Supply Side Policies

Fiscal Policy

Monetary Policy

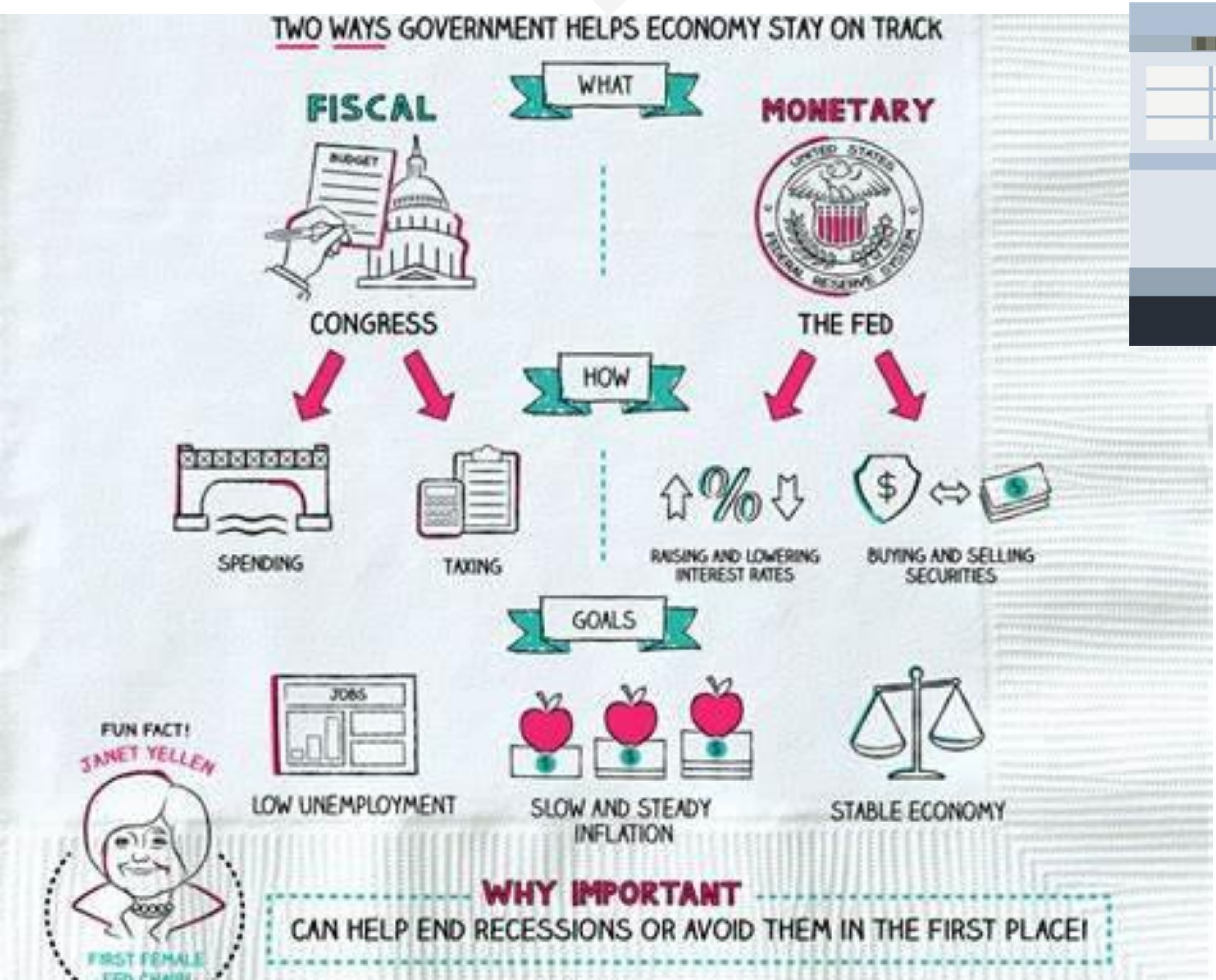
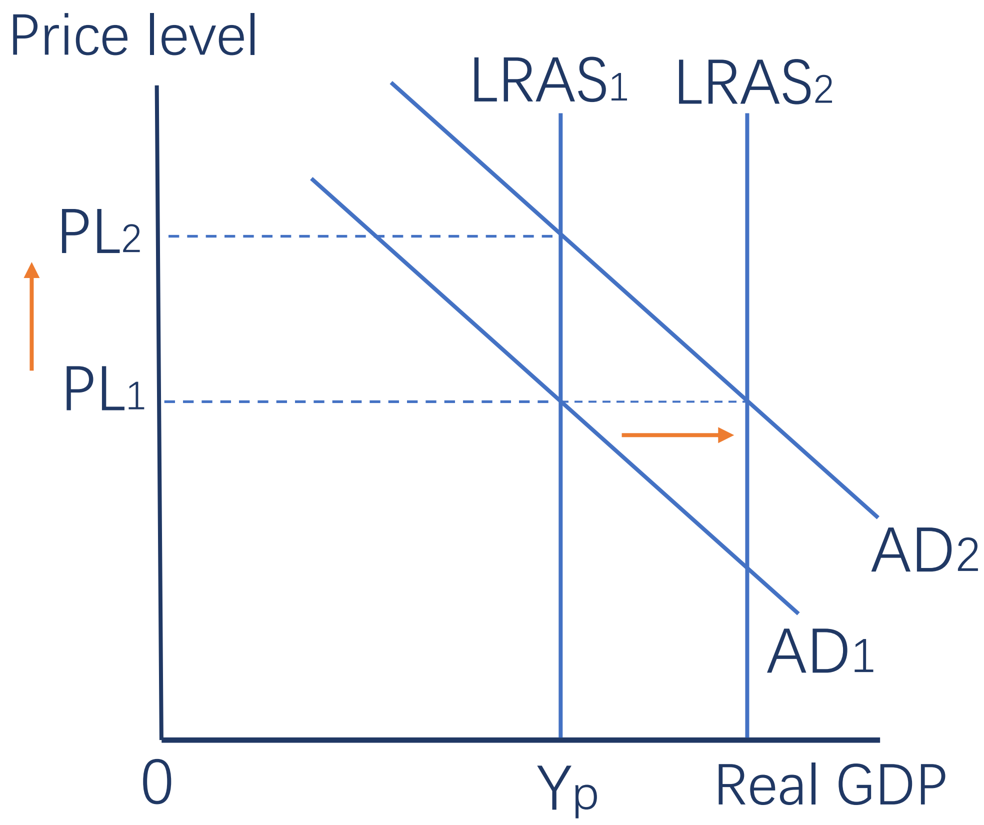


