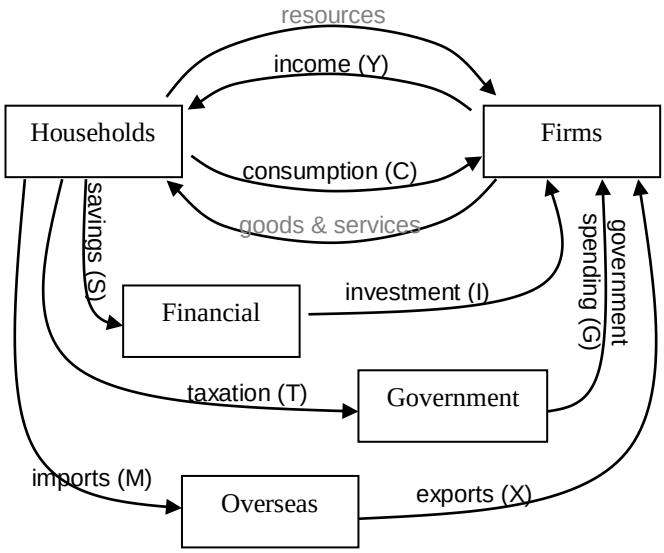
Section 3: Macroeconomics

3.1 Measuring national income

- **circular flow of income:** to give structure to the national economy by classifying the economy into sectors



- **methods of measurement:** to total the value of production of the *firms* sector

  income:

  The values of all four *payments for factors of production – rent*/land, *wages*/labour, *interest*/capital, *profit*/entrepreneurship – that contribute to the production of each and every good and service are totalled.

  ***GDP* at *factor cost* = rent + wages + interest + profit**
  $= R + W + I + \pi$

  [This results in a figure for the total income derived from each product, and therefore its value. When summed, this calculates the value of all production in the firms sector.]

  expenditure:

  The total *spending* on final goods and services (finished products) is totalled according to who these products are purchased by:

households:	*consumption*
firms –the producing firm:	*investment*
-other firms:	*investment* (in stocks)
government:	*government spending*
overseas customers:	*exports*

  However, national income only counts the value of domestic products → spending on *imports* must be subtracted.

  ***GDP* at *market prices* = consumption + investment + government spending + exports – imports**
  $= C + I + G + (X - M)$

  output:

  The sum of production of all firms is calculated by totalling the *value added* by each firm to each product.

  The value added is equal to the *sales* of each firm in the "production chain" minus the *value of intermediate goods* (to avoid the "double counting" intermediate firms' production).

  The *change in stocks* of the firm must also be taken into account.

  ***GDP* at *market prices* = *value added* by all firms**
  = (*sales* – *value of intermediate goods* + Δ *stocks*) of all firms

- **distinction between:**
  gross & net: Gross National Product (GNP) vs Net National Product (NNP)
  During the process of producing goods and services, capital resources *depreciate*. This loss of resource value represents a loss of income – *depreciation*.
  "Net" takes this depreciation into account:
  NNP = national income = GNP (at factor cost) – depreciation of capital

  national & domestic: Gross Domestic Product (GDP) vs Gross National Product (GNP)
  GDP is the value of all goods and services produced *in* an economy, in a given time period.
  Some of the income generated from this production does not belong to the citizens of the country – it is *sent overseas*. Likewise, there is some income that is *earned overseas* that is not included in GDP.
  "National" takes this into account:
  GNP = GDP + overseas property income earned – property income paid overseas
  = GDP + *net overseas property income*

  nominal & real: real GDP/GNP/NNP/National Income vs nominal GDP/GNP/NNP/National Income
  GDP/GNP/NNP/National income measures are recorded in *current year prices and dollars* (nominal).
  Inflation may inflate the prices used in calculations.
  "Real" takes this into account:
  Eliminates effects of inflation by use of *index numbers* to deflate *nominal* figures

  total & *per capita*: GDP/GNP/NNP vs GDP/GNP/NNP per capita
  The size of an economy (and so its national income) can be affected by its *population*.
  Per capita measures allow the national incomes of countries to be compared regardless of population.
  eg **GDP per capita** = $\frac{\text{GDP}}{\text{population}}$

3.2 Introduction to development

- **economic growth:** an increase in the production of goods and services over time
  It is measured by calculating national income (GDP/GNP/NNP).
- **economic development:** the reduction or elimination of poverty, inequality and unemployment within the context of a growing economy
  It should lead to a general improvement in the living standards of the average person.
- **differences between economic growth and economic development:**
  -see Section 1: • choice –diagrams showing economic growth and economic development
  ...
- **GDP vs GNP as measures of growth:**
  GNP measures the amount of income actually belonging to the people of the country, not foreign investors etc. GDP measures the income stemming from production in the country.
  ∴ ...
- **limitations of using GDP as a measure to compare welfare between countries:**
  -income distribution: Income distribution may be *uneven*, that is, the *average income* is not the amount that the majority of people receive. Developing countries often have an elite high-income group along with widespread poverty.
  -different costs of living in different countries: Average income may have differing *purchasing power* ($ value may not accurately reflect amount of products able to be bought).
  -exchange rates (to US$): Conversion to US$ using the *market exchange rate* may not accurately reflect cost differences between the countries – currency may be *overvalued* or *undervalued*.
  -non-market production: *Informal markets* that are ignored in official statistics may exist, thus some production is not counted (eg subsistence farming).

-non-financial factors: Other factors that affect standard of living are not factored in: environmental, security/safety, political freedom etc
-type of production: Production that is focused on *capital goods* (as opposed to *consumer goods*) does not add to welfare – eg spending on military goods.
-work-leisure balance: Leisure adds to welfare but has no $ value (ie no. of hours worked per week).
-collection methods/errors/falsification of data: Poorer countries may have poor data collection. Political interference with data may occur.

