ECO 209Y
Macroeconomic Theory and Policy

Lecture 1: Introduction

BRANCHES OF ECONOMICS

- ***Microeconomics*** is concerned with the study of the choice problem faced by the economic agents: households and firms
  - e.g., how the equilibrium price for a particular commodity is determined

- ***Macroeconomics*** is concerned with the study of the economy as a whole
  - e.g., how the general level of prices is determined (and not the price of any particular commodity)

The Object of Macroeconomics

- How the general level of prices is determined?
- What determines the percentage of the labour force that is unemployed?
- What determines a country's level of aggregate output or GDP?
- What determines the level of interest rates?
- What determines the foreign exchange rate?
- What determines a country's balance of payments with the rest of the world?

The Rate of Inflation

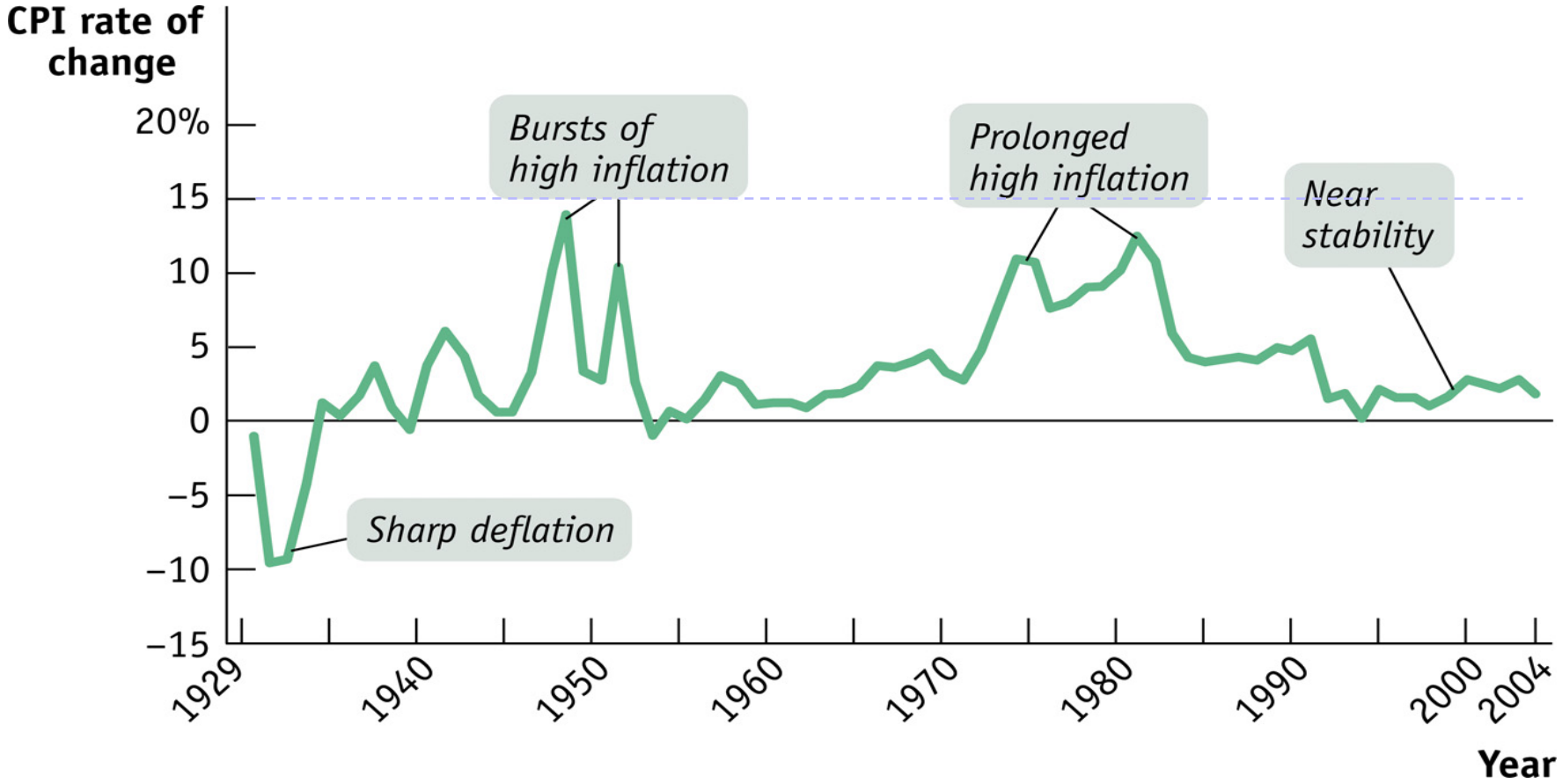
The inflation rate (π) is the percentage increase in the level of prices during a given period:

$$\pi = \frac{P - P_{-1}}{P_{-1}}$$

where P is the current price level and P_{-1} is the price level at the end of the previous period.

For instance, P could be the value of the **CPI** in the current period.

CANADA: INFLATION AND DEFLATION



Source: P. Krugman, R. Wells and A. Myatt, *Macroeconomics*.

Canada: Annual Change in CPI

January 2004 to September 2017

Source: Trading Economics / Statistics Canada.

