Government Expenditures

Goverment expenditures increase aggregate demand. They are competing for resources as are households and businesses.

Introduction

Federal Government Expenditures, 1997

	$ Billions	%
Consumption expenditures	460.4	26.4
Transfer payments	791.9	45.5
Grants: State and Local	225.0	12.9
Net interest paid	231.2	13.3
Subsidies	32.5	1.9
Current expenditures	1,741.0	100.0

Source: Survey of Current Business

The primary measure used in national income accounting is called government consumption expenditures and gross investment. It does not include all outlays by government. Missing are transfer payments and interest/debt service which are included in the table above. Only recently have accounting procedures for the Federal government have been established. The Clinton administration is the first to have instituted audits by CPA firms. Only two of 22 departments and agencies passed audit. It is noteworthy that the administration is committed to cleaning up past accounting problems, this is a first. No one expected the Federal government to receive a clean audit opinion, but major improvements have been made.

The point of this discussion is to highlight the problems in defining expenditures and what constitutes a balanced budget. Very often Congress would exclude social security and federal agencies from the budget. When social security is included, the budget balance would improve or deteriorate depending on surpluses or deficits in the social security trust fund. So when politicians talk of balancing the budget, one must ask which budget and which expenditures are included or excluded.

One other major issue that needs to be clarified, is the difference between a federal deficit and the federal debt. The deficit is the amount by which expenditures exceed revenues. This must be financed by either printing money or issuing debt. Debt is the outstanding bonds issued by the government for which it is liable to repay. What will surprise you is the amount of federal debt that various agencies actually own. In other words, they owe it to themselves. The relationship between the deficit and debt is simple, deficit spending increases the amount of debt outstanding. Currently the ability of the United States to service its debt is very good.

Now we turn to the rationale for government spending. There are three economic functions of government: Stabilization, Allocation, and Distribution (S.A.D).

Stabilization

Business cycles cause misery. Too hot of an economy produces inflation and eventually breaks down. Recession has unemployment and those that are still employed are experiencing lay-off anxiety. Business cycles will be covered in more detail later. Using fiscal policy to achieve macroeconomic goals and, more specifically, to alleviate the effects of business cycles, is stabilization. When inflation threatens from overheated demand, increase taxes to remove purchasing power. As unemployment rises, pump money into the economy to stimulate demand by cutting taxes or by increasing government spending.

What are the fiscal policy tools available to the government? Expenditures and taxation. Government may effect general increases in expenditures or target specific areas in an attempt to stimulate demand. Taxation can also be handled in a "like manner" to either stimulate demand or cut demand.

Automatic Stabilizers

Programs which tend to increase government spending during a recession such as unemployment compensation or welfare and decrease aggregate demand during an inflationary period (such as progressive income taxes without direct action by policymakers), are called automatic stabilizers. Two major examples of automatic stabilizers are income taxes and unemployment insurance.

Lags

There are problems in timing fiscal policy. Because of lags in recognition, and implementation, by the time discretionary fiscal policy measures take effect, the recession has ended and now it contributes to inflation.

Crowding Out

Fiscal policy its self is not without its problems. "Crowding out" can occur when the sale of bonds to finance government spending takes funds away from private borrowers that would otherwise contribute to aggregate demand, more specifically investment spending. Since investment spending is considered a key factor in economic growth, this could be a serious problem, especially over the long run. However, government could spend on investments also. In fact, that spending may prove more productive than private spending (I refer to the external benefit argument).

Deficit spending extended over a period of time leads to a larger percentage of the budget being used to service interest payments on the debt. Eventually taxes will need to be raised to finance debt service and the budget deficit. These higher taxes can reduce incentives to work, create distortions between the capital and labor markets, and in the long run reduce income and wealth.

Fiscal Drag

Another problem, called "fiscal drag", can occur. "Fiscal drag" is present when tax revenues increase dramatically as income increases (due to a very progressive income tax) which generate large budgetary surpluses, which tend to keep the economy from full employment. This does not seem to be a problem under current tax rates in the United States.

Allocation

This discussion below focuses on types of market failure where the private market may not provide the efficient quantity of a good to the market. Government may choose to intervene to allievate the effects of market failure by: regulating, taxing or subsidizing, or directly providing goods or services.

Externalities

One of the major types of market failure result from the problem of externalities. Externalities are the benefits or costs that are borne by individuals not involved in the production or consumption of the good or service. Positive externalities provide benefits to non-consumers,; negative externalities impose costs. A positive externality exists in the situation where your neighbor spends money to renovate her house thus providing a more attractive neighborhood and indirectly raising the value of your property. Conversely a negative externality occurs when your neighbor start raising skunks thus causing an odor problem in the neighborhood, consequently lowering your property value. Goods with negative externalities tend to be overproduced in the private market. Goods with positive externalities are underproduced in the private market.

Government may provide goods in which the net social benefits exceed net private benefits, a positive

externality. For example, education delivers a private benefit in the form of higher earnings. It also provides the State of Florida with an educated workforce that attracts economic growth, has lower crime rates, and participates more actively in elections. Demand curves are based upon private benefits. Adding social benefits causes the demand curve to shift to the right. Because it is in the government's interest to supply more education services, it subsidizes the cost. In Florida, two thirds of the cost is paid for by the State. Consider that over time the increased income will contribute more taxes to the State. The State really isn't losing money on this deal.