- **allowance for differences in purchasing power when comparing welfare between countries:**
Some of the difference in purchasing power between countries may be allowed for through the use of *purchasing power parity* (PPP). The relative cost (usually compared to in the USA) of a standard basket of goods is measured in terms of *points* (USA = 100 points), and this may used to adjust average income or GNI per capita figures.

eg	*GNI per capita*	*Cost of a basket of goods relative to USA*
Country A:	**local A$**4000	80 points
Country B:	**local B$**2000	65 points

In PPP terms, country A has:

$$\text{GNI per capita} = \$4000 \times \frac{100}{80} = \textbf{US\$}5000$$

In PPP terms, country B has:

$$\text{GNI per capita} = \$2000 \times \frac{100}{65} = \textbf{US\$}3077$$

- **alternative methods of measurement:**

sectoral transition:
Economic development should lead to a *decline in agricultural* production and employment, and an *increase in manufacturing*, and then *service industries*. That is, low income countries tend to be dominated by agriculture and developed countries by services.

human development index (HDI):
Composite social indicators such as HDI and Physical Quality of Life index attempt to produce a broader quantitative measure of development. Several *social indicators* (see below) are statistically combined to result in a numerical figure representing the extent of development.
The Physical Quality of Life index combines *life expectancy at birth*, *infant mortality* and *adult literacy*.
HDI combines *GDP per capita* (PPP-adjusted), *life expectancy at birth* and *adult literacy* (aims to measure longevity, knowledge and income). The weighting of the 3 aspects may vary – the index may be adjusted for *gender disparity* and *income distribution*.
This combination results in an *average deprivation index* – a number between 0 (no human progress) and 1 (maximum human progress).

social indicators:
These relate to the 3 "core values" of economic development: *life sustenance*, *self-esteem* and *freedom/ability to choose* – but most prominently *life sustenance*.
Development should result in the improved provision of *basic needs* and the elimination of *absolute poverty*. That is, improved access to *food*, *water*, *shelter*, *health services* etc and possibly *rising incomes*, access to *education*, more *income equality* and *employment opportunities*.

examples:		
	calorie intake / protein intake	(food)
	square metres of floor space	(shelter)
	life expectancy / infant mortality / people per doctor or nurse	(health services)
	literacy / % primary and secondary school attendance	(education)
	income distribution quintile figures	(income equality)

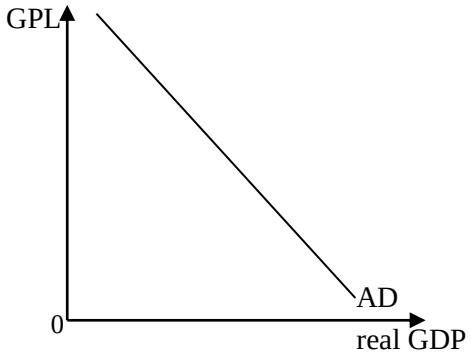
changes in social structures/attitudes/institutions:
Economic development often requires or results in changes in social structures, popular attitudes and national institutions.
social structure: *family* – less focus on family, more focus on individual

tribal loyalties – can result in conflict and civil war which hinder development
popular attitudes: *enterprise* – acceptance of risk-taking / possible business failures
innovation – new methods, as opposed to traditional methods in production
personal advancement – advancement of the individual and their higher income/wealth
discipline – acceptance of discipline of the workplace (punctuality etc)
national institutions: *land ownership* – ownership is an incentive to improve land and crop yields (a portion of the crop is not being given away as rent to a landlord as in *subsistence farming*)
style of government – democratic government
banking structures – acceptance of banking and lending
administration – an honest and transparent public service, no bribery/corruption
education/training programs – acceptance if are against traditional beliefs (eg education of women)

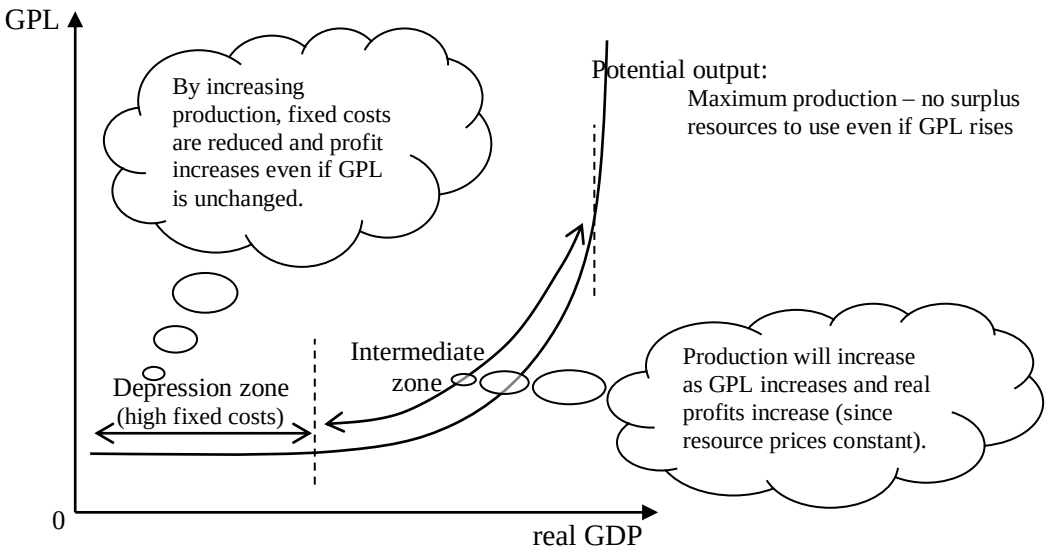
- **problems of measuring development:**
  -statistical/data collection errors
  -broadness of definition of development
  ...

