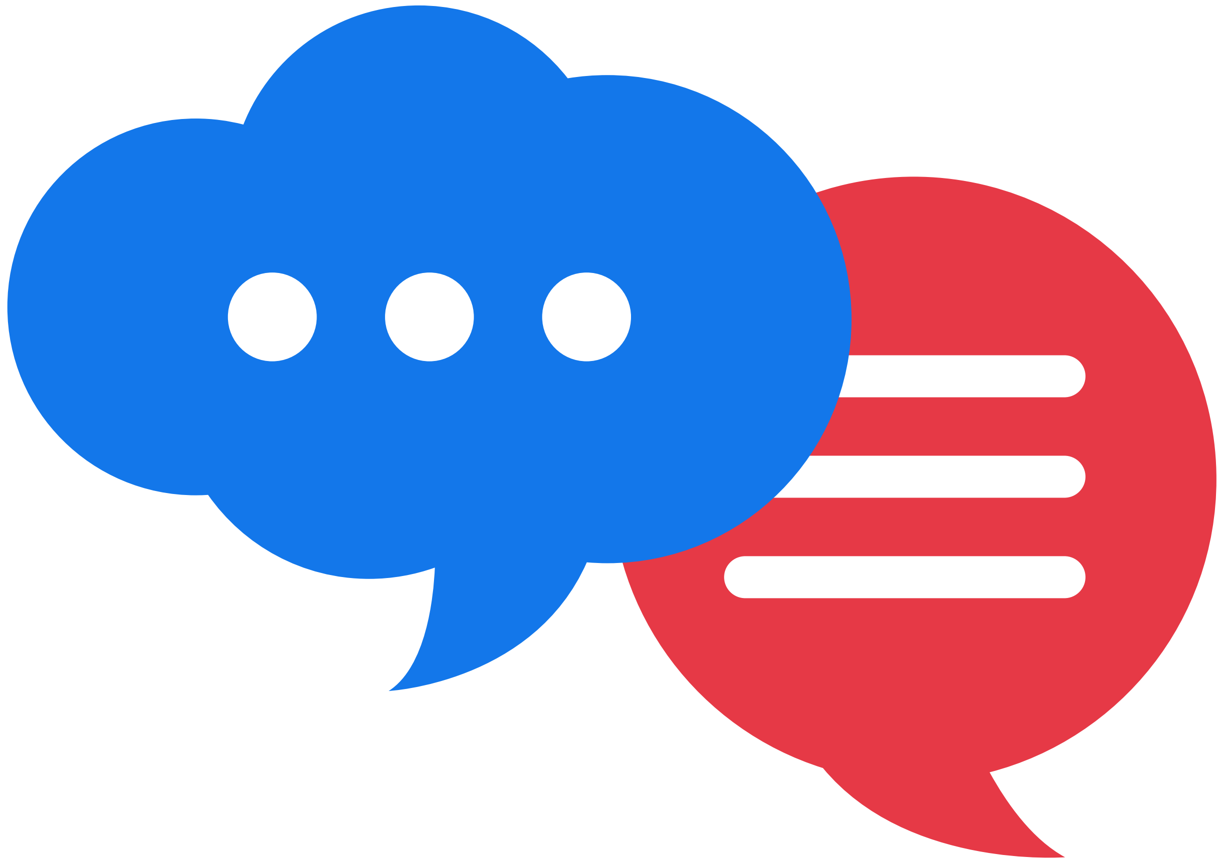
Demand Management

FISCAL POLICY

3.6

Disccussion!

Who controls monetary policy and what are their tools?

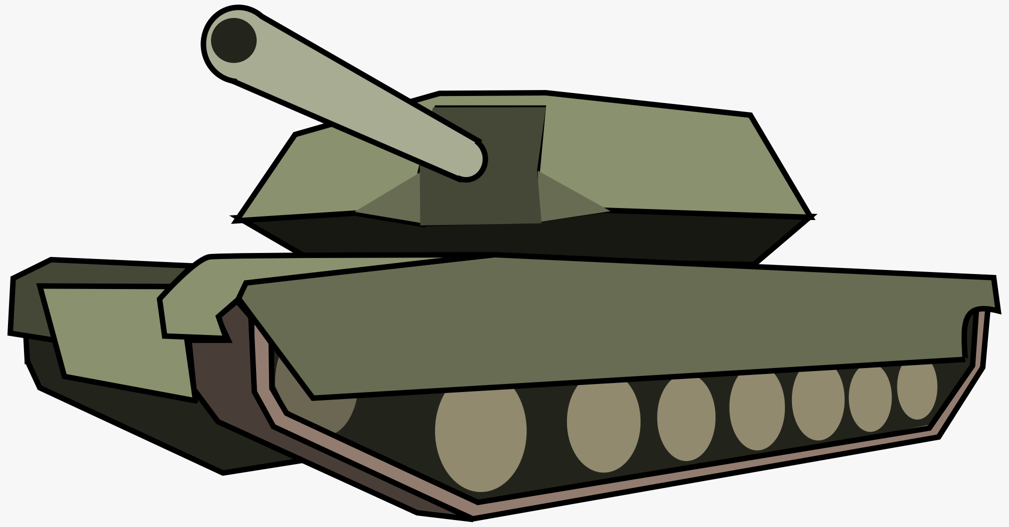


Definition

Fiscal Policy

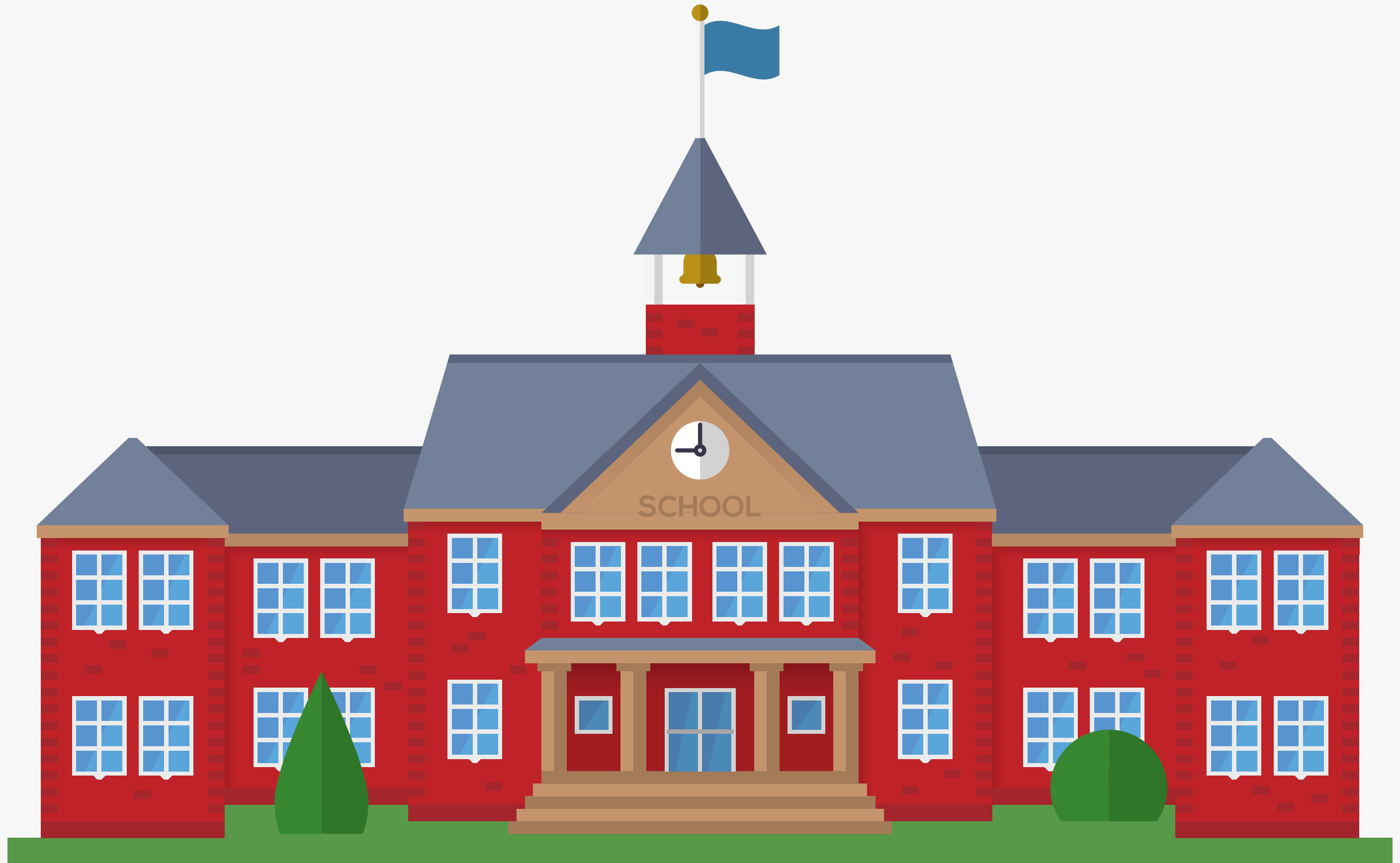
The term for when the government intervenes in the market using taxation or government spending.

The Two Tools of Fiscal Policy



Taxes

Government Spending



Definition

Budget

The government creates a budget yearly that outlines their revenue and how they plan to spend money.

Budget Deficit = Government Spending > Government Revenue

Budget Surplus = Government Spending < Government Revenue

Balanced Budget = Government Spending = Government Revenue

Government Revenue Resources

Direct and Indirect Taxation

Direct taxes such as income taxes and indirect taxes such as sales tax, provides the government with revenue.

Sale of state-owned goods/services

State-owned businesses or enterprises often gain revenue such as airlines, postal services, or oil companies.

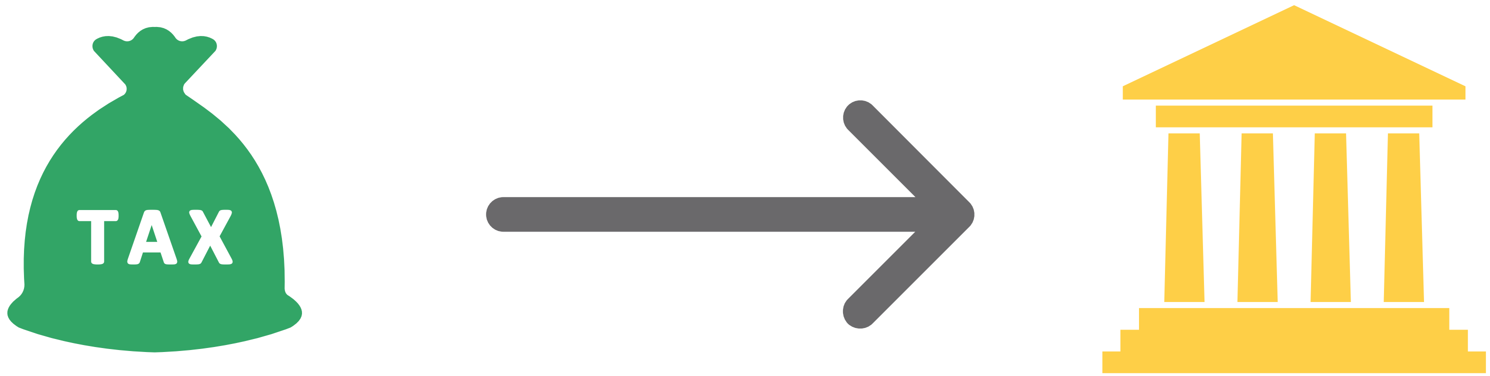
Selling state-owned assets

Privatisation: The process of transferring ownership of a firm to the private sector from the government.

Types of Taxes

Direct Taxes

Taxes placed directly on individuals are typically placed on income and wealth paid directly to the government. (Examples: income tax, corporate taxes, wealth taxes)



Indirect Taxes

Taxes placed on spending on goods and services paid indirectly to the government. (Examples: sales tax, VAT, Goods and Servies Tax (GST), tariffs)

Progressive, Regressive, and Proportional

<u>All taxes can be placed into one of three categories</u>

Progressive Taxes

Taxation where the fraction/proportion of tax paid increases as income increases.

