

Research Highlights

A weekly summary of our best ideas and developments in the companies we cover.

Morningstar Equity Research

May 29-June 1, 2018

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Online

Interactive web-based models are available for our Best Ideas at Trefis.

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Regulation Disrupting Canadian Banking System

The balance of power in the Canadian market continues to shift more and more toward the Big Six banks (Royal Bank of Canada, Toronto-Dominion Bank, Scotiabank, Bank of Montreal, Canadian Imperial Bank of Commerce, and National Bank of Canada) at the expense of the nonbank-affiliated asset managers we cover (IGM Financial, CI Financial, and AGF Management) because of a combination of regulatory changes and increased competition for fund sales. The Big Six banks have used their position as the largest distributors of mutual funds in the Canadian market, as well as an expansion of their fund manufacturing operations, to compete more heavily on price, taking share from nonbank-aligned firms.

We see the potential for regulation to once again disrupt the relationship between the Big Six banks and the purer-play asset managers, as Canadian regulators mull banning embedded trailer commissions in the fund market. With more than 80% of fund assets in Canada held in commission-based accounts, a ban on trailer fees would not only push advisors into fee-based account structures that charge investors directly for advice, as opposed to having their annual fee deducted directly from fund assets, but also put a much greater focus on fund management fees and investment performance. We believe this will open the door much wider for low-cost index-based products, which have traditionally not offered trailer fees, to take hold in the Canadian market, taking share from higher-cost active fund managers.

With fund management fees expected to be under a more powerful microscope, we view the Big Six banks as being more insulated than the purer-play asset managers, given that they already have lower fees than nonbank-aligned asset managers and should be able to continue leveraging their distribution strength to their advantage. We view wide-moat Royal Bank of Canada, Toronto-Dominion, and narrow-moat Bank of Montreal as the best positioned among the Big Six banks on the asset-management front. As for the purer-play asset managers, we believe that there will always be room on third-party platforms for active fund managers that have a track record of good repeatable investment performance and reasonable fees, and view narrow-moat CI Financial as being best suited to fit this role.

- ► Regulatory changes and increased competition are altering the fund landscape in Canada. The balance of power continues to shift more and more toward the Big Six banks at the expense of the nonbank-affiliated asset managers we cover, as ongoing regulatory changes and increased competition for fund sales (with price already becoming a more discerning factor) have an impact on the industry.
- ► A ban on embedded commissions (trailer fees) would further widen the gap. With more than 80% of fund assets in Canada held in commission-based accounts, a ban on trailer fees would push investors

- into fee-based account structures and put a much greater focus on management fees and investment performance, with the banks far better suited to compete on price than nonbank-affiliated firms.
- ► A trailer fee ban would alter advisor relationships with investors. Advisors would need to focus more on investment performance and fund fees, as they would have to justify their advisory fees which would be billed directly to investors and place clients in better-performing investment vehicles with reasonable fees, as ongoing compensation will be linked more directly to client portfolio performance.
- ► Removal of embedded commissions would be a boon for passive products. A ban on trailer fees (which most passive-product providers have been unwilling to pay) would open the door much wider for low-cost index-based products—both index funds and ETFs—given that they provide investors with market-like returns at more reasonable price points than most active managers charge.
- ► The Big Six banks should be more insulated than purer-play asset managers. The banks already have lower fees than the purer-play asset managers and should be able to leverage their distribution strength to their advantage. We view wide-moat firms Royal Bank of Canada and Toronto-Dominion and narrowmat Bank of Montreal as the best positioned among the Big Six banks on the asset-management front.
- ► Active managers with good performance and reasonable fees will also see less of an impact. There will always be room on third-party platforms for active fund managers that have a track record of good, repeatable investment performance and reasonable fees, and among the purer-play asset managers we cover we view CI Financial as being best suited to fit this role.

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Wesfarmers Gearing Ready to Pounce

Wesfarmers' management is significantly altering the group's DNA with the proposed demerger of grocer Coles, closing sometime in fiscal 2019 if approved by shareholders. There are aspects to like in the demerger, which will separate Coles from the core Bunnings home improvement retail stores. The two businesses—accounting for about two thirds of group EBIT—have very different growth prospects, and the split will provide the residual group with a greater capacity to engage in impactful mergers and acquisitions given the smaller size and stronger balance sheet of Wesfarmers after the demerger.

