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Food Price Report **2015**

Rapport sur les Prix Alimentaires à la
Consommation 2015

UNIVERSITY OF GUELPH
ECONOMIC BRIEF

UNIVERSITÉ DE GUELPH
NOTE ÉCONOMIQUE

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Abstract / Résumé

University of Guelph's Food Institute presents the Food Price Report 2015 (FPR 2015). 2014 realised many of the predictions made. Some categories have continued to decline over time, including dairy and eggs. We note in our predictions in respect to meat, grains, and vegetables that prices will rise in the new year. This year, we predict food prices overall will increase modestly at 0.3% to 2.4%.

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Food Price Report **2014:** The **Year Prior's** Predictions

The University of Guelph Food Price Report 2014 projected food price increases between 0.3% to 2.6%, higher than inflation in general. We expected to see price increases in all food categories aside from dairy & eggs. We also predicted the prices for meats, grains, fruit, and nuts to be relatively stable in 2014. As well, we predicted an increase in price of fish due to increased pressure on fisheries to catch, and pressure from consumers and retailers for sustainable catch.

Overall, Canadian food prices in the last fiscal year rose 2.8%, with the greatest increases in meat and fish, 12.4% and 5.9% respectively. Table 1 shows the change in food prices over the past decade. Constrained supply in the market has caused additional upward pressures on beef and pork prices. Real cattle prices are at its highest since the early 1980s, and hog prices at its highest since the mid-1990s. This trend of soaring meat prices comes due to increase slaughter fees in cattle from 2012 (Honey, 2012) and more recent incidents in porcine diseases that reduced supply in global hog markets (Campbell & Chen, 2014). More

specifically, the coronavirus PED (porcine epidemic diarrhea) spread to vast populations of Canadian piglets, causing short-term hikes in pork prices throughout barbecue season. Canadians saw these hikes primarily in bacon (up 25%) ham (up 18%), and pork chops (up 18.2%). Although this may encourage vegetarianism among consumers, vegetable prices in 2014 may diminish those thoughts, as greens took an upward turn of 3.1%. Much of this was due to historically ravaging droughts California experienced in the last year, a main source of Canadian produce during the winter season (Mansfield, 2014).

Last year's report also predicted the major changes in the Canadian food retail space would have downward impacts on prices on dairy. Intensified competition arose with the introduction of Target and Dollarama whilst acquisitions of Shopper's Drug Mart and Canada Safeway, encouraged loss leadership on goods such as cheese, milk, and pasta to stimulate greater sales on other items in stores. As correctly forecasted, the CPI for dairy and eggs only saw a 0.6% increase in price in 2014.

Figure 1:
Change in **Food Prices** From **2004-2014**



Factors Affecting Retail Food Prices

The main drivers in three fundamental domains are expected to influence retail food prices in 2015. Table 1 outlines the impact, effect, and likelihood of these drivers on prices in our food price forecast for the upcoming fiscal year.

Table 1: Fundamental Drivers of Canadian Retail Food Prices

| | Drivers | Impacts | Price Effects | Likelihood |
|-----------------|--|--------------------------|----------------------|---------------|
| Macro | Weather | Increasing Significantly | Variable | Likely |
| | Geopolitical Risk | Moderate | Upward | Unlikely |
| | Input Costs | Significant | Slightly Downward | Likely |
| | Energy Costs | Moderate | Downward | Likely |
| | Currencies & Trade Environment | Very Significant | Upward | Very Unlikely |
| Sector | Food Retail & Distribution Landscape | Moderate | Slightly Downward | Likely |
| | Food Processing Industry | Slightly Moderate | Downward | Likely |
| | Policy Context | Moderate | Moderating | Unlikely |
| | Consumer Awareness | Significant & Growing | Increased Dispersion | Likely |
| Domestic | Consumer Debt & Deleveraging | Slightly Moderate | Slightly Downward | Unlikely |
| | Inflation | Minimal | Negligible | Likely |
| | Consumer Income & Income Distribution | Moderate | Slightly Downward | Likely |

