

**ECONOMICS
FOR
EVERYONE**

ECONOMICS FOR EVERYONE

- **supply and demand**
 - **trade**
- **production and economic growth**
- **the economic role for government**
 - **unemployment and inflation**

CAMERON M. WEBER

Copyright © 2006 by Cameron M. Weber

Cameron Weber thanks Allen Parkman and Barak Hoffman for their timely and insightful comments on the economic and political science ideas in this book. Any omissions are the author's. Also, the author thanks Matt Bernstein and especially his Mom and Dad who gave the book its first edits, as well as John Winkel for later edits and Bill Baldrige for encouragement. Finally, the author thanks the publisher for helping to make the book economical so it is indeed "for everyone."

All rights reserved under Title 17, U.S. Code, International and Pan-American Copyright Conventions. No part of this work may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying, scanning, recording, broadcast or live performance, or duplication by any information storage or retrieval system without prior written permission from the publisher, except for the inclusion of brief quotations with attribution in a review or report. Requests for permissions may be sent via the publisher's Web site.

This book was typeset in Times New Roman and other typefaces. Cover designed by Mary Kramer (MilkweedGraphics.com) as a work for hire, Copyright © 2006 by Unlimited Publishing LLC. Back cover photo by Don Kinsella, used by permission. The interior and/or cover design of this book may incorporate one or more font(s) specifically licensed by and customized for the exclusive use of Unlimited Publishing LLC, which may not be reproduced elsewhere in any form without prior written permission.

This book is publicly offered contingent on the reader's prior agreement that economic, financial, legal, or professional advice of any kind should always be independently confirmed with other qualified sources. The author and publisher accept no responsibility of any kind for conclusions reached by readers of this book. If you do not agree with these terms, you may return this book in good condition for a full refund.

First Edition

ISBN:

Hardback: 1-58832-165-7

Paperback: 1-58832-164-9

This fine book and many others are available at:
<http://www.unlimitedpublishing.com/authors>

Unlimited Publishing LLC
Bloomington, Indiana

ECONOMICS FOR EVERYONE

Outline

- I. Why this Book?
- II. Supply and Demand
- III. Trade
- IV. Production and Economic Growth
- V. The Economic Role for Government
- VI. Appendix: Unemployment and Inflation

I. Why this Book?

Economic decisions are important to all of our lives, yet not very well understood by many people. The purpose of this book is to help make economics clear and understandable for people who don't have the opportunity or interest in studying economics in high school or college. I describe in this short book some of the fundamental rules of economics, those which are agreed-upon by the majority of economists.

A secondary purpose of the book is to try to help advance the state of our political discussions. Economics is a social science; it is the study of how scarce resources get distributed in society; and government is a key player in this resource allocation. Government sets the rules of the game, so to speak.

Politics and voting determine which politicians get elected to office, and it is the politicians, along with the court system, who determine the rules of how people relate to each other economically. It seems to me that much of our political discussion gets bogged down in personalities and reduces to heated "us versus them" arguments instead of rational discussion around ideas. Therefore this book lays out the economic laws that help

determine how society's resources are allocated, in hopes of providing a framework to which people can refer when discussing politics and to help enable them to make better informed voting decisions.

One of the founding principles of economics is that everyone is unique; this is called 'subjectivity.' Everyone has goals in life, and only she or he knows what is important to them, what makes them happy or content. This concept applies to society as well. Each person has a unique idea of the ideal society. Is it one where government is active in resource allocation, or is it one where people should be left alone to make their own subjective, personal economic decisions? Should government step in to slant the rules of the game to favor some people over others? For example, should government policy favor the poor over the rich? How does government intervention effect the allocation of economic resources?

This book looks at these questions while outlining the basic economic rules. The purpose is not to convince the reader towards one optimal societal system or another but to explain the fundamental economic concepts to help make us more aware of how economic factors affect our lives and the societies in which we live.

II. Supply and Demand

Human behavior and self-interest

The field of economics is a social science that attempts to predict human behavior. In order to make predictions, economists assume that most people act in their own best interests. This does not mean that people are selfish — just that they will not usually act in ways that leave themselves worse than they were before. When given a series of choices, most people most of the time, will do what is best for themselves and for those they love.

Opportunity cost

The study of economics asks how scarce resources get allocated in society, as people act in their own self-interest. All resources are scarce. There is not enough of anything, except maybe air, to go around, to give everyone as much as they would like of anything. Everything has a cost. In economic terms this is called “opportunity cost” or *what do you give up to gain something else?* You must give up something to get something else. Oftentimes it is money that you give up, other times it is time itself that you give up.

Let's assume that our society produces two things, guns and butter, as shown below. If we produced all guns we would have ten guns, if we produced all butter we would have 100 pounds of butter. Therefore the opportunity cost of one gun is ten pounds of butter, and the opportunity cost of ten pounds of butter is one gun.

Illustration 1: Guns versus Butter

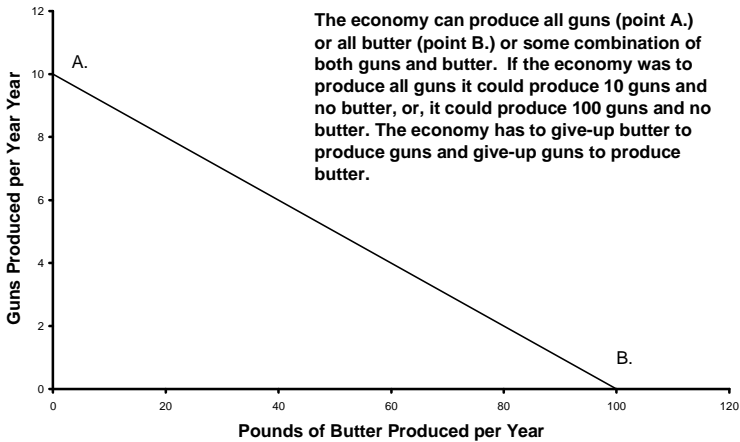
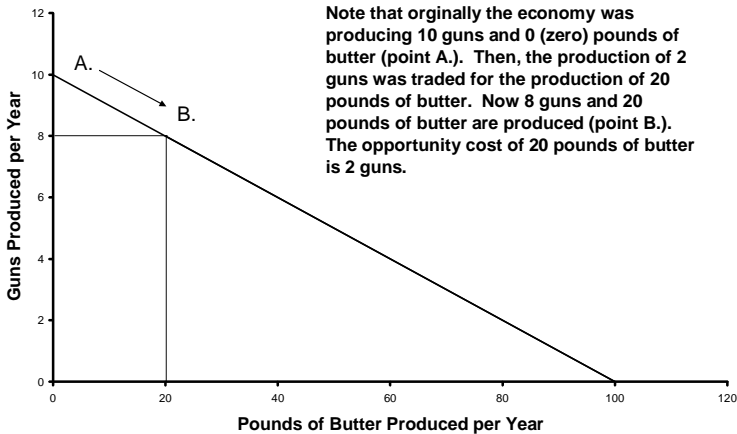


Illustration 2: Guns versus Butter and Opportunity Cost



Note that originally the economy was producing 10 guns and 0 (zero) pounds of butter (point A.). Then, the production of 2 guns was traded for the production of 20 pounds of butter. Now 8 guns and 20 pounds of butter are produced (point B.). The opportunity cost of 20 pounds of butter is 2 guns.

The Law of Supply and Demand

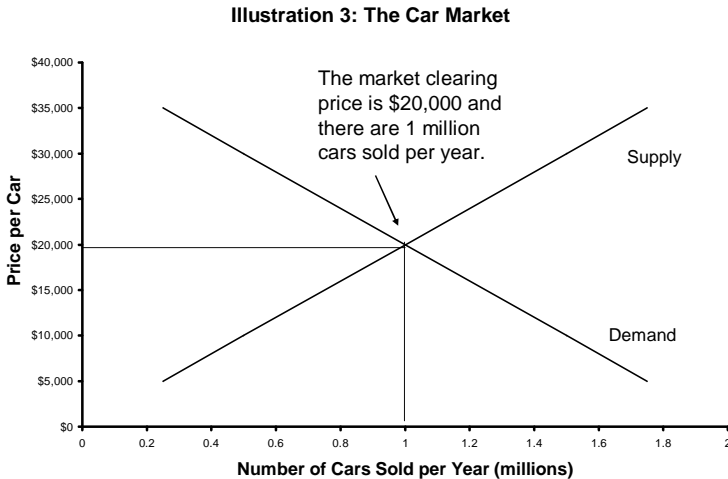
The field of economics is based-upon the law of supply and demand¹. People meet in the “market” to exchange goods or services. This market could be anywhere, it could be a physical location or it could be on-line in cyberspace. The market is where those wishing to sell something meet with those wishing to buy something. There are markets for everything. In polluted cities, there is even a market for fresh air!

