captures a range of likely potential intrinsic values for a company and uses it

Morningstar Equity Research Star Rating Methodology



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Research Methodology for Valuing Companies

to assign the margin of safety required before investing, which in turn explicitly drives our stock star rating system. The Uncertainty Rating represents the analysts' ability to bound the estimated value of the shares in a company around the Fair Value Estimate, based on the characteristics of the business underlying the stock, including operating and financial leverage, sales sensitivity to the overall economy, product concentration, pricing power, exposure to material ESG risks, and other company-specific factors.

Analysts consider at least two scenarios in addition to their base case: a bull case and a bear case. Assumptions are chosen such that the analyst believes there is a 25% probability that the company will perform better than the bull case, and a 25% probability that the company will perform worse than the bear case. The distance between the bull and bear cases is an important indicator of the uncertainty underlying the fair value estimate. In cases where there is less than a 25% probability of an event, but where the event could result in a material decline in value, analysts may adjust the uncertainty rating to reflect the increased risk. Analysts may also make a fair value adjustment to reflect the impact of this event.

Our recommended margin of safety widens as our uncertainty of the estimated value of the equity increases. The more uncertain we are about the estimated value of the equity, 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 for our qualitative analysis are low, medium, high, very high, and extreme.

Qualitative Analysis Uncertainty Ratings	Margin of Safety ★★★★★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

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 adjusted 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.

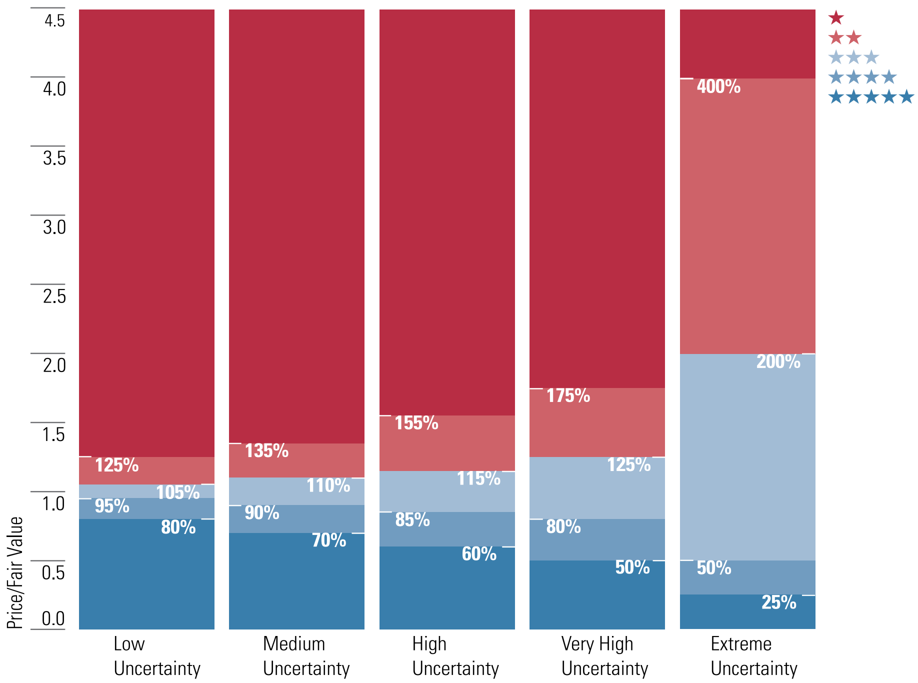
★★★★ We believe appreciation beyond a fair risk-adjusted return is likely.

★★★ 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.

Morningstar Equity Research Star Rating Methodology



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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Research Methodology for Valuing Companies

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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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