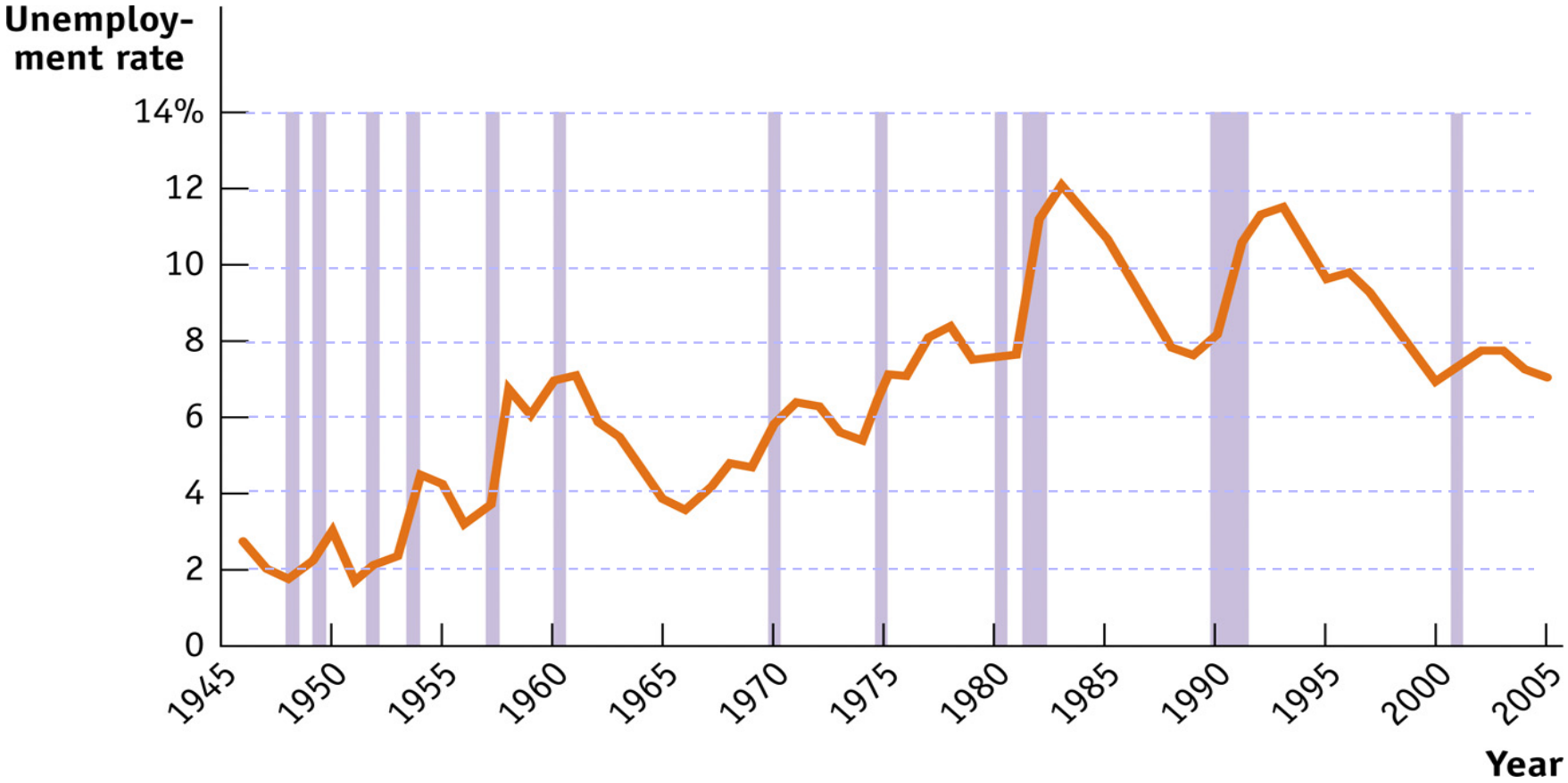
The Rate of Unemployment

The unemployment rate is the fraction of the labour force that cannot find jobs:

$$u = \frac{LF - N}{LF}$$

where **LF** is the size of the labour force and **N** is the number of employed workers

