ECO 1102: First Midterm Exam Review - Key Topics

40 Multiple Choice Questions

Chapter 1

- Macroeconomics
    - Definition: the big picture of an economy, we're trying to optimize
- Economics: Scarcity and choices
    - Resources are scarce, there's lots of quantity but not enough to satisfy all desires
    - Relative scarcity, not absolute
- Opportunity and accounting costs
    - Trade offs & costs
    - Opportunity cost - the economic cost, includes costs that do not require monetary flows (ex. Foregone income, wages) accountants wouldn't consider this
        - Two components - tangible/explicit costs and implicit costs (does not entail money going out)
        - Profit margin is smaller with opportunity cost, higher with accounting cost
    - "Accounting" cost - only concern is with cashflow, the money spent to acquire something
- Incentives
    - Increases desire to purchase a good - most common incentive is price
- Efficiency and equity
    - Very important notion
    - Total surplus - consumer and producer surplus
    - Efficiency is doing the best you can based on the resources you have
    - Maximizing the largest amount of wants possible - you can't satisfy all
    - Making sure they are allocated and distributed as fairly as possible
    - Equity - little attention is paid to equity
- Models: definition
    - Economic model - is a simplification of something
    - Two models - production possibilities frontier, circular flow diagram
- Positive and normative statements
    - Economic states are based on positive statements - "what is", these are based on what you see and what you can analyze
    - Normative statements - used in politics/policies - "something that should be" *ought*
    - Ottawa gets 200 cm of snow a year - positive
    - Ottawa gets way too much snow - normative

Chapter 7

- GDP
    - Definition - salient characteristics: market value of final goods and services, produced within the borders of an economy during a period of time

        - GNP - gross national product - goods produced by citizens
        - GDP - goods produced by everyone within the borders, citizens or not
    - Approaches (3) - *if you go to the store and buy ingredients for a pizza for 12$, then you make it and someone says they will buy it for 15$, what is the GDP?*
        - Expenditure approach - most common - *15$*
            - Is the sum of C+G+I+NX
        - Income approach (Before taxes)
        - Value-added approach - *12$ + 3$*
    - Components of approaches (ex. C+G+I+NX)
        - C - consumer expenditure (different durables - semi-durable or durable)
            - Services, durables, semi-durable, non-durable
        - G - government expenditures
        - I - gross investments (includes depreciation)
        - NX - NX is the sum of exports and imports (exports are positive and imports are negative)
    - Intermediate goods and transfer payments
        - Pizza example - ingredients are intermediate good - a good used as an input into the production of something else
        - Double-counting - don't include intermediate goods in final goods - intermediate goods are excluded from GDP
        - Transfer payments - not included in GDP
    - Applications (problems)
        - Will have to calculate based on information
        - Ex. C=10 million, I=15 million, G=20 million, X=25 million, M=Imports=30 million
            - C+I+G+X-M
        - Calculate value added as well
- Financial and physical investment
    - Definition - *ex. Buy a provincial bond for 10 000$ - financial investment*
        - Financial - paid for with cash, in turn you get an IOU, nothing is produced from it, does not add to quantity, etc - terms of dollars
        - Physical (also known as fixed and productive) - buying things such as equipment to create more production - terms of productivity
    - GDP in(ex)clusion
- Real vs. Nominal GDP
    - Definition
        - Real - quantity of good and services produced based on the base years price
        - Nominal - initial GDP calculated, calculating the value of final goods and services based on the market
    - Calculations
        - Know how to calculate GDP deflator
            - For any year - nominal GDP/real GDP x 100

        - Will be asked to calculate nominal GDP first
- Inflation Rate
    - Calculation and interpretation
        - Ex. 2016 - GDPdef 133, 2017 - GDPdef 139
        - ((139-133)/133) x 100
        - 100(139/133 - 1)
- GDP as a measure of Economic health
    - GDP per capita
        - RGDP - uses real GDP where prices are removed
    - GDP growth rates
        - Calculate growth rate - same formulas as inflation rate :)
        - Compound formula - F=P(1+g)^N - don't need to do this wednesday night
- Limitations of GDP
    - Home production - *ex. You have a significant garden plot. Is the value of the investable included in GDP? NO*
    - Parallel (underground) economy
        - if you're doing something outside the supply and demand market, it's not included in GDP - ex. Working "under the table"
    - Environmental externalities
        - Ex. if there's an earthquake, what you have to rebuild becomes quite expensive - these costs are included in GDP, but maybe they shouldn't be
- GDP and Well-Being
    - Incomplete measure of living standards
        - Need other metrics of well-being and quantity of life

