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# MONEY AND MONETARY POLICY IN CANADA

## MODULE 5:

## MONEY AND THE ECONOMY

**"Money and Monetary Policy In Canada" by Gary Rabbior**
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# A QUICK SUMMARY TO START

In the module we'll be taking a look at our economy, how it does its job, and the factors that can affect its performance. But first let's summarize some key points:

- The primary role of the economy is to produce goods and services to satisfy the needs and wants of the people in a society.
- Money is a tool to help facilitate production, distribution and exchange in the economy.
- The three functions of money in our economy are to serve as a medium of exchange, a unit of account and a store of value for future use.
- The financial system provides an efficient means for making payments as goods and services are distributed and exchanged.
- The financial system also helps channel funds from savers to borrowers for spending and investment.
- Investment leads to new and improved businesses, equipment, factories, technology and services that increase our economy's ability to produce goods and services. If done wisely, it can also help businesses be more sensitive to, and compatible with, our environment.
- The Bank of Canada works to protect the value of our money by keeping inflation low, stable and predictable, which creates an environment for long-term, stable growth and employment in the economy.

This sets the stage for us to look at the relationship between money and the economy, as well as the role of monetary policy.

# 5.1 GOALS FOR THE CANADIAN ECONOMY

***Question for Discussion:*** *What goals would you set for Canada's economy?*

Let's begin with a look at what we can hope for from our economy. If our economy works well and is managed well, if our money is managed well, and if our financial system works effectively, we would like our economy to

- create and provide good jobs for Canadians, enabling them to earn incomes for themselves and their families;
- use available resources efficiently and wisely to produce the goods and services that people need and want;
- over time, increase the wealth created to improve our standard of living while providing better social programs and assistance to those in need, and
- continuously improve our ability to produce goods and services to minimize negative effects on our environment and maximize efforts to sustain and improve it.

This could represent our wish list for the economy.

***Economic Insight****: Price stability is seen as a means by which to help achieve our economic goals*

## The Importance of Price, and Economic, Stability

But achieving these outcomes is not easy. The Bank of Canada's primary role is to achieve price stability. Price stability is an important means to achieving our desired ends—the goals we have for our economy.

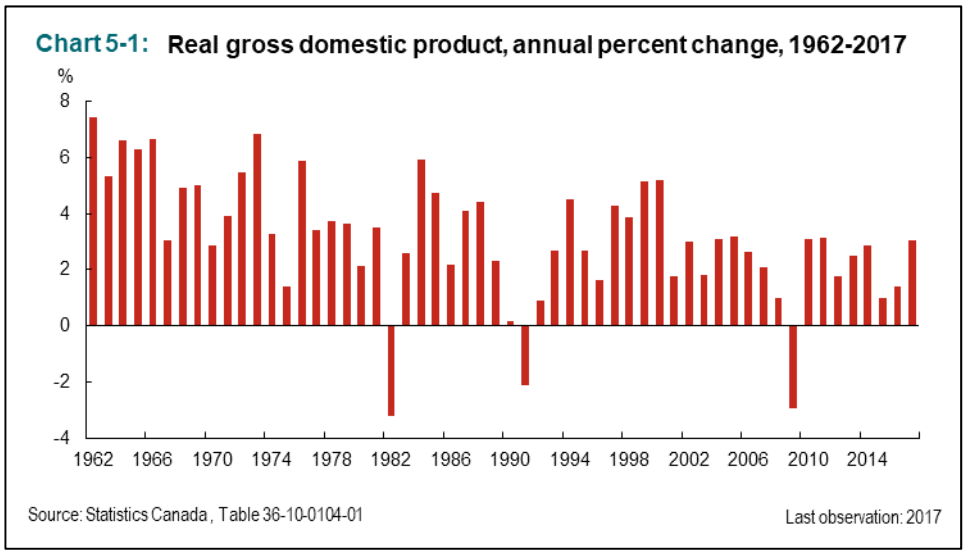
Along with price stability, we hope the level of economic activity is also stable. It is desirable to avoid major swings up and down in our production and employment levels. To have good economic times with high employment and rising incomes followed by times of high unemployment and lost incomes would create an unstable and uncertain world for people. If our economy can grow in a stable manner and avoid these swings, such stability can help Canadians better plan for the future.

## Canada Is Part of a Global Economy—and Vulnerable to External Shocks and Global Developments

Those who design and implement policies to keep our economy on a stable path face considerable challenges in today's uncertain world. With rapid change, and countries that are increasingly linked and affected by what goes on in the global economy, economic shocks can

occur, such as the dramatic decline in oil prices in 2015 and the financial crisis that struck in 2008.

It would be ideal to have an economy that would grow moderately and persistently, be sensitive to the environment, maintain stable prices, and create good-quality jobs and a high level of employment for Canadians. The growth path for such an economy might look like that shown in **Chart 5.1**: **Real gross domestic product, annual percent change, 1962-2017**.

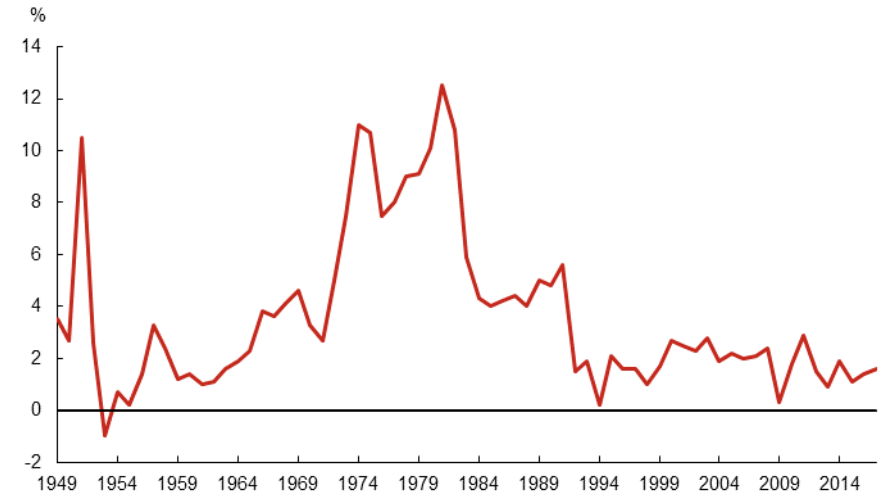



## The Business Cycle

But, over time, most economies have experienced good and bad economic times as they move through cycles: periods of economic expansion with more output (goods and services), more jobs and higher incomes—followed by periods of economic contraction with lower output, higher unemployment and lost or lower incomes. There are periods when the rate of inflation is relatively high, and others when it is relatively low.

**Chart 5. 2: Consumer price index, annual per cent change, 1949-2017** shows how the level of production in the Canadian economy has changed over recent decades. The figure clearly shows that the path has not been completely smooth but has moved through the cycles described.

**Chart 5-2: Consumer price index, annual per cent change, 1949-2017**

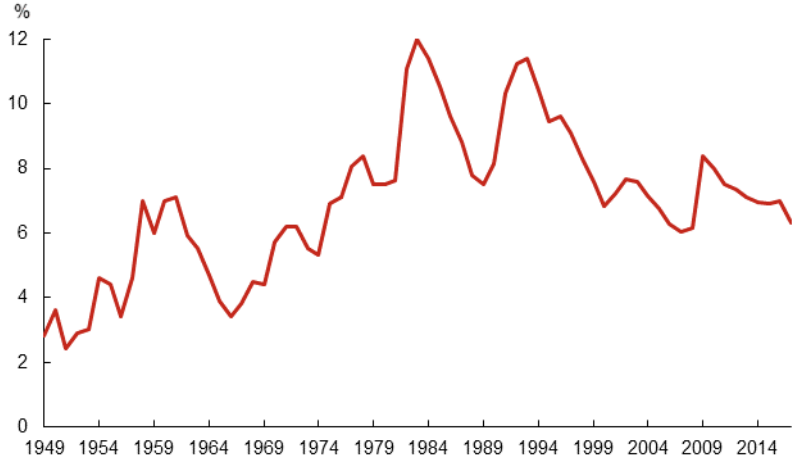



Source: Statistics Canada, Table 18-10-0004-01

Last observation: 2017

**Chart 5. 3: Annual average unemployment rate, 1949-2017** and **Chart 5. 4: Annual average unemployment rate and consumer price index, 1949-2017** show how the rate of inflation and the rate of unemployment have also varied over the years.

**Chart 5-3: Annual average unemployment rate, 1949-2017[1]**

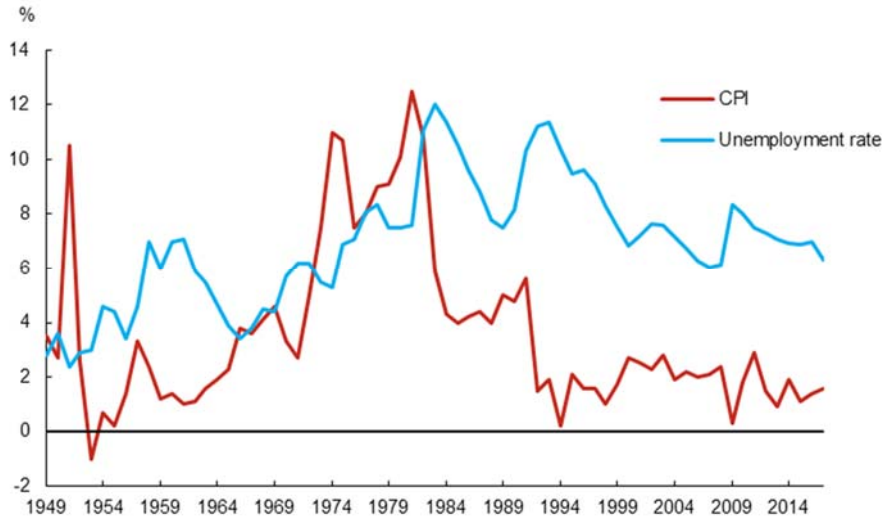



1. From 1949 to 1965, rates are based on the population aged 14 years and older. From 1966 to 2017, rates are based on the population aged 15 years and older. Newfoundland was included in the LFS in the fourth quarter of 1949.

