



June 16, 2017

Amazon goes food shopping

WFM deal reinforces commitment to food, Canadian grocers going digital

Bottom line

In our view, while the Amazon / Whole Foods tie up is intriguing, we do not believe it signals an imminent paradigm shift for the Canadian grocery space given WFM's tiny footprint in this country. However, it does reinforce the need for Canadian grocers to continue developing omni-channel, consumer convenience solutions.

We remain skeptical about potential near-term disruption of the Canadian landscape

This morning, AMZN announced it is acquiring Whole Foods Market in a transaction valued at US\$13.7 bn or approximately 10.5X WFM F18 (September) EBITDA. Deal valuation is largely consistent with/ only a tick higher than that of L at 9-9.5x and MRU at ~10x prior to the announcement. The acquisition confirms AMZN's commitment to food retail and home meal replacement, but we do not view that transaction as a game changer here in Canada given WFM's small footprint and relative demographics, PDI, population density and Canadian consumer shopping habits. **Whole Foods Market operates only 13 stores in Canada**, all located in BC and ON, and previously scrapped its store roll-out plan for AB. Management had at one time articulated a vision to bring WFM to all provinces for a total of ~40 stores over time, although actual roll-out has stalled. Even at 40 stores, WFM's presence would pale in comparison to the strong network of banners and formats in Canada, not the least of which is a very robust discount segment toward which the Canadian consumer continues to migrate. We remind investors of Loblaw's 1,100 food retail locations, MRU's 570 and EMP's 1,250+ stores.

Deal highlights the necessity for Canadian grocers to remain relevant with e-commerce offering and convenience solutions

Nonetheless, the transaction highlights the necessity for Canadian incumbents to remain focused on e-commerce/home delivery solutions as digital penetration will only continue to rise.

- Loblaw leads the pack with ~120 click-and-collect location across the country, driving bigger baskets and higher rates of customer loyalty, which is what ultimately drives the incremental sales required to reach economic viability.
- MRU has 3 stores covering most of the Montreal metropolitan market as part of a digital pilot within its conventional banner. MRU is offering both click-and-collect and home delivery, with early results indicating consumer preference for home delivery. The store-specific approach is similar to that of Loblaw as is the in-store execution, which is store employees doing the picking to ensure quality of basket/service.
- Empire is also in the arena, with its online offering estimated at approximately 1% of revenues.

Unique opportunity to hear first hand about Loblaw's digital strategy at the upcoming RBC Digital Conference

This latest development highlights the pace at which e-commerce is developing solutions and addressing demand for short shelf life consumer goods and consumer convenience. But we reiterate our view, that the Canadian landscape is far different than that of the US, from the perspective of geographic dispersion, population density, relative income level and weather. We remind investors of the **upcoming RBC Capital Markets Digital Conference: The Future of Digital: How Companies are Leveraging Technology to Improve Efficiency and Profitability** to be held in **Toronto on June 27**. In particular, the conference is an opportunity to hear first-hand from **Loblaw's Jeremy Pee, SVP Digital and e-commerce**.

RBCCM acted as financial advisor to Loblaw Companies Ltd. on a transaction that was announced on April 19, 2017. For more details, please refer to Required Conflicts Disclosures.

Disseminated: Jun 16, 2017 14:29ET; Produced: Jun 16, 2017 14:29ET
 Priced as of prior trading day's market close, EST (unless otherwise noted).
 All values in CAD unless otherwise noted.

For Required Non-U.S. Analyst and Conflicts Disclosures, see page 5.



AMZN's acquisition of WFM unlikely to alter the Canadian landscape NT

Digital remains a work-in-progress; Loblaw participating in upcoming conference

Digital and the evolution of technology are both an opportunity and a challenge for Canadian companies. Within the retail segment, Canada continues to lag the US in digital retail, but leading retailers are building their digital/omni-channel presence to ensure that they can satisfy the segment of the Canadian population that is attracted by the convenience aspect of digital shopping. **RBC Capital Markets is hosting a conference in Toronto on June 27** highlighting how a selection of companies are leveraging technology. In a timely bit of serendipity, **Jeremy Pee, SVP Digital and E-commerce at Loblaw Digital is participating** in the conference to provide insight into Loblaw's current status/future outlook in this important area (*details in Exhibit 2*).