However, we can't see a material value uplift, as we don't expect the cash flows generated by the existing businesses to be enhanced by simply splitting them apart. Although limited upside potential to our fair value estimate of Wesfarmers exists in the order of 4% on our preliminary assessment, it is mainly from a lower cost of equity for Coles than for Wesfarmers today. Pending firm capital structures and the finalization of our moat ratings for the new entities, we reiterate our fair value estimate of AUD 37.50 per current Wesfarmers share. In our base case, we continue to expect Bunnings to grow strongly in Australia and New Zealand, but we believe the market is much more optimistic on Bunnings' prospects and is pricing it close to perfection.

- Our preliminary fair value estimates for Wesfarmers post-demerger and Coles are AUD 27.50 and AUD 14.35, respectively, based on Wesfarmers' current share count. Once adjusted for Wesfarmers' planned 20% remaining ownership in Coles, Wesfarmers post-demerger's fair value estimate is AUD 24.60, and the combined preliminary fair value is AUD 38.95, only 4% above our current AUD 37.50 consolidated fair value estimate.
- ► All else equal, to justify the current share price of Wesfarmers today, Bunnings' EBIT margins in Australia and New Zealand would have to expand to 17.2% in 2027 from 11.6% in fiscal 2017. Our basecase EBIT margin forecast is markedly lower at 12.4% in fiscal 2027, as we expect Bunnings to fuel its market share grab by passing on efficiency gains to its customers through lower prices.
- ► The demerger of Coles would leave Wesfarmers post-demerger with an undergeared balance sheet, ideal to fund acquisitions or returning excess cash to shareholders. Acquisition risk is always inherent in an investment in Wesfarmers, demonstrated by the recent acquisition challenges of U.K.'s Homebase. Nonetheless, the demerger would boost the war chest and increase the scope for a sizable transaction.

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Can a Power-Less Johnson Controls Unlock Shareholder Value?

Johnson Controls announced on March 12 that it is exploring strategic alternatives for its power solutions business. Power solutions is the leading global manufacturer of automotive lead-acid batteries, having shipped approximately 154 million of them in 2017. Power solutions' divestiture adds to Johnson Controls' transformation story; less than two years have passed since the company merged with Tyco International and spun off its automotive seating business (now known as Adient), and Johnson Controls is still working diligently to fully realize the \$1.2 billion synergy target it set after completing the Tyco merger.

Although the Tyco and Adient transactions have made Johnson Controls a more profitable and less cyclical company, and the firm remains on track to realize its synergy target, the shares have underperformed, leaving shareholders frustrated. In August 2017, Johnson Controls' board of directors accelerated the chairman and CEO succession plan and appointed former Tyco CEO George Oliver as chairman and CEO effective Sept. 1. Oliver strikes us as a strong operator willing to roll up his sleeves to build a stronger company and create shareholder value. When the CEO change was announced, we speculated that it was more likely than not that Oliver would be in favor of eventually divesting power solutions, so we were hardly surprised by the March 12 announcement.

When we first considered the possibility of power solutions' divestiture, we had mixed feelings. On one hand, power solutions is faster growing and more profitable than Johnson Controls' building technologies and solutions segment. On the other hand, Johnson Controls' stock performance since the Tyco merger and Adient spin-off has been very disappointing, so we'd support a divestiture if it can create shareholder value.

Our analysis indicates that a divestiture could indeed create shareholder value. Moreover, we see more positive than negative implications for Johnson Controls operating as a pure-play building technologies company. This report examines the impact that power solutions' divestiture could have on Johnson Controls' competitive positioning, financial performance, and valuation.

