CH Robinson Worldwide, Inc. CHRW [XNAS] | ★★★★

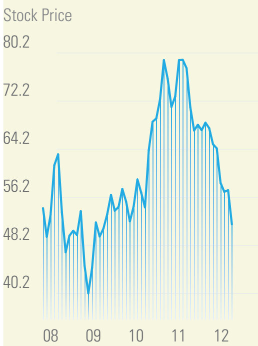
Last Price	Fair Value	Consider Buy	Consider Sell	Uncertainty	Economic Moat™	Stewardship	Morningstar Credit Rating	Industry
54.23 USD	73.00 USD	51.10 USD	98.60 USD	Medium	Wide	Exemplary		Integrated Shipping & Logistics

C.H. Robinson is well positioned to capitalize on favorable trends in third-party logistics.

by Matthew Young, CFA
Equity Analyst
Analyst covering this company do not own its stock.

Pricing data through Aug 10, 2012.
Rating Updated as of Aug 10, 2012.

Currency amounts expressed with "$" are in U.S. dollars (USD) unless otherwise denoted.



Thesis Aug. 02, 2012

C.H. Robinson employs an attractive non-asset-based model in an expanding industry, and its robust value proposition is driving shippers to outsource more of their transportation and logistics requirements. The company does not own transportation equipment, so a variable-cost structure and low capital intensity drive high returns on invested capital throughout the economic cycle. C.H. Robinson's ROICs averaged 36% over the past five years, which is the highest of the transportation firms we cover. Moreover, Robinson is the largest domestic U.S. truck broker, and its immense network of shippers and carriers bestows a robust economic moat that should help protect economic profits over the long run.

We estimate that the $130 billion U.S. outsourced third-party logistics, or 3PL, market (including domestic truck brokerage, international freight forwarding, dedicated contract carriage, and value-added warehousing) will expand on average at a multiple of gross domestic product growth over the next five years. This follows impressive average annual growth of 10% between 1996 and 2009, according to data from Armstrong & Associates. The first year-over-year decline in outsourced logistics spending on record was in 2009 (down 16%), although the market recovered nicely in 2010 and 2011 (up 12% on average).

One of the most salient industry growth drivers is transportation and logistics outsourcing among shippers--3PLs are taking share from asset-based providers and motivating larger shippers to outsource logistics management. As the supply chain becomes more of a competitive differentiator (facilitating such benefits as shorter lead times, faster inventory turns, and mode optimization), we believe demand for outsourced 3PL services will persist. Importantly, 3PL providers still have a relatively small share of the market, capturing less than 10% of U.S. transportation and logistics spending. Additionally, top-tier providers with scale are taking share from smaller, less capable operations, as demand for sophisticated supply-chain technology and access to flexible capacity expands

Robinson maintains a value proposition that's attractive to both shippers and carriers. The company leverages buying power, technological capabilities, and flexible carrier relationships to enhance shippers' supply chain-related execution. Small shippers enjoy lower transportation costs than they could generally obtain directly with carriers. Larger shippers with internal logistics departments can outsource such functions, effectively converting fixed costs into variable costs and reducing the need for heavy IT investment. Large shippers also avoid the hassle of managing hundreds of carrier relationships across the fragmented carrier landscape--more than 95% of truckload carriers operate fewer than 20 trucks. Carriers are attracted to Robinson because they gain access to a vast reservoir of freight opportunities; the company retains one of the largest networks of domestic shippers, handling more than 10 million shipments in 2011.