Click to access Mark Mahaney's note on AMZN's acquisition of Whole Foods

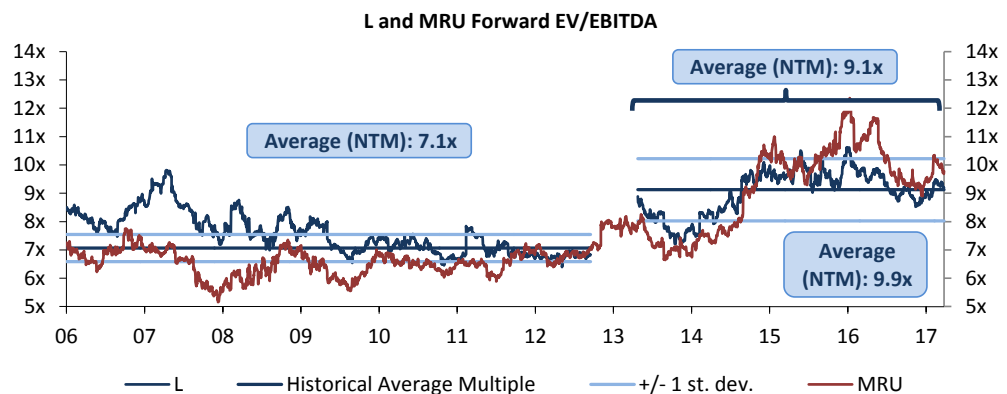


Loblaw remains our favorite name in the space

In our view, incumbent that remains the best positioned within the food retail landscape is **Loblaw**: i) L best positioned to capitalize on trend to **discount**: 60% of Loblaw's revenue generated by discount banners; ii) L has the highest exposure to **pharmacy**, with ~1,200 Shoppers location; and iii) L is the most advanced **with online shopping**: L has >120 click & collect locations and is gaining visibility on the path to profitability. With a \$200k investment to implement in existing stores, the feature is easily scalable across the network.

Attractive entry points for both L/MRU. We continue to recommend exposure to the consumer space be on situations with potential for upside earnings revision (incl. L) and predictability and sustainability of earnings progression (incl. MRU). In our view, today's share price reaction seems overdone, especially given the recent pullback in valuation, providing an attractive entry point for both names. L/MRU trade at ~8.8/9.7x NTM EBITDA, below 2015+ average of ~10x, and ~9x overall post SC announcement. Today's announcement has naturally given rise to questions around potential valuation implications for Canadian grocers. In our view, given WFM's minute footprint in Canada, today's announcement has minimal tangible implications, but should markets re-rate the sector, our analysis indicates price target sensitivity for each 1x EV/EBITDA multiple shift is \$10 for Loblaw (OP, target \$92) and \$5 for MRU (OP, target \$50).

Exhibit 1: Multiple contraction accelerated on today's news that AMZN is acquiring WFM



Source: S&P Capital IQ, RBC Capital Markets



Exhibit 2: Jeremy Pee, SVP Digital and E-Commerce at Loblaw participating in upcoming Digital Conference



Invitation

The Future of Digital: How Companies are Leveraging Technology to Improve Efficiency and Profitability

June 27, 2017

RBC Capital Markets is pleased to present the The Future of Digital: How Companies are Leveraging Technology to Improve Efficiency and Profitability.

Technology is rapidly evolving and may revolutionize an industry. Investors will hear from insightful speakers who will talk to what this means for the industry and how their company is leading the way. RBC Capital Markets analysts will lead the discussion in a fireside chat format.

Keynote Speakers:

- **Bruce Ross**, Group Head Technology & Operations, RBC
- **Cameron Clayton**, CEO & General Manager, The Weather Company (an IBM Business)

Date:
Tuesday, June 27, 2017

Time:
8:00am - 1:00pm

Location:
Royal Bank Plaza
200 Bay Street
South Tower, 40th Floor
Toronto, ON

RSVP:
[CLICK HERE to confirm your attendance](#)



The Future Of Digital: How Companies are Leveraging Technology To Improve Efficiency and Profitability

June 27, 2017

Royal Bank Plaza | 200 Bay Street | South Tower | 40th Floor | Toronto, ON

TIME *SUBJECT TO CHANGE*	COMPANY
7:30 AM – 8:00 AM	Conference Check-in & Breakfast
7:50 AM – 8:00 AM	Opening Remarks – RBC Capital Markets
8:00 AM – 8:30 AM	Intact Financial Corp. <i>Mathieu Lamy – Chief Information Officer</i>
8:35 AM – 9:05 AM	Sunlife Financial <i>Dean A. Connor – CEO</i>
9:10 AM – 9:40 AM	Power Financial <i>Adam Felesky – President & Managing Partner of PFC Ventures</i>
9:45 AM – 10:15 AM	Element Fleet Management Corp. <i>John Wall – Chief Technology Officer</i>
10:20 AM – 10:50 AM	Loblaw Companies <i>Jeremy Pee – SVP, Digital & e-Commerce</i>
10:55 AM – 11:25 AM	Barrick Gold Corporation <i>Michelle Ash – Chief Innovation Officer</i>
11:30 AM – 12:00 PM	The Weather Company (an IBM Business) <i>Cameron Clayton – CEO & General Manager</i>
12:00 PM – 12:15 PM	LUNCH SERVED
12:15 PM – 1:00 PM	Luncheon Keynote Presentation – Royal Bank of Canada <i>Bruce Ross – Group Head Technology & Operations</i>
1:00 PM	Event Concludes

Source: RBC Capital Markets



Exhibit 3: Loblaw (ex-CHP) trading at a discount to MRU, both trading at substantial premium to US grocers feeling the headwinds of both new hard discount competitors and digital disruption