Macro Drivers

Changes in weather and climate are expected to have significant implications for food markets in the long term. As droughts have been increasing in recent years, the impact of climate conditions and catastrophic weather events increasingly creates upward pressures on food prices. Such impacts pose significant challenges in global agriculture, posing threats to the Canadian wallet. A significant proportion of Canadian food is imported, and events as the droughts in California and Brazil affect domestic retail prices of imported fruit and coffee, respectively. Conversely, dry weather in southeast Asia has increased prices for cooking oils, such as palm oil (Indonesia Investments, 2014). Despite weather as a strong upward driver of food price, forecasting short-term impacts for 2015 is extremely difficult.

Geopolitical risk may affect food prices through economic instability in South America and Eastern Europe and Russia (Sonne & Troianovski, 2014). However, the structure of the Canadian food sector limits the impact of these events, and this risk will affect prices only moderately at the consumer level. Input costs and energy costs may drop due to evident declines in oil prices, with negative pressures on food prices (Baumeister & Kilian, 2013). Figure 2 shows the change in oil prices from 2009 to 2014.

Figure 2:
Crude Oil Prices (USD) From **2009 to 2014**



The end of the American-Canadian dollar parity occurred during 2014, with the Canadian dollar currently trading below 90 cents on the greenback toward year-end. These effects will continue to have upward pressure on produce prices on the horizon since produce import levels tend to increase in the winter and spring.

Sector & Domestic Drivers

The food retail and distribution landscape in 2014 saw significant change, with the major retail acquisitions of Shopper's Drug Mart and Canada Safeway by Loblaw's and Sobeys, respectively (Holloway, 2014). Financially, most food distributors performed surprisingly well despite dealing with the effects of a mature market. We did witness some interesting acquisitions this year in processing with dairy giant Agropur purchasing plants owned by Daisco Foods and Sobeys. Metro, Canada's no. 3 food retailer, vertically integrated by purchasing Moisson Montréal. The dynamism seen in the 2014 food retail landscape will stabilise in 2015, with Loblaw's and Sobeys recalibrating resources around their newest acquisitions. The significant consolidations that occurred will limit the opportunity to consolidate further in the coming year, but may see more of it in food processing. Retail grocery inflation has led Walmart to re-establish itself in the domestic market to compete with local retailers. Trends in Walmart Supercentre show grocery prices are rising (Shaw, 2014), disturbing its price leader status in the country for consumer goods. The sustained competition in the market will moderate prices across major retailers. Smaller stores and the emerging discounter stores are becoming viable options for consumers, with the launch of Loblaw's Box in Windsor and Calgary as a smaller alternative to No Frills (Stang, 2014). This may be in response to impending moves by German owned Aldi Sud, already gaining traction in retail markets south of the border.

The Canadian policy environment influences a wide array of food-related issues, from supply chain management to country-of-origin labelling (COOL). The election year will moderate many of these effects present in the market. CFIA's introduction of its food labelling modernisation initiatives (Canadian Food Inspection Agency, 2014) will encourage food producers to state clearer nutritional and quantity information to consumers, but we expect this to alter purchasing behaviours on the horizon.

Consumer food awareness continues to diversify purchase behaviours and increasingly affects price levels and dispersion in the coming years. Shopping at farmer's markets is at a record high in Canada and is evidence an increasing breadth of retail options for consumers. Alternative retail options like farmer's markets, convenience stores, and online retailers are increasing wallet-share of the Canadian shopper, who traditionally heavily favoured suburban big box stores. This growth has been apparent in urban centres, where pop-up farmer's markets and convenience stores are becoming more viable food retail options (Langford, 2014). Skeptics of online food shopping may be surprised to learn 18% of Canadians have ordered food, beverages, or groceries online in 2013 (Canadian Press, 2013). This distribution segment is continuing to grow as evidenced by announcements such as Loblaw's' click-and collect service (Sturgeon, 2014) who will not be joining the Canadian food e-tail pioneers Walmart and Amazon (Friend, 2013). Pressures from consumers are forcing retailers to promote specialty items, and compete on product offerings as well as prices.

