BANK OF CANADA
BANQUE DU CANADA

B A C K G R O U N D E R S

The Output Gap

The output gap is defined as the difference between the actual output of the economy and its potential output.

Potential output is the maximum level of goods and services an economy can produce on a sustained basis with existing resources (labour, capital equipment, and technological and entrepreneurial know-how) without generating inflation pressures. Economists also refer to potential output as trend output or the production capacity of the economy.

A positive output gap means that the economy is operating above its capacity to sustain that level of production owing to excess demand. A negative gap means that there is excess supply — that is to say, spare capacity or slack in the economy—due to weak demand.

The output gap: An important variable for monetary policy

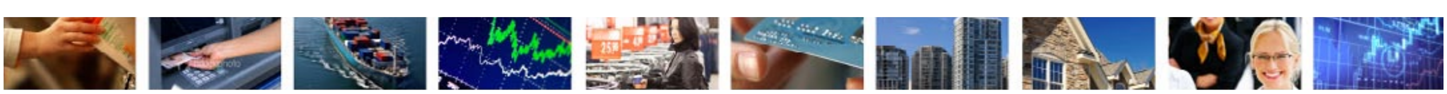
The output gap is an important variable for monetary policy as it is a key source of inflation pressures in the economy.

When demand for goods and services presses against the economy's capacity to produce, this tends to put upward pressure on prices. When demand is weak, it tends to push prices down. Put another way, when the rate of inflation *consistently* comes in higher than expected, it is typically a sign that demand for goods and services is pushing against the limits of capacity. When the rate of inflation consistently comes in lower than expected, it is generally a sign of weak demand and of spare or unused capacity.

The Bank is equally concerned about too much or too little demand pushing inflation appreciably above or below the 2 per cent target. So, when demand is expected to exceed potential down the road (positive output gap), the Bank will typically raise interest rates to cool down demand and inflation pressures. When demand is expected to fall short of potential (negative output gap), the Bank will lower interest rates to boost demand and prevent inflation from falling below 2 per cent.

Tracking the output gap

Measuring the output gap is no easy task. The challenge is that, unlike actual output, the level of potential output, and hence the output gap, cannot be observed directly, and so cannot be measured precisely. Potential output and the output gap can only be estimated: for example, potential can be thought of as the product of trend labour input and trend labour productivity. Such estimates, however, are subject to considerable uncertainty, especially when the economy is coming out of a deep recession, during which major structural changes often take place. For example, during the 2008-09 recession, many sectors of our economy, most notably the automotive and forestry industries, underwent significant adjustment.



Assessing capacity pressures in the economy

Given the difficulties of estimating potential output and the output gap, the Bank also considers several other indicators in order to get a better reading of the overall degree of capacity pressures in the economy. Among these are employment, capacity utilization, labour shortages, average hours worked and average hourly earnings, money and credit growth, and inflation relative to expectations. The Bank gathers information on capacity utilization, labour shortages, and inflation expectations through its *Business Outlook Survey*, conducted quarterly by its regional offices.

February 2010