We are especially attracted to Robinson's variable-cost business model. Although the company is not immune to cyclical downturns, its model helps shield profitability when freight conditions deteriorate. About 75% of operating expenses are tied to compensation, which is performance-based and linked to company profitability. Furthermore, purchased transportation is highly variable because the firm purchases capacity in the spot market. As a result, in periods of macroeconomic weakness when capacity loosens and carrier pricing falls, Robinson can pass those declines to shippers on a lagged basis, thereby expanding gross margins (gross revenue less cost of capacity). The flip side is when freight market conditions are strong and carrier rates rise, gross margin compression tempers earnings growth. To illustrate Robinson's resiliency, during the freight downturn in 2009, transportation segment gross margins accelerated 320 basis points to 20.2%, while operating margins as a percentage of gross profit expanded 70 bps to

CH Robinson Worldwide, Inc. CHRW [XNAS] | ★★★★

Last Price	Fair Value	Consider Buy	Consider Sell	Uncertainty	Economic Moat™	Stewardship	Morningstar Credit Rating	Industry
54.23 USD	73.00 USD	51.10 USD	98.60 USD	Medium	Wide	Exemplary		Integrated Shipping & Logistics

Close Competitors	Currency (Mil)	Market Cap	TTM Sales	Oper Income	Net Income
Expeditors International of Washington, Inc.	USD	7,723	6,025	577	360
J.B. Hunt Transport Services, Inc.	USD	6,455	4,797	495	289
Landstar System, Inc.	USD	2,266	2,786	202	125
UTi Worldwide, Inc.	USD	1,409	4,864	133	77
Hub Group, Inc.	USD	1,168	3,033	104	64

42.3%.

Robinson has an extensive history of net revenue expansion and industry-leading profitability, and we project this performance to continue, yielding an average ROIC of roughly 36% over the next five years. We expect 3PL industry growth to remain healthy over the long run, and Robinson's wide moat should enable it to capitalize on this despite increasing competition. Robinson has also positioned its international air and ocean freight forwarding operations (7% of net revenue) to contribute to growth as globalization of trade and foreign sourcing persist. The payment services unit (4% of net sales) should remain a steady contributor as well. While Robinson's legacy produce sourcing business (8% of net revenue) took a hit over the past year due to Wal-Mart's WMT decision to source some commodities on its own, long-term growth opportunities still exist in this segment.

Valuation, Growth and Profitability

Our fair value estimate is $73 per share. For 2012, we expect gross revenue expansion in the high single digits. This represents moderation from 2011 trends, driven by lower sourcing revenue from Wal-Mart and more modest market share gains given the recent slowdown in customer bidding activity. We model net revenue growth to be slower (in the mid-single-digits) than the rise in gross revenue, driven by gross margin compression--carrier rates are rising faster than pricing to customers. We forecast the operating margin as a percentage of gross profit to expand slightly in 2012 as leverage from higher net revenue is partly offset by additional headcount to support business growth.

Over the next five years, we think the company can expand net revenue roughly 10% on average as it capitalizes on attractive secular trends in the 3PL industry and continues to garner share from both asset-based trucking companies and small freight brokers (the industry is highly fragmented). We also think the firm will post some operating margin expansion (about 70 basis points), supported by leverage from net revenue growth and strong execution. We forecast ROIC to average more than 30% through 2016, compared with our 10% cost of capital assumption, which reflects our opinion that C.H. Robinson maintains a wide economic moat.

Risk

Although C.H. Robinson's variable-cost business model provides a buffer for profitability, the company is not immune to cyclical downturns in freight demand. When economic conditions become challenging, gross revenue trends reflect softer shipment volume from customers. In periods of accelerating freight demand, capacity typically firms and carrier rates rise. Historically, this dynamic has driven gross margin compression because the company passes through higher carrier rates to customers on a time lag. Broader trucking industry issues such as driver availability, rising carrier safety regulation, and more stringent truck emission standards could lead to capacity shortages, especially when freight demand is robust. Such shortages could limit C.H. Robinson's ability to secure capacity for customers or shrink its carrier network. While C.H. Robinson passes on fuel price increases to customers in the form of surcharges, it may not fully recover them, given contractual limitations or implementation-related time delays.