	~12:15PM 15/06/2017	Net Debt/ 2017 EBITDA	EBITDA MARGIN			EPS			P/E			EV/EBITDA			EBITDA CAGR(1)	EPS CAGR
CONSUMER STAPLES			2016	2017E	2018E	2016	2017E	2018E	2016	2017E	2018E	2016	2017E	2018E	16-18E	16-18E
FOOD RETAIL																
Empire Company (Excluding Crombie REIT & Other Inv.)*	\$18.84	2.4x	3.2%	3.0%	3.7%				24.6x	35.5x	17.7x	7.9x	8.4x	6.9x	7.4%	17.9%
George Weston Limited (Excluding L and REIT interest)*	\$117.62	4.7x	13.1%	12.9%	13.8%							7.9x	7.8x	6.9x	7.2%	
Loblaw Companies (Excluding CHP) *	\$73.29	1.5x	7.1%	7.4%	7.7%				No retail-only P/E			9.4x	9.0x	8.6x	4.5%	
Metro Inc. (Ex ATD) *	\$43.08	1.7x	7.3%	7.6%	7.8%				17.3x	15.4x	14.5x	10.4x	9.8x	9.6x	4.2%	9.3%
Average (L/MRU)		1.6x	7.2%	7.5%	7.7%							9.9x	9.4x	9.1x	4.4%	9.3%
International																
SUPERVALU INC.	\$3.76	2.5x	3.9%	3.4%	3.3%	\$0.09	\$0.34	\$0.34	43.3x	10.9x	11.1x	4.5x	4.7x	4.8x	-3.0%	97.4%
The Kroger Co.	\$24.56	2.3x	5.1%	4.8%	5.0%	\$2.05	\$1.98	\$2.21	12.0x	12.4x	11.1x	6.1x	6.1x	5.8x	2.6%	3.9%
Natural Grocers by Vitamin Cottage, Inc.	\$8.97	1.1x	6.5%	6.4%	6.4%	\$0.51	\$0.45	\$0.48	17.6x	19.9x	18.6x	5.6x	5.2x	4.8x	8.0%	-2.7%
Smart & Final Stores, Inc.	\$11.20	3.4x	3.1%	4.0%	4.2%	\$0.17	\$0.50	\$0.61	NMF	22.6x	18.3x	10.9x	7.9x	6.9x	25.4%	89.9%
Sprouts Famers Market, Inc.	\$22.42	1.3x	7.3%	6.7%		\$0.83	\$0.91	\$1.03	27.0x	24.7x		11.8x	11.3x		9.2%	11.5%
United Natural Foods, Inc.	\$39.75	1.4x	3.6%	3.5%	3.4%	\$2.50	\$2.55	\$2.69	15.9x	15.6x	14.8x	8.1x	7.7x	7.3x	4.9%	3.7%
Whole Foods Market	\$33.06	0.1x	8.7%	7.9%	8.0%	\$1.55	\$1.31	\$1.38	21.3x	25.3x	24.0x	7.8x	8.5x	8.2x		
GENERAL MERCHANDISE STORES & SUPERCENTRES WITH LARGE FOOD OPERATIONS																
Walmart	\$78.91	1.2x	6.8%	6.7%	6.6%	\$4.38	\$4.35	\$4.58	18.0x	18.1x	17.2x	8.6x	8.6x	8.4x	0.9%	2.3%
Costco	\$180.06	-0.3x	4.2%	4.2%	4.3%	\$5.33	\$5.76	\$6.42	33.8x	31.3x	28.1x	15.7x	14.4x	13.2x	9.2%	9.7%
Average		0.5x	5.5%	5.4%	5.5%				25.9x	24.7x	22.6x	12.1x	11.5x	10.8x	5.0%	6.0%
DRUG RETAIL																
The Jean Coutu Group *	\$21.70	-0.6x	10.2%	10.0%	10.1%	\$1.05	\$1.07	\$1.15	20.7x	20.3x	18.9x	12.5x	12.6x	12.2x	1.3%	4.7%
CVS Caremark	\$80.09	2.0x	7.4%	6.8%	6.8%	\$4.91	\$5.87	\$6.40	16.3x	13.6x	12.5x	8.2x	8.5x	8.1x	0.7%	14.1%
Walgreen	\$82.56	0.8x	6.8%	7.4%	7.2%	\$3.82	\$4.95	\$5.57	21.6x	16.7x	14.8x	12.2x	11.0x	9.1x	15.7%	20.8%
Rite Aid	\$2.95	6.7x	3.3%	3.2%	3.5%	\$0.00	(\$0.04)	\$0.03	NMF	NMF	NMF	9.3x	9.7x	8.7x	3.4%	0.0%
Average		2.2x	6.9%	6.9%	6.9%				19.6x	16.9x	15.4x	10.5x	10.4x	9.5x	5.3%	9.9%
BAKERY																
Flowers Foods	\$18.32	2.0x	11.3%			\$0.78						10.6x	10.4x	9.8x	4.3%	12.2%
Lance	\$36.67	3.8x	13.1%			\$0.45			NMF	33.0x	27.1x	17.0x	15.8x	14.3x	9.1%	73.3%
Grupo Bimbo, S.A.B. de C.V.	MXN 47.07	2.3x	12.2%			\$1.25			37.5x	25.1x	20.4x	9.6x	9.6x	8.8x	4.8%	35.6%
Average		2.7x	12.2%						37.5x	29.0x	23.8x	12.4x	11.9x	10.9x	6.1%	40.4%

* RBC Capital Markets estimates, all others from S&P Capital IQ

EMP's calendar year = Q3 TTM [Fiscal Year -1]. MRU's calendar year = Q1 TTM [Fiscal Year -1].

