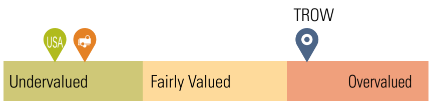
T. Rowe Price Group Inc TROW (XNAS)

Morningstar Rating	Last Price	Fair Value Estimate	Price/Fair Value	Trailing Dividend Yield %	Forward Dividend Yield %	Market Cap (Bil)	Industry	Stewardship
★★	139.79 USD	125.00 USD	1.12	2.48	2.58	31.65	Asset Management	Exemplary
19 Nov 2020 01:47, UTC	18 Nov 2020	28 Oct 2020 15:25, UTC		18 Nov 2020	18 Nov 2020	18 Nov 2020		

Morningstar Pillars	Analyst	Quantitative
Economic Moat	Wide	Wide
Valuation	★★	Overvalued
Uncertainty	Medium	Medium
Financial Health	—	Strong

Source: Morningstar Equity Research

Quantitative Valuation



	Current	5-Yr Avg	Sector	Country
Price/Quant Fair Value	1.09	0.99	0.87	0.83
Price/Earnings	15.7	15.9	12.7	20.1
Forward P/E	14.1	—	10.5	13.9
Price/Cash Flow	16.8	38.3	9.5	13.1
Price/Free Cash Flow	18.9	109.2	10.9	19.5
Trailing Dividend Yield%	2.48	2.70	3.64	2.35

Source: Morningstar

Bulls Say

- With $1.310 trillion in AUM at the end of September 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 June 2020, 74%, 88%, and 89% of T. Rowe Price's multi-asset funds were beating peers on a three-, five-, and ten-year basis, respectively.
- Target-date retirement portfolios have been a significant source of organic growth for T. Rowe Price, generating more than $40 billion in net inflows (equivalent to a 5% rate of annual growth) the past five years.

Bears Say

- T. Rowe Price's equity and fixed-income performance has stumbled, with just 63%, 73%, and 77% of U.S. mutual funds overall beating peers on a three-, five-, and ten-year basis, respectively, at the end of June 2020.
- Just 34%, 46% and 52% of T. Rowe Price's funds were in top Morningstar quartiles on a three-, five-, and ten-year basis, respectively, at the end of June 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.

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

Business Strategy and Outlook

Greggory Warren, CFA, Analyst, 28 October 2020

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 among 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 June 2020, 63%, 73%, and 77% of the company's funds were beating peers on a three-, five-, and 10-year basis, respectively, with 41% of funds in top Morningstar quartiles during the past five years, 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 T. Rowe Price likely to generate mid-single-digit AUM growth on average going forward (driven by 2%-4% annual organic growth), we see top-line growth expanding at a positive 4.8% CAGR (due ongoing mix shift and industry fee pressures) during 2020-24, with operating margins of 40%-44% on average.

Analyst Note

Greggory Warren, CFA, Analyst, 19 November 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 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.

Economic Moat

Greggory Warren, Analyst, 28 October 2020

In our view, the asset-management business is conducive to economic moats, with switching costs and intangible

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Close Competitors	Currency (Mil)	Market Cap	TTM Sales	Operating Margin	TTM/PE
BlackRock Inc BLK	USD	102,165	15,704	38.54	22.27
Franklin Resources Inc BEN	USD	10,558	5,392	25.86	13.40
Invesco Ltd IVZ	USD	7,354	6,258	21.92	14.97
Affiliated Managers Group Inc AMG	USD	3,930	2,029	26.87	38.17

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 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 five (10) calendar years, T. Rowe Price's organic growth rate has averaged positive 0.8% (1.6%) with a standard deviation of 0.8% (1.7%), which meant that the firm was in most years compensating for investor redemptions with new flows into its products. Going forward, we expect T. Rowe Price will generate a 2.1% average annual organic growth on average during 2020-24, with a standard deviation of 1.5%, 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 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 $1.310

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trillion in AUM at the end of June 2020 dedicated to equity (60%) 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 43.3% on average during 2015-19, allowing it to generate around $1.7 billion in annual free cash flow on average, with adjusted ROICs exceeding 50% (and ROICs with goodwill exceeding 42%).