Source: Statsitics Canada, Table 14-10-0287-01

Last observation: 2017

**Chart 5-4: Annual average unemployment rate and consumer price index, 1949-2017**




Sources: Statistics Canada, Tables 18-10-0004-01 and 14-10-0287-01

Last observation: 2017

# 5.2 THE CYCLE OF ECONOMIC ACTIVITY: THE GOAL OF STABILITY

***Economic Insight:*** *Achieving economic stability is challenged by the growing global economy and interdependence*

Policy-makers have long tried to find the key to establishing a smooth path for the economy. Various theories and policies have been developed and attempted. To date, no one has found the magic formula that will enable an economy to grow in a stable and continuous fashion—to have lengthy periods without slowdowns and high unemployment alternating with periods of higher growth and price inflation.

We have noted that the challenge to achieving stability is made even greater by our growing global economy and increasing interdependence. Even if we could find a way to achieve stable economic growth in Canada, our economy is closely linked with the global economy, and we can't isolate ourselves from external shocks.

But why is it important to achieve a relatively stable path for our economy? For one thing, we probably stand a much greater chance of achieving our goals if the economic environment is stable rather than turbulent. As the early explorers would have said, it is a lot easier to get where you are going in calm, smooth seas than in turbulent, stormy ones.

Furthermore, a dramatically cyclical economy with significant changes in prices, incomes, employment and output can cause uncertainty and hardship for many people. It makes it hard to plan. It makes people less confident in the future.

# 5.3 WHAT IMPACT DOES MONEY HAVE ON THE ECONOMY AND ITS PATH FOR ECONOMIC ACTIVITY?

A key challenge for us as we explore monetary policy in Canada is to understand the relationship between *real* economic activity (the actual production of goods and services) and money. Understanding this relationship can help in understanding monetary policy—and what factors affect the monetary policy decisions of the Bank of Canada.


*When "money" and "the economy" work together, they enhance our ability to achieve economic progress.*

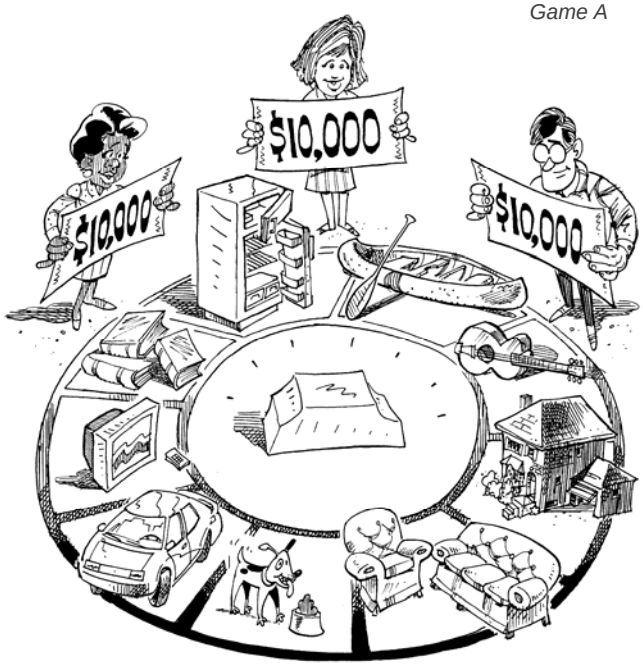
To help understand the relationship between money and the economy, let's create a game—a game we'll call "Auction Block."

## Auction Block

The aim is for each player to accumulate as much wealth as possible. We will look at a number of versions of our game, but let's suppose the basic game is played as follows.

Each player is given some money at the start of the game. Players roll dice and move around a game board made up of a series of squares with pictures of items for sale. When a player lands on an item, a card with a picture of that item is placed on the auction block. Players then bid for the item, and the item (and the card) goes to the highest bidder.

*Game A*




There are also squares on the board titled "News and Information." A player landing on one of these squares is given some piece of news or information that may ultimately affect the price of a particular item on the game board. As each player accumulates more knowledge, the bidding activity of the players will be affected. At the end of the game, the current market price of each item is revealed, and players calculate the dollar value of the wealth they have accumulated.

When actual numbers are revealed, a player may discover that he or she paid more for an item than it is ultimately worth. Or, a player may be pleased to find that the price paid was actually less than the item's final value. Everything will depend on the bidding activity, players' access to and interpretations of information, and the effects of market events on prices.

As mentioned, however, we are going to look at a number of variations in our game—five variations, in fact. Let's assume that five simultaneous games of Auction Block are being played by five different groups of players. We get to look in on all of them, see what's going on and hopefully learn a little from what we see.

## What If We Double the Amount of Money in the Game?

In Game A, each player gets $10,000.

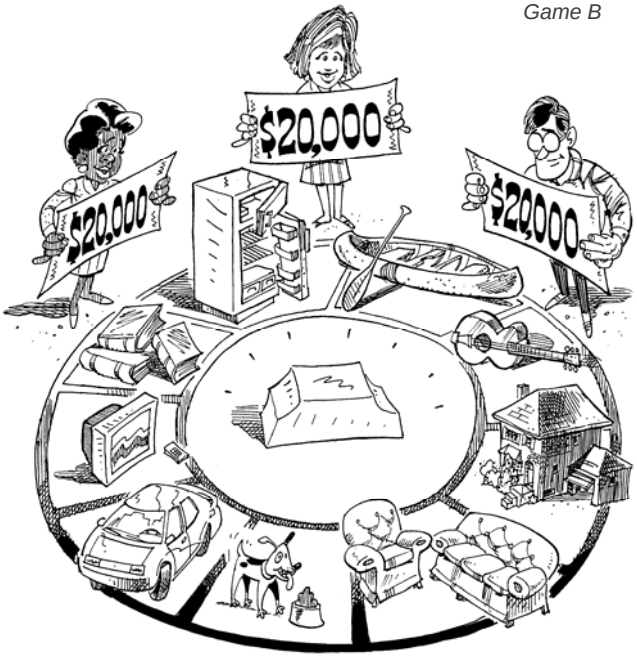
In Game B, we will make one change. We will double the amount of money that each player receives at the outset of the game, to $20,000.

Let's pause for a moment to consider the impact of doubling the quantity of money in Game B. Can more items be purchased from the auction block with more money available for spending? No, because there is no increase in the number of items available for purchase.

As a result, players have more money to spend in Game B—but nothing more to buy. As we watch the game unfold, we see players in Game B spending more money, but only because prices are being bid up and are higher. With twice as much money, but the same number of items to purchase, it is likely that prices will double.

Here is the important question. Are the players in Game B, with twice as much money, any better off than the players in Game A? No. The same items are acquired by the players in both games. The players in Game B acquire their items by paying higher prices, but they are no better off in real terms with twice the amount of money.

*Game B*




## Changes to the Average Level of Prices—Inflation

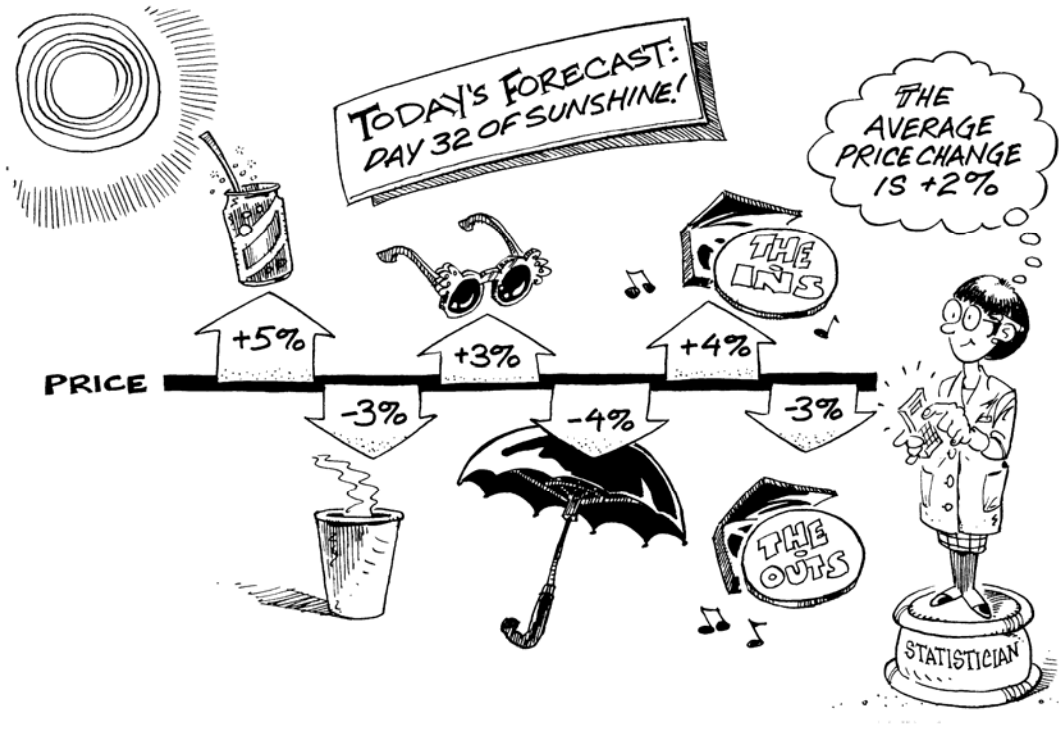
***Facts and Figures:*** *The "average price level" is an important concept for the economy*

What did the additional money achieve in Game B? It raised the average price level as the prices paid for the items in Game B increased. This concept of average price level is very important to an economy, and we will take some time to understand what it means.