Estimates from Capital IQ except companies under coverage. Fiscal years ending before June 30 are shown in the previous year.

Source: RBC Capital Markets estimates (L, MRU, EMP, WN, PJC) and S&P Capital IQ (all others)



Companies mentioned

Amazon.com, Inc. (NASDAQ: AMZN; \$964.17; Outperform)

Whole Foods Market, Inc. (NASDAQ: WFM; \$33.06; Outperform)

Required disclosures

Non-U.S. analyst disclosure

Irene Nattel, Martin Gravel and Alex Carette (i) are not registered/qualified as research analysts with the NYSE and/or FINRA and (ii) may not be associated persons of the RBC Capital Markets, LLC and therefore may not be subject to FINRA Rule 2241 restrictions on communications with a subject company, public appearances and trading securities held by a research analyst account.

Conflicts disclosures

The analyst(s) responsible for preparing this research report received compensation that is based upon various factors, including total revenues of the member companies of RBC Capital Markets and its affiliates, a portion of which are or have been generated by investment banking activities of the member companies of RBC Capital Markets and its affiliates.

Please note that current conflicts disclosures may differ from those as of the publication date on, and as set forth in, this report. To access current conflicts disclosures, clients should refer to <https://www.rbccm.com/GLDisclosure/PublicWeb/DisclosureLookup.aspx?entityId=1> or send a request to RBC CM Research Publishing, P.O. Box 50, 200 Bay Street, Royal Bank Plaza, 29th Floor, South Tower, Toronto, Ontario M5J 2W7.

RBC Capital Markets, LLC makes a market in the securities of Amazon.com, Inc..

A member company of RBC Capital Markets or one of its affiliates received compensation for products or services other than investment banking services from Amazon.com, Inc. during the past 12 months. During this time, a member company of RBC Capital Markets or one of its affiliates provided non-securities services to Amazon.com, Inc..

RBC Capital Markets has provided Amazon.com, Inc. with non-securities services in the past 12 months.

A member company of RBC Capital Markets or one of its affiliates received compensation for investment banking services from Loblaw Companies Limited in the past 12 months.

RBC Dominion Securities Inc. makes a market in the securities of Loblaw Companies Limited.

RBC Capital Markets has provided Loblaw Companies Limited with investment banking services in the past 12 months.

On April 19, 2017, Loblaw Companies Limited ("Loblaw") and Brookfield Business Partners L.P. announced that they have entered into a definitive agreement whereby Brookfield Business Partners will acquire 100 per cent of Loblaw's gas station operations. The transaction provides for a purchase price of approximately C\$540 million. Completion of the transaction remains subject to customary closing conditions and is expected to occur in the third quarter of 2017. RBC Capital Markets is acting as financial advisor to Loblaw on this transaction.

RBC Capital Markets has provided Metro Inc. with non-securities services in the past 12 months.

Paule Gauthier, a member of the Board of Directors of Royal Bank of Canada, is a member of the Board of Directors of Metro Inc..

RBC Capital Markets, LLC makes a market in the securities of Whole Foods Market, Inc..

RBC Capital Markets has provided Whole Foods Market, Inc. with non-securities services in the past 12 months.

Explanation of RBC Capital Markets Equity rating system

An analyst's 'sector' is the universe of companies for which the analyst provides research coverage. Accordingly, the rating assigned to a particular stock represents solely the analyst's view of how that stock will perform over the next 12 months relative to the analyst's sector average. Although RBC Capital Markets' ratings of Top Pick (TP)/Outperform (O), Sector Perform (SP), and Underperform (U) most closely correspond to Buy, Hold/Neutral and Sell, respectively, the meanings are not the same because our ratings are determined on a relative basis.

Ratings

Top Pick (TP): Represents analyst's best idea in the sector; expected to provide significant absolute total return over 12 months with a favorable risk-reward ratio.

Outperform (O): Expected to materially outperform sector average over 12 months.



Sector Perform (SP): Returns expected to be in line with sector average over 12 months.

Underperform (U): Returns expected to be materially below sector average over 12 months.

Risk Rating

As of March 31, 2013, RBC Capital Markets suspends its Average and Above Average risk ratings. The **Speculative** risk rating reflects a security's lower level of financial or operating predictability, illiquid share trading volumes, high balance sheet leverage, or limited operating history that result in a higher expectation of financial and/or stock price volatility.