Regressive Taxes

Taxation where the fraction/proportion of tax paid increases as income decreases. All indirect taxes are regressive.

Proportional Taxes

A system of taxation where tax is levied at aconstant rate as income rises.

Progressive Tax Bracket

Most income taxes are progressive.

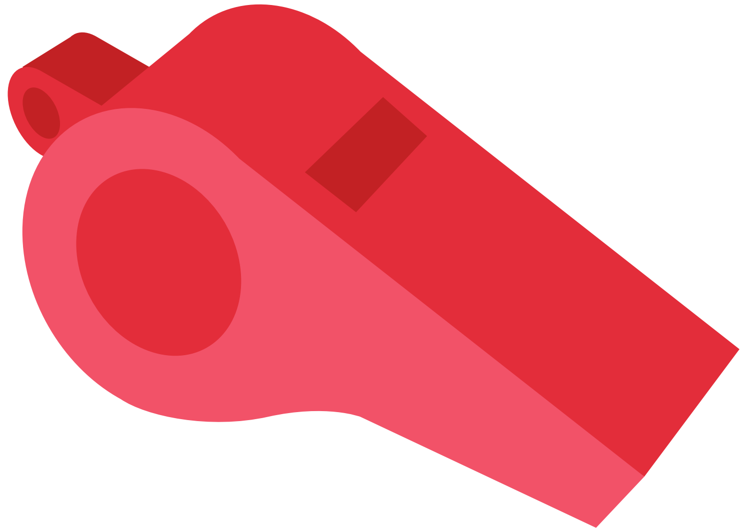
South African Progressive Tax System (South African Rand)

Taxable Income (Rand)	Tax Rate
0-226,000	18%
226,001 - 353,100	26%
353,101-488,700	31%
488,701-641,400	36%
641,401-817,600	39%
817,601-1,731,600	41%

Practice

Calculate how much each taxpayer pays in this system

- **Sam: 300,000 Rand**
- **Mohammed: 490,000 Rand**



South African Progressive Tax System (South African Rand)

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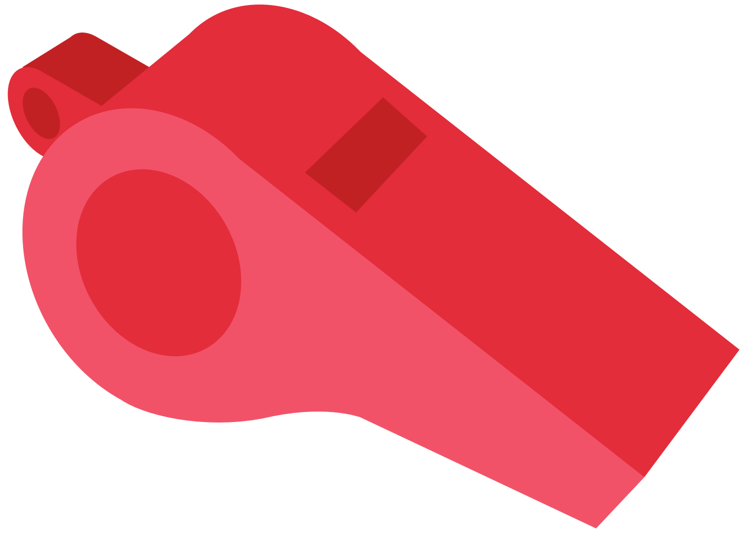
641,401-817,600	39%
817,601-1,731,600	41%

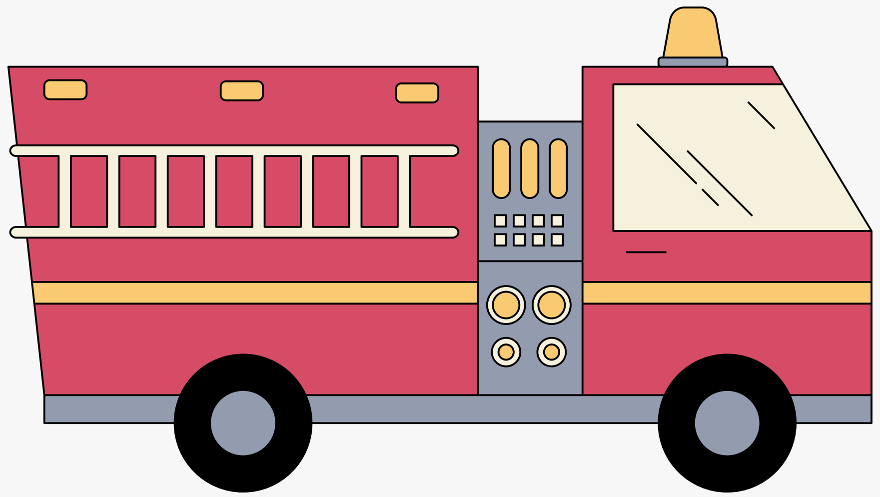
Practice

Calculate how much each taxpayer pays in this system

- **Sam - 300,000 Rand** **59,920 Rand in Taxes**
- **Mohammed - 490,000 Rand** **116,230 Rand**



Government Spending



Current Expenditures

The daily cost of keeping the government operational

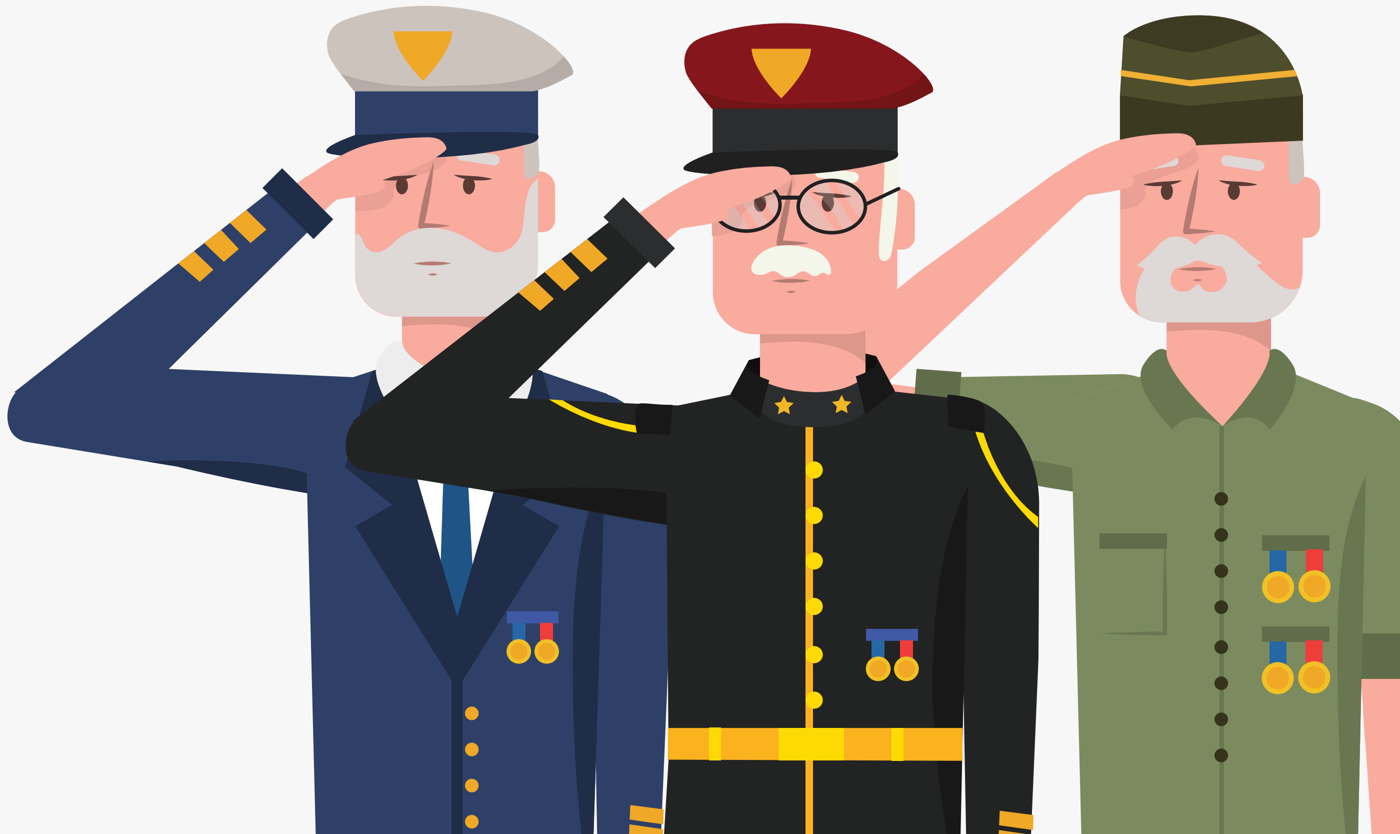
(salaries, armed forces, supplies)

Capital Expenditures

The sum of all building and infrastructure financed by the government (public schools, fire stations, roads, hospitals)

Transfer Payments

A singular type of payment from the government to individuals typically to redistribute income or aid citizens (child support, unemployment payments, COVID stimulus payments)



The Goals of Fiscal Policy

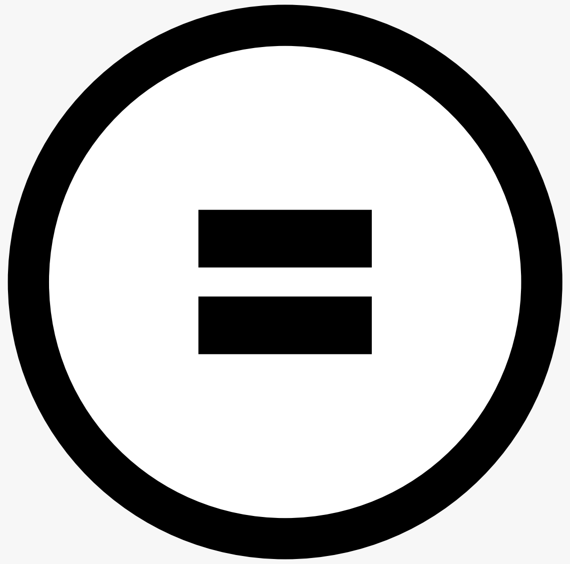
Goals of Fiscal Policy

Similar to Monetary Policy

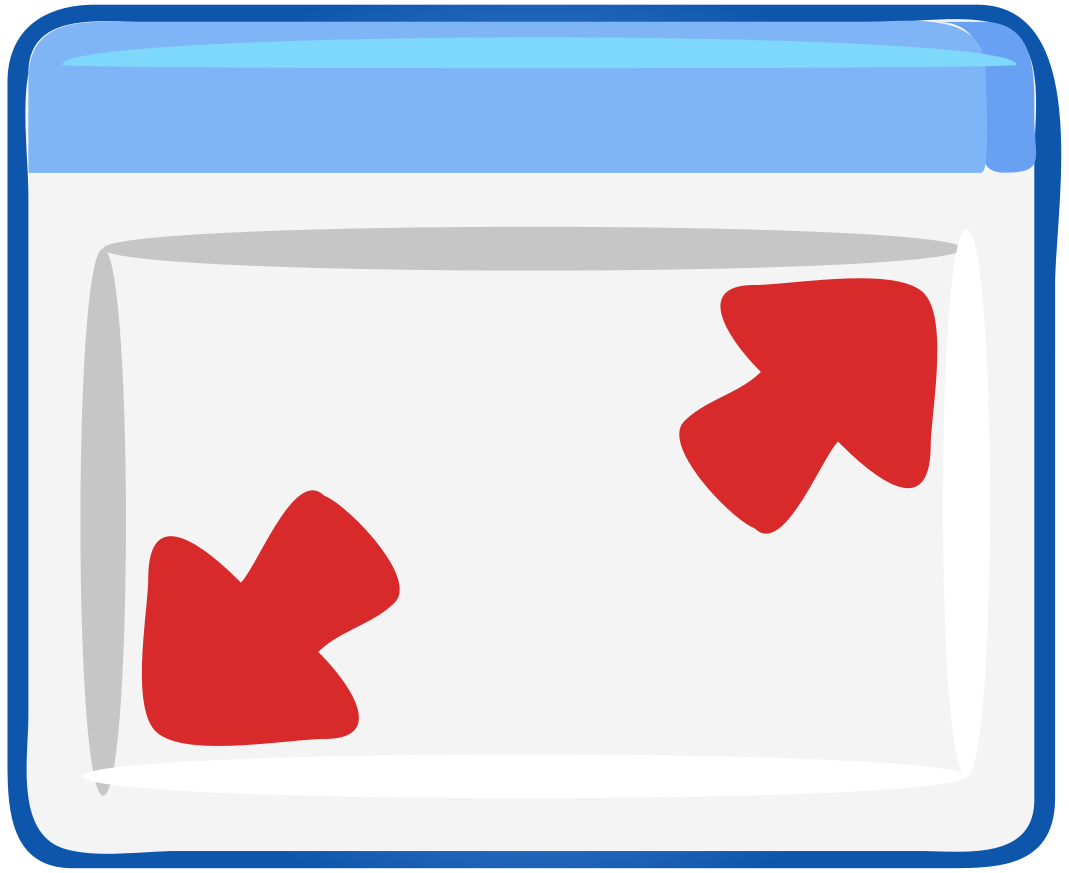
Low and stable inflation, low unemployment, promoting a stable environment for economic growth, reducing business cycle fluctuations, external balance

Equitable Distribution of Income

Through a progressive direct tax system and indirectly taxing luxury goods, the government can improve the distribution of income.