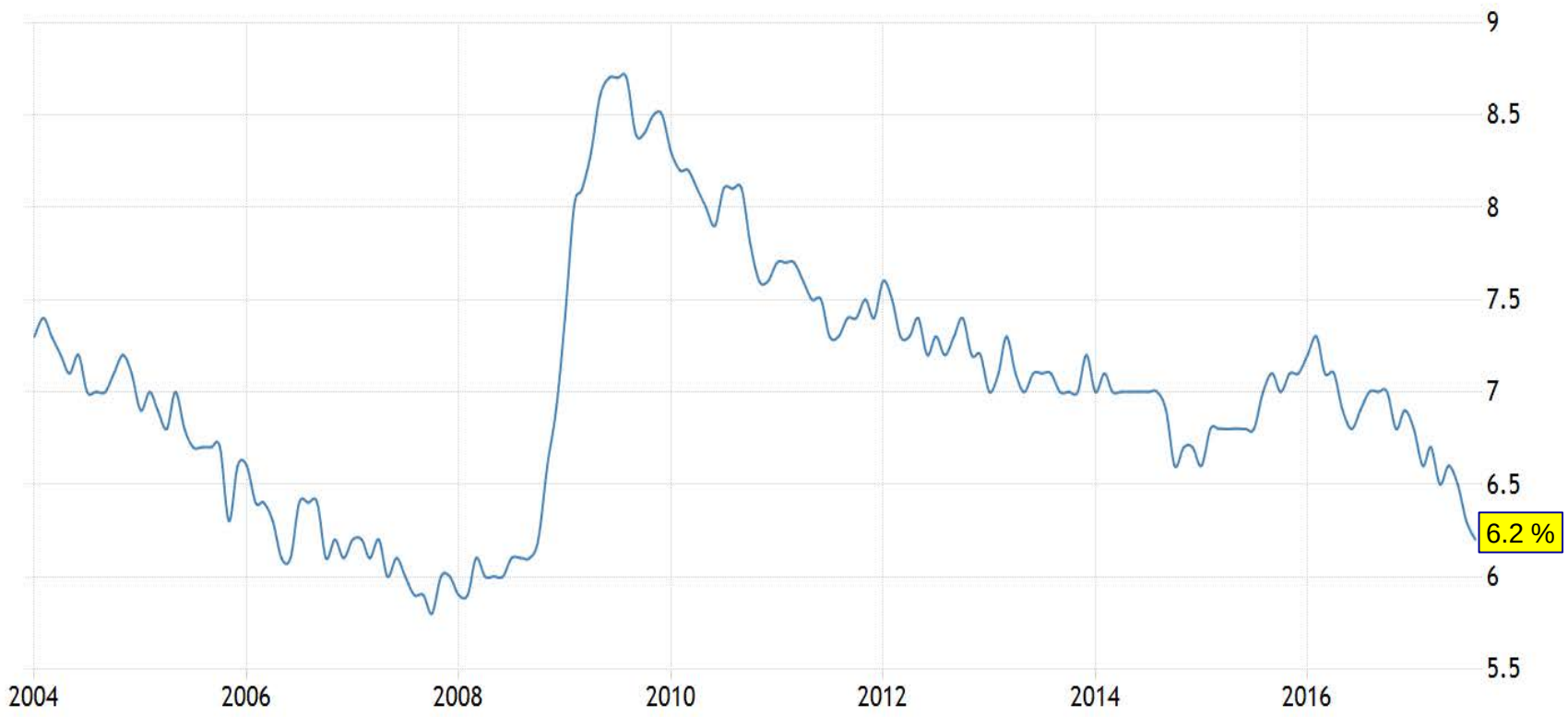
CANADA: UNEMPLOYMENT RATE



Source: P. Krugman, R. Wells and A. Myatt, *Macroeconomics*.

CANADA: UNEMPLOYMENT RATE

JANUARY 2004 TO SEPTEMBER 2017



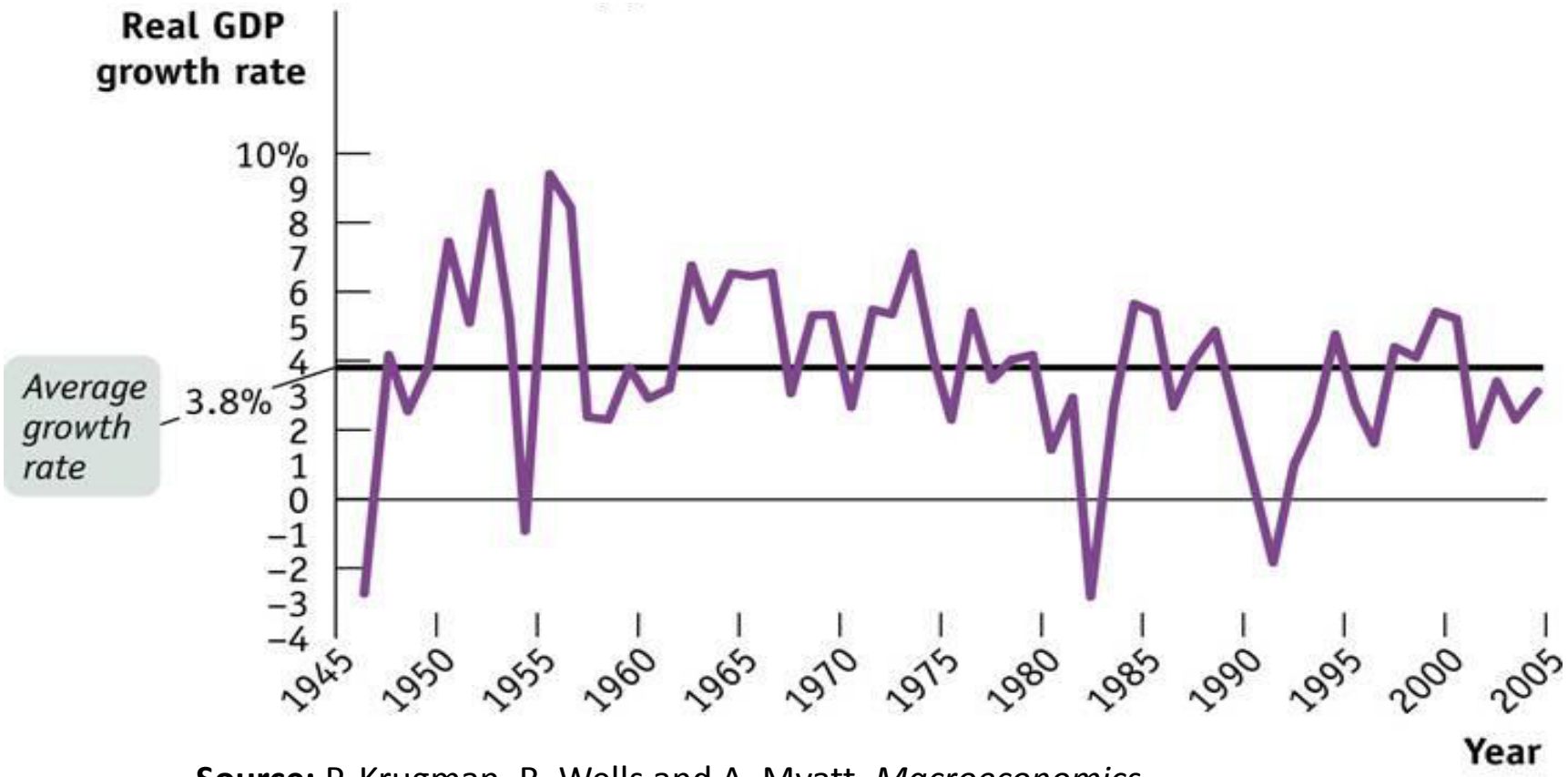
Source: Trading Economics / Statistics Canada.