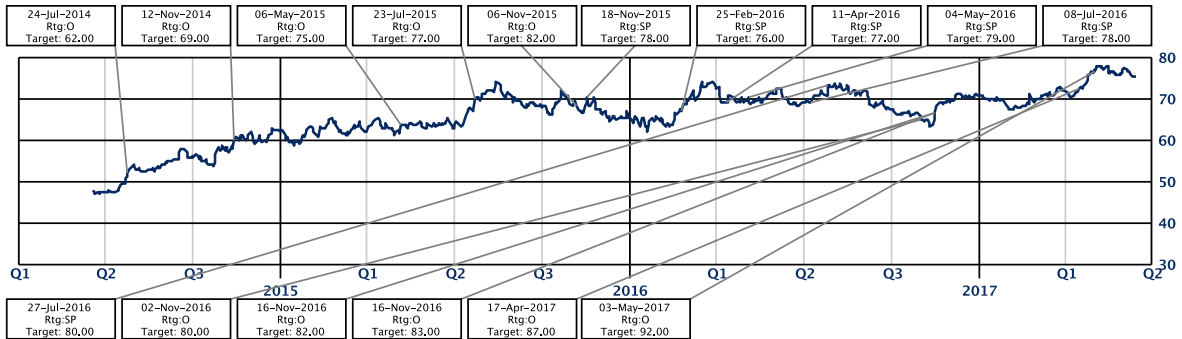
Distribution of ratings

For the purpose of ratings distributions, regulatory rules require member firms to assign ratings to one of three rating categories - Buy, Hold/Neutral, or Sell - regardless of a firm's own rating categories. Although RBC Capital Markets' ratings of Top Pick(TP)/ Outperform (O), Sector Perform (SP), and Underperform (U) most closely correspond to Buy, Hold/Neutral and Sell, respectively, the meanings are not the same because our ratings are determined on a relative basis (as described above).

Distribution of ratings				
RBC Capital Markets, Equity Research				
As of 31-Mar-2017				
Rating	Count	Percent	Investment Banking Serv./Past 12 Mos.	
			Count	Percent
BUY [Top Pick & Outperform]	843	51.94	285	33.81
HOLD [Sector Perform]	679	41.84	149	21.94
SELL [Underperform]	101	6.22	8	7.92



Rating and price target history for: Loblaw Companies Limited as of 15-Jun-2017 (in CAD)

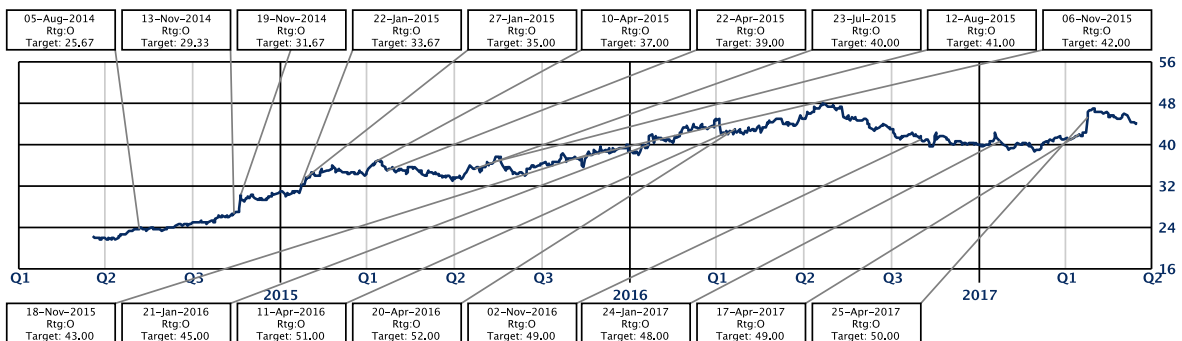


Legend:

TP: Top Pick; O: Outperform; SP: Sector Perform; U: Underperform; I: Initiation of Research Coverage; D: Discontinuation of Research Coverage; NR: Not Rated; NA: Not Available; RL: Recommended List - RL: On: Refers to date a security was placed on a recommended list, while RL Off: Refers to date a security was removed from a recommended list; Rtg: Rating.

Created by BlueMatrix

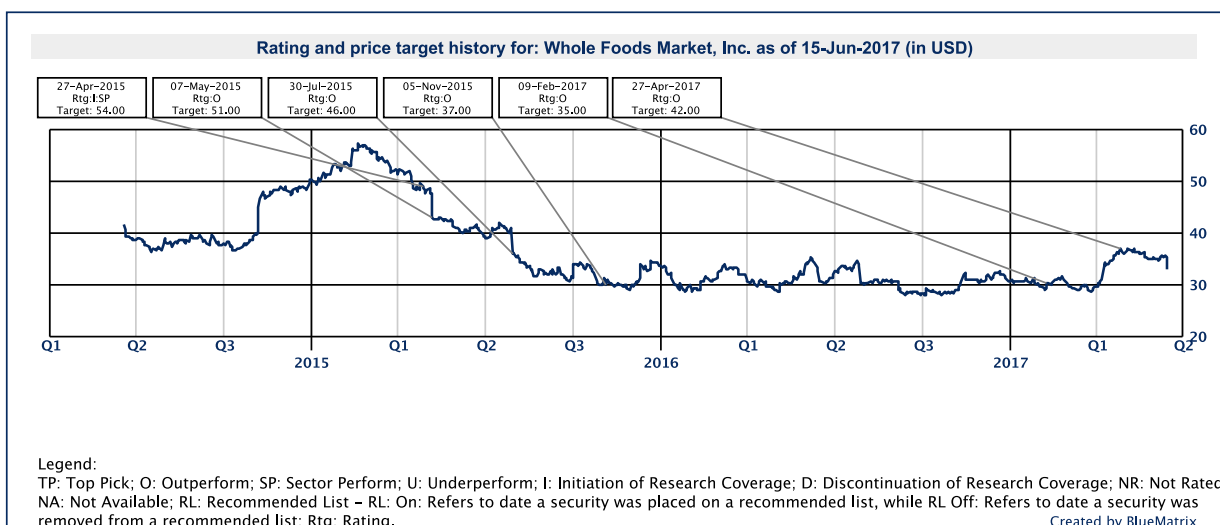
Rating and price target history for: Metro Inc. as of 15-Jun-2017 (in CAD)



Legend:

TP: Top Pick; O: Outperform; SP: Sector Perform; U: Underperform; I: Initiation of Research Coverage; D: Discontinuation of Research Coverage; NR: Not Rated; NA: Not Available; RL: Recommended List - RL: On: Refers to date a security was placed on a recommended list, while RL Off: Refers to date a security was removed from a recommended list; Rtg: Rating.