3.3 Macroeconomic models

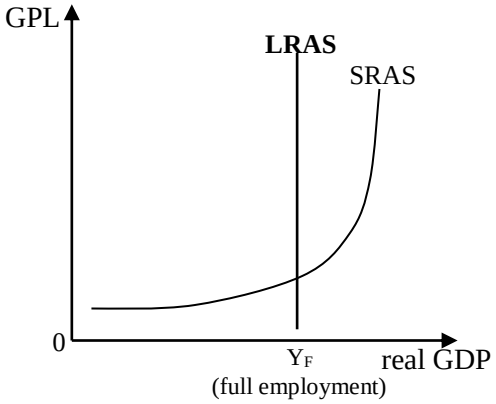
- **aggregate demand – components:** Aggregate demand (AD) is the total amount of goods and services (ie real GDP) that will be purchased at each general price level (GPL).
  AD represents total expenditure:
  = *consumption + investment + government spending + net overseas exports*
  = C + I + G + (X – M)
  The AD curve is "downwards" sloping:
  -As GPL rises, the *real* spending power of a given *nominal* income decreases → AD is reduced
  -If GPL rises, local prices are less competitive and so M↑ and X↓ → AD is reduced
  -As GPL↑, real value of savings↓, so to maintain real wealth people may cut back on spending →AD↓
  -If people borrow to maintain spending, interest rates↑ so C and I fall → AD is reduced



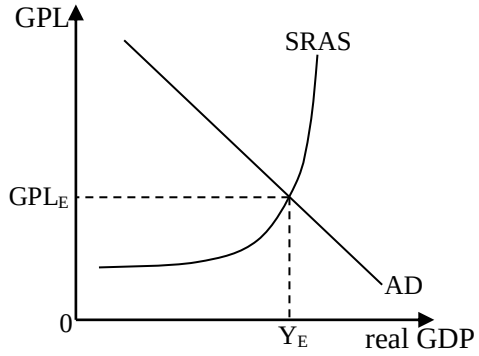
- **aggregate supply:** The total supply by the business/firms sector
  There are 2 time frames that apply to aggregate supply (AS) – short-run and long-run.
  This is due to the "time-lag" between the adjustments of resource markets and those of goods and services markets.
  <u>short-run aggregate supply (SRAS):</u>
  Where goods and services markets have adjusted to equilibrium, but resource markets have not.
  (Many resources are subject to long-term contracts, so prices cannot change until end of contract.)
  ie Resource prices are assumed to be constant in nominal terms.



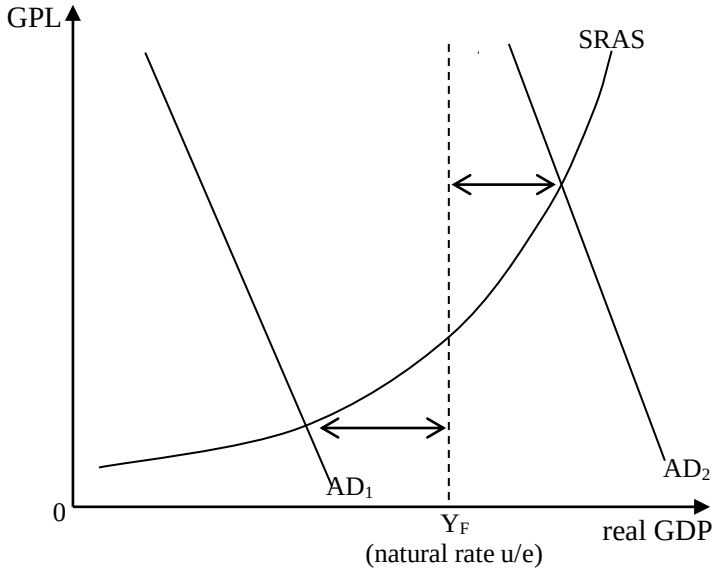
<u>long-run aggregate supply (LRAS):</u>
Both resource markets and goods and services markets are assumed to have attained equilibrium.
∴ LRAS is a vertical line at the "full employment" level of real GDP, as any increase in GPL is matched by an increase in resource prices → *real* profit is constant and so production is unchanged.



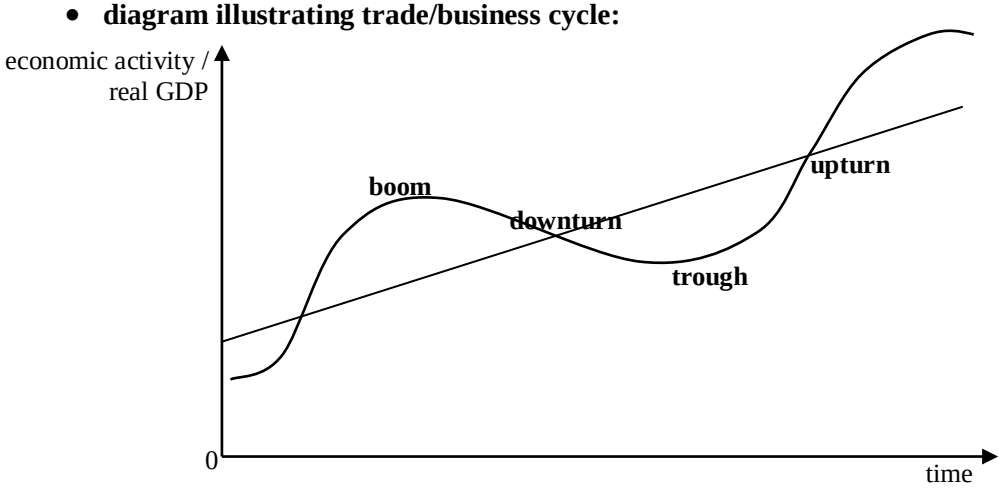
- **full employment level of national income:** where LRAS is along *x*-axis (real GDP) –see above
- **equilibrium level of national income:** (short-run equilibrium?)



- **inflationary gap & deflationary gap:** ???



- **diagram illustrating trade/business cycle:**

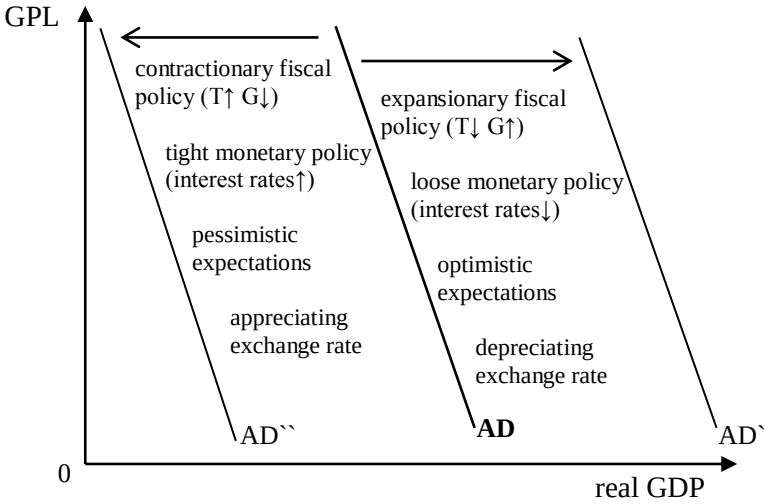


NB:
The length of the cycle is inconsistent.

