

CFO Position Paper



The Protein Shift

January 26, 2016

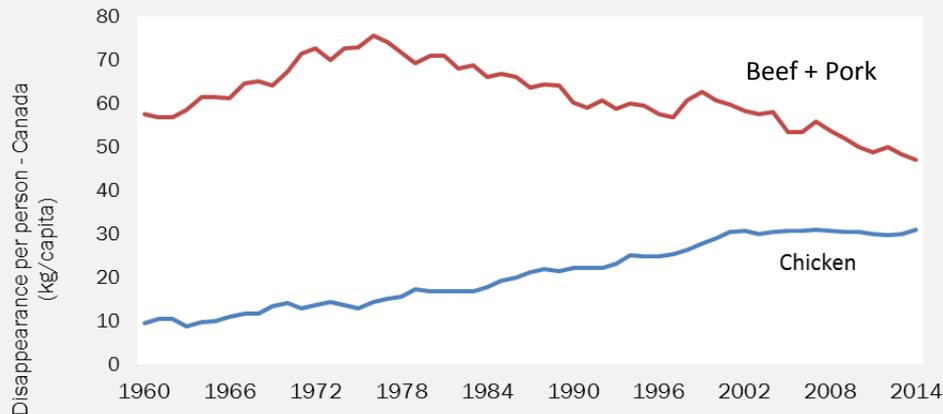
www.ontariochicken.ca

This document provides CFO's position – it's views and perspectives on the growth prospects for chicken. It is intended to provide information and generate discussions, and is not intended to provide trading advice. Views provided in this communication reflect our good faith judgment based on data available at a specific time and are subject to change without notice.

The Protein Shift: Chicken is now the Preferred Meat Protein

- Chicken has been gaining market share from other meat proteins over time in Canada
- Most of the recent gains have come at the expense of beef

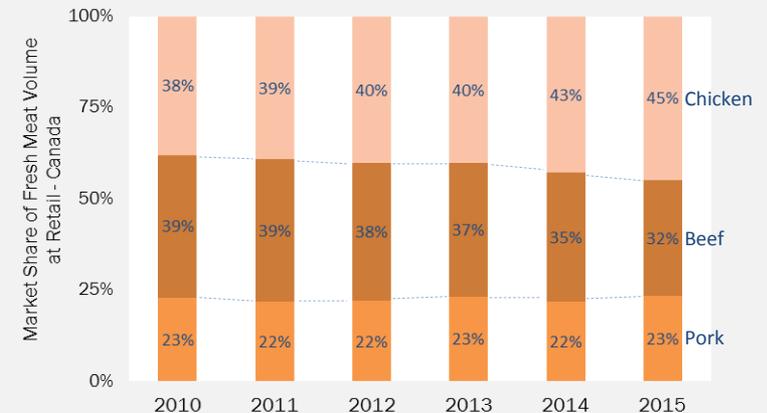
Chicken consumption has been on a long upward trend ... while beef and pork have been in decline



Source: Statistics Canada

Similar trends exist in other developed countries such as the USA

Over the past 5 years, chicken has gained 7 points in volume at Retail - Fresh



Source: Nielsen

Most of the volume gains for chicken have come from beef

The Protein Shift Has Been Driven by Consumer Perceptions & Attitudes

Consumers have become much more health conscious ...

- It is widely agreed that increasing health consciousness and the prevalence of information linking beef and pork to health issues have contributed to the decline in the consumption of beef and pork, and the growth in the consumption of chicken
- In a 2012 study[†], the vast majority of Canadians viewed themselves at least moderately healthy and 93% agree that their feelings about health and wellness impact their dietary choices

... And perceive chicken and fish as healthier alternatives

Canadian Consumer Retail Meat Study, 2012[†] found the following results from Canadian meat purchases (18 years+) on their perception of HEALTHFULNESS or NUTRITIONAL VALUE:

Fish	9.1	
Chicken	8.4	1 = 'not at all healthful'
Beef	7.0	10 = 'extremely healthful'
Pork	6.9	
Bison	6.9	
Lamb	6.8	

The recent WHO Report will Only Fuel the Protein Shift



World Health Organization's International Agency for Research on Cancer (IARC) published a report on 26-October-2015 which classified:

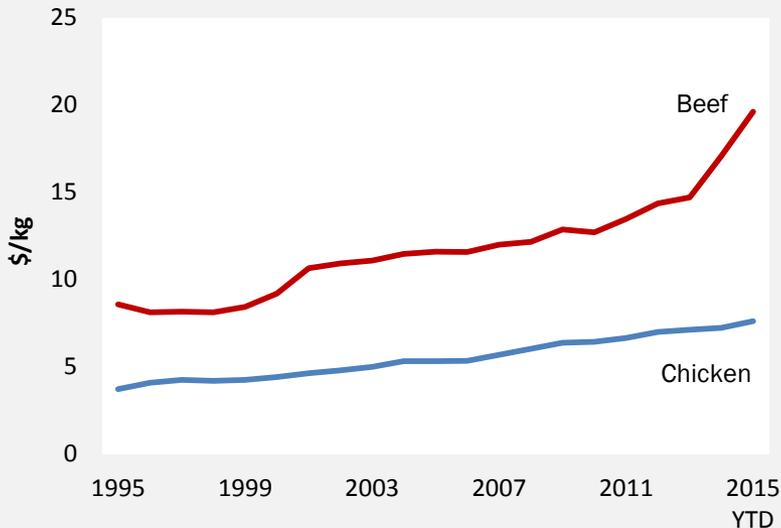
- Consumption of **red meat as probably carcinogenic** to humans based on limited evidence that the consumption of red meat causes cancer in humans and strong mechanistic evidence supporting a carcinogenic effect
- **Processed meat as carcinogenic** to humans based on sufficient evidence in humans that the consumption of processed meat causes colorectal cancer

[†]Canadian Consumer Retail Meat Study, 2012, Alberta Livestock and Meat Agency Ltd.

