Macroeconomics

Avery Karlin

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Contents

Main Textbook: Krugman's Economics for AP
Secondary Textbook: CORE Project Economics
Teacher: Schweitzer

1 CORE Chapter 1

1.1 National Differences

1. In the 1300s, most of the world was fairly equal in the general amount of wealth of the population, even if there were large differences between the rich and poor, often depending on parental status

    (a) Gross domestic product per capita, or average living standards, has raised in the last 700 years, but caused differences by country, due to having a sudden rise at different times, leading to different standards

    (b) Often, independence from colonial rule or European interference caused the sudden economic growth, but Latin America did not have the growth

2. The ratio scale has the GDP y-axis go up by some multiple, used to compare growth rate, or $(\Delta GDP)/(GDPstart)$, such that 100% means it doubles if ratio of 2

    (a) The ratio scale thus has the slope of the graph as the growth rate

    (b) Thus, the GDP per capita appears as a hockey stick curve, remaining without much growth, before a kink, leading to a sudden rise

3. Adam Smith argued that coordination of all the aspects of an economic culture from different parts of the world, would be created on its own based on self-interest, rather than made by the government

    (a) He did believe there was ethical beliefs guiding behavior, and feared monopolies, especially government protected

    (b) He approved of government investment in education and public works, as well as justice and foreign policy through the government

1.2 Capitalism

1. An economic system is the organization of the production and distribution of products in an economy

2. Capitalism is the economic system made up of institutions, or sets of laws and social customs regulating the economy, of private property, markets, and firms

    (a) In prior economies, families typically were the third major institution, or the economy was regulated by a centralized government

    (b) Private property is possessions purely controlled and owned by an entity, able to control use or give ownership

    (c) Markets facilitate the transfer of goods in a reciprocal, voluntary trade

    (d) Firms are the main organization of production, owning the capital goods (which diffrentiates it from other economic organizations and systems), paying wages, managing employees, such that the products are private property of the owner, to make a profit

        i. Firms are the main organization, with others being families, unions, government agencies, and non-profits

ii. Firms utilize the labor market, unlike other organizations, such that firms can be created, destroyed, expand, or contract extremely quickly

3. Capitalism both centralizes power in the hands of firm owners, and decentralizes from the government and other outside influences, creating power and cooperation inside, but competition outside

4. Defintions are used, not to set a specific rule, but to set general catagories which something can fall within to different degrees

2 Chapter 1

2.1 Study of Economics

1. Economics is the study of scarcity and choice, mainly individual choice, as well as the economy, or the system which coordinates choices about production and consumption, and distributes products

   (a) Market economies, like the US, is where productive and consumption are made by decentralized decisions of many people

   (b) Command economies are those where industry is publically owned with a central authority for production and consumption, typically failing due to lack of resources or being told to make unneeded products, not gathering information as well, better for incentivizing needs, not complete control

2. Economies rely on incentives, punishment or reward, for particular choices, such as higher prices for needed products, causing more to be made

   (a) Property rights give ownership and allow trading, creating incentives to use resources for value

   (b) Marginal decisions balance cost-benefit, looked at by marginal analysis

   (c) Resources, which can be used to make something else, are scarce, or less than society desires, as incentives

3. Factors of production, or resources, are divided into land, labor, capital (all manufactured goods to make other goods, which are not used up in production), and entrepreneurship (firm ownership, not dependent on risk)

   (a) In a market economy, use of resources is based on the sum of individual decisions, though sometimes, when there is no incentive, community decisions must interfere with the market for the general good

   (b) Opportunity costs are factors given up for a specific choice, such as time, money, or future prospects

4. Macroeconomics are the study of the overall economy, mainly economic aggregates, or measures such as GDP, unemployment, or inflation

   (a) Macroeconomics runs on the basis that the sum is greater than its parts, due to the overall dynamics, mattering more than microfoundations

   (b) Microeconomics are the study of individual decisions of people, firms, or markets/industries

5. Positive economics is definite factual questions about how the world actually works, rather than normative, or uncertain questions about how it should work

   (a) The former deals with both economic forecasts, or predictions based on current conditions, and hypotheses of predictions in different ones

   (b) Economic models are used to give simplified representations of reality, used for both types of positive analysis

   (c) Normative creates value judgements, up to opinion, unless there is a clear beneficial advantage of one, often based on opportunity costs, not using models, but rather prior ideas and models for other measures

6. Disagreements can be created by differences in values, or on the model of reality, exacerbated by political interests

2.2   Intro to Macro

1. The business cycle is the alternating cycle of down and upturns

   (a) Depressions are a very deep, long downturn with product output and employment falling, while shorter downturns are called recessions

   (b) Expansions and recoveries are the opposite periods of upturn, typically lasting almost 5 years (57 months), rather than 10 months of recessions

2. Macroeconomic analysis is used to minimize the fluctuations of the economy

   (a) Unemployment is the number of people looking for work actively, who are not working, while the labor force is the unemployed + employed, and the unemployment rate is the percentage of the force unemployed