Let’s look at the market for cars as an example. You will see that the left side of the

¹ The law of supply and demand has been credited to Adam Smith in *An Inquiry into the Nature and Causes of the Wealth of Nations* (1776) and Jean-Baptiste Say in *Treatise on Political Economy* (1803). The first graphical depiction of Supply and Demand was done by Alfred Marshall in his *Principles of Economics* (1890).

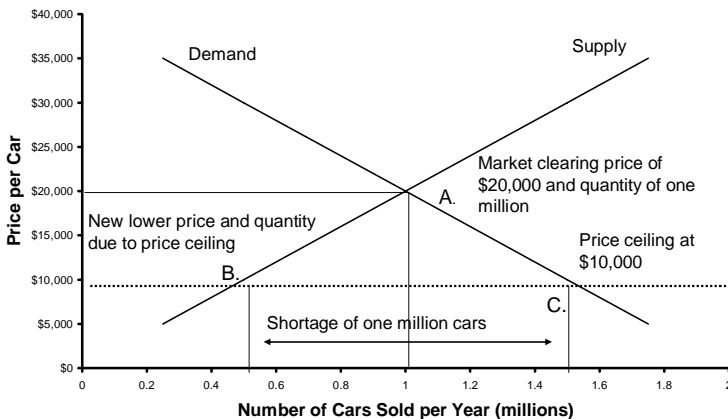
graph (the vertical axis) is labeled Price, and that the bottom of the graph (the horizontal axis) is labeled Quantity. The curve that represents sellers of cars is labeled Supply. Note that the Supply curve is upward sloping; more people are willing to sell more cars when the Price is greater. The curve for the buyers of cars is labeled Demand. Note that it is downward sloping; more people are willing to buy more cars when the price is less.

In this example the market clearing price, where supply equals demand, is \$20,000 with a corresponding quantity of one million cars.



If a price ceiling was set at \$10,000 for cars, demand (the quantity demanded) would be for 1.5 million cars, but the supply (the quantity supplied) would only be 500,000. There would be a shortage of one million cars. At this set price society does not produce enough cars and 500,000 less cars are bought and sold than before the ceiling. A price ceiling is also called a price cap; it means that the price for a good or service cannot go above a certain amount.

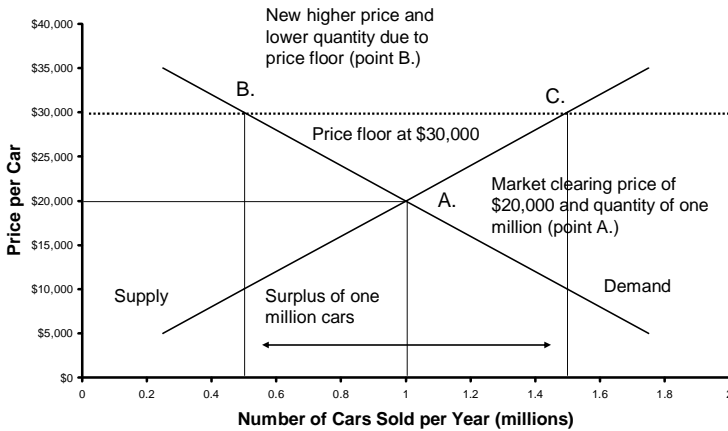
Illustration 4: The Car Market with a Price Ceiling



Note that with the price ceiling of \$10,000 there are only 500,000 cars sold (point B.) compared to the market clearing amount of one million before the ceiling (point A.). In addition, the quantity demanded of 1.5 million cars (point C.) is greater than the quantity supplied, creating a shortage of 1 million cars at the ceiling price.

The same market distortion holds true for an artificial floor on price. A floor is sometimes called a minimum price, a price at below which a good cannot be sold. If the price for cars was set at a minimum of \$30,000, supply (the quantity supplied) would be 1.5 million cars, but demand (quantity demanded) would only be 500,000. There would be a surplus of one million cars. At this new, higher, price society produces too many cars.

Illustration 5: The Car Market with a Price Floor



At \$30,000 suppliers are willing to produce 1.5 million cars (point C.) and demanders are willing to buy 500,000 (point B.). This means a surplus of 1 million cars is created by the price minimum. Just like a price ceiling, there are 500,000 less cars being sold (point B.) than under the market clearing price and quantity (point A.).

Price: The coordinating signal

This car market illustration shows the importance of price in the market. Price is the market signal, the coordinating mechanism, which allows the market to work in allocating society's scarce resources. If the price is too high there will be too much of a good produced, if the price is too low, too little will be produced. The price sends a signal to producers that they are making too little or too much of a good. If they are making too little, the shortages in the market send a signal to produce more to meet demand. As more is produced, the price goes down and the market then reaches equilibrium at the market clearing price.

If suppliers are producing too much, the surplus sends a signal to produce less. As less is produced, the price goes up, and the market then again clears at the equilibrium price and quantity. Without this price signal there is no way to know how much of a good or service should be produced in society.

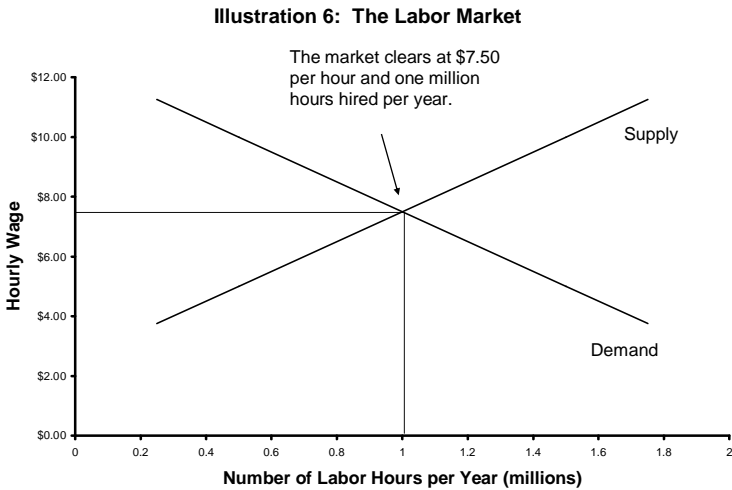
Political interventions and the law of supply and demand

Sometimes laws are passed to change the outcomes of the market (to change the law of supply and demand) to meet a public policy goal. The following section examines government price controls in five different markets; minimum wages

and the labor market, rent control and the housing market, price ceilings and the market for electricity, price supports in the agriculture market and health insurance in the market for doctor visits.

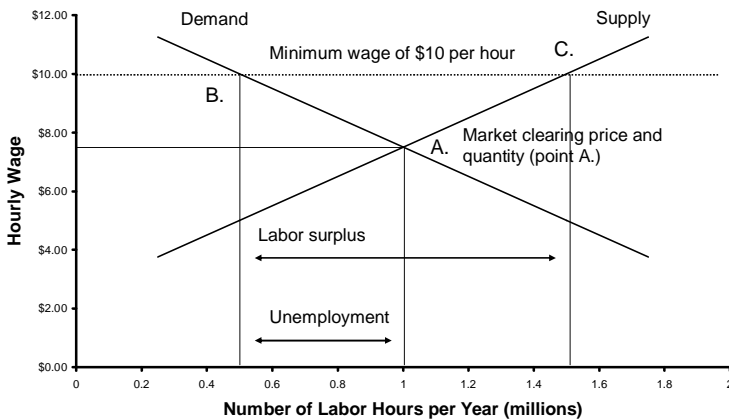
The labor market and minimum wage

In this example supply represents the suppliers of labor (employees) and demand represents the buyers of labor (employers). More people are willing to work more hours for a higher wage and more employers are willing to hire more employees for more hours at a lower wage. In this example the market clearing price (wage) is \$7.50 per hour with an equilibrium quantity of one million hours of labor hired per week.



If a minimum wage is set at \$10.00 per hour there will be a surplus of labor; there will be more people willing to supply labor than those willing to purchase labor. This creates unemployment at the new, higher, minimum wage rate. Instead of the previous market clearing quantity of labor at one million hours per week, employment will drop to 500,000 hours per week and there will be a surplus of one million hours of labor at the minimum wage.

