

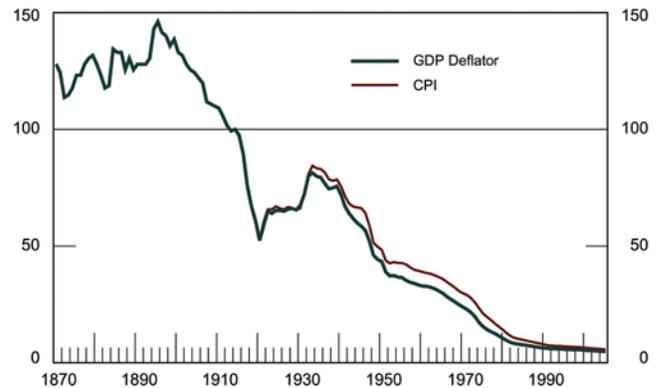
Appendix A

Purchasing Power of the Canadian Dollar

Inflation erodes the purchasing power of money. Even with a low annual inflation rate of 2 per cent (the midpoint of the Bank of Canada's 1 to 3 per cent target range for inflation since 1995), a dollar will lose half of its purchasing power in approximately 35 years. When the consumer price index (CPI) is used to measure inflation, the average annual rate of inflation in Canada since 1914 is 3.2 per cent. Thus, the Canadian dollar lost more than 94 per cent of its value between 1914 and 2005 (Chart A1). Alternatively, one dollar in 1914 would have the purchasing power of \$17.75 in 2005 dollars.¹

While consumer price data prior to 1914 are unavailable, a broader measure of inflation, the gross domestic product (GDP) deflator, is available back to 1870 (Leacy 1983). While the CPI and GDP deflator can diverge, they tend to move together over time. Since 1870, with annual GDP inflation averaging 3.6 per cent, the Canadian dollar has lost more than 96 per cent of its value. Again, this is equivalent to saying one Canadian dollar in 1870 would have the purchasing power of roughly \$26.70 in today's money.

Chart A1
Purchasing Power of the Canadian Dollar
1914 = 100

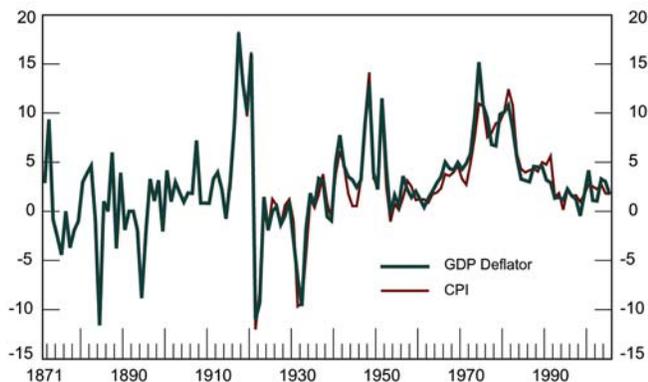


Source: Leacy (1983)

Periods of high inflation include the early years of the twentieth century, when major infrastructure projects in Canada were financed by large inflows of foreign capital, and the years during and immediately following the two world wars, owing to the cost of the war effort and

1. The Bank of Canada has an inflation calculator on its website (www.bankofcanada.ca) that shows changes in the costs of a fixed basket of consumer purchases from 1914 to the present.

Chart A2
Inflation in Canada
Year-over-year percentage change

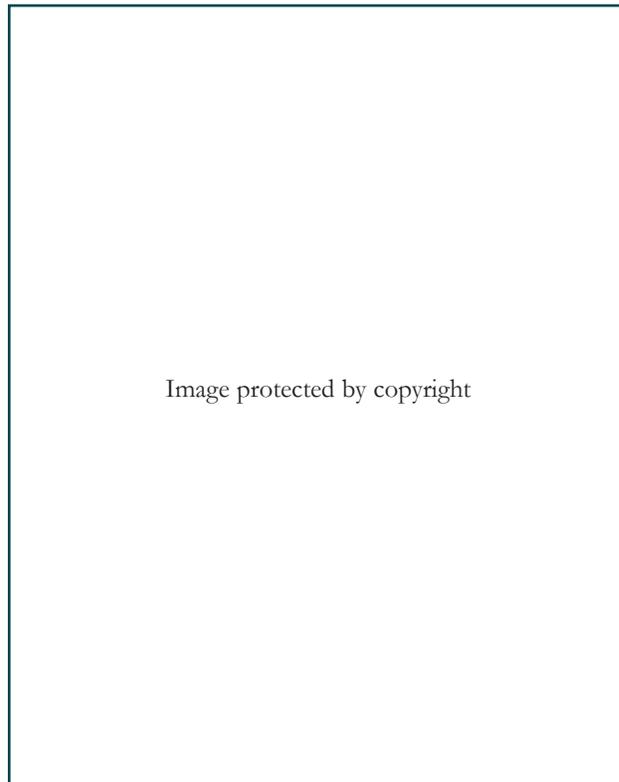


Source: Leacy (1983)

demobilization. More recently, high inflation was experienced during the 1970-80s, owing to the oil crises and policy errors (Chart A2).

In contrast, prices fell during the early 1920s, when Canada experienced deflation on its return to the gold standard and during the Great Depression of the 1930s. Prices also fell episodically during the last decades of the nineteenth century.

