

Study: A Long-run Version of the Bank of Canada Commodity Price Index, 1870 to 2015

Released at 8:30 a.m. Eastern time in The Daily, Wednesday, October 11, 2017

Over much of the 2000s, significant changes in the price of commodities that Canada produced have influenced overall economic performance and the real income growth of Canadians. Nevertheless, the pronounced changes in commodity prices observed over this period are not unprecedented over Canada's economic history.

The new study released today, "A Long-run Version of the Bank of Canada Commodity Price Index, 1870 to 2015," places the recent movements in commodity prices in a 145-year historical perspective. The study finds that the significant commodity price growth during the 2000s is not unprecedented when compared with earlier periods. See the chart [Bank of Canada commodity price index \(BCPI\)](#).

Over the 145 years covered by the study, the importance of particular commodities for the Canadian economy evolved as new technologies and infrastructure permitted the use of an expanding set of commodities. This study shows that overall commodity prices exhibited a number of long cycles, with important differences in the variability in growth patterns across individual commodity groups.

In the 1870s and 1880s, commodity production stemmed primarily from agricultural products and forestry in the form of lumber. See the chart [Composition of the BCPI by major commodity group used in the long-run BCPI](#).

Over subsequent decades, the introduction of new technologies such as electricity generation led to an increase in the value of forest products from pulp and paper production, and from metals and minerals production. This process continued after the Second World War as energy production began to rise rapidly. The result has been a change in the composition of Canada's commodity production away from agriculture, first towards forestry, then towards mining, and more recently towards energy extraction.

Commodity price cycles

The long-run BCPI can be used to measure real commodity price cycles, that is to say any periods defined by a trend upswing, followed by a peak and subsequent decline. Doing so shows that over the period covered by the study, Canada underwent four long real commodity price cycles: from the late 1890s to the early 1930s, with a peak during the First World War; from the early 1930s to the late 1960s, with a peak immediately after the Second World War; from the late 1960s to the middle of the 1990s, with a peak in the early 1980s; and from the middle of the 1990s to the end of the sample in 2015, with a peak in 2009.

Across these cycles, the highest rates of increase in the long-run BCPI occurred during the 1966 to 1980 upswing (an average increase of 9.4% per annum) and from 1932 to 1949 (+7.4% per annum). This is significantly higher than the increase in the most recent 1995 to 2009 upswing (+3.7% per annum).

The five main commodity groups in the BCPI (energy, metals and minerals, agriculture, forestry and fisheries) tended to exhibit similar broad patterns of growth over the long cycles in the overall index. Nevertheless, there are important differences in the magnitude of their cycles over time. Agriculture prices had the largest amplitude from 1900 to 1945, mainly due to the relatively larger changes in agriculture prices during the Great Depression of 1929.

Energy prices had the largest amplitude cycles after 1945, and these were the largest amplitudes overall. This reflects both the large energy shocks of the 1970s and 1980s and the large energy cycle of the 2000s, as well as the sharp declines in energy prices that followed each period of growth.



Note to readers

The Bank of Canada commodity price index (BCPI) reflects changes in US dollars for commodities important to Canada. The Bank of Canada publishes the index from 1972 to the present. Historical estimates for the years prior to 1972 were linked to the modern index to create the long-run BCPI.

The commodities in the BCPI are classified into five groups:

Energy: coal, oil, natural gas;

Metals and minerals: gold, silver, nickel, copper, aluminum, zinc, lead, iron, potash;

Forestry: lumber, pulp, newsprint;

Agriculture: cattle and calves, hogs, wheat, barley, canola, potatoes;

Fisheries: finfish, shellfish.

Available in CANSIM: table [383-0027](#).

Definitions, data sources and methods: survey numbers [1901](#) and [7502](#).

The research paper "[A Long-run Version of the Bank of Canada Commodity Price Index, 1870 to 2015](#)", part of the Analytical Studies Branch Research Paper Series ([11F0019M](#)), is now available. The long-run Bank of Canada commodity price index, as well as the long-run indexes for energy, metals and minerals, forestry, agriculture and fisheries can be found in CANSIM table 383-0027.

The following related studies are available on the Statistics Canada website: "[A Historical Perspective on Recent Movements in Canada's Purchasing Power Parity](#)", "[How big was the Effect of Falling Commodity Prices on Canadian Real Incomes between mid-2014 and mid-2016?](#)", and "[Provincial Convergence and Divergence in Canada, 1926 to 2011](#)".

For more information contact us (toll-free 1-800-263-1136; 514-283-8300; STATCAN.infostats-infostats.STATCAN@canada.ca).

To enquire about the concepts, methods or data quality of this release, contact Ryan Macdonald (613-951-5687); ryan.macdonald@canada.ca, Economic Analysis Division.