- ► Johnson Controls is exploring strategic alternatives for its power solutions business, which is the leading global manufacturer of automotive lead-acid batteries.
- ► We contend that concerns about power solutions' eventual demise at the hands of electric vehicles is greatly exaggerated. In our opinion, the business will be a strong performer for decades to come. Most of power solutions' batteries are sold to the replacement market, which is an important point because we think the company would have more than enough time to adjust its manufacturing as EV adoption increases. We believe power solutions can eventually build a greater presence in lithium-ion technology.
- ► While we've always liked the power solutions business, which we think benefits from a wide economic moat, Johnson Controls is currently not receiving a fair valuation for its buildings and power solutions businesses as a combined entity.
- ▶ On the sum-of-the-parts basis and assuming a pro rata allocation of Johnson Controls' debt, we believe building technologies and solutions is worth \$36 per share and power solutions is worth \$17 per share. Johnson Controls' stock is currently trading around \$34.

- ▶ We believe an outright sale of power solutions would be the fastest way to unlock shareholder value, but only if power solutions is able to fetch a valuation in excess of our \$19 billion stand-alone valuation. If Johnson Controls cannot find an interested buyer willing to accept that price tag, we think a spin-off or a joint venture could create shareholder value as well.
- ► Apart from power solutions, we think Johnson Controls' buildings business has a comprehensive portfolio of complementary products, which uniquely positions the firm in the commercial buildings market. Furthermore, based on our analysis and company disclosures, we believe Johnson Controls has leading or near-leading positions in commercial heating, ventilation, and air conditioning; building automation and controls; and fire and security.
- ► Over the coming years, we expect buildings revenue growth to accelerate as the business capitalizes on favorable secular trends and self-help measures. Margins should improve as buildings continues to realize merger synergies.
- We believe the buildings business has a narrow economic moat stemming from intangible assets, customer switching costs, and economies of scale. Because buildings accounts for three fourths of Johnson Controls' revenue, we don't anticipate changing our moat rating if power solutions is divested.

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Best Ideas

Interactive web-based models are available for our Best Ideas at Trefis.