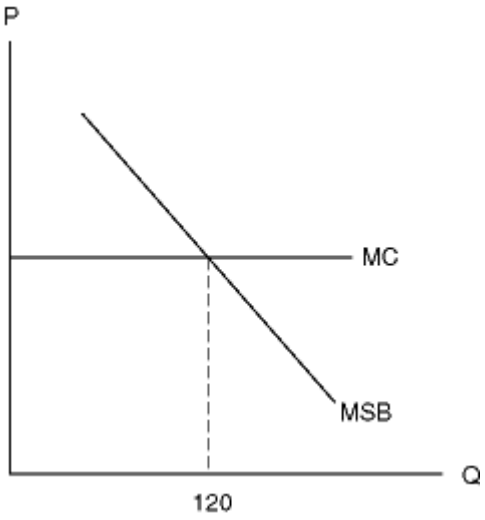
When buying a private good such as clothing the wearer receives the benefits associated with being clothed, warmth, protection from weather and from prying eyes. It is true other people may derive some enjoyment from viewing a nicely clothed individual but mostly the wearer receives the benefit. This is known as a private benefit. Goods with large positive externalities have benefits accruing to many individuals not just one. The summation of these individual benefits is called the marginal social benefit and represents the additional benefit these individuals receive when output increases one unit.

Expressed in another way, the marginal social benefit equals the marginal external benefit plus the marginal private benefit (the demand curve). Let's define maginal external benefit more precisely as the additional benefit received by non-consumers as one more unit is consumed.

Marginal external cost is the additional cost bourne by society, those not directly consuming or producing the product. A good example of this would be pollution. Pollution can cause severe sickness, cancer, and eventually premature death. When we add the marginal external cost to the marginal cost of production (the supply curve), we get the marginal social cost.

To determine the efficient output of a these goods we choose the output level where the marginal social benefit equals the marginal cost (the cost associated with an additional unit of output). In Figure 4.0 we assume that marginal cost is constant. The output equals 120 units at a price equal to the marginal cost.

Figure 4.0 Marginal Social Benefit and Marginal Social Cost



In reality measuring or estimating the marginal social benefit and marginal social costs are not so easy. The value (negative or positive) generated by the externality must be estimated. The cost of inhaling diesel fumes is not immediately apparent. Initially, there is the issue of how much one would pay to have air free of diesel smells. Secondly, there is the question concerning risks of long term repeated exposure. Low level pollution does seem to raise rates of various types of cancers; asthma, and emphysema. Costs of treatment, and lost work productivity and loss of quality of life would need to be calculated. Within these calculations the impact on expected life span would have to be factored. At best these calculations are estimates. This calculation would be open to challenge as diesel industry

experts would question that the rates of sickness were due specifically to diesel pollution and not some other environmental factor.

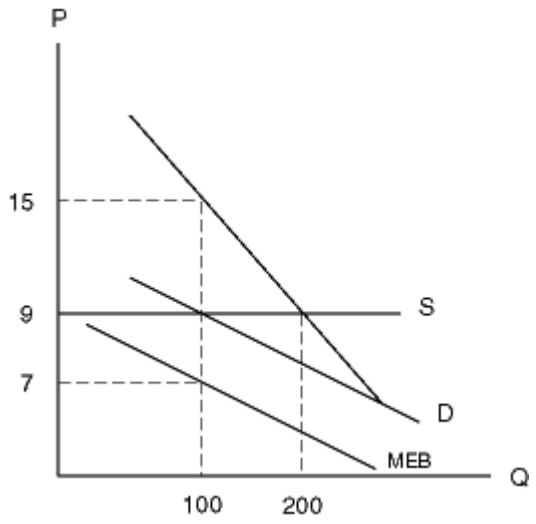
Given an externality such as diesel pollution, what options are available to eliminate or minimize these costs?

1. Government could levy a tax on pollution causing diesel fuel, or engines, or mileage driven. This would encourage minimization of diesel consumption and usage of alternative fuels or modes of transportation. As costs go up shippers will seek to reduce weight and volume of packages. This will reduce fuel consumption, hence, pollution.
2. Fund or encourage through subsidies research and development spending on alternatives to diesel technology.
3. Subsidize alternative fuels or modes of transportation.
4. Require diesel engines to have pollution controls or require refiners to produce a cleaner diesel fuel.

Pollution is generally considered the worst negative externality. Why should diesel truck manufacturers clean up their emissions which entails a substantial cost when they can dump it into the air for free? There is a substantial cost to those who breath diesel fumes, lung disease and death. Government can intervene causing manufacturers to bear the costs of cleaning up the exhaust. Ironically, the cost of cleaning up the exhaust is probably far less than the costs imposed on the consumer due to poor health and industry by having workers become sick and miss days.

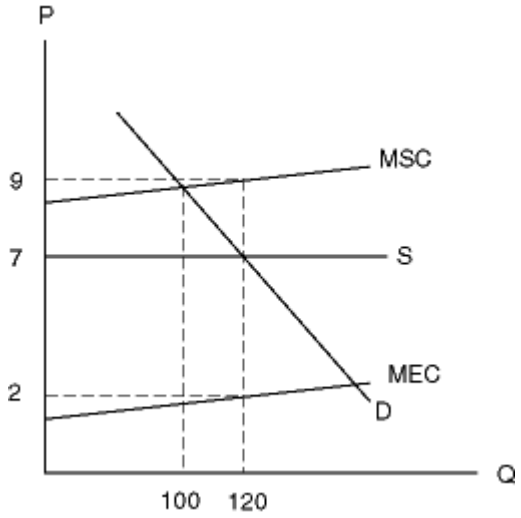
From figure 5.0, at the intersection of supply and demand yields output of 100 units at a price of $9 per unit. Marginal External Benefit (MEB) the competitive market solution, at 100 units yields a benefit of $6 per unit when added to demand at 100 units would give a price/benefit of $15 per unit. Combining demand with the MEB and intersecting this line with supply yields the socially efficient output level of 200 units. There is no incentive for the competitive market to increase production from the output level of 100 units because the costs are greater than the benefit per unit received by consumers as opposed to society. Goods with such positive externalities will be underproduced.