Expansionary and Contractionary Fiscal Policy

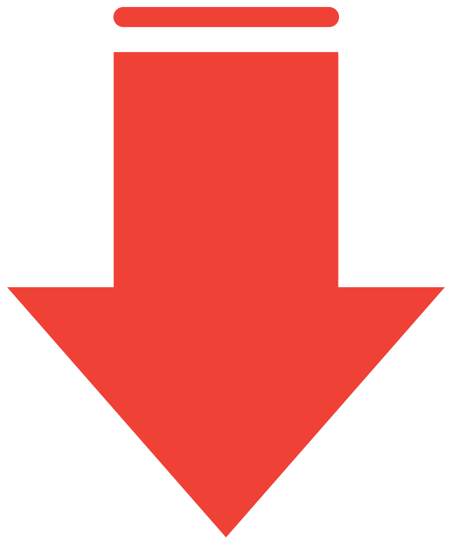


Connections!

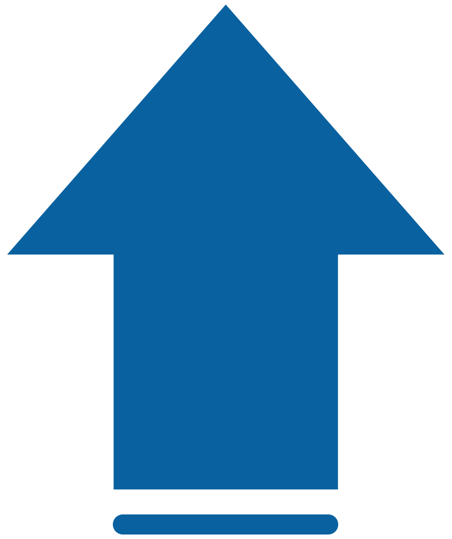
Draw the business cycle and label how the government would use the2 tools of fiscal policy to meet their goals.

Expansionary Fiscal Policy

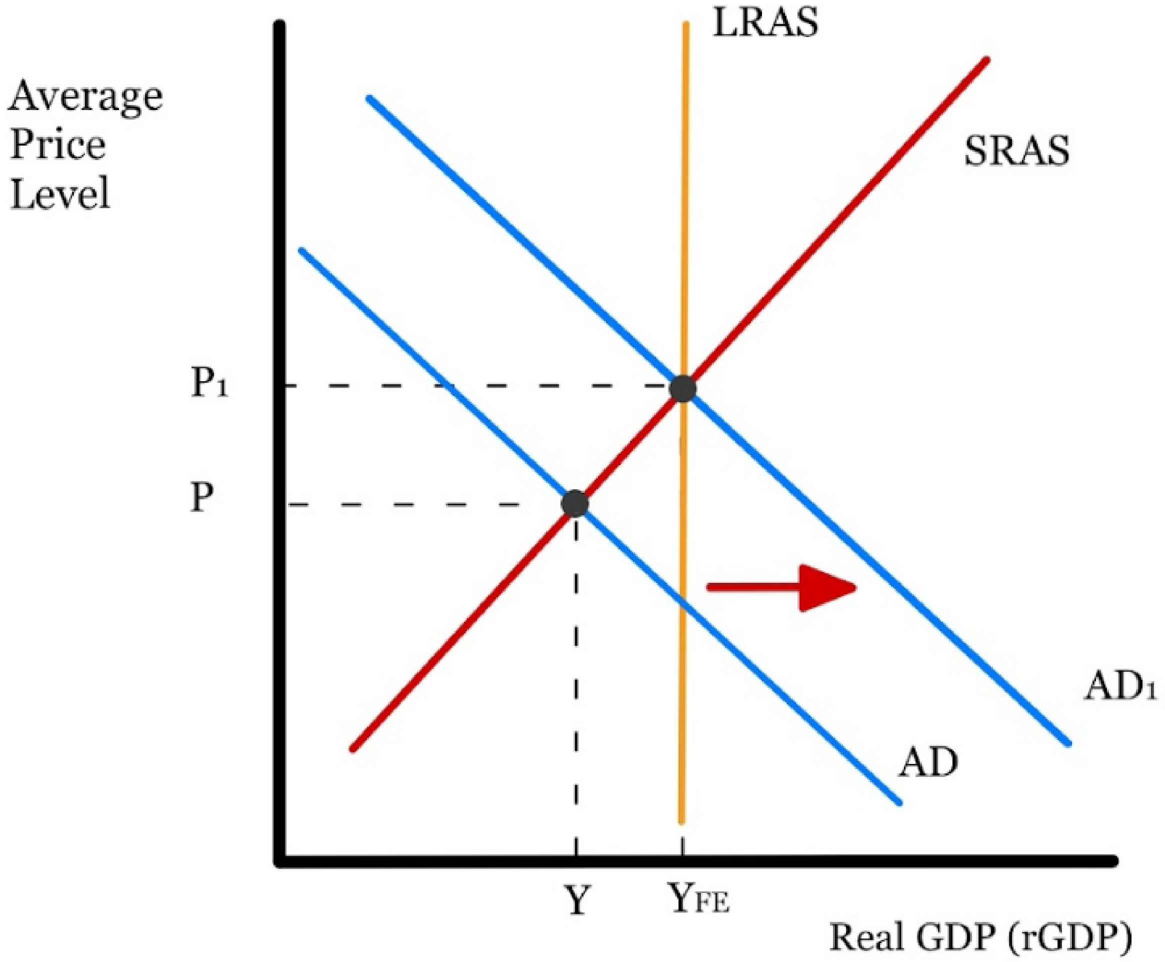
Taxes



Government Spending

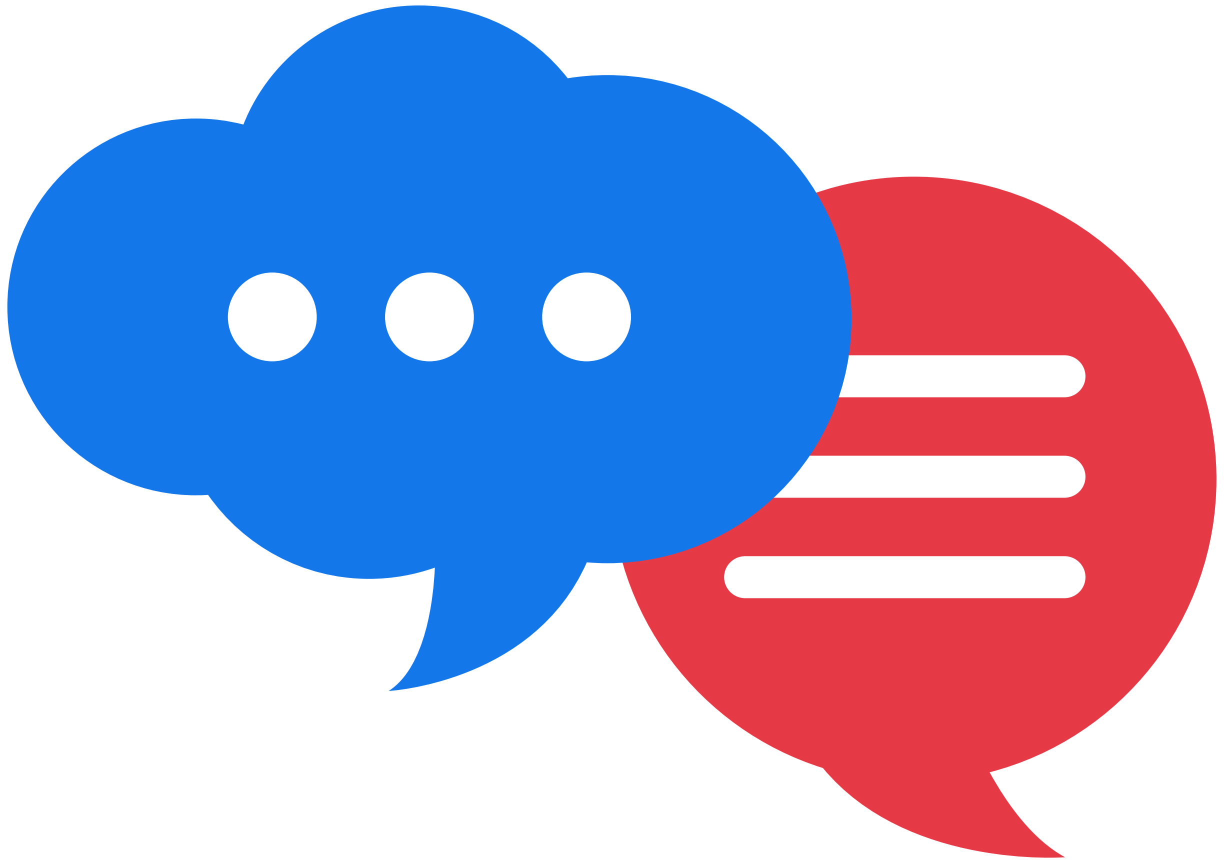


To correct a recessionary gap, governments would possibly use **expansionary fiscal policy** to increase Aggregate Demand.



Discussion!

Why wouldn't a government use expansionary fiscal policy to correct a recessionary gap?



Remember!