Illustration in AD-AS model



- Long run aggregate demand is a vertical line. The interception of LRAS and AD decides the long run equilibrium.
- In the long run, the increase in aggregate demand **cannot increase potential output but only leads to price level increase** (inflation).
- Government needs policies to shift the LRAS rightwards to increase the potential GDP.
- **the production capability of an economy decides its potential output**. The production capability depends on the **quantity and quality of its resources**. (e.g. the quantity and quality of labour resources, technology, etc.)

Supply-side policies

- **Supply-side policies** focus on the production and supply side of the economy, specifically on factors aimed at **shifting the long-run aggregate supply (LRAS) or Keynesian AS curves to the right**, to **increase potential output** and achieve **long-term economic growth**.
- They **do not attempt to stabilize the economy** by reducing the fluctuations of the business cycle.
- They focus on increasing the **quantity** and **quality** of factors of production, as well as on **institutional changes** intended to **improve the economy's productive capacity**.

Two categories of supply-side policies

1. **Market-based**, which rely on the working of the market
   - Emphasize the importance of well-functioning competitive markets
   - Designed to make markets work more efficiently.
   - Favoured by monetarist/new classical economists

2. **Interventionist**, which rely on government intervention
   - Policies that rely on government intervention to achieve growth in potential output.
   - Interventionist policies favour direct government involvement in order to correct market imperfections and market failures thereby improving productivity.
   - Favoured by Keynesian economists

Market-based supply-side policies

1. Encouraging competition

- ✓Privatization
- ✓Deregulation
- ✓Contracting out to the private sector
- ✓Anti-monopoly regulation
- ✓Trade liberalization

2. Labour market reforms

- ✓Abolishing minimum wage legislation
- ✓Weakening the power of labour (trade) unions
- ✓Reducing unemployment benefits
- ✓Reducing job security

3. Incentive-related policies

- ✓Lowering personal income taxes.
- ✓Lowering taxes on capital gains and interest income.
- ✓Lowering business taxes

The goals of supply-side policies

1. **Promote long-term growth by increasing the productive capacity of the economy.**
   - Main objectives: increase potential output.
   - Long-term growth in the business cycle diagram
   - Rightward shifts of the LRAS (or Keynesian AS curve)
   - Outward shifts of PPC
2. **Improve competition and efficiency.**
   - Make the economy more responsive to the market forces of demand and supply so as to increase efficiency in production.
   - It creates incentives for firms to be efficient in order to remain attractive to consumers. (lower price and/or higher quality)
3. **Reduce costs of labour and reduce unemployment through greater labour market flexibility.**
   - Making the labour market more responsive to the market forces of demand and supply so as to reduce unemployment as well as labour costs.
   - Increase labour market flexibility and efficiency so that the workforce is more productive and competitive.