Business cycle stage	Boom	Downturn	Trough	Upturn
-Consumer confidence -Consumption	very high	decreasing	low	increasing
-Business confidence -Sales & profits -Investment	very high	decreasing	low	increasing
aggregate demand	very high	decreasing	low	increasing
Unemployment	low	increasing	very high	decreasing
Inflation	high	decreasing	low	increasing
Economic growth	strong	slowing	low/negative	increasing
Trade balance	worsens: X↓ M↑	improves: X↑ M↓	strongly positive	worsens: X↓ M↑
tax receipts	very high	less	very low	more
welfare & u/e payments	low	more	high	less
budget position	good/surplus likely	worsens	bad	improved
fiscal policy	contractionary: T↑ G↓	expansionary: T↓ G↑	expansionary: T↓ G↑	contractionary: (T↑) G↓
monetary policy	tight: interest rates↑	loose: interest rates↓	loose: interest rates↓	tight: interest rates↑

3.4 Demand-side and supply-side policies

- **shifts in the aggregate demand curve / demand-side policies:**



AD`: increased AD
AD``: decreased AD

<u>fiscal policy:</u>
Fiscal policy is government budgetary policy:
If tax↓ and government spending↑, AD increases
-increases C (more after-tax income to spend)
-increases I (more incentive to invest)
If tax↑ and government spending↓, AD decreases

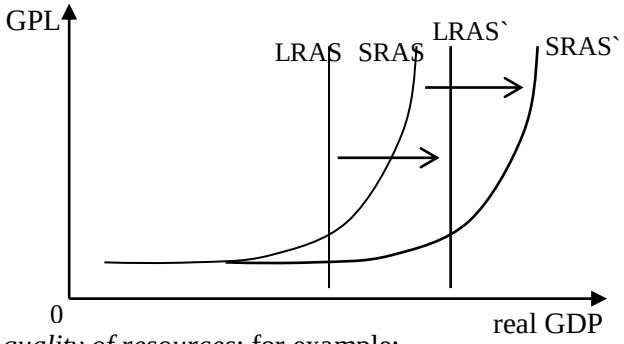
<u>interest rates as a tool of monetary policy:</u>
The changing of the money supply, and so interest rates, affects the level of AD.
[This is often left to the central bank of a country: eg Reserve Bank of Australia, US Federal Reserve.]
If interest rates↓, AD increases
-increases C (more after-interest income to spend, more desire to borrow to spend)
-increases I (less costly to finance projects)
If interest rates↑, AD decreases

<u>consumer expectations:</u>
If expectations improve, AD increases.
-C increases due to better job security (strong economy)
-I increases due to strong current and predicted sales/profits
If expectations worsen, AD decreases.

<u>overseas sector / exchange rates:</u>
Appreciation is when the exchange rate for the local currency increases and *buys more overseas currency*.
Depreciation is when the exchange rate for the local currency decreases and *buys less overseas currency*.
If local currency depreciates, AD increases.
-X increases as price of exports is lower for overseas customers – demand for exports increases
-M decreases as the price of imports is increased – demand for imports decreases

- **shifts in the aggregate supply curve / supply-side policies:**
SRAS (only?) will shift when the costs of *productive inputs* change – eg wages, raw materials, electricity, oil
When production costs increase, SRAS decreases. When production costs decrease, SRAS increases.

Factors which shift the potential output (productivity) will shift LRAS, and so also shift SRAS. These factors are changes in the *quantity and quality of resources*, and *technological improvements*.



Quantity and quality of resources: for example:

Land – clear/reclaim land for use, discover minerals, increase access to fishing/hunting
Labour – employment of women, immigration, more education/training, improved health
Capital – increase in savings→increased used of capital, invention of new capital/R&D
Enterprise – increase number and quality of entrepreneurs

Technological improvements: (in both physical and human capital)

"Microeconomic reform": (the above + policies to increase productivity)

Labour

tax reform – (increase indirect tax and) lower income tax to increase incentive to work and enterprise
welfare reform – tighter rules take away the disincentive to work of generous welfare
industrial relations reform – productivity-based wage negotiations→incentive to be more productive
- less union power as unions raise cost of labour
- less wrongful dismissal laws

Enterprise

tariff reduction – increases import competition, local firms more efficient/productive
privatisation / increased competition – private firms more profit focused, more efficient/productive
less government red tape – will increase business and enterprise activity

key industry reform – lowers the cost of business inputs: financial sector, transport
infrastructure – improvements in infrastructure eliminate bottlenecks and inefficiencies

- **strengths and weaknesses of these policies:**

The strength and validity of these policies can be measure against the *macroeconomic goals of government*: full employment, economic growth, price stability/low inflation, external balance.

Demand-side policies:

Can achieve full employment, economic growth and external balance (increase AD), but at the expense of price stability – increased GPL → inflation.
[Fiscal vs monetary.....]

Supply-side policies:

Can achieve all goals (increase LRAS/SRAS) – in case of employment, the natural rate is decreased and thus more employment.

