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# ECON1102

## W1

### L1

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Tutorials start week 2, registration open from 7pm tonight 2 assignments: 5% Mid-sem Exam: 30%, 50% redeemable Final Exam: 60% Textbook probs necessary, check course outline for the full name.

### L2

**Macroeconomics:** - Emphasis on the 'A' for the aggregate economy. - Study of the performance of the national and global economies

**Normative Economics:** study of what ought to be **Positive Economics:** study of what is

**Correlation:** statistical relationship between two (or more) sets of data

**Key Assumptions:** Assume that people are: - Rational - Maximizing (prefer more to less) - Self-interested (care first about themselves, only secondly about others)

**Elements of a typical model:** - *Parameters:* inputs fixed over time - *Variables:* inputs that change over time, two types: 1. **Endogenous:** explained by the model 2. **Exogenous:** determined outside the model - *Functional Relations:* rules that characterize the relationship between two or more endogenous variables in a model

**Fallacy Of Composition:** sum of the parts always equal to the whole, which is WRONG

### L3

**Technical Efficiency:** Maximum output for minimum input **National Income Accounting:** Government's methodology for keeping track of measures of aggregate economic activity

**Circular Flow Model** - Start by assuming a *close economy* (operates in a state of autarky) (*open economy:* economy which trades with other economies)

## W2

### L1

We have the actual lecturer today, amazing!

### Introduction to the Great Depression

### L2

Emergency Banking Act, March 6, 1933 - closed the banks under a national 'banking holiday' to help stabilise the crisis

### L3

### National Income and Product Accounting

National income accounting provides a systematic method of aggregating the production of diverse goods into a single measure of overall economic activity as traded in and/or valued by market exchanges Conceptually based on circular flow model Production function also basic concept behind national income accounts  $Y = f(K, L, La)$  Y (output) dependent on K (amount of capital), L (Land) and La (Labour) used NIA conceptually measure the total economy: - as a machine in which inputs are transformed through various processes to yield outputs - a flow of output being recycled through consumption and investment spending and factor payments

**GDP:** is the market value of the final goods and services produced in an economy over a certain period

PRODUCTION = EXPENDITURE = INCOME - Expenditure measure of GDP counts the total purchases in the economy - Income measure of GDP counts all the income earned in the economy - Production measure of GDP counts the number of goods produced in the economy

$GDP = C + I + G + NX$  C (Consumption), I (Investment), G (Government), NX (Net Exports)

$NX = \text{Merchandise exports} - \text{Imports}$  Negative  $NX$  is a "leakage" from a domestic economy because some economic expenditure is in effect flowing out of the country into the rest of the world

## W3

### L1

**Income Approach to GDP:** Measures sum of all income earned in the economy **Production Approach to GDP:** - Amount each producer contributes to GDP is called *value added* - Value add = revenue gen. by each producer - value of intermediate products - *Primary producer + Intermediate producer = final producer*

**Gross Domestic Product (GDP):** total value of all final goods and services produced in an economy in a one-year period (produced within borders) **Gross National Product (GNP):** aggregate final output of citizens and businesses of an economy in one year.  $GNP = GDP + \text{net foreign factor income}$  **Net Foreign Factor Income:** income from foreign domestic factor sources minus foreign factor income earned domestically

**Wealth Accounts:** Represent a balance sheet of an economy's assets and liabilities and is a *stock* of collect flows measured at a point in time **Real Wealth:** the value of the productive capacity of the assets of an economy measured by the goods and services it can produce now and in the future **Nominal Wealth:** the value of those assets measured at current market prices

Only goods and services that are transacted through markets are included in GDP, i.e. must be market value assigned to it through the market. Does not include: - Changes in environmental conditions - a measure of the health of a nation's people - underground/"black market" shizzle Only includes activity that can be identified in the form of a recognised exchange transaction, usually market-based

### L3

"Rule of 70": Doubling of gdp is some shit like  $70/g$

## W4

### L1

Showed a whole bunch of models, not sure if we need to know those or not

**Net Payoff:** a way of summarizing the key relationships: real output per hour ( $Y/L$ ) and capital per hour ( $K/L$ ), with technology determining the shape of the curve

Workers become more productive with more capital *only up to a point*

Some countries are more efficient at using capital and labour for some reasons: 1. human capital 2. Technology 3. Institutions 4. Exogenous shocks

**Human Capital:** Stock of skills that individuals accumulate to make them more productive, analogous to physical capital. Improved through education, health, **Institutions** refers to property rights, rule of law, government systems, organisational form, contract enforcement, etc. **Exogenous Shocks:** war, famine, plague and death, or stuff like drastic changes in oil prices,

### L2

#### Economies of Scale

Increasing returns to scale: Average cost of production falls as production increases Decreasing returns to scale: Average cost of production rises as production increases

Productivity is never the sole cause of GDP growth.