   (b) Unemployment rate is a good economic indicator, though even during an expansion, there is a small unemployment rate

3. Aggregate output, or the total amount of goods and services produced in a given amount of time, is another economic indicator

4. Inflation is a rise in the overall price level, while deflation is the opposite, the former discouraging saving, and eventually making money worthless

   (a) Deflation encourages saving, instead of reinvesting to allow the economy to regrow, with price stability being the most desirable

5. Economic growth, or an increase in the maximum possible output, is an overall sustained rise over a long period of time, outside the business cycle, allowing higher wages and standard of living

   (a) On the other hand, economic growth can be bad for stability of the business cycle, and vice versa

6. Models are a simplified version of reality, studying economies in a smaller setting, such as a WWII prison for cigarettes, or on a computer simulation

   (a) The other things equal (ceteris paribus) assumption is used to only study one change, by making all other factors constant

(b) Thought experiments, or simple, hypothetical scenarios, are another effective way of modeling, as well as graphing

2.3 Production Possibility Curve Model

1. Trade-offs are when something is giving up the opportunity costs of something for that of another option, analyzed by the PPC

   (a) The PPC model assumes only two goods produced, such that points within are feasible, but not optimal/efficient, while points on are both

   (b) The slope determines if the trade-off is constant, called a constant opportunity cost, often not true, due to having to use less suited resources as the production increases, thus getting less and losing more

   (c) Input problems find the trade-offs to gain the same output of different products, while output find for the same input for different products

2. Efficiency in production is the lack of missed opportunities, or optimal improvement to one's self, without hurting others, exampled by unemployment of those who want work

   (a) Efficiency in allocation is the maximization of consumer happiness by the optimal production of the correct goods

   (b) Overall efficiency requires both in allocation and production

3. Economic growth can also be defined as the expansion of production possibilities, shifting the curve outward, since products made shift

   (a) This is typically caused by increase in resources or technology, the technical means of production of products

   (b) Since only one product on the curve may shift, there is a chance production may not rise, even as there is growth

2.4 Comparative Advantage and Trade

1. Trade is the division of tasks, such that people trade goods and services for those they want

   (a) Gains from trade are caused by specialization, due to engaging in a specific task allowing the production of more of the good

   (b) This is due to the time required for skill development in a field

   (c) This also results from comparative advantage, or the idea that some people are better at certain actions than others, resulting in a lower opportunity cost for production

   (d) People will only accept deals that cost less than their personal opportunity cost for production (terms of trade)

2. Absolute advantage is the general ability to produce more, under any relative distribution of resources

   (a) Comparative advantage creates the mutual benefits of trade, not absolute advantage

3 Chapter 2 - Supply and Demand

3.1 Intro to Demand

1. Competitive markets are a market with many buyers and sellers of the same products, where a market is a group of consumers and producers exchanging products for payment

   (a) Thus, individual actions must not have a noticable effect on the price, such that in non-fully competitive markets, it doesn't apply completely

   (b) It is described by the demand and supply curves, sets of factors which cause each to shift, market equilibrium, and how market equilibrium changes when the curve shifts

2. The demand for any good depends on the price, making a demand curve of the quantity demanded vs price, first making a demand schedule table of points

   (a) The quantity demanded is the amount consumers are willing to buy at a particular price

   (b) Demand curves typically have a downward slope, not always constant, such that the law of demand states that as price decreases, demand increases, and vice versa

   (c) Due to all other things equal, the curve does not account for changes in the world, such that changes in taste, income, related prices, number of consumers, or expectations (either in income or price) can shift the curve outward

      i. Changes in demand are at the same price, while a movement on the curve are at a different price

      ii. Related good price changes are in goods which are substitutes, such that people are more willing to buy the other if price rises, or complements, which are goods that people are more willing if the price of the other falls

      iii. Normal goods are those where demand increases as income does, unlike inferior goods, typically those with better, more expensive alternatives

      iv. Number of consumers can change due to population, such that the individual demand curve (demand curve for a single person, such that the market curve is the horizontal sum) may not shift, but the market curve does

      v. One exception is conspicuous consumption, or goods which people purely buy due to high price to gain social status, or goods so cheap they can no longer be considering the same product

3.2 Supply and Equilibrium

1. The quantity supplied when offered a specific price also varies with price, such that a schedule, and curve can be produced, forming a law of supply, where if price rises, supply will as well

2. Changes in supply can be caused by changes in input (items needed to produce the product) prices, related goods price, technology (methods used for production), expectations, and number of producers

   (a) Often, several related products are produced by the same producer, such that as the price of one good rises, the others (substitutes in production) are produced less

   (b) Biproducts of the same process are compliments in production, and will be made more

3. The interaction of supply and demand creates equilibrium where supply is the same as demand, at the equilibrium/market-clearing price and quantity

    (a) On the same graph, the equilibrium point is the intersection of the two curves

    (b) In all established, ongoing markets, people converge toward a single market price, which is most beneficial to all parties involved, and the price moves to prevent surpluses or shortages