AGGREGATE OUTPUT (GDP)

Gross Domestic Product (**GDP**) is the value of all ***final*** goods and services produced in the economy during a given period of time

- ***Nominal GDP*** measures the value of output at the prices prevailing in the period the output is produced
- ***Real GDP*** measures the output at the prices of some base year

CANADA: GDP ANNUAL GROWTH RATE

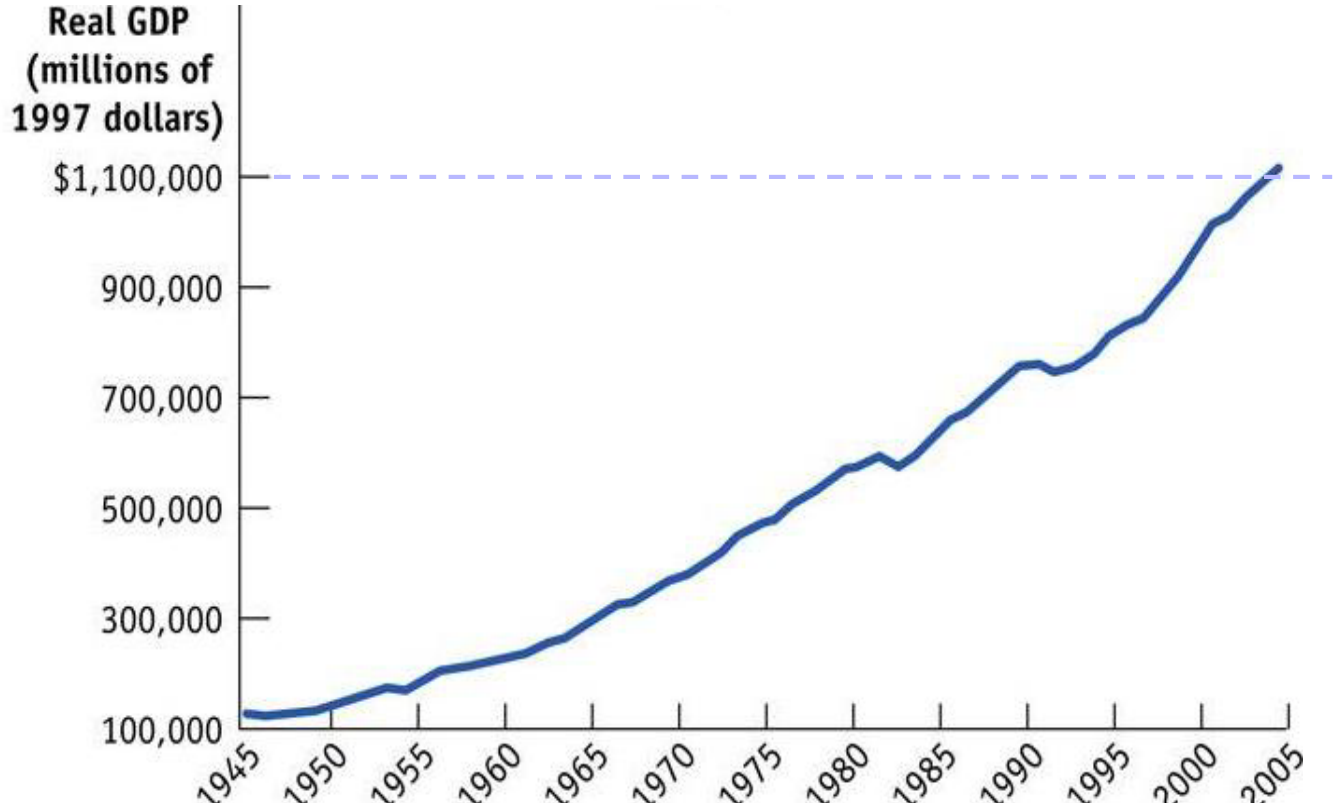


Source: P. Krugman, R. Wells and A. Myatt, *Macroeconomics*.

Canada: GDP Annual Growth Rate
January 2004 to September 2017

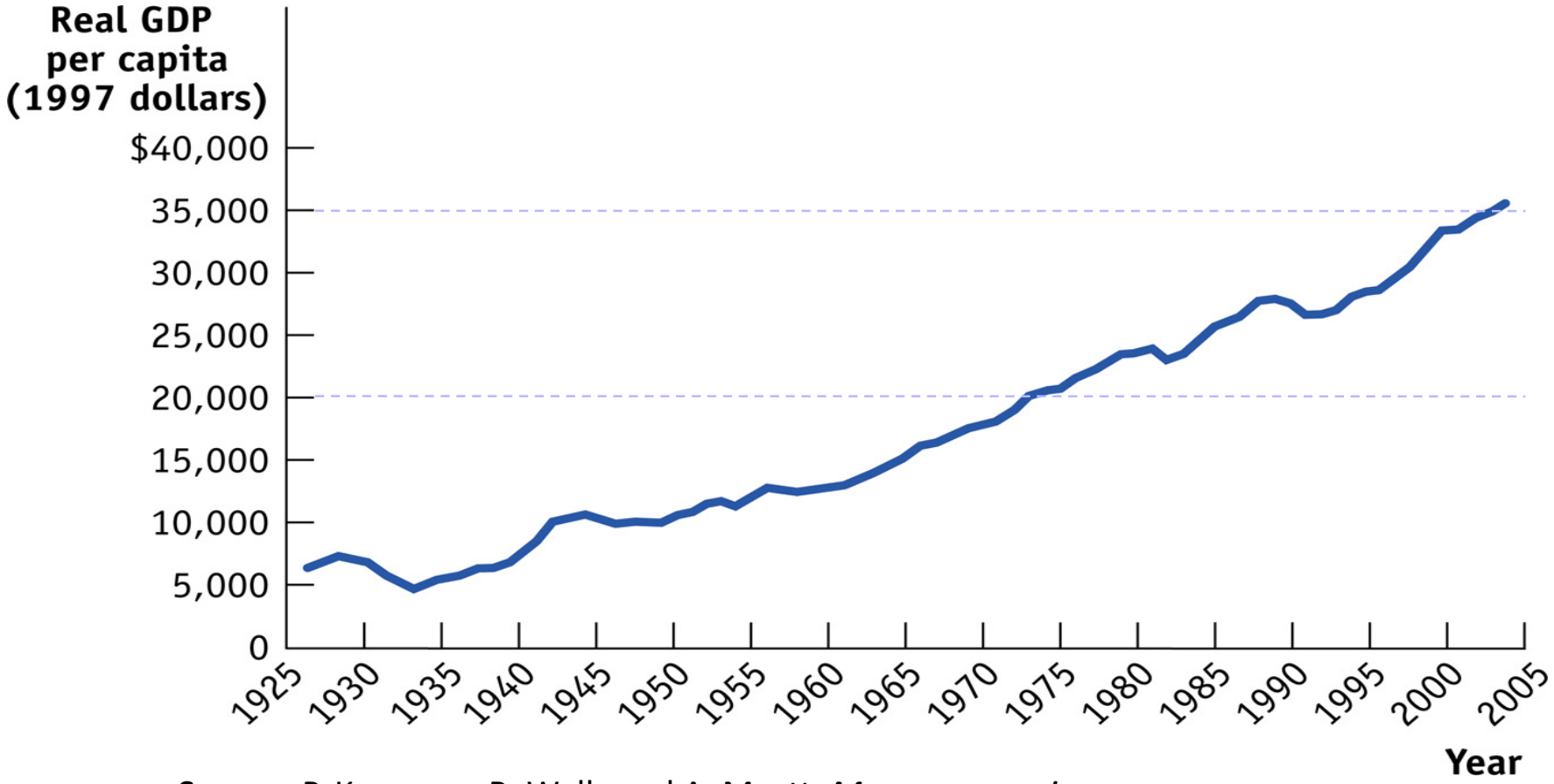
Source: Trading Economics / Statistics Canada.