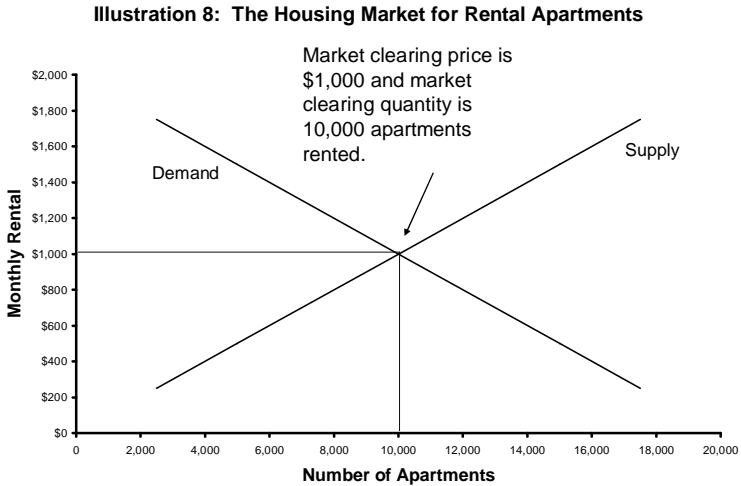
Illustration 7: The Labor Market with a Minimum Wage



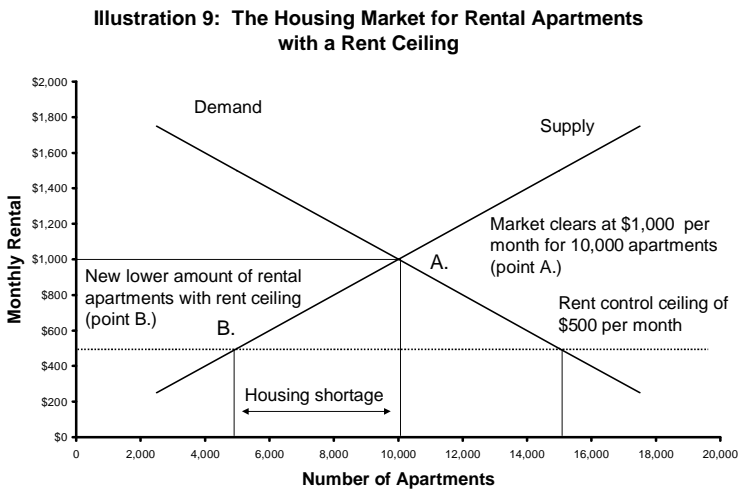
With a minimum wage of \$10.00, demanders (employers) purchase 500,000 hours per year (point B.), down from the market clearing amount of 1 million (point A.), this creates unemployment and excess supply (point C.).

The housing market and rent control

In this example, supply is the number of apartments for rent in the market and demand is the number of renters. The market clearing price is \$1,000 per month rent and the equilibrium quantity is 10,000 rental units.



If rent control is put in place at \$500 per month there are fewer people willing to rent their apartments to others and there are more people willing to rent apartments from others. The number of housing units supplied drops to 5,000, creating a housing shortage of 5,000 units.

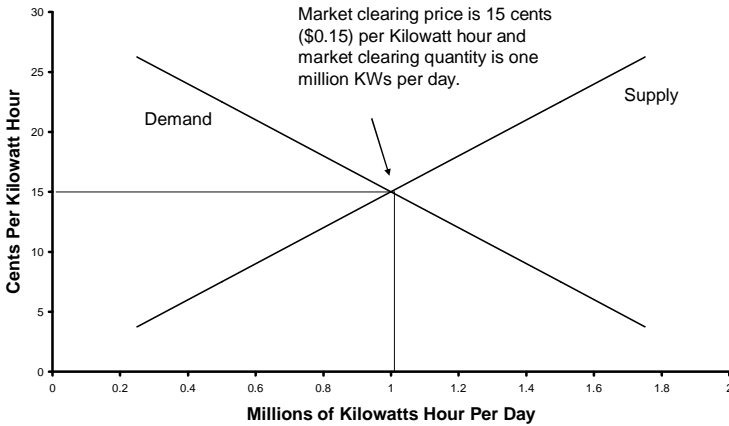


Note that with a rent ceiling of \$500 per month the number of apartments supplied drops from 10,000 units at market clearing price of \$1,000 per month (point A.) to 5,000 units (point B.). This leaves a housing shortage of 5,000 units.

Electricity and price ceilings

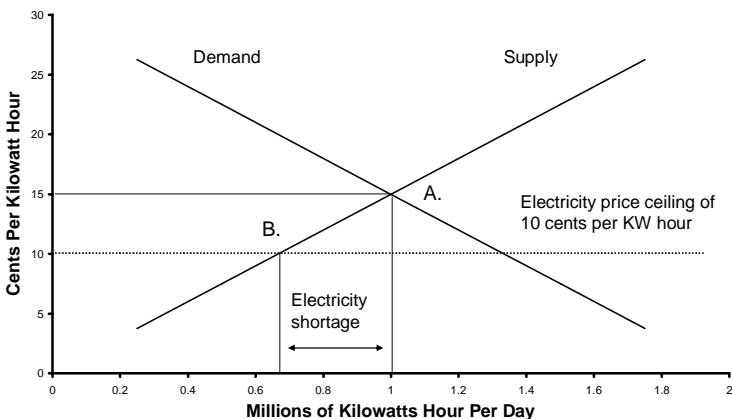
In this example under the law of supply and demand there is market equilibrium at a price of 15 cents (\$0.15) per Kilowatt hour and one million Kilowatt hours purchased per day.

Illustration 10: The Electricity Market



If a price ceiling of 10 cents per Kilowatt hour is put in place there are fewer electrical producers willing to supply the market and more consumers willing to buy electricity. An electrical shortage of 340,000 Kilowatts per day takes place because suppliers are less willing to provide electricity at the lower price so the amount available to be purchased is decreased, causing an electricity shortage. This can lead to blackouts and rationing.

Illustration 11: The Electricity Market with a Price Ceiling

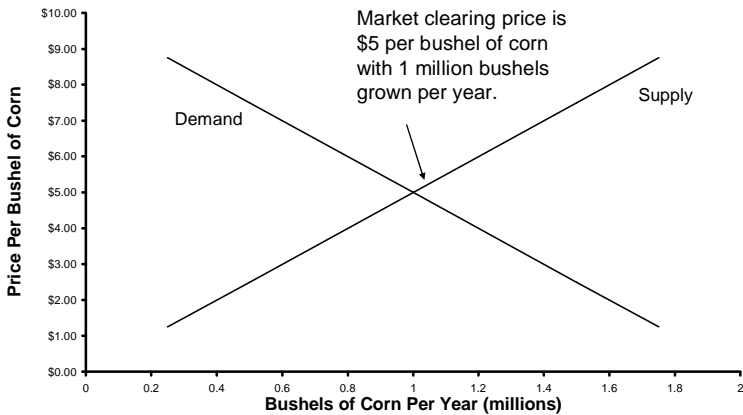


Note that placing a price ceiling on electricity creates a shortage. The new quantity supplied with a cap of 10 cents (\$0.10) per KW hour is 660,000 KW hours (point B.), a decrease of 340,000 KW hours from the market clearing price of 15 cents and quantity of one million KW hours (point A.).

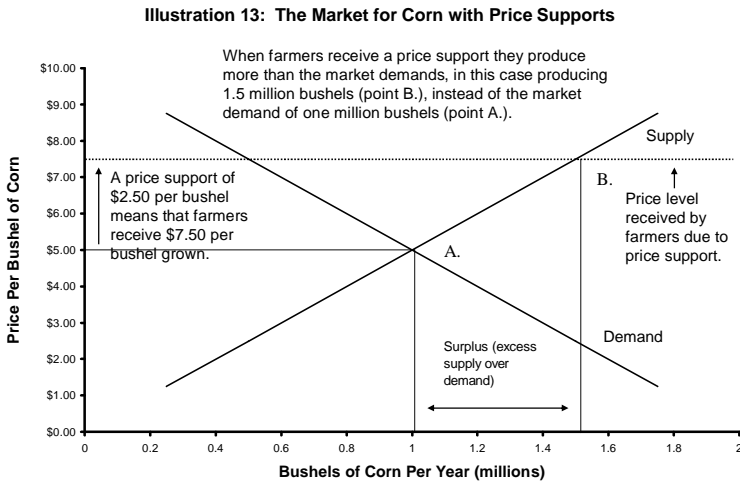
Agriculture price supports

In the market under supply and demand there would be a market clearing price of \$5 per bushel for corn and an equilibrium quantity of 1 million bushels per year.