Chapter 8

- Measuring the cost of living over time
    - Market basket - what are the key categories? Food, transportation, shelter, etc
    - Which categories are omitted from the core inflation? Energy & one more - find this
        - Tracking the basket's value over time
            - Big big basket - the GDP from which you calculate the deflator
            - Smaller basket - CPI - this is what the typical consumer uses
        - Who's the typical consumer? Urban? Rural?
            - An urban consumer, in rural areas you can sometimes produce your own food
- Consumer Price Index (CPI)
    - Calculations
        - Between baskets from one year to the next
    - Measurement challenges (biases) - does CPI over or under state?
        - Substitution bias is: choosing a different similar product because one is cheaper (ex. Coca-Cola is cheaper, so you buy instead of pepsi)
        - Substitution, innovation (Quality changes), outlets

                - Quality bias - buy a gadget or product, more expensive soap = better quality
                - CPI does not account quality therefore CPI will not go up for buying better quality products
                - Outlets - buying products at an outlet - usually cheaper
            - Impact on “real” CPI
                - New products are usually more expensive, higher CPI is result, but not using quite the same product (ex. Computer vs. typewriter)
- Inflation rate and CPI
    - Calculations
        - CPI is used to calculate the inflation
    - Deflating nominal variables (ex. Real and nominal interest rates)
        - GDP deflator and CPI are close in measure
        - Ex. rate of interest
            - Nominal interest rate = 5% (the rate you would see posted in a bank)
            - Inflation rate = 2%
            - Real interest rate (purchasing power) = 3% (5% - 2%)
                - Nominal - inflation
                - Greater than 0 - purchasing power is higher
                - For most people, it’s less than 0
- Linking variables to inflation
    - Indexing wages, transfer payments
- PPP - Purchasing power parity - what is this?? What is it about?
    - Indexes (Big Mac)
    - Adjustment - not on exam :):):)

Chapter 9

- Production function
    - Input (labour) vs. Output - graph
    - When you increase labour, what happens to output? It goes up at a decreasing rate, the increase goes down - slows down with capital?
    - Know what this law is called !! - Law of diminishing marginal returns
- Real GDP per capita growth rate = NGDP growth rate - Inflation Rate - Population growth rate
- Compounding and the rule of 70 - used for doubling something, how much time does it take to double at a certain growth rate?
    - F=P(1+g)^N
    - 70/g = years required to double an amount [g=Growth rate]
- Productivity - what will cause the curve to shift up? More capital,
    - Components: physical and human capital; technology, natural resources
        - Know the difference between physical and human capital
            - Physical - equipment

            - Human - knowledge
    - Law of diminishing marginal returns
        - Does the law apply to physical capital? Yes
        - Does the law apply to human capital? No
        - Technology? No
- Convergence
    - It's a catching up effect where poor countries start at a low level and try to catch up to richer countries
    - Ex. american economy - doesn't increase fast
- Growth and Public Policy
    - Investment and Savings
        - GDP => S => I (and then returns to complete cycle) - this leads to capital K which is the stock of capital you have at a point in time
        - K= I - D
        - The more saving and investment you have, the more GDP will grow
        - Investment trade-off
            - To save more, you consume less
            - Increased savings (reduced consumption) -> investment
    - Education and Health
    - Technological development
- Poverty Trap
    - The poorer the country, the more difficult is the consumption - savings trade-off
    - Convergence theory is only a theory - doesn't account for everything
    - As a poor country it's hard to save, you need to consume everything to stay alive

ECO 1102: Second Midterm Exam Review - Key Topics

40 Multiple Choice Questions

- **The Labour Market**
    - **Definitions**
        - **Working-age population**; The working-age population is the civilian, noninstitutional population over 16 years old.
        - **Labour force**; The labour force refers to the people who are in the working-age population and are either employed or unemployed (actively trying to find a job)
        - **Discouraged workers**; People who have looked for work in the past year but have given up because of labour market conditions
        - **Employed**; People who have a job and are a part of the labour force
        - **Unemployed**; People who do not have a job, are able to work if offered a job, and are making efforts to look for a job
        - **Underemployed**; People who are either working less than they would like or in jobs below their skill level
    - **Key metrics**