CANADA: REAL GDP (1945-2005)



Source: P. Krugman, R. Wells and A. Myatt, *Macroeconomics*.

CANADA: REAL GDP PER CAPITA (1925-2005)



Source: P. Krugman, R. Wells and A. Myatt, *Macroeconomics*.

The Rate of Interest

- The ***nominal*** rate of interest (**i**) is the actual money interest charged on a loan

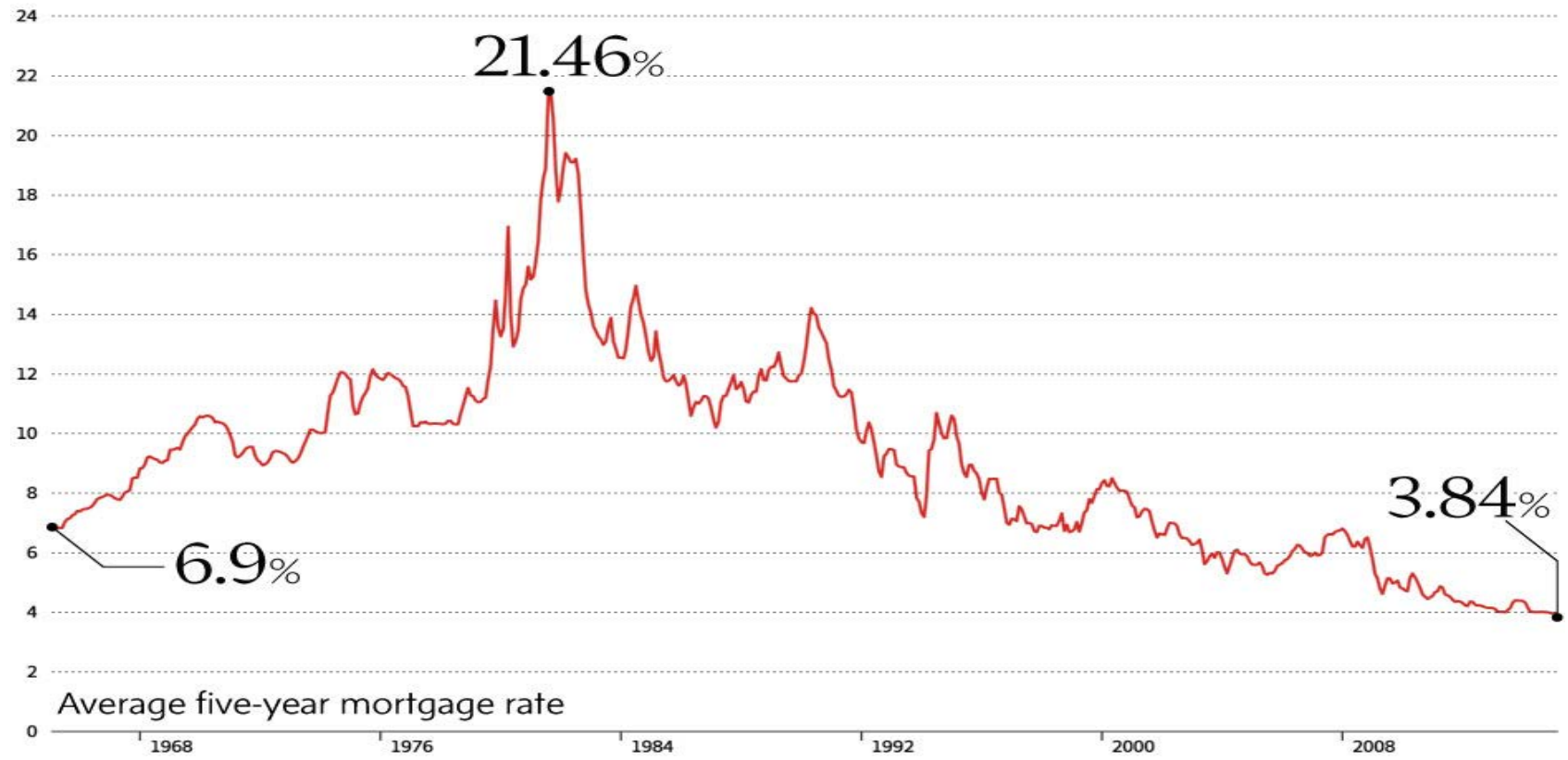
- The ***real*** rate of interest (**r**) is the purchasing value of the interest charged on that loan, that is, the real interest rate is the nominal rate (**i**) minus the rate of inflation (**π**):