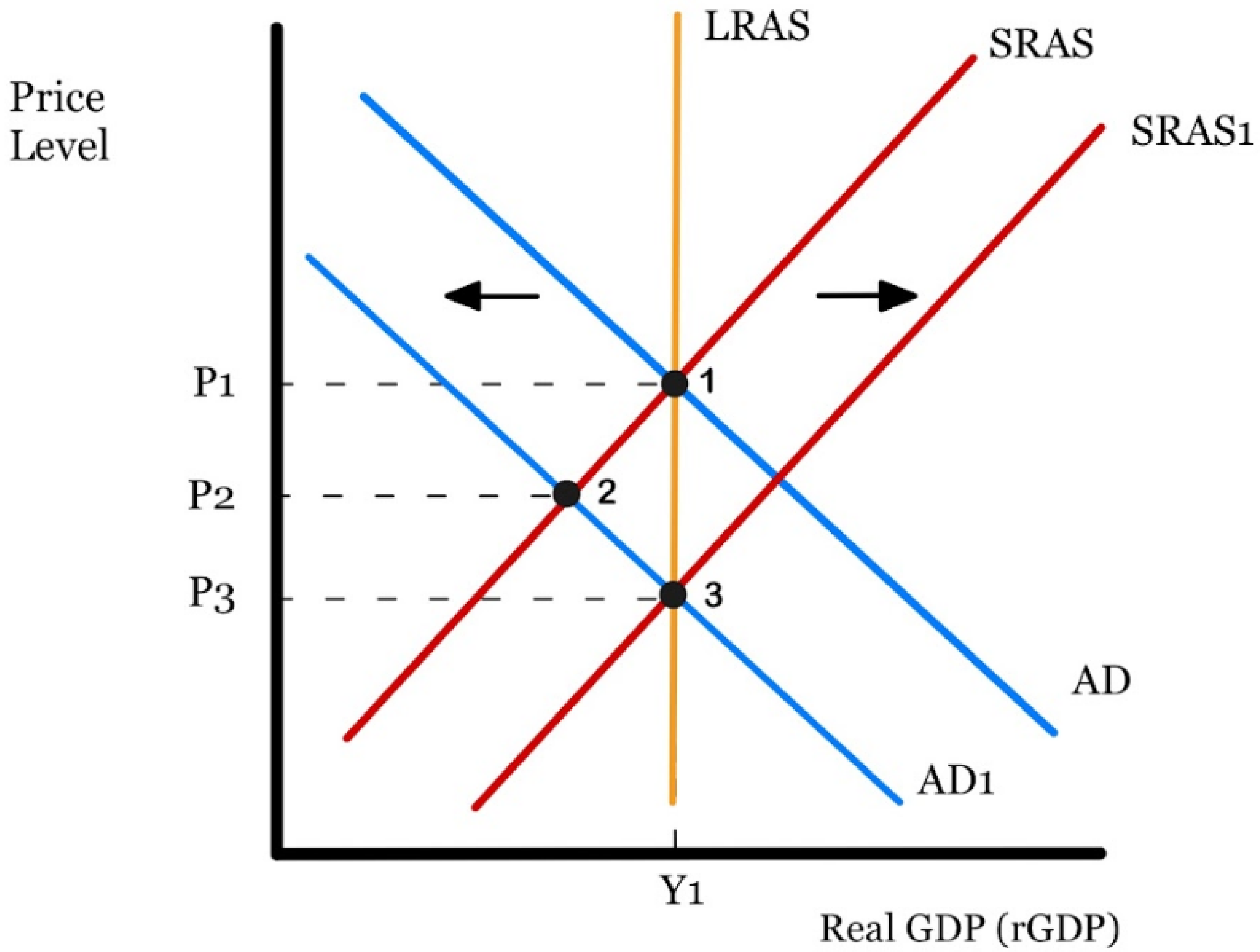
Keynesian vs New Classical (Monetarists)

DON'T FORGET

Closing Deflationary Gap

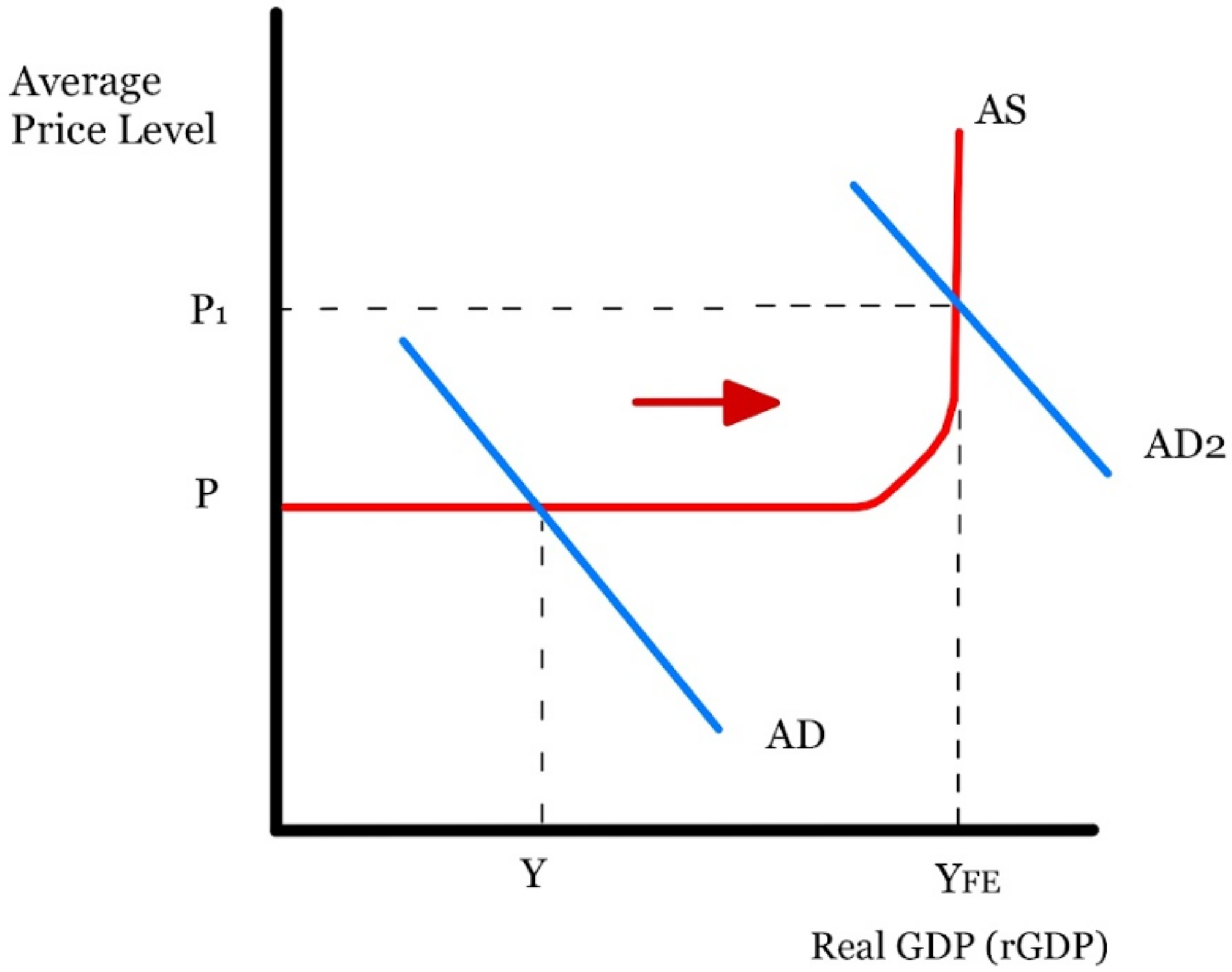
New Classical

Believes that the market will always automatically adjust back to equilibrium. Due to flexible wages, no government intervention is needed.



Keynesian

Believes the economy is not self-correcting. Due to 'sticky' wages, government intervention is **required** to move the economy back to full employment.