3.3 Changes in Equilibrium

1. Changes in equilibrium cause the shift of either the supply curve, the demand curve, or both simultaneously

2. When demand increases, the equilibrium price and quantity increase, and vice versa, such that the curve moves rightward and the intersection moves up-right

3. When supply increases, the equilibrium price decreases, but the quantity increases, such that the curve moves rightward and the intersection moves down-left

4. Simultaneous shifts depend on the relative shifts to determine in which way the equilibrium moves, such that one direction can be determined, but the other is ambiguous

5. Events in the short term can only change either supply or demand, not both, though in the long run, it moves toward equilibrium, causing a change

4 Chapter 3 - Economic Performance Measurement

4.1 Circular Flow and GDP

1. The national income and product accounts, or national accounts, keep track of the flow of money from consumers to producers, as well as business investment, or government purchases

    (a) Accuracy of national accounts is an indication of how economically advanced a country is

2. The circular flow diagram represents the flow of money in the economy, with money flowing from a household, or group of people sharing an income, for goods and services (spending)

    (a) The money can then flow from the market for goods and services to the firms (revenue), or organizations that employ households and make products, in exchange for products

    (b) Money then goes from the firms to the factor markets (costs), which give money in exchange for factors of production, especially labor from households (income)

    (c) Thus, the idea is that the money flowing into or out of each market or organization is equal to the money flowing out

    (d) All factors are assumed to be rented from the factor market from households, due to household ownership of firms, within the simplified model

    (e) This model assumes lack of saving, no surplus outputs, and no alternate sources of leakages (money flowing outside the simple circular flow model)

3. This can be extended into a more complex model, adding the government, foreign nations, and the financial market, such that the flow from households to product market is consumer spending

    (a) In addition to selling labor, households use stocks, or firm shared ownership, and bonds, or loans to firms with interest, from the financial market to firms, which eventually goes back into the factor market to households in profits and interest

    (b) Rent is also given by households to the firms in exchange for land resources, through the factor market

    (c) While people spend most disposable income in the product market, some of total income is lost through taxes, while some can be gained through government tranfers, such as unemployment payment, given without a reciprocal service

    (d) Some disposable income is lost as private savings in the financial market, which, in addition to providing money to firms allows government borrowing

    (e) Government funds is also used for government purchases

    (f) Goods sold to other countries are exports, while those purchased are imports, as part of the product market, and foreign nations also participate in borrowing and investing in the financial market

    (g) Finally, firms also purchase products from the product market through investment spending, adding to their inventories, or raw materials and capital used for production

4. Gross domestic product (GDP) is thus the sum of government purchases, investment, and consumer spending, minus imports, or the total of final goods and services produced during a period

    (a) Final products are those sold to the final user, while intermediate products are those that are inputs into the production of the final product, such that capital is final, while resources are intermediate

5. GDP can be measured by adding the total value of production of final products (or sum of value added of all products), aggregate spending on domestically producted final products, or total factor income earned by households from domestic firms

    (a) Intermediate products are ignored for total value of production due to their value being added to that of the final product, such that they would be summed multiple times otherwise

    (b) Each product has value added of interest, rent, profit (both employee profits, and those paid to shareholders as dividends), and wages on that product, combined with the price of all intermediate products for the total value

    (c) Total factor income is found by the sum of each type of factor payment, such that it is the sum of total wages, interest, rent, and profits from each product, including intermediate

    (d) GDP by aggregate spending = consumer + investment + governemnt + exports - imports, where exports - imports can also be called net exports

    (e) Stocks and bonds are not counted due to not representing the sale of final goods or the direct production of final goods

6. GDP can be calculated practically through the sum of aggregate spending or the value added by each sector of the economy (business, household labor, and government services)

4.2 Real GDP

1. Stock variables are those measured at a specific point in time, such as nominal capital stock (value of all national assets at one time) while fluid variables are those measured over a period of time, such as nominal GDP

2. GDP describes the size of the economy, but measures the price of total products produced, rather than the amount of output, such that real GDP adjusts for price changes to describe aggregate output (the quantity of final products produced)

   (a) This prevents inflation or rise of prices from causing the increase in GDP, without increased aggregate output

   (b) Real GDP is calculated as the GDP if the price had remained constant from some base year, such that it is the total value of final products, assuming that price level

   (c) Nominal GDP is another term for non-real GDP

   (d) Since Real GDP can be calulated from a late or early base year, gaining different results, chain-linking measures the average of the two values, expressed in chain dollars

3. Real GDP comparisons assume equal population, such that GDP (or real GDP) per capita (divided by the size of the population) can be used to account for that

   (a) Real GDP per capita compares labor productivity, but it is not a complete measure of living standards, but rather of potential living standards

   (b) High living standards requires health, education, and good quality of life spending, rather than expenditures on negatives such as natural disasters or disease

   (c) Real GDP per capita also does not include other components to high standard of life, which are non-monetary, such as natural beauty or leisure