3.5 Unemployment and inflation

- **full employment and underemployment:**
  full employment: Full employment is not 100% employment. It is the level of unemployment consistent with the rate of natural unemployment (frictional, structural, seasonal, (hardcore) –see below). This does not include cyclical unemployment.
  Underemployment may occur when a full-time job seeker accepts a part-time job – they are now not unemployed, but underemployed. [*Disguised* unemployment is where firms are overstaffed – either in an attempt to produce low unemployment rates (planned economies) or to keep experienced workers. Workers in these situations may have little to do.]
- **unemployment rate:**

$$\text{unemployment rate} = \frac{\text{number of unemployed}}{\text{number in the labour force}} \times 100\%$$

  unemployed: workers who are able and willing to work but who do not have jobs
  labour force: the percentage of the population of working age (over 15) who are willing and able to work (ie the number of employed + number of unemployed = *participation rate*)
  =*population* × *% working age* × *participation rate*
- **costs of unemployment:**
  -loss of *foregone production* in the economy; economy operates inside PPC
  → inefficient, lower living standards
  -government *budget position* worsens: unemployment benefit payments increase, tax receipts decrease
  → other worthwhile government programs cannot be financed

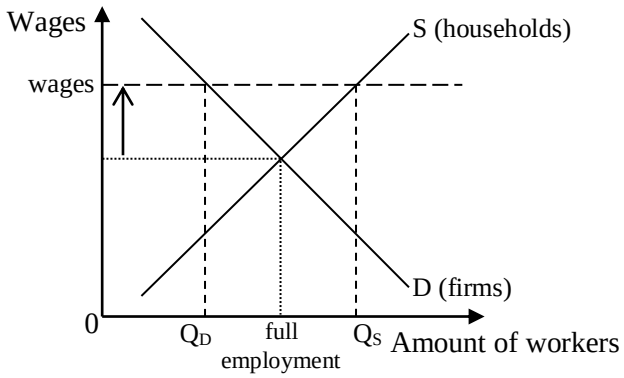
  The unemployed suffer large reductions in income and personal poverty.
  -*social costs* of unemployment:
  private costs (to the unemployed person): poor health, low self-esteem, boredom/isolation, financial hardship, substance abuse
  external costs: family stress, vandalism/petty crime
- **types of unemployment:**
  structural: when the structure of the economy changes
  -significant loss of jobs in certain industries due to fall in demand for a product, or a shift in the geographical location of production
  -includes regional u/e (result of a dominant industry in an area) and technological u/e (human skills replaced by technology)
  -unemployment is reasonably long-term

  frictional: due to workers entering/re-entering workforce or switching between jobs on day data is collected
  -high frictional u/e during a boom (less risk in changing jobs), low in a recession (more risk)
  -unemployment is short-term

  seasonal: in occupations that are seasonal – have a busy working season and an off-season
  eg tourism, fishing, agriculture

  cyclical / demand-deficient: widespread, general u/e associated with the business cycle
  -occurs during recessions, as aggregate demand (C + I + G + X – M) is too low the achieve full employment / the natural rate of u/e
  [diagram – recessionary gap?]

real wage: where the price of labour (real wage) is above the equilibrium price of full employment
-due to legislated minimum wages above the clearing wage (a price floor for labour)
-due to strong union power winning high wage outcomes that flow on to other workers



- **measures to deal with unemployment:**
  structural: quickly retrain the structurally u/e
  frictional: improve the information stream from employers to job-seekers about job opportunities
  seasonal: train workers in skills for employment in the off-season
  cyclical / demand-deficient: government policy, [demand-side / supply-side policies]
  real wage: restrict union power, remove/lower minimum wage

- **definitions of inflation and deflation:**
  inflation: a general sustained increase in prices
  deflation: a general sustained decrease in prices
- **costs of inflation and deflation:**
  -inflation:
  inequity: *savers* & borrowers – savings lose value; assets financed by loans gain value
  exporters & importers – local exporters charge higher prices-X↓; imports are cheaper-M↑
  financial asset holders & real asset holders – financial holders lose; real holders gain
  price makers & *price takers* – price makers-monopoly/oligopoly- can raise prices; takers can't
  fixed income earners & talented / in demand – fixed incomes can't increase, ∴real incomes↓
  trade balance worsens – X↓ M↑ –see above
  distorted investment, speculation – people buy existing assets, less new productive investment
  lower business confidence – unpredictable prices increase risk→less investment, so less employment
  accounting problems – unable to predict future prices of capital equipment, so hard to plan ahead
  industrial unrest – workers want wage increases to maintain real wage
  less saving – disincentive to save → less investment → less productivity
  wastage of resources – administration changes
  -deflation:
  .....

- **causes of inflation:**
  cost push:
  Increases in costs push up prices of finished products.
  Due to costs of: raw materials, wages, utilities (water/electricity/telecommunications), imported product
  May also be due to monopoly/oligopoly firms making profits

  demand pull:
  When extreme demand (C+I+G+X–M) occurs and supply struggles to satisfy it, inflation may occur.
  Widespread shortages cause prices to be bid up →inflation.
  Boom conditions exist, ie full employment.

<u>excess monetary growth:</u>
If the money supply increases (money is printed) without the quantity of goods increasing, inflation results.

equation of exchange: $M \times V = P \times Q$

M: money supply, total $ spent
V: velocity of circulation
P: average price
Q: quantity of goods

V is assumed to be constant in the short-/medium-term.
→ If M rises > Q rises, then P will rise (inflation)

3.6 Distribution of income

- **direct taxation:** tax liability targeted at one person on the basis of income
  eg income tax, company tax
  Incidence (person who pays the tax) is the same as *impact* (person levied tax – physically transfers $)
- **indirect taxation:** a tax imposed on spending
  eg cigarette tax, petrol tax, GST
  Incidence = consumer, *impact* = retailer

- **progressive taxation:** as income increases, the marginal tax rate increases (on the extra income)
  -tax brackets increase with income
  -the proportion of income paid as tax increases with income
  eg

Tax bracket ($)	Marginal tax rate
0-10000	0 cents per dollar
10001-50000	30 cents per dollar
50001+	50 cents per dollar

∴ someone with an income of $80000 would pay:
(50000-10000) × $0.30 + (80000-50000) × $0.50 = $27000 in tax

- **proportional taxation:** (flat tax) the proportion of income paid in tax is the same for everyone
  eg 30% of income paid whether one has income of $30000 or $200000
  -marginal rate of tax = average rate of tax

- **regressive taxation:** the proportion of income paid in tax is less for those with higher incomes, and more for those with lower incomes
  -marginal rate of tax < average rate of tax

- **transfer payments:** welfare payments from the government to the households sector
  When combined with progressive taxation, income is effectively transferred from high income earners to lower income earners.