Domestic drivers of consumer debt, deleveraging, and income continues to have moderate and slightly downward pressures on retail food prices. 2014 saw high consumer debt that will persist in the new year (LaSalle, 2014). This will have little impact on food price affordability, as less than 10% of the Canadian household budget is spent on food on average in Canada (Charlebois, 2014). Likewise, there is little space for an increase in consumer wages and income, as the domestic economy continues to tighten up. However, strength of Canadian economies and wages range provincially. Correlation between food price inflation and job availability evidences the province-to-province variance in consumer prices, with higher food prices more apparent in economically burgeoning centres.

Food Price Report

2015 Forecast

Method

This study employs ARIMA and (when appropriate) SARIMA models (Joutz, 1997), supplemented by the authors' expert opinions to determine forecasts. ARIMA models tend to render favourable forecasts in this context due to their validity in short-term forecasting and are the preferred model among many researchers when forecasting inflation (Joutz, 1997; Shukla & Jharkharia, 2011; Stoviček, 2007). The Box-and-Jenkins approach is used for model identification, using subjective assessments of autocorrelogram and partial autocorrelogram plots for the series. Box-Jenkins is supplemented with the Akaike and Bayesian information criteria to determine in-sample model fit, and by indicators such as the MAE and RMFSE to determine out-of-sample forecasting ability for past years.

