

TOPIC 1

Evaluate the effectiveness of strategies used by an economy OTHER THAN AUSTRALIA for economic growth and economic development

1. "Open door policy" - 1978 → establishment of Economic Zones (SEZs)
 - Rationale: Attract enterprises through a range of incentives
 - Low tax rates from 24% to 15%
 - Exemption from import duties
 - Cheap labour and less strict government regulations
 - SEZs established on the Southern and Eastern coastal areas, in close proximity to Taiwan and Hong Kong (financial centers, large investors into China) → zones brought increased foreign investment and increase in TNCs operating in China
 - However SEZs worsened inequality and the environment.
 - Gini rose from 0.16 in 1978 to 0.49 in 2008 (severe)
 - Lax environmental regulations also resulted in 11 of the 20 most polluted cities being located in China (2004)
2. FTAs + Fixing exchange rate
 - Focus on RCEP (Biggest FTA in history)
 - The Regional Comprehensive Economic Partnership will create a free trade zone covering about 30% of the world's gross domestic product, trade and population.
 - RCEP – which has been over a decade in the making – will eliminate tariffs on 91% of goods as well as introduce rules on investment and intellectual property to promote free trade.
 - A currency peg is a monetary policy that keeps the value of a currency low compared to other countries.
 - To keep the yuan artificially low and support robust export activity, the People's Bank of China engages in currency purchases. In the 10 years from December 2004 to December 2014, the foreign exchange reserves (minus gold) owned by China's central bank surged from roughly \$600 billion to \$3.8 trillion
 - Currency manipulation has helped China thrive as its economy has repeatedly experienced robust growth rates of more than 10% over the last 20 years.
 - The Chinese yuan has had a currency peg since 1994.
 - The effect of the peg and the low currency is that Chinese exports are cheaper and, therefore, more attractive compared to those of other nations.
 - By exporting more goods, China's economy thrives.
3. covid recovery (infrastructure perhaps)
 - COVID-19 is a major cyclical downturn in the IBC → China responds with a stimulus package

- 1.2 trillion yuan liquidity injection by PBOC (People's bank of China) via OMOs at beginning of pandemic → increase money supply → lower cost of borrowing → increase consumption and investment → AD led growth
- Infrastructure stimulus: (May) China announced 500 billion USD stimulus on public infrastructure investment - 2 nuclear power plants and 46 new cross border E-Commerce zones, spending on social welfare and rural development
 - Improving technical and dynamic efficiency in response to the rise of e-commerce in the global economy
 - Supporting import and export industries, entrepreneurs and start-ups seeking to connect to the global economy
- Providing more loans to small and medium enterprises, agriculture industry + farmers - 500 billion Yuan initially allocated for small business loans shortly after Wuhan lockdown was lifted
 - helping with cash flow implications COVID-19 has had on firms → supporting lower income levels, domestic consumption and growth
- Very effective: considering China was epicentre of the pandemic, helped them recover from major downturn in IBC
 - China didn't enter a technical recession → -7% growth in April 2020 to 3% in July
 - 18.3% in March quarter 2021 - record-breaking

China Joins WTO

Better access to export markets

- China export volumes have increased significantly - from 2002 to 2007, net exports as a share of GDP in China increased from 2.6% to 7.7%
- USD 250 million in 2001 to USD 281.42 billion currently, became the largest exporting nation in 2009
- FDI
 - Late 1990s, FDI had begun stagnating due to restrictions on FDI, government corruption, and inefficient state-owned enterprises, - however WTO accession reduced restrictions on FDI in China, resulting in a new surge in FDI inflows to China. From 2001 to 2002 alone FDI inflows increase 30% (Fung, 2006)
 - Foreign invested firms (FIFs) are some of the largest exporters in China, with their processed exports totaling 45% of Chinese exports. Between 2001 and 2006 FIFs provided an additional 11 million jobs in China (Chen, 2009).
 - estimate an increase in productivity of 2.7% per year over 10 years in the services sectors as reforms take place under WTO accession.
- Predicted this would allow (GDP) per capita to rise to seven thousand dollars by 2015, in fact, they surpassed this estimate reaching it in 2013.
 - 1990 to 2015, the share of the Chinese population living in extreme poverty (defined as living on less than \$1.90 a day) declined from 67% to under 1%

- Help create employment with the Special Economic Zones
- Must abide by the rules for free and fair trade set by WTO
 - Wto disputes/cases - providing illegal state subsidies, discriminating against foreign goods and suppliers, controlling supply chains

Domestic policies to counter effects of globalisation

Microeconomic agricultural reform → decreased taxation increased subsidisation → decreased cost of production, increased profit motive →

- → increased derived demand for labour, lowering rural unemployment → increased rural disposable incomes → increased consumption (High MPC) → increased AD → increased economic growth
- → increased market share for rural agriculture due to lower prices → increased demand →

Microeconomic agricultural reform → increased subsidisation → increased government expenditure → increased aggregate demand → increased eco growth

Rural welfare policies

- → increase in quality and level of education → increased skill levels and bargaining power
 - → decrease in income disparity between rural and urban populations
 - → increased productivity in rural areas → lower cost of production → increase in technical efficiency → increased aggregate supply → increased economic growth
- → Welfare policies for rural areas → increased disposable incomes → increased ability to obtain education and training, higher income levels → elimination of extreme poverty and reduction of poverty levels to negligible amounts (according to the Chinese government)

Domestic welfare policies to compensate for inequality caused by industrialization. Focused on improved economic development during industrialisation

- Agricultural reform, opening of coastal markets to foreign consumers
- Subsidisation of the poor rural areas, promoting rapid GDP growth amongst the millions of impoverished living in rural areas.
 - Unemployment rates: self reported eradication of overall and extreme poverty (lol)
 - Annual per capita disposable incomes for rural households double between 2013 and 2020
 - 94.8% education completion rate in rural areas
 - 2004 reformed agricultural policy from tax to subsidisation, invested in agricultural capital and infrastructure
 - Literacy rates went from 68% to 95% (1985 - 2010) to the 1985 educational reform policy, improving the quality of compulsory education.
 - New Rural Cooperative Medical Scheme (NRCMS)
 - Introduced in 11th 5 year plan

- *'The GDP of impoverished areas has maintained rapid growth. Since 2015, the average annual increment in per capita revenue from the national general public budget has been seven percentage points higher than the national average. A steady increase in incomes has created higher demand for life quality and cultural activities. This has stimulated a surge in consumption in rural areas, and provided support for the domestic economy.'*