**Innovation and something or other** - Innovation by itself does not necessarily lead to new growth and productivity - A new product may not meet a clear need or desire in which case it will go nowhere economically and may even represent a waste of economic resources - Some innovations may impose significant costs on society

**Creative destruction and entrepreneurship** - Innovation and entrepreneurship is risky because its outcomes are highly uncertain. Such activities may not have a tangible outcome. (THERE'S MORE OF THIS)

Per capita GDP  $\neq$  Standard of living

## W5

### L1

## Labour and Unemployment

**Labour Demand Curve:** Derived from the firm's profit maximization objective in which firms hire workers until the Marginal Product of Labour equals the wage rate. This curve slopes downwards because of the diminishing marginal product of labour and because output and input markets are perfectly competitive, i.e. as we add more workers and hold all else equal, each additional worker produces less

**Labour Supply Curve:** Describes the entire supply of labour as provided by the whole labour force. Slopes upward because the opportunity cost of leisure and the reward for working is higher.

An increase in income tax reduces labour supply and employment declines and wages increase. Government subsidies of Australian automakers are withdrawn, in the short term labour demand falls, employment falls and wages fall. Government regulation imposing a floor on wages: creates an excess supply of labour

**Discouraged Workers:** People without jobs who give up looking for work. **Participation Rate:** number of people who are either employed or are actively looking for work. **Labour Force:** Those able and willing to look for work

Unemployment Rate:  $\text{Unemployed} / \text{Labour Force}$  Labour Force:  $\text{Employed} + \text{Unemployed}$  Participation Rate:  $\text{Labour force} / \text{Population}$

**Problems with measuring the unemployment rate** 1. Number of discouraged workers increases during a recession; therefore the official unemployment rate appears lower than it would otherwise be. 2. Under-employed workers: people who work part-time but would like to work more hours. 3. People who claim to be unemployed but are not can lead to the unemployment rate being over-stated.

## L2

Educational attainment is associated with less long-term unemployment. Workers may not get the job they desire in the field they desire or at the pay they desire. Job creation and destruction is a normal part of any economy

**Natural Rate of Unemployment:** The unemployment rate that exists when the economy is operating at potential GDP. **Non-accelerating Inflation Rate of Unemployment (NAIRU):** The level of unemployment below which the rate of inflation will rise

**Four types of unemployment:** 1. Cyclical unemployment: unemployment caused by a business cycle contraction. 2. Frictional Unemployment: Short-term unemployment arising from the process of matching workers with jobs, e.g. uni finishers, school leavers. 3. Seasonal Unemployment: Unemployment due to factors such as weather, variations in tourism and other calendar-related events. 4. Structural Unemployment: Unemployment arising from a persistent mismatch between the skills and characteristics of workers and the requirements of jobs

## L3

Actual unemployment = frictional + structural + cyclical  
Natural = frictional + structural

**Cost of unemployment:** - Loss of GDP (through lower L) and opportunity cost of 'slack' human capital - Loss or deterioration of human capital - Retraining costs - Financial costs to the government (e.g. unemployment benefits, loss of tax revenue)

**Costs to the individual:** - Loss of income - Loss of skills - Retraining costs - Social costs: family issues, mental health, crime, etc.

## W6 - INFLATION

### L1

There is a distinction between the **Real Economy**, which refers to the economy of the physical world, where physical goods and services are produced and consumed and the **financial/monetary economy**, which refers to the *money economy*,

Financial Markets allow consumers to trade off future and present consumption and production against one another. Helps market expand more than it would otherwise.

Financial Markets allow those with funds to communicate with those in need of funds.

$I = Y - C - G$  — investment is a *residual* left over after private individuals and the public sector spends its share of output (Y).

**Dissaving:** Negative saving. Spending more than is available to them in the economy.

**Inflation:** A general rise in the price level.  $\text{Nominal GDP} = \text{Real GDP} * \text{Price Level}$

## L2

Inflation causes redistributions of wealth and income that have no particular economic merit and which are driven purely by changes in money prices (including interest rates) in the short-run

Debtors benefit from lower rates, savers are worse off.