Figure 5.0 Marginal External Benefit



Consumers are not going to buy additional units because they do not derive additional personal benefit to justify the cost. The solution would be for the government to subsidize production of the good to bring its cost down, increase supply, thereby increasing quantity demanded.

Figure 6.0 Marginal External Cost



In contrast, a good with a negative externality is overproduced. In Figure 6.0, 120 units at a price of $7 are produced. A Marginal External Cost (MEC) of $2 per unit (or $240 in total) is passed onto the public. Each additional unit of output generates additional costs not borne by the producers of the output. In this case, a cost is passed onto other individuals, say lung disease from diesel fumes. If that cost were bore by the suppliers, the price would have to rise to cover the suppliers additional costs, to equal Marginal Social Costs (MSC). At that supply schedule, only 100 units would be produced, causing less pollution, and paying for the pollution that is produced.

In fact, levying an excise tax of $1 pr unit would accomplish that purpose. A cautionary note needs to be sounded here, what is taxes has to be directly related to the externality. For example, taxing diesel trucks may reduce the number of trucks but this does not create an incentive for truck manufacturers to reduce pollution per vehicle. A better methodology would be to tax directly the amount of pollution each vehicle generates (perhaps by testing engines and applying a formula such as the tax rate times the weight of pollutants discharged).

To move the supply curve to the marginal social cost curve requires that suppliers assume the burden of the additional cost. There are a number of ways to accomplish this. One of the most advocated is to assess a tax, which in this case would be $2 per unit and use the proceeds to reimburse those hurt by the pollution. Although this sounds good, one must realize that victims of pollution may not be known until 20 years later. A better way may be to internalize these additional costs by requiring diesel manufacturers to produce much cleaner engines.

Public Goods

There is yet another classification of goods that would not be supplied at all if it were not for government. These are called public goods. Public goods are characterized by nonrival consumption and nonexclusion. Nonrival consumption implies that no matter how much of that good or service has been consumed, more can be consumed. Consumption by one does not diminish the quantity available for consumption by others. For example, broadcast television, regardless of the number of antennas in the sky, if one more is added, it doesn't diminish the enjoyment of the other customers.

Nonexclusion occurs when it is impossible to confine the benefits to paying customers. Again, consider the case of broadcast television before encoding. Once that signal left the tower antenna, there was no way to detect whom received it and, thus, charge them for usage. This is called the free-rider problem, customers who benefit from the service without paying for it. As a consequence of the characteristics of public goods, producers cannot collect funds to cover their cost

Consider the case where there is rival consumption such as a basketball game. Each ticket sold means

one less ticket for someone else. For there to be nonrival consumption the stadium would have to be infinitely large and every seat must have a great view.

Consider the problem of national defense, no one individual has the resources to provide for the defense of the country. If one did, why would anyone want to contribute since they would receive the valuable protection for nothing? France, during the Cold War, pulled out of NATO. Why pay for NATO when to defend West Germany they defend France? Any Soviet forces that survived a NATO defense would be easy targets for the French armed forces. France was, in essence, a freerider. NATO could not force France to pay its burden of European defense.

Freeriders enjoy the benefits of the good or service without having to bear any of the cost. If a good has a significant group of freeriders, then it is more likely its costs cannot be financed by paying customers and consequently it may not be offered through the private market.

An interesting situation is developing as music could be becoming a public good. Consider the two characteristics of a public good; nonexclusion and nonrival consumption and see how they may apply to the music industry given the current state of digital technology. Perfect copying of music allows an infinite number of people to enjoy the music without destroying its quality, hence we now have nonrival consumption. That same technology allows anyone to copy it freely, making it very difficult for music companies to restrict songs to paying customers, therefore we have nonexclusion. How then can a private firm offer a public good in this circumstance?

Problem of the Commons

People tend to overconsume a 'free' or common resource to the point of its exhaustion. A good example of this is fishing. As more fisherman enter the lake, with better fish detection and hooking technologies, the supply of the fish becomes depleted. It is clearly in the interest of all fishermen to limit the catch from that lake but it is also in the interest of each fisherman to maximize their catch. The latter interest will prevail unless government can establish a policing mechanism to ensure limits are enforced to enable the fishing stock to replenish itself.

To prevent the fishing market from destroying itself, governments must regulate catches. Fish and game wardens are necessary if we are to have plentiful wildlife in the future.

One of the biggest headaches of modern life is traffic. In fast growth areas such as those here in Florida, construction of a new road seems to promote congestion rather than cure it.

The problem stems from the treatment of roads as a common free resource. Every property owner wants to use it. Consequently, as every parcel of land adjacent to the road is developed, the number of vehicles on it far exceeds its capacity. Frequently, there is no cost to property owners for utilization of the road. Therefore, as a common resource it becomes overutilized. Wear and tear eventually take their toll on the road.

Remedies for congested roads include expansion by adding lanes, and by building new roads. These are helpful in the short run but since the problem of overutilization still exists, congestion is almost inevitable.

Congestion during rush hour may be allievated by pricing schemes which are not popular but do generate funds for road construction or rapid mass transit systems.