There are many prices for the many goods and services produced, bought and sold in our economy. Over time, some prices rise while others fall or stay the same. Of keen interest to economists and policy-makers is whether there is a change in the *general average level of prices*. That is, are prices, on average, rising or falling? The price of a smartphone may increase by 5% from one year to the next, for any number of reasons. But that is a change in the price of a single item. That change doesn't tell us what is happening to prices in general

throughout the economy. However, if we can measure the change in average prices, we may find that things are much different.

If you were in a position to make decisions about policies that can affect our overall economy, you would want to have an idea of what's going on in the economy overall—not just in the price of one item. By getting information on the prices of lots of items and doing some calculations , we can get a sense of what's happening to prices in general, or on average. This brings us to one of the most important concepts in economics and for the economy—inflation.




*Statisticians monitor increases and decreases in the prices of a wide range of goods and services to monitor the change in the average price level.*

Inflation occurs when there is an increase in the average level of prices in the economy. The tool used to calculate whether average prices are rising or not is the CPI—the consumer price index. We'll talk more about the CPI later. Just be aware that this index doesn't include the changes occurring for all prices in the economy. That would be a monumental job. Instead, a wide selection of goods and services is made—a basket, if you like—and their prices are tracked to calculate the CPI.

In our Auction Block game, doubling the quantity of money in Game B would likely double the prices of the items being bid on in Game A. The average price level increases and causes inflation in Game B. At the same time, it is important to note that the players are no better off in real terms than those in Game A. There is simply nothing else to buy with the money available.

***Economic Insight:*** *We could print and circulate twice as much money and not make people, on average, better off*

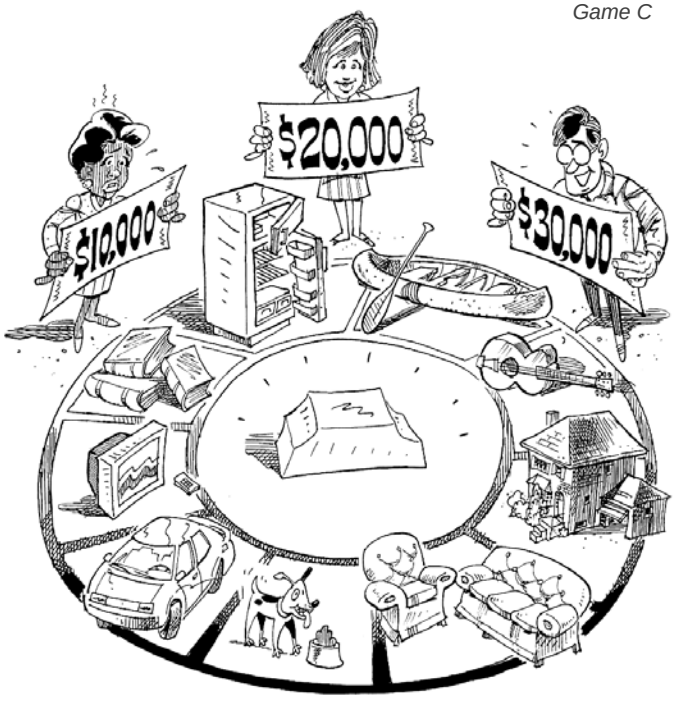
Most Canadians would be surprised to hear that it would be possible to print and circulate twice as much money in our economy but that this action, on average, would result in people being no better off. But from looking at Games A and B, you can see how that's possible. Remember, money is a tool we use in our economy to acquire goods and services.

When we compare things in terms of money, the term *nominal* is often used. For example, the players in Game B are nominally wealthier than players in Game A. That is, they have more money. But they are no better off in *real* terms. There are no other real goods that they can acquire.

## Game C—the Distribution of Income

Let's move on to see what's happening in Game C. Suppose that in Game C we adjust the quantity of money, as we did in Game B. But this time, we won't double raise the players' money equally. Suppose there are three players. We give one player $20,000, one player $10,000, and one player $30,000. The quantity of money in the game has doubled from our original Game A (from $30,000 to $60,000), but each player has a different amount of money to start.

*Game C*




As Game C begins, the amount that players are willing to bid will likely rise above the prices bid in Game A—as was the case for Game B. That is because two players in Game C have considerably more money to spend. Keep in mind that, as in Game B, there are no additional items available to buy.

With nothing additional to buy, the higher amounts of money lead to higher bids and, as a result, higher prices. In Game C, though, we see a difference from

Game B. The player with $30,000 will likely end up better off than if he or she were playing in Game A or B, because this player's income has more than doubled. This player will find it easier to bid and pay the higher prices and will likely acquire more than the other two players in Game C.

The player with $20,000 in Game C may actually end up with acquisitions similar to those of players in Game A. Why? Because prices may end up doubling those in Game A, but that player's income has also doubled. Therefore, that player will likely be no better or worse off than those playing Game A.

But what about the Game C player with $10,000? That player will be in a very different position. As prices rise in Game C, that player will have a hard time bidding and paying, and therefore will likely end up acquiring less than the bidders in Games C or A.

## Inflation Affects Different People Differently

***Economic Insight:*** *Inflation can hurt some people more than others*

Game C helps show how inflation can hurt some people more than others. If prices rise but a person's income can't keep pace, that person end up worse off as a result. That's one good reason to try to keep prices in our economy stable and under control. Fewer people will feel the impact of rising prices. Many retired Canadians, for example, have trouble keeping up with inflation. Many live on fixed incomes—that is, incomes that do not rise over time. If they continue to have the same income but prices in general rise, they will become worse off.

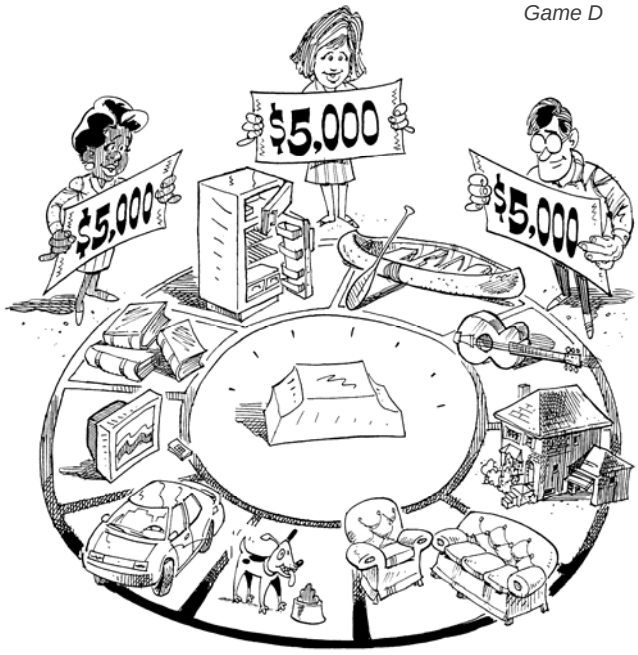
In Game C, we see that rising prices and inflation can affect people differently. If prices rise by 2% and your income rises by 5%, you will likely become better off. If prices rise 2% and your income rises 2%, you will likely remain no better— or worse—off. But, if prices rise by 2% and your income doesn't rise at all, you can become worse off.

Those are our lessons from looking at the differences in Games A, B and C. Let's see the situation in Game D.

## Game D—Halving the Amount of Money in the Game

In Game D, instead of doubling the amount of money players receive in Game A, we will cut the amount in half. What impact does this have? Are the players in Game D, who have less money, less well off as a group than those playing Game A? The likelihood is that players will bid and pay lower prices for the items on the auction block. Each player in Game D may be as well off as those in Game A or Game B in real terms. Lower prices and a lower average price level make this possible with less money. However, if we compare total spending in Game A with that in Game D, we will see that the total level of spending in Game D is lower. We can say that nominal spending is lower in Game D.

*Game D*




## The Problem with Deflation in an Economy

***Economic Insight:*** *Most economists fear deflation more than inflation*

In an economy, if the general level of prices—that is, the average price level—falls, this is referred to as deflation.

Now, you may think that the idea of deflation sounds great—falling prices always sounds good. But be careful what you wish for. Many, if not most, policy-makers and economists fear deflation more than inflation. Why? Think of what can happen when people think prices are going to fall. They would likely postpone buying things—smartphones, clothes, cars, homes and so on—hoping their prices will fall.

If that happens and people stop spending, the economy can tip into a downward spiral. As people stop spending, prices fall. As prices fall, people think they may fall farther and don't spend—and on it goes. As spending falls, sales and production fall, producers cut back, jobs are lost, incomes are lost and spending can fall further. As we said above, deflation is usually something economists and policy-makers want to avoid. If deflationary expectations set in, the economy can experience a significant period of decline.