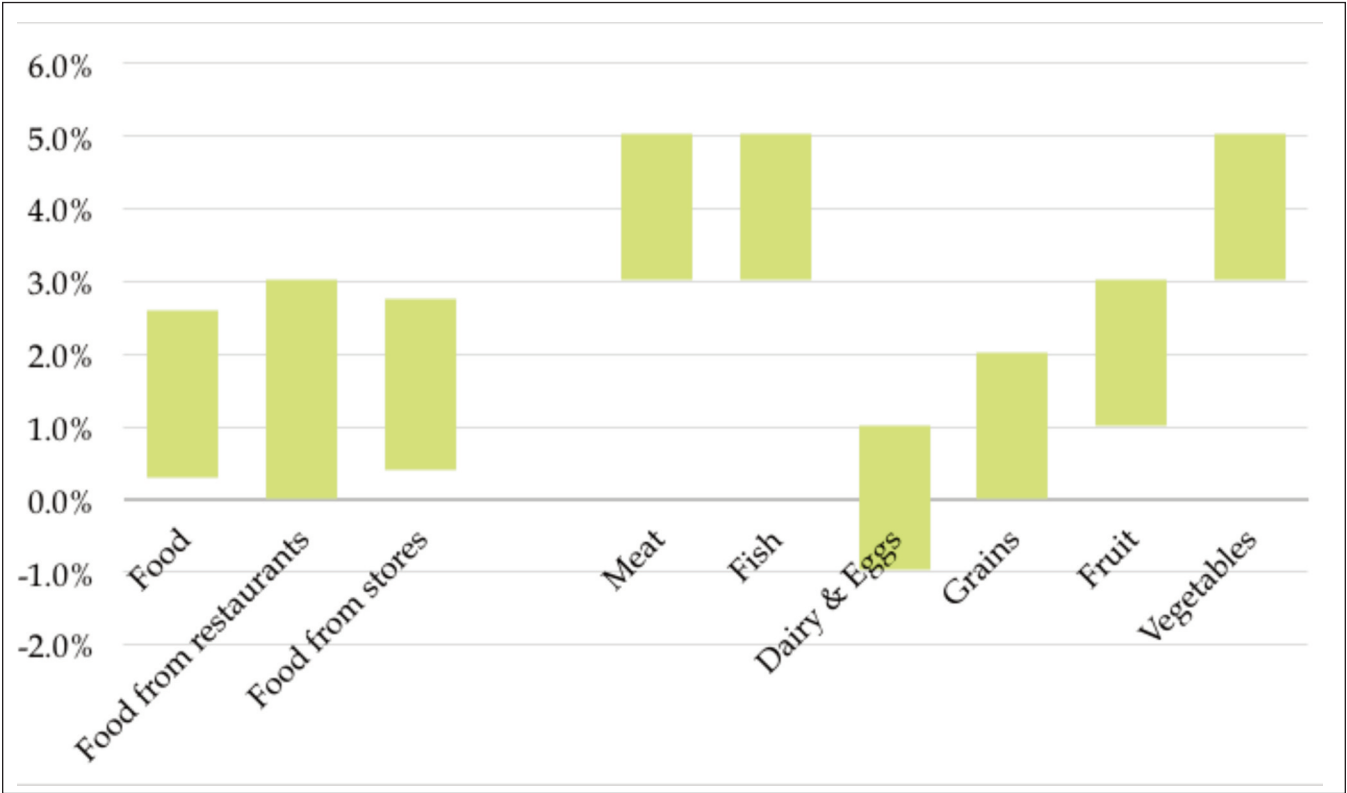
Forecast

The FPR 2014 forecasts that retail food prices will increase between 0.3% and 2.4% overall, growing faster than inflation. It is expected that food prices will increase steadily in the coming year. Table 2 and Figure 3 below outline our forecasts.

Table 2:
Forecast for **2015**

| Food Category | Expected Price Increase |
|----------------------------------|-------------------------|
| Meat | 3.0% to 5.0% |
| Fish & Seafood | 3.0% to 5.0% |
| Dairy & Eggs | -1.0% to 1.0% |
| Grains | 0.0% to 2.0% |
| Fruit & Nuts | 1.0% to 3.0% |
| Vegetables | 3.0% to 5.0% |
| Food from Restaurants | 1.0% to 3.0% |
| Overall Food Expenditures | +0.3% to +2.4% |

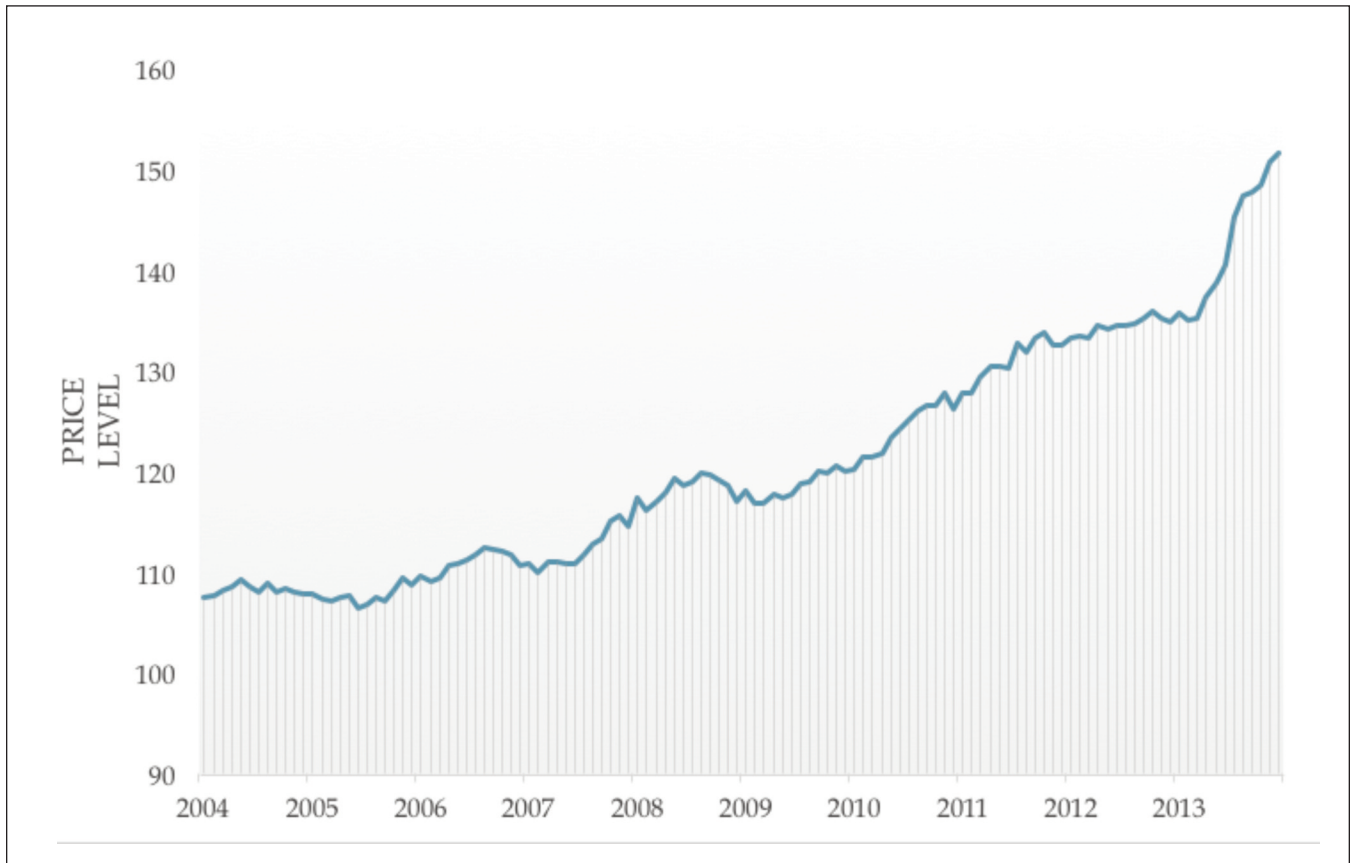
Figure 3:
Food Price Report **Predictions**