A little beyond the scope of this course into the area of urban planning, is the question as to why we seperate residential and work areas by such distances as to require extensive road networks.

Asymmetric Information

There is yet another major problem that can impede a well functioning market, that of asymmetric

information. Asymmetric information occurs where the buyer and seller have different information. AS we discuss later, moral hazard and adverse selection are considered forms of asymmetric information. In the worst case of asymmetric information the market fails completely. A well known example used in economics is the Lemon Car Model. Here we are referring to the used car market. We have the dealer and the buyer. The dealer has better information on the condition of the car than the buyer. Let us say that there are two types of cars offered for sale: high quality and low quality. High quality cars command a high price and low quality cars a low price. The buyer does not want to buy the low quality car. The dealer makes the majority of his profit on high priced cars but cannot afford to offer them a lower price. There is an incentive for the dealer to offer low quality cars at the high price. Buyers are aware of this. Consequently, the buyer offer a lower price than the asking price because she feels there is a chance that the car could be a lemon. The dealer knowing the buyer is not going to pay the high price refuses to sell the high quality car at a lower price. Instead, the dealer offers only low quality cars. The buyers also realizes this and eventually gives up trying to buy a used car.

In any situation where the seller possesses better information about product quality than the buyer then the buyer may be hesitant to buy at any price as any agreement by the seller may signal poor quality to the buyer. Given a complete breakdown in trust the buyer nevers buys from the seller. In other words, the market ceases to function. What can be done to a allievate this situation? The seller could offer a warranty. In this case the buyer would be assured that the seller would not want to incur the costs of repairing a lemon. Therefore, the car must be high quality.

Another solution would be for the government to monitor or inspect the sellers and issue a rating or certification that would be useful to buyers. An example of which is the grading of beef and agricultural products. In this regard both the buyer and supplier should welcome government involvement in the market by providing some type of monitoring function.

Auditing is another possibility. Auditing is similar to monitoring but after the fact. If auditing reveals a problem then the seller's reputation is damaged which will cause the sales to suffer. Of course there can be auditing failures such as with Enron. Auditing failures can impose huge costs on the public in terms of financial losses as well as market failure afterwards.

As described above, in cases of asymmetric information the government can aid in the solution by some type of regulation. In the case of public goods, government production of goods or services may be desirable such as in the provision of a national defense.

Health care is certainly one area where asymmetric information exists. Doctors have far more information than patients. They also may have financial incentives that affect their behavior in prescribing treatments. Insurance company reimbursement requirements may limit treatment options. Doctors also have an incentive to maximize costs when the patient has insurance by ordering unnecessary tests or medical procedures. In this regard, insurance companies face moral hazard (which will be defined shortly) by doctors but cannot control it by deductibles or co-payments as the patient is the payor and relies on the doctor to determine treatment. Instead they rely on treatment guidelines and will reimburse only procedures generally accepted by the diagnosis, that is procedures generally accepted by insurance companies. These procedures may also be reimbursed at a published rate. Justifiable concern exists by patients as to whether or not insurance approved procedures are appropriate given their financial incentives to minimize the cost of claims. Newer types of treatment tend not to be approved by insurance companies.

Adverse Selection

There are two problems with insuring people: adverse selection and moral hazard. For example, adverse selection in health insurance occurs as healthy customers buy little or no health insurance and sick (or more likely to be sick) buy more insurance. The result is higher loss rates and consequently

higher insurance rates. Healthy individuals experiencing higher insurance rates buy less insurance thus shrinking the pool over which to spread costs thus driving up rates again.

Adverse Selection Example

Population	Number of claims	$ per claims	Total $ claims	cost per policy
1,000	10	5,000	50,000	50
500	10	5,000	50,000	100
250	10	5,000	50,000	200

Let's see how adverse selection works in practice, using health care as an example. Starting out with a population of 1,000, ten people become sick each requiring $5,000 in medical care each month. Averaged out over the population, each policy costs $50 per month. Half of the population feels that they do not need health insurance as they are feeling very healthy and the $50 can be used to buy something else. Now $50,000 of costs are averaged out over only 500 policies thus driving the cost per policy up to $100. At this level, another 250 drop out as the price is just simply too high. With the remaining 250 policyholders, the cost per policy reaches $200 per month. Consequently, the insurance market simply dies as only the sick will want to buy insurance. Healthy people opted out leaving only the very sick. Government can alleviate this problem, by requiring everyone to participate in the insurance pool, through policies issued to their employers.

Moral Hazard

Moral hazard occurs as the now insured individual undertakes more risky behavior knowing that someone else will pay the bill. Moral hazard can be somewhat overcome by establishing deductibles, risk adjusted insurance premuims, and/or co-insurance payments. Take automobile insurance as an example. If one is uninsured, one is going to drive very carefully as any accident causing any degree of damage is going to be costly. To limit exposure to accidents one may drive very little. However, if one can get cheap insurance then one is likely to at less likely to be careful or one may feel secure enough to drive many miles. Some drivers may take increasing risks by driving faster, chancing an accident and/or a more damaging accident. Given this behavior, insurance companies are going to experience more claims as well as more expensive claims as these drivers do get into more accidents while each accident may become more severe.