Created by BlueMatrix



References to a Recommended List in the recommendation history chart may include one or more recommended lists or model portfolios maintained by RBC Wealth Management or one of its affiliates. RBC Wealth Management recommended lists include the Guided Portfolio: Prime Income (RL 6), the Guided Portfolio: Dividend Growth (RL 8), and the Guided Portfolio: ADR (RL 10), and former lists called the Guided Portfolio: Large Cap (RL 7), the Guided Portfolio: Midcap 111 (RL 9), and the Guided Portfolio: Global Equity (U.S.) (RL 11). RBC Capital Markets recommended lists include the Strategy Focus List and the Fundamental Equity Weightings (FEW) portfolios. The abbreviation 'RL On' means the date a security was placed on a Recommended List. The abbreviation 'RL Off' means the date a security was removed from a Recommended List.

Equity valuation and risks

For valuation methods used to determine, and risks that may impede achievement of, price targets for covered companies, please see the most recent company-specific research report at <https://www.rbcinsight.com> or send a request to RBC Capital Markets Research Publishing, P.O. Box 50, 200 Bay Street, Royal Bank Plaza, 29th Floor, South Tower, Toronto, Ontario M5J 2W7.

Amazon.com, Inc.

Valuation

Our base case price target of \$1,100 is based on a blended average of EV/EBITDA (incl SBC), P/FCF, and GAAP P/E on our 2018 estimates. We apply a 25x multiple on estimated EBITDA of \$20B, 25x Multiple on 2018E FCF of \$25B, and 70x Multiple on 2018 GAAP EPS of \$11.84. Our price target is also supported by a Sum of the Parts analysis where we value Amazon's 3 segments separately. Our \$1,100 PT supports our Outperform rating.

Risks to rating and price target

- Increase in competitive intensity either from online competitors or online segments of traditional retailers.
- Additional gross margin pressure from rising oil prices, operating margin pressure from continued investments in technology, and potential for additional international expansion.
- Decrease in e-commerce activity by consumers.

Loblaw Companies Limited

Valuation

Our \$92 target is based on a sum-of-the-parts, EBITDA-based valuation methodology and supports our Outperform rating. Applying a 10x EBITDA multiple to forecasted Q2/2019E TTM adjusted EBITDA and taking the value of CHP at target of \$14.50, less a 20%



holding company discount, generates a price target of \$92. Multiple of 10x is a tick higher than the average long-term EV/EBITDA multiple for the consumer sector in Canada but a discount to the growth-oriented names in the space, consistent with Loblaw's current earnings growth outlook.

Risks to rating and price target

As Loblaw executes upon its renewal program, investment by management in pricing or other key expense factors or delays in realizing organizational realignment could have a negative impact on the company's earnings growth rate and share price going forward.

Metro Inc.

Valuation

Applying a 16x P/E multiple and a 10x EV/EBITDA multiple to Q2/F2019 TTM forecasts and adjusting for the estimated after-tax value of MRU's investment in ATD drives our price target of \$50. Our target supports our Outperform rating. The multiples are at the upper end of MRU's long-term average valuation band and reflect the company's earnings outlook, conservative capitalization, and long track record of sustained dividend increases.

Risks to rating and price target

Risks to our price target and rating include: i) potential acceleration in price competition in the Quebec and Ontario marketplaces; and ii) conversely, a more muted competitive environment could result in earnings growth and price target above forecast.

Whole Foods Market, Inc.

Valuation

Our base case scenario DCF valuation for Whole Foods produces a price target of \$42, or 32x our FY17E EPS of \$1.32 and ~11x our FY17 EBITDA estimate. We have assumed sustained ~7.5% revenue growth over 10 years, before applying a terminal growth rate of 3.5%. We have peak margins of ~5.5% and use a WACC of 7.8%. Both implied multiples are ~one standard deviation above historical averages. We believe this valuation supports our Outperform rating.

Risks to rating and price target

1. **New concept results in significant cannibalization of existing stores.** We believe the new concept should be used with limited geographic overlap. While likely to attract a different consumer, the new concept should also be appealing to legacy consumers. Heavy geographical overlap is a risk.
2. **Competitive pricing pressure intensifies.** Whole Foods is the leader in the Natural/Organic segment. The announcement of a new store concept could be met with competitive pricing responses. While a risk, we believe there is enough demand for this positioning to compensate for reduced margin.
3. **Brand value risk.** Whole Foods offers best-in-class in-store experience and customer amenities. The new concept, given its value proposition, will likely offer less.