Inflation can cause tax distortions, 'bracket creep' is a classic example. People in lower categories are being pushed upwards by inflation.

**Real interest rate:** Equal to the marginal product of capital and is paid in goods

**Nominal interest rate:** rate on a savings account and is paid in dollars

**Fisher Equation:**  $i = r + \pi$ , where  $i = nr$ ,  $r = rr$ ,  $\pi$  = rate of inflation

Interest determines the 'price' of money

## W7

### L1

#### Aggregate expenditure in the short run

**Expenditure Accounting Identity:**  $Y = C + I + G + NX$  Can turn this into a theory, and into a model

**Aggregate Expenditure:** Total amount of spending in the economy - sum of consumption, planned investment, govt. purchases and net exports. Assume that AE is a description of specific flows in a macro-economy for a specific time period.

Leads to the **Aggregate Expenditure Model:** focuses on short-run relationship between total spending and real GDP. Assume price level is constant.

Now have:  $AE = C + I + G + NX$  Also define macro-equilibrium condition of  $AE = GDP$

**Consumption (C):** - *current disposable income*: amount of money available to devote to spending after tax and transfer payments. "Current" refers to time period under analysis. - *expected future income*: self explanatory. If this is high, tends to raise spending, and if low, spending reduced. - *household wealth*: accumulation of income in form of assets, financial (e.g. savings) and real (e.g. a house). - *price level*: level of all prices, increases have three major 'channels' that influence spending: \* price inflation decreases the real value of household wealth, -> lowered consumption via wealth effect \* price inflation leads to an increased demand for cash, -> increases demand for loanable funds and interest rate, lowers consumption (especially that which is financed through debt) \* domestic inflation will cause changes in international exchange rates and relative world prices - *interest rate*

**Consumption Function:**  $C = f(DI, \text{wealth}, \text{etc.})$ . Can hold various things constant to reduce it to  $C = f(DI)$   $C = A + MPC * DI$ , where *marginal propensity to consume (MPC)* is the slope of the consumption function -  $MPC = \text{change in consumption} / \text{change in disposable income}$  If  $MPC = 0.9$ , that means 90 cents of every new dollar of DI is spent A is the 'autonomous' consumption that occurs regardless of DI (e.g. money spent on necessary things, such as food)

**Disposable Income = National Income - Net Taxes** **National Income = GDP = Disposable Income + Net Taxes**

**Behaviour of I** First need to determine savings (S), as this determines amount of money available to I. If Y represents national income (and GDP), C represents consumption, S represents saving and T represents net taxes, we can write:  $Y = C + S + T$

**Marginal Propensity to Save (MPS):** Change in saving / change in disposable income Can further say that  $1 = MPC + MPS$

**Change in national income = change in consumption + change in saving + change in net taxes**

*All S is available for I but not all is 'actively' invested*

Four most important variables that determine the level of planned investment are: 1. expectations of future profitability 2. the interest rate 3. taxes 4. cash flow 5. price level

## L2

**Expectations of Future Profitability** Like consumers, investors (businesses) operate under uncertainty, so firms base their current investment spending on what they expect they're profitability to be going forward. These expectations can be affected by many things, some of them nonrational (e.g. emotional states like optimism/pessimism)

**Interest rate:** cost of money Affects investment decisions True for consumers as well but more important for businesses as debt finance is much more prevalent there

**Taxes** Investment behaviour is also affected by taxes

**Cash Flow** Cash flow = cash income - cash outflow

**Price Level** Price level affects business investment too, through interest rate, increased need for cash, and changes in relative world prices and exchange rates

**Government Purchases** Remember not to double count transfer payments

**Net Exports** Three most important factors in determining the level of NX: 1. Price level in Aus. relative to the price levels in other countries 2. Economic growth rate in Australia relative to the economic growth rates in other countries. 3. The exchange rate between the dollar and other currencies

