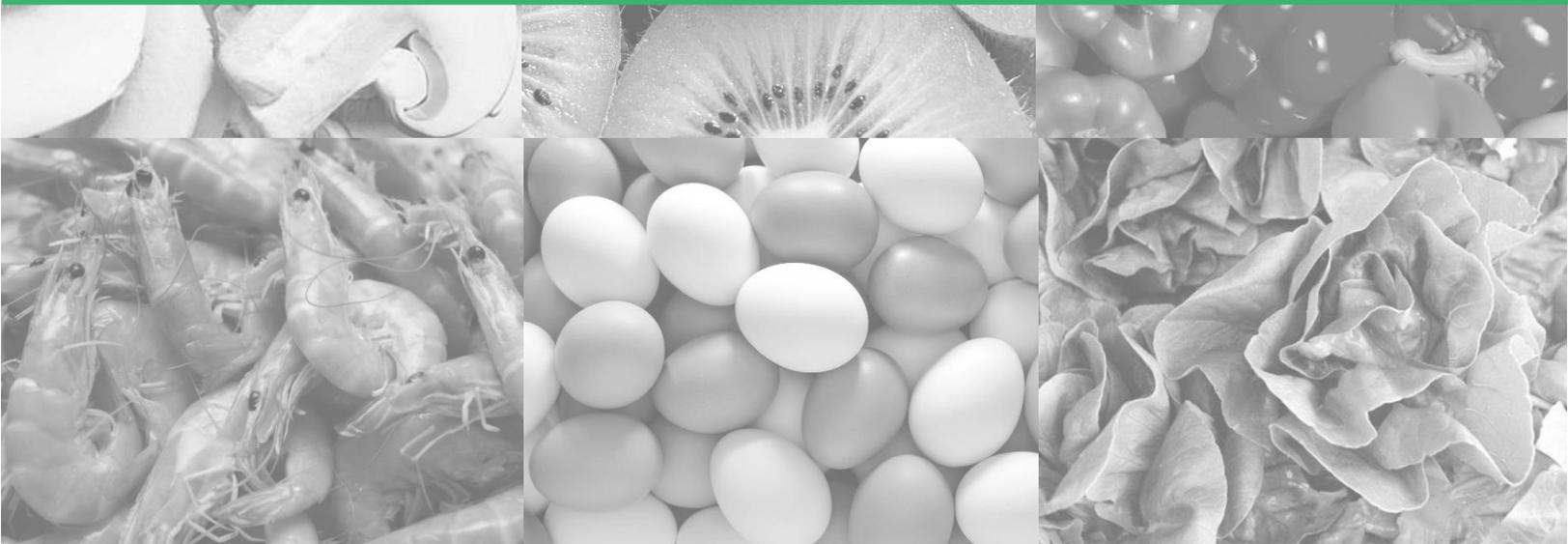# CANADA'S FOOD PRICE REPORT MID-YEAR UPDATE

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Authors and Advisors

Sylvain Charlebois (Lead Author)
Faculty of Management/Agriculture, Dalhousie University
sylvain.charlebois@dal.ca

Jabez Harris
Faculty of Computer Science, Dalhousie University
Jay.harris@dal.ca

Simon Somogyi
Faculty of Agriculture, Dalhousie University
Simon.somogyi@dal.ca

Sarah Chamberlain
Faculty of Management, Dalhousie University
Sarah.chamberlain@dal.ca

Katie Flanagan
Faculty of Management, Dalhousie University
Katie.Flanagan@dal.ca

Canada's Food Price Report 2017 was developed by a research team housed at Dalhousie University, led by the Faculty of Management. Drawing upon expertise from four different Faculties, the Food Price Report is a collaborative effort across multiple disciplines that looks at the economic future of food in Canada.

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Mid-Term Forecast

Canada's Food Price Report was published in December 2016 and suggested that food prices in Canada would increase by between 3% to 5% during 2017. Based on results so far, we remain comfortable with our initial forecast. Due to ongoing deflationary pressures earlier this year, we have slightly modified our initial forecast of food prices to rise **between 3% and 4%** by the end of this year.