T. Rowe Price's biggest advantage over peers has been the level and consistency of its investment performance. The firm currently has 30% of its fund AUM rated 5 stars, and another 25% rated 4 stars, on a five-year basis. 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 three-, five-, and 10-year basis for much of the past two decades. With 63%, 73%, and 77% of T. Rowe Price's sponsored U.S. mutual funds beating their peers on a three-, five-, and 10-year basis, respectively, at the end of June 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 Morningstar's 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 three-, five-, and ten-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 12 asset managers we cover, with a five-year Risk Adjusted Success Ratio of 74.0 at the end of 2019 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 which 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

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has also consistently awarded them a Positive Parent rating, owing not only to their 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.

Fair Value & Profit Drivers

Greggory Warren, Analyst, 28 October 2020

We've increased our fair value estimate for T. Rowe Price to $125 per share from $114 after updating our near- to medium-term assumptions about AUM, revenue, and profitability since our last update. Our new fair value estimate implies a price/earnings multiple of 15.0 times our 2020 earnings estimate and 13.4 times our 2021 earnings estimate. For some perspective, during the past five (ten) years, T. Rowe Price's 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 the third quarter of 2020 with $1.310 trillion in managed assets, up 7.4% sequentially and 16.3% on a year-over-year basis (with the company having fully recovered from the dramatic COVID-19-directed sell-off in the equity markets during the first quarter of 2020). Even so, we continue to expect AUM growth and market gains to be strained in the near term by the ongoing impact that the pandemic is likely to have on global economic growth as well as equity and credit markets. This will keep annual organic growth in a positive 1%-2% range this year, with AUM up marginally for all of 2020 as the company closes out the year with between $1.2 trillion and $1.3 trillion in AUM (following another pullback in the equity markets). Our five-year CAGR for organic AUM and overall AUM growth remains at positive 2%-4% and positive 5%-7%, respectively, during 2020-24.

With management fees continuing to be pressured by industry dynamics, we expect only a positive 4.8% CAGR for revenue over our five-year forecast. Our five-year forecast includes the recent equity market selloff, as well as another equity market correction midway through our projection period, along with a gradual slowing of net redemptions from retirement plans as baby boomer withdrawals wane and millennials start to hit their peak earning years.

As for profitability, our current five-year forecast calls for operating margins in a 40% to 44% range, even 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). By our calculations, though, T. Rowe Price should still be able to generate more than $2 billion in free cash flow annually on average, the bulk of which we expect to be returned to shareholders via dividends and share repurchases.

Risk & Uncertainty

Greggory Warren, Analyst, 28 October 2020

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 27% of the firm's AUM at the end of 2019, 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 and India, it is exposing itself to myriad cultural, economic, political, and currency risks that exist in the markets these managers serve.

Stewardship

Greggory Warren, Analyst, 28 October 2020

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. Current 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. Key members of the company's current

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management committee include: Celine Dufetel, chief financial officer; Rob Sharps, head of investments and group chief investment officer; Christopher Alderson, head of international equity and co-head of global equity; Eric Veiel, co-head of global equity; Andrew McCormick, head of fixed income; Sebastien Page, head of global multi-asset allocation; Dorothy Sawyer, head of individual investors and retirement plan services; Robert Higginbotham, head of global distribution; George Riedel, head of U.S. intermediaries; and Nigel Faulkner, head of global technology.

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 $2.4 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 five years, the firm has pulled in just over $40 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 both 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.

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Analyst Notes Archive

Strong Flows and Market Gains Lift T. Rowe Price's AUM Back to Record Levels in 2Q

Greggory Warren, Analyst, 29 July 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 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 Mar T. Rowe Price's 3Q Results; No Change to FVE at $125 per Share

Greggory Warren, Analyst, 29 October 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).

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

Greggory Warren, Analyst, 19 November 2020

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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.