Company and Industry	Morningstar Rating	Fair Value Estimate	Current Price	Uncertainty Rating	Moat Rating	Price / Fair Value	Market Cap (B)	Analyst
Basic Materials								
Cameco (CCJ)	****	\$17	\$10.33	High	Narrow	0.61	4.12	Inton
Compass Minerals International (CMP)	***	\$83	\$65.4	High	Wide	0.79	2.21	Goldstein
Martin Marietta Materials (MLM)	***	\$265	\$222.87	High	Narrow	0.84	14.03	Inton
Communication Services								
BT Group (BT.A)	****	GBX 360	GBX 204.9	High	Narrow	0.57	20.33	C. Nichols
China Mobile (941)	****	HKD 102	HKD 70.55	Medium	Narrow	0.69	1444.55	Baker
Telefonica (TEF)	****	\$13	\$7.62	High	Narrow	0.59	39.59	C. Nichols
Telstra (TLS)	****	AUD 4.4	AUD 2.78	Medium	Narrow	0.63	33.06	Han
Consumer Cyclical								
Advance Auto Parts (AAP)	***	\$157	\$128.62	Medium	Narrow	0.82	9.52	Akbari
Bayerische Motoren Werke (BMW)	***	EUR 117	EUR 85.38	High	Narrow	0.73	55.57	Hilgert
Domino's Pizza Enterprises (DMP)	***	AUD 53	AUD 52.41	Medium	Narrow	0.99	4.59	Faul
Expedia (EXPE)	***	\$180	\$121.03	High	Narrow	0.67	18.17	Wasiolek
General Motors (GM)	***	\$56	\$42.7	High	None	0.76	60.18	Whiston
Great Wall Motor (2333)	****	HKD 13.5	HKD 7.72	High	None	0.57	104.46	Hu
Hanesbrands (HBI)	****	\$29	\$18.23	Medium	Narrow	0.63	6.57	Hottovy
InvoCare (IVC)	***	AUD 15.5	AUD 13.33	Medium	Wide	0.86	1.47	Ragonese
Mattel (MAT)	***	\$21.5	\$15.52	High	Narrow	0.72	5.34	Katz
Walt Disney (DIS)	***	\$130	\$99.47	Medium	Wide	0.77	147.89	Macker
Williams-Sonoma (WSM)	***	\$68	\$55.37	Medium	Narrow	0.81	4.61	Katz
WPP (WPP)	***	GBX 1500	GBX 1232.5	Medium	Narrow	0.82	15.57	Mogharabi
Consumer Defensive								
G8 Education (GEM)	***	AUD 4	AUD 2.44	High	None	0.61	1.11	James
General Mills (GIS)	****	\$59	\$42.29	Low	Wide	0.72	24.11	Vora
Imperial Brands (IMB)	****	GBX 3900	GBX 2710	Low	Wide	0.69	25.85	Gorham
Kao (4452)	***	JPY 8800	JPY 8190	Low	Wide	0.93	4042.88	Wei
Mondelez International (MDLZ)	***	\$51	\$39.27	Medium	Wide	0.77	57.93	Lash
PepsiCo (PEP)	***	\$123	\$100.25	Low	Wide	0.82	142.14	Vora
Procter & Gamble (PG)	****	\$98	\$73.17	Low	Wide	0.75	183.99	Lash
Reckitt Benckiser Group (RB.)	****	GBX 7300	GBX 5761	Low	Wide	0.79	40.59	Gorham
Energy		*04	440.00			0.05	10.01	0 1
Cenovus Energy (CVE)	***	\$21	\$13.68	Very High	None	0.65	16.81	Gemino
Enbridge (ENB)	****	\$64	\$40.29	Medium	Wide	0.63	68.68	Gemino
Enterprise Products Partners (EPD)	***	\$31	\$28.9	Low	Wide	0.93	62.79	Ellis
Royal Dutch Shell (RDS.B)	***	\$78	\$72.33	Low	None	0.93	301.71	Good
Total (TOT)	***	\$74	\$60.65	Medium	None	0.82	158.97	Good
Financial Services		φ 7 0	ΦΕΩ 70	Mark	Ni	0.00	47.00	11
American International Group (AIG)	***	\$76	\$52.79	Medium	None	0.69	47.39	Horn
Capital One Financial (COF)	***	\$126	\$94	Medium	Narrow	0.75	45.72	Plunkett
Credit Suisse Group (CSGN)	***	CHF 22	CHF 15.39	High	Narrow	0.70	39.10	Scholtz
Invesco (IVZ)	***	\$40	\$27.32	Medium	Narrow	0.68	11.22	Warren
Mitsubishi UFJ Financial Group (8306)	***	JPY 880	JPY 666.2	Medium	None	0.76	8769.08	Wu
QBE Insurance Group (QBE)	***	AUD 13	AUD 9.4	High	Narrow	0.72	12.75	Ellis
Westpac Banking (WBC)	***	AUD 35	AUD 27.74	Medium	Wide	0.79	93.93	Ellis

Source: Morningstar. As of June 1, 2018

Best Ideas

Interactive web-based models are available for our Best Ideas at Trefis.