## More Money Plus More Spending Does Not Mean People Will Be Better Off

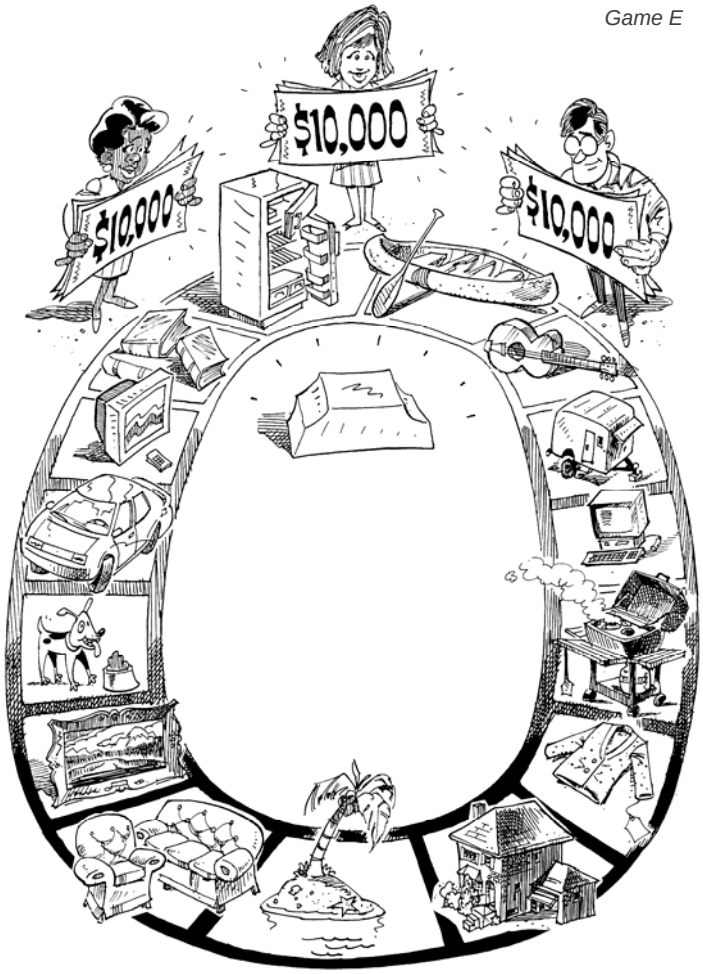
***Economic Insight:*** *"Real" information is important to consider in making policy decisions.*

The point should be clear by now. More money and more spending in an economy don't necessarily mean more goods and services are purchased or that people are better off. The level of spending has to be considered together with available output and the changes in prices. That is why it is important to focus on real, rather than nominal, information in our economy. The level of total spending on goods and services in Canada may rise from one year to the next. But how much of that added spending is simply a result of people having to pay higher prices? Did the economy grow from one year to the next because total spending increased? You won't know until you exclude the impact of higher prices and compare real information rather than nominal.

## Game E—the Impact of Adding More Items to the Game

Now, let's move on to our last game—Game E. Suppose the change we make here is to add some new items to our game board, so that players in Game E are playing with a different board than the players in all the other games. In addition, we will add more money to this game, over and above the amount given to those in Game A. For the moment, we won't state just how much new money that will be. What is the impact of the additional items and the additional money?

*Game E*




If we were talking about our economy, the additional items would represent new production and more output. At least some of the additional

money added to Game E can be used to buy these new items. The players can now become better off in real terms because there are new items to buy. Whether prices in this game rise will depend on how the rise in spending compares with the increase in the number of items there are to buy—and the prices at which they will now be sold. In our economy, to keep inflation at a low and stable level, it is important to keep any increase in the amount of money in line with increases in the production of goods and services and not let the amount of money grow too quickly.

## Insights from the Auction Block Game

These different versions of our Auction Block game help us understand the relationship between money and our economy.

***Economic Insight:*** *For people, on average, to become better off, the economy has to create more wealth.*

In Games B and C, more money was added, but there was nothing more to buy. The additional money in Games B and C only served to push up prices. In Game B, players couldn't become better off in real terms because there was nothing new to buy. In Game C, some players could become better off because they had access to more money, but, overall, the real economy didn't increase. The only way one player could benefit was at the expense of another player. If we measured the real economy in Game C, we would see that it hasn't grown. What has happened is that real wealth in the game is distributed in a more unequal manner.

In Game E, additional items were added to a larger game board, so players could become better off in *real* terms because there were more things to buy. More money can be used in Game E for more spending without necessarily raising prices.

In summary, the Auction Block game shows us that simply increasing the level of spending in an economy, in nominal terms, won't necessarily make people better off. For people to be better off, the economy will have to produce more for people to be able to acquire. If the economy produces more output, then spending levels can rise to purchase the new output without necessarily causing inflation. This can make people better off. Our economy will, in fact, *need* more money if it grows, since more money will be needed to purchase the new output.

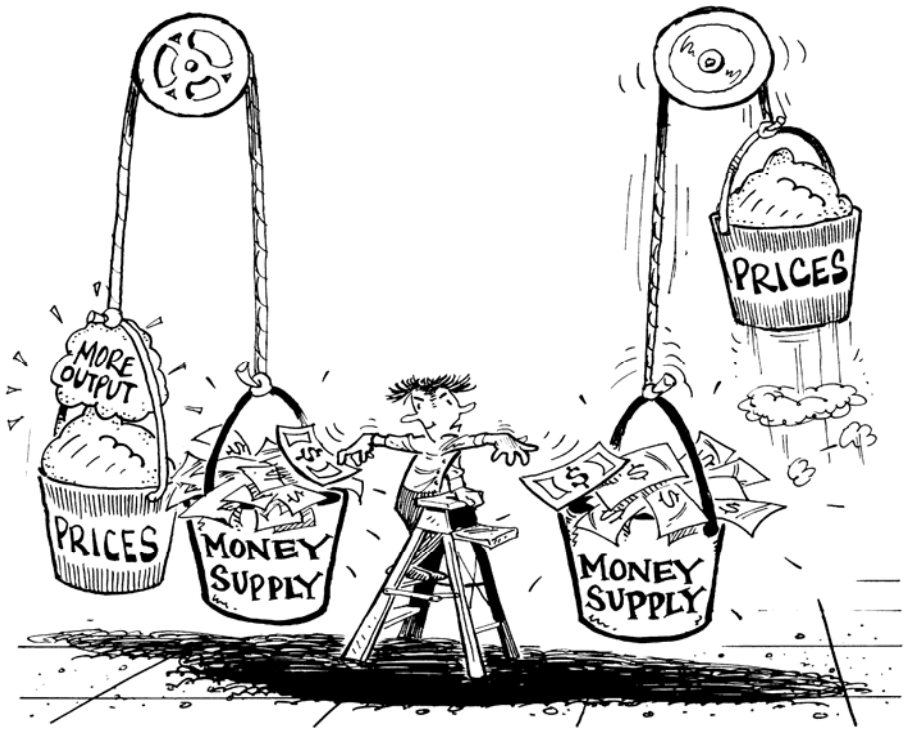
If new money is not made available to enable more spending in a growing economy, the economy will go through a period of adjustment:

(a) In the short run, output will decline because the level of spending is not buying up the new production. Producers will see their inventories build up and will cut back on production.
(b) In the long run, the average price level will eventually fall to enable people to purchase the new production. However, as we mentioned, it can be a painful adjustment for an economy to go through a period of deflation and a reduction in the average price level. So, overseeing the level of spending, and the impact of that spending on prices in our economy, is very important.

## Two Sides of the Economy—Real and Money

As we noted, our economy has two sides to it. There is the real side, consisting of the actual goods and services that are produced and distributed using our available resources. And there is the money side—the money in our financial system that exists to help our economy with the process of production, exchange and distribution.

The money side exists to help the real side. If money and our financial system are managed well, they can help to support real, productive economic activity that creates goods, services, jobs, incomes and growth in our economy. They can help to keep the economy on a stable path forward and help improve the well-being and standard of living for Canadians.




*If more money is added lo an economy producing the same outpul as before, prices will tend lo rise. An economy can handle, and needs, additional money if more output is produced so that the new oulput can be purchased.*

As our Auction Block game showed, we could turn on the printing presses and give everyone lots of money, but that money would fail to make the people in our society better off. The extra money may even make some people worse off if they can't afford the higher prices that result. High inflation creates problems, and the economy as a whole functions less well during high inflationary times.

## The Problems with Inflation: A Quick Review

Our Auction Block game gave us some insight, but there are more reasons to be concerned about high and less predictable prices. We touched on some of these in Module 3 and Module 4. High inflation creates uncertainty regarding the future and makes it more difficult for people to make economic decisions. It increases the risk that some decisions may turn out to have negative consequences. High levels of inflation force businesses and households to spend more time, and often more money, trying to protect themselves from the effects of rising prices. It can also mean particular hardship for those whose incomes don't keep pace with the rising level of prices. This can include lower-income and retired households that tend to hold a higher portion of their assets in cash or similar liquid assets, which do not adjust for inflation. Therefore, they are less protected from the impact of inflation.

***Economic Insight:*** *Inflation can create a number of different problems*

Further, as expectations of higher inflation are built into wage contracts, this can lead to higher levels of inflation becoming more persistent.

For these and other reasons, the primary concern of the Bank of Canada is to keep inflation under control—to keep prices, on average, stable—to help the economy grow and to achieve our economic goals.

## Money Is the Lubricating Oil, Not the Fuel, for Our Economic Engine

***Economic Insight:*** *Money is the lubricating oil, not the fuel, for the economic engine*

We must also keep in mind that our economy is the engine that produces goods and services—and it is not driven by money. The economic engine is fuelled by the labour, ingenuity, capital and other resources that are put to productive use by households, businesses, governments and entrepreneurs. Money is the oil that lubricates the engine and keeps it running smoothly and efficiently. However, as with any lubricant, if not used properly, money can damage the engine, slow it down and cause a host of complications.

Before we move on, you might want to read the following account of the economy in a Second World War prisoner-of-war camp. This story helps to illustrate the impact money can have on an economy.

