1. Senior citizen policies, medical insurance for low-income households and social security insurance are three forms of *entitlement spending*. *Discretionary spending* refers to the [government spending](https://en.wikipedia.org/wiki/Government_spending) implemented through an [appropriations bill](https://en.wikipedia.org/wiki/Appropriations_bill), such as [national defense](https://en.wikipedia.org/wiki/National_security), [foreign aid](https://en.wikipedia.org/wiki/Aid), [education](https://en.wikipedia.org/wiki/Education) and [transportation](https://en.wikipedia.org/wiki/Transportation).
2. *Government debt* is the [debt](https://en.wikipedia.org/wiki/Debt) owed by a government, such as securities and government bonds issued. *Budget deficit* occurs when revenues fall short of spending, for example, government spending outweighs tax revenue.
3. *Automatic* *stabilization* is the policies that automatically alter taxes or spending in order to offset changes in household consumption levels,there are many kinds of automatic stabilization. The main stabilization in the public sector are personal income tax and corporate income tax. In addition, there are unemployment compensation taxes, various social welfare expenditures, and the price maintenance system of agricultural products. *Discretionary stabilization* stabilize the economy, for example, the government may implement discretionary stabilization during an economic crisis to increase aggregate demand. If the economy is booming, these measures will help restrain aggregate demand. They are meant to close an inflationary or a recessionary gap.
4. *Cyclically adjusted budget deficit*is a measure of the government’s fiscal position if the economy were operating at full potential GDP. *Austerity* is a fiscal policy through reducing fiscal expenditure to curb the growth of aggregate social demand.
5. *Cash accounting* is a method of measuring the government’s fiscal position, such as the difference between current spending and current revenues. *Capital accounting* is method of measuring the government’s fiscal position, such as accounting for changes in the value of the government’s net asset holdings.
6. *Static scoring* is a method used by budget modelers that assumes that government policy changes only the distribution of total resources, not the amount of total resources, for example, when evaluate the financial investment projects, do not consider the time factor of funds. *Dynamic scoring* is a method used by budget modelers that attempts to model the effect of government policy on both the distribution of total resources and the amount of total resources, for example, when evaluate the financial investment projects, considering the time factor of funds.
7. For example, national defense and national security are *pure public goods*. Education is one example of *impure public goods*.
8. For example, the act of providing public goods and charity are *altruism*. *Warm glow* is a useful economic framework to consider public good provision, collective action problems, charitable giving, and gifting behavior.
9. For example, the group cooperates to accomplish the task and achieves excellent results, but some members of the group do not pay at all, but still get the honor, this is the *free-rider problem*. When the government decided to use the deficit to stimulate the economy, the tax was not enough, so decided to borrow from the bank, the bank controls the total supply of money, but borrow so much to the government, personal and business loans will become less, it’s an example of *crowding-out*.
10. For example, environmental preservation or the impact of contamination is one of *contingent valuation*. There is no substantial difference in knowledge and skills between two college students with similar abilities and academic qualifications, but their wages will vary when they work in different jobs, which results in *compensating differentials*.
11. *Cost-benefit analysis* refers to the comparison of costs and benefits of public goods projects to decide if they should be undertaken, for example, compare the costs of education: tuition, time costs, and benefits: wages after finding a job through the knowledge and abilities learned. *Cost-effectiveness analysis* is effectiveness measure/cost, for example, decrease in cholesterol level (mg/dL)/Cost ($).
12. *Preference revelation*: individuals have an incentive to lie about their willingness to pay, since the amout of money they pay to finance the public good such as national defense is tied to their stated willingness to pay. *Preference knowledge*: even if individuals are willing to be honest about their valuation of national defense, they may have no idea of what that valuation actually is. *Preference aggregation*: even if each individual reports their marginal willingness to pay for national defense, how the government aggregate individual values into a social value?
13. *Lindhal pricing*: suppose there are two political parties, which represent two groups of voters with common preferences. These two people or political parties have the same political power. Each person or political party expresses his preferences accurately. At the same time, different tax share and budget expenditure scale can be obtained through the auction procedure. Moreover, when the tax share of individual A is T, the tax share of B should be (1-T). *Problems with Lindhal Pricing*: pricing is based on the individual evaluation of public goods or information goods as quasi-public goods, which inevitably leads to the situation that some consumers pay less or even not (free riders).
14. *Arrow’s impossibility theorem*: assuming that three people, A, B and C, face the three alternatives of a, b and c, have the following preference ranking: A(a>b>c), B(b>c>a), C(c>a>b), if A(a>b), B(b>a), C(a>b), then social order preferences is a>b, if A(b>c), B(b>c), C(c>b), then social order preferences is b>c, if A(a>c), B(c>a), C(c>a), then social order preferences is c>a, that is to say, social preference a is better than c, and think a is worse than c. *Median Voter Theory*: majority voting will yield the outcome preferred by the median voter if preferences are single-peaked.
15. Macroeconomic regulation and control policy are the use of *public choice theory*. *Government failure*: government intervention in economic activities has achieved the desired goal, but its inefficiency, or high cost, has led to the inadequate and effective use of resources.
16. *Fiscal federalism*: the United States has a federal system, dividing activity between a national government and state and local governments, for example, education is often provided by state governments. *Fiscal equalization* refers to the benefits of public goods and services provided or produced by the government through financial activities, without distinction equally to every resident and every enterprise. for example fiscal revenue equals fiscal expenditure.
17. *Block grants* is a grant of some fixed amount with no mandate on how it is to be spent. *Matching grants* is a grant of whose amount is tied to the amount of spending by the local community.
18. *Educational vouchers* is a fixed of amount money giving to families with school-age children, which can be used toward the cost of tuition at any type of school, public or private. National Student Loans is one example of *(higher education) loans*.