The goals of supply-side policies

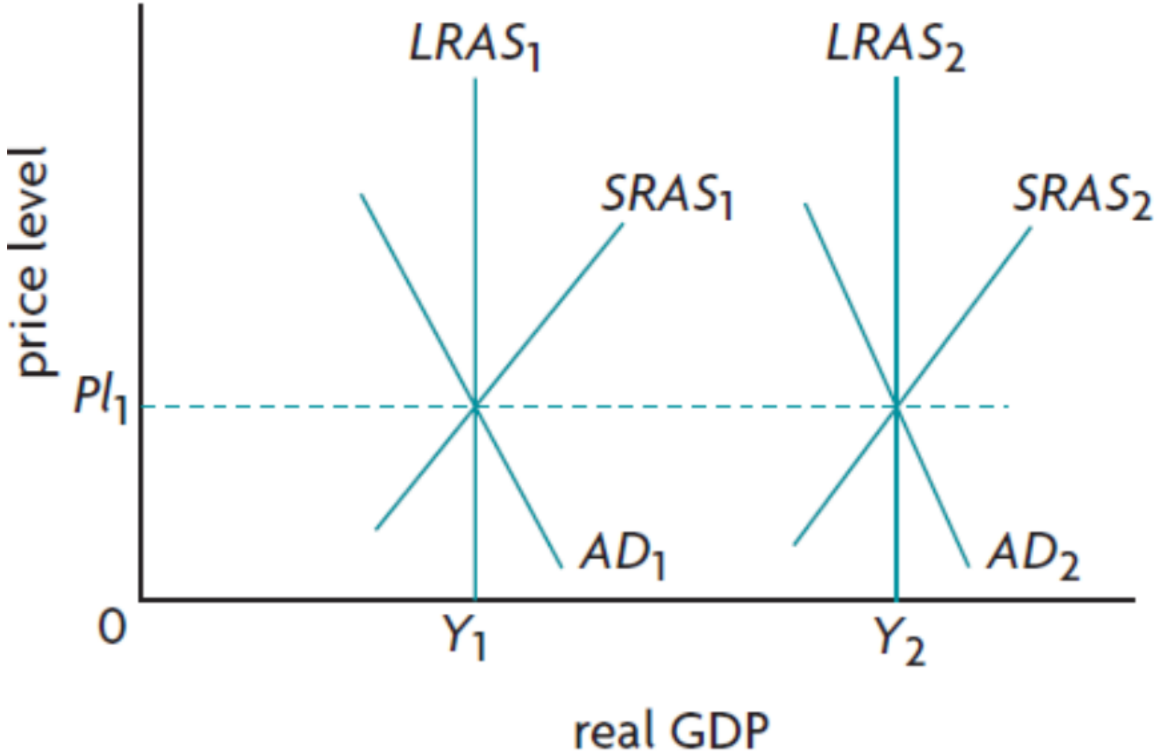
4. **Increase incentives of firms to invest in innovation by lowering costs of production.**
    - Lower costs of production/Lower taxes → Higher after-tax profits → R&D →increased productive capacity of the economy →growth in potential output.

5. **Reduce inflation to improve international competitiveness**
    - Increases in potential output → reduced inflationary pressures → making exports more competitive in global markets.

Market-based supply-side policies

Fundamental beliefs:

- the economy's real GDP tends **automatically** towards long-run full employment equilibrium and potential GDP, it **automatically** eliminates recessionary and inflationary gaps.
- If increases in aggregate supply match increases in aggregate demand, so that the **LRAS and SRAS curves shift by the same amount as the AD curve**, there will not be any price level increase.
- With supply side policies, the economy could achieve rapid growth, price stability and full employment all at the same time.
- Focus of the policy: create conditions that allow market forces to work well.



Market-based supply-side policies

1. encouraging competition

- Greater competition among firms forces them to **reduce costs**, **improve efficiency** in production and **improving resource allocation**, with the possible added benefit of **improving the quality** of goods and services.

→ Increase in potential output, LRAS shifts to the right.

Market-based supply-side policies

1. encouraging competition

1) Privatization

- **Government enterprises** don't face incentives to lower costs and maximize profits, they are often inefficient due to bureaucratic procedures, high administrative costs and unproductive workers.
- **Private firms** – improved management and more incentive to cut costs.

→Privatization refers to sale or transfer of public sector assets to the private sector. It can increase efficiency due to improved management and operation of the privatized firm.

- ✓Improve competition, efficiency and productivity in the economy.
- ✓Selling off state-owned assets also helps to raise government revenue.

Market-based supply-side policies

1. encouraging competition

2) Deregulation

- Since government regulation usually stifles competition and increases inefficiencies, so deregulation refers to the **elimination or reduction of government regulation of private sector activities.**

a. Economic deregulation

- **Economic regulation** involves government control of prices, output, and other activities of firms, offering them protection against competition.
- Objectives: lower the barriers to entry, increase efficiency, lower costs and improve quality.
- Approaches: e.g.: allow new, private firms to enter into monopolistic or oligopolistic industries, thus forcing existing firms to face competition.
- Affected industries: transport, airlines, television broadcasting, telecommunications, natural gas, electricity, financial services, etc.

b. Social deregulation

- **Social regulation** involves protecting consumers against undesirable effects of private sector activities (negative externalities), in numerous areas, including food, pharmaceutical and other product safety, worker protection against injuries, pollution control.
- Some economists argued that social regulation is excessive, due to costly and inefficient bureaucratic procedures, paper work and unnecessary government interference.

Market-based supply-side policies

1. encouraging competition

3) Contracting out to the private sector

- Governments make a contractual agreement with private firms to provide goods and services for the government.
- It results in increased competition as private firms compete with each other to get contracts with the government.

4) Anti-monopoly regulation

- Laws that control or limit the restrictive practices and market power of dominant firms in an industry. It protect the interest of consumers against anti-competitive behaviors of monopolies.
  - Anti-trust laws
  - Breaking up large firms
  - Preventing mergers between firms
  - Price control

5) Trade liberalization

- Reduction or removal of barriers to international trade, such as trade barriers, quotas and subsidies.
- Free or freer trade increases competition between firms both domestically and globally.
- E.g. free movement of capital flows between companies → create freer and fairer international trade.

Market-based supply-side policies
2. Labour market reforms

Labour market reforms → to increase labour market flexibility, or reducing market rigidities as one cause of structural unemployment.

- **Objectives**: making labour market more competitive, making wages respond to the forces of supply and demand, lowering labour costs and increasing employment by lowering the natural rate of unemployment.