Company and Industry	Morningstar Rating	Fair Value Estimate	Current Price	Uncertainty Rating	Moat Rating	Price / Fair Value	Market Cap (B)	Analyst
Healthcare								
Allergan (AGN)	****	\$263	\$150.8	Medium	Wide	0.57	51.13	Waterhouse
McKesson (MCK)	****	\$210	\$141.94	Medium	Wide	0.68	28.68	Lekraj
Medtronic (MDT)	****	\$105	\$86.32	Medium	Wide	0.82	116.90	Wang
Ramsay Health Care (RHC)	****	AUD 82	AUD 61.24	Medium	Narrow	0.75	12.38	Kallos
Roche Holding (ROG)	****	CHF 325	CHF 215.95	Low	Wide	0.66	184.94	Andersen
Shire (SHP)	****	GBX 4890	GBX 4100	Medium	Narrow	0.84	37.47	Andersen
Industrials								
Allegion (ALLE)	****	\$91	\$76.43	Medium	Wide	0.84	7.26	Bernard
Anixter International (AXE)	****	\$107	\$61.25	Medium	Narrow	0.57	2.05	Bernard
Beijing Enterprises Holdings (392)	****	HKD 58	HKD 43.1	Medium	Narrow	0.74	54.39	Song
Brambles (BXB)	****	AUD 11.2	AUD 9.05	Medium	Wide	0.81	14.40	Fleck
CK Hutchison Holdings (1)	****	HKD 124	HKD 88.75	Medium	None	0.72	342.37	Tan
G4S (GFS)	****	GBX 337	GBX 269.9	Medium	None	0.80	4.19	Field
GEA Group (G1A)	****	EUR 47	EUR 31.5	Medium	Wide	0.67	5.69	Molina
Grupo Aeroportuario del Pacifico (GAP B)	****	MXN 225	MXN 169.94	High	Wide	0.76	95.34	Higgins
Guangshen Railway (525)	****	HKD 6.8	HKD 4.54	High	None	0.67	37.17	Song
Johnson Controls International (JCI)	****	\$53	\$33.56	High	Narrow	0.63	31.08	Bernard
KION GROUP (KGX)	****	EUR 86	EUR 69.54	Medium	Narrow	0.81	8.20	Molina
Royal Philips (PHIA)	****	EUR 42	EUR 35.02	Medium	Narrow	0.83	32.04	Vonk
Sodexo (SW)	****	EUR 110	EUR 83.02	Medium	Narrow	0.75	12.31	Field
Stericycle (SRCL)	****	\$86	\$63.5	High	Narrow	0.74	5.43	Young
Real Estate								
AVEO Group (AOG)	****	AUD 3.1	AUD 2.55	Medium	None	0.82	1.48	Sherlock
Sun Hung Kai Properties (16)	****	HKD 153	HKD 125.8	Medium	Narrow	0.82	364.44	Zhong
Welltower (WELL)	****	\$74	\$57.65	High	None	NA	21.44	Brown
Technology								
Intel (INTC)	****	\$62	\$55.2	Medium	Wide	0.89	257.23	Davuluri
KLA-Tencor (KLAC)	***	\$125	\$113.23	High	Wide	0.91	17.65	Davuluri
Microchip Technology (MCHP)	****	\$112	\$97.38	Medium	Wide	0.87	22.89	Colello
Microsoft (MSFT)	****	\$122	\$98.84	Medium	Wide	0.81	759.41	Nelson
MYOB Group (MYO)	****	AUD 3.82	AUD 2.87	Medium	Narrow	0.75	1.72	James
Qualcomm (QCOM)	****	\$75	\$58.12	High	Narrow	0.77	86.18	Davuluri
Salesforce.com (CRM)	****	\$158	\$129.33	Medium	Wide	0.82	96.08	Nelson
Synaptics (SYNA)	****	\$64	\$42.04	Very High	None	0.66	1.46	Davuluri
TDK (6762)	***	JPY 11500	JPY 9940	High	None	0.86	1254.43	Ito
Tencent Holdings (700)	****	HKD 641	HKD 404	High	Wide	0.63	3839.29	Tam
Utilities								
Dominion Energy (D)	****	\$84	\$64.19	Low	Wide	0.76	41.89	Fishman
FirstEnergy (FE)	***	\$40	\$34.42	Low	Narrow	0.86	16.42	Fishman
Gas Natural SDG (GAS)	***	EUR 23.5	EUR 20.96	Medium	Narrow	0.89	20.96	Fulop
SCANA (SCG)	****	\$57	\$36.3	Medium	Narrow	0.64	5.18	Miller

Source: Morningstar. As of June 1, 2018

Highlighted Stocks

Allegion ALLE

Morningstar				Fair Value	Current Uncertainty		Price/Fair	Market
Rating	Industry	Moat Trend	Currency	Estimate	Price Rating	Moat Rating	Value	Cap (Bil)
****	Industrials	Stable	USD	91	77.89 Medium	Wide	0.86	7.26

Source: Morningstar. As of June 1, 2018

Despite rivalry from formidable competitors, Allegion has consistently capitalized on its brand equity, strong distribution network, and large installed base.

Select Report, June 1, 2018

Allegion is a global security products company that primarily sells mechanical and electronic locks and access control systems, doors, and door frames and hardware. Schlage (locks and access control), Von Duprin (door exit devices), and LCN (door closers and controls) are three of the firm's most well-known brands.