Illustration 12: The Market for Corn



With a price support of \$2.50 per bushel farmers receive \$7.50 per bushel and therefore grow 1.5 million bushels. However, only one million bushels is demanded by consumers at the market price. This means that a surplus of 500,000 bushels is grown each year; this excess amount goes to waste, is sold at reduced prices overseas or is purchased by the government.

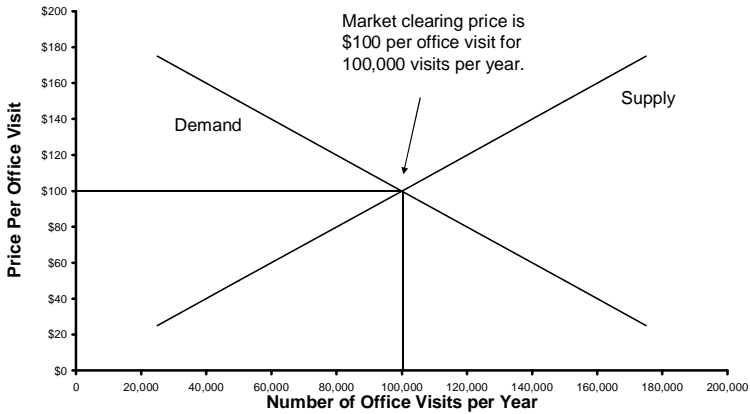


When farmers receive a price support they produce more than the market demands, in this case producing 1.5 million bushels (point B.), instead of the market demand of one million bushels (point A.).

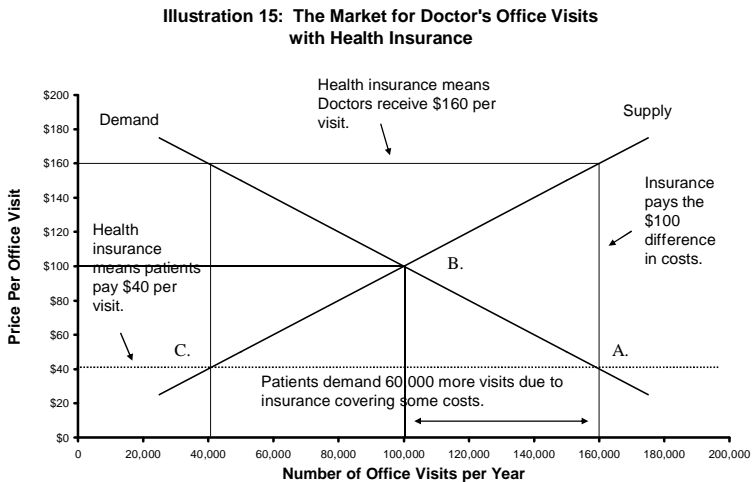
Health insurance and Doctor's office visits

In this example the market clearing price for a Doctor's office visit costs \$100 and there are 100,000 visits per year. Society pays \$10 million for Doctor's office visits each year (100,000 visits per year times \$100 per visit).

Illustration 14: The Market for Doctor's Office Visits



Patients with health insurance demand more visits than they would without insurance because insurance covers some of the cost. This subsidy for office visits means that patients visit the Doctor's more than they would without insurance and society pays more for Doctor's office visits. In this case with insurance the society now pays \$25.6 million for Doctor's office visits (160,000 visits times \$160 per visit) compared to \$10 million before insurance.



With health insurance patients pay \$40 per visit and demand 160,000 visits per year (point A.) instead of the market clearing amount (point B.) at \$100 per visit. The subsidized price means that patients demand 60,000 more visits than they would without insurance.

III. Trade

After the concepts of opportunity cost and the law of supply and demand, the concept of comparative advantage² is the next rule of economics.

Comparative advantage shows how all parties gain through trade even if someone can produce more and more efficiently than someone else.

Comparative advantage

Again we will use a simple example showing two products and two people trading. Joe and Nancy each produce cloth and wine. Joe can produce 70 bolts of cloth or 40 gallons of wine per year, Nancy can produce 100 bolts of cloth or 50 gallons of wine.

Illustration 16: Production before Trade

	Production per Year	
	Joe	Nancy
Bolts of Cloth, or	70	100
Gallons of Wine	40	50

Note that Nancy can produce more of both items per year than Joe can.

² David Ricardo is credited with the concept of comparative advantage, first found in the *Principles of Political Economy and Taxation* (1817).

Joe's opportunity cost of production for 40 gallons of wine is 70 bolts of cloth, a ratio of 4 to 7 wine to cloth. Nancy's opportunity cost for 50 gallons of wine is 100 bolts of cloth, or a ratio of 1 to 2, wine to cloth. This means that Joe has to give up less cloth to get wine and Nancy has to give up less wine to get cloth. Joe has a comparative advantage in wine and Nancy has a comparative advantage in cloth.

Illustration 17: Joe's Production and Consumption before Trade

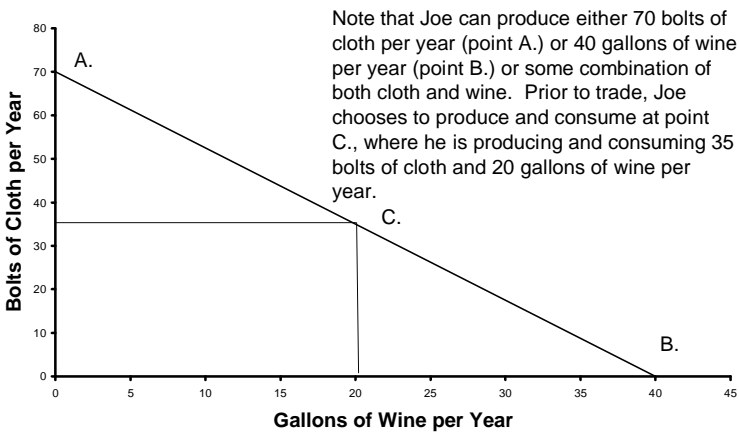


Illustration 18: Nancy's Production and Consumption before Trade

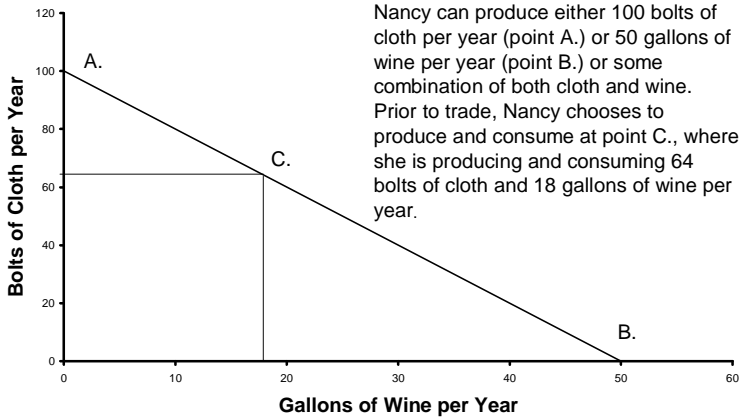


Illustration 19: Consumption before Trade

Consumption per Year

	Joe	Nancy
Bolts of Cloth	35	64
Gallons of Wine	20	18

Now let's assume that Joe and Nancy agree to trade. Joe will produce all wine (40 gallons) and trade to Nancy 19 gallons. Nancy will produce all cloth (100 bolts) and trade to Joe 35 bolts.

This will allow Joe to consume 35 bolts of cloth per year and 21 gallons of wine (40 produced minus 19 traded), an increase of one gallon per year over what he was able to consume before trade. Nancy will now be able to consume 65 bolts of cloth (100 produced minus 35 traded to Joe), an increase of one bolt per year, and 19 gallons of wine, an increase of one gallon per year.

