Supply-Side Policy

Important Definitions

Supply-side policies = Policies designed to improve the supply-side potential of an economy, make markets and industries operate more efficiently and thereby contribute to a faster rate of potential growth which can lead to lower general price levels and higher employment

Market-Oriented Policies

Purpose: To reduce the role of the government and to enable the market to work more freely by putting more emphasis on market forces and competition

Product Markets

Privatisation = The sale, in whole or in part, of public enterprises to the private sector
How it works:

- Transfer of state-owned enterprises from public sector to private sector
- Microeconomic
    - Private companies exposed to market forces ⇒ Subjected to competitive pressures + Profit-making incentive ⇒ ↑ incentive for firm to cut costs to ↑ profits and survive the competition ⇒ ↓ X-inefficiency
    - Allows price mechanism to take over allocative function ⇒ ↑ willingness and ability to respond to Δ in consumer demand, resource supplies and changes in technology ⇒ ↑ allocative efficiency
    - ↑ competition ⇒ ↑ willingness to innovate ⇒ ↑ Dynamic efficiency ⇒ In the LR, may help to innovate new methods of production/new technology which help to further lower costs of production
- Macroeconomic
    - ↓COP ⇒ ↑AS (downward shift) ⇒ ↓GPL + ↑ real NY

Examples:

- Liberalisation of electricty market in Singapore
    - Originally monopolised by Singapore Power → Transferred to Temasek Holdings to be run corporately → Opening of National Electricty Market of Singapore ⇒ ↑ independent power producers e.g. SembCorp and Keppel Energy ⇒ ↑ competition ⇒ Incentive to ↓COP
- Privatisation of SingPost and Singtel in the 1990s

Limitations:

- Private companies may lack scale ⇒ Unable to fully reap benefits of iEOS
- Market reconcentration (i.e. Uncompetitive firms incur losses and leave the industry ⇒ ↓ competition esp with the danger of larger and better established foreign firms)

- In some industries, dangerous to let foreign firms control supply for necessities

Pro-competition Policies (Deregulation)
How it works:

- Promotes greater freedom and competition in the private sector
- Methods:
    1. Tougher competition policy regime (i.e. curb anti-competitive practices such as cartels, predatory pricing or mergers and acquisitions)
    2. Removing BTE
    3. Promoting freer trade between nations by reducing tariffs and restrictions on imports
        - ↑ competition for domestic firms
- Microeconomic
    - ↑ competition ⇒ ↑ incentive for firm to cut costs to remain profitable and survive the competition + ↓ complacency ⇒ ↓ X-inefficiency
    - ↑ no. of firms ⇒ ↓ market dominance of firms ⇒ ↑ allocative efficiency
    - ↓ market power + ↓COP (MC) ⇒ ↓P ⇒ ↑ consumer welfare
    - ↑ competition ⇒ ↑ willingness to innovate ⇒ ↑ Dynamic efficiency ⇒ In the LR, may help to innovate new methods of production/new technology which help to further lower costs of production
- Macroeconomic
    - ↓COP ⇒ ↑AS (downward shift) ⇒ ↓GPL + ↑ real NY

Examples:

- Competition Commission of Singapore
    - Sistic fined $1 million for anti-competitive practices
- Deregulation of telecommunication industry
    - Entry of 4th telco into Sg market forced other telcos to slash prices

Limitations

- Market reconcentration (i.e. Uncompetitive firms incur losses and leave the industry ⇒ ↓ competition esp with the danger of larger and better established foreign firms)

Encourage Small Business Start-Ups
How it works:

- Encourages people to become entrepreneurs by extending loans and providing technical expertise and support for start-ups ⇒ ↑ start-ups
- Microeconomic
    - ↑ no. of firms ⇒ ↑ competition ⇒ ↓ market dominance of firms ⇒ ↑ allocative efficiency

- Macroeconomic
    - ↑ start-ups ⇒ ↑ innovation (product and process) and technology ⇒ ↑ productivity ⇒ ↑ productive capcity ⇒ ↑AS (rightward shift)

Examples:

- SPRING
    1. Business angel scheme
        - Helps to find an angel investor + SPRING matches $ for $
        - Angel investor = Affluent individuals interested in investing in new startups beyond monetary gains
    2. SPRING SEEDS
        - Cofinances startups by financing innovative technology for production of G&S