## L3

**Autonomous v Induced Consumption** **Autonomous Consumption:** consumption that is independent of income (and the intercept term for a linear equation) **Induced Consumption:** consumption that is determined by the level of income (and the slope of the line) **Autonomous Expenditure:** expenditure that does not depend on the level of GDP. **Induced Expenditure:** expenditure that depends on the level of GDP **The Multiplier Effect** **Multiplier:** the increase in equilibrium real GDP divided by the increase in autonomous expenditure and a **Multiplier Effect:** the process by which an increase in autonomous expenditure leads to a larger increase in real GDP.  $\text{Multiplier} = (\text{Change in equilibrium real GDP}) / (\text{Change in autonomous expenditure})$   $\text{Multiplier} = 1/(1 - \text{MPC})$

**Summarising the Multiplier Effect** 1. the multiplier effect occurs when autonomous expenditure increases or decreases 2. the multiplier effect makes the economy more sensitive to changes in autonomous expenditure than it would otherwise be 3. the larger the MPC, the larger the value of the multiplier 4. The formula for the multiplier we are using here is *over-simplified* because it ignores the effect that an increasing GDP can have on imports, inflation and interest rates.

**If you get confused about this, read the intuition behind the multiplier effect from this lecture video slide thingy**

**Paradox of Thrift:** simultaneously increase saving and reduce spending in many households, aggregate expenditure may fall, leading to a contraction or recession. Lower incomes during a recession may mean that total saving does not increase.

**Focus on Changes in the Price Level** An inverse relationship exists between changes in the price level and changes in aggregate expenditure: - Increases in the price level decrease consumption by decreasing real wealth, causing aggregate expenditure to fall; a falling price has the reverse result - a price rise in Australia relative to price rises in other countries will cause net exports to fall, causing aggregate expenditure to fall; a falling price has the reverse result - if prices rise and the central bank (RBA) does not increase the availability of funds (using 'accommodative policy'), interest rates will rise, reducing investment spending.

## W8 - The AS/AD Model

### L1

The **Aggregate Demand and Aggregate Supply model** tries to explain short-run fluctuations in real GDP and the price level. Real GDP and the price level are determined in the short run by the intersection of the short-run AD curve and the short-run AS curves. **AD Curve:** shows the relationship between the price level (or inflation rate as an alternative but equivalent specification) and the quantity of real GDP demanded by households, firms and the government, i.e. the whole economy **AS Curve:** A curve that shows the relationship in the short run between the price level and the quantity of real GDP supplied.

An AD curve is built up from the demand side of the economy -  $C + I + G + NX$ . Shows total AD (or AE) associated with different inflation rates. A market demand curve is, by contrast, the sum of willingness-to-pay for a given good at various prices across all potential buyers of that good.

AD slope goes downwards because of wealth effect, interest rate effect, and international trade effect

Variables that shift the AD curve: - changes in government policies - changes in expectations of households and firms - changes in foreign variables in outside economies

**Long-run AS curve:** a curve that shows the relationship in the long run between the price level and the quantity of real GDP supplied. Shows that in the LR increases in the price level do not affect the level of real GDP

### L2

**Short-run AS curve:** upward sloping shows that (in the short run) firms will produce more in response to higher prices. This is because generally the prices of inputs tend to rise more slowly than the prices of the final products. **Menu Costs:** costs to firms of changing prices

Three theories behind the positive relationship between inflation (or price level) and output: 1. money illusion - 'misreading' inflation as higher or lower than it actually is 2. sticky wages ("Keynesian") - wages may take more time to adjust than prices (e.g. because of contracts), and social conventions such as perceptions of fairness, which are slow to adjust 3. sticky prices ("New Keynesian") - for some goods there may be long-term contracts with purchasers or complex pricing schemes that take time to be adjusted

Changes in the price level are depicted in movements up or down a stationary short-run aggregate supply curve.

Exogenous shocks cause the SRAS curve to shift

Variables that shift *both* the SR and LR aggregate supply curves: 1. increases in the labour force and/or in the capital stock and/or in resources 2. Technological change

### L3

**Supply Shock:** an unexpected event that causes the short-run AS curve to shift left **Stagflation:** a combination of inflation and recession, usually resulting from a supply shock) Short run effect of a supply shock: SRAS curve shifts left, real GDP falls and the price level rises Adjustment back to potential GDP in the long run: SRAS curve shifts right (which may take several years)

AD-AS dynamics do show two possible causes of inflation caused by shocks: 1. Cost-push inflation is what we have just illustrated: a rise in costs due to a supply shock and an inward shift of AS. 2. demand-pull inflation is what we illustrated earlier: an increase in AD and an outward shift in AD.