Illustration 20: Consumption Before and After Trade

	Before Trade		After Trade	
	Joe	Nancy	Joe	Nancy
Bolts of Cloth	35	64	35	65
Gallons of Wine	20	18	21	19

Illustration 21: Joe's Consumption Before and After Trade

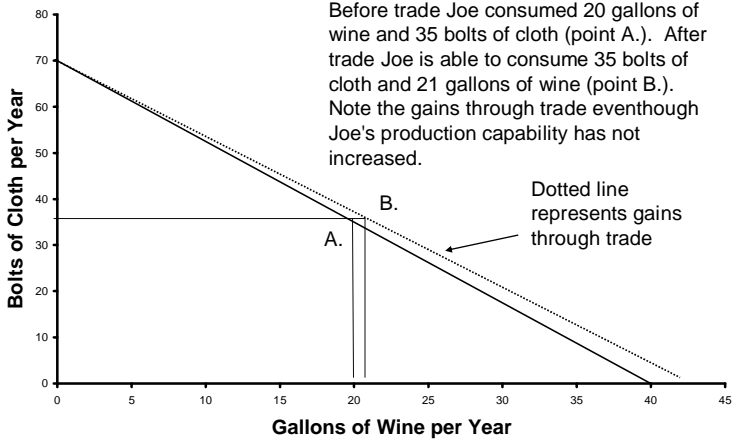
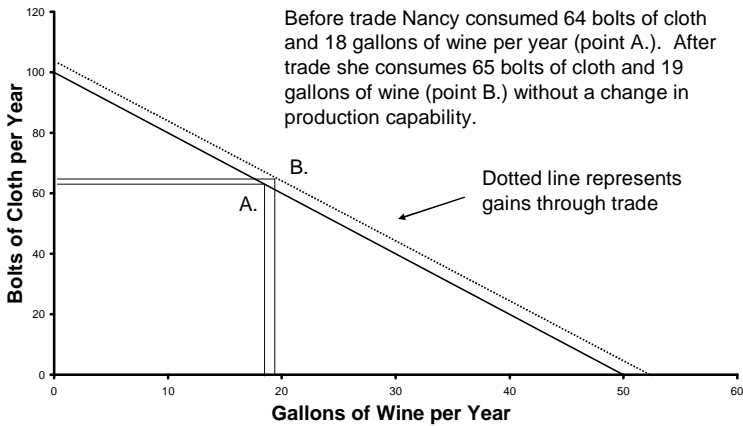


Illustration 22: Nancy's Consumption Before After Trade



Comparative advantage and trade show how trade increases wealth (in this case consumption capacity) even though the production of the traders does not increase and even if one trader is better at producing everything. This trade can be among individuals or between nations, and it can be for two products or many products. The same rule of comparative advantage and gains through trade applies to all trade; this a fundamental law of economics.

III. Production and Economic Growth

Measurement of the Economy

The income of a country is known as its Gross Domestic Product (GDP)³. GDP is a combination of the following:

Consumption (C) plus Investment (I) plus Government Spending (G) plus Exports minus Imports (X-M), or:

$$\text{GDP} = C + I + G + (X-M).$$

In the United States of America (USA) the GDP was \$12.5 trillion in 2005:

Consumption (C):	\$8.7 trillion
Investment (I):	\$2.1 trillion
Government Spending (G):	\$2.4 trillion
Exports minus Imports (X-M):	<u>-\$0.7 trillion</u>
Total (Income, GDP):	\$12.5 trillion ⁴

³ John Maynard Keynes in the *General Theory of Employment, Interest, and Money* (1936) is generally credited with being the first to outline how to measure the output of an economy.

⁴ The USA economic data for GDP is from the Bureau of Economic Analysis (www.bea.gov).

Income per person

A common measurement of the wealth of a nation is the GDP per capita, also known as the income per person. This is the GDP divided by the number of people living in the country. In the US in 2005 there were approximately 300 million people. This means that the income per person was approximately \$42,000⁵. The income per person in Brazil (Latin America) was \$8,400 in 2005, in Germany (Europe) it was \$29,800, in Japan (Asia) it was \$30,700, and in Senegal (Africa) it was \$1,700. The world average income per person in 2005 was \$9,300.

Savings and Economic Growth

The higher the income (GDP) of a country the higher the income per person. If the population of a country is growing faster than the income this means that the income per person is going down. It is mostly agreed-upon by economists that it is best if a country has a growing income per person. In

⁵ The GNP per capita data for all countries is from the Central Intelligence Agency (CIA) *The World Factbook* (www.cia.gov). The CIA uses Purchase Power Parity (PPP) to compare the per capita income of countries, "A nation's GDP at purchasing power parity (PPP) exchange rates is the sum value of all goods and services produced in the country valued at prices prevailing in the United States. This is the measure most economists prefer when looking at per-capita welfare and when comparing living conditions or use of resources across countries." (*The CIA World Factbook*, "Notes and Definitions").

other words, economic growth means a country and its people are getting wealthier not poorer.

Our sample countries have the following GDP growth, population growth, and resulting income per person growth for 2005:

	<u>% GDP Growth</u>	<u>% Population Growth</u>	<u>% Income per Person Growth⁶</u>
Brazil	2.4	1.04	1.36
Germany	0.9	-0.02	0.92
Japan	2.4	0.02	2.38
Senegal	5.2	2.34	2.86
USA	3.5	0.91	2.59
World	4.4	1.14	3.26

It is due to the income growth per person of China (8.61%) and India (5.52%) that the World economic growth for 2005 is higher than the examples of Brazil, Germany, Japan, Senegal, and the USA.

⁶ *The World Factbook* estimates for 2005. The income per capita growth rate equals the GDP growth rate minus the population growth rate. Calculations by the author from CIA data.

Economic growth is a relatively recent event. In the 19th century (1800 – 1899) the world economy grew by 300% (the world economy was three times as wealthy at the end of the century as it was at the beginning of the century). And the world economy grew by 1,000% (became 10 times as wealthy) in the 20th century (1900 – 1999)⁷. Economic growth, and income per person, is becoming increasingly larger when it is looked at in an historic perspective.

It is generally agreed that in order to have a growing economy a country must save some of its income. This savings is then used as investment to make the country more productive. This increase in productivity then helps to allow the country to grow its economy.

⁷ The 19th and 20th century economic growth information is from *Cornucopia: The Pace of Economic Growth in the 20th Century* by J. Bradford DeLong and can be found at <http://www.nber.papers/w7602>.

This savings, investment and productivity relationship is shown by a simple story:

There was a fisherman who caught and ate three fish per day. The fisherman then had the idea that if he used a fishing net he could catch more than three fish per day. However, it would take two full days to make the net as the leaves he would be using would dry and would not be usable unless he finished in two days. So the fisherman decided to eat two fish per day instead of three fish and to save one fish per day for four days. At the end of four days he had four fish saved, enough to eat for the two days needed to make the net. After making the net, the fisherman found that he was able to catch five fish per day instead of just three⁸.

This story shows the relationship between reducing consumption to increase savings (saving one fish per day by eating two instead of three fish per day), investing (taking the saved fish and investing them towards the time needed to finish the fishing net), and productivity (two days of work invested allowed the fisherman to increase his productivity from catching three fish per day to catching five fish per day). In order to save more a society needs to consume less. In order to have economic growth a society must save.

⁸ This story is told by Professor Don Boudreaux, Chairman of the Economics Department at George Mason University (GMU) in Fairfax, VA USA in his economics courses.

Consumption versus Investment

Illustration 1 showed an economy that could produce guns or butter and showed that the cost of producing more guns meant producing less butter. The same logic applies to the income (GDP) of a country. A country can choose to use its GDP for investment or for consumption; the more that a country uses its income for investment the more quickly the country can grow its economy.

Illustration 23: Investment versus Consumption

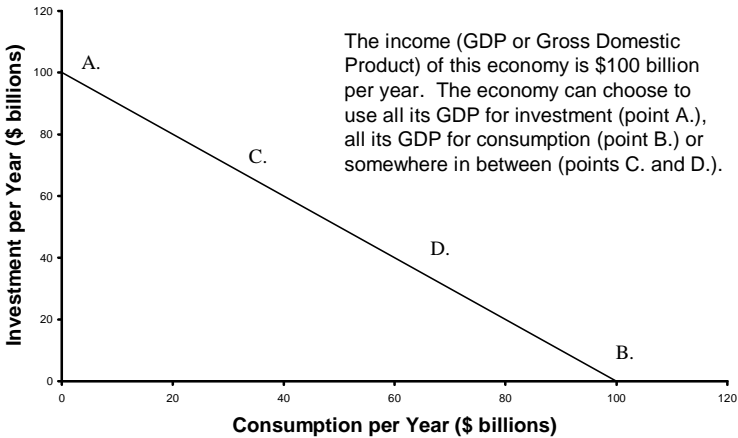
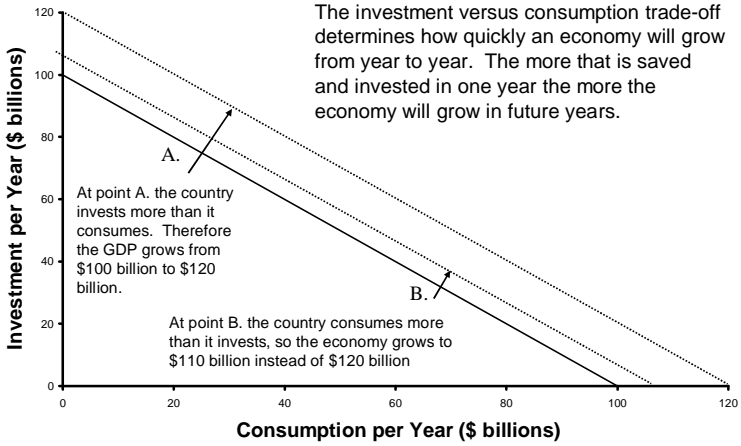