.... And by the Relative Price Advantage of Chicken

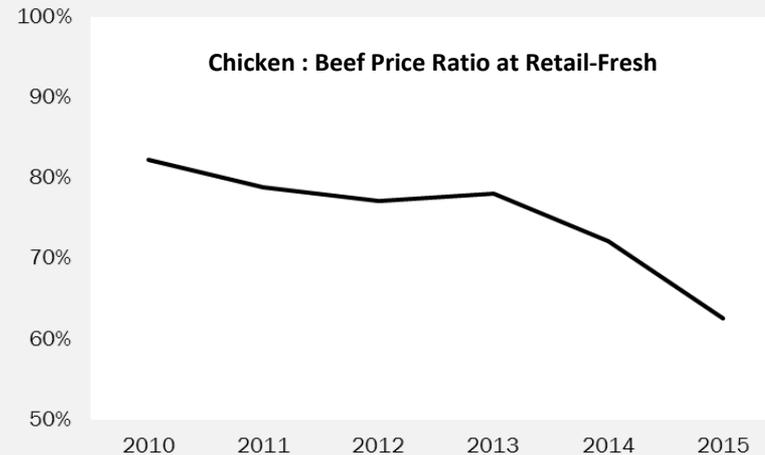
Chicken has been the most affordable meat protein in Canada, with the advantage over beef being the most relevant and drastic

Chicken has consistently been cheaper than beef, with the gap widening over time



Source: Statistics Canada

More recently, chicken's relative price advantage over beef at Retail-Fresh has improved significantly



Source: Nielsen

Lifestyle & Demographic Trends in Canada will Continue to Favour Chicken

Four key lifestyle & demographic trends in Canada will favour chicken



Focus on health - The desire to consume lean proteins will strengthen, especially among millennials



Aging population – As people age, their consumption of red meat tends to decline, leaving room for chicken to take up the consumption space



Ethnic preferences – Immigration has been a significant source of population growth in Canada. As the origin of immigrants shifts, food preferences shift as well. Some high-growth ethnic groups, especially those from Asia and the Middle East, have much higher preferences for chicken than for beef or pork



Convenience – Chicken is better suited among competing proteins for convenience-oriented consumer products being demanded by changing lifestyles

The Protein Shift is a Global Phenomenon

Demand for poultry will be high globally ... Poultry will overtake pork as the world's most-consumed meat

The Food and Agriculture Organization of the United Nations projects that by 2023:

- Poultry meat will capture almost half the increase in global meat production
- Poultry will overtake pork as the world's most-consumed meat
- Poultry's growth capture will be seen in both developed and developing countries

Growth will be driven in large part by consumer preferences together with income and population growth. These drivers support higher growth in poultry demand compared to other meats. Specifically, poultry benefits from:

- Mild flavor
- Broad cultural and religious acceptance making it more universal than beef and pork
- Accessibility over other meats
- Affordability over other meats

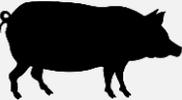
Source:

OECD/Food and Agriculture Organization of the United Nations (2014), *OECD-FAO Agricultural Outlook 2014*, OECD Publishing.

http://dx.doi.org/10.1787/agr_outlook-2014-en

Chicken's Production Advantages Position it Uniquely to Capture Growth

Chicken production is more efficient, more nimble, and allows for greater farming sustainability

	Feed Efficiency	Production Cycle Length	Sustainability			
	Feed to produce 1 kg of live weight (kg)	Time to market (months)	Water to produce 1 kg of meat (gallons)	Energy to produce 1 kg of meat (MJ)	Emissions to produce 1 kg of meat (kg)	Land to produce 1 kg of meat (sq.ft.)
	6.0	18 - 22	4,072	250	74.08	12,014
	2.9	6 - 7	1,583	100	15.43	440
	1.9	1 - 2	1,142	35	13.12	340

- Notes: 1. Cattle feed conversion data is for feedlot cattle; Does not account for feed conversion ratio for grazing cattle.
 2. Chicken feed conversion data retrieved from National Chicken Council Study.
 3. Cattle water data is calculated based off of a weighted average of feedlot cattle and grazing cattle.
 4. Cattle energy data does not disclose between feedlot and grazing cattle.
 5. Cattle emissions data and land data include both feedlot and grazing cattle.

Sources: *Beef Cattle Research Council; Cattlemen's Beef Board and National Cattlemen's Beef Association; Iowa State University; USDA; National Chicken Council; Penn State University; Ecosystems, Mekonnen and Hoekstra, 2012; Sustainable Energy – Without the Hot Air; PNAS*