→Lower cost of production

→Increased profits

→Greater investment by firms, greater R&D

→Increased capital goods production

→Increases in potential output (economic growth)

→i.e. LRAS shift to right

Market-based supply-side policies

2. Labour market reforms

1) Abolishing minimum wage legislation

- Elimination or reduction of the legal minimum wage, allowing the equilibrium wage to fall.
- Benefits: lower unemployment; greater firm profits; more investment and economic growth.

2) Weakening the power of labour (trade) unions

- Labour union (trade union) is an association of workers in a particular profession, whose objective is to improve working conditions, and defend rights of workers, representing its members in negotiations with employers.
- Same benefits as above.

Market-based supply-side policies

2. Labour market reforms

3) Reducing unemployment benefits

- Unemployment benefits are welfares transfer payments made by a government to support people who are willing to work but cannot find employment.
- unemployment benefits have the unintended effect of reducing the incentive to search for a new job, causing some unemployed workers to remain unemployed for longer periods than necessary.
- Benefits: lower unemployment, reduce the natural rate of unemployment.

4) Reducing job security

- Many countries have laws that protects workers against being firms, making it costly for firms to fire workers because of high level of compensation.
- Making firms easier and less costly to fire workers.
- Benefits: increase employment; increase firm profits, investment and economic growth.

Market-based supply-side policies
3. incentive-related policies

Incentive-related policies involve cutting various types of taxes, which are expected to change the incentives faced by taxpayers, whether firms or consumers. → incentive to work, save and invest.

1) **Lowering personal income taxes.**
   - Higher after-tax incomes → increase in consumption/saving → increase in AD
   - Higher after-tax income → incentive for people to provide more work
     - Increase in the number of hours worked per week
     - Increase in the number of people interested in finding work
     - Increase in the number of years worked
     - Unemployed workers choose to shorten the duration of their unemployment.

   →shift the LRAS curve to the right, increasing potential output.

Market-based supply-side policies
3. incentive-related policies

2) Lowering taxes on capital gains and interest income.

- Tax on capital gains are taxes on profits from financial investments (such as stocks and bonds) or from buying and selling real estate.
- Lower these taxes will incentivize people to save, thus increasing the amount of saving available for investment.

→Greater production of capital goods and increase in potential output.

3) Lowering business taxes

- Lower taxes on business profits can work to increase aggregate demand by increasing investment spending.
- The increasing level of after-tax profits means that firms have greater financial resources for investment and for pursuing technological innovations through more R&D, resulting in greater potential output.

Interventionist supply-side policies

- **Interventionist supply-side policies** presuppose that the free market economy along cannot achieve the desired results in terms of increasing potential output, and therefore government intervention is required.
- Policies that rely on government intervention to achieve growth in potential output.
  1. **Investment in human capital**
  2. **Investment in new technology**
  3. **Investment in infrastructure**
  4. **Industrial policies**

Interventionist supply-side policies

1. investment in human capital

Investment in human capital result in an increase in aggregate demand over the short term, and over the longer-term lead to increases in potential output, by **shifting the LRAS or Keynesian AS curves to the right**.

1) Training and education

- More and better training and education lead to an improvement in the quality of labour resources, increasing the productivity of labour (one of the key causes of economic growth)
    - Public training and education programmes
    - Retraining programmes for structurally unemployed workers
    - Grants or low interest loans for young people on training and education.
    - Direct government hiring and provision of on-the-job training
    - Offering subsidies to firms that hire structurally unemployed workers
    - Geographical reallocation assistant programmes
    - Job center, and so on.

2) Improved health care services and access to these.

- With access to good quality health care services, workers become healthier and more productive.
- Improvements in the quality of labour resources, increasing the economy's potential output.
- Positive externalities

Interventionist supply-side policies
2. Investment in new technology

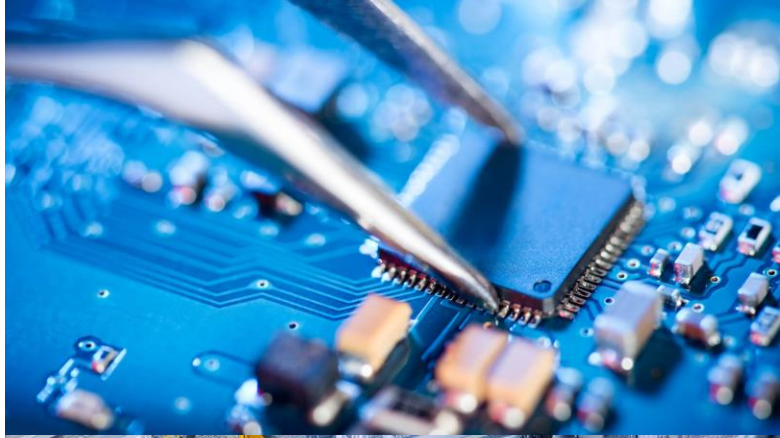
Research and development (R&D) is the fundamental activity behind the development of new technologies, resulting in **new or improved capital goods** (physical capital).

- Generate **new products for consumption and export**, such as energy-saving light bulbs, wearable technologies, electric cars, smartphones, etc. →international competitive advantage.
- Provision of basic R&D is responsible for significant **positive externalities** that a private firm would not be able to capture and a faster rate of technological progress. A faster rate of technological advancement will increase **labour productivity and so the LRAS of an economy**.