Bulls Say

- C.H. Robinson is taking share from asset-based carriers partly because of its ability to aggregate supply in the fragmented truckload market, which consists of thousands of small and midsize carriers. By outsourcing to Robinson, shippers avoid the administrative burden and risk (including quality control and pricing) of managing numerous carrier relationships. In addition, since the company does not own transportation equipment, it is able to provide unbiased, multimodal solutions that are not predicated on maximizing asset utilization. We estimate that less than 10% of U.S. transportation and logistics spend is outsourced to 3PL firms.

- Supply chains are increasing in complexity, in part because of the globalization of trade and foreign sourcing trends. Shippers are also paying greater attention to supply-chain optimization as a competitive differentiator and source of potential cost savings. These factors are boosting demand for outsourced transportation and logistics solutions offered by sophisticated providers with scale, like C.H. Robinson.
- C.H. Robinson's immense network of shippers and carriers makes for a compelling value proposition, as the company can aggregate its buying power to reduce shippers' transportation costs while providing carriers with one of the largest sources of freight opportunities available. We also think the company's large network, which would be very difficult to replicate, produces relatively high barriers to entry.

Bears Say

- High returns on invested capital are attracting competition to the 3PL industry. Examples include truck brokerage operations of traditional asset-based providers and the integrators' (namely FedEx and UPS) rising focus on outsourced supply-chain-related services.
- While Robinson's non-asset-based model reduces cyclicality, changes in carrier rates and the company's pricing power influence gross margins, particularly in terms of its ability to pass along rising carrier rates to shippers when capacity firms. The timing of customer contract repricing and amount of capacity the company procures in the spot market also affect gross margin performance. This dynamic has been evident in recent quarters as timing delays in passing along rising carrier rates to customers have pressured transportation gross margins--we think balanced supply and demand is providing less of an incentive for shippers to renegotiate contracts.
- In C.H. Robinson's legacy sourcing business (8% of net revenue), Wal-Mart recently chose to directly source a number of commodities on its own as part of a broader global sourcing and supply-chain initiative. Although we believe long-term opportunities remain, this decision will constrain sourcing segment revenue growth in through the first half of 2012, and new business may carry lower gross margins.

Financial Overview

Financial Health:C.H. Robinson is in great financial condition. Its non-asset-based operating model supports a debt-free balance sheet with plenty of cash. We expect the company to continue using free cash flow to fund share repurchases and opportunistic acquisitions that supplement internal growth.

Company Overview

Profile: C.H. Robinson is a non-asset-based third-party logistics provider, primarily focused on domestic truck brokerage (76% of net revenue). It also operates a growing international air and ocean freight forwarding business (7%). The remainder of net revenue reflects intermodal (3%), customs brokerage and warehousing (4%), produce sourcing (8%), and information services (4%). Key strategic initiatives include increasing its share of the North American transportation and logistics market and strengthening its global freight forwarding operations.

Management: We think C.H. Robinson's senior management team has done an admirable job managing the firm's non-asset-based model--a history of positive cash flow from operations and robust returns on capital (36% over the past five years alone) is evidence of successful execution. CEO

John Wiehoff has been at the helm since 2002, and enjoys a long tenure at Robinson, having been with the firm since 1992. Chad Lindbloom has occupied the CFO role since 1999. Management says its goal is to increase net revenue, operating income, and earnings 15% annually; we think this fosters long-term planning more than a near-term focus. Robinson believes its entrepreneurial culture and decentralized structure have driven its success and growth over the years. Employees are compensated based on the profitability of their local office, and the company sustains its culture by promoting from within its ranks. Robinson pays a quarterly dividend, which has increased annually over the past decade, and the firm has a long history of share repurchases.