We expect prices for grains, fruits, and food from restaurants to be relatively stable in the coming year. Supply management and food packagers are responsible for this stability. Dairy and eggs are expected to remain the same price as in the last fiscal year, again due to loss leadership strategies within fierce retail competition. Droughts and climate effects from 2014 will sustain impact in 2015, with imported vegetables expected to rise above 3% in price for the Canadian customer. Due to the nature of produce imports, Canadians will notice the increase in vegetable prices in the winter months, or perhaps later in the year.

With decreased feed and fuel prices expected in 2015, meat prices will stabilise and will not soar as in years prior; and meat is expected to cost Canadians no more than an extra 5% this year. Pork prices are not expected to experience spikes as 2014 had, as the damage of PED on the hog supply is fairly short-term and prices will abate by mid next year (Atkins, 2014). Meat prices for the past decade are shown in Figure 4 below.

Figure 4:
Meat Price Changes **from 2004-2014**



Canada's food manufacturing industry remains a strong economic force despite global pressures on the industry, amid increasing multinational firms entering the Canadian market in production (Sparling & LeGrow, 2014). Strength of local food production and distribution has lately been marred by the declining Canadian dollar. Figure 5, below, shows the performance of the Canadian dollar against the US dollar over the past five years. Now at its weakest since October 2009, the loonie against the greenback will liken higher prices on import food items, such as organic produce and juices. The depreciating dollar makes purchase of inputs more expensive, so goods with more imported inputs will be less competitive. **Dollar depreciation** on the Canadian food industry will require working with governments to sustain favourable environments for not only affordable food production, but also supporting Canadian consumers to eat local. Moreover, the abating loonie may reduce Canadians crossing the border to grocery shop (Nagel, 2014), as changes in relative prices are induced by movement in exchange rates (McKenna & Grant, 2014).

Figure 5:
CAD/USD Exchange Rate **from 2009-2014**



Volatile supply markets put food processors in a position to shrink consumer package goods. This arises with Ottawa's deregulation of food packaging sizes two years ago to enable processors to newer packaging formats (CBC News, 2012). With inputs more expensive for packaged goods, producers opt to sustain affordable prices for consumers with trends of smaller packaging. It is used as a method to pass on a price increase without notable changes in prices. Canadians are noticing size reduction in packaging for potato chips, yogurt, bacon, tuna, peanut butter, and cookies for grocery items (Elton, 2014). To manage food prices at restaurants, sizes of protein on the plate are expected to be much smaller than before for the same price. Market pressures to stabilise prices for consumers come at the cost of quantities, and it is expected packages and portions will continue to **shrink** on the horizon.