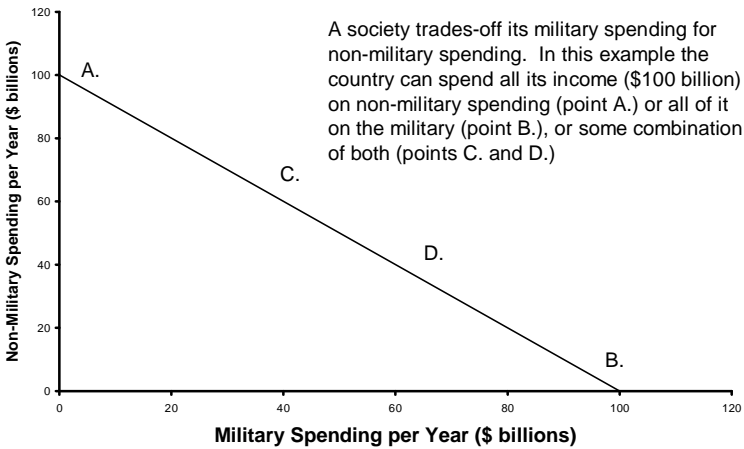
Illustration 24: Investment and Economic Growth



Other income trade-off considerations

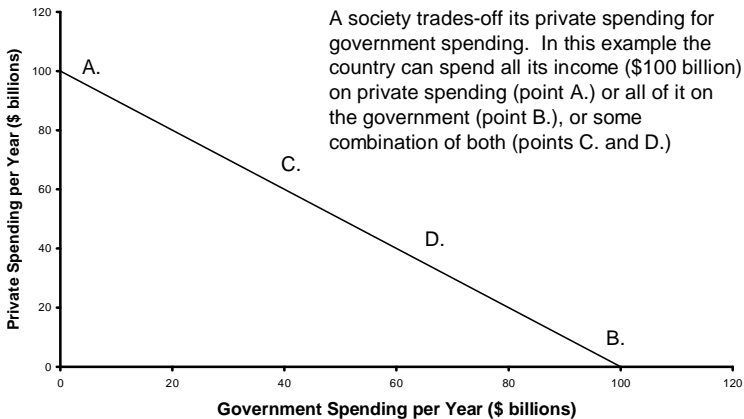
Income trade-offs can also be broken-down in other ways. For example a society can choose to use its income for military spending or for non-military spending or a combination of both.

Illustration 25: Military versus Non-Military Spending



In another example society can spend its income on government spending, private spending or some combination of both.

Illustration 26: Government Spending versus Private Spending



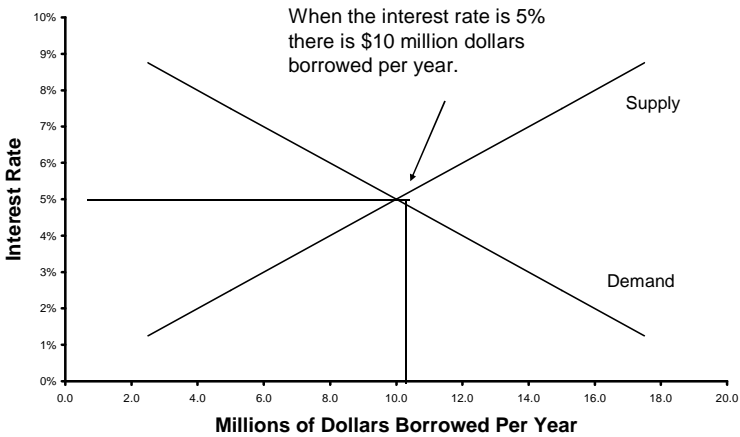
Supply and demand and the cost of investment

Supply and demand effects the cost of the capital (money) used for investment just as it effects the examples used above for the car market, the labor market, the housing market, etc.

The cost of capital available to be borrowed or lent is the interest rate. When loans are more expensive, investment is more expensive. For example say that it costs \$100,000 to build a factory. If the interest rate is 5% it would cost \$5,000 per year in interest to borrow enough

money to build the factory (\$100,000 times 5% equals \$5,000). If the interest rate is 10% it would cost \$10,000 in interest per year to build the factory. The law of supply and demand shows that the more expensive something is, the less will be demanded.

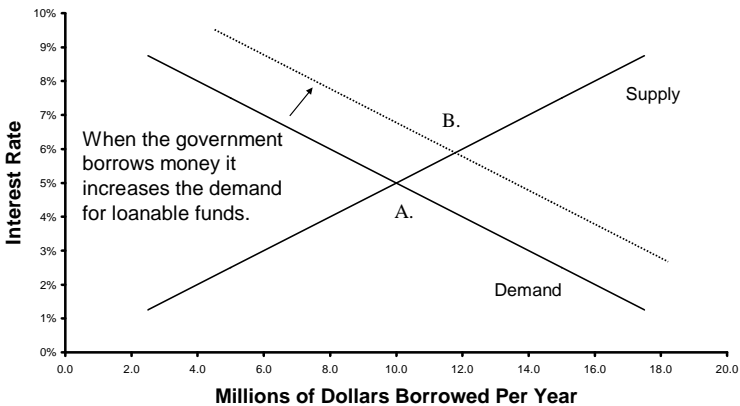
Illustration 27: The Market for Loans



When investment is more expensive there is less investment; when there is less investment the economy grows less quickly and the income per person grows less quickly. Therefore, it is better for society's economic growth when the interest rate is lower.

It was shown earlier that a society trades off its government spending for private spending. If the government spends more than it receives in taxes it has to borrow money to pay for its spending. This means that both the government and private investment are competing for loans. When the government increases the demand for loans by borrowing it increases the interest rate.

Illustration 28: The Market for Loans and Government Borrowing



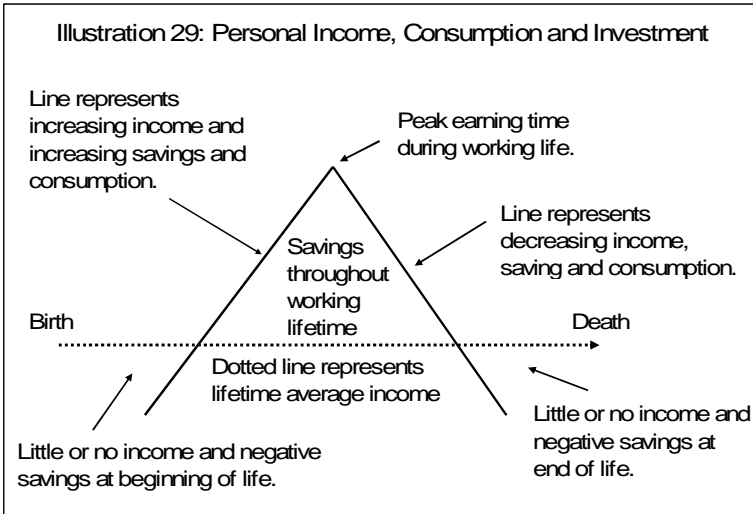
When government increases the demand for money available for borrowing and lending it makes capital more expensive. In this example the interest rate goes from 5% (point A.) to 6% (point B.).

Personal income, consumption and investment

It is generally agreed by economists that most individuals have different levels of income, savings and consumption throughout their lifetimes.⁹ Earlier in a person's life, when they are going to school and before they are working fulltime and have the experience necessary to earn a large income, they are consuming more than they are earning. This is known as negative savings or "dissavings."

Then in the middle of their lives when they are earning the most, people are both saving and spending more than they did earlier. Toward the end of their lives people start to earn less as they work less, their consumption also decreases, and they again start to have negative savings. This personal economic lifecycle is shown in Illustration 29.

⁹ This type of economics, known as 'life-cycle' economics, was first made famous by Modigliani and Brumberg (1954) in "Utility Analysis and the Consumption Function: An Interpretation of Cross-Section Data" found in the book *Post-Keynesian Economics*.



V. The Economic Role for Government

This section is an overview of the economic role for government in society. As stated in Section II Supply and Demand, the study of economics asks how the scarce resources in a society are allocated, and how this allocation generally takes place through the law of supply and demand in the market. However in some cases supply and demand (the market) does not ensure the best use of society's scarce resources. It is in these cases that there is an economic role for government.