Allegion's strong positioning in the Americas, which represents 73% of sales and 89% of operating income, has been the main driver of the firm's consistent and industry-leading profitability. Allegion's strong operating margins have been remarkably stable throughout the business cycle. In fact, operating margins improved during the 2008-09 global recession, a testament to the firm's market presence and pricing power. Despite rivalry from formidable competitors, Allegion has consistently capitalized on its brand equity, strong distribution network, and large installed base to drive returns on invested capital that are well above its cost of capital. As such, we believe Allegion has a wide economic moat, supported by intangible assets and customer switching costs.

In the coming years, we expect Allegion to capitalize on growing commercial retrofit and upgrade spending that is fueled by rising security concerns and the convergence of electronic and mechanical security solutions. The firm should also benefit from strong U.S. residential construction activity and strategic acquisitions. Already-strong operating margins should benefit from a mix shift to electronic products, operating leverage on increased volumes, and improved foreign segment profitability as those businesses mature and gain scale.

Allegion's shares currently trade at about a 15% discount to our \$91 per share fair value estimate, which we think is an attractive entry point for investors who would like to own this high-quality, wide-moat security products company that boasts a strong North American market share.

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Lenovo Group 00992:HK

Morningstar				Fair Value	Current Uncertainty		Price/Fair	Market
Rating	Industry	Moat Trend	Currency	Estimate	Price Rating	Moat Rating	Value	Cap (Bil)
****	Technology	Negative	HKD	5.20	4.16 Very High	None	0.80	49.98

Source: Morningstar. As of June 1, 2018

Although the mobile business remained in difficulties, the demand in Latin American and North American markets were quite encouraging, with shipments up 40% and 57% year on year for the full year, respectively.

Analyst Note, May 25, 2018

No-moat Lenovo's fiscal fourth-quarter results (quarter ended March 2018) were ahead of the market's and our expectations, with revenue and operating profit up 11% and 36% year on year, respectively. Thanks to management's efforts on organization restructuring and effective cost reduction, all of the three key businesses saw improved profitability, with pretax margin for the personal computer and smart devices, data center, and mobile businesses up 0.7, 10, and 1.8 percentage points from the prior year, respectively. We think the firm's transformation strategies have started to bear fruit and will continue to improve its operating performance on both the top and bottom lines. Still, we remain cautious from the longer-term perspective, as we expect that the data center and mobile businesses still need more than two years to turn profitable, given the nature of the highly competitive environments in which they operate.

We reiterate our HKD 5.20 fair value estimate and maintain our no-moat and negative trend ratings as we roll over our model. We anticipate the firm's revenue and operating income to grow at CAGRs of 3% and 12%, respectively, over fiscal 2019-23, with gross margin and operating margin averaging at 14.1% and 1.1%, respectively. We think the shares are attractive at current levels, trading at a 20% discount to our fair value estimate.

On the revenue front, fourth-quarter sales increased 11% from the year-ago quarter to \$10.6 billion, beating the \$9.8 billion consensus and our \$8.6 billion forecast. This upbeat top-line performance was mainly boosted by strong 16% sales growth from the PCSD business, accounting for 73% of total sales. We saw the sales growth drivers coming from the commercial demand and premium personal devices, such as gaming PCs. Meanwhile, the previous transformation investments have effectively worked well, as the sales from the data center business grew a notable 44% year on year, the fastest growth rate since the System x acquisition, particularly the hyperscale business, which has now achieved design wins with six out of the top 10 largest hyperscale customers in the world. Although the mobile business remained in difficulties, the demand in Latin American and North American markets were quite encouraging, with shipments up 40% and 57% year on year for the full year, respectively.

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Ctrip.com Inte	rnational	CTRP
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Morningstar				Fair Value	Current Uncertainty		Price/Fair	Market
Rating	Industry	Moat Trend	Currency	Estimate	Price Rating	Moat Rating	Value	Cap (Bil)
***	Consumer	Stable	USD	57	45.08 High	Narrow	0.79	24.38

Source: Morningstar. As of June 1, 2018

We believe the faster-growing higher-margin international businesses and market consolidation will drive margin expansion in the long run.