Discuss the effect of globalisation on economic growth and economic development for an economy OTHER THAN AUSTRALIA

Discuss the contributions of international organisations and trade agreements to global economic growth and development

Intro

- Increasing role and presence of international organisations, trading blocs and forums as a result of globalisation
- G20 and G7 seek to promote macroeconomic policy coordination
- TWO and Trading Blocs (EU and USMCA) have substantially influenced trade flows
- IMF and World Bank have seemed to promote financial stability and economic development respectively, to continue the process of globalisation

Economic forums: G20/G7

- Economic forums for governments of advanced economies with the aims of coordinating policies and strengthening the international business cycle
- G7: representative of 47% of GWP, particularly focuses on financial management
- Cancelled an estimated \$100 billion in multilateral debt, indirectly promoting efficient operation of financial systems and financial flows → increased integration
- G20: coordinate policy responses (similar to G7) during economic downturns like the GFC
- G20: Accounts for 80% of GWP
- At the Brisbane 2014 Summit, they planned to increase global growth by 2% but growth in 2015-16 was approximately 1%

- Therefore, there is a lack of effectiveness in coordinating a single global policy objective (don't consider regional conditions)
- Conflicting domestic policies are considered to weaken the international business cycle, high levels of foreign debt threaten external stability - and thus stability in an entire region - as indicated by the threatened collapse of the Eurozone due to the debt of economies such as Greece, Spain, Ireland and Italy (PIIGS → Portugal)
- Overall: Aims should facilitate globalisation but regional downturns have diminished effectiveness at strengthening the IBC

IMF

- Help facilitate free flow of capital through maintenance and supervision of the global financial system
- Established in 1945, able to assist with nations experiencing a balance of payments, or currency crisis - the IMF seeks to minimise the risk of financial contagion
- 2008: 70% of advanced economic volatility spread to emerging and developing economies within 3-4 months → integrated global economy
- IMF injected \$250 billion as a means of increasing liquidity and assisting expansionary policy coordination → increased eco growth
- Helped increase recovery speed of many nations
- Continue globalisation through facilitating financial flows. Foreign exchange daily turnover is approximately \$6.6 trillion in 2021 up from \$4 trillion in 2020 and \$1.4 trillion in 2004
- However, more recently they have been criticised due to the poor judgement regarding the European Sovereign Debt Crisis
- Nations must adhere to the conditionality principle (adopt IMF approved policies). Often these are deregulation, privatisation and limited government intervention (could tie in Stigler)
- In recent years they have also included austerity measures such as budget deficits, increasing taxes etc.
- Whilst the aim is to promote growth and facilitate globalisation, in countries poor economic performance (eg. Greece) they dampen economic activity instead as they have to adopt contractionary stance to pay off debt
- Overall: Facilitated an expansion of the financial system and increased capital flows however, in some examples have worsened the performance of individual economies.

WTO

- The World Trade Organisation was established in 1995 - in response to the previous General Agreement on Tariffs and Trade. (GATT)
- Aims: enforce multilateral trade agreements and resolve trade disputes i.e foster globalisation through free trade
- In line with William Baumol 'contestability theory' - markets are able to operate and will operate more efficiently under the mere threat of competition (decrease prices and increase integration → increase output and AS → increase international competitiveness)

- Whilst the Uruguay Round of 1986 was successful as it increased global trade by an estimated 3% per year but more recently the WTO has been less successful in promoting globalisation through trade
- Doha Round of 2001 which seeks to improve the trade prospects of developing economies remains incomplete, illustrating ineffectiveness of WTO
- The costs of remaining protectionist barriers in advanced economies is estimated to \$90 and \$200 billion
- More recently, the WTO has had a greater role in resolving trade disputes between countries such as between Australia and China over anti-dumping measures on Barley and Wine
- Overall: Mixed effectiveness (pos and neg) → whilst they have help resolve trade disputes more could be done in facilitating greater integration particularly of developing economies

Trading Blocs - EU and USMCA

- Greater economic integration between countries leads to greater technological and mobility of labour. However, this strengthen regional business cycles rather than the IBC
- USMCA has been criticised for not facilitating trade creation. USMCA has reduced the ability of nations to achieve comparative advantage globally as they preferentially trade with member nations
- USMCA (replacement of NAFTA in July 2020). The agreements tightens country of origin rules (75% of components must be constructed in one of the three nations to be tariff free
- The EU and USMCA due to their exclusivity have also led to reduced integration of developing economies, dampening the effects of globalisation
- Common agriculture policy: 36% of EU budget in 2019 and 20% of farmers income
- Impact of EU protectionist policies - Panel A Panel B diagram
- Preventing economies from free trade restricts the process of globalisation and reduced the effectiveness of trading blocs as well as leads to misallocation of resources → lower trade revenue for developing economies → lower their ability to partake in global economy facilitate greater integration between members however, don't necessarily achieve global integrate and thus don't increased globalisation

NEED TRADE AGREEMENTS :))

TOPIC 2

Assess the importance of factors that determine the size and composition of Australia’s Balance of Payments (BOGS, NPY , KAFA)

Structure

Structural	Cyclical
<ul style="list-style-type: none">• Narrow Export Base• Capacity constraints	<ul style="list-style-type: none">• Growth rate differentials• Interest rate differentials

<ul style="list-style-type: none"> ● Productivity/International competitiveness ● Savings-investment gap 	<ul style="list-style-type: none"> ● Inflation rate differentials ● Changing foreign liabilities ● Exchange rate ● Terms of trade
--	---

BOGS

Structural

- *Opening: Structural factors such as narrow export base, capacity constraints and domestic productivity influence the size and composition of the BOGS.*
- **Narrow export base (Mining)**
 - Lack of diversification
 - High volatility of industry due to reliance on low value added commodities → increased CAD
 - Specialisation in low value added goods → lower price of exports → fewer credits
 - Exemplified by price of iron ore and exchange rate being the same lmao
 - Low international competitiveness in manufacturing → we import manufactured goods to fund capital intensive industries → decrease BOGS
- **Productivity/international competitiveness**
 - High labour costs → increased costs for exports → lower volume of exports
 - Low productivity → lower technical efficiency → increased costs for exports → lower volume of exports
 - Capacity constraints → decreased productivity due to poor infrastructure → worsened intl. Comp → reduced exports → worsened BOGS