To alleviate this type of behavior insurance companies require deductibles. Deductibles are upfront payments policyholders make in a claim before the insurance company pays its portion of the claim. To further restrict moral hazard behavior co-payments may be required. Co-payments are sharing the expenses of the claim with the insurance company. The effect of deductibles and co-payments is to pass some of the expense onto the policyholder. Now an incentive exists for the policyholder to refrain from risky behavior since the policyholder now saves money by minimizing risks. Additionally, insurance companies adjust insurance premiums. Risk adjusted premiums are appropriate when the insurance company is able to detect risky behavior. In our example as a driver collects more speeding tickets, the insurance company collects more premiums. Not only does the additional premiums serve to encourage better behavior but the additional premiums finance the additional claims that behavior is responsible for.

For low income earners or retirees, this expense may present a barrier to acquiring health care. Because of these problems, some forms of insurance may be unavailable or very costly to obtain for some individuals. This can be viewed as another type of market failure. Government intervention or participation may be desirable in this circumstance to increase society's welfare. The above discussion provides the rationale for social insurance programs.

Social Insurance

A brief inspection of government expenditures from the industrialized countries will reveal that social insurance programs account for a large percentage of their budgets. Social insurance programs include retirement, disability, unemployment, and health benefits. Welfare programs may be considered seperately or included with social insurance expenditures depending on your viewpoint. Why do governments provide social insurance? As stated before, problems with moral hazard, adverse selection, and asymmetric information all contribute to the rationale for government involvement.

Let's take a quick detour for a moment. Although we have already discussed several aspects of insurance within the context of asymmetric information, a basic understanding of the economic role of insurance markets may be useful. Insurance is about managing risk. Providing incentives for policyholders to minimize or manage risk exposure is as important as deciding whom to insure. Insurance performs an important economic function of risk management in the economy. Some investors are able to absorb risk although they demand a compensating higher return. Risk averse individuals are able to remove risk.

Insurance is defined as a group assuming the sum total of the risk of loss of all individuals. Because losses from large populations are more predictable, the cost can be spread out among the members of the group. The group for social insurance could be viewed as the nation. Insurance is not as simple as merely spreading the risk.

Consider the case of auto insurance. If one is involved in a major accident, the expense could lead to financial ruin.. It could take years to recover financially from such an event. Why take a chance to waste such a portion of your life when for a relatively small fee (called a premium) this could be avoided.

Social Security

Let's start our discussion with social security. Social security is more easily defined by the benefits it offers. First, it offers retirement benefits. Depending on what age you retire, earnings history and other personnel circumstances you are eligible to receive a monthly check until you die. Secondly, it pays benefits for the insured's survivors and dependents. Again these are subject to an extensive list of rules. Thirdly, there is a minimum income guarantee for those who become disabled.

All of these benefits are financed by a payroll tax. Half is paid by the employee and half by the employer. The tax is levied on earnings up to a limit (approx. $70,000) that increases with the rate of inflation. There is also an adjustment that is made to the amount of benefit received. It too, is indexed to the rate of inflation. It would be helpful to contrast social security to a typical private pension plan.

Defined contribution vs defined benefit

There are two generic types of plans: defined contribution and defined benefit. Let's take the example of what is called a defined benefit pension plan, because that more resembles social security than the second type, a defined contribution pension plan. Under a defined benefit pension plan, your benefits are established and delineated in a master plan document. Typically each year of employment, called a service year, entitles the employee to a larger benefit, usually defined as a percentage of salary (itself generally defined as an average of last three, five, or seven years or highest five years). For example, working for 20 years may establish your benefit as 60% of your annual salary. Working for 30 years may give you 90% of your salary. Pension plans may also offer health insurance, disability, and survivor benefits. While workers may be accumulating benefits under a formula, if they leave the company they risk losing part or all of their accumulated benefits. At the point that workers totally own their benefits they are said to be vested. If they leave earlier, at 50% vesting, then only 50% of their accumulated benefit will be paid to them upon retirement.

Companies employ actuaries to estimate how much in benefits they will need to pay based on life

expectancies, sickness rates, etc. From this forecast, actuaries calculate how much in funds are needed to be invested now, given an assumption of investment return, to have the required amount when workers retires. In essence, each worker has an account into which the company deposits funds which earns a return. It is not uncommon at retirement for the bulk of the required funds to have been generated by this return on return (interest and price appreciation) rather than the sum of deposits made by the company.

In a defined contribution plan, the employer contributes cash to the employee's account. The employee is responsible for the investment management of the account. There is not a guaranteed benefit or amount at the time of the employee's retirement. Investment risk, risk of underperformance, rests with the employee.

Under a 401(k) or 403(b) plan, employees make contributions, which are made on a pre-tax basis (roughly equivalent to being tax deductible) which may be matched by employer contributions. Employee contributions are immediately vested while employer contributions may be subject to a vesting schedule.

There are several advantages to a defined contribution plan. One, it is usually portable, workers take the assets with them when they switch jobs. Secondly, it is much easier to evaluate performance and compare plans as a monetary measure is presented. Thirdly, if investment performance is good, retirement benefits may be higher than achieved through a defined benefit plan. Finally, administrative costs for companies tend to be lower compared to defined benefit plans.

Private plans are usually fully funded. At retirement, the resources to support the retiree are available without further contributions. Contrast this with a "pay as you go" retirement system. Under this plan, current contributions are directly paid to current retirees. There is no accumulation of funds. If there are 8 workers for every retiree and each pays $2,000 (say 5% of their income) then that retiree will receive $16,000. But if there only 2 workers for every retiree, they will each have to pay $8,000 to maintain the current retirees lifestyle. Since that is unlikely, the retiree will have to accept less benefits and either work longer or die sooner. I suspect they will want to work longer.