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

Quantitative Equity Report | Release: 19 Nov 2020, 15:23, GMT-06:00 | Reporting Currency: USD | Trading Currency: USD | Exchange:XNAS

T. Rowe Price Group Inc TROW ★★Q 19 Nov 2020 02:00 UTC

Last Close	Fair Value^Q	Market Cap	Sector	Industry	Country of Domicile
18 Nov 2020	19 Nov 2020 02:00 UTC	18 Nov 2020			
139.79	128.50	31,653.0 Mil	Financial Services	Asset Management	USA United States

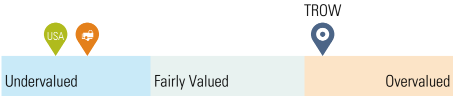
There is no one analyst in which a Quantitative Fair Value Estimate and Quantitative Star Rating are attributed to; however, Mr. Lee Davidson, Head of Quantitative Research for Morningstar, Inc., is responsible for overseeing the methodology that supports the quantitative fair value. As an employee of Morningstar, Inc., Mr. Davidson is guided by Morningstar, Inc.'s Code of Ethics and Personal Securities Trading Policy in carrying out his responsibilities. For information regarding Conflicts of Interests, visit http://global.morningstar.com/equitydisclosures

Company Profile

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

Quantitative Scores

		Scores All	Rel Sector	Rel Country
Quantitative Moat	Wide	100	100	99
Valuation	Overvalued	5	2	7
Quantitative Uncertainty	Medium	99	100	98
Financial Health	Strong	93	51	93



Source: Morningstar Equity Research

Valuation

	Current	5-Yr Avg	Sector Median	Country Median
Price/Quant Fair Value	1.09	0.99	0.87	0.83
Price/Earnings	15.7	15.9	12.7	20.1
Forward P/E	14.1	—	10.5	13.9
Price/Cash Flow	16.8	38.3	9.5	13.1
Price/Free Cash Flow	18.9	109.2	10.9	19.5
Trailing Dividend Yield %	2.48	2.70	3.64	2.35
Price/Book	4.4	4.0	1.1	2.4
Price/Sales	5.5	4.9	2.9	2.4

Profitability

	Current	5-Yr Avg	Sector Median	Country Median
Return on Equity %	29.7	27.5	10.1	12.9
Return on Assets %	21.3	22.7	1.4	5.2
Revenue/Employee (K)	806.9	722.1	762.0	325.9

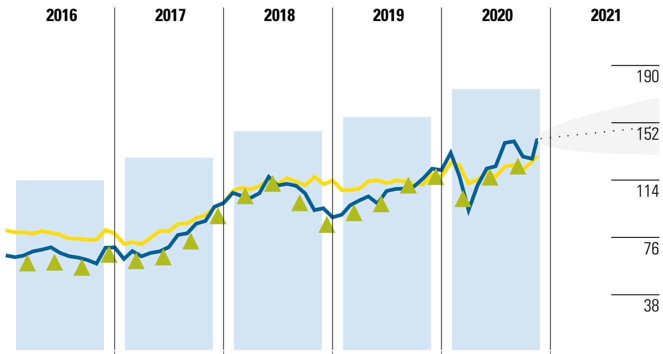
Financial Health

	Current	5-Yr Avg	Sector Median	Country Median
Distance to Default	0.7	0.8	0.8	0.5
Solvency Score	—	—	503.7	552.4
Assets/Equity	1.3	1.2	3.7	1.7
Long-Term Debt/Equity	—	—	0.3	0.4

Growth Per Share

	1-Year	3-Year	5-Year	10-Year
Revenue %	4.6	9.5	7.1	11.6
Operating Income %	1.7	9.9	4.8	13.0
Earnings %	19.7	22.4	13.8	18.1
Dividends %	8.6	12.1	11.6	11.8
Book Value %	17.4	13.9	7.9	10.5
Stock Total Return %	18.0	15.8	14.9	10.9

Price vs. Quantitative Fair Value



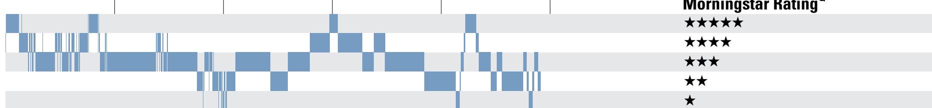
- Quantitative Fair Value Estimate
- Total Return
- Sales/Share
- Forecast Range
- Forcasted Price
- Dividend
- Split