Cyclical

- *Opening: Cyclical factors*
- **Growth rate differentials (RECENT IRON ORE BOOM)**
 - Trading partners experience boom → they have increased disposable income/appreciating currency → increased demand for Australian exports due to their relative affordability → increased exports → improvement of BOGS
- **Exchange rate (DUTCH DISEASE: PMV INDUSTRY)**
- **J-curve**
 - Short-term
 - An appreciation in the exchange rate increases the foreign currency price of our exports which then decreases the international competitiveness of our exports → MB2 where the Australian dollar surpassed the USD at \$1.10 → more expensive exports → more export revenue → CAD improving to - 10 bn from - 20 bn
 - Long-term

- Export volumes adjust → more expensive exports + increased purchasing power → greater imports + fewer exports → BOGS deterioration → BOGS Deficit -13bn
 - Dutch Disease: AUD rose to \$1.10USD → closure of PMV industry 3 years later
- **Terms of trade**
 - Terms of trade reflects the relationship between export prices and import prices as an index
 - An improvement in Terms of Trade means that the same volume of exports can purchase a greater volume of imports → 2019-2020 when the Terms of Trade improved from 96.6 to 103 as a result of China's increased spending on infrastructure which required iron and hence, increased the demand for Australia's iron ore exports

KAFA/NPY

Structural

- **Savings-investment gap**
 - Australia historically maintains low levels of national savings and at the same time requires high levels of capital investment in order to stimulate economic growth
 - MB2 when the NPY deficit was at a peak of _ due to the increase in foreign investment of which increased by \$29bn
 - Australia is also an open economy where firms are open to seeking foreign sources of finance to fund investments
 - Australia's investment which is a component of aggregate demand and economic growth is reliant on international borrowing which has adverse effects on foreign debt and equity
 - Foreign debt reached 52.3% of GDP from 50.2% of GDP.
 - Increases in foreign debt and foreign equity can have adverse effects on Australia's financial flows as high foreign debt and equity incur future servicing obligations in the form of interest repayments and dividends. These servicing costs are recorded as outflows in the NPY account.
 - Contributes to CAD *insert stat*

Cyclical

- **Interest Rate differentials**
 - COVID: Lower global interest rates → counteract downturn due to COVID-19
 - This decrease in overseas interest rates will decrease debt repayment outflows on the NPY, improving the account → 45% of Australian debt is owed to US and UK (who has 0.1% cash rate)
 - Increase in current account surplus
- **Exchange rates (appreciation, depreciation or volatility)**
 - Valuation effect (depreciation) → value of servicing costs decreases → less debits in the NPY

- Volatile exchange rates → lower Investor confidence → increased short term portfolio investment, decreased long-term direct investment → decreased NPY outflows due to fewer servicing costs
- Volatile exchange rates → demand higher return on investment (risk premiums) → increased debits in the NPY (servicing costs)
- **Domestic eco growth**
 - High domestic economic growth within Australia will boost international investor confidence which will result in greater foreign investment in the forms of direct and portfolio investment as seen in the 2011 Mining Boom when demand for commodities was high → high aggregate demand AND economic growth was at 4.2% of GDP and greater investment as seen by the increase in financial account inflows from \$35bn to \$64bn.
 - However, greater foreign investment in conjunction with high domestic economic growth incur greater servicing costs such as more dividends paid out overseas.
 - In 2011 when Australian interest rates were higher than global interest rates by 0.5% → increase in savings with Australian banks which incur higher interest payments which are debits in the NPY → *insert NPY stat*

Describe the factors that cause an appreciation of the Australian dollar, and analyse the impacts of a sustained appreciation on internal stability

USE TOT AS AN INDICATOR FOR DEMAND FOR EXPORTS!!!!

MB2 (0.74 → 1.10)

- **Causes**
 - Growth differential (China growth → exports are a derived demand)
 - China: 9.3% to 10.6% (2009-11)

- Aus: 2.1% to 3.4% (2010-11)
 - ToT: 77 to 106 (2010-11)
- Positive interest rate differentials
 - The level of foreign investment in Australia increased by \$59.3 billion to reach \$2,030.0 billion at 31 December 2011.
 - United States of America (\$555.9 billion or 27%) (cash rate fell from 2% to 1.1% in 2010-11)
- **Effects**
 - Unemployment (Dutch Disease)
 - Appreciation of AUD due to booming industries → industries that are uncompetitive further lose demand for their exports due to appreciating currency increasing relative cost for foreign consumers → these industries fail
 - E.g. PMV industry (50,000 unemployed)
 - Lower imported inflation
 - Increased value of currency → decreased relative cost of imports → decreased cost of imported factors of production
 - → increased productivity → increased international competitiveness → increased demand for exports → increased AD → increased economic growth
 - 2.3% 2010 econ growth to 5.1% 2011
 - → decreased prices → increased consumption → increased derived demand for labour → decreased U/E
 - 5.8% U/E in 2010 to 4.9% in 2011
 - Worsened BOGS in LT → lower growth
 - J-curve immediate short term decrease in price of imports and increase in exports → improvement of Bogs → volume of imports increases, volume of exports decreases → Bogs worsens → CAD increases
 - Marshall Lerner Condition
 - \$15 billion CAD
 - \$5 billion BOGS deficit

COVID (0.58 → 0.74)

- Causes
 - Positive growth differential
 - China recovered faster → increased export demand
 - ToT fell from 101 to 95
- Effects of sustained appreciation

- Greater purchasing power → Increased expenditure on imports → increased CAD
 - Imports is a leakage → lower EG
 - -7% 2020 to 0.7% Q1 2021 (inhibited further recovery)
- Investment becomes relatively more expensive → less investment → lower eg also lower NPY debits in the form of servicing costs
 - -6 billion to 9 billion in terms of FDI
- Valuation effect: Greater purchasing power → lower relative cost of debt repayments → lower debt
 - Commonly negated by hedging, 95% of Australian debt is denoted in AUD.
 - 51% NFL 2020 to 43% in 2021
- Increased expenditure due to greater purchasing power → increased demand-pull inflation → worsened price stability → worsened internal stability
 - TOT deteriorated

Evaluate the impact of domestic and global protectionist policies on the Australian economy

Evaluate the impact of domestic movements towards free trade on the Australian economy

Assess the extent to which the move towards free trade restricts the Australian Government's ability to achieve its economic objectives of full employment, distribution of income and external stability.

Discuss the factors that influence the value, direction and composition of Australia's trade and financial flows

TOPIC 3

Analyse the changing sources of economic growth and **their effects** on the Australian economy. Evaluate the policies available to the government to control economic growth.