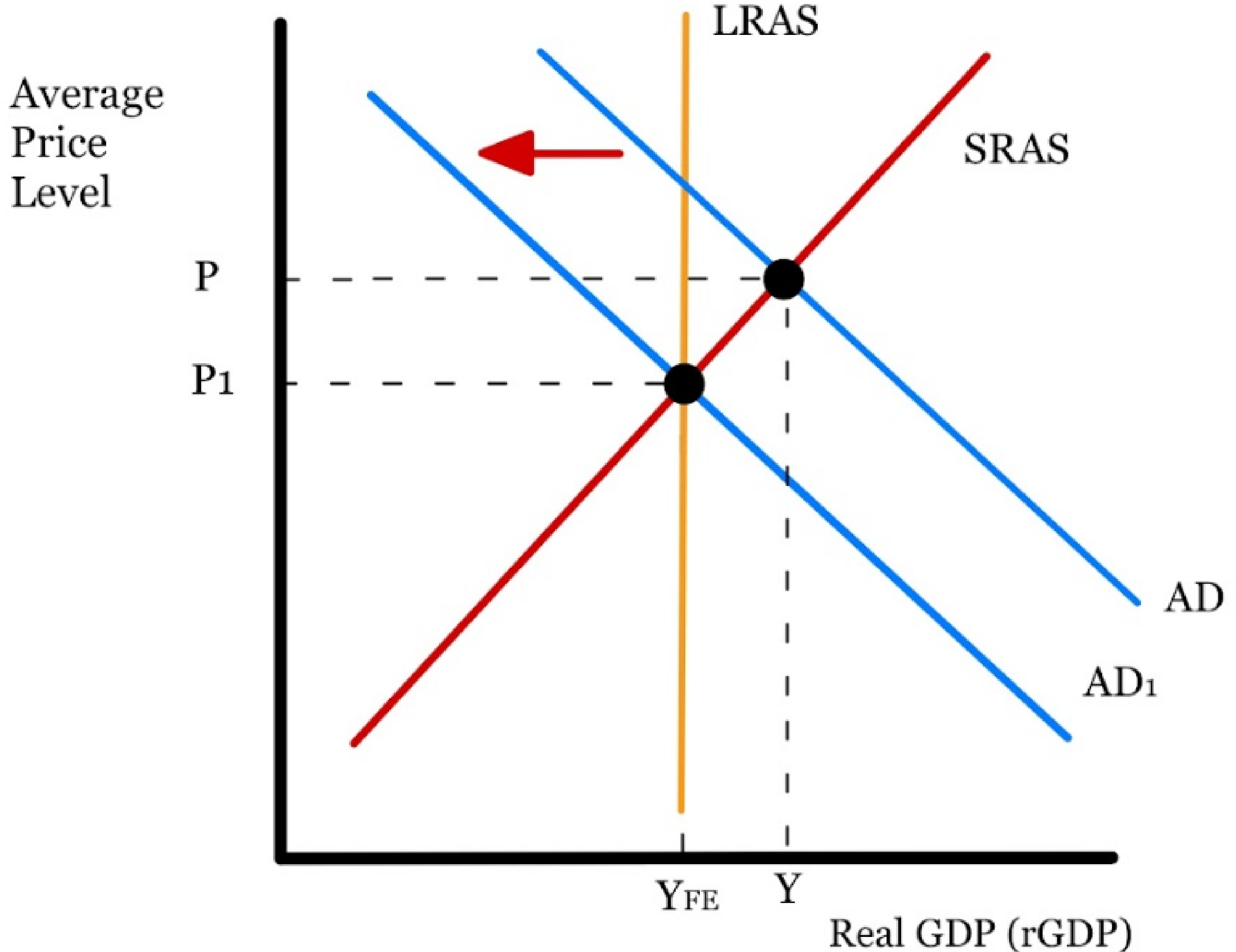


Contractionary Fiscal Policy

Taxes

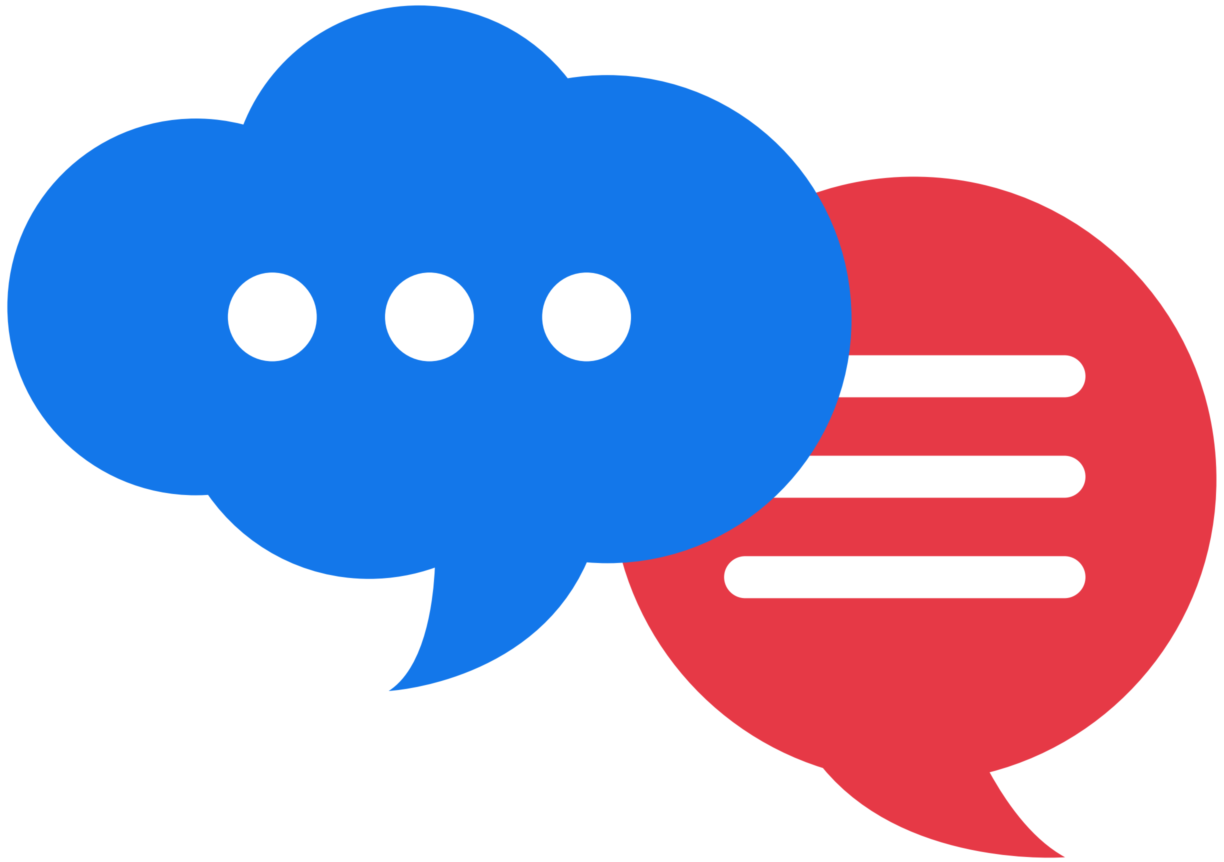
Government Spending

To correct an inflationary gap, governments would possibly use **contractionary fiscal policy** to decrease Aggregate Demand.



Discussion!

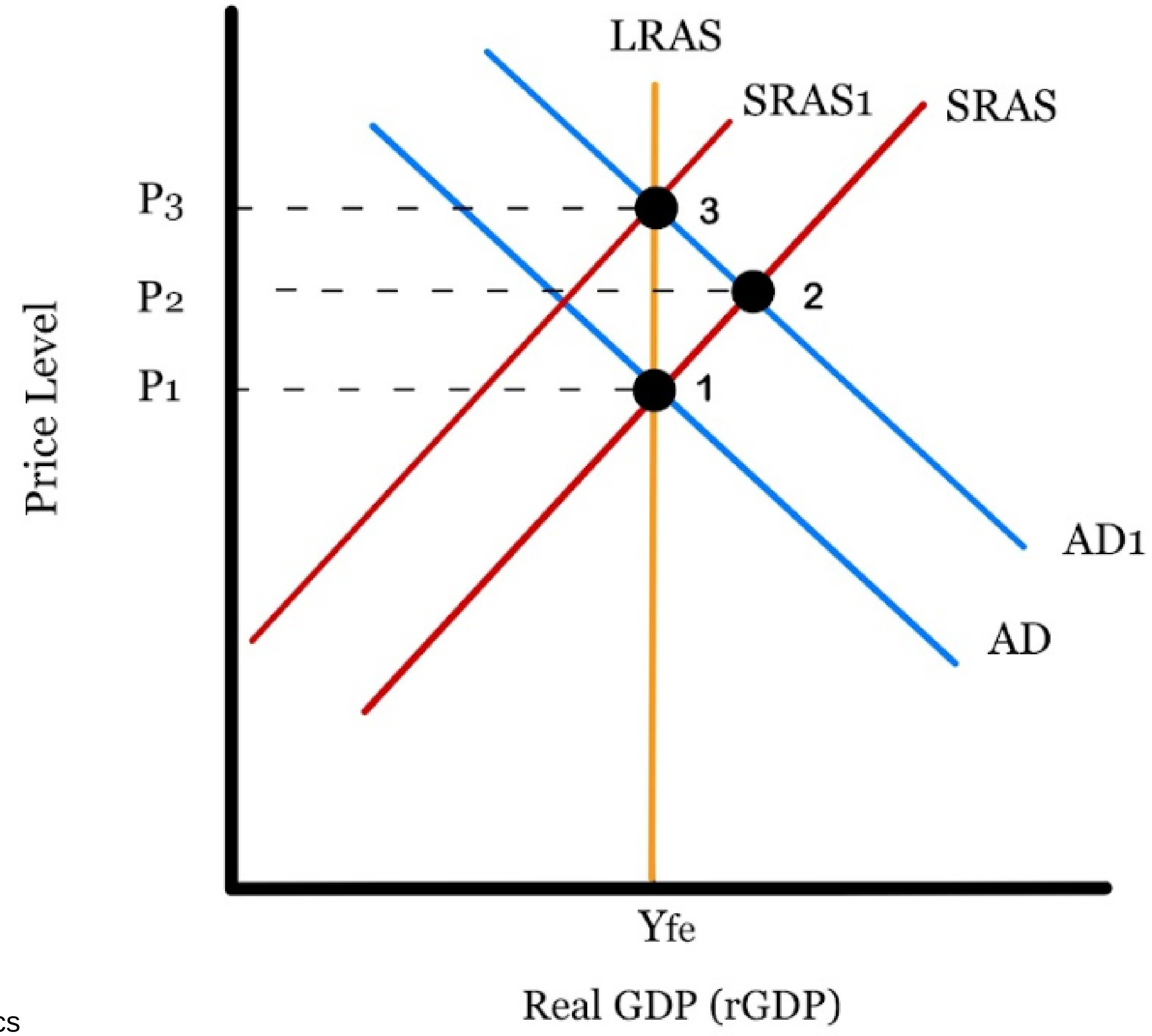
How would a Monetarist fix an inflationary gap? How would a Keynesian?



Closing Inflationary Gap

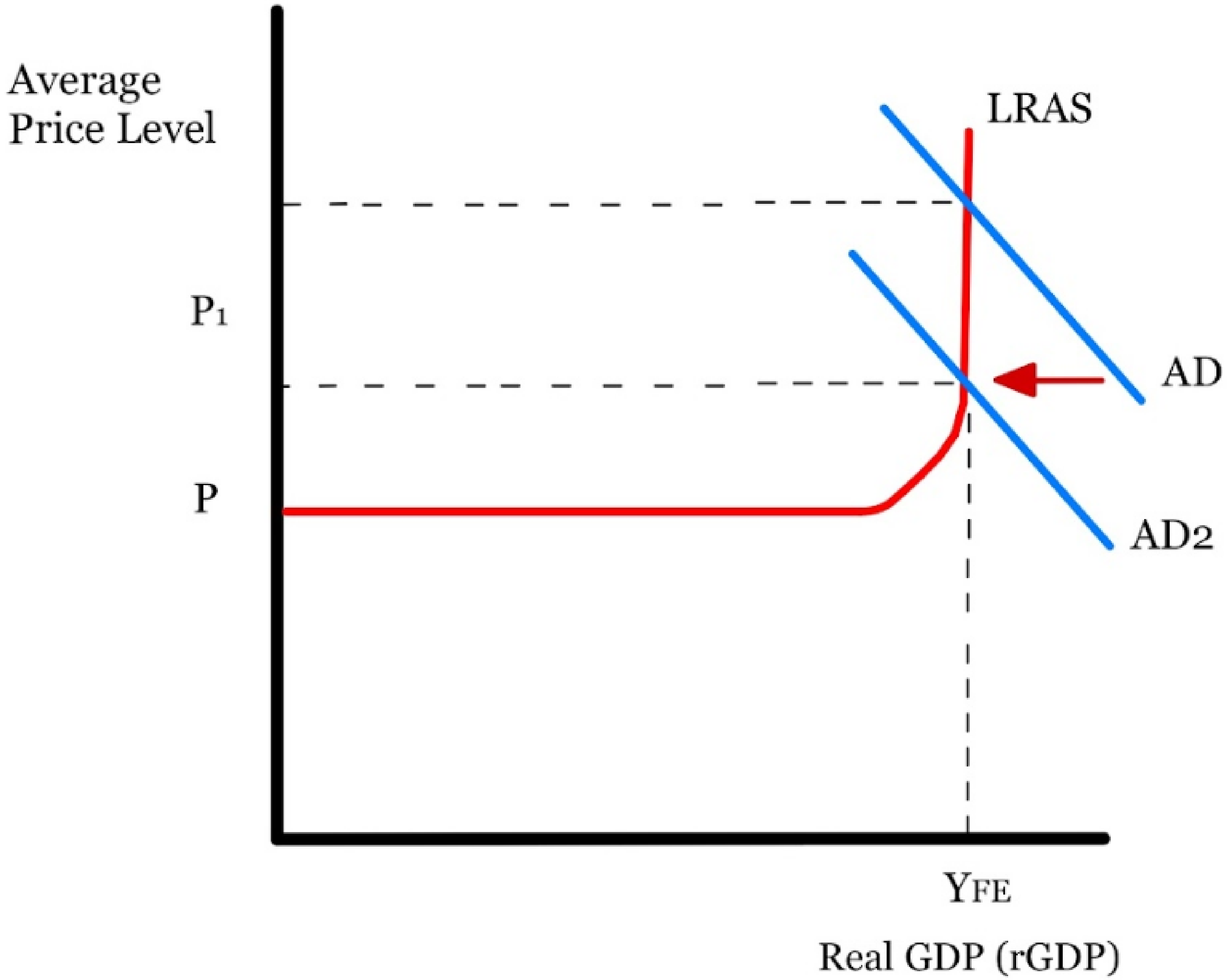
New Classical

Believes that an inflationary gap only occurs in the short-run and the market will always automatically adjust back to equilibrium. Due to flexible wages, no government intervention is needed.



Keynesian

Believes the economy is not self-correcting. Any attempt for output to increase beyond full employment furthers inflation. Government intervention is **needed** to limit inflation and return to full employment output.



Keynes vs Hayek

Exploration Task

Click on the NPR image above and you will find a 20 minute podcast and a music video dealing with Keynes (Keynesian) vs Hayek (Neo-Classical).

As you listen to the podcast and video, take notes regarding Keynes on one side and Hayek on the other.

Keynesian Multiplier(HL Only)

Discussion!

What is the effect of the government spending $100 Million?

Circular Flow and Government Spending

Scenario: Building a new school

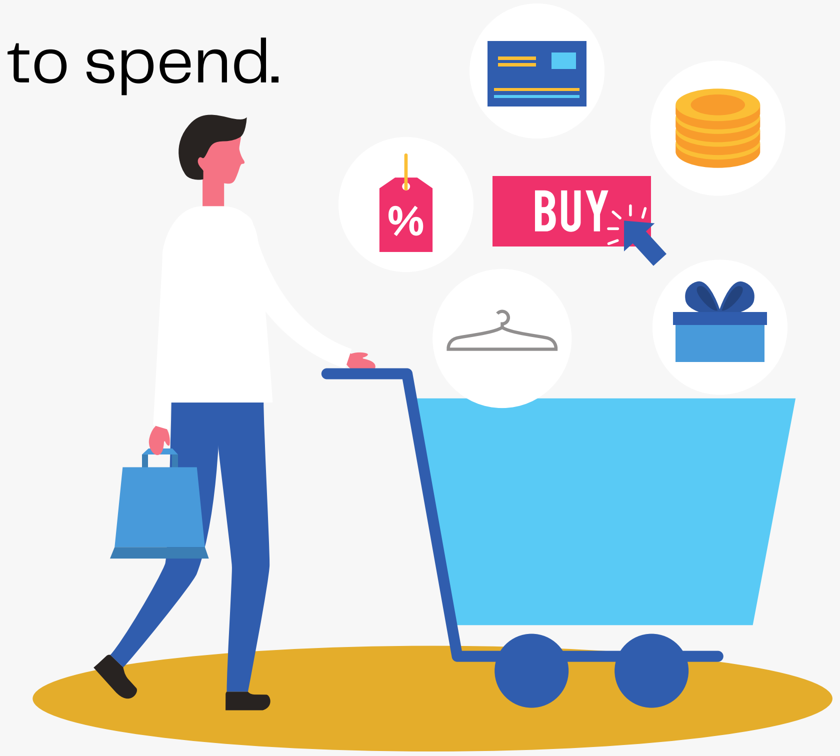
1. The government contracts out this building and hires a construction company.
2. This construction company must then purchase resources to build this school.
3. Additionally, they hire more employees for the job.
4. Households now receive more income. Households will either spend or save that income.