CH Robinson Worldwide, Inc. CHRW [XNAS] | ★★★★

Last Price	Fair Value	Consider Buy	Consider Sell	Uncertainty	Economic Moat™	Stewardship	Morningstar Credit Rating	Industry
54.23 USD	73.00 USD	51.10 USD	98.60 USD	Medium	Wide	Exemplary		Integrated Shipping & Logistics

Analyst Notes

Gross Margin Compression Still the Theme in Robinson's Second Quarter Jul. 24, 2012

In the second quarter, C.H. Robinson's CHRW gross revenue grew 9% from the same period last year, reflecting solid truck-transportation volume expansion and growth in the produce sourcing business. Core pricing increases to customers remained sluggish during the quarter, tempering revenue gains. Truckload volume increased 10% year over year, about in line with our expectations, showing improvement from 8% in the first quarter and 7% in the fourth quarter. Thus far in July, volume growth per day is up 11%, suggesting Robinson is gaining market share and industry freight demand remains stable. Truckload pricing was up only 1%, similar to the first-quarter increase. We think soft pricing conditions are coming from lower customer bidding activity. That is, although trucking industry capacity is tightening, customers are not stumbling upon service failures--persistent route service disruptions are a key motivation for shippers to return to the negotiating table to secure capacity.

Total net revenue (gross revenue less purchased transportation) increased a modest 2% as 130 basis points of gross margin deterioration in the transportation segment tempered gross revenue expansion. Sourcing gross profit margins increased 40 basis points. Lower transportation gross margins are primarily the result of carrier rates rising faster than the firm's pricing (to shippers). Tightening industry capacity is enabling truckers to raise rates, and it takes time for Robinson to pass those increases through to customers, particularly those with pricing commitments. We note that thus far in July, net revenue growth per business day is down 1.5%, implying that pressure on profit per truckload from higher capacity rates and anemic pricing persists--not a surprise given relatively balanced supply and demand.

Despite a 9% increase in head count and higher travel expenses, Robinson's operating margin (off net revenue) improved 40 basis points to 43.5%, benefiting from lower variable incentive compensation tied to net revenue and earnings growth. Overall, because the company's long-term prospects largely remain in line with our previous assumptions, we are maintaining our fair value estimate.

Gross Margin Pressure Persists in C.H. Robinson's First Quarter Apr. 25, 2012

C.H. Robinson CHRW posted 8% growth in consolidated gross revenue in the first quarter, mostly reflecting decent truck-transportation volume expansion. Sluggish core pricing increases to customers and weakness in the produce sourcing segment tempered the revenue gains, though difficult comparisons in the sourcing unit should ease by the second half of 2012 as the firm laps the loss of the Wal-Mart WMT business. Truckload volume increased 8% year over year, slightly ahead of our expectations, showing improvement from 7% in the fourth quarter and 4% in the third quarter. Less-than-truckload shipments increased 13%, versus 14% last quarter. Thus far in April, volume per day is up 10%, suggesting Robinson is gaining market share and industry freight demand remains stable. That said, truckload pricing gains slowed during the quarter to 1% (compared with 3% last quarter), slightly below our forecast. The moderation in pricing probably reflects lower customer bidding activity relative to last year. That is, although trucking industry capacity is tightening, customers are not experiencing service failures--persistent route service disruptions are a key motivation for shippers to return to the negotiating table to secure capacity.

Total net revenue (gross revenue less purchased transportation) increased 6% as 40 basis points of gross

Analyst Notes (continued)

margin deterioration in the transportation segment tempered gross revenue growth. Sourcing gross profit margins also declined, falling 30 basis points because of business mix and a difficult comparison--volatile weather conditions were a net benefit in the same period last year. Lower transportation gross margins are primarily the result of rising carrier rates and related timing delays in passing those increases along to shippers--balanced supply and demand is providing less of an incentive for shippers to renegotiate contracts. We note that thus far in April net revenue growth per business day is up only 1%, implying that pressure on profit per truckload from higher capacity costs has yet to subside. While we hesitate to extrapolate too much from this given the limited timeframe and typical intraquarter volatility, we think there is heightened downside risk to our current near-term net revenue growth assumptions.