Momentum:	Neutral
Standard Deviation:	24.71
Liquidity:	High

82.51	52-Wk	148.88
62.97	5-Yr	148.88

2016	2017	2018	2019	2020	2021	
8.3	42.5	-9.3	35.3	16.9		Total Return %
-4.1	21.0	-4.3	4.0	3.4		+/– Market (Morningstar US Index)
2.87	2.17	3.03	2.50	2.48		Trailing Dividend Yield %
2.87	2.17	3.03	2.50	2.58		Forward Dividend Yield %
17.0	17.2	12.8	15.4	15.7		Price/Earnings
4.5	5.6	4.3	5.4	5.5		Price/Revenue

Morningstar Rating^Q



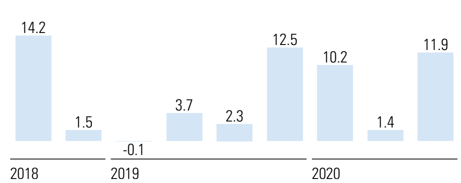
2015	2016	2017	2018	2019	TTM	**Financials** (Fiscal Year in Mil)
4,201	4,223	4,793	5,373	5,618	5,942	Revenue
5.5	0.5	13.5	12.1	4.6	5.8	% Change
1,899	1,800	2,059	2,346	2,387	2,570	Operating Income
0.4	-5.2	14.4	14.0	1.7	7.7	% Change
1,223	1,215	1,498	1,838	2,131	2,135	Net Income
1,506	171	230	1,620	1,523	1,939	Operating Cash Flow
-151	-148	-186	-169	-205	-211	Capital Spending
1,355	22	43	1,451	1,318	1,728	Free Cash Flow
32.3	0.5	0.9	27.0	23.5	29.1	% Sales
4.63	4.75	5.97	7.27	8.70	8.89	EPS
1.8	2.6	25.7	21.8	19.7	2.2	% Change
4.89	0.92	0.37	4.78	5.99	7.41	Free Cash Flow/Share
2.08	2.16	2.28	2.80	3.04	3.46	Dividends/Share
18.66	19.75	22.55	27.14	29.08	31.48	Book Value/Share
250,469	244,784	245,111	238,069	235,214	226,433	Shares Outstanding (K)

						Profitability
24.1	24.9	27.7	30.8	31.4	29.7	Return on Equity %
22.8	21.4	21.8	24.1	24.4	21.3	Return on Assets %
29.1	28.8	31.3	34.2	37.0	34.9	Net Margin %
0.78	0.75	0.70	0.71	0.66	0.61	Asset Turnover
1.1	1.2	1.3	1.3	1.3	1.4	Financial Leverage
62.0	61.3	62.2	58.2	57.6	58.0	Gross Margin %
45.2	42.6	43.0	43.7	42.5	43.3	Operating Margin %
—	—	—	—	—	—	Long-Term Debt
4,762	5,009	5,824	6,124	7,102	7,128	Total Equity
7.0	6.9	7.6	8.2	7.8	7.4	Fixed Asset Turns

Quarterly Revenue & EPS

Revenue (Mil)	Mar	Jun	Sep	Dec	Total
2020	1,462.6	1,415.4	1,595.8	—	—
2019	1,327.3	1,395.2	1,426.7	1,468.7	5,617.9
2018	1,328.0	1,345.0	1,394.6	1,305.0	5,372.6
2017	1,113.6	1,171.6	1,221.7	1,286.1	4,793.0
Earnings Per Share ()					
2020	1.41	2.55	2.73	—	—
2019	2.09	2.15	2.23	2.24	8.70
2018	1.77	1.77	2.30	1.41	7.27
2017	1.54	1.50	1.56	1.37	5.97

Revenue Growth Year On Year %



Research Methodology for Valuing Companies

Qualitative Equity Research 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, in-depth competitive advantage analysis, and a variety of other analytical tools to augment this process. We believe this bottom-up, long-term, fundamentally based approach allows our analysts to focus on long-term business drivers, which have the greatest valuation impact, rather than short-term market noise.