Market Failures

The first economic case for government is when all the costs of a transaction are not captured when supply and demand meet at a given price; this is called a "market failure." The most obvious example of this is when a consumer buys something produced by a factory and the factory emits pollution that effects the community around the factory. Generally the price of the good produced by the factory does not include the costs of those effected by the pollution. These pollution costs could be health costs through people made ill by the pollution or the displeasure caused by the unsightly smoke emitted by the factory. In this case there could be an economic role for the government

to put pollution abatement requirements on the factory or to tax the factory and then use the tax money to clean-up the pollution caused by the factory or to pay for the health costs of those made ill by the factory. In some cases the court system, not the government, can be used to capture the costs of a market failure.

It should be noted that when the government taxes a factory for its pollution the tax costs can be passed on to the buyer of the good. This then increases the cost of the good and this is reflected in the supply price of the good in the market. This increased cost then means less of the good is demanded. This new higher price of the good is captured in the law of supply and demand and less of the good is traded due to the pollution costs.

Public Goods

The next example of a role for government in the economy is when there is something known as a “public good.” This is usually when something is shared in common by everyone in the society. The most obvious example of a public good is military defense. Everyone benefits from defense but it does not make sense, nor is it possible, to determine a supply and demand for military defense. In this case the government provides the defense for the common good and pays for the defense through taxes.

Economists generally agree on other types of public goods as well. These can include police, fire and emergency medical services and the court system to enforce contracts and copyrights, and can also include public works such as water and sewage systems, roads and urban mass-transportation.

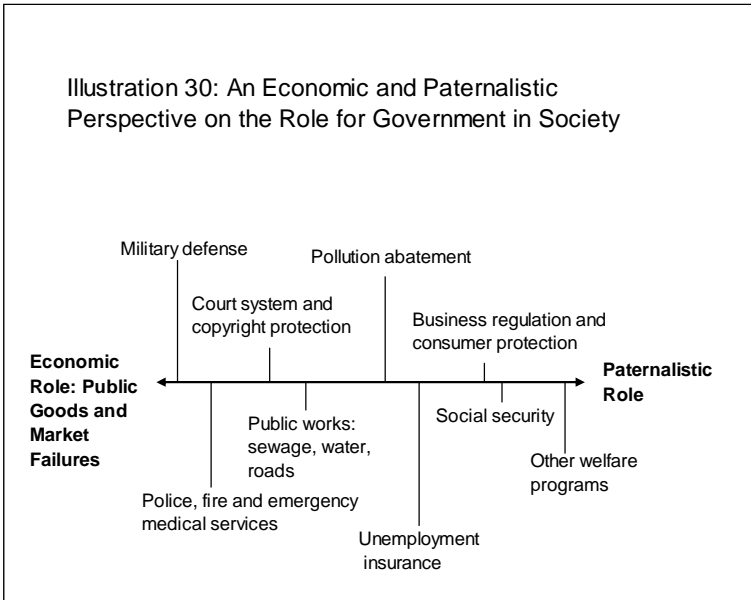
An Economic and paternalist perspective on the role of government in society

It is politics and not economics that determines what the role of government is in society. Economists only explain the *economic rationale* for a government role in society. The role of government in society can be looked at as a continuum from economic roles on one side of the scale and more paternalistic¹⁰ roles for government on the other side of the scale.

It is the political process which determines where on the continuum a government operates at any one time and this can change as society changes. Some people believe that government's role in society should be limited to addressing market failures and public goods, and providing a rule of law. Other people believe that government should play a more paternalistic role and that redistribution of wealth creates a more stable society. This scale of government intervention in society is shown in Illustration 30.

¹⁰ Paternalism here is used to mean people using government to protect them from their own actions, or as a substitute for acting in their own self-interest.

Illustration 30: An Economic and Paternalistic Perspective on the Role for Government in Society



VI. Appendix: Unemployment and Inflation

Until now, this book has tried to present those economic concepts which are generally agreed-upon by the majority of economists. Of course not all economists agree on everything and there will be those who disagree with some of what has been presented above. But in general, most of the economic ideas presented so far are not controversial to most economists.

This Appendix deals with ideas that are not agreed-upon but are of equal importance to the ideas of opportunity cost, supply and demand, gains through trade, production and economic growth, income per person, savings and investment, and the economic role for government.

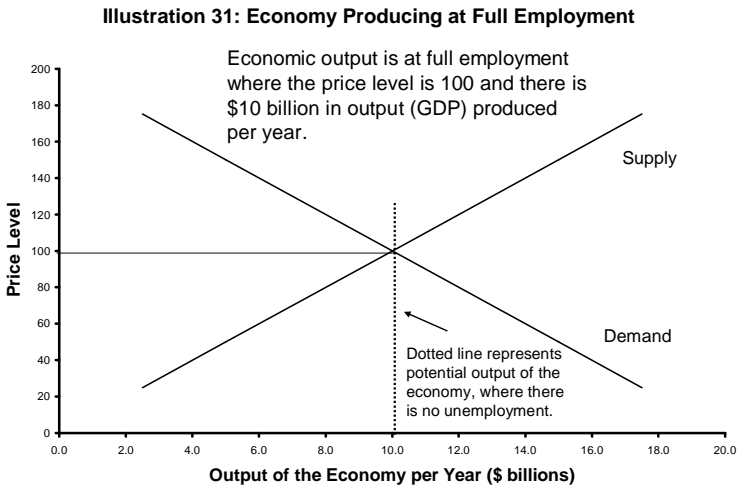
The following section discusses an area where politics and economics intersect. This is one of the most important ideas of economics, one which is still being debated, and that is the question of *how does an economy produce enough to ensure that there is full employment and what should be done when there is not full employment?*

Economists generally agree as to what “full employment” means. This means that all who would want jobs have jobs. There are always those who are looking for better jobs, who are voluntarily unemployed while they are looking for better work. It is generally agreed that this “natural rate of unemployment” is around 5%.

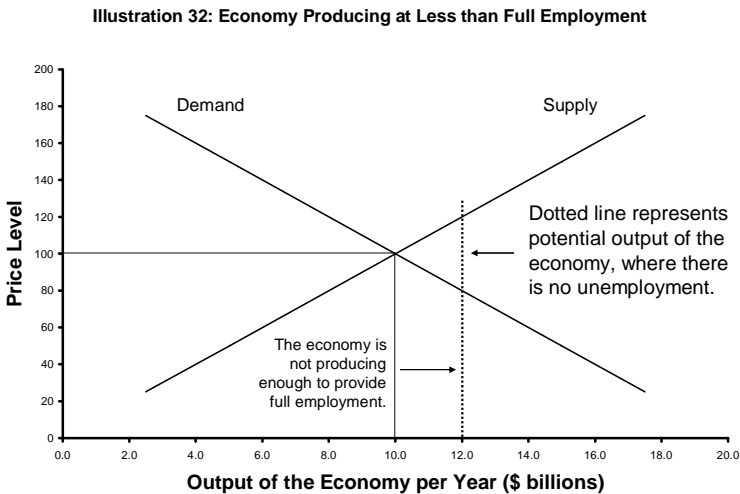
The unemployment economists are concerned with occurs when an economy is not producing enough output to employ all those would like jobs. The unsettled debate in economics is what to do with the economy, if anything, to raise the output to a level to ensure that these types of unemployed workers find work they would like to have.

In Illustration 1 we show an economy that can produce all guns (10 guns) or all butter (100 pounds of butter) or can produce some combination of each by trading guns for butter (one gun for 10 pounds of butter) or butter for guns (10 pounds of butter for one gun). An economy can produce at this level, known as its “potential output,” when all the resources of the economy are put to use. A society’s resources include land, labor and capital, and entrepreneurship and management skills.

When all the resources in a society are being used supply and demand can meet at the potential output of the society. In other words, supply and demand can create an economy where there is full employment at a certain price level.



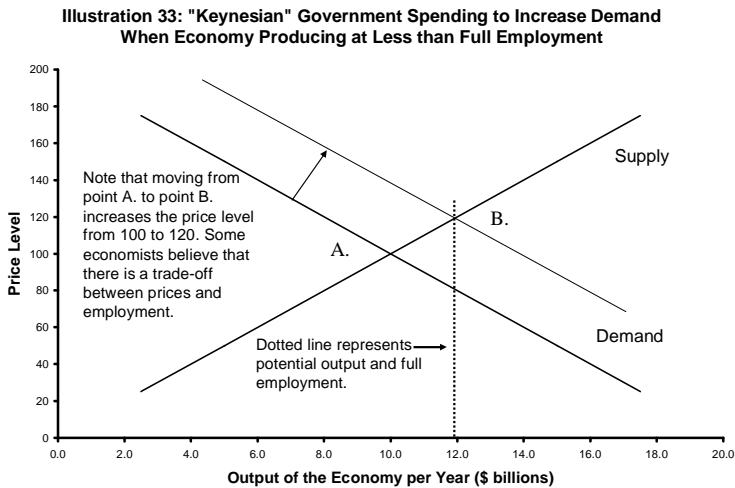
However, sometimes an economy can be producing at less than full employment. Economists do not all fully agree why this occurs or what to do about it. As shown in Illustrations 6 and 7 political interventions like minimum wage laws can create unemployment but economists do not agree as to whether or not this can have economy-wide effects creating large levels of unemployment. The following shows an economy producing at less than full employment.