*1-a.* *Explain the three distinctive features of* *government activities?*

Government activities include government purchase, government consumption, government investment, and deficit spending, etc. First, government activities are public activities of public sector rather than household sector and business sector, so when it comes to the motivation to the expenditures, it’s the political decisions rather than fixed habits or profit that determines the rate of spengding. Second, the government activities play an more important role in the level economic activity than business or household due to the government activities-deficit spending. Government actions have influence on the behavior of households and business. Third, government activities have the limitless financial power, they can influence the GDP.

*1-b. Why is government’s budget (debt) different than household budget (debt)?*

The government belongs to public sector, while household belongs to private sentor. Household budget is decided by their own will or fixed habit, government budget depends on the political decisions or the collective will of the people. Then, government can exert important influences on the behavior of households and firm, so is the budget or debt.

*2-a. What are* *educational vouchers and what are the disadvantages of them?*

Education vouchers is a fixed amount of money given by the government to families with school-age children, who can spend it at any type of school, public or private. The disadvantages of them are: first, vouchers may lead to excessive school specialization, schools may pay more attention to market segments ingoring the key element of education. Second, vouchers will lead to segregation among many dimensions, such as race, income, or child ability. Third, vouchers are an inefficient and inequitable use of public resources, because the government has paied part of the private school costs, then, the total costs of public sector would increase. Four, the education market may not be competitive, because the education market is described more closely by a model of natural monopoly, with efficiency gains to having only one monopoly provider of the good.

*2-b. What are the possible ways of overcoming those disadvantages?*

First, government should ensure that schools pay attention to the key of education and establish rules and regulations to ensure the teaching of necessary subjects. Second, the government should set administrative rules to avoid schools’ refusal of disable students. Third, government should accurately understand and fund each family according to their actual income to make better use of public resources.

3-*a. There are conflicting financial demands on the government’s budget by the two different social classes. What are they and why are they different?*

Both of the two sides have the same demands on governmet budget, each side both wants more government spending and less tax on its income, therefore, both parties fear raising taxes or cutting spending. Business and rich want government spending on the police and judicial system that protect their wealth and not to raise their taxes. While the middle-income and poor want government spending on their employment insurance, to prevent or soften the blow of home foreclosures, to peovide low-interest mortgage money for home purchase, to guarantee low-interest educational lones for their children, which is the socially disruptive contradiction built into the capitalist system. The reason leading to these differences is that their wealth differs and they have different requirement to protect their own rights and benefits.

*3-b. Would you consider this outcome as “vote-maximizing politicians representing the median voter”?*

Yes. Elected officials are afraid to offend the two sides, so they adopted the “vote-maximizing politicians representing the median voter”-increasing resorted to borrowing resulting in budget deficits. Politicians advised government borrowing to guarantee reduing taxes and maintaining spending for two sides, which satisfy the two sides. In this way, they gain public’s political will and use it to hold certain positions in election season,and stress that they will satisfy people’s demands. All politicians care about is to maximize the number of votes they get, therefore, politicians are assumed to advocate policies that will satisfy more voters to cater their demands in order to gain their votes.

4-*a Explain why a block grant would result in less consumption education services.*

Block grant is a grant of some fixed amount with no mandate on how it is to be spent, it only has income effect and can be used in various aspects, after hurricane, the grant will be used where it was needed more. However, matching grant is a grant of whose amount is tied to the amount of spending by the local community, it has both a substitution and an income effect. What’s more, matching grant can reduce the cost of education. For example, if the match rate is 1:1, if the local government puts into $1 to education then it will receive $1 funding from the state. So the local community could use all matching grant to repair school buildings and introduce new teachers after hurricane, while block grant is not enough.

*4-b Explain how a matching grant would have a further impact via* *the spending multiplier.*

When local communities receive matching grant from local government or state and use it on education such as rebuilding school buildings and recruiting more teachers, the number and the quality of people being educated will increase, then, the local government will have more talents that can help develop the community. After hurricane, local government may spend matching grants on education services and spend block grants on infrastructure and housing for people whose house have been destroyed. Government spending will become the income of other sector, such a cycle would increase national income by a multiple of spending multiplier. Additionally, spending on hurricane recovery will have a further impact on government’s deficit.