## 5.3 What Impact Does Money Have on the Economy and Its Path for Economic Activity?


*Money is the lubricating oil, not the fuel.for the economy engine. Money helps the economy run more smoothly.*

# 5.4 A PRISONER-OF-WAR CAMP STORY: THE IMPACT OF MONEY

For prisoners in the Second World War, material comforts came largely through parcels from the Red Cross or home. These parcels contained primarily food items such as biscuits, chocolate, sugar, jam, butter, etc. They also included cigarettes.[1]

Each prisoner received the same Red Cross parcel. Only through exchange could prisoners alter, and possibly improve, their level of material comfort. Fellow prisoners offered some services in the camp, such as laundry and tailoring. And some parcels did arrive from home, providing items such as clothing. However, overall, there was very little production activity within the camp. Without new items being produced, this left the process of trading and exchange with fellow prisoners as the primary route to becoming better off.

The early economic activity in the camp began as direct barter—one good or service directly traded for one or more of another. Over time, the level and rate of trading increased significantly. And some prisoners became particularly adept at it. For example, one prisoner who began with a tin of cheese and five cigarettes managed to obtain another complete Red Cross parcel, while somehow retaining his original cheese and cigarettes.

Rough prices that enable trade evolved. While a tin of jam was worth half a pound of margarine and at least one other item and a cigarette was equal to the value of several chocolate rations, a tin of diced carrots was almost worthless. With the camp being split into different areas, prices in one part could be different from those in another. So, some prisoners could earn a profit from what is known as arbitrage—acquiring a good in one market at one price and selling it in another market where its price is higher.

Over time, however, as the camp economy became more developed and complex, bartering became quite complicated. A simplifying system was needed. Eventually, the value of everything in the camp came to be expressed in terms of cigarettes, which became the unit of account and the medium of exchange. In effect, cigarettes were a form of commodity money for the camp.

At first this system had some rough edges. In the hours after an issue of parcels from the Red Cross, the camp would be chaotic as prisoners walked through calling out their offers.

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[1] Details of this account are taken from “The Economic Organisation of a P.O.W. Camp,” by R.A. Radford, which appeared in the journal *Econometrica*, Vol. 12, No. 48, published in 1945. The article describes trade and barter among captured prisoners in European prisoner of war camps.

This hectic form of trading eventually changed, however, and the verbal exchange market was replaced by an “Exchange and Mart” noticeboard. On the board, in each area of the camp, a prisoner’s name and room number would be listed, along with what was wanted and offered in return. Through this type of public trading, prices became generally well known. Prices were largely influenced by the forces of supply and demand.

In the camp, certain small businesses were established. One prisoner set up a stall to sell cups of coffee, tea and cocoa, paid for with cigarettes. Even a restaurant was eventually set up.

Credit (being able to use something today and pay for it at a later date) also evolved in the camp, as did spot and futures markets. Spot and future prices mean that a good can have a certain price if bought today and another price if you agree today to buy it in the future. For example, in the camp, a treacle (a toffee candy) ration sold for four cigarettes that day or five cigarettes if the prisoner agreed to buy it the following week. To agree to a higher future price, a buyer obviously has to believe that the price will rise. The higher price offered for treacle on a particular day in the camp would be worth it in the future if, for example, the buyer thought the price might be six or seven cigarettes when the available treacle supply was less.

But pricing became somewhat difficult because of debasement of the currency. Debasement means altering the nature of what is used as commodity money or specie, thus making it worth less. For example, prisoners started rolling the cigarettes between their fingers to force out some of the tobacco to make new cigarettes. So, some cigarettes ended up with less tobacco in them than others. Traders started inspecting cigarettes and would refuse poor ones, or value them less.

In addition, the Red Cross would issue pipe tobacco in lieu of cigarettes. A prisoner could receive one ounce of pipe tobacco or 25 cigarettes. But one ounce of pipe tobacco could make 30 cigarettes. Hence, some of the prisoners started receiving pipe tobacco and rolling it into cigarettes. This, too, led to debasement of the cigarette currency.

Changes in the quantity of cigarettes (camp money) altered prices in the camp. With the output of goods in the camp largely fixed, just like the items in the Auction Block game, changes in the amount of “money” available altered prices.

If the quantity of cigarettes in the camp went up, prices rose. If the quantity of cigarettes declined, prices in the camp fell.

A variety of factors affected the quantity of cigarettes. If the Red Cross issues were interrupted, there were fewer cigarettes in the camp. As some of the cigarettes were used for smoking and fewer were available as currency, prices of various goods and services declined. In other words,, deflation occurred.

In contrast, when new parcels arrived and the supply of cigarettes shot up, so did prices. Higher prices would prevail until the supply of cigarettes was again reduced through smoking.

## 5.4 A Prisoner-of-war Camp Story: The Impact of Money

When there was tension in the camp, such as bad news about the war, more cigarettes would be smoked, the quantity of currency would decline, and prices would fall. If there was a rumour that a new issue was due shortly, raising expectations that the supply of cigarettes was about to increase, prisoners would begin to offer higher prices. These factors influenced the amount f money in the camp and, leading to changes in the average price level.

Alternatively, the price for a particular good or service can change owing to the forces of supply and demand. Price changes due to these forces are referred to as relative price changes. For example, the weather could affect relative prices. In the warm periods, the demand for cocoa declined, along with its price, and the demand and price for soap increased. New discoveries altered prices. When it was discovered that raisins and sugar could be combined to make a strong liquor drink, their prices shot up. And so on.

The prison camp economy shows that money (in this case, cigarettes) primarily affects the *prices* in transactions for goods and services. The production and availability of goods and services are largely determined by other factors.

As we noted, the levels of output and employment in the economy are largely related to changes in such things as our technology, education, attitudes to work, population, willingness to take risks, initiative, government policies and regulations, and ability to trade, as well as the world prices for the goods and services that we sell to other nations. Over time, the levels of output and employment in our economy are not determined by the amount of money we print and put in our financial system. But money, as we know, does play a key role in the financial system.

# 5.5 CURRENT SPENDING AND THE ECONOMY'S CAPACITY: AN IMPORTANT RELATIONSHIP

We have emphasized that the primary goal of the Bank of Canada is to keep prices stable within a predictable range. This stability protects the value of money and increases the confidence Canadians can have in their spending, saving and investing decisions. Most particularly, the Bank of Canada monitors the outlook for inflationary pressures in the economy that tend to move the level of prices away from the 2% target.

***Economic Insight:*** *The Bank of Canada is forward-looking in making policy decisions*

Consequently, the Bank of Canada looks much more to the economic future than to the present and is therefore primarily forward-looking. It needs to watch for what is happening and how economic conditions are changing to determine if inflationary pressures are building in the economy and, if so, why. At the same time, it keeps a watchful eye on the possibility of any economic shocks or external risks that might be mounting. The Bank looks at whether these pressures are likely to move the rate of increase in the average level of prices above the 2% target.

The Bank also determines if disinflationary expectations and pressures are mounting and if the economy is showing signs of weakening—in other words, if the average level of prices is rising at a rate less than the 2% target rate.

Since the risks of rising inflation or possible deflation are so important to the Bank, let's look at the factors that affect the capacity of an economy to produce goods and services. We'll see how the level of spending, in relation to that capacity, can affect prices.

***Key Question:*** *Can the economy respond to more spending with more output and without generating inflationary pressures?*

## Factors Affecting Pressure on Prices

Pressures on prices come from the relationship involving three primary factors in the economy:

1. its current capacity to produce goods and services using the available resources efficiently
2. the current level of production
3. trends in current total spending

As spending increases in an economy, it will to try to produce more goods and services in response. The key question is whether the economy can respond and, if so, how? If unused resources are immediately available for production, the economy can pretty easily respond to more spending by generating more production.

If resources are available, but it will take some time and effort to bring them into production, the economy can still respond, though perhaps with rising prices that reflect the higher cost of bringing those resources into production.

However, if very few resources are readily available, the economy will likely respond in the only way it currently can—with higher prices, perhaps quickly rising prices.

So, the relationship of the economy's current capacity, its current level of production and the changes occurring in spending is very important—especially for the Bank of Canada as it makes decisions about monetary policy.

## Monetary Policy Decisions Require Some Important Information on the Economy

To know what we can expect from an economy in response to more spending, and whether there are inflationary or deflationary risks, we need to answer the questions we posed earlier

(a) How much is the economy currently capable of producing if all the current available resources are used?

(b) How much is the economy currently producing in relation to what it is capable of producing? In other words, what is the gap between the economy's current level of production and its potential?

(c) What is the current level of spending?

Let's begin with a look at (c) first. To consider the current level of spending, we need to know who is spending money and influencing the production of goods and services.

## Sources of Spending in the Economy

***Source of Spending in the Economy:*** *Consumers*

One important source is consumers. Consumer spending on goods and services is called consumption, and as consumption increases, just as with any other source of spending, the economy is encouraged to produce more output. You could probably produce a list of thousands of items off the top of your head that consumers want from our economy. We have become a pretty demanding lot over the decades as we seek to acquire a vast array of goods and services. Our economy's job, and that of our producers, is to try to respond to these demands using the limited resources available. But consumers are only one source of spending.

## 5.5 Current Spending and the Economy's Capacity: An Important Relationship

***Source of Spending in the Economy:*** *Businesses*

Businesses of all sorts and sizes invest so that they are better able to produce goods and services that they believe consumers are willing to buy. Some are large corporations that produce a variety of goods and services. Some are smaller enterprises run by entrepreneurs—some of which may eventually turn into larger companies and corporations.