Responsible protein will dominate Canadian plates in 2015. Consumer attitudes towards meat are changing – with an emergence of 'flexitarianism': a plant-based diet with less frequent inclusion of meat, as a less rigid form of vegetarianism. Flexitarians are shopping at vegetarian specialty stores and following non-governmental organisations in their promotion of healthy sustainable eating e.g. 'Meatless Monday' initiatives (Laestadius, Neff, Barry, & Frattaroli, 2013). Consumers are already paying higher attention to animal welfare, such as opting for sustainable catch for fish, pasture-raised meats, and even opting for more vegetable-based proteins on their plate. Pork producers such as Olymel and Maple Leaf Foods have made strides to respond to engaged consumers by phasing out sow gestation crates in order to reduce sow maltreatment (Canadian Meat Business, 2014). Decisions around responsible protein affect specialty shoppers in the market, with retailers and producers alike promoting protein alternatives to increasingly engaged consumers. Meat eaters in particular are expected to opt for higher quality cuts for beef and pork in the coming year. **Responsible protein** will moderate meat prices and soften general protein demand overall. Fish, in particular, is at the forefront of the Canadian sustainability discussion, as consumers are growing attentive to where fish is coming from. For consumers who refrain from substituting fish with other proteins, expect to pay higher prices for the right cut, driving up fish prices between 3 – 5% in 2015.

Food retailers adjusting to the dynamic acquisitions in the market allow for firms like Loblaw's and Sobey's to expand private label programmes with profitable propositions in their new acquisitions. Retailers also garner greater influence over national brand manufacturers with their expanded set of stores. An emerging story from Canadian retail appears to be a reflection on the changing demographic of consumer. Canadians are yearning for smaller store formats, especially in urban centres. Retailers are now responding to those sentiments by moving store models to one of a local grocery store. The local grocery store pressures are happening from both ends: the small and the large retailer. From the evolution of the small convenient store such as Couche Tard (owner of Mac's Convenient Stores) and the success of grocery sales at Shopper's Drug Mart inform consumers of the convergence to **'the small walkable grocery store'**.

Une **Année 2014** Marquée Par La Protéine

La plupart de nos prédictions pour 2014 se sont réalisées. Depuis un an, l'ensemble des prix alimentaires a augmenté de 2,8 % (mis à part le secteur de la restauration), tandis que ce dernier secteur voyait ses prix grimper de 2,2 %. Les amateurs de protéines animales y ont particulièrement goûté cette année. La hausse du prix de la viande, particulièrement prononcée au cours des 12 derniers mois, a atteint 12,4 %. Les inventaires du bouvillon d'abattage ont été éprouvés par des sécheresses, tandis que l'offre du porc fut réduite par l'impact de la diarrhée porcine qui a affecté plusieurs fermes à travers le continent. Plusieurs consommateurs ont opté pour des substituts au bœuf ou au porc, ce qui n'est pas souvent reflété dans l'index des prix à la consommation. Le prix du poisson a aussi augmenté de 5,9 %, ce qui est légèrement plus que prévu. Nous estimons que les coûts de production liés à la protéine continueront d'augmenter, vu l'intérêt pour la viande qui grandit sans cesse à travers le monde. Les consommateurs canadiens devront se faire à l'idée qu'ils doivent désormais payer plus cher pour de la viande, du poisson ou d'autres sources de protéine animale.