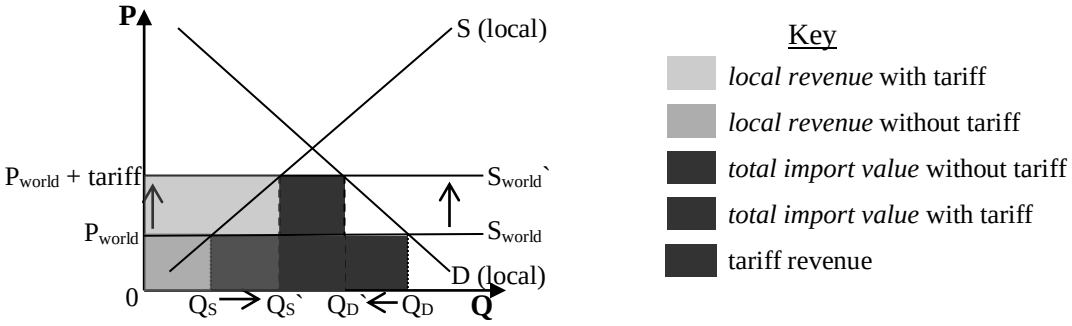
Section 4: International economics

4.1 Reasons for trade

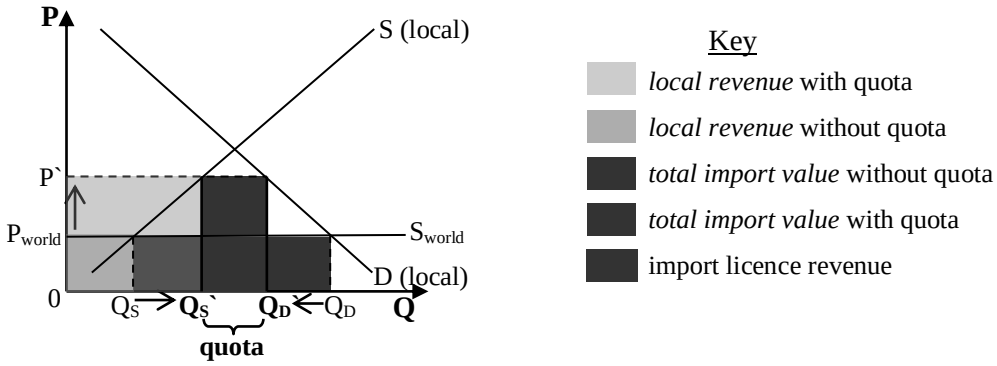
- **differences in factor endowments:** different countries have *different resources* that enable them to produce certain products at *lower cost*
  -eg Scotch whiskey, tourism from Uluru
- **variety and quality of goods:** trade enables a *better match between wants of consumers and the products able to satisfy them*, through greater variety.
  Products may also be of better quality, as countries produce those products in which they already have *expertise* and resources.
- **gains from specialisation:** *quality of products* increases as countries can devote more resources into one area, in which they specialise
- **political:** trading partners often have improved *international relations*, and a reluctance to go to war with each other.
  Trade increases *cultural diversity* and understanding.

4.2 Free trade and protectionism

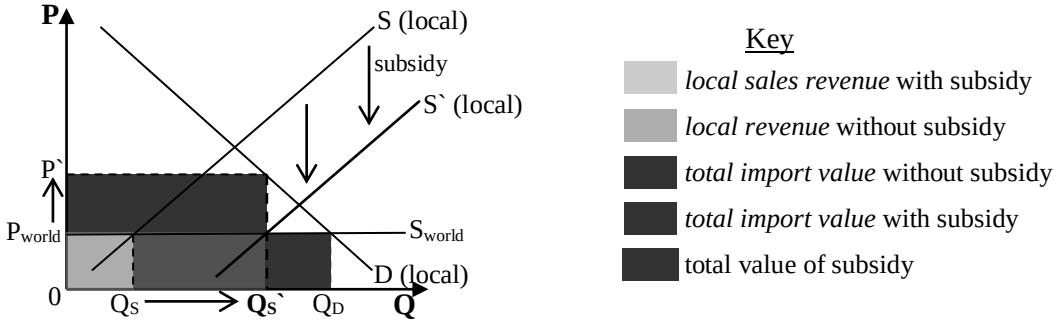
- **definition of free trade:** where there are no government imposed restrictions on trade
- **types of protectionism:**
  tariff: *a tax imposed on imports*
  -increases price of imports making local products comparatively more competitive
  -WTO preferred, as any producer willing to pay the tariff can compete openly →global efficiency



quota: *a number limit on the amount of imports allowed into a country*
-guarantees local producers a proportion of the market
-quota allocated by *import licences*, which are auctioned off to highest overseas bidders
-overseas producers without licence cannot compete at all – *barrier to entry*



subsidy: *a payment made by government to local producers on each unit produced*
-gives local producers advantage over importers by effectively reducing costs of production



voluntary export restraint: *a self-imposed limit on the amount of exports a country exports*
-guarantees local producers market share
-usually applied when exporter faces threats of more formal protection measures
administrative obstacles:
-act as a disincentive for exporters, especially if only low volumes of exports
health and safety standards:
-local producers are unaffected, as all must abide by standards
-exporters may not wish produce an extra line of product to meet standards, especially in low volumes
environmental standards:
-see above

- **arguments for protection:**
  Infant industry: (valid)
  High *initial costs* (factories, training, marketing) may mean that newly established local producers will find it difficult to compete with *established overseas producers*. Thus protection can provide time for local producers to establish.
  Protection should be *short/medium-term*, structured and *phased out* over a given period of time, or else inefficiency may result.

  Efforts of a developing country to diversify:
  Due to *comparative advantage*, excessive *specialisation* may occur in a free trade environment. There is large *risk* – if the major industry in a LDC fails – wider economic problems. Diversification, through protection, reduces risk.
  However, increased protection may *reduce real living standards* – tariffs cause price increases; subsidies mean more taxes.

  Protection of employment:
  Protection *expands local industries*, creating employment.
  But this employment is in *inefficient* industries (thus requiring protection) and *resources* could be better devoted to efficient productive industries → *export potential*, higher incomes. Inefficient industries will eventually disappear and *relocate to countries of comparative advantage*.