To provide a different perspective on the purchasing power of the Canadian dollar, Table A1



lists indicative prices of selected food staples since 1900. As can be seen, the cost of a pound of butter has risen from about 25 cents at the beginning of the twentieth century to about \$4.00 today. At the same time, a labourer in 1901 would have earned 14 to 15 cents an hour in Halifax or Montréal and 23 cents in Toronto.² In contrast, the 2005

2. Leacy (1983), "Hourly wage rates in selected building trades by city," series E248-267. The earliest available data point for a western province is 1906. At that time, the average labourer in Vancouver would earn 35 cents per hour.

Table A1
Indicative Prices of Selected Food Staples, December (dollars)

	1900	1914	1929	1933	1945	1955	1965	1975	1985*	1995	2005**
Beef (sirloin) per lb.	0.14	0.24	0.35	0.19	0.43	0.80	1.10	2.34	3.81	5.05	6.99
Bread (loaf)	0.04	0.05	0.08	0.06	0.07	0.13	0.18	0.43	1.00	1.30	1.79
Butter (one lb.)	0.26	0.35	0.48	0.26	0.40	0.64	0.63	1.11	2.51	2.87	4.01
Eggs (one dozen)	0.26	0.45	0.65	0.45	0.56	0.70	0.64	0.92	1.34	1.63	2.22
Milk (quart)	0.06	0.10	0.13	0.10	0.10	0.21	0.26	0.43	1.12	1.46	1.97

Source: The *Labour Gazette*, Dominion Bureau of Statistics, Statistics Canada

*October

**June

minimum wage in Canada ranged from \$6.30 an hour in New Brunswick to \$8.00 an hour in British Columbia.

In 1905, the average production worker in a factory earned \$375 per year, while the average supervisory and office employee earned \$846.³ In 2004, the average annual income of a person working in the manufacturing sector was \$42,713. The average manager's salary was \$70,470.⁴ A significant portion of the increase in salaries since the early 1900s would reflect the impact of inflation.

Other currencies also lost domestic purchasing power over time owing to inflation. In

Chart A3, one can see that while Canada's accumulative inflation performance has been significantly better than that of the United Kingdom over the period since 1914, our performance has been largely the same as that of the United States. Only in the last ten years or so, has Canada averaged a lower rate of inflation than the United States.

In terms of gold, the Canadian dollar has depreciated markedly over the years, much of this occurring since the early 1970s. One ounce of gold was worth \$20.67 in 1854 when the Currency Act was passed in the Province of Canada, fixing the Canadian dollar at par with the U.S.-dollar, equivalent to 23.22 grains of gold. In 1933, the statutory price of gold in Canada was the same, \$20.67 per

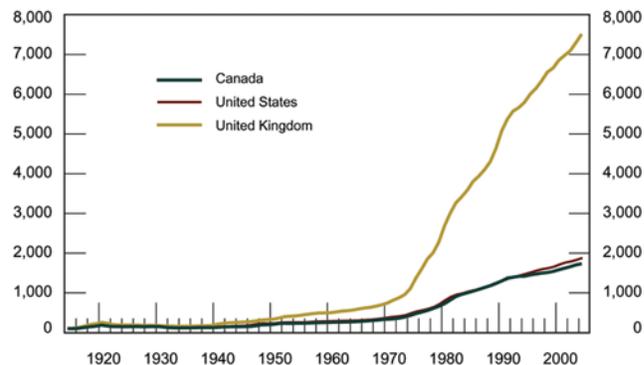
3. Leacy (1983), "Annual earnings in manufacturing industries, production and other workers," series E41-48.

4. Statistics Canada, Manufacturing: Trades, Transport and Equipment Operators & Related Occupations and Manufacturing: Management Occupations.

ounce. The official U.S.-dollar price of gold was raised to US\$35 per ounce (roughly the same in Canadian dollars) on 31 January 1934 when President Roosevelt’s administration took steps to reflate the U.S. economy during the Great Depression. The US\$35 per ounce price remained fixed until 15 August 1971 when President Nixon broke the link between the U.S. dollar and gold. In Canadian dollars, one ounce of gold was worth about \$35.40 on that date. In late October 2005, the market price of an ounce of gold stood at roughly \$550 in Canadian funds (or about US\$465).⁵ In other words, the Canadian dollar has lost about 96 per cent of its value in terms of gold since 1933, with much of this occurring since August 1971, while the U.S. dollar has lost roughly 95 per cent of its value.

Periods of rapid inflation, as well as episodes of significant deflation, in Canada over the past century or more underscore the importance of the Bank of Canada’s objective of maintaining low, stable, and predictable inflation. If an economy is to perform well, its citizens must have confidence that the value of the money they use is broadly stable—that is to say subject to neither chronic inflation or deflation. Both inflation and deflation create uncertainty about the future and can have a significant negative impact on the economy. Their effects also do not fall equally on the population.

Chart A3
Consumer Price Index
 (1914 = 100)



Source:
 Canada - Statistics Canada
 United States - Global Insight
 United Kingdom - Office for National Statistics*
 *Composite Price Index: 1913–47, Retail Price Index: 1948–2004

Unexpected inflation or deflation redistributes income and wealth, between borrowers and lenders, and between generations. Consequently, to avoid the burden that inflation or deflation imposes on an economy, it is important for a central bank to pursue a monetary policy that is firmly focused on achieving and maintaining price stability.⁶

5. Since the price of gold was freed in 1971, it has moved in a wide range, trading as high as US\$850.00 per ounce in January 1980.
 6. For more information on the benefits of price stability, see the May 1995 issue of the *Monetary Policy Report*, available on the Bank of Canada’s website at www.bankofcanada.ca.