It is demand from consumers—what and how much they are willing to buy—that leads businesses to produce. But to set up, improve and expand their businesses, companies need to invest. In doing so, they buy goods and services from other businesses to build a new plant or office, buy computers, hire or buy trucks and so on. This source of spending, not surprisingly, is called investment. The level and types of investments made in our economy are key factors influencing its ability to produce.

***Source of Spending in the Economy:*** *Governments*

So, we have consumer spending (consumption) and business spending (investment). A third source of spending comes from governments. Governments spend to produce and provide roads, sewers, bridges, health care, education, defence and so on. A number of criteria lead governments to produce such goods and services.

One criterion is that the good or service is something everyone should have—and that non-payers should not be excluded from. For example, consider a sidewalk. Most sidewalks are free—that is, there is no charge to use them. There is, of course, a cost to build the sidewalk. But, for a public good, the government pays for it with money received in tax revenues. In this way, no one is prevented from using the sidewalk because they can't afford it.

There are many public goods and services, and governments—municipal, provincial and federal—pay the costs to provide them. So, government spending is another source of spending in our economy.

To summarize, consumers spend to acquire goods and services, businesses invest in goods and services to improve and increase their production capabilities, and governments spend to provide public goods and services. But there is one other source of spending for Canadian output.

***Source of Spending in the Economy:*** *Foreign buyers of our exports*

Exports are the goods and services produced in Canada that are sold to buyers in other countries. Foreign spending on our exports therefore generates spending in Canada. This is a fourth source of spending, along with consumption, investment and government spending.

However, just as foreign buyers acquire our exported goods and services, Canadians buy imported goods and services from other nations. The spending by Canadians on imported goods and services does not generate production in Canada. The money spent on imports leaves Canada. Therefore, when we calculate total spending on the output in our economy, we do not include the spending by Canadians on imports.

We are now able to identify all the sources of spending that affect output from our economy. To calculate the total spending on Canadian goods and services, we add spending on

consumption (C), business spending on investment (I), government spending (G) and foreign spending on our exports (X). Note, however, that we can't forget to subtract the spending by Canadians on imported goods and services (M).

Total spending in the economy = C + I + G + (X – M)

One thing to keep in mind about measurements of spending and production in the economy is that, at any point, production will be equal to spending—that is, nominal spending must equal nominal production and real spending must equal real production. When spending occurs in the economy, it is in exchange for something that is produced. That is why the two totals must be equal.

**Table 5-1**
Growth in volumes
Average annual per cent change

| | Growth in volumes Average annual % change | | | | | | 2017 (nominal) | |
|---|---|---|---|---|---|---|---|---|
| | 1962 - 1969 | 1970 - 1979 | 1980 - 1989 | 1990 - 1999 | 2000 - 2009 | 2010 - 2017 | $ billions | % of GDP |
| Household consumption | 4.7 | 4.3 | 2.6 | 2.3 | 3.2 | 2.6 | 1239064 | 58 |
| Residential investment | 6.1 | 4.0 | 3.8 | -1.8 | 3.9 | 3.4 | 164510 | 8 |
| Business fixed investment | 6.6 | 6.3 | 4.0 | 3.5 | 2.1 | 2.6 | 245135 | 11 |
| Government spending | 5.9 | 3.5 | 2.3 | 0.7 | 3.2 | 1.0 | 530288 | 25 |
| Exports | 9.4 | 4.6 | 4.6 | 8.0 | -0.4 | 3.5 | 662743 | 31 |
| Imports | 8.5 | 5.5 | 4.6 | 6.2 | 2.3 | 3.7 | 711538 | 33 |
| GDP | 5.7 | 4.0 | 2.8 | 2.3 | 2.1 | 2.3 | 2145214 | |

Source: Statistics Canada, Table 36-10-0104-01

## Calculating Total Spending in the Economy

***Economic Insight:***
*Statisticians need to avoid "double counting"*

The job of adding up all this spending lies with Statistics Canada, and it's not an easy job. For example, they need to avoid double counting. What do we mean by that? Consider this example.

- Let's begin with a farmer who produces wheat. Suppose the farmer charges a miller 20 cents for the wheat needed to make flour for one loaf of bread. What happens next?
- The miller then sells the flour to a baker to bake the bread. Assume the miller charges the baker 60 cents for the same quantity of flour (20 cents to cover what the miller paid to the farmer plus 40 cents for the miller's operating expenses and profit).
- The baker then sells the bread to a wholesaler—someone who can get it to stores. Suppose the baker charges the wholesaler $1.20 for the loaf of bread. The $1.20 represents the 60 cents the baker paid to the miller plus 60 cents for operating expenses and the return that the baker wants.

- Next, the wholesaler sells the bread to a retailer—a store owner—to sell the bread to customers. Suppose the wholesaler charges a store owner $1.80 for the bread. The $1.80 represents the $1.20 paid to the baker plus another 60 cents for the wholesaler's expenses and return.
- Finally, the store owner sells the bread to the consumer for, let's say, $2.40 (that is, $1.80 for the wholesaler, and 60 cents for the shop owner's expenses and return).

What is the actual value of that loaf of bread in the economy? If you add up all the transactions between the businesses as they acquire what they need from each other, the total would be $6.20 (20 cents for the farmer + 60 cents for the miller + $1.20 for the wholesaler + $1.80 for the retailer + $2.40 for the consumer = $6.20). But that $6.20 includes double counting. For example, we have added in the 20 cents paid to the farmer five times, the 40 cents paid to the miller four times and so on.

The actual value of the loaf of bread is its final price, the price paid by the consumer for the final product —that is, $2.40. That price captures the net amount paid as a return at each stage of production.

The $2.40 is the amount we want to include when we are adding up total spending in the economy. We don't want to misrepresent how much the economy is actually producing or being asked to produce.

Knowing that Statistics Canada takes steps to avoid double counting, we can have more confidence in how total spending in the economy is calculated. Remember, total spending is equal to C + I + G + (X–M).

This is referred to as aggregate, or total, demand in the economy. It means what we are currently demanding from the economy in goods and services production.

Knowing the current level of spending and what demands we are placing on our economy answers one of our key questions. Now let's move on to another one.

## The Economy's Production Capacity: A Barrel Model

To make appropriate monetary policy decisions, the Bank of Canada needs to know how much the economy is able to produce if all available resources are used—that is, its potential production or potential output capacity. The Bank then needs to know the current level of production compared with that capacity. Is the economy operating close to its capacity? Is it far from its capacity?

Let's see what determines the production or output capacity of an economy.

To help explore this, let's use another analogy. We won't use a sophisticated analogy—a barrel will do. Suppose the barrel image shown below represents the current capacity of our economy

to produce goods and services. That is, if all available resources (natural resources, capital, labour, entrepreneurship and technology) were used to the full, we could produce enough goods and services to fill the barrel to the top. That means all our labour force is working a full 52 weeks a year and 35 to 40 hours a week, all our factories and equipment are active and fully working, and so on.

***Facts and Figures:*** *Engineering Capacity – If all resources are used at 100% capacity*

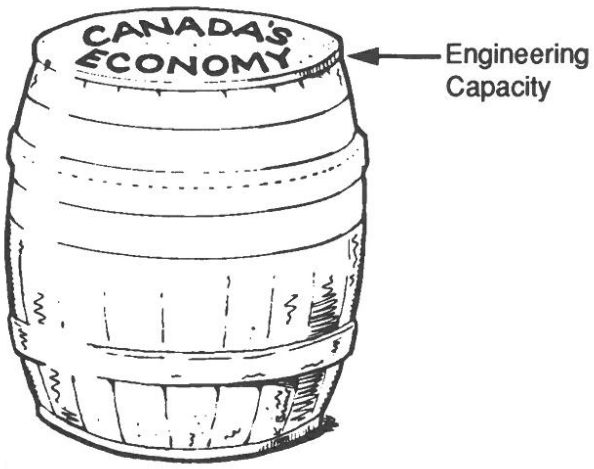
## Engineering Capacity

At the top of the barrel is an arrow indicating the engineering capacity of our economy. What does this mean?

Engineering capacity is the output level that would be produced if all resources (machines, factories, labour and so on) currently available to our economy were working at 100% capacity all the time. In reality, this level is seldom reached. An individual business may be able to reach its engineering capacity, but it's virtually impossible for the economy as a whole to do so. You simply can't keep all your resources working flat out at all times. Realities of the workforce have to be taken into consideration. People get sick. They take holidays. They take time to be retrained. Machines need to be inspected, maintained, repaired and replaced. The engineering capacity represents an output level that is not sustainable for the economy, except for a very short time.

At that level of production, the competition for resources would be intense because, after all, we have said they would all be in use. There would be no resources available. As a result, resource costs would rise dramatically, pushing up prices. And any further spending in the economy at such a time would push up prices too. Recall the Auction Block game when more money was added to a game with nothing more to buy. If all available resources are in use, no additional output can be produced.

***Economic Insight:*** *Two forces work on inflation – cost-push and demand-pull*




In this case, you would have two inflationary forces at work—cost-push inflation, where the rising cost of resources is pushing prices up, and demand-pull inflation, where higher spending is placing demands on the economy for output that it can't provide.

So, inflation would be a challenge for the economy if it was ever to operate at the point of engineering capacity. At the same time, workers couldn't keep this pace up. They would get worn out, and some might quit. Our capital couldn't keep it up either, as things would wear out or break down. We simply couldn't have an economy stay at its engineering capacity for any length of time.

***Economic Insight:*** *Economic Capacity recognizes resources cannot be used at 100% capacity*

## Economic Capacity

The economic capacity of an economy acknowledges this reality. It acknowledges that people get sick and need time off, and that machines need to be fixed, cleaned and replaced. It builds reality into our model.