Structure

3 EVENTS

2 AD + 1 AS

- MB2 + COVID + Fair Work Act

EFFECTS OF ECONOMIC GROWTH (ST)

- Improvement in unemployment and economic development
- Rising inflation and worsening inequality
- Worsening environmental sustainability

LONG TERM EFFECTS OF ECONOMIC GROWTH

- Achieve price stability, equality and employment

MB2

- INITIAL CHANGE IN ECONOMIC GROWTH: 2.1% in 2009-10 to 3.4% in 2011-12
- **General structure:**
 - Describe MB2 in one sentence (foreign investment, increasing aggregate demand)
 - 1-2 Sentences addressing effect of this economic growth on the economy:
 - Inflation: 1.77% in 2009 to 3.4% in 2011
 - Unemployment rate: 5.56% in 2009 → 5.2% in 2011
 - Inequality (GINI): 0.328 in 2009 to 0.32 in 2011
 - Introduce government goal (control economic growth within stable levels) (sustainable economic growth is 3-4%, Mortimer report [1997])
 - **Goals achieved by:**
 - **Contractionary fiscal**
 - Reduced government spending on welfare due to rising disposable incomes and lowered unemployment (automatic stabilisers) → reduced aggregate demand → reduced economic growth to within target range
 - Increased taxation on mining sector through RSPT (40% tax on mining profits above 75mil) → decreased company profitability → decreased incentive for foreign investment, decreased disposable incomes [AIMED AT IMPROVING ENVIRO. SUS] → decreased AD → reduced economic growth → brings within target range
 - **Contractionary monetary policy (Cash rate)**
 - RBA target economic growth range is 2-3% → RBA increased cash rate from _ to _ → increased incentive to save, discouraged investment → more leakages in economy, less AD → slowed economic growth
 - **Judgement on effectiveness:** highly effective as economic growth was brought back to target range without compromising inflation or employment to a major degree

COVID

- **General Structure**
 - Describe Covid recession (decreased AD, increased u/e, decreased inflation)
 - Inflation (-0.3% July 2020) [LOWEST IN THE 21ST CENTURY]
 - Unemployment [7.4% PEAK IN DECADE]

- External stability (NFD/CAD % GDP) [NFD: 30% → 40.9% from 2021-25]
- Describe goal of government policies to counter negative economic growth
- **Monetary Policy**
 - RBA cut cash rate to _ → transmission mechanism → decreased interest rates → decreased incentive for saving + increased consumption → increased aggregate demand
 - However cost of borrowing/increased consumption → demand pull inflation
 - Quantitative easing
- **Jobkeeper/Jobseeker**
 - Total injection \$291 billion
 - Disposable incomes
 - Low income affected first → simple multiplier effect
 - Unemployment rates (5.3 million jobs assisted) (reduction in unemployment of 8%)
 - Payments made to those unemployed stopped them from actively seeking → increasing the hidden unemployment rate → unemployment rate however fell and would have reached estimates of around 13.3% without government payments
 - 7% decrease in GDP
 - Unemployment rate increased to 7.4% in June 2020
 - Underemployment rate was 11.5% as due to the decreased consumption and labour is a derived demand
- **Judgement on effectiveness:** high effective as economic growth grew from -7% in June quarter 2020, to 1.8% growth in March quarter 2021, simultaneously increasing with employment and inflation to its stable rate of 2-3%.

Trade Liberalisation

- First sentence: Australia highly regulated, thus extremely low intl. Comp and low export volumes, leading to reduced economic growth.
- **Effects of this reduced growth:**
 - Violation of David Ricardo 1817 'Theory of Comparative Advantage'
 - Low potential for future economic growth
 - Long term falling employment
 - Extremely high inflation, 15% peak in 1974
- *Describe goals of government policy (reduce aforementioned negative effects, long-term economic growth)*
- **Policies used to control economic growth**
 - 1972 - Whitlam's 25% cuts across the board (unilateral cut)
 - Increased allocative efficiency + comparative advantage
 - Since 1980/90s reforms, average economic growth rates have increased (29 years of consecutive growth up to 2020)

- 1988 - 1992: first tariff reduction was in 1988-1992 where all tariffs except the Passenger Motor Vehicle (PMV) and Textiles, Clothing and Footwear (TCF) industry over 15% were reduced to 15% and tariffs between 10-15% were reduced to 10%.
- 1992 - 1996: The second unilateral tariff reduction occurred in 1992-1996 and mandated the reduction of all tariffs except PMV and TCF to 5%
- Productivity Commission's estimate that an increase in global tariffs by 15% would decrease Australia's GDP by 1%, resulting in 100,000 lost jobs and reduced median household incomes by \$1500 per annum.
- Conversely, it estimated that abolishing tariffs on manufactured goods would decrease
- Increased industry share of output of mining from 5.1% to 10.9% in 2019. Internationally competitive sectors were able to offer more job opportunities increasing allocative efficiency as workers from declining industries are able to reskill and work in efficient industries.
- Input costs for services by \$4.7b and mining by \$217m.
- **Judgement:** Overall, achieved high growth and expansion of export base → effective

Analyse the causes of unemployment and discuss the social and economic effects created by unemployment. Evaluate the policies available to control the level of unemployment in the Australian economy.

Intro

Structural (PMV and Automatic Stabilisers)

- Cause: Removal of PMV subsidies
 - Hysteresis
- Effect:
 - Increased unemployment
 - → decreased levels of household disposable income → decreased consumption → decreased aggregate demand → decreased economic growth
 - → hysteresis occurs → decreased overall skill level of populace → decreased productivity → decreased aggregate supply → decreased economic growth
 - → decreased levels of household disposable income → decreased quality of life due to inability to finance wants and needs →
 - → increased poverty levels → increased crime rates → increased levels of mental health issues
 - → Fostering of non-materialistic values

- Increased unemployment → lower Y → decreased consumption and investment →> decreased aggregate demand → decreased demand-pull inflation
- Increased unemployment → lower cost of production for businesses → lower cost-push inflation
- DOI → people of lower SES and wages have lower bargaining power → these people have accumulated less skills and are less capable of affording retraining and are more likely to be made redundant
- Policy: Increased unemployment and decreased household income levels → lower taxation from marginal tax rates and increased welfare spending → increased aggregate demand → increased consumption → increased derived demand for labour → increased employment
 - Budget deficit increased from -1.2% of GDP to -3% of GDP.