Marginal Propensity to Save

MPS is the proportion of income that households choose to save.

Marginal Propensity to Consume

MPC is the proportion of income that households choose to spend.



Circular Flow and Government Spending

Assume households MPC = 30% or .3

- Households spend 30% of the additional income they receive (.3*100 = $30 million)
- Firms now must adjust their inventory due to the increase in spending. This requires more Factors of Production be purchased.
- Households now have additional income and are now spending an additional (.3 * 30 = $9 million)

This chain reaction would continue until the $100 Million initial government spending results in a total change of $142 Million.

The Multiplier Effect

Multiplier Effect

Khan Academy

Keynesian Multiplier

$$\textbf{Multiplier} = \frac{1}{1 - MPC}$$

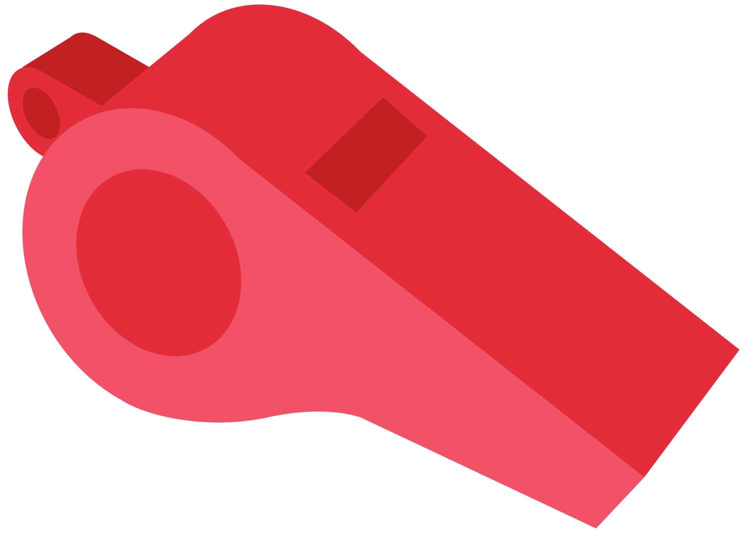
Example
MPC = .5

$$= \frac{1}{1 - MPC} = \frac{1}{1 - .5} = 2$$

Practice

Calculate the multiplier for each of the following

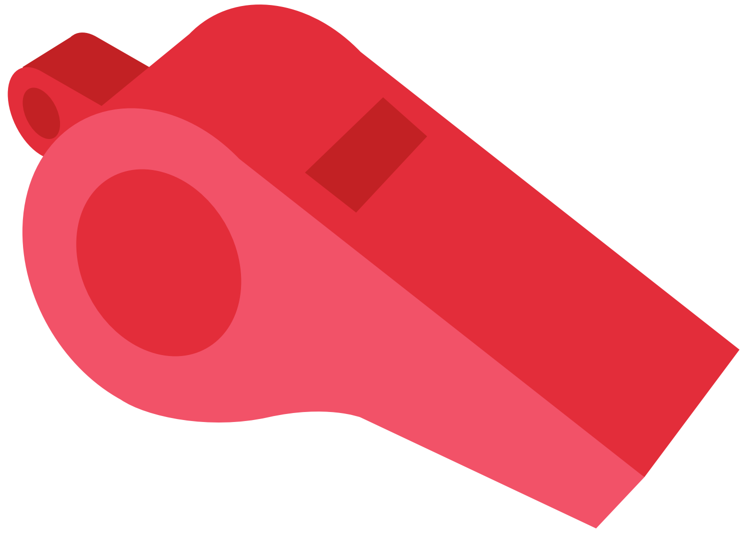
- **MPC = .2 (20%)**
- **MPC = .8 (80%)**
- **MPC = .4 (40%)**
- **MPC = 0 (0%)**



Practice

Calculate the multiplier for each of the following

- **MPC = .2 (20%)** **1.25**
- **MPC = .8 (80%)** **5**
- **MPC = .4 (40%)** **1.66**
- **MPC = 0 (0%)** **1**



Keynesian Multiplier

There is an alternative way to measure the multiplier that is more accurate.

$$\textbf{Multiplier} = \frac{1}{MPS + MPT + MPM}$$

Marginal Propensity to Tax (MPT) – proportion of additional income that is taxed.
Marginal Propensity to Import (MPM) – proportion of additional income that is spent on imports.

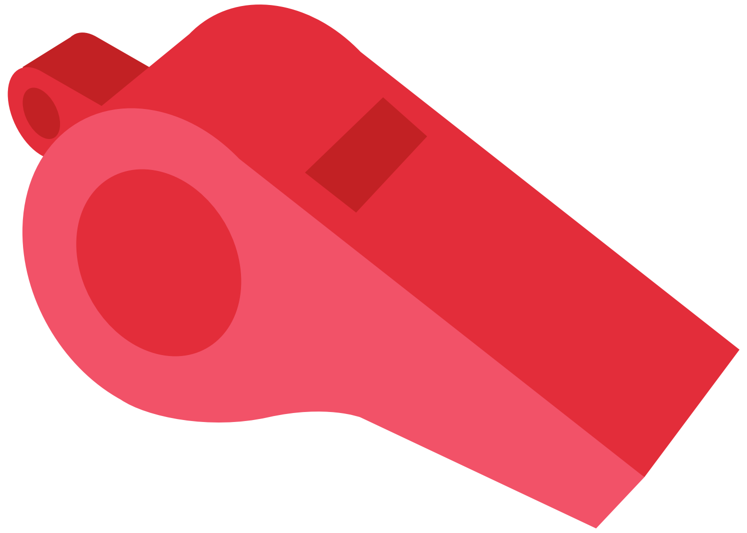
Example: MPS = 10% ; MPT = 30% ; MPM = 0%

$$\textbf{Multiplier} = \frac{1}{.1 + .3 + 0} = 2.5$$

Practice

Calculate the multiplier for each of the following

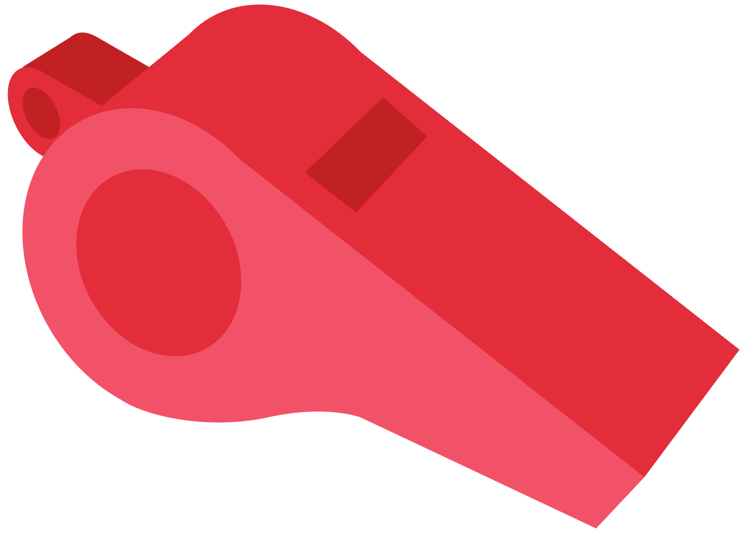
1. MPS = .1 ; MPT = .1; MPM = 0
2. MPS = 20% ; MPT = 20%; MPM = 40%
3. MPS = .3 ; MPT = .1; MPM = .1



Practice

Calculate the multiplier for each of the following

1. MPS = .1 ; MPT = .1; MPM = 0 <u>5</u>
2. MPS = 20% ; MPT = 20%; MPM = 40% <u>1.25</u>
3. MPS = .3 ; MPT = .1; MPM = .1 <u>2</u>



Keynesian Multiplier

How to calculate the change in GDP?

Change in GDP = the multiplier X the change in expenditure

Calculate the change in GDP for each of the following

1. **MPC = .5 and increase of $200 million**
2. **MPC = .8 and increase of $20 million**
3. **MPS = .2; MPT = .4; MPM = .2; and increase of 20 million**

Keynesian Multiplier

How to calculate the change in GDP?

Change in GDP = the multiplier X the change in expenditure

Calculate the change in GDP for each of the following

1. **MPC = .5 and increase of $200 million** — **$400 Million**
2. **MPC = .8 and increase of $20 million** — **$100 Million**
3. **MPS = .2; MPT = .4; MPM = .2; and increase of 20 million** — **$25 Million**

Crowding Out (HL Only)

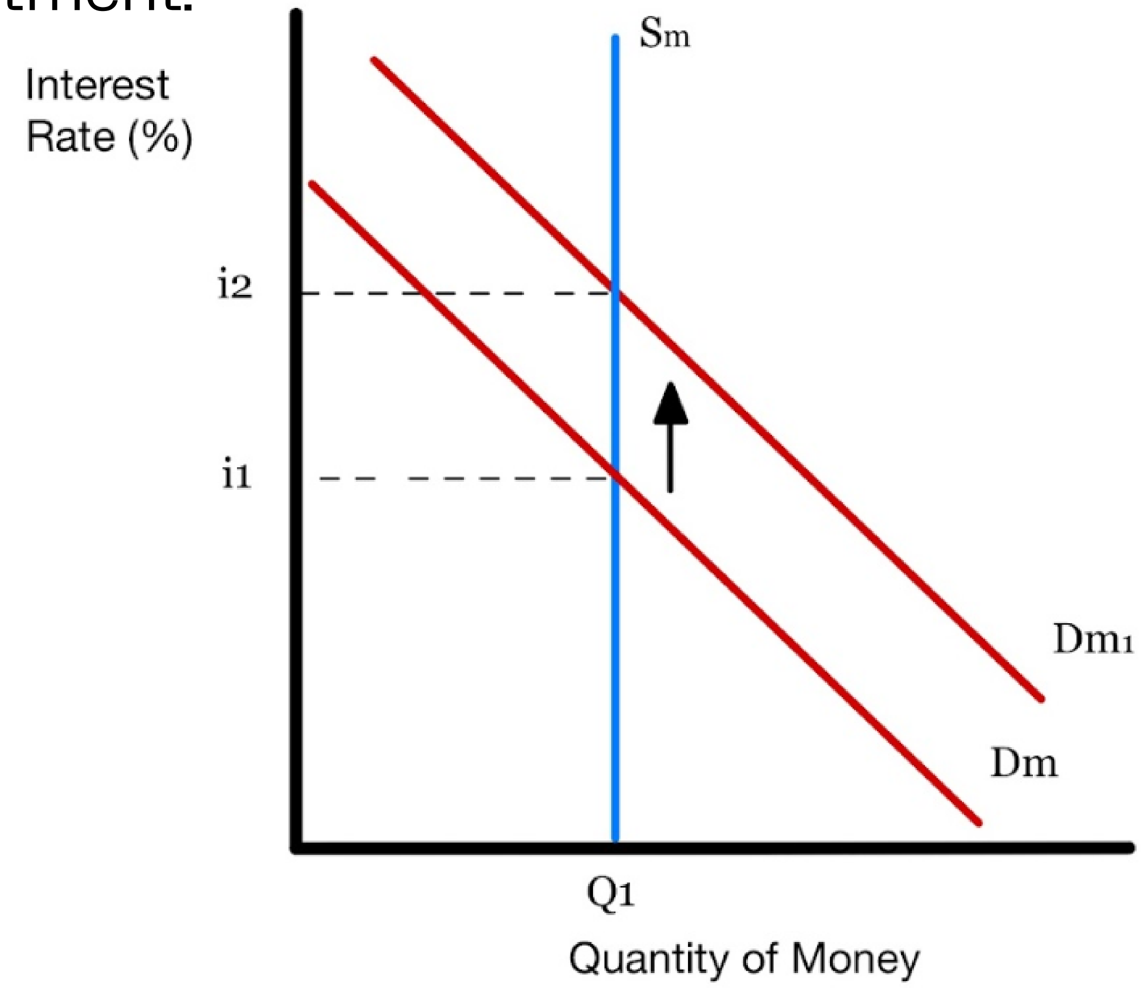
Crowding Out

When public sector (government) spending drives down private sector spending (consumption and investment).