Limitations:

- Other factors affect the starting of businesses (e.g. High costs + high risks) ⇒ ↓ effectiveness of policy in encouraging new startups
- Outcomes of ↑ innovation from startups uncertain

Labour Markets

****Immigration Policies (↑Quantity of labour)**
How it works:

- Relax immigration policies ⇒ Influx of foreign labour ⇒ ↑ quantity of labour ⇒ ↑ productive capacity ⇒ ↑AS (rightward shift)
- Influx of low skilled cheap labour ⇒ ↑SS of labour ⇒ ↓ wages of low-skilled workers ⇒ ↓COP ⇒ ↑AS (downward shift)
- Influx of high skilled labour ⇒ ↑ ability to develop higher value adding industries to improve terms of trade

Limitations:

- ↑ Income inequality as influx of low-skilled cheap labour depresses wages of domestic low skilled workers while wages of high skilled workers continue to grow due to ↑ global DD ⇒ ↑ Social tensions ⇒ ↓nmSOL + ↑ social and political pressure on govt
- ↑ Immigration ⇒ Drain on government resources and country's infrastructure + {↑ external costs due to ↑ population growth ⇒ Overcrowding ⇒ Social unrest}

- ↑C ⇒ ↑AD ⇒ If ↑AD > ↑AS due to inflow of labour ⇒ Overheating economy ⇒ ↑GPL ⇒ Inflation
    - e.g. Singapore's housing prices before cooling measures

****Reducing power of trade unions (e.g. Tripartite policy)**
How it works:

- Weaken power of trade unions through restrictions on closed-shop policies (i.e. firms can only hire workers from the union and workers must remain in union to remain employed) and industrial strikes
- ↓ power of trade unions to ↑ wages ⇒ ↓ risk of cost-push inflation ⇒ ↑ wage stability ⇒ Wage cost can be monitored and projected more accurately ⇒ ↑ business confidence ⇒ ↑I ⇒ ↑ capital formation ⇒ ↑ productive capacity in the long run ⇒ ↑AS (rightward shift) in long run
- ↓ strikes ⇒ ↓ loss of output due to work stoppages/industrial strikes ⇒ ↑ business confidence ⇒ ↑I ⇒ ↑ capital formation ⇒ ↑ productive capacity in the long run ⇒ ↑AS (rightward shift) in long run
- ↓ closed-shop policies ⇒ ↑ competition in labour market ⇒ ↓ wage demands ⇒ ↓COP ⇒ ↑AS (downward shift)

Examples:

- Singapore tripartite policy ensures harmonious industrial relation between employers (Singapore Employers Federation), workers (NTUC) and government (Ministry of Manpower) who sit on the National Wage Council
    - National Wage Council aims to keep wage increases in line with national productivity growth

Limitations:

- Union's non-compliance to wage guides
- Depends on relationship between government, companies and workers (level of trust)
    - Workers accept wage cuts in times of recession in trust that in times of economic boom, wages will rise to the appropriate level

****Tax reforms**
How it works:

- ↓ income tax ⇒ ↑ disposable income per hour of working ⇒ ↑ opportunity cost in consuming an extra hour of leisure ⇒ ↑ incentive to work harder ⇒ ↑ productivity of

work force ⇒ ↑ productive capacity ⇒ ↑AS (rightward shift)
    - Assuming substitution effect outweighs income effect
- ↓ income tax ⇒ ↑ attractiveness to foreign talent + ↓ brain drain ⇒ ↑ labour pool of high skilled workers ⇒ ↑ productive capacity ⇒ ↑AS (rightward shift)
- ↓ income tax ⇒ ↑ disposable income ⇒ ↑ savings, c.p. ⇒ ↑SS_{LF} ⇒ ↓i/r by loanable funds theory ⇒ ↑I via MEI theory ⇒ ↑ capital formation ⇒ ↑AS (rightward shift)
- **↓ corporate tax ⇒ ↑ after tax profits ⇒ ↑ no. of profitable investment opportunities ⇒ ↑I ⇒ ↑ capital formation ⇒ ↑ productive capacity ⇒ ↑AS (rightward shift)

Examples:

- Singapore cut corporate taxes from 18% to 17% in 2010 in response to the global financial crisis