$$r = i - \pi$$

CANADA: PRIME RATE OF INTEREST
JANUARY 1970 TO SEPTEMBER 2017

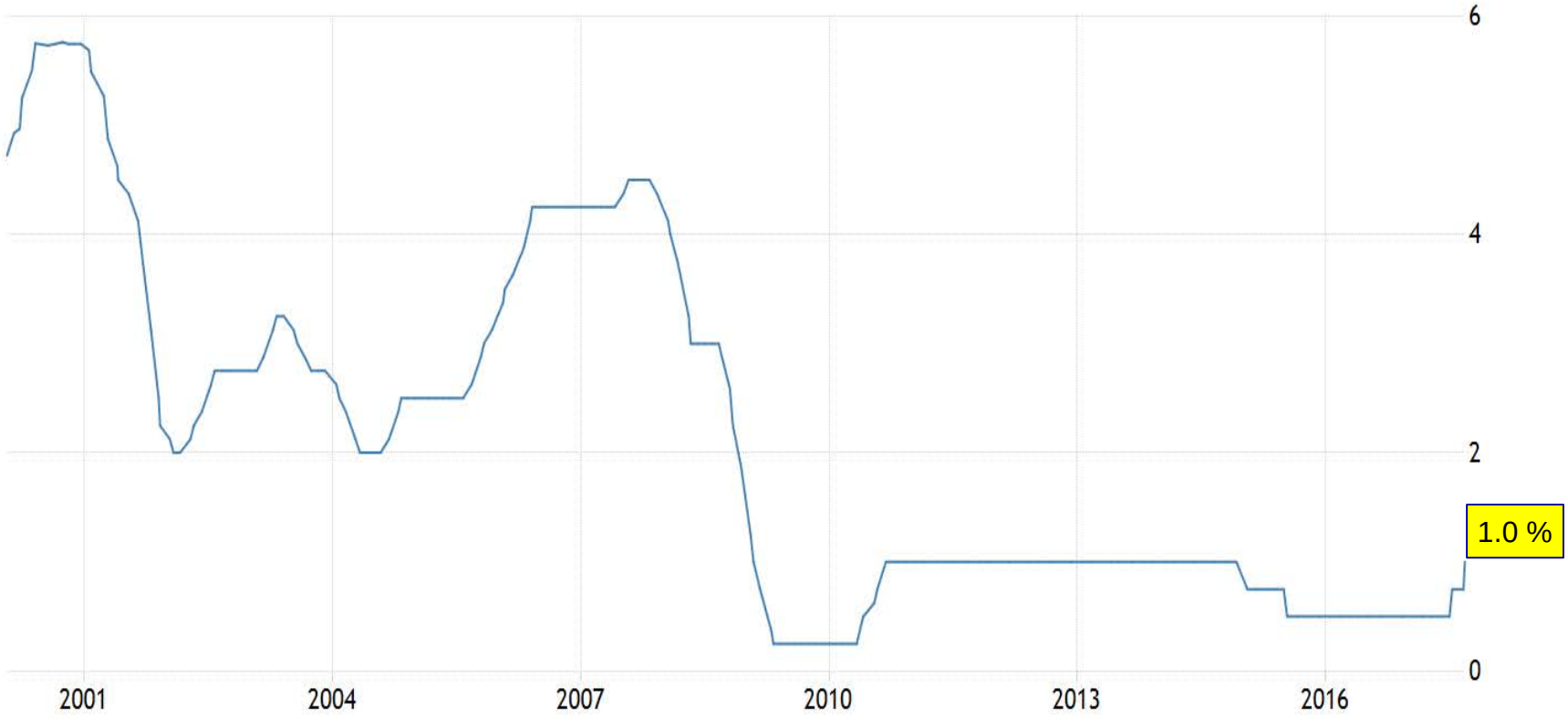
Source: Trading Economics / Bank of Canada.

CANADA: MORTGAGE RATE OF INTEREST
JANUARY 1965 TO JANUARY 2015



Source: The Globe and Mail, 14 May 2015.