Cyclical (COVID-19 and Jobkeeper)

- Cause: COVID-19
- Effect:
 - Decreased consumption → Lowered aggregate demand → Reduced firm income → lower labour capacity and demand → increased unemployment
 - In addition as labour is a derived demand, the covid recession would reduce
 - Unemployment → mental health issues
 - People are forced to look at the poor bums on the streets
 - However in the long term this will increase resilience and builds character
 - Unemployment represents an opportunity cost → reduce PPF
 - DOI → people of lower SES and wages have lower bargaining power → more likely to lose their jobs
- Policy: Jobkeeper and Jobseeker payments → provides a supplement for their wages
 - Jobkeeper and jobseeker payments to the unemployed → would encourage actively seeking → hidden unemployment rate decreased
 - Additionally, jobseeker / jobkeeper payments → higher consumption → higher aggregate demand → higher derived labour demand → more employment
 - overall consumption and aggregate demand → increased underemployment
 - Increased expenditure of a \$291 billion injection directly increases wage and household disposable income → AD and consumption → injection targetted on those with low MPS → multiplier effect
 - EG increased from -7% to 3.4%
 - Helped 3.8 million retain jobs
 - Reduced unemployment by 8% to around 5%

Analyse the causes of inflation and discuss the effects of inflation on the Australian economy. Evaluate the policies available to control the level of inflation in the Australian economy.

Inflation control in MB II, Inflation control in COVID-19

Paragraph 1: Inflation in MB II (Monetary)

- **Cause:**
 - Cyclone Yasi
 - Increased demand for Australian exports → increase AD → demand pull inflation
 - Growth in mining sector (stat) due to increased demand by China → increased investment → Increased employment in mining sector due to increased derived demand for labour → Increased disposable household income → increased consumption → increased demand pull inflation
 - Years after MB2 → AUD appreciate to \$1.10 → imported inflation fell to 1.76% in 2012
- **Effect:** Inflation grew to 3.3% in 2011, up from 1.77% in 2010.
 - Inflation disproportionately affects lower income earners, as they have less bargaining power → less able to negotiate for increased wages to compensate for inflation → decreased real wage growth for lower income earners → exacerbates income gap, worsening distribution of income
 - Gini from 0.3 in 2010 to 0.31 in 2011
 - High inflation → increases cost of labour → higher real unit labour costs → worsens international competitiveness → worsens CAD
 - CAD grew from 2.4% to 3.4%
- **Policy (Monetary):**
 - Increased cash rate corridor → increased interest rates passed on to consumers → increase in savings rates, decreased consumption → decreased demand-pull inflation
 - Cash rate increased from 3% in 2009 to 4.75% in 2011 in response.
 - Inflation fell back down to 1.7%

Paragraph 2: COVID-19 (Fiscal Policy)

- **Cause:** The COVID-19 pandemic → nationwide lockdowns → people have to stay home and are unable to consume as much → decreased demand-pull inflation
- Decreased derived demand for labour → Increased unemployment → lower household disposable income → leads to less consumption → increased demand pull inflation
- **Effect:** inflation decreased to -0.3 % in June 2020 from 2.2% in Jan/Feb 2020
 - Lower inflation leads to reduced investor confidence → less FDI → less injections → lower economic growth
 - Eco growth fell to -7%
 - Lower inflation → is an indicator of low economic activity → with reduced economic activity aggregate demand falls → labour as a derived demand falls → unemployment increases → those with low incomes (less bargaining power) lose their jobs first → income inequality increases
 - Unemployment increased from 5% to 7.5%
- **Policy (Fiscal):**
 - JobKeeper and Jobseeker
 - \$291 billion injection
 - Targeted those without jobs → low income who have high MPC's → more consumption → increased inflation
 - Helped retain 3.8 million jobs
 - Reduced unemployment rate by 8% from what it was projected to reach without government injections into the economy
 - According to Short-run Phillips curve → as unemployment decreases → increased inflation as there is greater household disposable income → greater consumption → greater AD + more demand pull inflation

Explain the causes and effects of unequal distribution of income and wealth in Australia. Evaluate the policies available to control the distribution of income and wealth in the Australian economy.

Para 1: MBII (Economic growth, Automatic stabilizers)

- Cause: period of high economic growth
 - → appreciation of assets
 - → higher income earners bargain for higher wages
 - → higher inflation (reduced real wage growth for lower bargaining power) (exacerbates previous)
- Effect of income inequality
 - Burden on taxpayers
- Policy to rectify:
 - Automatic stabilizers (welfare payments, marginal tax rates)

Para 2: Inbetween (Level of savings/generational, Superannuation/Infrastructure)

Para 3: COVID-19 (Unemployment, Jobseeker)

Section 1: Causes

- Economic growth
 - → assets appreciate
 - → higher income earners with more bargaining power can negotiate for greater raises than lower income earners →
 - High inflation Incentive effect
 - Low economic growth → increased unemployment → those with lower incomes and less bargaining power are more likely to lose their jobs → increased income inequality
- Incentive effect
 - Incentive for low income earners to take actions to earn a higher income and consequently generate wealth
 - In a more decentralised wage system, wages are tied to productivity so workers may upskill to improve the productivity and earn a higher wage
 - Leads to increased productivity, hours worked, risk taking, education, labour mobility etc.
 - Increases AS and hence long term growth
- Generational

- I.e more wealthy families are able to afford greater education for their children → these people are then more able to become more highly educated/skilled → the high income families earn more → more wealth inequality
- Level of savings
 - Higher income earners have a higher MPS
 - With inequality in line with Piketty's thinking), higher income earners hold more of the total savings (particularly due to the return on capital) leading to a higher national savings
 - For Australia, this reduces Australia's reliance on foreign capital for our capital intensive industries (mining)
 - Reducing international borrowing will improve NFD and external stability whilst the increase in national savings will lead to greater improvements in growth and standards of living.

Section 2: Effect

- Long term effect: the people of low income **households are able to gain more resilience**
 - **"Tough times don't last, tough people do"**
 - **Poverty is character building**
- Also greater role for charities, **ie tax evasion becomes more prevalent**
- Greater burden on taxpayers → increased spending on welfare
- Reduction in consumption (low income earners have higher MPC so with lower incomes → less consumption)
 - High income earners usually save more so its a leakage

Section 3: Policy

- Minimum wage
- Superannuation
 - Compulsory superannuation of 9.5%, gradual/progressive increasing to 12% in 2025
 - In 2020 stimulus packages, government announced individuals could access up to \$10,000 in super this year and next. Will provide ST relief but bad in LT, decreased savings.
- Infrastructure (linking regional areas to urban areas)
 - Increased investment into regional areas (Typically occupied by those of low SES) increases job opportunities and training/education facilities → increasing bargaining power → increasing income levels → reducing income inequality
 - Due to the onset of COVID-19 government increased expenditure on infrastructure pipeline from \$100bn to \$110 bn + 25bn more in 2021-2022 budget
 - The great western highway connects Bathurst to Sydney and reflects the focus of the federal government of focusing on disadvantaged communities → access to better jobs and better education → increased skills → higher income
 - Decrease in traffic and capacity constraints → lower income households would be able to earn more due to higher technical efficiency → decreased inflation → decrease unemployment → lower income households are able to maintain their jobs → reduced income inequality
 -