- **Unemployment / Participation / Employment rates:**

$$\text{Unemployment rate} = \frac{\text{Number of unemployed}}{\text{Labour force}} \text{ X } 100$$

$$\text{Participation rate} = \frac{\text{Labour force}}{\text{Population 15+}} \text{ X } 100$$

$$\text{Employment rate} = \frac{\text{Number of employed}}{\text{Population 15+}} \text{ X } 100$$

- Relationship: economic cycles and key metrics
  - Output higher than potential output = Economy Boom
  - Output lower than potential output = Recession
- **Labour markets**
  - **Supply and demand**:
    - There is a demand for labour (from firms wanting to hire workers).
    - There is a supply of labour (from individuals looking for jobs).
    - There is a price (called the wage)
  - **Equilibrium**; The labour demand and labour supply curves describe the national labour market. The intersection of the curves identifies the market equilibrium. At equilibrium, there is a stable wage (price) and amount of labour bought and sold.
    - The equilibrium does not explain unemployment.
  - **Disequilibrium**; Unemployment occurs when the wage rate is higher than the equilibrium wage. Workers are willing to provide more labour than firms are willing to hire. The labour market has a surplus of workers.
- **Types of unemployment**
  - **Natural** (components?); structural, frictional, classical (real-wage)
  - **Structural**; is caused by a mismatch between the skills workers can offer and the skills in demand.
  - **Frictional**; is caused by workers who are changing location, job, or career. It is a natural and healthy part of life in a dynamic economy.
  - **Classical**; results from wages being higher than the market-clearing level (wages above equilibrium level)
  - **Cyclical**; is caused by short-term economic fluctuations. Economists use the term business cycles to describe the pattern

of short-term ups and downs. Wages are “sticky” in the real world, meaning that they are slow to respond to shifts in the economy. This results in actual wages that are above the market-clearing level

- **Seasonal**; occurs when people are unemployed at certain times of the year, because they work in industries where they are not needed all year round
- **Duration of spells** (short/long term)
    - Most spells of unemployment are short.
- **Public policies to mitigate unemployment categories**:
    - Policy solutions directed toward fixing the unemployment problem should be directed toward those suffering prolonged spells of unemployment
    - The government might prevent falling wages through minimum-wage legislation

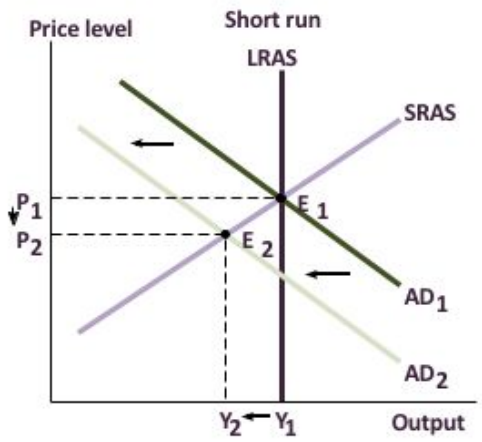
- **Aggregate Supply and Demand Model**
    - **Definitions**;
        - **AD**; AD = GDP = C + I + G + NX
            - The aggregate demand curve shows the relationship between the overall price level in the economy and output (decrease in price = increase in output)
        - **SRAS (Short-run aggregate supply)**; In the short run, the AS curve slopes upward (increase price = increase output).
        - **LRAS (Long-run aggregate supply)**; In the long run, the aggregate supply curve is fixed. The long-run aggregate supply curve is not affected by the price level, causing it to be vertical.
        - **Factors underpinning slopes**; (Demand Curve - downward sloping)
            - The Price Level and Consumption: The Wealth Effect
                - Price falls, consumers feel more wealthy and spend more (Larger quantities of goods and services are demanded)
            - The Price Level and Investment: The Interest Rate Effect
                - A lower price level reduces the interest rate, which encourages greater spending on investment goods (This increase in investment spending means a larger quantity of goods and services demanded)
            - The Price Level and Net Exports: The Exchange-Rate Effect
                - When a fall in the Canadian price level causes interest rates to fall, the real exchange rate depreciates, which stimulates Canadian net exports (The increase in net export spending means a larger quantity of goods and services demanded)
        - **Determinants of shifts/Differences in the determinants of shifts;**