Despite a 9% increase in headcount, Robinson's operating margin (off net revenue) improved 70 basis points to 40.9%, benefiting from lower variable incentive compensation tied to net revenue and earnings growth. Overall, since the company's long-term prospects largely remain in line with our previous assumptions, we are maintaining our fair value estimate.

CH Robinson Worldwide, Inc. CHRW

Sales USD Mil	Mkt Cap USD Mil	Industry	Sector
10,771	8,751	Integrated Shipping & Logistics	Industrials

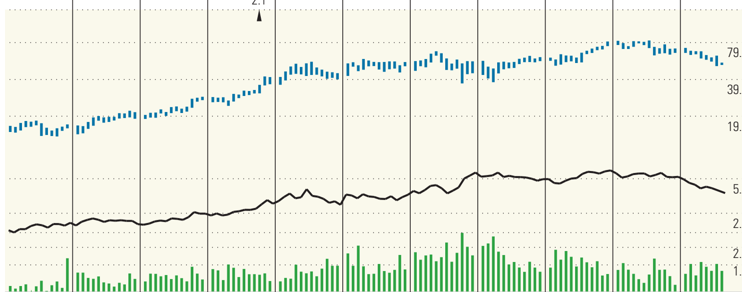
C.H. Robinson is a non-asset-based third-party logistics provider, primarily focused on domestic truck brokerage (76% of net revenue). It also operates a growing international air and ocean freight forwarding business (7%). The remainder of net revenue reflects intermodal (3%), customs brokerage and warehousing (4%), produce sourcing (8%), and information services (4%). Key strategic initiatives include increasing its share of the North American transportation and logistics market and strengthening its global freight forwarding operations.

14701 Charlson Road
Eden Prairie, MN 55347-5088
Phone: 1 952 937-8500Website: http://www.chrobinson.com

Morningstar Rating	Last Price	Fair Value	Uncertainty	Economic Moat™	Stewardship
—	53.80	—	—	—	—

per share prices in USD

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	YTD	
Annual Price High	17.70	21.50	28.20	41.70	55.18	58.19	67.36	61.69	81.02	82.61	71.76
Low	12.92	13.50	18.30	23.65	35.55	42.11	36.50	37.36	51.16	62.30	50.81
Recent Splits				2:1							



Price Volatility
Monthly High/Low
Rel Strength to S&P 500

52 week High/Low
76.76 - 50.81

10 Year High/Low
82.61 - 12.92

Bear-Market Rank
4 (10=worst)

Trading Volume Million

Growth Rates Compound Annual

Grade: B	1 Yr	3 Yr	5 Yr	10 Yr
Revenue %	11.4	6.4	9.5	12.8
Operating Income %	11.2	6.6	10.6	17.8
Earnings/Share %	12.4	8.0	11.4	18.3
Dividends %	15.4	10.1	16.1	27.6
Book Value/Share %	5.3	5.3	7.1	13.8
Stock Total Return %	-15.3	1.5	2.7	14.8
+/- Industry	-28.5	-10.4	2.5	9.6
+/- Market	-40.6	-10.0	4.0	12.7

Profitability Analysis

Grade: A	Current	5 Yr Avg	Ind	Mkt
Return on Equity %	34.6	33.6	24.2	22.8
Return on Assets %	20.1	19.9	9.5	9.3
Fixed Asset Turns	87.2	79.4	3.4	7.7
Inventory Turns	—	—	28.6	17.0
Revenue/Employee USD K	1289.5	1161.5*	—	1055.7
Gross Margin %	15.5	16.6	61.0	39.7
Operating Margin %	6.6	7.0	10.2	16.6
Net Margin %	4.1	4.3	5.7	11.1
Free Cash Flow/Rev %	3.7	4.0	6.2	0.1
R&D/Rev %	—	—	—	9.5