→**Increases in potential output and economic growth.**

✓Subsidies, tax incentives

✓Granting of patents for the protection of inventions



Interventionist supply-side policies
3. Investment in infrastructure

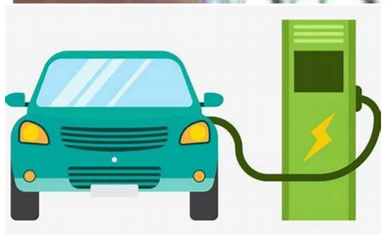
Infrastructure is a type of physical capital, and therefore results from investment; it includes power, telecommunications, roads, dams, urban transport, ports, airports, irrigation systems, etc. (**merit goods or public goods**)

- More and better infrastructure increases efficiencies in production as it lowers costs.
- E.g. A better transportation system creates massive **positive externalities**. Roads, railways, harbors, airports and telecommunications all serve to lower production costs of all economic agents in a country.

Interventionist supply-side policies
4. Industrial policies

Industrial policies are government policies designed to support the growth of some industrial sector of an economy. They include:

- Support for small and medium-sized enterprises or firms (SMEs)
- Support for 'infant industries' (newly emerging industries)
- And so on..
- **Approaches**: tax exemptions, tax break, grants, lower-interest loans, business guidance, subsidies, tariffs or other forms of protection against export.




Overlaps between demand-side and supply-side policies

1. Demand-side effects of supply-side policies

a. Interventionist supply-side policies

- The government investments in education or training, health care services, research development, provision of infrastructure involves an increase in government spending (G), which shifts aggregate demand to the right.

b. Market-based supply-side policies

- lower taxes on business profits → firms will invest more in R&D, new technologies and new capital goods → increase in investment spending (I) →increase in aggregate demand.
- Lower income taxes→ increase of disposable income → increase in consumption spending (C) → increase in aggregate demand

Overlaps between demand-side and supply-side policies

2. Supply-side effects of demand-side policies

a. Fiscal policy

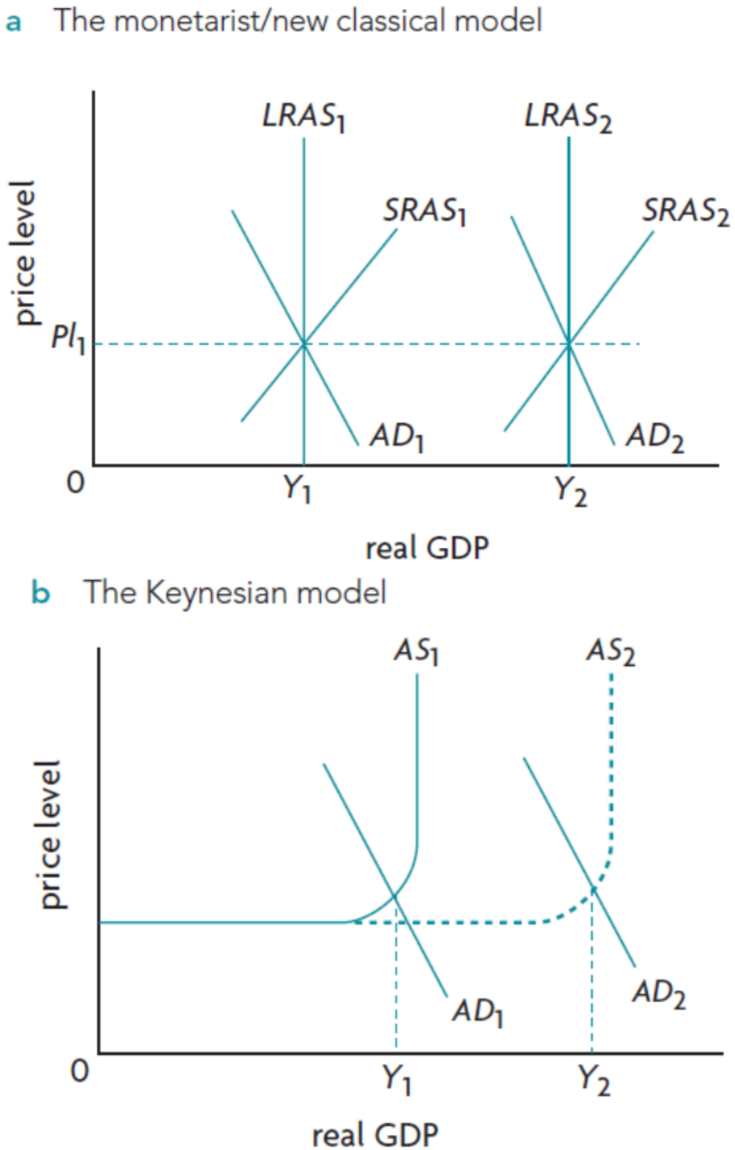
- Provision of physical capital goods, such as infrastructure, Investments on R&D →improvements on technology and quality of capital goods, increases the productivity of labour. →LRAS shift to the right
- Government spending on human capital (education, healthcare) improve the quality of the labour force and increase the productivity of labour.→ LRAS shift to the right
- Lower business tax → new capital formation and R&D that promotes technological innovations. → LRAS shift to the right

b. Monetary policy

- Lower interest rates → more investment spending by firms on capital goods →increased quantity and quality of capital (as well as other FOP) affects potential output →long-term growth. (LRAS shifts to the right)

Overlaps between demand-side and supply-side policies

- An economy is initially in equilibrium producing real output Y1.
- Government pursues a variety of demand-side fiscal policies. These policies produce increases in aggregate demand over the short term, so that **AD shifts from AD1 to AD2**. However, these policies also impact on aggregate supply, because of the increase in the quantity of capital goods, the improvements in the quality of labour, etc.
- So that the LRAS and SRAS curve and the Keynesian AS curve also shift to the right, **increasing potential output over the long term**.