Limitations:

- Other factors affect investments (e.g. political stability, conducive business environment) ⇒ ↓ Effectiveness of ↓ tax rate on ↑FDI

Reduce employer CPF contribution rates
How it works:

- ↓COP ⇒ ↑AS (downward shift) ⇒ ↓GPL + ↑ real NY
- ↓ cost of labour ⇒ More attractive to businesses ⇒ ↑I ⇒ ↑AD ⇒ m.t.p. ↑ real NY

Cuts in social and welfare programme
How it works:

- ↓ unemployment benefits ⇒ ↑ hardships of unemployment ⇒ ↑ incentive to look for work ⇒ ↑ effective labour force ⇒ ↑ productive capacity ⇒ ↑AS (rightward shift)

Limitations:

- Social welfare spending is important for helping the disadvantaged and to build social cohesion
- ↓ Equity ⇒ Conflicts with microeconomic aims

Others

Diversify economy
How it works:

- Examples
    - Industrialisation strategies by attracting MNCs to conduct FDI into the country to build factories in the country
        - Shift from agricultural industries to manufacturing industries
    - Move towards higher value added industries
        - Improve education and training policies to ↑ quality of labour
        - Attract MNCs with the technology and expertise in the industries that the country hopes to grow
        - e.g. Biotech industry by investing in infrastructure to reduce startup costs for foreign firms that want to set up branches in Singapore such as the building of biopolis and fusionopolis
    - Move towards/away from export driven economy
- Move away from industries that country has lost CA in, move towards industries that country wants to develop CA
    - Based on Theory of CA, should specialise and trade in industries which they have CA in
    - Improve terms of trade by moving towards higher value added industries
- Less vulnerable to external shocks if economy is more diverse

Limitations:

- Takes time to develop CA in another industry ⇒ In the SR, may result in structural unemployment at the start when country chooses to move away from existing industries
- Imperfect info about whether country can really develop CA in that industry

Sign more FTAs
How it works:

- Lower/Remove barriers to movement of G&S (e.g. Remove tariffs) ⇒ ↓COP for domestic producers when exporting goods
- (Draw tariff diagram) ↓ Price of exports in foreign market from $P_{world+tariff}$ to P_{world} ⇒ ↑ price competitiveness of exports compared to their domestic goods ⇒ ↑Qd by foreign consumers + ↓Qs by foreign producers ⇒ Domestic firms replace loss in production by selling more exports ⇒ ↑Qx ⇒ ↑X ⇒ ↑(X-M) ⇒ ↑AD ⇒ m.t.p. ↑ real NY
- Increase foreign competition for domestic firms ⇒ Reduce complacency ⇒ Reduce X-inefficiency ⇒ ↓COP ⇒ ↑AS (downward shift) ⇒ ↓GPL + ↑ real NY

Limitations:

- Trade diversion - Shift in trade from a lower cost non-member country to a higher-cost member country ⇒ Move away from Theory of CA ⇒ ↓ world output
- ↑(X-M) may lead to DD-pull inflation if productive capacity does not increase fast

enough

Limitations of Market-Oriented Policies

- In times of economic recession, deregulation unlikely to lead to new firms entering the market due to pessimism in the economy
- Cutting taxes unlikely to cause increased production by firms and workers due to spare capacity in the economy
- Extent of AG due to ↓COP is limited and not enough to address the weak EG in times of recession

Interventionist Policies

****Education and Worker Retraining Policies (↑Quality of labour)**
Source of Market Failure:

- +ve externalities in consumptions
    - Consumer = employee → 3rd party: Future employer
    - Consumer = employer → 3rd party: Other firms that hire the worker
- Imperfect info
    - Employees unaware of ↑ in wages as a result of training
    - Employers unaware of ↑ in productivity of workers as a result of training
- Ineffective DD

How it works:

- Government increases subsidies on skills upgrading and retraining programmes for workers + reimbursements to the firm for the lost output ⇒ ↓ financial burden on workers and firms for training programmes ⇒ ↑ incentive for workers to attend training programmes
- Government subsidises basic and tertiary education ⇒ ↓ financial burden on people to attend basic and tertiary education ⇒ ↑ number of people who attend basic and tertiary education ⇒ ↑ education level of country
- ↑ skills of workers ⇒ ↑ labour productivity ⇒ ↑ productive capacity + ↓ unit cost of labour assuming labour productivity growth outpaces wage growth ⇒ ↑AS (outward shift)
- ↓ unit cost of labour + well educated workforce ⇒ More conducive business environment ⇒ ↑FDI ⇒ ↑ Funds for I
- ↑ training opportunities ⇒ Gain new skills ⇒ ↑ occupational mobility ⇒ ↓ structural unemployment ⇒ ↓ potential output loss

Examples:

- Continuing Education and Training 2020 Masterplan
    - Outlines broad strategies for keeping our labour force competitive developed by Singapore Workforce Development Agency
- Skills Development Fund
    - Offers employers subsidies of up to 90% of training costs to encourage them to send their workers for upgrading courses
- SkillsFuture Programme
    - All Singaporeans aged 25 and above will be given $500 worth of credits to be spent on registered training and upgrading courses

Limitations:

- Requires financing ⇒ Opportunity costs
    - May increase DD-pull inflation in SR
- Takes a long period of time especially for education policies
- May not guarantee improved labour productivity
- Enrolment by workers into such courses may be low due to poor employer support
- Success depends on receptiveness of workers since learning curve for each worker is different (e.g. older workers)

****Incomes Policies**
How it works:

- Wage guideposts
    - Regulate increments in wage rates (i.e. rise in wages should be in accordance with the rate of increase in labour productivity for the nation as a whole and vice versa)
    - Ensures that ↑ unit labour cost is not higher than ↑ labour productivity ⇒ ↓ unit labour cost ⇒ ↓ unit COP, c.p. ⇒ ↑AS (downward shift)
- Wage freezes/wage cuts
    - Lower wages in extreme conditions (e.g. economic recession) ⇒ ↓COP ⇒ ↑AS (downward shift)
    - Variable wage components (e.g. 13th month bonus) ⇒ Flexibility of wages (wages traditionally downwards sticky as workers do not want to accept lower wages) ⇒ Firms able to reduce wages in times of economic downturn
    - Encourage businesses to retain workers ⇒ ↓ wages instead of laying off workers ⇒ ↓ unemployment ⇒ ↓ loss of output
- Wage subsidies
    - Government subsidises part of the income of workers ⇒ Defray labour costs + encourage businesses to retain workers ⇒ ↓COP + ↓ loss of output due to

unemployment ⇒ ↑AS (downward shift)

Examples:

- Jobs Credit Scheme during 2008-2009 Global Financial Crisis
    - Businesses received a cash grant based on their employees CPF contributions of up to $300 per employee
- 2 year wage freeze for civil servants and reduction in employers' CPF contribution rate during 1985-1986 recession (Black Monday)
- Workfare Income Supplement Scheme provides supplement income for low income workers

Limitations:

- Wage guides are voluntary and may face non-compliance esp with aggressive trade union leaders who demand higher labour wages and profit-maximising firms who depress the wages of workers
- Success depends on clear communication and cooperation between government, employers and trade unions (healthy tripartite relationship)
    - Workers accept wage cuts in times of recession in trust that in times of economic boom, wages will rise to the appropriate level
- Wage cuts politically unpopular + ↓mSOL of workers
    - However, in times of recession, it is usually a choice between all workers accepting wage cuts or some workers getting fired
- Wage subsidies need to be financed ⇒ Opportunity costs
- Wage subsidies delay the process of weeding out inefficient firms through competition ⇒ Unable to reallocate resources to more efficient firms

Nationalisation = Government taking over strategic industries into public ownership
How it works:

- ↑ prudence compared to poorly performing company + ↑ coordination within the industry + ↑iEOS ⇒ ↓COP + ↑ profits ⇒ ↑ ability to engage in I ⇒ ↑ capital formation ⇒ ↑ productive capacity ⇒ ↑AS (outward shift)
- Especially for key industries that produce necessities and industries where there are significant iEOS to be reaped

Examples:

- PUB → Requires various levels of coordination in collection, production, distribution and reclamation of water
- PSA → Significant iEOS to be reaped

Limitations:

- Lack of private profits ⇒ ↓ incentive to be X-efficient or innovative
- Depends on adequacy of civil service
- Needs to be financed