Financial Position

Grade: A	12-11 USD Mil	06-12 USD Mil
Cash	374	241
Inventories	—	—
Receivables	1190	1415
Current Assets	1612	1708
Fixed Assets	127	132
Intangibles	370	400
Total Assets	2138	2240
Payables	697	884
Short-Term Debt	—	—
Current Liabilities	877	949
Long-Term Debt	—	—
Total Liabilities	890	962
Total Equity	1248	1278

Valuation Analysis

	Current	5 Yr Avg	Ind	Mkt
Price/Earnings	20.0	28.8	17.3	—
Forward P/E	16.1	—	—	13.2
Price/Cash Flow	19.4	28.8	8.9	—
Price/Free Cash Flow	22.2	32.0	16.9	—
Dividend Yield %	2.4	—	2.1	2.0
Price/Book	7.0	9.3	4.3	—
Price/Sales	0.8	1.3	1.0	—
PEG Ratio	1.5	—	—	0.3

Stock Performance

2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	YTD	Stock Performance
5.5	22.7	47.8	34.7	12.0	34.2	3.3	8.5	38.3	-11.5	-21.9	Total Return %
28.9	-3.7	38.8	31.7	-1.6	30.7	41.8	-14.9	25.5	-11.5	-33.4	+/- Market
-8.3	1.8	22.4	36.9	8.0	38.7	23.4	-3.7	10.2	-7.5	-24.4	+/- Industry
0.8	0.9	0.9	1.0	1.4	1.4	1.6	1.6	1.3	1.7	2.4	Dividend Yield %
2636	3201	4737	6332	7121	9187	9311	9814	13315	11456	8751	Market Cap USD Mil

Financials

2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	TTM	Financials
3294	3614	4342	5689	6556	7316	8579	7577	9274	10336	10771	Revenue USD Mil
14.7	15.1	15.2	15.5	16.5	17.0	16.0	18.2	15.8	15.8	15.5	Gross Margin %
157	184	223	326	418	510	572	585	623	693	710	Oper Income USD Mil
4.8	5.1	5.1	5.7	6.4	7.0	6.7	7.7	6.7	6.7	6.6	Operating Margin %
96	114	137	203	267	324	359	361	387	432	445	Net Income USD Mil
0.56	0.67	0.80	1.16	1.53	1.86	2.08	2.13	2.33	2.62	2.72	Earnings Per Share USD
0.13	0.18	0.26	0.36	0.57	0.76	0.90	0.97	1.04	1.20	1.28	Dividends USD
172	172	173	175	175	174	173	169	166	165	163	Shares Mil
2.52	3.06	3.64	4.56	5.42	6.14	6.54	6.46	7.25	7.60	7.67	Book Value Per Share USD
114	110	156	229	343	308	448	373	345	430	461	Oper Cash Flow USD Mil
-7	-9	-35	-22	-43	-44	-24	-34	-29	-53	-58	Cap Spending USD Mil
107	101	121	207	300	265	424	338	316	377	403	Free Cash Flow USD Mil

Profitability

2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	TTM	Profitability
13.2	13.5	13.8	16.4	17.6	18.8	19.8	19.8	20.2	20.9	20.1	Return on Assets %
24.6	24.2	24.1	29.0	31.0	32.7	33.4	33.0	33.9	35.2	34.6	Return on Equity %
2.9	3.2	3.2	3.6	4.1	4.4	4.2	4.8	4.2	4.2	4.1	Net Margin %
4.51	4.29	4.37	4.60	4.33	4.25	4.73	4.15	4.84	5.00	4.86	Asset Turnover
1.8	1.8	1.7	1.8	1.7	1.7	1.6	1.7	1.7	1.7	1.8	Financial Leverage

Financial Health

2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	06-12	Financial Health
245	336	393	472	569	632	650	575	710	735	758	Working Capital USD Mil
—	—	—	—	—	—	—	—	—	—	—	Long-Term Debt USD Mil
426	517	621	780	944	1042	1107	1080	1204	1248	1278	Total Equity USD Mil
—	—	—	—	—	—	—	—	—	—	—	Debt/Equity