If the government decides to build a new school, they must increase their spending. What is the impact of this on AD/AS?

The government must demand more money resulting in an increase to the overall interest rate.

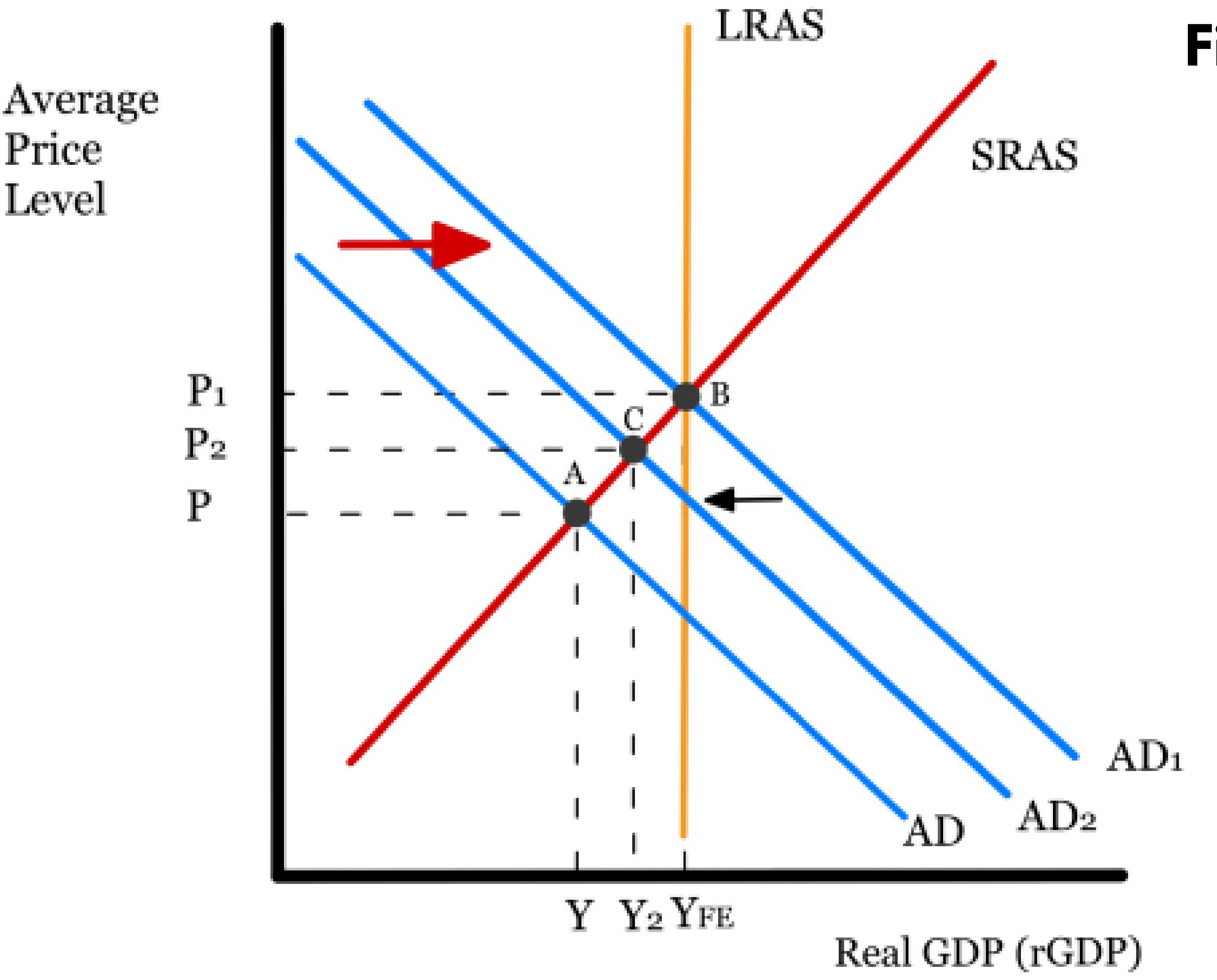
As interest rates rise, firms will find it too expensive to invest in new projects and spending. This results in a decrease in consumption and investment.



Crowding Out

What is crowding out? – Marginal Revolution University

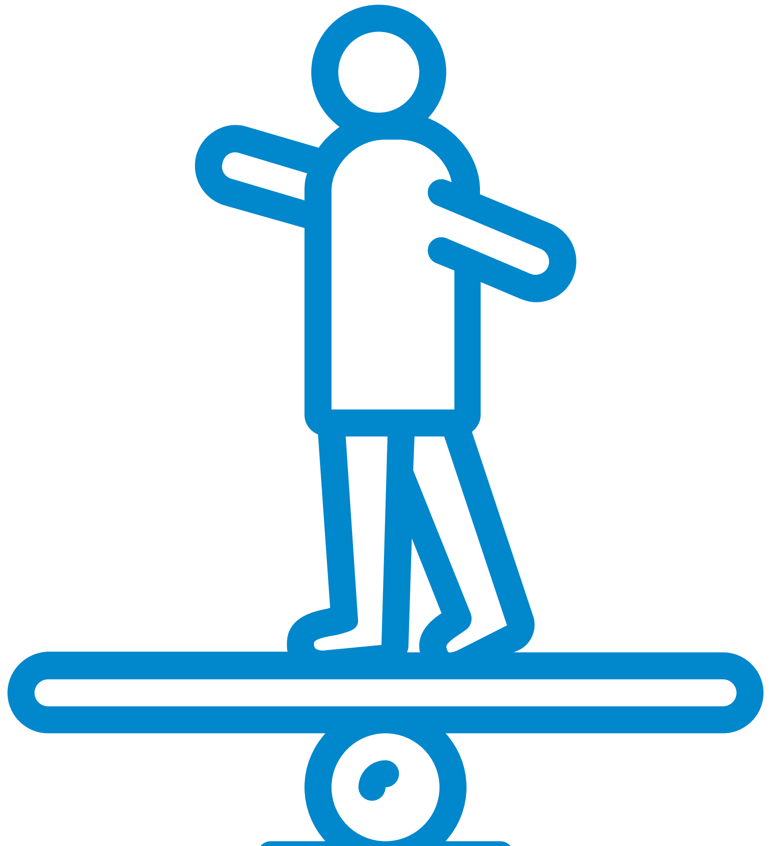
Crowding Out



Fiscal policy should lead to a readjustment of AD to equilibrium (AD -> AD1).

However, due to crowding out, Investment and Consumption fall resulting in a decrease to AD2.

Automatic Stabilizers (HL Only)



Automatic Stabilizers

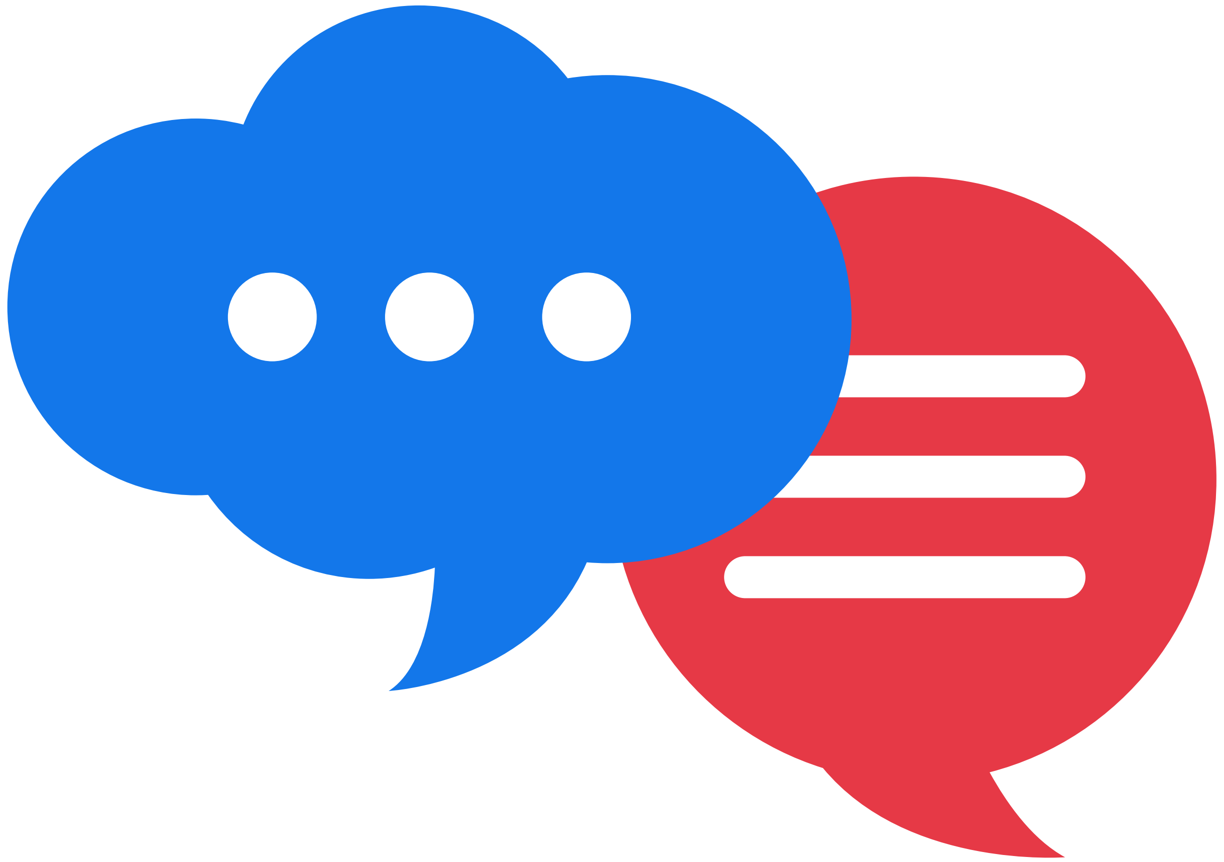
Features in an economy that reduce business cycle fluctuations without any government intervention. They occur automatically.

Common Automatic Stabilizers

- **Progressive Income Taxes**
- **Unemployment Benefits**

Discussion!

Discuss how progressive income taxes and unemployment benefits may help stabilize the economy.