FOOD CATEGORIES	ESTIMATED % CHANGE (DECEMBER 2016)	MID-YEAR REVIEW	ESTIMATED % CHANGE (YEAR-END 2017)
MEATS	4 - 6	+3	7 - 9
FISH AND SEAFOOD	4 - 6	-2	1 - 3
DAIRY AND EGGS	0 - 2	-2	(1 - 3)
BAKERY AND CEREALS	0 - 2	-2	(1 - 3)
FRUITS AND NUTS	3 - 5	0	3 - 5
VEGETABLES	4 - 6	-2	2 - 4
OTHER FOOD ITEMS	4 - 6	+3	1 - 3
RESTAURANTS	2 - 4	+1	1 - 3
OVERALL	**3 - 5**	**-0.75**	**3 - 4**

"The Consumer Price Index (CPI) was never meant to be perfect. However, this year, with food inflation, the CPI seems off, way off."

Is the CPI having a really bad year?

Most would accept that the Consumer Price Index (CPI) is not entirely accurate. Actually, given the complexity of assessing inflation, **the CPI was never meant to be perfect**. However, this year, with food inflation, the CPI seems inaccurate. According to recent reports, since January food inflation has run anywhere between 0.1% to 0.3% per month. But with several price spot-checks around the country, food inflation in Canada could in fact be much higher than what is being reported by Statistics Canada. CPI reports released since September 2016 suggest food prices have either dropped or have remained somewhat stable. Social media conversations suggest Canadians have barely noticed. Many have even become skeptical about what is being reported.

Back in January, Dalhousie University recorded prices of over 100 randomly selected food products from several stores that may not normally be captured by the CPI. **Meat products** are generally higher by **more than 11%** when compared to January prices. Striploin grilling steak, lean ground beef and pork sirloin chops roast are all much higher. In the **fruit and vegetable** section, in most stores, blueberries, lettuce, pears, and broccoli are more expensive by **more than 9%** compared to January. Several **grocery products** are also higher priced than at the beginning of the year. However, prices seem to have softened for both dairy and fish products. This non-scientific survey suggests food prices in grocery stores may have increased by more than 5% over the last 5 months or so, which is a sharp contrast to what is being reported.

FOOD CATEGORIES	CPI (APRIL 2016 – APRIL 2017)	DALHOUSIE UNIVERSITY NATIONAL SPOT-CHECKS (APPROXIMATIONS FROM JANUARY 2017 – MAY 2017)
MEATS	-2.1%	+11%
FISH AND SEAFOOD	3%	-4%
DAIRY AND EGGS	-1.5%	-9%
BAKERY AND CEREALS	-3.1%	+0.5%
FRUITS AND NUTS	-4.6%	+9%
VEGETABLES	-5.5%	+8%
OTHER FOOD ITEMS	-1.7%	+3.2%
RESTAURANTS	2.5%	Did not evaluate
OVERALL	**-1.1%**	**More than 5%**

These are obviously just approximations. The challenge is to understand why the CPI may not be close to capturing what's been happening in the Canadian market this year. For food, Statistics Canada has interviewers operating out of regional offices across Canada reading data points for food products. Production selection is based on brands and varieties which sell in the greatest volume, according to their website. It would be interesting to know how Statistics Canada knows which products sell the most in any given month. Secondly, the average grocery store today carries anywhere between 30,000 and 40,000 different food products. Different brands, sizes, formats, and choices are multiplying, which makes any form of price indexing a challenge. The paradox of choice has never been so predominant in the food business than it is now, which may skew results from Statistics Canada. Statistics Canada does not publish the sampling design in detail, so it's difficult to tell.

It is impossible to appreciate where and how their measurements may have gone wrong. Again, this quick survey does not tell us, with any great accuracy, the rate of food inflation since the beginning of the year. But we do know that it is much more than what Statistics Canada is leading Canadians to believe. However, there are exceptions. For instance, prices have not increased as much in **Alberta** or in **Winnipeg,** where more stores have opened in recent months.

If the CPI has indeed largely misinterpreted food inflation so far this year, pinpointing the cause is imperative. Assessing inflation is almost an art form. Nonetheless, Statistics Canada states that it reviews its methodology every now and then and does change its basket of food items every single year. Perhaps what is happening indicates that their methodology needs work. This also speaks to how poorly we understand and appreciate **the value of data and how it can influence policy**. If our food inflation rate does not accurately reflect what is happening in the marketplace, with an acceptable margin of error, it just does not serve our population well. In many parts of the country, food security is a challenge that can be handled.

In the end, Canadians deserve to know the real story behind food prices. Nobody is trying to mislead anyone, but food affordability is something most Canadians think about almost every day. Second guessing what may be happening to their grocery bill is not something we should accept.