Valuation

2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	TTM	Valuation
27.9	28.5	35.0	31.9	26.7	29.1	26.5	27.6	34.4	26.7	20.0	Price/Earnings
—	—	—	—	—	—	—	—	—	1.5	—	P/E vs. Market
0.8	0.9	1.1	1.1	1.1	1.3	1.1	1.3	1.4	1.1	0.8	Price/Sales
6.2	6.2	7.6	8.1	7.5	8.8	8.4	9.1	11.1	9.2	7.0	Price/Book
23.4	29.8	30.9	28.2	20.9	30.6	21.2	26.7	38.6	26.8	19.4	Price/Cash Flow

Quarterly Results

Revenue USD Mil	Sep 11	Dec 11	Mar 12	Jun 12
Most Recent Period	2694.9	2568.3	2552.1	2955.7
Prior Year Period	2420.4	2325.3	2365.5	2707.7

Rev Growth %	Sep 11	Dec 11	Mar 12	Jun 12
Most Recent Period	11.3	10.4	7.9	9.2
Prior Year Period	23.8	15.8	14.0	10.3

Earnings Per Share USD	Sep 11	Dec 11	Mar 12	Jun 12
Most Recent Period	0.70	0.67	0.65	0.71
Prior Year Period	0.62	0.62	0.59	0.67

Industry Peers by Market Cap

	Mkt Cap USD Mil	Rev USD Mil	P/E	ROE%
CH Robinson Worldwid	8751	10771	20.0	34.6
Expeditors Internati	7664	6025	21.6	18.4
J.B. Hunt Transport	6438	4797	22.7	44.1

Major Fund Holders

	% of shares
	—
	—
	—

*3Yr Avg data is displayed in place of 5Yr Avg

TTM data based on rolling quarterly data if available; otherwise most recent annual data shown.

Morningstar's Approach to Rating Stocks

Our Key Investing Concepts
- Economic Moat™ Rating
- Discounted Cash Flow
- Discount Rate
- Fair Value
- Uncertainty
- Margin of Safety
- Consider Buying/Consider Selling
- Stewardship Grades

At Morningstar, we evaluate stocks as pieces of a business, not as pieces of paper. We think that purchasing shares of superior businesses at discounts to their intrinsic value and allowing them to compound their value over long periods of time is the surest way to create wealth in the stock market.

We rate stocks 1 through 5 stars, with 5 the best and 1 the worst. Our star rating is based on our analyst's estimate of how much a company's business is worth per share. Our analysts arrive at this "fair value estimate" by forecasting how much excess cash--or "free cash flow"--the firm will generate in the future, and then adjusting the total for timing and risk. Cash generated next year is worth more than cash generated several years down the road, and cash from a stable and consistently profitable business is worth more than cash from a cyclical or unsteady business.

Stocks trading at meaningful discounts to our fair value estimates will receive high star ratings. For high-quality businesses, we require a smaller discount than for mediocre ones, for a simple reason: We have more confidence in our cash-flow forecasts for strong companies, and thus in our value estimates. If a stock's market price is significantly above our fair value estimate, it will receive a low star rating, no matter how wonderful we think the business is. Even the best company is a bad deal if an investor overpays for its shares.

Our fair value estimates don't change very often, but market prices do. So, a stock may gain or lose stars based just on movement in the share price. If we think a stock's fair value is $50, and the shares decline to $40 without much change in the value of the business, the star rating will go up. Our estimate of what the business is worth hasn't changed, but the shares are more attractive as an investment at $40 than they were at $50.

Because we focus on the long-term value of businesses, rather than short-term movements in stock prices, at times we may appear out of step with the overall stock market. When stocks are high, relatively few will receive our highest rating of 5 stars. But when the market tumbles, many more will likely garner 5 stars. Although you might expect to see more 5-star stocks as the market rises, we find assets more attractive when they're cheap.