Evaluating supply-side policies
Strengths of market-based supply-side policies

1. **Improved resource allocation**
   - Market-based policies focus on improving the workings of the market system based on the operation of demand and supply → improved efficiency in resource allocation.

2. **May not burden the government budget.**
   - Most market-based policies (other than the tax cut) do not need government funds to be implemented.

3. **Ability to create employment**
   - Market-based policies may contribute to reducing the natural rate of unemployment by focusing on making the labour market more responsive to supply and demand.
   - Lower wages and production costs, easier hiring and firing, etc.

Evaluating supply-side policies
Strengths of market-based supply-side policies

4. **Ability to reduce inflationary pressure**
    - As potential output increases (LRAS shift to the right) matches the increases in aggregate demand, there will be little or no upward pressure on the price level.
    - Reduced inflationary pressures over the longer term.

Evaluating supply-side policies
Constraints on market-based supply-side policies

1. **Time lags**
   - The policies work after significant time lags, making their effects on the supply side of the economy over the longer term.

2. **Possible unfavorable impact on unemployment**
   - Market-based policies that focus on encouraging competition may well increase unemployment, at least over the short-term.
     - Privatization → lay off workers to increase efficiency
     - Contracting out → government job losses
     - Economic deregulation → firms fire workers to lower costs
   - In long term, the economy begins to benefit from the policies.

Evaluating supply-side policies
Constraints on market-based supply-side policies

3. Possible negative effects on equity.

- Greater competition → unemployment ↗ → loss of income
- Labor market reform → lower income and job insecurity → rising income inequalities
- Income tax cut → incentives to work, save and invest for high income groups → tax system become less progressive, reducing the redistributive effects of personal income taxes → income distribution less equal.
- Privatized firms with market power may charge higher price → negative effects on lower income groups, especially when the privatized firms provide necessities or merit goods.

4. Negative impact on the government budget

- Incentive-related policies in the form of tax cuts negatively affect the budget as they reduce tax revenue. → budget deficit

Evaluating supply-side policies
Constraints on market-based supply-side policies

5. Possible interference of vested interests

- Vested interests are strong personal interests in something.
- Market-based policies affect certain stakeholders, they are likely to oppose and may prevent the policies from being implemented.
    - Strong labor union
    - Workers in public (government-owned) enterprises
    - Firms with strong market power

6. Possible negative effects on the environment

- Market-based policies → increasing competition → increasing scope for activities → negative externalities affecting the environment.

Evaluating supply-side policies
Strengths of interventionist-based supply-side policies

1. **Direct support of sectors important for growth.**
   - The government selects particular sectors or activities to promote, which may be important for growth.

2. **Ability to create employment.**
   - Investments in education and training can make a direct impact on a reduction of unemployment.
     - Enable workers to acquire the skills, training, and retraining necessary to meet the needs of employers (structural unemployment)
     - Providing assistance to workers to relocate (structural unemployment)
     - Providing information that reduces unemployment when workers are between jobs (frictional unemployment) or between seasons (seasonal unemployment)

Evaluating supply-side policies
Strengths of interventionist-based supply-side policies

3. **Potential ability to reduce inflationary pressure.**
   - Same as market-based policies

4. **Possible positive effects on equity.**
   - The investments in human capital that are broadly distributed throughout the population are likely to have positive effects on equity over the longer term.

Evaluating supply-side policies
Constraints on interventionist-based supply-side policies

1. **Time lags**
   - Time needed for investments, on new human and physical capital and R&D
   - Time needed for them to take effect.

2. **Negative impact on the government budget**
   - Interventionist policies are heavily based on government spending.
   - Possibility of budget deficit

Some ongoing debates

1. **The debate over increases in potential output. – whether interventionist or market-based policies are more effective.**
   - **Supporters of interventionist policies:**
     - ✓ Government can support the areas in need directly, such as investment, R&D, training and education, provision of credit on favorable terms (lower interest rates, long repayment periods).
     - ✓ Industrial policies allow the government to support particular industries that are held to offer the greatest possibilities for growth in the future.
   - **Supporters of market-based policies:**
     - ✓ Government interference in the market may lead to inefficiencies and resource misallocation.
     - ✓ Government interference may result in less efficiency outcomes because of the influence of political pressures, lack of necessary information and unintended consequences of government actions.
     - ✓ High government spending means high taxes which act as disincentives to work, also a large government sector promotes inefficiencies.
     - ✓ High taxes Opportunity cost of government spending.

Some ongoing debates

2. The debate over incentive-related policies

- The questionable effects of tax cuts on work, saving and growth of potential output.
- Tax cut have both demand-side and supply side effects. Some economists question the effect of supply side to be small compared to the impact on aggregate demand.
- Income tax cut → increases in disposable income may result in:
  - →people may decide to work less and increase their leisure time
  - →Workers use higher disposable income to consume more rather than save, in which case the tax cuts may not significantly affect saving and investment.