Over time, however, economic capacity does not stay the same. It is affected by such things as labour force participation and immigration. As our population grows, more labour resources become available, and as the quantity and quality of labour resources increase, the capacity of an economy to produce goods and services will expand. To do so will take time, however. In the short run, when technology, plants, equipment and the population are relatively fixed in quantity and quality, economic capacity will be consistent.

So, knowing that, let's assume you are a policy-maker. Among your goals, you might aim to get unemployment to zero in the economy—that is, have everyone who wants to work working. Is that a reasonable goal? Unfortunately, it's not. There's another piece of reality we have to take into account.

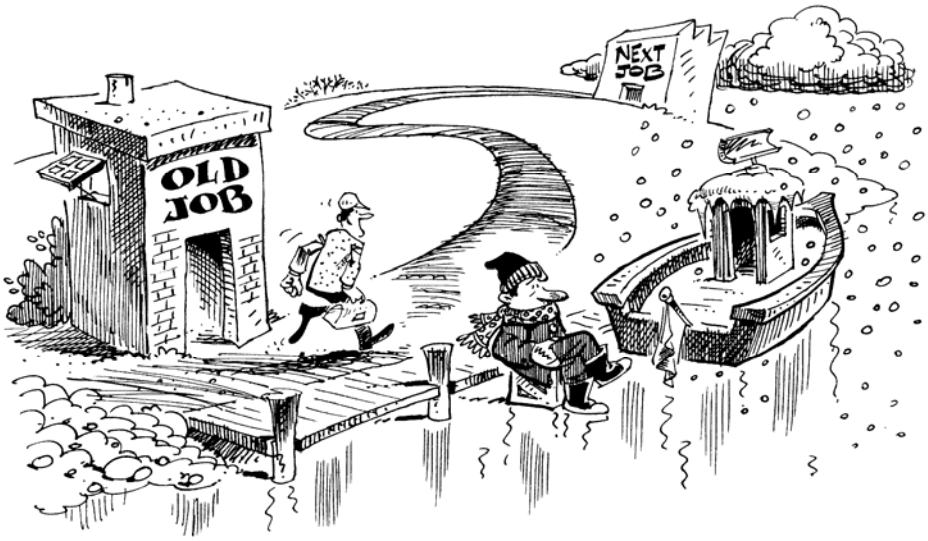
## Frictional Unemployment

Full employment in our economy does not happen when the unemployment rate is zero. It may sound like that should be the case, but it's not. Why? At all times, some people will be unemployed because they are changing jobs or because of seasonal factors. They will eventually have a job again but, for a period, they will be unemployed.

People who are temporarily unemployed for these reasons are said to be frictionally unemployed. It is assumed that they will soon be re-employed—either in their new job or as the seasons change.

As a result, some level of frictional unemployment should be expected in a healthy, dynamic economy. There should be opportunities for people to move from one job to another—hopefully a better job.

So, full employment does not mean that unemployment is zero%.



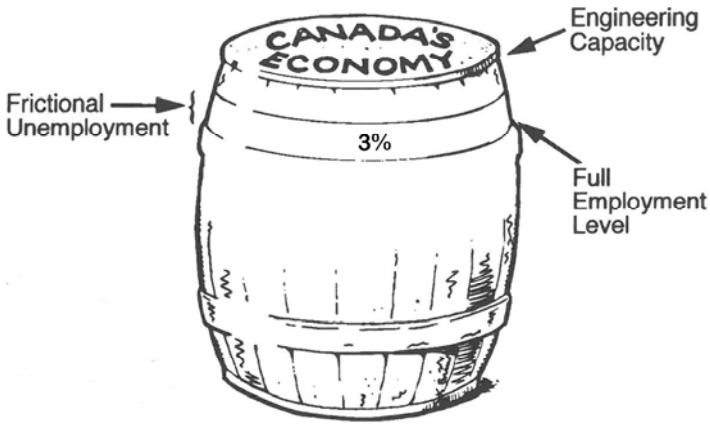

*Frictional unemployment refers to those workers who are between jobs or temporarily unemployed because of the season.*

***Economic Insight:*** *"Full employment" level has to acknowledge "frictional" unemployment in the economy*

## The Full Employment Level—the Current Economic Capacity of the Economy

The current economic capacity of the economy—its current output potential—is also limited by the amount of frictional unemployment that exists. Therefore, our economy is said to have reached full employment when the only unemployment is frictional unemployment.

But what percentage of our labour force is unemployed for frictional reasons? Is it 10%? 1%? 5%? This has been a matter of some debate over the years. For our purposes here, we will assume that the level of frictional unemployment is 3%.



We can now add the concept of frictional unemployment to our model and show the full employment point in our economy—the point that represents the current economic capacity of the economy.

Assume once again that you are a policy-maker. Statistics show that the current level of unemployment is 5%. You have to make the call—should steps be taken to boost spending in the economy? Is there room for the economy to grow without inflation becoming a problem? If frictional unemployment is 3% and the unemployment rate is 5%, you might think the answer is yes.

But there is another factor to consider—structural unemployment.

## Structural Unemployment

Individuals who are structurally unemployed include, for example, those whose skills do not match the jobs available, who are not willing or able to move to where jobs are currently available, and whose businesses or places of work have closed. A person who is unemployed for one of these reasons is not going to be re-employed simply because spending levels rise in the economy. It is going to take time to fix such unemployment problems. They are structurally unemployed.

In our example, we assumed that frictional unemployment was 3%. Let's now assume that there is also 3% structural unemployment. That would mean the current level of unemployment that represents full employment in our example is 6%. If the rate of unemployment gets to that point, that is as good as the economy is going to do in the short run without generating inflationary pressures.


*Structural unemployment refers to those people unemployed because they do not have the skills for the jobs available or are unable to move to where jobs are located.*

Now, suppose that as a policy-maker you are given the latest report from Statistics Canada, and it indicates that the current rate of unemployment in the economy is 8%. What do you do?

The right policies at this time would depend on the amount of slack in the economy—that is, the output gap, representing the gap between what the economy is producing and what it is capable of producing.

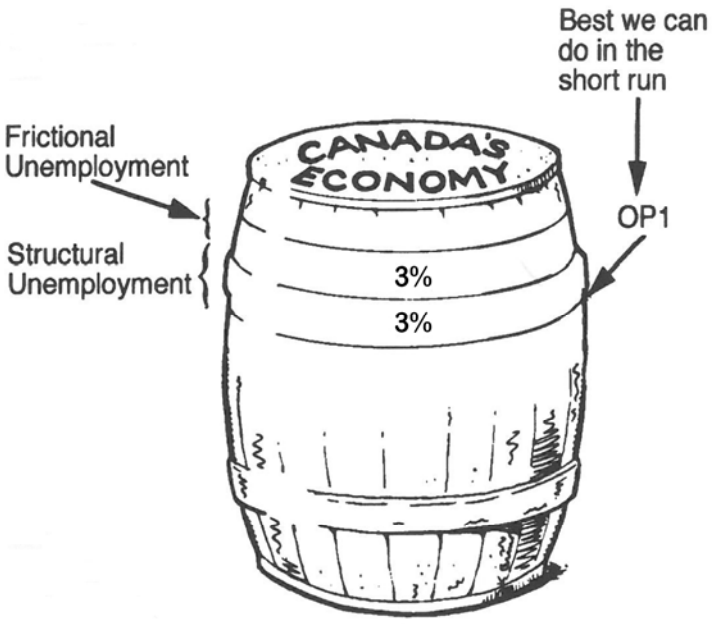
As a policy-maker, you now know that more spending is not going to put the 3% who are frictionally unemployed back to work. The same is true of the 3% who are structurally unemployed. The focus of your attention in the short run would be the other 2%. Why are they unemployed? And might policy changes be able to help them gain employment?

Let's look first at another type of unemployment.

## Cyclical, or Demand-Deficient, Unemployment

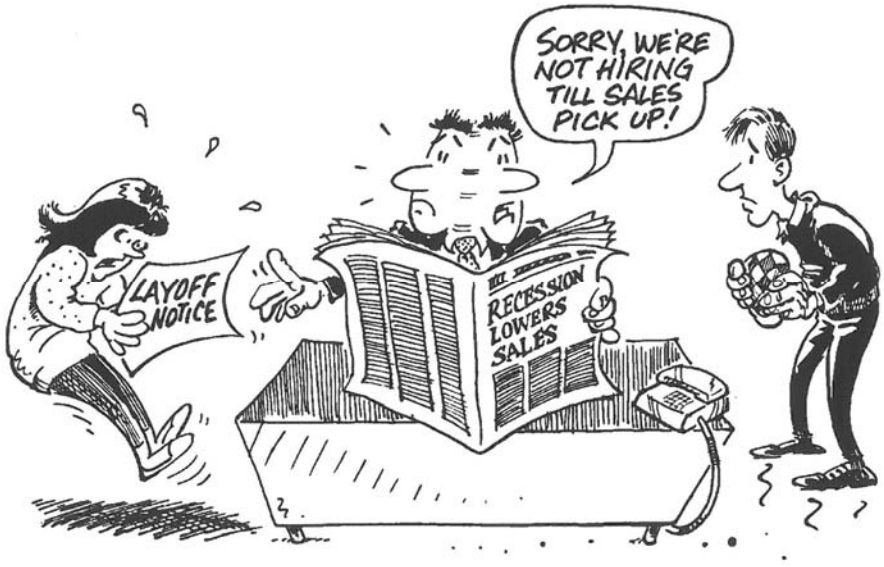
Another reason people could be unemployed in our economy is that spending levels have fallen. With reduced sales, Canadian companies would find inventories piling up, and they would cut back on production. As a result, they would need fewer resources, including labour.