This is somewhat the demographic situation the United States will face in the future. Because of the huge budge in the population in the late 40's and early 50's - the baby boomers will begin retiring with the next ten years. Because of their numbers the ratio of workers to retirees will drop, possibly as low as to 2 to 1 according to some estimates.

Funding of Social Security

Contrary to the popular press, the American Social Security system is not exactly a pay as you go system, currently it is partially funded. Some funds are being accumulated but the strain that the baby boomers will exert will drain those reserves by 2044 or later according to many estimates. After that date, money will still be paid into the system but not enough to fund benefits at the promised level. Retirees will have to do with less. What other options exist? Suggestions include using some of the budget surplus, privatizing the system, and just better management.

Investment of Social Security Funds

One sidebar issue that needs to be addressed concerns the investment of social security funds. Several commentators have talked about Congress stealing money from the social security trust fund to use for other favorite projects. I am not sure that I would characterize it that way. Contributions are deposited in the Social Security Trust Fund. The Social Security Trust Fund is building large cash reserves. These reserves earn nothing unless they buy bonds that earn interest. By law, Social Security can only buy US Treasury securities.

The funds from those bonds do indeed finance government programs as with any bond issued by the Treasury. Interest earned on those bonds provide funds for payment to social security beneficiaries. A better question to ask is whether or not the policy to restrict investment of social security funds to government bonds is appropriate.

Privatization Issues

Many proposals have been put forth to privatize social security and allowing individuals to manage and invest their funds. The argument is that social security could be invested into the stock market to earn higher returns. These higher returns could allow less contributions to be made, thereby lessening the social security tax burden, or increasing the benefits paid upon retirement. There are several issues with privatization that any privatization proposal must address.

One, investment risk. Given the high stock market returns earned in the late nineties, this sounds like a great idea. But stock markets have years where stocks lose value! Risk is always present. And this risk is not small, portfolios can lose 25% of their value in one year! Not many retirees can take such a drastic decline in their retirement assets. A related question is who is going to take care of those retirees that have lost their assets and what will be the cost of doing so.

Two, investment management costs. Not everyone is a good candidate for managing their funds in the stock market. Many people do not how to construct a portfolio of stocks nor how to maintain an investment strategy over time. Consequently, investment management is needed. The cost of this service can be substantial, especially for smaller accounts. This does not include the cost of administering the payout after retirement. Social Security's management cost is less than 1% of contributions and that does include the cost of paying retirees.

Three, transition costs. Since, Social Security is not fully funded, to convert to a fully funded private plan means funding the private plan while covering costs in excess of the Trust Fund balance as Social Security is liquidated. These costs are easily in the trillions but can be spread out over time to some extent.

Four, replacement of disability and surviorship benefits. Social Security provides a vast net of services and these must be covered one way or another under any privatization plan. These costs are not cheap. Often proponents of privatization compare rates of return of Social Security to private plans. Social Security always looks bad in those comparisons. But those private plans do not cover disability and surviviorship benefits. It is a very unfair comparison.

Social Security and Retirement Planning

To a very large extent social security has already been "privatized". Generally, social security is expected to provide 20% to 30% of your retirement income. The other 70 to 80% is to be provided by private savings. For many years private savings for retirement has been strongly encouraged by Congress through 401(k), IRA's and other tax favored savings arrangements.

Upon retirement, risk preferences change. Can you afford to let your portfolio lose 25% of its value in one year? Clearly, investing in less volatile assets such as bonds may be appropriate. Running a national pension scheme, such as social security, may also justify a conservative investment posture. Losing 25% of the value of the portfolio in a national pension plan may necessitate tax increases to cover the shortfall in investment income, to ensure that enough funds are available to pay benefits. With taxpayers already suffering stock losses, this would add more misery. This could also have a destablizing effect on the economy. Clearly, investment in government bonds may be a wise choice given this scenario.

Macroeconomic Impact of Social Security Investment

There is yet another issue to be dealt with here. The economy requires a set level of assets. Ownership of these assets are divided between debt capital (bond market) and equity capital (stock market). These assets generate a given amount of income, which is divided between debt and equity. Increasing the amount of equity will decrease the level of debt capital. The income generated by the assets will remain the same but will be divided differently between equity and debt.

A numerical example may be helpful. Let's say that to generate GDP of $4 billion that $10 billion of assets are needed. Three billion of GDP goes to labor and the rest, $1 billion is available to the suppliers of capital. Debt capital is 40% ($4 bn)and equity capital takes 60% ($6 bn) of the $10 billion. Debt earns 5% ($.20 bn) and equity earns 13.3% ($.80 bn). The national pension plan currently holds $2 billion in bonds but converts it to stock. We will ignore the details of conversion. Now the capital structure of the economy is $2 bn of debt capital and $8 bn of equity capital. Assume debt still yields 5% ($.1 bn) that leaves $.9 bn for equity. $.9 bn of income divided by equity of $8 bn gives us a return on equity of 11.25%. Return on equity has dropped! That would tend to lower stock prices. There is a redistribution of wealth. No new wealth is created. For new wealth to be created the savings rate would have to increase or a major improvement in technology would be needed. Neither may be likely to happen.

This example is simplified, I have ignored the dynamic effects of consumption, taxes, and other variables over time, but clearly there is no immediate increase in economic output (real income). Privatizing social security may have its benefits. Moving retirement decisions outside the control of politicians and politics is an appealing idea. The bottom line in this discussion is that the debate needs to be based on sound thorough economic analysis.