The graph shows a society's economic output at less than full employment. Society is producing at a price level of 100 and there is \$10 billion in output (GDP) produced per year. However, the full employment level of output is \$12 billion. The economy is not producing enough to give everyone jobs who would like them.

Keynesian economics

Economists disagree about what to do when the economy is not producing enough to create full employment. One school of thought, usually known as the “Keynesians” after John Maynard Keynes, who most famously wrote about economics at the time of the Great Depression (which began in 1929 and ended with World War II), says that government needs to step in and spend more to increase demand to the point where there is full employment.



Keynes said that government should spend more to increase the demand, which moves the economy from point A., less than full employment, to point B. full employment.

Note that this increase in demand also increases the price level. Some economists believe that there is a trade-off between prices and employment. In other words, some economists believe that in order for employment to go up prices must go up. When the prices of everything, not just some things, go up this is known as inflation. High rates of inflation are generally bad for the economy as inflation makes the interest rate go up. As described earlier when the cost of money is more expensive there is less investment, and investment is necessary for economic growth.

Classical economics

Other economists do not agree with Keynes that government should step-in to increase spending and demand. These economists are known as monetarists, classical or neo-classical economists, and supply-side economists. These economists disagree with Keynes for two main reasons. First, they say that an increase in government spending, especially when government borrows money to spend, increases the interest rate. This is shown in Illustration 28.

Secondly, those disagreeing with Keynes say that the timing of government spending to increase employment can not be timed right. This is called “lag time.” It takes times to know when there is unemployment and how much unemployment

there is and how much government spending is needed to increase demand enough to remove the unemployment. Then there is lag time due to the congressional action required to allow the government to spend, then the lag time due to the government actually spending the money.

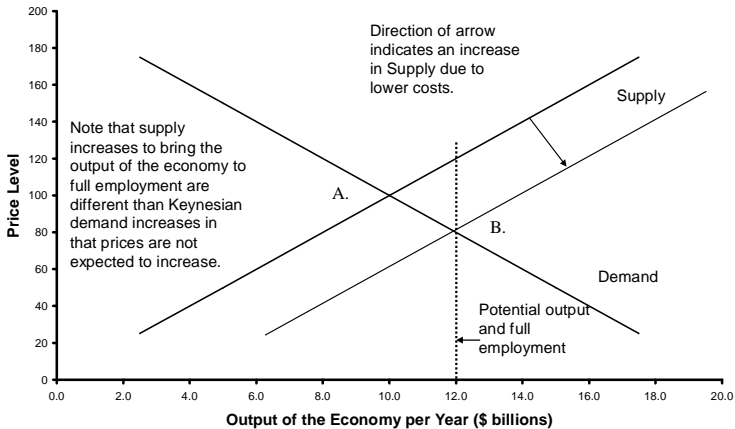
According to the classical and neo-classical economists (the economists before and after Keynes) the economy will have self-corrected to full employment due to the law of supply and demand before Keynesian government spending takes effect due to the lag times. In addition these economists believe that once government increases spending it is difficult for government spending to decrease, due to both lag time and political reasons, when the spending is no longer needed to create full employment.

Supply-side economics

Supply-side economists say that an increase in supply is better for the economy than an increase in demand because it does not raise prices and does not increase the size of government. The supply-side economists believe that government should allow the law of supply and demand to take effect to allow the economy to produce at its potential through increasing free-trade (by removing trade barriers such as quotas and tariffs), minimizing government regulation (through deregulation of industry and privatization of government-owned businesses) and decreasing taxes.

These supply-side actions then reduce producer (supplier) manufacturing and production costs, and therefore reduce market prices. These lower prices then increase the quantity demanded, economic output and employment.

Illustration 34: Supply-Side Action When Economy Producing at Less than Full Employment



Supply-side economists believe that lower taxes, deregulation and free-trade will decrease producer prices, bringing an increase in supply. This increases quantity demanded and moves the economy from point A., less than full employment, to point B. full employment

The Keynesians argue that supply-side cost decreases are not fully effective because employees are not willing to accept lower wages. Therefore although other supplier costs are reduced under supply-side economics, wage cost decreases may not be great enough to bring full employment. Employers may not be not willing to hire (demand) more workers at the same wage rates even if other costs have gone down.

Economists opposed to supply-side economics also do not like the budget deficits and government borrowing that tax-cuts may bring.

However, it is debated as to how much cutting taxes decreases government income and therefore the need for government to borrow. Supply-side economists believe that tax cuts can increase government income because lower tax rates can encourage more tax-paying economic activity and reduce tax avoidance. The economic policies of the Ronald Reagan administration in the 1980s in the USA are the most well-known example of supply-side economics.

The disagreement between demand-side (Keynesian) economists and supply-side economists is on-going because, with lag time effects for both policies, it is hard to prove who is more correct.

Neo-classical economics

Classical economists - the original economist was Adam Smith who wrote in England around the time of the American Revolution (1776) - argued for a limited role for government in the economy and stated that this was how nations got wealthy.

Smith and others, who were known as moral philosophers in addition to economists, argued against the idea that governments should gather wealth in their government banks (known as economic mercantilism) and that wealth is created by individuals trading with each other free of government intervention. Neo-classical economists re-invigorated this non-interventionalist thought after the time of Keynes.

Monetarist economics

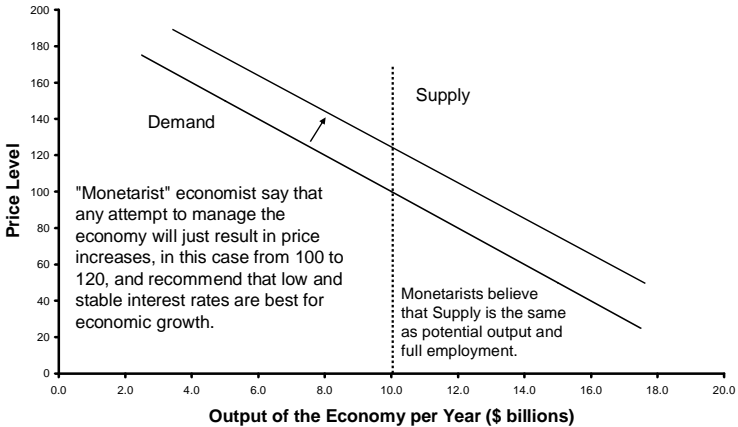
The monetarist economists have a different take on the economy altogether and say that the economy is producing at its potential output and full-employment and that any attempt to change the economy only effects the prices in the economy not the actual output or employment level of the economy. Milton Freidman is the most well-known monetarist¹¹.

Monetarists say that the main role of the central bank, which attempts to control the cost of capital, is to keep prices low and steady as this creates a sound investment environment and thus economic growth. They say that any increase in prices will not increase employment because society has already accounted for expected price increases in their economic decisions.

¹¹ It is generally thought that the *Monetary History of the United States* (1963) by Milton Friedman and Anna Schwartz was the founding text on monetary economics.

Like the classical and neo-classical economists, and unlike the Keynesians, monetarists see a limited role for government in the economy.

Illustration 35: Overview of "Monetarist" Economics



Economics
Political Science

ECONOMICS FOR EVERYONE

ABOUT THE BOOK: *Economics for Everyone* describes the main economic ideas that everyone should know, with easy-to-understand words and graphs. Readers learn how economics impacts our day-to-day lives and the societies in which we live.

Economics for Everyone explains the ideas that most economists agree on (as well as some that economists don't agree on) to help the reader understand current economic and political debates.

ABOUT THE AUTHOR: Cameron M. Weber holds an MBA in public policy from the University of New Mexico, was a member of the Foreign Service based in Africa and Central Asia, and has worked with the U.S. Government on economic development projects in more than 10 countries.

Currently Mr. Weber is a graduate economics student at the New School for Social Research in New York City.

For updates and additional resources, please visit:

www.cameroneconomics.com