Introduction to Macroeconomics

ECON 102: Principles of Macroeconomics

Professor Marina Adshade

Get ready for the term:

1. Purchase the required textbook the UBC Bookstore in a package with Achieve ($97.70) and integrate your version of Achieve with Canvas.
2. Double check that you have an iClicker account that is connect to the course “ECON 102.002 2023”.
3. Install the Piazza app on your phone or other devices so that you have use that tool to ask (andn answer!) questions about the course.
4. Read the Canvas Module “Course Information” and take the quiz “Course Policies”.
5. Read the Canvas Module “Avoiding Academic Misconduct” and take the quiz “Academic Misconduct”
6. Read the “UBC Statement on Respectful Engagement” and take the “Respectful Environment”.

Make sure you have these dates in your calendar:

Assessment	Dates	Time	Material
Test One	Jan. 24	2:30 PM	Weeks 1 & 2
Test Two	Feb. 7	2:30 PM	Weeks 3 & 4
Test Three	Feb. 28	2:30 PM	Weeks 5 & 6
Test Four	March 13	2:30 PM	Weeks 8 & 9
Test Five	March 27	2:30 PM	Weeks 10 & 11
Test Six	April 10	2:30 PM	Weeks 12 & 13
Final Exam	TBD	TBD	Weeks 1 - 13 + textbook chapters

Know what to expect every week:

Week Day	Assessments	Lecture / Readings
Monday	iClicker Quizzes (all non-test class days)	Lecture [50 minutes]
Wednesday	Bi-weekly Test [20 minutes]	Lecture [30 minutes]
Friday	Adaptive Learning Exercises [20 - 40 minutes]	Lecture [50 minutes]
Sunday	Weekly Homework [30 - 60 minutes]	Textbook readings [40 - 80 minutes]

Understand how your grade will be determined:

ASSESSMENT METHODS: Your progress in this class will be measured in the following ways.

Achieve Adaptive Learning Exercises	5%
Achieve Homework	7%
iClicker Quizzes	7%
Tests (6)	36%
Final Exam	45%

Know what to do if you have a question/problem:

1. Questions related to the material or about the course logistics should be asked on the course Piazza page, in your weekly labs or office hours.
2. Requests for academic concessions should be made on the course Qualtrics survey linked on the course outline.
3. Requests for test regrades can be made through Gradescope.
4. All other questions can be sent to the course email account: econ102.002@ubc.ca.

How to Get an A in 20 Minutes a Day (example)

Sunday:	Read textbook chapter
Monday:	Review lecture notes/iClicker quiz
Tuesday:	Learning Curve Activity
Wednesday:	Review lecture notes/iClicker quiz
Thursday:	Problem Video Walkthrough
Friday:	Review lecture notes/iClicker quiz
Saturday:	End of Chapter Problems

Over the next seven minutes, please discuss the following in groups of 3 students.

- What is your general sense of the state of the economy right at this moment?
- What, has been implications of that state of the economy for the following?
    - Employment
    - Output
    - Prices
    - Interest rates
- What policies, if any, have been implemented to fix these problems?
- What do you predict will happen to the economy in the coming year?

At the end of this week, you will be able to:

1. Differentiate between macroeconomic and microeconomic approaches to economic policy.
2. Explain how to use aggregate measures to track the performance of the economy.
3. Apply microeconomic fundamentals to microeconomics.
4. Understand how to measure gross domestic product is and the three ways of calculating GDP.
5. Explain the difference between real GDP and nominal GDP.

Macroeconomics versus Microeconomics

MICROECONOMIC QUESTIONS	MACROECONOMIC QUESTIONS
Should you go to graduate school or take a job?	How many people are employed in the economy as a whole?
What determines the salary offered by UBC to staff in the Totem Dining Room?	What determines the overall salary level paid to workers in a given year?

Macroeconomics versus Microeconomics

MICROECONOMIC QUESTIONS	MACROECONOMIC QUESTIONS
What determines the cost to a university of offering a new course?	What determines the overall level of prices in the economy as a whole?
What policies should be adopted to make it easier for low-income students to go to school?	What policies should be adopted to promote full employment in the economy as a whole?
What determines if a Canadian student studies in China?	What determines the overall trade in goods, services and financial assets?

Macroeconomics versus Microeconomics

- **Microeconomics** focuses on how decisions are made by individuals and firms and the consequences of those decisions.
- **Macroeconomics** examines the *aggregate* behavior of the economy; how the actions of all the individuals and firms in the economy interact to produce a particular level of economic performance as a whole.
- In macroeconomics, the behaviour of the whole is greater than the sum of individual actions.

Example: Paradox of Thrift

- When households and businesses are worried about the possibility of a recession, they might cut their spending.
- This reduction in spending depresses the economy as consumption starts to fall and businesses react by laying off workers.
- Families and businesses may end up worse off than if they hadn't tried to act responsibly by cutting their spending.
- The behaviour of a collection of individuals ends up affecting the economy as a whole.

Macroeconomics and Policy

- **Monetary policy** uses changes in the quantity of money to alter interest rates and affect overall spending in the economy.
- **Fiscal policy** uses changes in government spending and taxes / transfers to affect overall spending in the economy.
- **Trade policy** uses tariffs, embargoes and trade agreements to control the flow of goods and services into and out of the country.
- **Labour policy** uses regulations and policy to influence the labour markets, including wages and employment.