****Government grants for R&D (↑Quality of capital goods)**
Source of Market Failure:

- +ve externalities in production
    - Social return on investment higher than private return
    - 3rd party: All firms who eventually use published research findings
- Imperfect info
    - Firms unaware of benefits of R&D
- Ineffective DD
    - Firms lack funds to conduct R&D

How it works:

- Subsidies/Tax rebates for firms that engage in R&D ⇒ Encourage firms to engage in R&D ⇒ Technological breakthroughs to improve methods of production + Increase quality of capital goods ⇒ ↑ output for same amount of factors of production ⇒ ↑ productive capacity + ↓ unit cost of production, c.p. ⇒ ↑AS (outward shift)
- ↑ Quality of products ⇒ ↑DD of the good ⇒ ↑ export competitiveness ⇒ ↑X ⇒ ↑AD ⇒ m.t.p. ↑ real NY

Examples:

- Research Innovation Enterprise 2020 plan
    - $19 billion commited to support R&D efforts for the next 5 years
    - Sustain R&D spending at 1% of GDP
    - Focus on urban solutions & sustainability and health & biomedical sciences

Limitations:

- Risks of investment in R&D as results of R&D not guaranteed ⇒ Waste of taxpayers money
- Long gestation period for R&D to yield tangible and impactful results
- Needs to be financed ⇒ Incurs opportunity costs

****Government grants for purchase of new technology/capital goods (↑Quantity of capital goods)**
Sources of market failure:

- Imperfect info
  - Firms unaware of benefits of new technology and capital goods
- Ineffective DD
  - Firms lack funds to purchase machinery

How it works:

- Subsidies/Tax rebates for firms that purchase new technology/capital goods ⇒ Encourage firms to ↑I in labour saving machinery and technology ⇒ {↓ need for labour ⇒ ↓ unit COP due to ↓ wages} + ↑ productive capacity ⇒ ↑AS (outward shift)

Examples:

- Productivity and Innovation Credit scheme
  - Provides tax deductions/cash payouts for firms to invest in automation and productivity improvements

Limitations:

- Takes time to implement as labour must be trained to operate the machineries
- Not all industries may be able to tap on labour saving machinery and technology
- Delays the process of weeding out inefficient firms through competition ⇒ Unable to reallocate resources to more efficient firms
- ↑ adoption of labour saving technology ⇒ ↓ no. of jobs ⇒ ↑ unemployment
- Needs to be financed ⇒ Incurs opportunity costs

Improving Infrastructure in the Country
How it works:

- ↑ Infrastructure ⇒ ↑ Productive capacity ⇒ ↑AS
- ↑ Infrastructure ⇒ ↑ conduciveness for business ⇒ Attract FDI and domestic investment ⇒ ↑I ⇒ ↑ Productive capacity ⇒ ↑AS

Limitations:

- Time lag as time is required to build infrastructure
- Needs to be financed

Effects of Supply-Side Policies

Economic Growth

- ↑ productive capacity ⇒ ↑AS (rightward shift) ⇒ Sustained economic growth assuming healthy AD
- In the long run, supply-side policies are essential in ensuring sustained economic growth

Inflation

- ↓COP ⇒ ↑AS (downward shift) ⇒ Combat inflation specifically cost-push
- ↑ productive capacity ⇒ Allows for economic growth while maintaining low inflation

Unemployment

- Education and retraining policies ⇒ ↓ Structural unemployment
- Work fairs + Cutting of unemployment benefits ⇒ ↓ Frictional unemployment

BOP

- ↓COP + ↑ product quality (due to ↑ technology) ⇒ ↑ competitive advantage of G&S ⇒ ↑DD for exports ⇒ ↑X ⇒ ↑(X-M), c.p. ⇒ Improvement in BOT ⇒ Improvement in current account ⇒ Improvement in BOP position
- ↑ conducive business environment ⇒ ↑FDI ⇒ Improvement in capital account ⇒ Improvement in BOP position

Limitations

1. Imperfect info
2. Long gestation period
    - However, these policies are generally not meant to be implemented only when there is economic crisis but have to be put in place as part of Singapore's commitment to remain globally competitive
    - Needs to be undertaken together with other expansionary demand policies in times of recession
3. Needs to be financed