There could be various reasons for this reduction in spending. Perhaps spending on our exports is down. Perhaps consumers are saving more and spending less in Canada. Perhaps businesses are investing less. Perhaps governments have reduced spending. Such cutbacks can lead to lower production and, as a result, more unemployment and less use of available capital such as factories and equipment.




*OP1 is the current economic capacity.The economy is unable to reach full employment due to the structural unemployment problem. Over time, if the structural unemployment can be reduced, the economic capacity can expand. Furthermore, over time, as more resources are available, the economic capacity will also expand. In the short run, however, OP1 is as much output as this economy can possibly deliver on a sustained basis.*

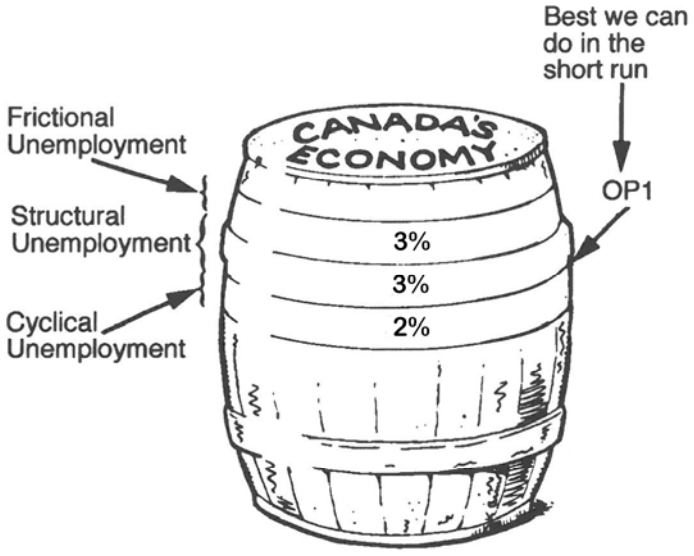
## 5.5 Current Spending and the Economy's Capacity: An Important Relationship




*Cyclical unemployment refers to those who cannot get work because the demand for the goods or services they produce is at a relatively low level.*

Unemployment because of low levels of demand and spending in the economy, occurs because of demand deficiency, or for cyclical reasons. Not surprisingly, then, this kind of unemployment is referred to as cyclical or demand-deficient unemployment.

This type of unemployment differs from frictional and structural unemployment in one very important way. Whereas more spending in the economy wouldn't reduce the level of frictional or structural unemployment, more spending can help to reduce the level of cyclical unemployment. After all, if workers are unemployed because the goods and services they produce are unsold, more spending should lead to more sales, more production and the re-employment of those unemployed workers.




Our barrel economy now shows 2% of its resources unemployed for cyclical reasons. Unlike those who are frictionally or structurally unemployed, these cyclically unemployed are ready,

willing and able to produce output. The employment of these workers will depend on changes in the level of spending and demand for the output they can produce. But knowing if someone is unemployed for structural or cyclical reasons is not always easy to tell. It can make measuring structural unemployment somewhat challenging.

## Structurally Unemployed or Cyclically Unemployed? It May Not Be Easy to Tell

Suppose you meet an unemployed autoworker on the street. How do you know if he or she is structurally unemployed or not? If the worker does not have the skills that are now needed by the auto manufacturer or auto industry, then the worker could be considered structurally unemployed. More spending on cars is not going to put that worker back to work.

***Economic Insight:*** *Current productive capacity of the economy will be determined by levels of frictional and structural unemployment*

But perhaps the worker is unemployed because people are just not buying that many cars at the time, inventories have built up and workers have been laid off because production levels have had to be reduced. In that case, the worker is cyclically unemployed. If spending levels pick up and people start to buy more cars, then that worker will likely get back to work.

By talking to that person, you can find out more about why he or she is unemployed—but trying to assess that information across the whole economy is challenging. So, policy-makers have to be careful in determining the sources and causes of unemployment in the economy.

Assessing levels of structural unemployment is particularly challenging, and findings can be ambiguous. For example, if we found that the autoworker was unemployed because of a lack of skills, does that mean the worker does not have the skills to do some other kind of work? Maybe skills are lacking for what is needed in the auto industry—but the worker may have skills to work in other areas of the economy. So accurately measuring the level of structural unemployment is challenging.

In the short run, then, the production capacity of the economy is partly determined by the combination of frictional and structural unemployment. And, in considering any actions to influence the economy, policy-makers will have to get the best information they can to help them identify the real output gap in the economy. That means getting the best information available on the current reasons for unemployment and the underutilization of capital—and whether any efforts to influence spending are warranted.

We can now summarize. The current ability of the economy to produce goods and services, as we have described it, would be at point OP1. This point is determined by the levels of frictional and structural unemployment. The economy can produce output at, or close to, this level on a sustained basis. It is important for policy-makers to try to keep total spending from pushing the economy past its current output capacity. If this can be done successfully, the reins can be

kept on inflation—and, for the Bank of Canada, that would mean staying within the 1 to 3% range for controlling inflation and targeting an inflation rate of 2%.


*Inflation is sometimes defined as too much money chasing too few goods. If spending levels try to push an economy "too far," prices are pushed upward.*

***Economic Insight:*** *The "output gap" is important information for the Bank of Canada*

To do that, it is important to have the best information about the output gap in the economy.

Let's look more closely at how the Bank of Canada takes the economy's output gap into consideration when making monetary policy decisions to achieve its goal of price stability.

You may be interested in a couple of periods in history when the relationship between the economy and money got out of whack (see **Box 5-2**). We can be glad that, over the years, our policy-makers have learned to keep a steady hand on that relationship.

**Box 5-2: A Little Bit of Money History**

Over the course of history, managing money has been challenging in economies around the world. But some times were particularly difficult, as the stories below show.

**Germany, 1923**

After the First World War, Germany had a tremendous need to rebuild. Not only had it lost the war, it had trouble collecting taxes in this post-war period and was expected to pay large foreign debts and war reparations to other nations. In response, the government began to print large quantities of money, which significantly added to the supply of money provided to the German economy.

In December 1919, 50 billion marks were in circulation in Germany. By 1923, there were (get ready for this) 500,000,000,000 billion marks in circulation. As we saw in the Auction Block game, if the quantity of money in circulation increases but economic output doesn't, inflation will result. The German experience bore this out.

The quantity of money increased 10,000,000,000 times between 1919 and 1923. Needless to say, economic output did not increase proportionately. Indeed, output declined, as money became increasingly less able to fulfill its role as a trustworthy medium of exchange. Because so much excess money was in circulation, the value of each mark plummeted and became almost worthless.

As the money supply increased, prices skyrocketed. Money was losing value so quickly that the Germans tried to spend it as fast as they could. Prices were rising almost hourly: at five o'clock in the afternoon the price of an item would be much higher than it was at noon.

This illustrates the condition of hyperinflation—prices rising at an extremely rapid rate. In this case, hyperinflation was generated by the massive increases in the quantity of money in circulation, which was far above the rate of growth in real output by the economy.

In periods of hyperinflation, money becomes like a hot potato. People try to spend it as fast as they can because prices are rising so rapidly and the money is losing its value. In Germany in 1923, wives stood outside the factory windows where their husbands worked. When the husbands received their hourly pay, the wives could take it to the stores before prices rose further.

But as prices did rise further, more marks were put into circulation. This enabled consumers to pay the higher prices, but fuelled more inflation. This illustrates, once again, one of the serious problems of inflation. If inflation sets in and becomes hyperinflation, the potential exists for a total collapse of the currency—which becomes almost worthless—and a total collapse of the economy.

There is also the problem of inflation expectations. If people expect that inflation is going to occur, and act as though it is going to occur, their actions can contribute to the very inflation they expect. The more people expect inflation, the more they will build expectations of future price increases into their behaviour.

Germany in 1923 was an example of too much money in the economy. What about an opposite situation?

Canada and the United States, along with other nations, experienced serious challenges during the Great Depression.

**The Depression of the 1930s**

As economic output declined in the United States, the monetary authorities permitted the amount of money in circulation to drop. In 1929, 26.2 billion dollars were in circulation. By 1933, that had fallen to 19.2 billion dollars—a decline of 27 per cent. In Canada during those years, the quantity of money in circulation dropped by about 15 per cent.

Before the 1930s, the amount of money in circulation had increased, which helped fuel the economic boom in the latter half of the 1920s. There was some inflation, but it wasn't exceptionally high. Then a variety of factors led to the Great Depression.

Some experts believe that the Depression didn't need to be as harsh as it was. Indeed, they argue that the lowering of the money supply in the early 1930s did much to worsen it. The contraction served to pull the economies down further than would have happened otherwise. But prices didn't fall as fast as the decrease in the money supply. As a result, spending and production declined, which contributed to worsening economic conditions.

As output declined and the money supply was reduced, prices certainly did fall. The economy experienced a period of deflation—a fall in the average level of prices. The economy took a sharp decline, and then other factors contributed to the recession, turning it into what is often referred to as the Great Depression.


*Note: The top line "Ein geschichtliches .... "means "A historical reminder (note)". "Jede Marke .... "means "Each stamp from 5 pfennigs to 1 billion = postage for one postcard". The line "Nie wieder .... means "May our Fatherland (country) never again witness such times!"*
*Source: Bank of Canada*

## 5.5 Current Spending and the Economy's Capacity: An Important Relationship


*5 billion mark, Germany. National Currency Collection, Bank of Canada; photography James Zagon, Ottawa.*


*1 million 2 trillion pengo, Hungary. National Currency Collection, Bank of Canada; photography James Zagon, Ottawa.*


*10 billion drachmai, Greece. National Currency Collection, Bank of Canada; photography James Zagon, Ottawa.*