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 an uncertainty-adjusted 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 single-point 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 excess 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.

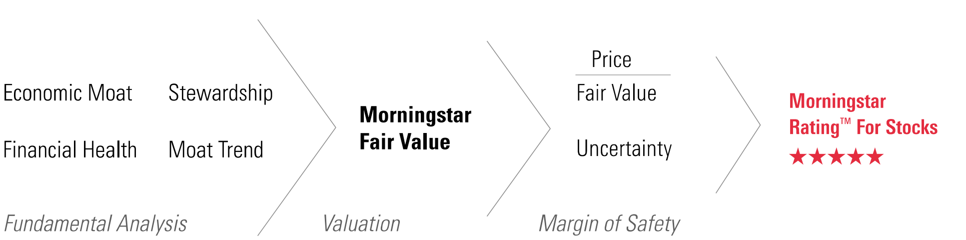
Companies with a narrow moat are those we believe are more likely than not to achieve normalized excess returns for at least the next 10 years. Wide-moat companies are those in which we have very high confidence that excess returns will remain for 10 years, with excess returns more likely than not to 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.

To assess the direction of the underlying competitive advantages, 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.

All the moat and moat trend ratings undergo periodic review and any changes must be approved by the Morningstar Economic Moat Committee, comprised of senior members of Morningstar's equity research department.

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.

Morningstar Research Methodology for Valuing Companies



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 working-capital accounts, and capital spending. Based on these projections, we calculate earnings before interest, after taxes, or EBI, and the net new investment, or 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, or RONIC, and the number of years until perpetuity, when excess returns cease. The investment rate and return on new invested capital decline until the perpetuity stage is reached. 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.

Research Methodology for Valuing Companies

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 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, 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.

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.

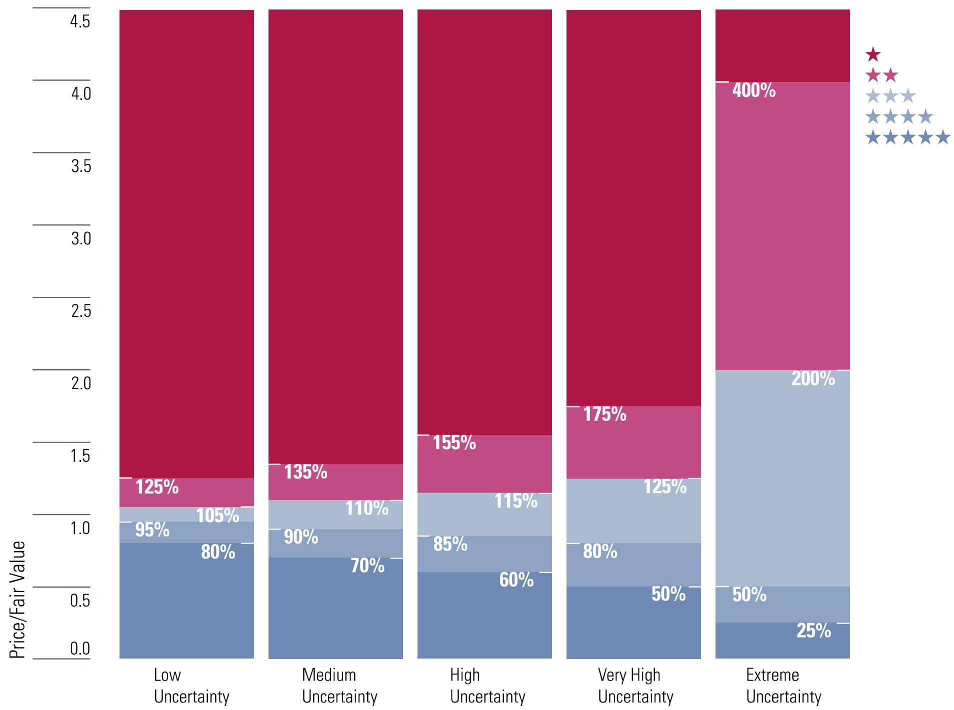
- ► Low–margin of safety for 5-star rating is a 20% discount and for 1-star rating is 25% premium.
- ► Medium–margin of safety for 5-star rating is a 30% discount and for 1-star rating is 35% premium.
- ► High–margin of safety for 5-star rating is a 40% discount and for 1-star rating is 55% premium.
- ► Very High–margin of safety for 5-star rating is a 50% discount and for 1-star rating is 75% premium.
- ► Extreme–margin of safety for 5-star rating is a 75% discount and for 1-star rating is 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 Equity Research Star Rating Methodology