CANADA: OVERNIGHT RATE OF INTEREST
JANUARY 2000 TO SEPTEMBER 2017



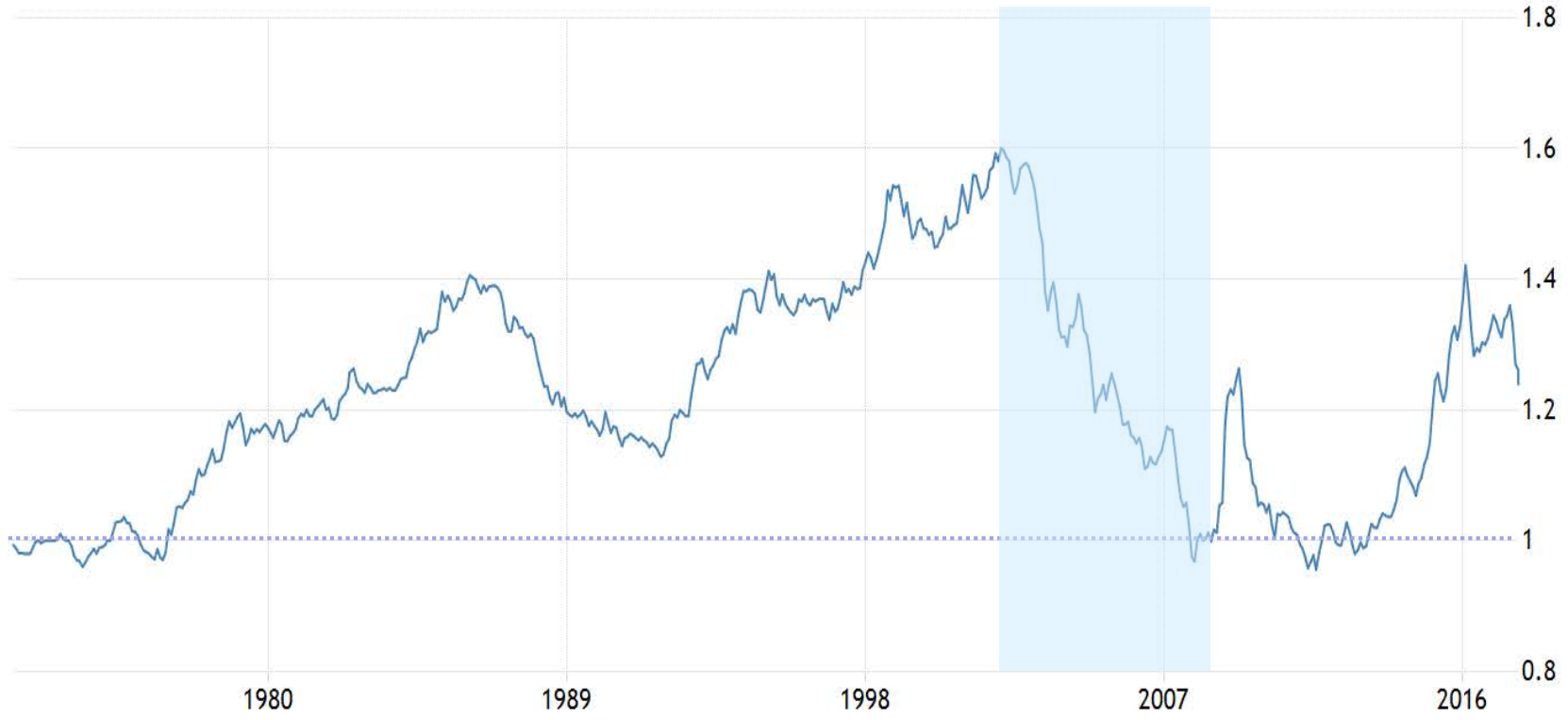
Source: Trading Economics / Bank of Canada.

THE EXCHANGE RATE

- The ***exchange rate*** (**e**) is the relative value between two currencies
- We'll define **e** as the value of one unit of ***foreign currency*** in terms of ***domestic currency***
  - The exchange rate for US$ is today approximately **e = 1.24**
  - Therefore, the value of one Canadian dollar is approximately **1/e = 0.81** (i.e., **CAD$1 = USD$0.81**)
- The level of **e** could be set by the ***central bank*** or by ***market forces***
  - If the ***central bank*** sets the value of **e**, then → ***fixed*** exchange rate system
  - If ***market forces*** determine the value of **e** , then → ***flexible*** or ***floating*** exchange rate system
  - If ***central bank*** only intervenes to avoid sudden jumps, then → ***managed*** or ***dirty floating*** exchange rate system

The Exchange Rate between the Canadian Dollar and the U.S. Dollar

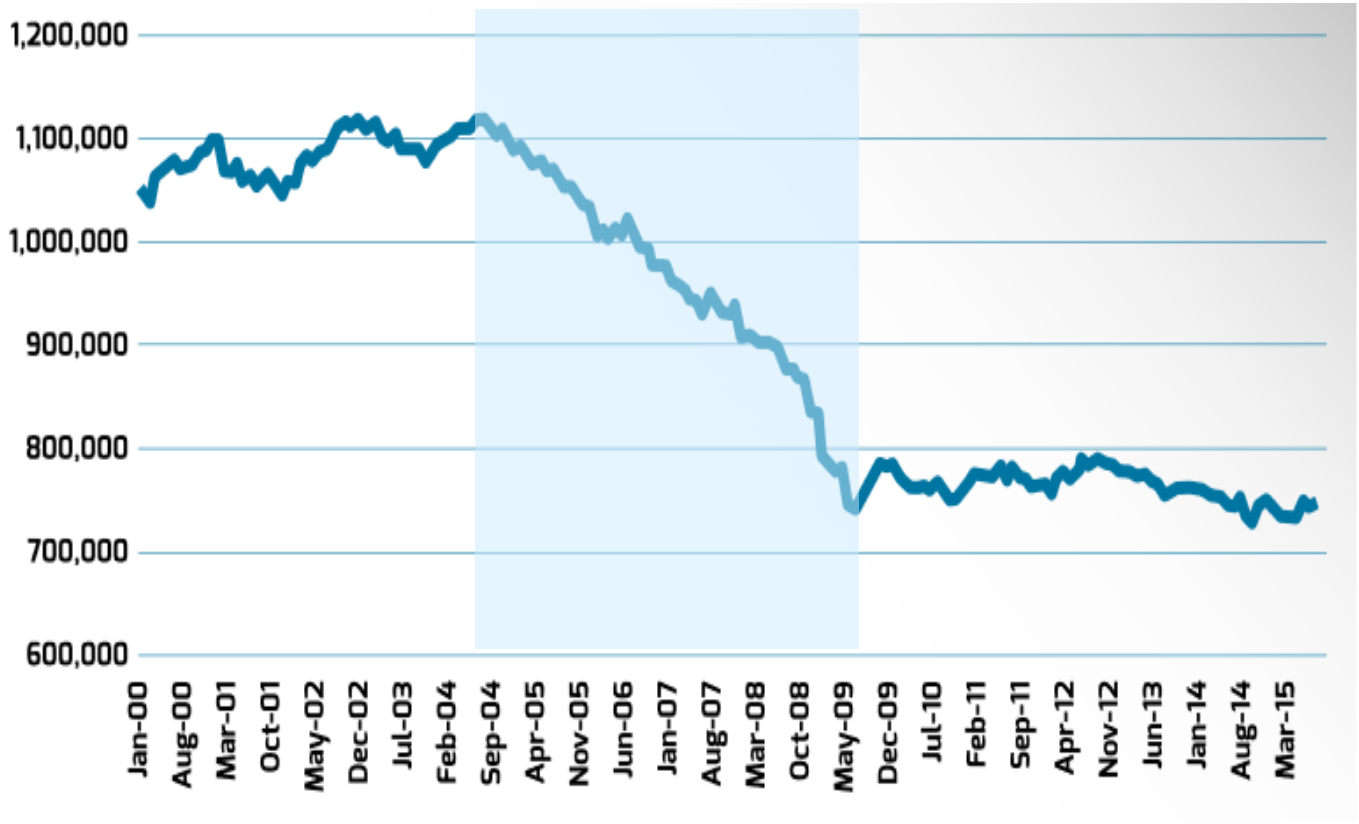
January 1970 to September 2017



Source: Trading Economics.