Some ongoing debates

3. The debate over minimum wages

- Minimum wages result in unemployment. So the reducing minimum wage would reduce unemployment.
- But some economists argued that paying workers a higher than equilibrium wage encourages them to work harder, increasing their productivity. Increased labour productivity causes firms to increase their demand for labour, which has the impact of increasing employment and justifying the higher wages.

→There would be little benefit for firms if governments cut the minimum wage.

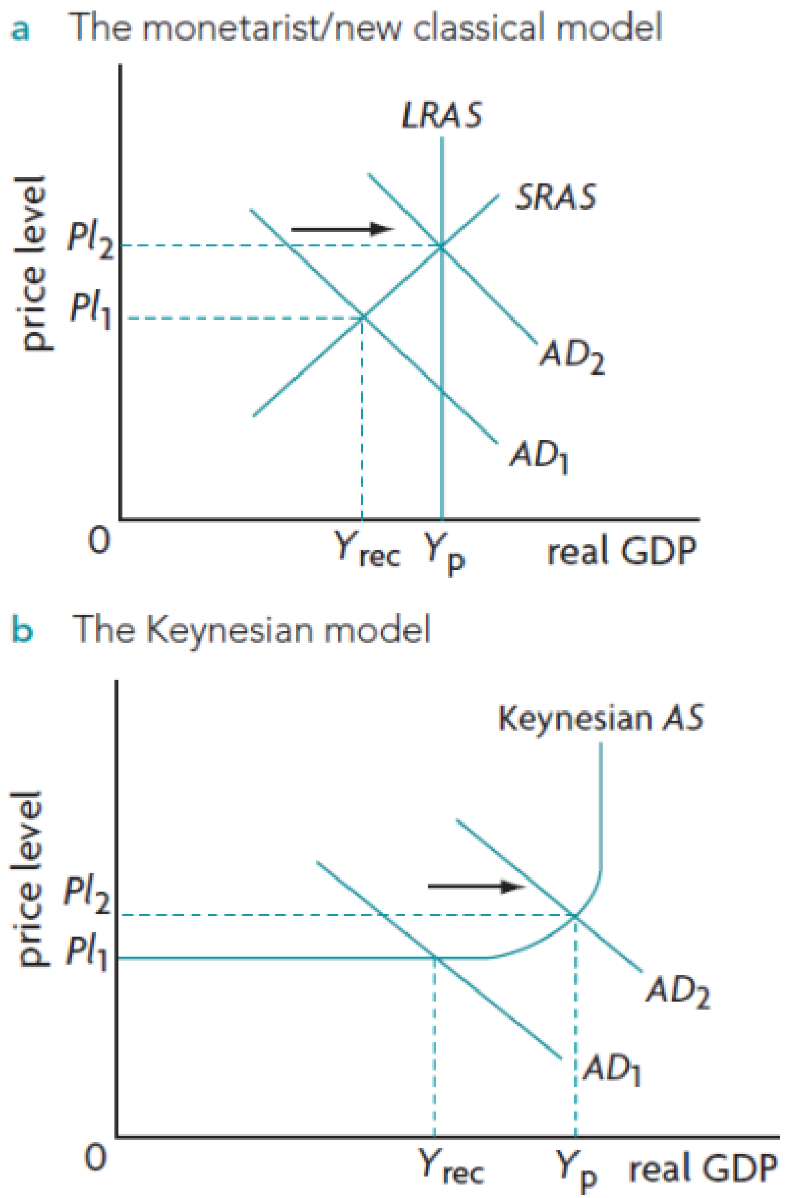
→The minimum wage may begin to have an impact on unemployment only when it approaches very high levels.

Policies for low unemployment

Different types of unemployment require different kinds of policies for their solution. (cyclical and natural unemployment)

- For **cyclical unemployment**:
  - A fall in aggregate demand, the economy operates below the full employment equilibrium, that is the level of aggregate demand is insufficient(deficient) to create full employment.

  →recessionary gap & cyclical unemployment.
  - Policies to correct it by shifting AD from AD1 to AD2, and intend to increase real GDP to Yp. Cyclical unemployment falls until it is eliminated at Yp.



Policies for cyclical unemployment

Demand side policies - **Monetary policy:**

1. It can be used incrementally, it can easily be reversed or changed.
2. It is not subject to political constraints and does not have as long time lags as fiscal policy.
3. No crowding out effect
4. It does not lead to increased government spending with larger budget deficits and government debt.

1. If the recession is deep, with low business and consumer confidence and fears of bankruptcies in the banking sector, lower interest rates may not lead to the needed increase in AD.
2. Once interest rates reach zero they cannot be reduced further.

Policies for low unemployment

Demand side policies - **Fiscal policy:**

1. It has the ability to pull an economy out of deep recession with a high rate of cyclical unemployment. It can complement monetary policy.
2. Increased government spending has a direct impact on AD.
3. Government spending can be targeted to particular economic activities.
4. Automatic stabilizers make the recession less severe.

1. It cannot ‘fine tune’ the economy and is subject to major time lags.
2. In a recession, expansionary fiscal policy with lower tax revenue and higher government spending can drive the government into budget deficit and increased government debt.
3. Increased government borrowing may lead to higher interest rates possibly crowding out private investment.