Conflicts policy

RBC Capital Markets Policy for Managing Conflicts of Interest in Relation to Investment Research is available from us on request. To access our current policy, clients should refer to

<https://www.rbccm.com/global/file-414164.pdf>

or send a request to RBC Capital Markets Research Publishing, P.O. Box 50, 200 Bay Street, Royal Bank Plaza, 29th Floor, South Tower, Toronto, Ontario M5J 2W7. We reserve the right to amend or supplement this policy at any time.

Dissemination of research and short-term trade ideas

RBC Capital Markets endeavors to make all reasonable efforts to provide research simultaneously to all eligible clients, having regard to local time zones in overseas jurisdictions. RBC Capital Markets' equity research is posted to our proprietary website to ensure eligible clients receive coverage initiations and changes in ratings, targets and opinions in a timely manner. Additional



distribution may be done by the sales personnel via email, fax, or other electronic means, or regular mail. Clients may also receive our research via third party vendors. RBC Capital Markets also provides eligible clients with access to SPARC on the Firms proprietary INSIGHT website, via email and via third-party vendors. SPARC contains market color and commentary regarding subject companies on which the Firm currently provides equity research coverage. Research Analysts may, from time to time, include short-term trade ideas in research reports and / or in SPARC. A short-term trade idea offers a short-term view on how a security may trade, based on market and trading events, and the resulting trading opportunity that may be available. A short-term trade idea may differ from the price targets and recommendations in our published research reports reflecting the research analyst's views of the longer-term (one year) prospects of the subject company, as a result of the differing time horizons, methodologies and/or other factors. Thus, it is possible that a subject company's common equity that is considered a long-term 'Sector Perform' or even an 'Underperform' might present a short-term buying opportunity as a result of temporary selling pressure in the market; conversely, a subject company's common equity rated a long-term 'Outperform' could be considered susceptible to a short-term downward price correction. Short-term trade ideas are not ratings, nor are they part of any ratings system, and the firm generally does not intend, nor undertakes any obligation, to maintain or update short-term trade ideas. Short-term trade ideas may not be suitable for all investors and have not been tailored to individual investor circumstances and objectives, and investors should make their own independent decisions regarding any securities or strategies discussed herein. Please contact your investment advisor or institutional salesperson for more information regarding RBC Capital Markets' research.

For a list of all recommendations on the company that were disseminated during the prior 12-month period, please click on the following link: <https://rbcnew.bluematrix.com/sellside/MAR.action>

The 12 month history of SPARCs can be viewed at <https://www.rbcinsight.com/CM/Login>.

Analyst certification

All of the views expressed in this report accurately reflect the personal views of the responsible analyst(s) about any and all of the subject securities or issuers. No part of the compensation of the responsible analyst(s) named herein is, or will be, directly or indirectly, related to the specific recommendations or views expressed by the responsible analyst(s) in this report.

Third-party-disclaimers

The Global Industry Classification Standard ("GICS") was developed by and is the exclusive property and a service mark of MSCI Inc. ("MSCI") and Standard & Poor's Financial Services LLC ("S&P") and is licensed for use by RBC. Neither MSCI, S&P, nor any other party involved in making or compiling the GICS or any GICS classifications makes any express or implied warranties or representations with respect to such standard or classification (or the results to be obtained by the use thereof), and all such parties hereby expressly disclaim all warranties of originality, accuracy, completeness, merchantability and fitness for a particular purpose with respect to any of such standard or classification. Without limiting any of the foregoing, in no event shall MSCI, S&P, any of their affiliates or any third party involved in making or compiling the GICS or any GICS classifications have any liability for any direct, indirect, special, punitive, consequential or any other damages (including lost profits) even if notified of the possibility of such damages.

References herein to "LIBOR", "LIBO Rate", "L" or other LIBOR abbreviations means the London interbank offered rate as administered by ICE Benchmark Administration (or any other person that takes over the administration of such rate).

Disclaimer

RBC Capital Markets is the business name used by certain branches and subsidiaries of the Royal Bank of Canada, including RBC Dominion Securities Inc., RBC Capital Markets, LLC, RBC Europe Limited, Royal Bank of Canada, Hong Kong Branch and Royal Bank of Canada, Sydney Branch. The information contained in this report has been compiled by RBC Capital Markets from sources believed to be reliable, but no representation or warranty, express or implied, is made by Royal Bank of Canada, RBC Capital Markets, its affiliates or any other person as to its accuracy, completeness or correctness. All opinions and estimates contained in this report constitute RBC Capital Markets' judgement as of the date of this report, are subject to change without notice and are provided in good faith but without legal responsibility. Nothing in this report constitutes legal, accounting or tax advice or individually tailored investment advice. This material is prepared for general circulation to clients and has been prepared without regard to the individual financial circumstances and objectives of persons who receive it. The investments or services contained in this report may not be suitable for you and it is recommended that you consult an independent investment advisor if you are in doubt about the suitability of such investments or services. This report is not an offer to sell or a solicitation of an offer to buy any securities. Past performance is not a guide to future performance, future returns are not guaranteed, and a loss of original capital may occur. RBC Capital Markets research analyst compensation is based in part on the overall profitability of RBC Capital Markets, which includes profits attributable to investment banking revenues. Every province in Canada, state in the U.S., and most countries throughout the world have their own laws regulating the types of securities and other investment products which may be offered to their residents, as well as the process for doing so. As a result, the securities discussed in this report may not be eligible for sale in some jurisdictions. RBC Capital Markets may be restricted from publishing research reports, from time to time, due to regulatory restrictions and/ or internal compliance policies. If this is the case, the latest published research reports available to clients may not reflect recent material changes in the applicable industry and/or applicable subject companies. RBC Capital Markets research reports are current only as of the date set forth on the research reports. This report is not, and under no circumstances should be construed as, a solicitation to act as securities broker or dealer in any jurisdiction by any person or company that is not legally permitted to carry on the business of a securities broker or dealer in that jurisdiction. To the full extent permitted by law neither RBC Capital Markets nor any of its affiliates, nor any other person, accepts any liability whatsoever for any direct or consequential loss arising from any use of this report or the information contained herein. No matter contained in this document may be reproduced or copied by any means without the prior consent of RBC Capital Markets.