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.

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. 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. The market is pricing in an excessively optimistic outlook, limiting upside potential and leaving the investor exposed to Capital loss.

Research Methodology for Valuing Companies

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.

Stewardship Rating: Represents our assessment of management's stewardship of shareholder capital, with particular emphasis on capital allocation decisions. Analysts consider companies' investment strategy and valuation, financial leverage, dividend and share buyback policies, execution, compensation, related party transactions, and accounting practices. Corporate governance practices are only considered if they've had a demonstrated impact on shareholder value. Analysts assign one of three ratings: "Exemplary," "Standard," and "Poor." Analysts judge stewardship from an equity holder's perspective. Ratings are determined on an absolute basis. Most companies will receive a Standard rating, and this is the default rating in the absence of evidence that managers have made exceptionally strong or poor capital allocation decisions.

Quantitative Valuation: Using the below terms, intended to denote the relationship between the security's Last Price and Morningstar's quantitative fair value estimate for that security.

- Undervalued: Last Price is below Morningstar's quantitative fair value estimate.
- Fairly Valued: Last Price is in line with Morningstar's quantitative fair value estimate.
- Overvalued: Last Price is above Morningstar's quantitative fair value estimate.

Risk Warning

Please note that investments in securities are subject to market and other risks and there is no assurance or guarantee that the intended investment objectives will be achieved. Past performance of a security may or may not be sustained in future and is no indication of future performance. A security investment return and an investor's principal value will fluctuate so that, when redeemed, an investor's shares may be worth more or less than their original cost. A security's current investment performance may be lower or higher than the investment performance noted within the report. Morningstar's Uncertainty Rating serves as a useful data point with respect to sensitivity analysis of the assumptions used in our determining a fair value price.

Quantitative Equity Reports Overview

The quantitative report on equities consists of data, statistics and quantitative equity ratings on equity securities. Morningstar, Inc.'s quantitative equity ratings are forward looking and are generated by a statistical model that is based on Morningstar Inc.'s analyst-driven equity ratings and quantitative statistics. Given the nature of the quantitative report and the quantitative ratings, there is no one analyst in which a given report is attributed to; however, Mr. Lee Davidson, Head of Quantitative Research for Morningstar, Inc., is responsible for overseeing the methodology that supports the quantitative equity ratings used in this report. As an employee of Morningstar, Inc., Mr. Davidson is guided by Morningstar, Inc.'s Code of Ethics and Personal Securities Trading Policy in carrying out his responsibilities.

Quantitative Equity Ratings

Morningstar's quantitative equity ratings consist of:
(i) Quantitative Fair Value Estimate
(ii) Quantitative Star Rating
(iii) Quantitative Uncertainty
(iv) Quantitative Economic Moat
(v) Quantitative Financial Health
(collectively the "Quantitative Ratings").

The Quantitative Ratings are calculated daily and derived from the analyst-driven ratings of a company's peers as determined by statistical algorithms. Morningstar, Inc. ("“Morningstar," "we," "our") calculates Quantitative Ratings for companies whether it already provides analyst ratings and qualitative coverage. In some cases, the Quantitative Ratings may differ from the analyst ratings because a company's analyst-driven ratings can significantly differ from other companies in its peer group.

Quantitative Fair Value Estimate: Intended to represent Morningstar's estimate of the per share dollar amount that a company's equity is worth today. Morningstar calculates the quantitative fair value estimate using a statistical model derived from the fair value estimate Morningstar's equity analysts assign to companies. Please go to https://shareholders.morningstar.com for information about fair value estimates Morningstar's equity analysts assign to companies.