  Source of government revenue:
  Tariffs may be a significant source of government revenue for some LDCs. Removal may cause hardship.

  Strategic arguments:
  self-sufficiency (valid)

  Means to overcome a balance of payments disequilibrium:
  Ideally exports and imports into and out of a country should be balanced – *trade balance*. Removal of protection may create a *flood of imports* and a negative trade balance.

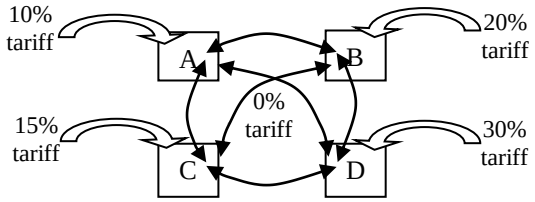
Instead of imposing protection, inefficient import-replacement industries could be closed, and *resources reallocated to competitive export industries*. The rise in exports should compensate for increase in imports.
Balance of payments problems may be solved in other ways – see Section 4.7.

Anti-dumping: (valid)
When a country has an *oversupply* of a product that is unsaleable within the country, it may sell the product overseas at *extremely low prices* (in an attempt to recover some revenue). Local producers cannot compete with these prices, and so will disappear. The local country must now import the product.
Protection should be *short-term* only.

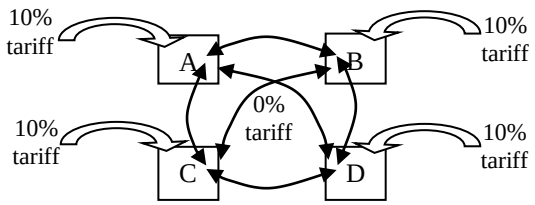
- **arguments against protection:**
  Inefficiency of resource allocation:
  Protected industry will expand, and more resources are allocated to an uncompetitive and inefficient industry. National efficiency is less.
  Costs of long-run reliance on protectionist methods:
  -entrenched inefficiency may occur in the industry...
  Increased prices of goods and services to consumers:
  Tariffs, quotas and subsidies all cause prices to be artificially high above the *world price*.
  (see diagrams above)
  The cost effect of protected imports on export competitiveness:
  .....

4.3 Economic integration

- **globalisation:**
  -trade: integration of *goods and services* markets, WTO
  -foreign investment: integration of *capital* markets
  -free movement of labour integrates *labour* markets
  -international agreements/decisions/relations: United Nations, WTO etc
- **trading blocs:** *groups of countries who agree to liberalise trade amongst themselves*
  free trade areas (FTAs): free trade between FTA members, but members still impose tariffs on non-members wishing to export into their country
  eg Australia-US FTA, North American FTA (US, Canada, Mexico, Chile)



customs unions: an FTA, but with a single uniform tariff for non-member countries wishing to export into union



common markets: all of the above, also with free movement of *labour* (no work permits), *capital* and *enterprise*
eg European common market

4.4 World Trade Organisation (WTO)

- **aims:** to promote global free trade – creates *multilateral trade agreements*, rules which all members must follow
  acts as *forum to hear disputes* between members:
  -certain standards must be met for *membership* (currently 148 members)
  -membership gives *equal access* to all other members' markets
  -all members are treated the same (but LDC given longer timeframes to comply with rules)
  -*total consensus* (from all 148 members) must be achieved for a rule to be instated
  -holds "rounds of talks": eg the Doha Round
  WTO favours *tariffs* (open, visible competition) over other forms of protection
  http://www.wto.org/
- **success and failure viewed from different perspectives:**
  -Low protection achieved on *manufactured goods, banking, telecommunications*...
  -attempts to protect *intellectual property*, prevent piracy
  -Very slow progress on *agriculture, textiles -footwear and clothing* (LDCs have comparative advantage), as high subsidies in EU / USA and high tariffs in developed countries...has caused some conflict

4.5 Balance of payments

-a systematic record in monetary terms of a country's transactions with the rest of the world
-a financial document that categorises and compares money inflows and outflows resulting from international transactions

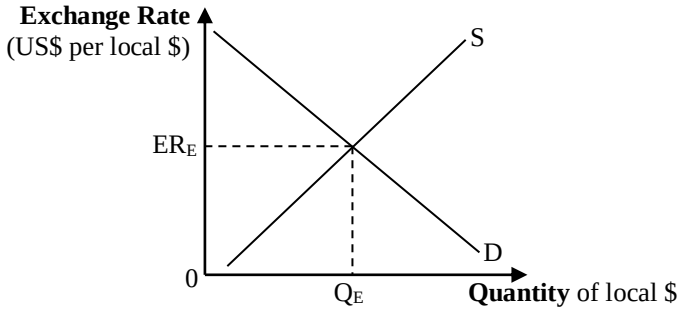
- **current account:** contains regular or recurring transactions whose results are felt during the current period
  -consists of four sections: *net goods* / balance on merchandise trade
  eg exports, imports
  net services
  eg travel, education services, telecommunications services
  net incomes
  eg property incomes: rent, interest payments, dividends, profits from foreign investment
  net current transfers
  eg gifts, (non-capital) foreign aid, pensions/taxes/refunds from overseas
- **balance of trade:** balance of visibles: see *net goods* above, tangible goods only included
  = goods credits (exports) – goods debits (imports)
- **invisible balance:** total on *net services*, *net incomes* and *net current transfers* above
  = service/income/current transfer credits (money inflows) – debits (money outflows)

- **capital account:** records international capital transfers, loans and investments; transactions are large, irregular and have long-lasting effects
  -consists of 2 main sections: *capital* (transfers) *account*
  -net capital transfers = capital transfer credits – debits
  eg money transfer with immigration, some foreign aid
  -net acquisition of non-produced, non-financial capital
  eg intellectual property, patents, trademarks
  financial account
  -net investment = investment credits – debits
  direct investment: results in control of the enterprise by foreign investors
  portfolio investment: purchase of shares/bonds in overseas companies
  other investment: eg offshore borrowing, lending abroad

-*net reserve assets*
eg central bank transactions with foreign currencies/monetary gold
-*net errors and omissions*
On the balance of payments: overall credits = overall debits
(see Section 4.6 –floating exchange rate)
∴ this section reflects inaccuracies in data collected; it "balances" the whole account