Example: Keynesianism and the Great Recession

- In 2008, the world economy experienced a severe financial crisis that was reminiscent of the early days of the Great Depression.
- In the spring of 2009, the economic historians reviewed the available data, pointed out that "globally, we are tracking or even doing worse than the Great Depression."
- But the worst did not come to pass. Why?
  - Policy makers responded very differently than they had in the 1930s.
- During the Great Depression, it was widely argued that the slump should simply be allowed to run its course which is why it lasted for almost a decade.

Example: Keynesianism and the Great Recession

- In the early 1930s, some countries' monetary authorities actually raised interest rates and governments cut spending and raised taxes—actions that deepened the recession.
- Following the 2008 crisis, interest rates were cut, and a number of countries, Canada included, used temporary increases in spending and reductions in taxes to sustain spending.

Wages, Labour, and Wage Gaps

- Macroeconomics studies labour markets, including the relative labour supply and wages of different groups.
- In Canada labour markets are measured by the Labour Force Survey (LFS) which is takes every month on the week of the 15th.
- Some examples of macroeconomic labour variables:
  - Gender wage gap
  - Dependency ratio
  - Female labour force participation rate
  - Returns to education

Other Macroeconomic Issues

- Macroeconomic variables are any aggregate variables that indicate the state of the economy (in the broad sense).
- Other macroeconomic policy issues include:
  - University (or high school) graduation rates
  - Average age at first marriage / age at first birth
  - Fertility rates
  - Divorce rates / marriage rates
  - Life expectancy
  - Infant mortality
  - Happiness

The National Accounts - Households

- Households earn **income** via the factor market: wages, interest on bonds, dividends on stocks and rent on land.
- Households receive transfers from the government.
- Disposable income (total household income plus government transfers minus taxes) is divided between consumption (C) and savings (S).

The National Accounts – Investment

- **Private savings** is disposable income that is not spent on consumption.
- **Financial markets** (banking, stock, and bond markets) channel private savings and foreign lending into investment spending, government borrowing, and foreign borrowing.
    - Financial markets take savings and turns it into investment.

The National Accounts – Investment (con’t)

- **Inventories** are stocks of goods and raw materials held to facilitate business operations – think of cars held in a manufacturer's lot.
- **Investment** (I) is spending on productive physical capital, such as machinery and construction of structures, and on changes to inventories.
- **Intermediate goods and services** are goods and services—bought from one firm by another firm—that are inputs for production of **final goods and services** sold to end users.

The National Accounts – Governments

- **Government purchases of goods and services** (*G*) is paid for by tax receipts, as well as by government borrowing (deficits).

The National Accounts – Trade

- **Exports** (*X*) generate an outflow of goods and services into the the rest of the world from the country.
- **Imports** (*IM*) lead to an outflow of goods and services into the country from rest of the world.
- **Net Exports** (NX) is exports minus imports (X – IM)

Gross Domestic Product

- **Gross domestic product** or **GDP** measures the total value of all final goods and services produced in the economy during a given year.
  - It does not include the value of intermediate goods or inventories.
- **Aggregate expenditure** is the total spending on domestically produced final goods and services in the economy.

GDP can be calculated three ways:

1. Add up all spending on domestically produced final goods and services.

$$GDP = C + I + G + X - IM$$

2. Add up the **value added** of all producers - the value of sales minus the value of purchases of intermediate goods and services.
3. Add up all income paid to factors of production:
   a) Wages (Labour)
   b) Interest (Capital)
   c) Rent (Land)
   d) Profit (Entrepreneurship)

GDP: What's In and What's Out

1. **Included**
   a. domestically produced final goods and services
   b. new productive physical capital
   c. changes to inventories
2. **Not Included**
   a. intermediate goods and services
   b. Inputs
   c. used goods
   d. financial assets like stocks and bonds
   e. foreign-produced goods and services

Definitions Gross Domestic Product (GDP)

- GDP/capita: Deflated by the size of the population
- Real GDP/capita: Corrected for inflation
- Real GDP/capita current US$[1]: Converted to current US$
- PPP-adjusted Real GDP/capita US$: Corrected for Purchasing Power Parity

1. Note that when not adjusted for inflation this is “Nominal GDP/capita”.

GDP V. GNP

- Gross National Product is the total factor income earned by residents of a country – regardless of where that income is earned.
- GNP excludes factor income earned by foreigners, like profits paid to foreign investors who own Canadian stocks and payments to temporary foreign workers in Canada.
- GNP includes factor income earned abroad by Canadians, like the profits of Blackberry’s European operations that accrue to Blackberry’s Canadian shareholders and the wages of Canadians who work abroad temporarily.

GDP V. GNP

- GDP’s considered a better indicator of short-run movements in production and because data on international flows of factor income are unreliable.
- Canadian GDP is about 2% higher than its GNP, mainly because of foreign companies operating in Canada.
- Lesotho’s GNP is about 20% higher than its GDP, mainly because workers earn income in South Africa.
  - Fun fact – in Lesotho Consumption > GDP

Real versus Nominal GDP

- **Real GDP** is the total value of the final goods and services produced in the economy during a given year, calculated using the prices of a selected base year.
- **Nominal GDP** is the value of all final goods and services produced in the economy during a given year, calculated using the prices in the year in which the output is produced.

Real versus Nominal GDP

- Real GDP is not the same as nominal GDP:
  - Real GDP is output valued at current prices.
  - Only in the base year does real GDP = nominal GDP
- **Chained dollars** is the method of calculating changes in real GDP using the average between the growth rate calculated using an early base year and the growth rate calculated using a late base year.
- This is the approach we will use in this course.

THE UNIVERSITY OF BRITISH COLUMBIA

Vancouver School of Economics