Unemployment Insurance

The first question is: why offer unemployment insurance? The answer lies in the Great Depression. Unemployment passed 20% which indicated widespread misery. At the very least, unemployment insurance alleviates suffering due to the loss of income. As we will discuss under business cycles, unemployment imposes significant social costs: divorce rates, crime rates, etc. increase. But there is a second answer, one of the characteristics of many recessions, if not all and certainly that of the Great Depression is the lack of aggregate demand. Without aggregate demand, employment falls but in a twist similar to the paradox of thrift, less employment generates less income which generates less aggregate demand, etc. Unemployment insurance can help to break this chain of misery by providing income to maintain aggregate demand just when it is most needed. Had unemployment insurance existed at the time of the crash of 1929 it is doubtful that the depression would have been so deep and long. Admittedly, a faulty monetary policy may be more to blame for the Great Depression's severity than a lack of unemployment insurance.

Many economists consider unemployment insurance as an automatic stabilizer, it automatically adjusts to economic conditions without government or legislative action. It is also self funding, financed by a payroll tax. Therefore, benefit payments do not need to be made from general revenue funds.

The second question is: why should government provide unemployment insurance instead of the private sector? Adverse selection and moral hazard are the key to understanding why not. Adverse selection occurs as insecure workers purchase coverage while confident workers do not. Presumably, there is a valid reason for insecurity as the employer may be becoming unstable. Confident employees seeking to minimize cost will not buy insurance. This, of course, concentrates the risky, costly insureds and drives up premium rates.

Moral hazard is more likely as the now insured workers do not care if they lose their jobs. Consequently, they are less eager to please the boss, and therefore more likely to lose their job and collect unemployment. Faced with adverse selection and moral hazard, private insurance companies

simply do not offer unemployment insurance as it is unprofitable.

Government can overcome these obstacles by forcing everyone into the pool of risks and penalize companies that excessively turnover employees by increasing the unemployment compensation rate that the employer pays. To prevent employees from abusing the system limits to benefits and minimum employment periods are established.

Currently, the system is a joint federal and state effort. Employers pay a rate, considered a payroll tax, which varies depending on unemployment experience. Laid off employees apply for unemployment compensation from a state agency. Typically, the benefits are limited to 50% of pretax earnings and are paid for a maximum of 26 weeks. During this time, recipients must search for and obtain employment if possible.

The question has arisen as to whether or not the existence of unemployment compensation actually increases unemployment. Some empirical findings suggest that the duration of unemployment tends to increase as the level of benefits increase. Is this necessarily bad? With a longer period within which to find employment, workers may find better jobs more suited to their skills. This may be a more desirable outcome.

In the long run I suspect that a healthy economy has more impact on employment and unemployment rather than the level of unemployment insurance provided. I also suspect the stabilization effect may be underated by the critics.

Health Insurance and Health Care

As discussed before, there are valid reasons for government's participation in the health care insurance market. Participation extends beyond the insurance market. Government itself is not only a regulator of health care through regulation, licensing, etc but also is a provider of health care through its ownership of hospitals, employment of physicians, etc. However, the emphasis of this discussion will be on the health insurance programs of Medicare and Medicaid, and on the reason for their existence.

Briefly, Medicare is a program of health care insurance provided by the federal government for people aged 65 or older. There are no income limitations for participation as exist for Medicaid. The program has two parts, A and B. Part A covers hospital expenses for up to 90 days per year, and up to 100 days per year for a skilled nursing facility. All seniors have part A coverage. Part B coverage, which is voluntary and requires payment of a monthly insurance premium, covers physicians, certain medical supplies, and some other medical services. Some people buy additional private medical insurance to cover expenses not reimbursed under Parts A and B, which can be substantial.

Part A is financed by a 1.45% tax on both the employer and employee. Unlike social security, there is no earnings cap on taxable income. This revenue is paid into a trust fund from which disbursements are made. This is similar to social security. Part B is financed from general tax revenues and collections of insurance premiums. Medical expenditures have been rising faster than revenues thereby threatening to deplete the trust fund for Part B and Part A.

Medicaid is another government health care program that is funded by federal and state monies and administered by the states. Basically, it pays for qualifying medical expenses for very low income earners regardless of age. The program does vary from state to state as some states supply more funding than others and rules can vary on participation and eligibility.

Distribution

Government, by its very nature, redistributes goods and services among the public. The people paying the taxes may not be the ones receiving the benefits. The question is not whether distribution is a legitimate function of government

Let me clarify one item here, when I talk about benefits, it may not necessarily be a welfare check

To evaluate the distributional effects of government programs, one must consider the marginal benefit generated against the marginal cost incurred. Benefit in this sense refers to the increase in society's welfare as measured by change in utility. An example will make this clearer. Let's say that the marginal benefit of $1,000 to a high income household could be measured at 50 utils (utils being an arbitrary measure of utility). Correspondingly, the marginal benefit of $1,000 to a low income household to the low income household would increase society's welfare by 100 utils. While it is certainly true that low income households value an additional $1 of income more highly than high income households, this ignores the problems in measuring utility and the incentive effects on work and savings, which could be considered costs, as well as the explicit administrative costs incurred.

One strong counterargument to various arguments supporting income redistribution to increase welfare is the concept of just outcomes. If people are paid according to their output, then why penalize high producers to reward low producers? Doing so lowers the incentive to produce but also offends the concept of individual responsibility. Low producers can acquire through training and education those skills to increase their productivity. This assumes those opportunities are available. Government programs may be necessary to equalize the availability of educational opportunities such as Pell Grants.