Quantitative Economic Moat: Intended to describe the strength of a firm's competitive position. It is calculated using an algorithm designed to predict the Economic Moat rating a Morningstar analyst would assign to the stock. The rating is expressed as Narrow, Wide, or None.

- Narrow: assigned when the probability of a stock receiving a "Wide Moat" rating by an analyst is greater than 70% but less than 99%.
- Wide: assigned when the probability of a stock receiving a "Wide Moat" rating by an analyst is greater than 99%.
- None: assigned when the probability of an analyst receiving a "Wide Moat" rating by an analyst is less than 70%.

Quantitative Star Rating: Intended to be the summary rating based on the combination of our Quantitative Fair Value Estimate, current market price, and the Quantitative Uncertainty Rating. The rating is expressed as 1-Star, 2-Star, 3-Star, 4-Star, and 5-Star.

★: the stock is overvalued with a reasonable margin of safety.
Log (Quant FVE/Price)<–1*Quantitative Uncertainty

★★: the stock is somewhat overvalued.
Log (Quant FVE/Price) between (–1*Quantitative Uncertainty, –0.5*Quantitative Uncertainty)

★★★: the stock is approximately fairly valued.
Log (Quant FVE/Price) between (–0.5*Quantitative Uncertainty, 0.5*Quantitative Uncertainty)

★★★★: the stock is somewhat undervalued.
Log (Quant FVE/Price) between (0.5*Quantitative Uncertainty, 1*Quantitative Uncertainty)

★★★★★: the stock is undervalued with a reasonable margin of safety. Log (Quant FVE/Price) >1*Quantitative Uncertainty

Quantitative Uncertainty: Intended to represent Morningstar's level of uncertainty about the accuracy of the quantitative fair value estimate. Generally, the lower the quantitative Uncertainty, the narrower the potential range of outcomes for that particular company. The rating is expressed as Low, Medium, High, Very High, and Extreme.

- Low: the interquartile range for possible fair values is less than 10%.
- Medium: the interquartile range for possible fair values is less than 15% but greater than 10%.
- High: the interquartile range for possible fair values is less than 35% but greater than 15%.
- Very High: the interquartile range for possible fair values is less than 80% but greater than 35%.
- Extreme: the interquartile range for possible fair values is greater than 80%.

Quantitative Financial Health: Intended to reflect the probability that a firm will face financial distress in the near future. The calculation uses a predictive model designed to anticipate when a company may default on its financial obligations. The rating is expressed as Weak, Moderate, and Strong.

- Weak: assigned when Quantitative Financial Health <0.2
- Moderate: assigned when Quantitative Financial Health is between 0.2 and 0.7
- Strong: assigned when Quantitative Financial Health >0.7

Research Methodology for Valuing Companies

Other Definitions

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

Quantitative Valuation: Using the below terms, intended to denote the relationship between the security's Last Price and Morningstar's quantitative fair value estimate for that security.

- Undervalued: Last Price is below Morningstar's quantitative fair value estimate.
- Fairly Valued: Last Price is in line with Morningstar's quantitative fair value estimate.
- Overvalued: Last Price is above Morningstar's quantitative fair value estimate.

This Report has not been made available to the issuer of the security prior to publication.

Risk Warning

Please note that investments in securities are subject to market and other risks and there is no assurance or guarantee that the intended investment objectives will be achieved. Past performance of a security may or may not be sustained in future and is no indication of future performance. A security investment return and an investor's principal value will fluctuate so that, when redeemed, an investor's shares may be worth more or less than their original cost. A security's current investment performance may be lower or higher than the investment performance noted within the report.

The quantitative equity ratings are not statements of fact. Morningstar does not guarantee the completeness or accuracy of the assumptions or models used in determining the quantitative equity ratings. In addition, there is the risk that the price target will not be met due to such things as unforeseen changes in demand for the company's products, changes in management, technology, economic development, interest rate development, operating and/or material costs, competitive pressure, supervisory law, exchange rate, and tax rate. For investments in foreign markets there are further risks, generally based on exchange rate changes or changes in political and social conditions.