Policies for low unemployment

Supply side policies

1. Interventionist supply-side policies could be effective since they have demand-side effects.

1. It mainly affect potential output, whereas cyclical unemployment is due to insufficient aggregate demand.
2. Market-based supply-side policies will not help reduce cyclical unemployment.

Policies for low unemployment

For natural unemployment:

- Structural unemployment is the most serious part of natural unemployment, most economic policies intended to lower the natural rate of unemployment focus on this.
  - **Demand side policies**
    1. Fiscal policy may have effects on natural unemployment because of its supply-side effects.

    1. Demand side policies are generally not appropriate. When the economy is producing potential GDP with natural rate of unemployment. Increasing AD will lead to temporarily fall on natural unemployment, but it will cause inflation. Policy makers will then reduce the AD to lower the inflation rate. Unemployment rate return to natural rate.

Policies for low unemployment

For natural unemployment:

- **Supply side policies – Interventionist supply-side policies:**
  - **direct positive impact on reducing unemployment, without contributing to increased income inequalities and loss of job security.**

1. It can reduce structural unemployment by:
   - Setting up or supporting retraining programs
   - Direct government hiring and provision of on-the-job training
   - Grants to firms offering on-the-job training
   - Subsidies to firms hiring structurally unemployed workers
   - Grants and subsidies to assist relocation
   - Information on job availability in various geographical areas
   - Government projects in the depressed areas for employment creation.
2. It can reduce frictional unemployment by:
   - Improving information flows between employers and job seekers.
   - Job centers, employment agencies, job websites, etc.
3. It can reduce seasonal unemployment by:
   - Provision of information to workers on jobs available during off-peak seasons in other industries.

4. Negative impacts on the government budget and opportunity costs of government spending.

Policies for low unemployment

For natural unemployment:

- **Supply side policies – Market-based supply-side policies:**
  1. Labour market reforms increase labour market flexibility, thus reducing structural, frictional and seasonal unemployment.
     - Reducing minimum wage → reduce unemployment by lowering wages of unskilled workers.
     - Weaker labour unions → making it easier for firms to hire due to the lower costs.
     - Reducing job security → makes it easier for firms to hire (easier to fire)
     - Reduction of unemployment benefits → increase workers' incentive to find work
  2. Reducing unemployment without negative effects on the government budget.

  1. It contribute to income inequality and loss of protection for low-income workers.

Policies for a low and stable rate of inflation

For demand-pull inflation:

- **Demand-side policies – contractionary monetary policy :**
  1. It can be used incrementally, and can easily be reversed or changed in the event that aggregate demand decreases too little or too much in response to higher interest rates.
  2. Shorter time lags compared with fiscal policy.
  3. No political constraints.

  1. There may be conflicts among government objectives. Inflation requires higher interest rates, but this may lead to appreciation of exchange rate. (make importer cheaper and export more expensive to foreigners.

Policies for a low and stable rate of inflation

For demand-pull inflation:

- **Demand-side policies – contractionary fiscal policy :**
  1. It is useful to deal with rapid and escalating inflation as a complementary policy to monetary policy.
  2. Cuts in government spending have a direct impact on reducing aggregate demand.
  3. Automatic stabilizers (progressive income taxes, unemployment benefits) work to make the inflation less severe.

1. Cuts in government spending and increase in taxes are highly unpopular.
2. It is a cumbersome tool not well suited to fine tuning the economy.
3. Time lags could make the policy inappropriate by the time it takes effect.

Policies for a low and stable rate of inflation

For demand-pull inflation:

- **Supply-side policies**

  1. Supply-side policies have the tendency to reduce inflationary pressures that might have demand-side causes, because they shift the LRAS or Keynesian AS curves to the right.

  1. It cannot be used to deal with demand-pull inflation over short periods of time.

Policies for a low and stable rate of inflation

For cost-push inflation:

- **Demand-side policies:**
  1. Demand-side policies could be problematic during cost-push inflation. The problem of inflation need a decrease in AD, the problem of unemployment requires an increase in AD. → conflicts.

Policies for a low and stable rate of inflation

For cost-push inflation :

- **Supply-side policies:**
  1. Policies can be pursued depend on the specific cause of the increase in costs.
     a. Cost-push inflation caused by wage increase:
        →lower the minimum wage
        →reduce the power of labour union, etc.
     b. Cost-push inflation caused by increasing price of imported input (oil)
        →Develop alternative forms of energy
        →Encourage users to economize on the use of products that depend on oil as input.
        - It takes time to be effective.
     c. Cost-push inflation arise when firms with substantial market power
        →market-based supply-side policies (break up the market power of firms, encourage competition)
     d. Cost-push inflation caused by depreciation of local currency, resulting in an increase in the prices it has to pay for imported goods.
        →implement policies that aim to reduce dependence on imports.

Policies to promote economic growth

✓ **Short-term growth** is caused mainly by increases in aggregate demand.

→ Expansionary fiscal and monetary policies

✓ **Long term growth** is caused by increases in LRAS or Keynesian AS, hence resulting in increases in potential output.

→supply-side policies, both interventionist and market-based.

- When a country is in a deflationary gap with cyclical unemployment:
  - ✓ demand side policies possibly along with supply-side policies, particularly of the interventionist type which actually overlap with expansionary fiscal policies.
- When a country approaches potential output:
  - ✓ supply-side policies that increase LRAS or Keynesian AS.