Analyst Note, May 29, 2018

We believe Ctrip remains inexpensive for long-term investors seeking exposure to rising Chinese domestic and international travel demand. Our fair value estimate for narrow-moat Ctrip is \$57 per ADR, which implies a 2018 adjusted price/earnings multiple of 75 times on the back of 64% earnings per share growth in 2018 and 46% growth in 2019. Share price catalysts will include higher year-over-year growth later this year as comparisons become easier and faster-than-expected non-GAAP operating margin improvement. Management is guiding for 20%-30% non-GAAP operating margin in the next one to two years. We currently assume non-GAAP operating margin will reach 18% in 2018 and will not reach the 30% level until 2022-23.

We believe Ctrip has strengthened its leading position among Chinese online travel agencies following market consolidation, and the firm is the beneficiary of rising disposable income and demand for domestic and international travel. We forecast 13% compound annual revenue growth over the next 10 years. We are projecting 15% growth in accommodation reservations, 11% growth in transportation ticketing, 15% growth in package tours, and 11% growth in corporate travel.

We believe the faster-growing higher-margin international businesses and market consolidation will drive margin expansion in the long run. On average, international products are priced 2 times higher than domestic products. In addition, the take rate in the international business is 2 times higher than in the domestic business for an air ticket. The international take rate will increase as bargaining power against international hotels increases, which will in turn occur as Ctrip's international hotel business increases in volume.

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Research Methodology for Valuing Companies

Overview

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

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

Economic Moat Stewardship Financial Health Moat Trend Morningstar Fair Value Uncertainty Price Fair Value Morningstar Rating™ For Stocks ★★★★

Margin of Safety

Valuation

Source: Morningstar.

Fundamental Analysis

Morningstar Research Methodology

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.

Economic Moat

The concept of an economic moat plays a vital role not only in our qualitative assessment of a firm's long-term investment potential, but also in the actual calculation of our fair value estimates. An economic moat is a structural feature that allows a firm to sustain excess profits over a long period of time. We define economic profits as returns on invested capital (ROIC) over and above our estimate of a firm's cost of capital, or weighted average cost of capital (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 their cost of capital more quickly than companies with moats.

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

Estimated Fair Value

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

Our model is divided into three distinct stages:

Stage I: Explicit Forecast

In this stage, which can last 5 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 (EBI) and net new investment (NNI) to derive our annual free cash flow forecast.

Stage II: Fade

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

Stage III: Perpetuity

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

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

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.

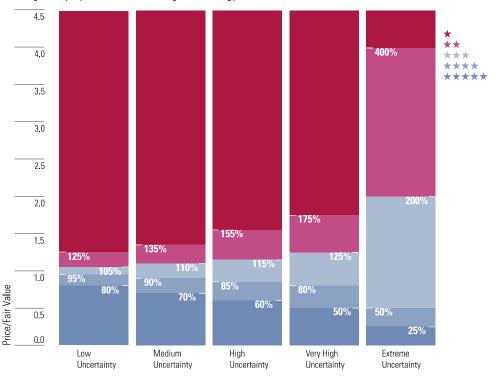
Analysts consider at least two scenarios in addition to their base case: a bull case and a bear case. Assumptions are chosen such that the analyst believes there is a 25% probability that the company will perform better than the bull case and a 25% probability that the company will perform worse than 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 regarding 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 a 25% premium.
- ▶ Medium: Margin of safety for 5-star rating is a 30% discount and for 1-star rating is a 35% premium.
- ► High: Margin of safety for 5-star rating is a 40% discount and for 1-star rating is a 55% premium.
- ▶ Very high: Margin of safety for 5-star rating is a 50% discount and for 1-star rating is a 75% premium.
- Extreme: Margin of safety for 5-star rating is a 75% discount and for 1-star rating is a 300% premium.





Market Price

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

For more details about our methodology, please go to http://global.morningstar.com/equitydisclosures.

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 recalculated at the market close on

every day the market on which the stock is listed is open. Our analysts keep close tabs on the companies they follow and, based on thorough and ongoing analysis, raise or lower their fair value estimates as warranted.

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

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

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

The Morningstar Star Ratings for stocks are defined below:

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

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