Ontario: Changes in Employment in the Manufacturing Sector

January 2000 to March 2015



Source: Canadian Centre for Policy Alternatives with data from Statistics Canada.

THE BALANCE OF PAYMENTS

- The ***balance of payments*** is the record of all transactions of the economy with the rest of the world

- The overall balance of payments is the summation of the balance in two accounts: the ***current account*** and the ***capital account***

  - The ***current account*** records all the imports and exports of goods and services, investment income, and transfer payments

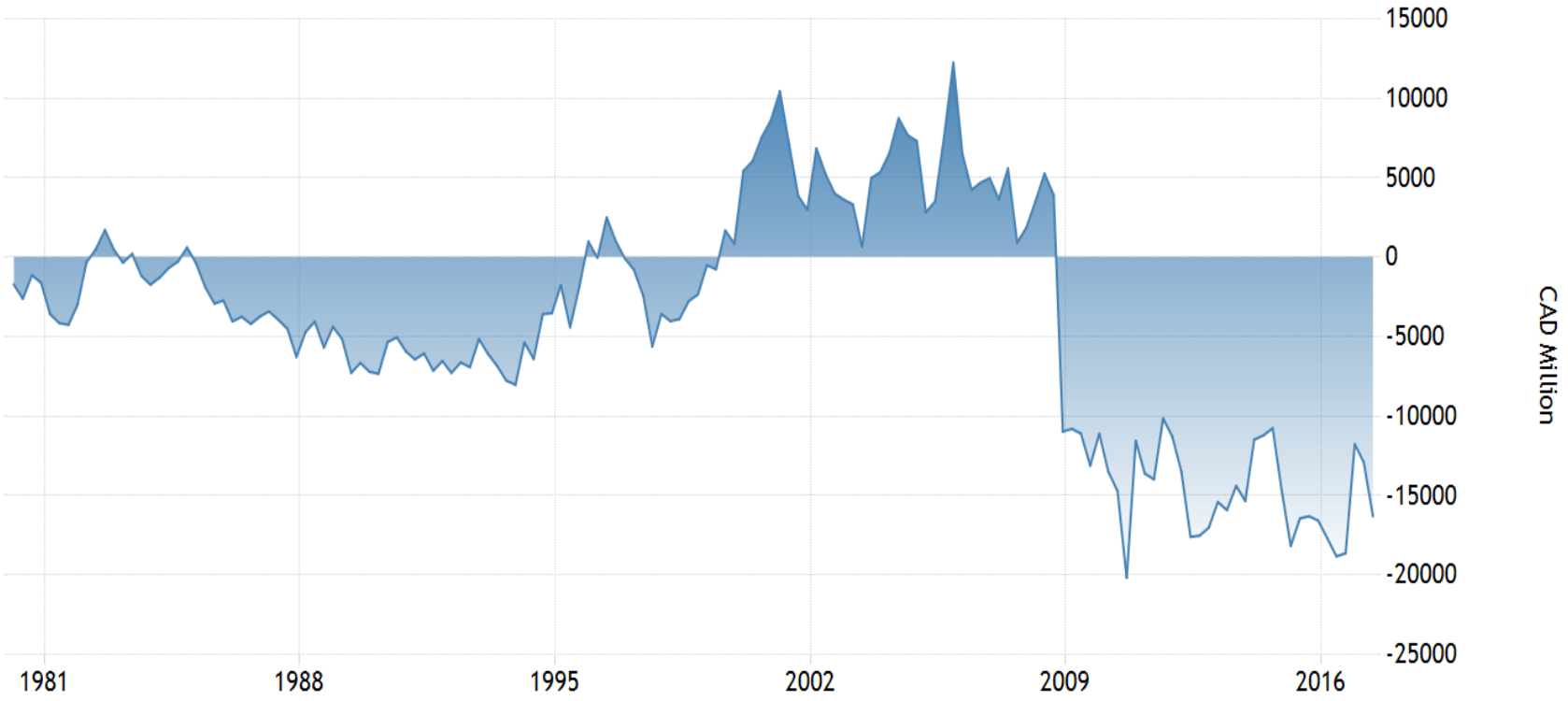
  - The ***capital account*** records the capital flows, that is, investment and borrowing/lending

Canada's Balance of Payments (2010)

	Receipt	Payment	Balance
Current account	547,141	598,005	-50,864
Goods and services	476,086	507,844	-31,757
Investment income	61,794	78,230	-16,436
Transfers	9,261	11,932	-2,671
Capital account	156,883	107,176	49,707
Statistical discrepancy			1,157

Canada's Current Account Balance as Percent of GDP

January 1980 to September 2017



Source: Trading Economics / Statistics Canada.

ECONOMIC POLICY

- Policy makers use mainly two types of policies to affect the state of the economy: ***fiscal*** and ***monetary*** policies

- The government (Parliament) controls ***fiscal policy***, while the Bank of Canada controls ***monetary policy***
  - The instruments of ***fiscal policy*** are tax rates and government spending
  - The main instruments of ***monetary policy*** are changes in either the stock of money or the bank rate