We calculate our star ratings nightly after the markets close, and issue them the following business day, which is why the rating date on our reports will always be the previous business day. We update the text of our reports as new information becomes available, usually about once or twice per quarter. That is why you'll see two dates on every Morningstar stock report. Of course, we monitor market events and all of our stocks every business day, so our ratings always reflect our analyst's current opinion.

Economic Moat™ Rating

The Economic Moat™ Rating is our assessment of a firm's ability to earn returns consistently above its cost of capital in the future, usually by virtue of some competitive advantage. Competition tends to drive down such

Morningstar Research Methodology for Valuing Companies

Competitive Analysis → **Economic Moat™ Rating** → Company Valuation → **Fair Value Estimate** → Uncertainty Assessment → ★★★★★

Competitive Analysis	Economic Moat™ Rating	Company Valuation	Fair Value Estimate	Uncertainty Assessment	★★★★★
Analyst conducts company and industry research: • Management interviews • Conference calls • Trade-show visits • Competitor, supplier, distributor, and customer interviews	The depth of the firm's competitive advantage is rated: • None • Narrow • Wide	Analyst considers company financial statements and competitive position to forecast future cash flows. Assumptions are input into a dis-counted cash-flow model.	DCF model leads to the firm's Fair Value Estimate, which anchors the rating framework.	An uncertainty assessment establishes the margin of safety required for the stock rating.	★ ★★ ★★★ ★★★★ ★★★★★ The current stock price relative to fair value, adjusted for uncertainty, determines the rating.

economic profits, but companies that can earn them for an extended time by creating a competitive advantage possess an Economic Moat. We see these companies as superior investments.

Discounted Cash Flow

This is a method for valuing companies that involves projecting the amount of cash a business will generate in the future, subtracting the amount of cash that the company will need to reinvest in its business, and using the result to calculate the worth of the firm. We use this technique to value nearly all of the companies we cover.

Discount Rate

We use this number to adjust the value of our forecasted cash flows for the risk that they may not materialize. For a profitable company in a steady line of business, we'll use a lower discount rate, also known as "cost of capital," than for a firm in a cyclical business with fierce competition, since there's less risk clouding the firm's future.

Fair Value

This is the output of our discounted cash-flow valuation models, and is our per-share estimate of a company's intrinsic worth. We adjust our fair values for off-balance sheet liabilities or assets that a firm might have--for example, we deduct from a company's fair value if it has issued a lot of stock options or has an under-funded pension plan. Our fair value estimate differs from a "target price" in two ways. First, it's an estimate of what the business is worth, whereas a price target typically reflects what other investors may pay for the stock. Second, it's a long-term estimate, whereas price targets generally focus on the next two to 12 months.

Uncertainty

To generate the Morningstar Uncertainty Rating, analysts consider factors such as sales predictability, operating leverage, and financial leverage. Analysts then classify their ability to bound the fair value estimate for the stock into one of several uncertainty levels: Low, Medium, High, Very High, or Extreme. The greater the level of uncertainty, the greater the discount to fair value required before a stock can earn 5 stars, and the greater the premium to fair value before a stock earns a 1-star rating.

Margin of Safety

This is the discount to fair value we would require before recommending a stock. We think it's always prudent to buy stocks for less than they're worth.The margin of safety is like an insurance policy that protects investors from bad news or overly optimistic fair value estimates. We require larger margins of safety for less predictable stocks, and smaller margins of safety for more predictable stocks.

Consider Buying/Consider Selling

The consider buying price is the price at which a stock would be rated 5 stars, and thus the point at which we would consider the stock an extremely attractive purchase. Conversely, consider selling is the price at which a stock would have a 1 star rating, at which point we'd consider the stock overvalued, with low expected returns relative to its risk.

Stewardship Grades

Our corporate 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.