Additional information is available on request.



To U.S. Residents:

This publication has been approved by RBC Capital Markets, LLC (member FINRA, NYSE, SIPC), which is a U.S. registered broker-dealer and which accepts responsibility for this report and its dissemination in the United States. Any U.S. recipient of this report that is not a registered broker-dealer or a bank acting in a broker or dealer capacity and that wishes further information regarding, or to effect any transaction in, any of the securities discussed in this report, should contact and place orders with RBC Capital Markets, LLC.

To Canadian Residents:

This publication has been approved by RBC Dominion Securities Inc. (member IIROC). Any Canadian recipient of this report that is not a Designated Institution in Ontario, an Accredited Investor in British Columbia or Alberta or a Sophisticated Purchaser in Quebec (or similar permitted purchaser in any other province) and that wishes further information regarding, or to effect any transaction in, any of the securities discussed in this report should contact and place orders with RBC Dominion Securities Inc., which, without in any way limiting the foregoing, accepts responsibility for this report and its dissemination in Canada.

To U.K. Residents:

This publication has been approved by RBC Europe Limited ('RBCEL') which is authorized by the Prudential Regulation Authority and regulated by the Financial Conduct Authority ('FCA') and the Prudential Regulation Authority, in connection with its distribution in the United Kingdom. This material is not for general distribution in the United Kingdom to retail clients, as defined under the rules of the FCA. However, targeted distribution may be made to selected retail clients of RBC and its affiliates. RBCEL accepts responsibility for this report and its dissemination in the United Kingdom.

To German Residents:

This material is distributed in Germany by RBC Europe Limited, Frankfurt Branch which is regulated by the Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin).

To Persons Receiving This Advice in Australia:

This material has been distributed in Australia by Royal Bank of Canada - Sydney Branch (ABN 86 076 940 880, AFSL No. 246521). This material has been prepared for general circulation and does not take into account the objectives, financial situation or needs of any recipient. Accordingly, any recipient should, before acting on this material, consider the appropriateness of this material having regard to their objectives, financial situation and needs. If this material relates to the acquisition or possible acquisition of a particular financial product, a recipient in Australia should obtain any relevant disclosure document prepared in respect of that product and consider that document before making any decision about whether to acquire the product. This research report is not for retail investors as defined in section 761G of the Corporations Act.

To Hong Kong Residents:

This publication is distributed in Hong Kong by Royal Bank of Canada, Hong Kong Branch, which is regulated by the Hong Kong Monetary Authority and the Securities and Futures Commission ('SFC'), RBC Investment Services (Asia) Limited and RBC Investment Management (Asia) Limited, both entities are regulated by the SFC. Financial Services provided to Australia: Financial services may be provided in Australia in accordance with applicable law. Financial services provided by the Royal Bank of Canada, Hong Kong Branch are provided pursuant to the Royal Bank of Canada's Australian Financial Services Licence ('AFSL') (No. 246521.)

To Singapore Residents:

This publication is distributed in Singapore by the Royal Bank of Canada, Singapore Branch, a registered entity granted offshore bank licence by the Monetary Authority of Singapore. This material has been prepared for general circulation and does not take into account the objectives, financial situation, or needs of any recipient. You are advised to seek independent advice from a financial adviser before purchasing any product. If you do not obtain independent advice, you should consider whether the product is suitable for you. Past performance is not indicative of future performance. If you have any questions related to this publication, please contact the Royal Bank of Canada, Singapore Branch. Royal Bank of Canada, Singapore Branch accepts responsibility for this report and its dissemination in Singapore.

To Japanese Residents:

Unless otherwise exempted by Japanese law, this publication is distributed in Japan by or through RBC Capital Markets (Japan) Ltd. which is a Financial Instruments Firm registered with the Kanto Local Financial Bureau (Registered number 203) and a member of the Japan Securities Dealers Association ("JSDA").

® Registered trademark of Royal Bank of Canada. RBC Capital Markets is a trademark of Royal Bank of Canada. Used under license.

Copyright © RBC Capital Markets, LLC 2017 - Member SIPC

Copyright © RBC Dominion Securities Inc. 2017 - Member Canadian Investor Protection Fund

Copyright © RBC Europe Limited 2017

Copyright © Royal Bank of Canada 2017

All rights reserved