In America, there is a strong work ethic that says that you earn your money. Government actions to tax hard-working earners to give them to nonworking people (for whatever reason) are treated with resentment. Redistributing income just to redistribute income is sharply limited politically in the United States. Welfare programs have been redesigned to get people back to work quickly, to become taxpayers again, and lessen the burden to the government. This is certainly a desirable economic policy if successful.

Recent advances in economic theory suggest that a large middle class, increases economic growth. If these results hold up empirically, this suggests government should focus on policies that increase the size of the middle class. This runs counter to the "trickle down" theory that was once popular in the 80's.

The "trickle down" theory (in a simple form) argued that increasing income to the higher income classes generates more savings for investment and, thus, higher growth. Presumably, the lower income classes would share in the growth. Unfortunately, the empirical evidence does not seem to strongly support the theory. During the mid to late 80's the size of the middle class shrunk slightly. Under the Clinton administration, it seems to be rebounding, slightly. Growth in the 80's was not higher than the American historical average.

Once must consider the alternative, a country where one percent of the population owns 95 percent of the wealth and income. Do you really want to let America become like that? If you have visited one of those countries (and until you have personally experienced it, this discussion may be meaningless to you), then you will understand the pattern of social behavior (and the children greeting gringos at the airport) and thank God you are only a visitor.

So what are tools of redistribution?

1. A highly progressive income tax (with 70 percent marginal tax rates
2. Substantial transfer payments (even during the height of the welfare program in the USA, 80 percent of the recipients were on the program less than one year)
3. Price supports and market intervention
4. Estate and gift taxes, which redistributes wealth

Let's focus on progressive income taxes and estate taxes. It has been argued, with some merit, that the high-income earners are very productive individuals. Too high of a tax rate will not encourage them to

engage in economically productive activities (consider the tax shelter abuses of the early 80's). So, target the buildup of large estates acquired through inheritance. Earn all you want and enjoy it while you are alive. After your death (and your spouses), 70 percent goes back to the government. Sound unfair? After all, you earned it, you're a self-made man (or woman). Consider who really made you, society. They purchased your goods and services. They furnished the legal system that protected you and allowed you to prosper. Would Bill Gates have been so wealthy in the old Soviet Empire? Just some food for thought.

Government Failure

One last major topic before we leave the discussion of the government sector than needs to be analyzed is the concept of government failure. While we have given extensive rationale for providing government services, we need to discuss the economic costs of producing those services.

Voting procedures, re-election strategies practiced by political parties, lobbying by special interest groups, and voter apathy combine to create inefficiences in both direct and representative democracies. Political interests do not seek a balance of economic benefits versus costs. The emphasize their benefits vs. their costs. Quite often, they exclude costs imposed on the whole of society.

Aside from problems arising in the political process, the focus of this discussion will be on the organizational issues and market impact, sometimes referred to as bureaucratic supply or bureaucratic failure. Government organizations often do not have markets from which to establish pricing. This impacts the provision of government services in two ways: one, establishing the value of government services offfered to the public, and, two, providing a benchmark to compare the cost of those services.

Consequently, the control mechanism is governmental organizations is the budget. This excerbates the principal-agent problem that also exists in private firms.

The budget is an imperfect mechanism with which to manage organizations. Typically, being a more efficient department means that not all of your budget is spent. Unspent funds usually are returned into the general fund for use by other departments. No reward is given for efficiency. In fact, in the next budget cycle, your budgetary funds will be cut. And they will be given to other departments. They may even thank you for funding their "improvements," that is, their new furniture.

It is difficult for the higher management is determine an appropriate funding level given that benefits from services are not easily measured and that costs are often hid. Ideally, government wants to increase funding to departments that provide the public with greater benefits and reward departments that improve efficiency. Managers earn more salary by administering larger departments. Hence the incentive to spend all they receive and ask for more.

There are external costs that governmental organizations can impose on the public. Long waiting times for service, delivery of poor quality customer service, and imposition of substantial paperwork burdens.

The structure of government has an impact on cost and efficiency. Decentralization of government has very considerable benefits. One, it establishes a system of checks and balances to contain abuses of power. Secondly, it facilitates the best matching of services to needs by doing it at a local level. Thirdly, it allows easier access by citizens into the political process. Finally, having different local jurisdictions offering different bundles of services, such as better education vs. improved recreational facilities for elderly, residents can move (ie. choose) to a locale that meets their needs. Very often this is called, "voting with your feet."

Decentralization is great, but it is not cheap. When the central government wants to implement a policy, or more specifically move the country in a specific direction, it must coordinate with all other levels and jurisdictions of government to accomplish its goal. Those other jurisdictions may extract

additional concessions from the central government before they cooperate.

Next, to induce compliance the central government may fund necessary expenditures such as grants for water treatment plants. Some municipalities have already decided to fund and build these facilities thereby receiving a windfall while others may not need such an extensive water treatment facility, thus overspending from a social point of view.

In addition to these implementation problems, municipalities often compete for target groups of residents, thereby imposing externalities on neighboring jurisdictions. For example, by focusing on attracting high income (ie. high tax paying) residents by using policies such as minimum lot size, deed restrictions, and strict zoning laws governing types of structures (ie. no apartment housing), low income residents are excluded. Forced to live in other municipalities, those municipalities incur the burden of having a higher proportion of low income, low tax paying residents.

When deciding a course of action, these costs of government failure must be considered in addition to the other rationale for determining policy or providing government services.

Government Summary

Hopefully, after this discussion, your viewpoint has shifted from viewing government through the lens of political movements to that of a policy analyst, comparing benefits to costs.