- COVID jobkeeper
 - 2018/19 budget introduced LMITO payments ,which then increased in 2019/20 budget from \$530 to \$1080 (retained in 2021/22 budget). This should boost consumption and have one-off multiplied effect on economy
 - However in the long run, as the tax changes to a flatter-less progressive tax system, the Gini coefficient will rise .
 - All individuals earning between \$45,001 and \$200,000 will pay 30% tax rate
 - 90% of population paying the same rate

Analyse the causes and effects of fluctuations in external stability in Australia. Evaluate the policies available to control external stability in the Australian economy.

Discuss the economic concerns that the Australian government takes into account when formulating policies to manage the environment. Evaluate the effectiveness on the level of Australia's ecologically sustainable development.

Intro

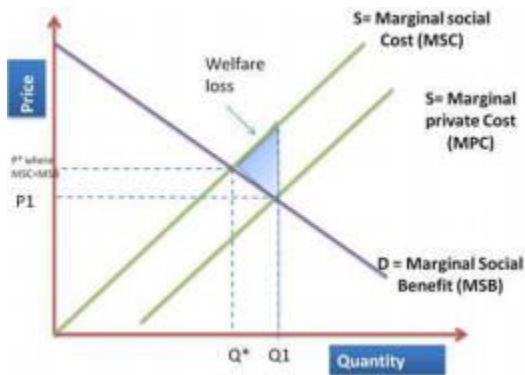
Section I - Trade-off between the objectives

- Ecologically sustainable development is intrinsically tied to the principle of intergenerational equity – whereby resources are to be made available to multiple generations – and the pursuit of maximum short term economic growth does not make this possible.
- Short term Economic growth
 - Opportunity cost of a loss of short term output
- Low long term economic growth if sustainable development is not implemented
- Increased costs of production
 - Increased inflation

Section II - Pollution and Negative Externalities

- Market failure occurs when the free market fails to allocate resources efficiently, leading to socially undesirable outcomes, since producers pay private production costs and neglect social costs
- Negative externalities: Excessive marginal social costs relative to marginal private costs

result in an overproduction and overvaluation of goods generation of electricity via the burning of fossil fuels has a quantity of burned fossil fuels (Q_1) greater than the socially optimal level (Q^*), causing the private cost P_1 to be lower than the social cost at P . The shaded area (welfare loss) illustrates the health problems associated with the burning of fossil fuels, such as climate change, which threaten long term economic growth and ecologically sustainable development



Section III - Climate Change

- Climate change, often as a result of burned fossil fuels and human activity, may damage long-term economic growth via higher emissions and greenhouse gases, depleting available resources for production.
- Failure to achieve intergenerational equity
- Such a concern was echoed by the 2006 Stern Report, arguing that climate change is “the greatest market failure ever seen”, stating that a business-as-usual approach may lead to higher carbon emissions causing a temperature increase of 2-3 degrees within the next 50 years. As such, the business-as-usual approach is expected to reduce global GDP by 5% per year on conservative estimates as per the Stern Report, which may limit economic growth for Australia
- Damage to GBR → key export and industry. GDP fall by 4.8% by 2100 due to climate change

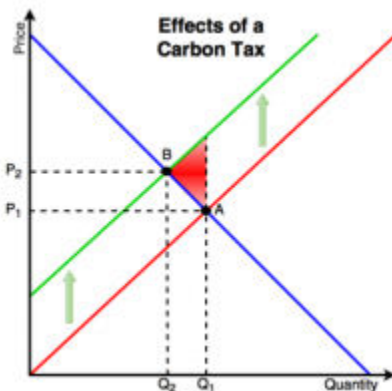
Section IV - Resource depletion

- Link to ESD
- Maintaining a mining sector that accounts for 7% of national GDP and 50% of exports.
- Maintaining the environment and protecting renewable resources, in particular fish stocks, ensures that excess use does not lead to extinction and non-renewable resource use. TOC
- The Water Management Act of 2000 ensures that 10% of water runoff is within property to prevent the depletion of rivers, since water is an important input into the agricultural industry.

Section V - Carbon Tax

- 2012: \$23/tonne for top 500 polluting firms
- Such a policy was expected to raise \$27.4b in revenue over three years, using the revenue to fund transfer payments and benefit lower income earners.

- Internalise the negative externality and produce an optimal allocation of resources that improves society's welfare.
- As a result of this policy, emissions from firms affected by the tax were cut by 8.6% within the first 6 months of implementation, reducing pollution levels and improving environmental sustainability within Australia.
- Increased the increase in price to P_2 as a result of the carbon tax so repealed in 2014.
- Government that caused a rising emission level, reaching 556.1m tonnes in 2018.
- Electricity as a factor of production raised in cost by 9.5%, which also deteriorated real incomes for households and thus deteriorated living standards for Australia



Section VI - Emissions trading scheme

- seeking to undermine the use of carbon in its entirety – eventually reducing the quantity, and charging such a high price that firms would have, essentially, no choice but to invest in alternative energy production.
- As Australia relies heavily on fossil fuels for production; the implementation of a scheme like this addresses the economic concern that lies within the nature of production methods. If the patterns of resource use and production could be changed, without directly imposing immediate costs on firms – ESD could be achieved.

Section VII - Subsidies

- Subsidies reduce the production costs for firms domestically, allowing them to adopt more efficient mechanisms of production that maintain ecologically sustainable development the government has opted for the 2014 Direct-Action policy that provides subsidies for firms and farmers to lower emissions, with an aim of achieving lower emissions of 5% on 2000 levels by 2020.
- However, the Direct-Action Plan has been critiqued due to its lack of enforceability and vagueness, with the government stating that “over pollution will induce some kind of penalty” that has not been enforced clearly. Further to this, emissions increased by 6 million metric tons from 2016 to 2018 and have been relatively flat,

Section VIII - Budget

- budget (2017-18) outlined plans to upgrade the Snowy Hydroelectric Scheme; investing up to \$90m to improve infrastructure and efficiency.
- The Morrison Government is building a more resilient and secure Australia, with \$486.3 million in new environmental funding for oceans, biodiversity, recycling and waste, and climate resilience as part of the 2021-22 Budget.
- “The Budget takes new spending on the environment to more than \$2 billion since 2019,” Minister Ley said.