4.6 Exchange rates

- **fixed exchange rates:** where the exchange rate (ER) has a constant value in terms of overseas currency
-ER is set by government / central bank and not market forces
- **floating exchange rates:** where the ER is determined by market forces – demand and supply in the *foreign exchange* (forex) *market*



Demand for local currency is comprised of *credits* to the balance of payments (foreigners wanting to pay money into country require the local currency):
-goods & services exports; incomes, current transfers paid into country
-foreign investment, loans into country
-central bank buying local currency
Supply of local currency is comprised of *debits* to the balance of payments (locals wanting to pay money to overseas require foreign currency, and thus sell some of their local currency):
-goods & services imports; incomes, current transfers paid overseas
-foreign investment, loans to overseas countries
-central bank selling local currency

- **managed exchange rates:** .....
- **distinction between:**
depreciation and devaluation: floating ER *depreciates*; fixed ER is *devalued* (decrease in value)
appreciation and revaluation: floating ER *appreciates*; fixed ER is *revalued* (increase in value)

- **effects on exchange rates of:**

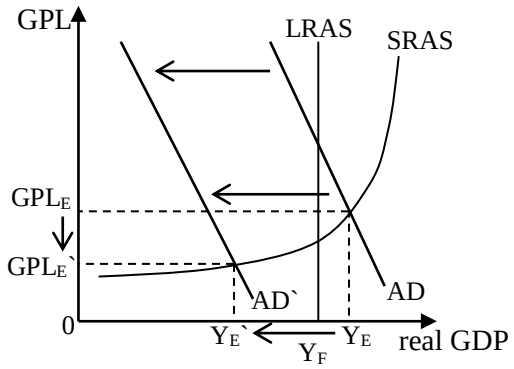
Factor	Effect on demand	Effect on supply	Effect on ER
Trade flow			
-exports increase, imports decrease	increase	decrease	appreciates
-exports decrease, imports increase	decrease	increase	depreciates
Capital flows / interest rate changes			
-FI into country increases, FI overseas decreases	increase	decrease	appreciates
-FI into country decreases, FI overseas increases	decrease	increase	depreciates
-local interest rates rise (loans into ↑, loans out ↓)	increase	decrease	appreciates
-local interest rates fall (loans into ↓, loans out ↑)	decrease	increase	depreciates
Inflation			
-local inflation increases (exports ↓, imports ↑)	decrease	increase	depreciates
-local inflation decreases (exports ↑, imports ↓)	increase	decrease	appreciates
Speculation			
-predict that ER will appreciate	increase		appreciates
-predict that ER will depreciate		increase	depreciates
Use of foreign currency reserves			
-central bank buys local currency	increase		appreciates
-central bank sells local currency		increase	depreciates

4.7 Balance of payment problems

- **consequences of a current account deficit or surplus:**

Deficit:

In the *short-term*, exports have decreased or imports have increased (comparatively)
→(X-M) is more negative → AD is decreased:



Y_E falls to Y_E`: less *growth*, more *unemployment*

GPL_E falls to GPL_E`: less *inflation*

Longer-term: trade deficit causes depreciation of ER
→ AD increases, because exports ↑ (are relatively cheaper), imports ↓ (are relatively more expensive)
→X and M are re-balanced

LDCs: *current account* deficit means *capital and financial account* surplus
→ build up of *foreign debt* due to foreign investment (loans)
[indicated by appreciating ER, as D for currency increases]
→ increase in *interest payments* on loans
[ER depreciates slightly as payments are made and S increases, but overall ER has appreciated]
→ current account deficit worsens...(cycle) → **debt trap**

Surplus:
Short-term: [AD increased – more *growth*, less *unemployment*, more *inflation*]?
Longer-term: [AD decreases as ER appreciates...X and M re-balanced]?

- **methods of correction:**
  Managed changes in exchange rates: (very short term)
  If current account *deficit* (depreciated ER), central bank *buys* local currency → D ↑, ER appreciates
  If current account *surplus* (appreciated ER), central bank *sells* local currency → S ↑, ER depreciates

  Reduction in aggregate demand / expenditure-reducing policies: (short-medium term)
  -contractionary/expansionary fiscal policy (T and G); tight/loose monetary policy (interest rates)
  If current account *deficit*, decrease AD → lowers M → helps rebalance trade balance, reduces deficit
  Also decreases *inflation*, increasing global competitiveness → rebalances trade
  -M may also be reduced by increasing *domestic savings*:
  Eg. superannuation, reducing government deficit (running a budget surplus)
  If current account *surplus*, vice versa.

  Change in supply-side policies to increase competitiveness: (long-term)
  For *deficit* – increases *efficiency*, *international competitiveness*; boosts *exports* and *import replacements*

  Protectionism / expenditure-switching policies: (medium-term, longer may be harmful)
  Increasing level of protection reduces imports, reducing any current account deficit.
  S of currency decreases, and ER appreciates.
  However, may be prevented by WTO or long-term entrenched inefficiency may result.

- **consequences of a capital account deficit or surplus:**
  Surplus may lead to *debt trap*, especially in LDCs
  (see **consequences of a current account deficit or surplus**)
  Surplus corresponds to current account deficit, whilst deficit corresponds to current account surplus.

4.8 Terms of trade

- **definition of terms of trade:** measures average export prices relative to average import prices
  $\text{ToT} = \frac{\text{X price index}}{\text{M price index}} \times 100$ (price index is a measure of average price)
  In the *base year*, X price index = M price index = 100, ∴ ToT index = 100.
- **consequences of a change in the terms of trade for a country's balance of payments and domestic economy:**
  Ceteris paribus, improved/more favourable ToT should increase X revenue, whilst decreasing M spending → balance of trade and current account deficit should improve, ER appreciates.
- **the significance of deteriorating terms of trade for developing countries:**
  LDCs generally have primary industry exports (minerals, food) whose $P\varepsilon_D$ is inelastic.
  ∴ fall in price means large decrease in export revenue.
  → ToT worsens, along with trade balance and current account deficit
  → may fall into debt trap...
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