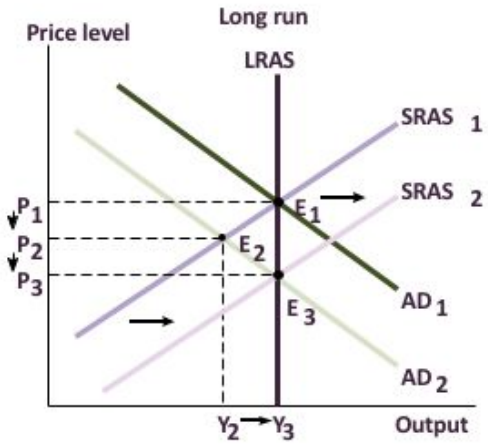
- **SRAS and LRAS** - everything that shifts the LRAS shifts the SRAS. Not everything that shifts the SRAS shifts the LRAS.
    - Ex: changes in expectations of future pricing affect only the SRAS.
- For a movement on either curve, it has to be an actual change in price, not an expected change
- For a shift to the actual curve (SRAS), it can be an expected change
- An expected change in prices will not shift LRAS

Category	**Increase** (shift right)	**Decrease** (shift left)
Consumption	• High expectations about future income increase consumer spending. • Tax cuts increase consumer spending.	• Low expectations about future income lead to greater saving and less spending. • Higher interest rates discourage borrowing.
Investment	• Confidence in the future of the economy leads firms to expand their businesses. • A tax credit for small businesses inspires firms to buy new company cars.	• Firms cut back on spending in order to weather a recession. • Taxes on capital increase, leaving less money for investment.
Government spending	• Increase in government spending spurs spending after a recession.	• Decrease in government spending in response to concerns about increasing debt leads to less spending.
Net exports	• A new free trade agreement with Europe reduces most tariffs and other restrictions on Canadian goods. • Economic growth abroad in the US increases demand for Canadian goods and services.	• Other countries increase their tariffs on Canadian goods, making the goods more expensive. • The dollar strengthens, making Canadian goods and services more expensive for international consumers, decreasing demand.

Factor	Increases LRAS	Decreases LRAS
Technology	Technological innovation allows for greater production using the same amount of inputs.	A new law stripping away intellectual property rights reduces the incentive to innovate.
Capital	Foreign investment in factories and machines increases available capital.	Depreciation and wear breaks down capital.
labour	Immigration increases the available supply of labour.	Aging population takes workers out of the labour force.
Education	Universal primary education gives everyone a chance to go to school.	Reduction of federal university grants.
Natural resources	New energy sources allow factories to produce more with the same inputs.	Climate change permanently reduces the amount of land that can be farmed.

    - **Equilibrium**; the point at which aggregate demand equals aggregate supply. Represents a stable level of prices and output
- **Graphs and short- and long-term equilibrium**
    - **Short term**; Increase in consumer confidence causes AD to increase. Output is below long run potential. Prices decrease.
    - **Long term**; The decrease in AD causes wages and input prices to fall. SRAS increases. Output returns to original level. Prices decrease again.





- **Fiscal Policy** - chapter studied in closed economy only!!
  - **Discretionary policy**; may be used when automatic stabilizers are unsuccessful in correcting the economy, refers to adjusting tax rates in response to economic conditions
  - **Automatic stabilizers**; are taxes and government spending that affect fiscal policy without specific action from policy-makers
    - Instruments of
      - **Expansionary Policy**; increase aggregate demand
        - Increased government spending and lower taxes have expansionary effects
      - **Contractionary Policy**; decrease aggregate demand
        - Decreased government spending and higher taxes have contractionary effects
  - **Multipliers (closed economy)**
    - **Marginal propensity to consume (MPC)**; The amount consumption increases when after-tax income increases by $1 is called the marginal propensity to consume (MPC)
      - ΔC/ΔY (change in consumption divided by change in income)
    - **Marginal propensity to save (MPS)**;
      - ΔS/ΔY (change in savings divided by change in income)
    - **Government expenditure and tax multipliers**; The government-spending multiplier is the amount that GDP increases when government spending increases by $1
      - **Government Expenditure multiplier:**