Section IX - International Agreements

- Examples
 - Kyoto accords
 - Paris climate agreement
- Limit the effects of global warming to a 1.5-2 degree rise and reduce the risks of climate change
- Nationally determined contributions → Australia 26-28% emissions. Aus not on track: should implement a 50% cut in greenhouse gas emissions by 2030 and reach net zero before 2050

TOPIC 4

Assess the impact of the Reserve Bank of Australia’s expansionary monetary policy

Intro

- 3 objectives of RBA
- Inflation targeting (2-3% set in 1993)

Theory (How it works)

- ES Balances and short term money market trades
 - OMO
 - Repos
- Cash rate targets and interest rates
 - Accessibility to funds
- Mechanisms of monetary policy, setting of the cash rate
- Target cash rate, ESA balances, interest rate corridor, interest rate in STMM
- Transmission mechanism

- While monetary policy has inherent limitations to its effectiveness (time lags, blunt tool), further complicated in recent years
- Current specifications of monetary policy
 - 0.1% cash rate

Full employment (COVID)

- Government lowered the cash rate to 0.1% in November 2020 from 0.25%. Previously the cash rate was lowered from 0.5% to 0.25% in March 2020
 - Address the economic recession, and a rising unemployment rate
- By reducing the cost of borrowing, RBA incentivises investment and consumption → increase aggregate demand → growth → labour is derived demand
 - Lowering the incentive to save
- All in all this contributed to a reduction in the unemployment rate to 5.6% 2021 from 7.4% in August 2020
- Phillips Curve (inflation → unemployment & unemployment → inflation)
 - Inflation → indicates high AD → labour is derived → lower unemployment
 - Lower unemployment → high Y → increased consumption → increase AD → demand pull inflation
 - Expansionary monetary leads to the flattening of the Phillips curve, weakening this relationship → NAIRU

Economic prosperity

- Quantitative easing
- Movement of unconventional monetary policy measures to principal mechanism of MP
 - Term Funding Facility
 - Direct funding to banks and other AD
 - Reduce funding costs and support lending
 - Quantitative easing/asset purchases
 - Introduction of a 3Y Australia Government Bond target
 - Purchase of bonds to flatten yield curve
 - Why? Risk-free assets form an important component of interest rates broadly
- Accessibility to loans for business and individuals
 - Supports investment in sectors with large growth potential such as the housing market
- Lower interest rates cause a depreciation in the AUD (reduced foreign investment), and as a direct result, the international competitiveness of Australian exports is increased - increasing medium-term economic growth from exportation.
 - Relate to aggregate demand

- Relate to RBA's measures through Covid period
- Inflationary expectations → high consumer and investor confidence
 - CCI (Consumer confidence index) increased from 105 to 118.8 from October 2020 to April 2021
- Economic growth increased -7% in June Quarter 2020 to 1.8% March quarter 2021

Price Stability/Distribution of income (2010s decade)

- Lowered cost of borrowing → increased investment → increased AD → increased demand pull inflation
 - 2.5% cash rate in August of 2013 to 1.5% December 2018
 - Inflation rate 3% in Q1 2014 to 1.5% Q2 2018
- However, lowered interest rate → lower foreign investment → \$AU depreciation → increased import costs for inputs → increased cost-push inflation (to lesser extent than demand pull inflation)
 - FDI decreased by 45% in 2020 → AUD depreciated in 2020 to
- Lower interest rates would also incentivise greater investment by higher income households, this increases the wealth inequality. Furthermore, existing assets of high income households would have a lower interest rate/cost of borrowing which deteriorates the distribution of income. (wealth gap)
 - The average wealth of the highest 20% rose by 53% (to \$2.9 million) from 2003 to 2016, while that of the middle 20% rose by 32% and that of the lowest 20% declined by 9%
- Lower inflation → people that have wages indexed to inflation (high income earners) have slower wage growth → make DOI less bad
- Inflation expectations → people ask for wage raises → people with higher bargaining power increases wages → worsens DOI
 - Wage-price spiral

Discuss how the Australian government can use fiscal policy to achieve its macroeconomic objectives

Intro

- Introduce budget, stances and outcomes
- Outline economic objectives

Economic Growth

- Can be boosted through expansionary policy / larger budget deficits
- Covid policy examples
 - Modern manufacturing strategy
 - Infrastructure improvements (long-term)
 - New airport
 -

Employment

- Can be boosted through expansionary policy / larger budget deficits
- Covid policy examples
 - Jobseeker / Jobkeeper
 - Covid disaster payments

Price Stability / DOI

- Inflation can be reduced through contractionary policy / larger budget deficits
- Distribution of income is best enhanced through expansionary policy

External Stability

- Often worsened through recessions as the government accrues larger amounts of public debt
 - Minimised through borrowing through organisations such as the RBA

Evaluate the effectiveness of labour market policies in achieving Australia's economic objectives

FAIR WORK AUSTRALIA ACT 2009 (centralisation)

- DESCRIBE:
 - In 2009, Kevin Rudd implemented the Fair Work Act, which involved a three-tiered system of wage determination and a shift towards a more centralised labour market.
 - 122 modern awards, containing 10 national employment standards (NES) which were nonnegotiable and included annual leave entitlements and notice of termination, amongst others and 10 industry specific conditions and relevant minimum wage
 - BOOT for enterprise agreements meaning employees had to be suitably compensated for trading away their conditions.
 - Under Fair Work, high income earners are covered by common law contracts enforceable by the courts and unfair dismissal laws were reinstated.
- EFFECT:
 - Support consumption (60% AD)
 - Strong safety net (equitable DOI)
 - The introduction of the BOOT enhanced the bargaining power for low income earners. In turn this improved the distribution of income with the Gini coefficient falling from 0.336 in 2007/08 to 0.323 currently, shown by an inward shift of the Lorenz Curve

- DOI gini still above the long-run average and the distribution of wealth remains very unequal with a corresponding Gini coefficient of 0.576 currently
- Lower productivity would have also been expected to increase inflation. However, this has had minimal impact on the Australian economy with inflation at the lower bound of the
- This is a by-product of historically low wages growth, 1.5% currently, which is also constraining consumption levels and thus demand pull inflation.
- **EVALUATE:** Pretty bad lmao

PHASING OUT OF PENALTY RATES 2017 (decentralisation)