## W9

### L1

**Say's Law:** Supply creates its own demand

### L2

**Keynes Departure Points:** 1. The importance of total demand (consumption): Say's Law does not necessarily always hold 2. The role of time: short-run versus long-run adjustment 3. The psychology of consumers and investors (especially, but not exclusively, regarding expectations) These are some of the core ways in which Keynes created a general theory of the overall economy that contained the neoclassical model but went beyond it. This was the birth of a separate "macroeconomics"

**Effective Demand:** Say's Law held that Supply created its own Demand In effect markets were producer driven and consumption simply followed production This made an obvious kind of logical sense since obviously there had to be something to consume But Keynes argued that consumers had minds of their own and that there could be (though not necessarily would be) divergences of demand from supply Keynes referred to this as "Effective Demand" and claimed that there could be times of persistent mismatches between AD and AS in some cases He argued the Great Depression was one of these times

**The Importance of Consumption** Keynes saw that there had to be production in the first instance to have any kind of economy, but he also saw that production could outrun consumption on a mass scale and that this could lead to total disequilibrium that might not right itself

**The Role of Time** The time for an economy to adjust may be so long that markets may never recover. Real people do die and have immediate needs and may not be able to wait the time needed for economic adjustment, even though it may remain a theoretical possibility.

**The Psychology of Consumers and Investors** Neoclassical theorists rarely spoke of human psychology Time is important not just for physical reasons, but for psychological ones as well In particular, expectations are key The future is unpredictable and people, especially consumers and investors, must make decisions based on what they expect to happen

**Investment and Consumption Functions** Keynes introduced the idea that decisions to invest and consume were also affected by the subjective perceptions of consumers and investors

**The Marginal Efficiency of Capital according to Keynes** Keynes defined the MEC in the General Theory as: "the rate of discount which would make the present value of the series of annuities given by the returns expected from the capital asset during its life just equal to its price" i.e. when making investments, business people look at the real supply price of that investment and compare that to discounted financial cash flows that an investment is expected to return over its life Roughly speaking, if an investor is confident that they will get back more in financial return than real resource cost, the investment will be made

## Quotes from the General Theory

# W10

**\*\* The Financial Sector and Monetary Policy\*\***

## L1

The functions of money:

1. Medium of exchange - conduct transactions more efficiently than bartering
2. Unit of account - basically means that a clear and easy-to-use benchmark is provided against which to measure all prices and transactions against
3. Store of value - money can, in abstract, 'hold' the value of resources reliably and across time
4. Standard of deferred payment - facilitating economic transactions across time, i.e. borrowing and lending

5 criteria that make something suitable to be a medium of exchange:

1. the good must be *acceptable* to most people
2. It should be of a *standardised quality*
3. It should be *durable*
4. It should be *valuable* relative to its weight so that it can be easily transported
5. It should be easily *transportable*

One of the prime advantages of money in a modern economy is that it is "liquid", that is money can be immediately tendered and received for transactions between buyers and sellers for real goods and services. The degree of liquidity is a basis for measuring the money supply of a given country or currency area.

**Credit:** loans, advances and bills provided to the private non-bank sector by all financial intermediaries. *Credit is not a form of money*

Once we have money we lay the basis of a financial system.

A basic financial intermediation service is **commercial banking**, i.e. a business where an entity first accepts money from savers, then lends out that borrowed money in the form of bank loans.

**Financial leverage:** the use of financial debt. Commercial banking is fundamentally a leveraged business because banks borrow money to then make more money. The difference that the intermediary is paying to get its money and the interest rate that it charges others to whom it lends this borrowed money is called the **spread**.

When banks take deposits, they do not 'own' the money - they have borrowed it. They make money by keeping some of the deposits as a buffer for those who wish to withdraw their money, and lend out the rest. This leveraging of money increases the money supply in the economy, a process called **money creation**.

**Simple Deposit Multiplier:**  $1/\text{Reserve Ratio}$ . The real world deposit multiplier is smaller than the simple deposit multiplier because:

- banks may hold excess reserves
- people do not deposit all of their money. Households and firms keep roughly constant the amount they hold in currency relative to the value of their savings account balances

A **Central Bank** is an institution that is responsible for managing a country's money supply and usually its banking system as well. The **Reserve Bank of Australia (RBA)** is the central bank of Australia and has three major roles:

1. to maintain the financial integrity and stability of the Australian financial system.
2. To implement monetary policy
3. To intervene, as needed, in foreign exchange (FX) markets.