Après une année faste en transactions majeures avec l'achat de Shoppers Drug Mart par le géant Loblaw, et l'acquisition de Safeway par Sobeys dans l'Ouest canadien, 2014 fut une année relativement tranquille. Reste que l'industrie est en pleine mutation. Après son entrée dans le marché

canadien en 2013, Target continue d'éprouver des ennuis logistiques, subissant des pertes de près d'un milliard de dollars au Canada. Mais leurs pertes par trimestre commencent à diminuer depuis le printemps dernier ce qui nous indique peut-être que le pire est passé. Quant à Walmart, sa part de marché en alimentation dépasse maintenant 10 % au Canada, et continue son avancée vers son objectif pour devenir le plus gros détaillant en alimentation au pays. Loblaw, le numéro un actuel, avec l'acquisition de Shoppers Drug Mart, vend pratiquement plus de produits non alimentaires que de produits alimentaires.

La fragmentation généralisée de la demande continuera sûrement en 2015. D'ailleurs, la contribution économique des marchés publics a excédé pour la première fois les 5 milliards CAD en 2014, et nous croyons que leur expansion continuera en 2015.

La réduction des emballages est un phénomène qui se répand de plus en plus. Cette stratégie semble avoir atteint son apogée en 2014. Au lieu d'augmenter le prix des produits alimentaires, les manufacturiers et distributeurs diminuent la quantité afin de laisser les prix unitaires intacts tout en diminuant le ratio quantité/prix. Une réduction des quantités a été répertoriée cette année avec le bacon, le yogourt, la confiture, les biscuits, le jus d'orange, le poisson et les conserves.

2015 : Le Dollar Canadien Est à Surveiller

Pour la prochaine année, les changements climatiques continueront d'être le facteur le plus important, mais en même temps, c'est l'élément le plus imprévisible. Les sécheresses et les inondations influent beaucoup sur les prix des intrants et entraînent souvent une flambée des prix à la consommation quelques mois plus tard selon la denrée affectée. Mais le facteur le plus déterminant pour les prix alimentaires sera la valeur du dollar canadien. Puisque nous importons des milliards de dollars en produits alimentaires chaque année, la faiblesse du dollar aura vraisemblablement un impact sur le pouvoir d'achat des importateurs canadiens. En contrepartie, la marge entre le prix des produits importés en comparaison au prix des produits domestiques pourrait diminuer, offrant ainsi à certains producteurs locaux un meilleur avantage concurrentiel.

Pour ce qui est des acquisitions potentielles, une plus grande faiblesse du dollar permettrait à certaines entreprises canadiennes d'être plus attrayantes pour des investisseurs étrangers. Bien que nous ayons eu une année importante en termes

d'acquisitions domestiques en 2013, certaines acquisitions étrangères sont toujours possibles.

La baisse du coût de l'énergie aidera sûrement les transformateurs et distributeurs alimentaires à mieux absorber l'augmentation imprévisible du coût des intrants. Nous estimons que le coût de l'énergie ne sera pas un facteur déterminant pour 2015.

Le faible coût de l'énergie et les taux d'intérêt qui demeureront très bas pour encore un certain temps favoriseront l'effet déflationniste dans l'ensemble de l'économie. Par contre, nous estimons que le secteur agroalimentaire continuera d'afficher un taux d'inflation alimentaire plus élevé que l'inflation générale. Les viandes continueront de coûter plus cher en 2015, mais leur hausse ne sera pas aussi importante qu'en 2014. Pour les fruits et légumes, ce sera vraisemblablement le contraire. Nous anticipons une hausse plus importante pour les fruits et légumes. Pour les pains, céréales, produits laitiers, œufs et noix, les hausses seront plus modestes.

Table 2:

Voici nos prévisions pour l'année **2015**

| Catégories | Hausses anticipées |
|--|-----------------------|
| Viandes | 3.0% to 5.0% |
| Poissons et Fruits de Mer | 3.0% to 5.0% |
| Produits Laitiers et oeufs | -1.0% to 1.0% |
| Pains et Céréales | 0.0% to 2.0% |
| Fruits et Noix | 1.0% to 3.0% |
| Légumes | 3.0% to 5.0% |
| Restauration | 1.0% to 3.0% |
| Prévisions toutes catégories confondues | +0.3% to +2.4% |

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