- **Overall:** wasn't effective in making major changes didn't address everyone (only addressed retail and hospitality)
 - Also only cut 25%
- **Describe**
 -
- **Effect**
 - Increase EG → incentive effect → increased productivity → therefore increased EG
 - Less incentive to work on the weekend → increased underemployment
 - Increased productivity → increased international competitiveness → better Bogs → lower CAD → better external stability
 - People in lower income jobs to be working weekends (eg students) → lower penalty rates disproportionately affects low income earners → increased income inequality
 - With increased economic growth → kuznet's curve suggests that emissions go up
 - Lower income households have greater MPC → lower penalty rates has a disproportionate effect on their consumption → decreased expenditure → decreased demand pull inflation
 - Less people working on the weekend → less need for transport to workplace → increased environmental sustainability
 - Greater religious involvement as sunday is for church
- **Evaluate**

JOBTRAINER + PaTH Program (training & education)

- **Describe:**
 - 30,000 internships per year
 - All unemployed youth who undergo an internship working 15-25 hours per week will receive an additional \$200 per fortnight to their pre-existing welfare benefits
- **Cause:**
 - Jobtrainer and PaTH → increased investment in education and training →
- **Effects:**
 - Subsidised workplaces taking on apprenticeships → incentivises employment of lower skilled workers → reduced employment amongst youth groups that typically struggle to be employed

- → improved distribution of income
- → Increased employment
- youth unemployment from 12.8% in late 2015 to 11.7% in 2016
- →

- **Evaluate:**

JOBMAKER

- **Overall:**

- Only achieved around 1 per cent of the original budget forecast.

- **Describe:**

- \$4 billion dollars of wage subsidies for employers to hire young people aged under 30

- **Effect:**

- Reduced cost of wages for younger workers → businesses encouraged to hire young people and reduced youth unemployment
- Reduced cost of production for firms → increased output and improved AD

- **Evaluate:**

- Was ineffective as only 5200 jobs were created, ~1% of the original target and equating to \$800 million per job

Discuss how governments are restricted in their ability to simultaneously achieve economic objectives

Intro

- Time Lag
- Political constraints
- Global influences

Inflation and full employment (Mining Boom II)

- *Opening: Achieving*

- **Contractionary fiscal**

- Reduced government spending on welfare due to rising disposable incomes and lowered unemployment (automatic stabilisers) → reduced aggregate demand → reduced demand-pull inflation
 - Despite this, reduces employment → reduced welfare spending → lower training opportunities → reduction in skilled workforce → increased unemployment.
- Increased taxation on mining sector through RSPT (40% tax on mining profits above 75mil) → decreased company profitability → decreased incentive for foreign investment, decreased disposable incomes [AIMED AT IMPROVING ENVIRO. SUS] → decreased AD → reduced demand-pull inflation

- - **Contractionary monetary policy (Cash rate)**

- RBA target economic growth range is 2-3% → RBA cut cash rate from _ to _ → increased incentive to save, discouraged investment → more leakages in economy, less AD → reduced demand pull inflation →

Economic growth and Inequality (COVID) & Tobacco Excise

- Piketty's Theory: rate of return on capital > economic growth → increase inequality
- **Government Tax offsets:**
 - Short term: LMITO offsets of up to \$1080 in 2021-22 for 10.22 million individuals. Expected to save low income earners 15.6% across next four years → increase income → increase consumption → increase growth and equitable DOI → help both objectives
 - Long term: (Aim to increase growth from decreasing taxes increasing consumption and AD): However, phase 3 of tax bracket changes will see 95% of tax payers (\$45,000 to \$200,000) paying 30% rate (so will be more regressive in effect - worsen DOI/outward shift of the Lorenz curve)
- **Tobacco Excise**
 - Flat rate tax acts regressively
 - Disproportionately affecting lower income earners
 - People low socio-economic status make up disproportionate amount of tobacco consumption
 - 20% of low ses persons consuming tobacco products as opposed to 5% of those of higher socioeconomic status
 - Gini coefficient risen from 0.59 to 0.61 from 2011 - 2019.
 - Intangible economic benefits to the economy
 - Smoking decreases labour quality and productivity estimated to cost \$5 billion
 - Premature mortality costs \$92.1 billion
 - Consumption of tobacco has reduced by 12% and smoking by 8% since introduction of the tax
 - *(The tobacco excise was introduced in 2011 and has been increasing annually by a rate of 12.5% from 2013 through to 2020. In an effort to improve resource allocation and the budget deficit the government imposed this tax on all tobacco products having a significant effect on Australia's capability to pay off their existing debt obligations and improve their external stability. The tobacco excise accounted for \$17.4 billion of revenue for the government consisting of 38% of all total excise tax in 2020. Additionally by increasing the price of tobacco products and thus reducing consumption, alternative costs such as health expenditure which totals to \$6.8 billion in 2018 can be reduced, further improving the governments balance. This is indicated by the gradual decrease in the budget deficit as % of GDP from 3% to 0% from 2014 - 2019. This has allowed Australia to repay their existing debt obligations as indicated by a decrease in Australia's net foreign debt as % of GDP from 61.3% to 57.1% from 2014 through to 2018.)*
 - Income distribution

- As the good has inelastic demand, increases in prices will have less than proportionate decreases in demand
- Lower income households are affected the most, as the tax is regressive, as lower income households have less disposable income as a result of higher consumption
- Gini coefficient fell from 0.3 to 0.29 across years of implementation
-
-

Economic growth and environmental sustainability

- Goal of sustainable economic growth often does not account for environmental costs
- Short term relationship:
 - In an aim to simultaneously achieve economic growth and ESD the government implemented a carbon tax in 2012
 - \$23/tonne for top 500 polluting firms
 - Cut emissions by 8.6% within 6 months of implementation
 - However, electricity costs rose almost 10% and due to the inflationary pressures the policy was later repealed
 - Illustrates the inability to simultaneously achieve the economic objectives
- Long term relationship
 - Government seeks to achieve ESD.
 - Encompasses the idea of intergenerational equity
 - Resource use sustainable for future generations
 - Deterioration of environmental quality will reduce the productive capacity as access to natural resources and a healthy, pollution free environment deteriorates.
 - The impacts of climate change are expected to lower Australia's GDP by 4.8% by 2100, consumption by 5.4% and real wages by 7.8%
- Particularly important to Australia to achieve ESD in the long run to sustain tourism growth
 - Tourism is on average growing at 7.7% and degradation of key attraction such as the Great Barrier Reef could subsequently harm economic growth
 - Government allocated \$500 million to preservation of GBR in 2018 (limited funding)