$$\text{Government-spending multiplier} = \frac{1}{(1 - \text{MPC})}$$

      - **Taxation multiplier:**

$$\text{Taxation multiplier} = \frac{-\text{MPC}}{(1 - \text{MPC})}$$

- Taxation multiplier Always lower than Gov-spending multiplier
- **Bridging GDP gaps**: create equilibrium in economy by using equations above. (Examples below)

- **Fiscal policies (mixed + closed economy)**
  - **Example 1**
    - MPC=0.8
    - Recessionary gap= $10B
      - ΔG to bridge gap?
      - ΔT to bridge gap?
  - **Example 2**
    - MPC=0.5
    - Inflationary gap= $20B
      - ΔG to bridge gap?
      - ΔT to bridge gap?
- **Financial markets**
  - **Definitions and main functions**
    - **Match buyers and sellers**; Financial intermediaries channel funds from people who have them to people who want them.
    - **Provide liquidity**; Liquidity is a measure of how easily an asset can be converted quickly to cash
    - **Diversify risk**; Diversification is when risks are shared across many different assets or people
- **Loanable funds market**; is a market in which savers supply funds to those who want to borrow. A market in which savers supply funds to those who want to borrow.
  - Movements along and shifts in the supply of and demand for loanable funds.
    - The supply of loanable funds comes from savings.
    - The demand for loanable funds comes from investment.
- The key players in a financial system
  - **Banks and other intermediaries**; Financial institution?
  - **Savers**;
    - A mutual fund is a portfolio of stocks and other assets managed by a professional who makes decisions on behalf of clients
    - A pension fund is a professionally managed portfolio intended to provide income to retires
  - **Entrepreneurs and businesses**; They are often looking to borrow money to finance their latest ventures. Without these borrowers, much of the financial system would not exist.
  - **Speculators; A speculator is anyone who buys and sells financial assets purely for financial gain**

- **Types of risk**
    - **Macroeconomic (systemic)**; refers to risk that is broadly shared by the entire market or economy
    - **Idiosyncratic (market specific)**; refers to risk that is unique to a particular company or asset
        - **How risk is measured**:
            - **Standard deviation**; is a measure of how spread out a set of numbers are
            - This is the most commonly used measure of risk in financial markets
- **Approaches to the selection of financial assets**
    - **Fundamental analysis**; Estimate how much money a company will earn in the future.The net present value (NPV) is a measure of the current value of a stream of expected future cash flows.
    - **Technical**; Analyze movements in a stock's prices to predict future movements
    - **Dart throwing**; Make a list of all stocks, pin it to a wall, and throw a dart at it.
- **Trade-off between risk and return in financial assets**
    - There is clearly a strong correlation between the expected risk and expected return in financial assets (higher risk = higher expected return)
- **Predicting returns? [efficient market hypothesis]**; states that market prices always incorporate all available information, and therefore represent stock value as correctly as possible
    - **Arguments for**; This idea underlies the dartboard approach.
    - **Arguments against**; Fundamental and technical analysis only work if the current price differs from the "correct" price
- **Arbitrage**; is the process of taking advantage of market inefficiencies to earn a profit
- **Relationship between savings and investment (closed economy)**
    - **Private economy** (I=private savings); private savings refers to the savings of individuals or corporations within a country
    - **Mixed economy** (I=Private + public savings); public savings is government savings
    - Saving=Investment (only in closed economy)
- **Injections and Leakages**
    - **Private and closed economy (G=T=X=M=$0)**
        - Y=C+I (Y=GDP) and Y=C+S (S=Savings)
        - C+I=C+S
        - I=S where S=private savings (households and businesses)
    - **Public and closed economy (X=M=$0)**
        - Y=C+I+G and Y=C+S+T
        - C+I+G=C+S+T
        - I+G=S+T
            - Private savings (S)=Y-C-T; public savings =T-G
            - National savings=private+public savings=Y-C-T+T-G=Y-C-G

- Investment (I) =National savings (Y-C-G)