Lettuce: This Year's Cauliflower

Lettuce spiked in April and May due to California's weather. California, which has been affected by a severe drought since 2013, received a lot of rain this winter. The excess moisture and pests this year have led to crop losses. Lower inventories, coupled with higher demand for greens in the Spring increased prices for lettuce, celery and other produce. **This phenomenon is not highly unusual**, but unlike cauliflower, price increases in produce were not due to a lower currency against the Greenback.

The Canadian Dollar

As expected, the Canadian Dollar has shown signs of weakness these past few months but has now bounced back somewhat. The Canadian dollar is hovering anywhere between 0.72 to 0.75 USD. Our currency is still putting pressure on food importers, but not as much as earlier in the year. The Canadian Dollar has risen in recent weeks because of robust economic data. The **Bank of Canada** may rise its benchmark rate, but may hold due to a higher Canadian Dollar. As such, general inflation may increase which will likely include food. Reversely, many produce prices may be affected if the Loonie fall resumes. We could also see some grocery items such as imports increase in price because of a lower loonie. The uncertainty generated by **real estate** sector in major metropolitan areas is also putting a lot of pressure on the loonie as well. Most still expect the loonie to lose ground against the American dollar by the end of the year, but that prognostic is much less certain.

> *" The Bank of Canada may rise its benchmark rate, but may hold due to a higher Canadian Dollar. As such, general inflation may increase which will likely include food."*

The Skippy Syndrome

We are noticing an increasing number of processed foreign products exiting the Canadian market. For a variety of reasons, some food multinationals have decided to withdraw certain brands from the Canadian market. U.S.-based Hormel Foods decided to discontinue the distribution of Skippy Peanut Butter. Mondelez International's Dad's chocolate chip cookies were discontinued a few days prior. This trend is likely to continue and could impact the level of competitiveness in the middle of the store. In other words, savings could prove more difficult in that section of the store in the future.

Due to more consolidation in food processing and higher listings fees, multinationals are becoming more strategic about how they support their portfolio of brands around the world. Given the economics of the Canadian market, **Canadians could see a reduced number of national brands** in the centre of the store where traffic is more scarce when compared to 10 years ago. Grocers are increasingly keen in promoting their own private labels which will add more pressure on vendors, unless a contract manufacturer is supporting a private label.

Meat Matters

Meat has been a non-story so far this year. Farmgate prices for cattle have gone up on average by 15% but have not affected beef retail prices, at least not yet. However, we have noticed that some cuts have increased in prices by as much as 20% since January. We do not expect **beef prices** to be affected until early 2018. It is slightly the same story for hog futures, but so far **pork prices** have not been affected. Unlike beef, we could see pork prices at retail rebound much sooner. Perhaps as soon as early Fall. Chicken is expected to remain steady for the remainder of the year.

The Trump Factor

The Trump administration has now completed almost five months, and little has changed. An executive order on immigration policies failed to garner enough political support. This would mean we don't expect to see the agrifood sector being affected. The American Administration opted to leave the **Trans-Pacific Partnerships** and has threatened to leave the North American Free Trade Agreement. Washington has given both of its trading partners, Mexico and Canada, 90 days to prepare for negotiations. This is affecting the Canadian Dollar, mostly, but not trades. There is a lot of uncertainty around **supply management** and what the Canadian government is willing to compromise during the next round of talks, particularly around our dairy sector. For price stability, it would be crucial to maintain a significant level of domestic production of milk, regardless how much change will affect the current regime.

Canada's Food Price Report 2017: Methodology

This year, Canada's Food Price Report employs a machine learning model for the first time, supported by the opinion of our expert panel. The forecast extends over eight food categories. The **machine learning** model utilized a combination of algorithms including multivariate linear regression and a support vector machine based method, SMOreg, to forecast the 2016 end of year prices as well as the 2017 end of year prices. Over twenty independent variables were identified as potential inputs but only those variables that achieved a high correlation with a price category were eventually added to the model. The variables included household income, immigrant income, income distribution, international aid, population, unemployment, commodity futures, fuel prices, crude oil prices, energy indexes, CDN exchange rate, U.S. overnight lending rates, global agricultural production, global rainfall, commodity prices and global temperatures.

To be considered, a potential input must have had a minimum of 15 years of reliable data from 1999 to 2016 and must have been available from a reputable data source. The mean absolute error, or each calculation, was used to determine which algorithms delivered the best prediction and the number of highly correlated inputs were used to determine the confidence level of the final predictions. The model then served as a guide for the advisors to apply their own insight and corrected any deficiencies found in the dataset used by the algorithm.

What was added for this mid-year report are **price spot-checks** across the country.

The 8th Canada's Food Price Report will be published in December 2017.