**Monetary Policy:** The actions taken by the Reserve Bank of Australia to manage interest rates in the pursuit of macroeconomic goals.

The legislated goals of monetary policy:

- Full employment of the labour force

- Stability of the Australian currency
- Economic prosperity and welfare for the people of Australia

**Quantity Theory of Money:**  $M \times V = P \times Y$  - M = money supply - V = velocity of money - P = price level - Y = real GDP

**Velocity of Money:** the average number of times each dollar in the money supply is used to purchase goods and services which are included in GDP.  $V = (P \times Y)/M$

Broadly, the RBA seeks to have:

1. low and stable price inflation
2. sufficient financial system liquidity (not too much or too little)
3. a calibrated foreign exchange rate a dollar not too high or too low relative to other currencies)
4. overall financial system integrity, including in financial institutions

**Interest rate, liquidity and money markets** The RBA (and, again, any central bank) try to influence three key financial variables to achieve the goals of monetary policy: 1. market interest rate 2. liquidity in the economy 3. money market equilibrium, i.e. the dynamics of supply and demand for money These are, of course, inter-related

The RBA uses 'levers' to achieve its tactical goals and effect the broader strategic goals of monetary policy. These include: - **Cash rate:** interest rate on loans (in the overnight money market). Set directly by the RBA. - **Open market operations (OMOs):** The RBA purchasing or selling financial instruments, such as bonds. - **Money supply management:** The RBA has a strong influence over the money supply more directly.

### Supply and demand for money

The **money demand curve** is downward sloping to show the inverse relationship between the interest rate on financial assets and the quantity of money demanded. The **interest rate on financial assets** is the opportunity cost of holding money. - Low interest rates reduce the opportunity cost of holding money, high rates increase OC

The two most important variables that shift the money curve are: 1. Real GDP. Basically the greater income is, the greater the demand for money. 2. The price level. As (nominal) prices increase you need more (nominal) cash to make any given purchase.

Money supply is also a bit unique because money is not desired in and of itself, and money is supplied largely 'monopolistically' by the monetary authority. So the RBA (and any central bank) is the primary driver behind money supply.

**Repurchase Agreement:** The RBA offers to buy (or sell) Commonwealth Government Securities and other eligible financial instruments from banks or other authorised financial dealers, provided the same banks or dealers are prepared to repurchase (or resell) them at a future date, often in a few days' time, at a price agreed at the outside. "Repos" are the major way the RBA conducts OMO nowadays.

## W11

### L1

**Macroeconomic Policy: Fiscal Policy and Government Budget Constraints** Fiscal Policy vs Monetary Policy: \* MP seeks to influence AD through interest rates in terms of short-run business cycle management (i.e. indirectly) \* FP involves government spending (G) and taxation (T) policies which influence AD directly. \* In Australia, fiscal policies for the year are usually announced in May, with the presentation of the budget

We can think of fiscal policy as AD management, with spending and taxing as policy instruments to act on:  $Y = C + I + G + NX$  That is, as short-run GDP consists of C, I, G and NX, govt. macro policy seeks to attain "optimal" short-run GDP, with stable prices, by influencing these components It's important to remember that government expenditure includes government purchases plus all other federal government spending.

**Automatic Stabilisers:** Government spending and taxes that automatically increase along with the business cycle **Discretionary Fiscal Policy:** When the government is taking actions to change spending or taxes to achieve its economic objectives. **Expansionary Fiscal Policy:** Involves increasing discretionary government purchase and/or decreasing taxes in order to increase aggregate demand. Goal is to shift the AD curve further to the right than it would have without the policy. An increase in government purchases will increase aggregate demand *directly*. A reduction in taxes has an *indirect* effect on aggregate demand through the effect on disposable income.

**Contractionary Fiscal Policy:** Involves decreasing government purchases and/or increasing taxes in order to reduce the increase in aggregate demand. A decrease in govt. purchases or an increase in taxes will reduce the rate of increase in aggregate demand, to reduce the inflation rate. An appropriate policy for when the economy is above full-employment equilibrium and the inflation rate is high



**Multiplier Effect:** The process by which an increase in autonomous expenditure leads to a larger increase in real GDP. **Government purchases multiplier** =  $(\text{change in equilibrium real GDP}) / (\text{change in government purchases})$  Tax changes also have a multiplier effect **Tax multiplier** =  $(\text{change in equilibrium real GDP}) / (\text{change in taxes})$