Automatic Stabilizers Functionality

Economic Recession

- Unemployment rises and the government spends more on unemployment benefits.
- For those that keep their jobs, wages fall with Average Price Level. Lower wages push individuals into a lower tax bracket, allowing them to save money. (If in a progressive system)
- Less government tax revenue

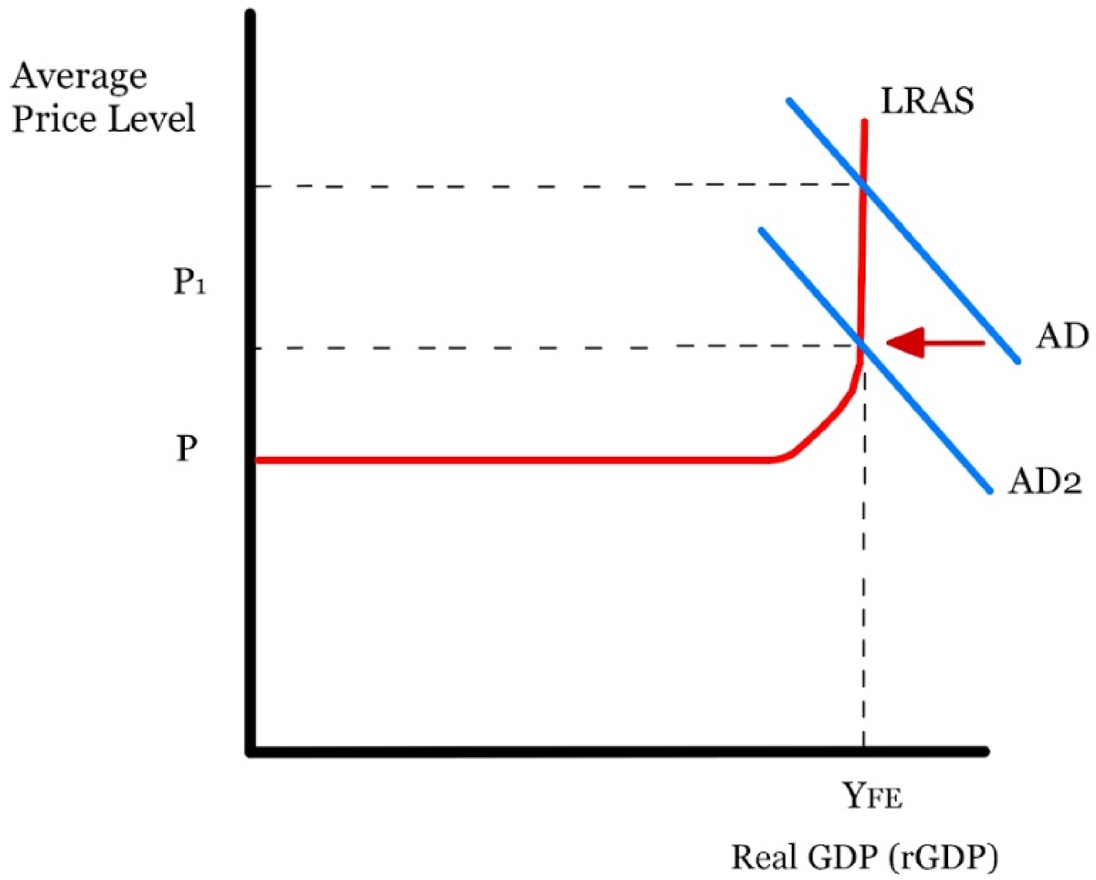
A rise in government spending and a decrease in taxes create economic growth to combat the recession

Automatic Stabilizers Functionality

Economic Boom/Expansion

- Unemployment falls and the government spends less on unemployment benefits.
- As individuals are hired and receive an increase in wages, they are pushed into a higher tax bracket meaning that they pay more income tax. (If in a progressive system)
- Increase government tax revenue

A decrease in government spending and an increase in taxes will slow down the economy to combat the inflation and return to Full Employment



Fiscal Policy Strengths

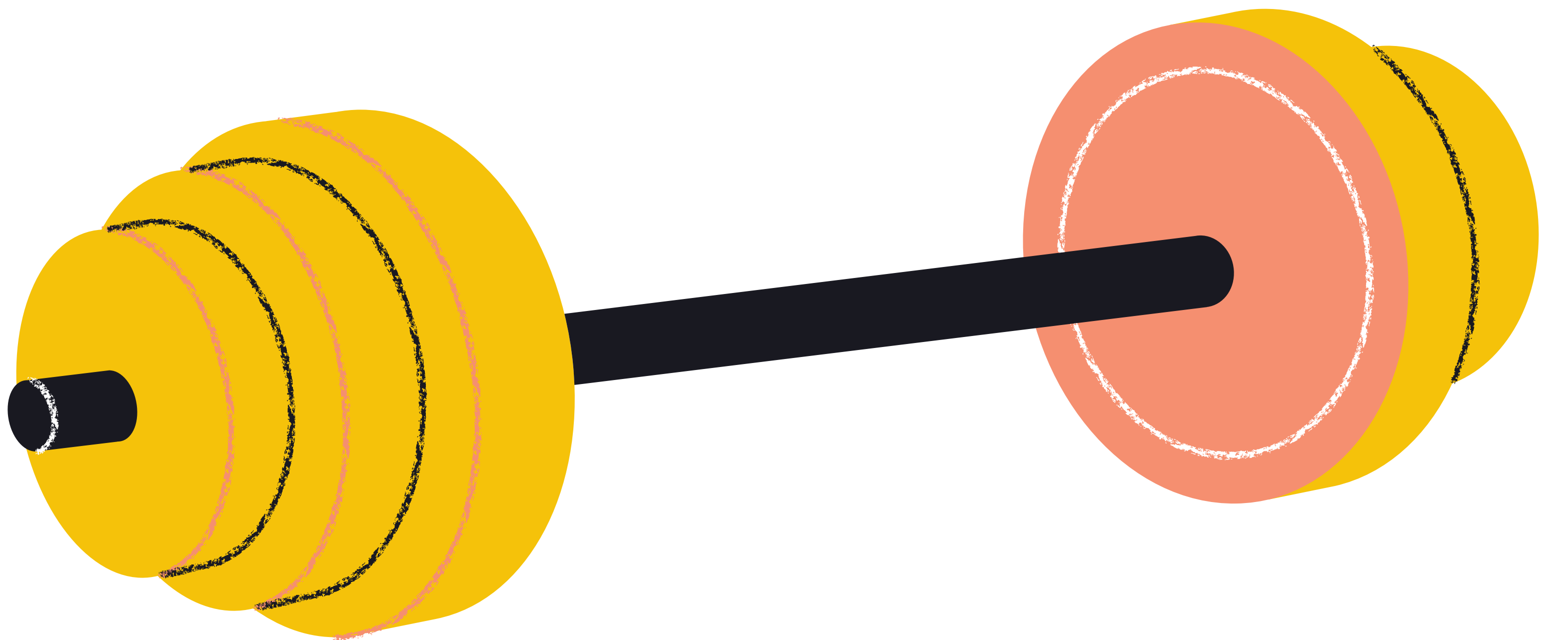
Fiscal Policy Strengths

Able to target specific sectors of economy

Effective in a recession (automatic stabilizers)

Direct impact of AD

Government intervention is required for Keynesian view



Fiscal Policy Limitations

Limitations of Fiscal Policy

Politics

Differing political parties have different beliefs on what is best for the economy.

These differences frequently lead to longer response times.

Time Lags

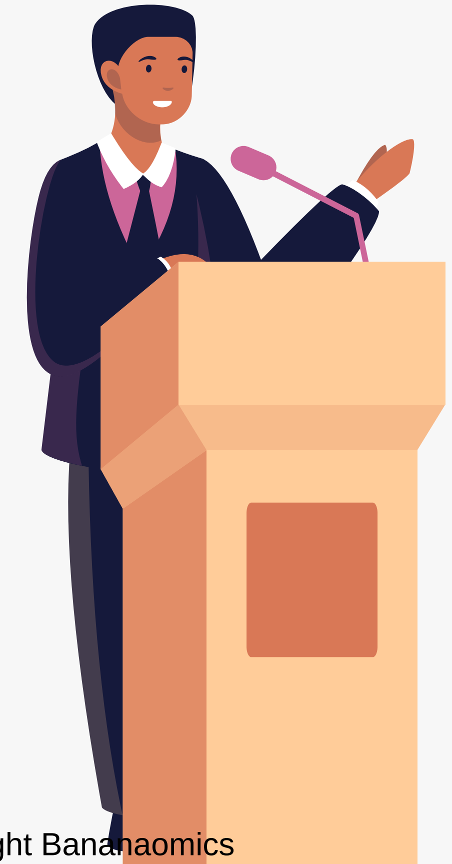
The government takes time to notice a problem, develop a policy, and then implement that policy. These policies take time to be effective.

Sustainable Debt

Governments must spend money to stimulate the economy if needed. These expenditures compile and may turn into large amounts of debt.

Crowding Out

When public sector (government) spending drives down private sector spending (consumption and investment).



Practice Question

Paper 1

M18/3/ECONO/HP1/ENG/TZ1/XX

(a) Explain how expansionary fiscal policy could be used to close a deflationary (recessionary) gap. [10]

Mark Scheme

(a) Explain how expansionary fiscal policy could be used to close a deflationary (recessionary) gap. **[10]**

*Answers **may** include:*

- definitions of fiscal policy, expansionary fiscal policy, deflationary (recessionary) gap
- diagram to show the potential effects of expansionary fiscal policy
- explanation of how an expansionary fiscal policy will boost aggregate demand and increase output, thereby closing a deflationary gap
- examples of countries that have used expansionary fiscal policy.

Mark Scheme

(b) Evaluate the view that fiscal policy is the most effective way of achieving long-term economic growth. **[15]**

*Answers **may** include:*

- definition of long-term economic growth , **fiscal policy**
- diagram to show a shift in the PPC and potential output
- Explanation of how fiscal policy leads to long-term economic growth indirectly by creating an economic environment that is favourable to private investment, and directly through government spending on physical capital goods and human capital formation, as well as provision of incentives for firms to invest, all of which are expected to have the effect of increasing potential output
- examples of fiscal policy that has had this effect
- synthesis or evaluation.

N. B It should be noted that definitions, theory and examples that have already been given in part (a) and then referred to in part (b) should be rewarded.

Evaluation **may** include: the type of fiscal policy and how it is financed, advantages and disadvantages of fiscal policy, consideration of alternative policies, such as monetary and supply-side policies.

Examiners should be aware that candidates may take a different approach which, if appropriate, should be rewarded.

Opinions or conclusions should be presented clearly and should be supported by appropriate examples.

Mark Scheme

Part (a) 10-mark question

Marks 0–10	Level descriptor
0	The work does not reach a standard described by the descriptors below.
1–2	• The response indicates little understanding of the specific demands of the question. • Economic theory is stated but it is not relevant. • Economic terms are stated but they are not relevant.
3–4	• The response indicates some understanding of the specific demands of the question. • Relevant economic theory is described. • Some relevant economic terms are included.
5–6	• The response indicates understanding of the specific demands of the question, but these demands are only partially addressed. • Relevant economic theory is partly explained. • Some relevant economic terms are used appropriately. • Where appropriate, relevant diagram(s) are included.
7–8	• The specific demands of the question are understood and addressed. • Relevant economic theory is explained. • Relevant economic terms are used mostly appropriately. • Where appropriate, relevant diagram(s) are included and explained.
9–10	• The specific demands of the question are understood and addressed • Relevant economic theory is fully explained. • Relevant economic terms are used appropriately throughout the response. • Where appropriate, relevant diagram(s) are included and fully explained

Part (b) 15 marks

Marks	Level descriptor
0	• The work does not reach a standard described by the descriptors below.
1–3	• The response indicates little understanding of the specific demands of the question. • Economic theory is stated but it is not relevant. • Economic terms are stated but they are not relevant. • The response contains no evidence of synthesis or evaluation. • A real-world example(s) is identified but it is irrelevant.
4–6	• The response indicates some understanding of the specific demands of the question. • Relevant economic theory is described. • Some relevant economic terms are included. • The response contains evidence of superficial synthesis or evaluation. • A relevant real-world example(s) is identified.
7–9	• The response indicates understanding of the specific demands of the question, but these demands are only partially addressed. • Relevant economic theory is partly explained. • Some relevant economic terms are used appropriately. • Where appropriate, relevant diagram(s) are included. • The response contains evidence of appropriate synthesis or evaluation but lacks balance. • A relevant real-world example(s) is identified and partly developed in the context of the question.
10–12	• The specific demands of the question are understood and addressed. • Relevant economic theory is explained. • Relevant economic terms are used mostly appropriately. • Where appropriate, relevant diagram(s) are included and explained. • The response contains evidence of appropriate synthesis or evaluation that is mostly balanced. • A relevant real-world example(s) is identified and developed in the context of the question.
13–15	• The specific demands of the question are understood and addressed. • Relevant economic theory is fully explained. • Relevant economic terms are used appropriately throughout the response. • Where appropriate, relevant diagram(s) are included and fully explained. • The response contains evidence of effective and balanced synthesis or evaluation. • A relevant real-world example(s) is identified and fully developed to support the argument.