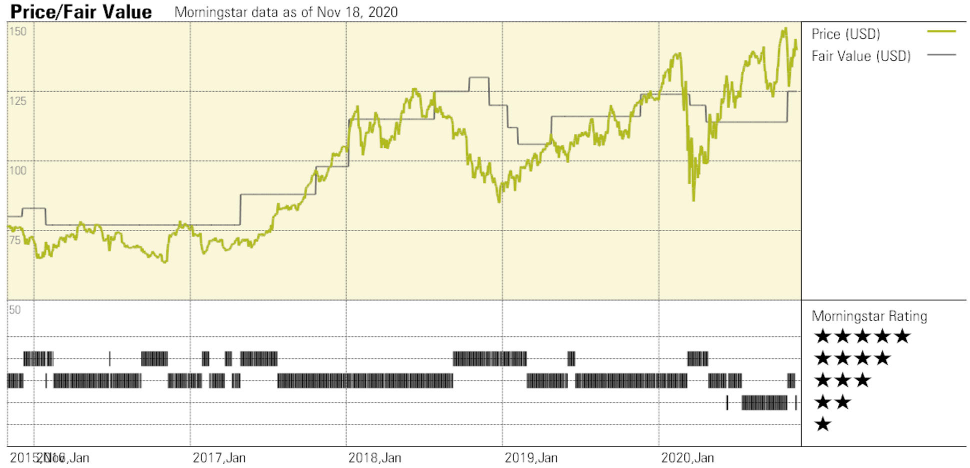
A change in the fundamental factors underlying the quantitative equity ratings can mean that the valuation is subsequently no longer accurate.

For more information about Morningstar's quantitative methodology, please visit http://global.morningstar.com/equitydisclosures.

T. Rowe Price Group Inc TROW (XNAS)

Morningstar Rating	Last Price	Fair Value Estimate	Price/Fair Value	Trailing Dividend Yield %	Forward Dividend Yield %	Market Cap (Bil)	Industry	Stewardship
★★	139.79 USD	125.00 USD	1.12	2.48	2.58	31.65	Asset Management	Exemplary
19 Nov 2020 01:47, UTC	18 Nov 2020	28 Oct 2020 15:25, UTC		18 Nov 2020	18 Nov 2020	18 Nov 2020		

Price/Fair Value Morningstar data as of Nov 18, 2020



General Disclosure

The analysis within this report is prepared by the person (s) noted in their capacity as an analyst for Morningstar's equity research group. The equity research group consists of various Morningstar, Inc. subsidiaries ("Equity Research Group)". In the United States, that subsidiary is Morningstar Research Services LLC, which is registered with and governed by the U.S. Securities and Exchange Commission.

The opinions expressed within the report are given in good faith, are as of the date of the report and are subject to change without notice. Neither the analyst nor Equity Research Group commits themselves in advance to whether and in which intervals updates to the report are expected to be made. The written analysis and Morningstar Star Rating for stocks are statements of opinions; they are not statements of fact.

The Equity Research Group believes its analysts make a reasonable effort to carefully research information contained in the analysis. The information on which the analysis is based has been obtained from sources believed to be reliable such as, for example, the company's financial statements filed with a regulator, company website, Bloomberg and any other the relevant press sources. Only the information obtained from such sources is made available to the issuer who is the subject of the analysis, which is necessary to properly reconcile with the facts. Should this sharing of information result in considerable changes, a statement of that fact will be noted within the report. While the Equity Research Group has obtained data, statistics and information from sources it believes to be reliable, neither the Equity Research Group nor Morningstar, Inc. performs an audit or seeks independent verification of any of the data, statistics, and information it receives.

General Quantitative Disclosure

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★★ 19 Nov 2020 01:47, UTC	139.79 USD 18 Nov 2020	125.00 USD 28 Oct 2020 15:25, UTC	1.12	2.48 18 Nov 2020	2.58 18 Nov 2020	31.65 18 Nov 2020	Asset Management	Exemplary

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