**Intertemporal Budget Constraint:** a measure of government fiscal constraint over time

The amount the government can borrow is limited by: - The amount it can credibly be expected to pay back - Partly on how large the economy's GDP is

**Tax Wedge:** the difference between the pre-tax and post-tax return to economic activity

## W12

### Open Economy Macroeconomics

#### L1

**Open Economy:** an economy that has interactions in trade or finance with other economies **Closed Economy:** an economy that has **no** interactions in trade or finance with other economies

Openness has three distinct dimensions: 1. Openness in goods markets 2. Openness in financial markets 3. Openness in factor markets

**Balance of payments:** the record of a country's international trade, borrowing, lending capital and investment flows with other countries. Two major accounts: current account and the capital account

**Current Account:** records *current*, or short-term, flows of funds into and out of the country. The **balance of trade goods and services** is the difference between the value of the goods and services a country exports, and the value of the goods and services a country imports.

**Net Primary Income:** income received by Australian residents from investments in other countries minus income paid overseas on investments in Australia by residents of other countries **Net Secondary Income:** the difference between transfers made to residents of other countries and transfers received by Australian residents from other countries, including overseas aid, pensions and migrants' funds. **Capital Account:** part of the balance of payments that records migrants' asset transfers, debt forgiveness and sale and purchases of non-produced, non-financial assets **Financial Account:** the part of the balance of payments that records purchases of physical and financial assets a country has made abroad and foreign purchases of physical and financial assets in the country

**The balance of payments is always zero**

**Balance of Trade:** whether the current account balance is in deficit, surplus or a net zero.

**Nominal exchange rate:** value of one country's currency in terms of another country's currency. **Real exchange rate:** the price of domestic goods and service in terms of foreign goods and services. **RER** =  $NER * (\text{domestic price level} / \text{foreign price level})$

**Currency appreciation:** occurs when the market value of a currency rises relative to another currency

**Currency depreciation:** occurs when the market value of a currency falls relative to another currency

**Effects of exchange rate \*appreciation\*:** - Revenue in Australian dollars falls for exporters whose goods are traded in \$US. - Exports of goods and services fall for those whose price is determined in Australia, as are now more expensive for overseas buyers - Imports become cheaper - Net exports fall, ceteris paribus, reducing the rate of increase of aggregate demand and real GDP

**Effects of exchange rate \*depreciation\*:** - Revenue rises in Australian dollars for exporters who trade with \$US - Exports of goods and services increase for those whose price is determined in Australia, as are now cheaper for overseas buyers - Imports become more expensive - Net imports increase, ceteris paribus, increasing rate of increase of aggregate demand and real GDP

**Gross National Income (GNI):** equal to GDP (C+I+G+NX) plus net income received by non-residents. Measures the total income that a country has for income and saving **Net Foreign Debt:** the difference between the amount lent to other countries and the amount borrowed from other countries.

## W13

#### L1

**Exam shit:** - Section 1: Multiple choice, 20 questions, grouped under following headings: - Unemployment (dealing with issue of measurement of unemployment and also the meaning of overall employment levels in the short-run model) - National income accounting (no complex calculations but testing an understanding of what is included in the accounts and methods of calculating GDP) - Economic growth and the Solow-Swan

model (a few simple simple questions on what drives economic growth according to the model) - Macroeconomic schools of thought (a few very general questions; know about monetarism, and the basic assumptions of the classical/neoclassical school v Keynes and Keynesian school of thought. Keynes' thinking on investment is something to review in particular) - Aggregate expenditure model (know the basic of the various 'functions' - e.g. consumption, etc.) - Loanable funds and money market models (know the basics of these two models and what they mean) - Section 2: True or False - then explain, 4 questions. - Know about Minsky and his hypothesis; multiplier effects; policy issues surrounding the control of the exchange rate (this is an open economy topic); and the general economic opinions around whether fiscal policy is effective or not - Section 3: Short answer questions, 6 of them (this section is worth 60%) - Know what diagram to use and how to use it for depicting monetary policy - General ideas about inflation - Money creation - BoP and related issues (although no calculations needed) - *Review material about the Rudd stimulus package and the general material on the Great Depression, especially in the US* - **VERY MUCH MAKE SURE YOU KNOW HOW TO DEPICT SITUATIONS USING THE AD-AS MODEL**

**The Causes and Cures of Business Cycles: a course wrap up**