TOPIC III: FLUCTUATIONS

ECON1401, UNSW

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Disclaimer

- Today we'll talk about some of the biggest ideas behind the economic thinking
- It is not easy to navigate them, since:
  1. It is very hard to provide sound evidence in favour of one position → causality problem
  2. It is impossible to 'test a theory', as each theory is a collection of statement about how things are
  3. Those statements include different moral principles, anthropologies and political views
  4. The debaters are often very invested in their positions

Disclaimer

- My aim is to present Keynesian economics in the context of its clashes with other schools → on Keynes I follow Sangkuhl (2015)
- New Keynesian Economics is the dominant school today, updating Keynes
- The other main schools are:
  I. Classical (Ricardo, J. S. Mill, Marshall, Edgeworth, Pigou,...)
  II. Austrian (von Mises, Hayek,...)
  III. Monetarists (Milton Friedman,...)
  IV. New Classical (Lucas, Sargent,...)
- If possible I will introduce Kuhn's theory of scientific paradigms
- These clashes are one with the economic history of the world hence in this context I will try to present them

From My Inbox

al-tss2019 — Leijonhufvud Trento Summer School

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directed by
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MACROECONOMIC TOPICS: INEFFICIENCIES AND COORDINATION FAILURES

SCHOOL DIRECTORS

- Martin Guzman, Columbia University and University of Buenos Aires
- Daniel Heymann, University of Buenos Aires

AIMS AND SCOPE

Macroeconomic analysis finds itself in an unsettled state. While the international evidence provides vivid instances of the limits of the self- regulating capacities of economic systems, much of the literature keeps relying on schemes where disturbances are rationalized as consequences of extraneous shocks or postulated frictions. Still, the field has also shown a search for better arguments and representations. The 2019 School will explore, without prejudices, a diverse set of analytical alternatives that have been proposed to narrow down the gap between macro theory and the phenomena that motivate interest in the subject. One of these lines of research refers to deviations from the standard perfect markets benchmark, resulting in macroeconomic externalities and incentive effects that may distort financial decisions, with undesirable aggregate outcomes.
Another focus of the School shall be placed in arguments which trace unsustainable macro performances from inconsistencies in expectations and behaviors, sometimes refreshing traditional insights like JMK´s “beauty contests” or “islands model” formulations of segmented economies. As it has been a maintained practice of the School, the 2019 session will gather lecturers and students with a clear motivation to engage in open-minded discussions of analytical and modeling possibilities, and to address both theoretical and applied issues.

LECTURERS

- **Tiziana Assenza**, Toulouse School of Economics
- **Nelson Barbosa**, São Paulo School of Economics
- **Guillermo Calvo**, Columbia University
- **Roger Farmer**, University of Warwick
- **Daniela Gabor**, UWE Bristol
- **Edoardo Gaffeo**, University of Trento
- **Martin Guzman**, Columbia University and University of Buenos Aires
- **Daniel Heymann**, University of Buenos Aires
- **Perry Mehrling**, Boston University
- **Cynthia Mei-Balloch**, Columbia Business School
- **Franck Portier**, University College London
- **Andrea Roventini**, Scuola Sant' Anna Pisa
- **Roberto Tamborini**, University of Trento
- **Adair Turner**, INET

Key Concepts

Output Y_t

Output, or Y_t, is the total amount of goods and services produced by an economy over a period of time t (usually a year), as for instance measured by GDP.

- We call *expansions* the times in which it grows
- We call *recessions* the times in which it decreases $\rightarrow$ technically, two consecutive quarters
- A severe recession, characterised by a long duration and/or a dramatic decline in the GDP compared to pre-depression, is called *depression*

Key Concepts

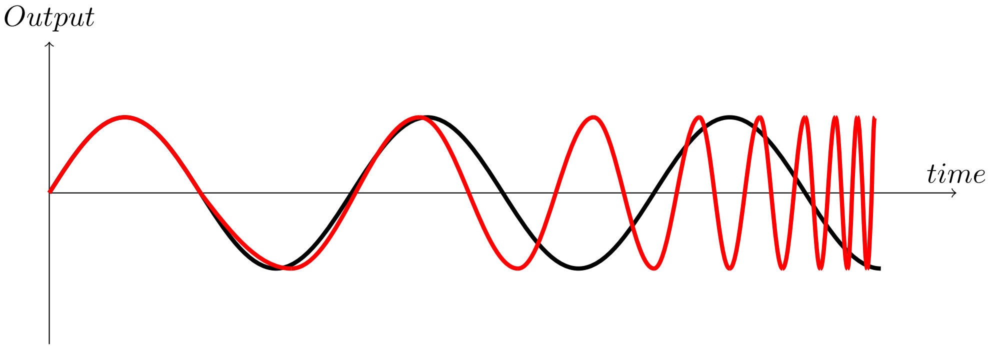
Business Cycle

The theory for which an economy's output tends to cyclically increase and decrease

- Jean Charles Leonard de Sismondi (1819) introduced it, against the Smithian idea of self-correcting markets
- Marx in his *Theories of Surplus Value* (1863) recognised the phenomenon
  - "[...] modern industry passes through the various phases of prosperity, overproduction, stagnation, crisis, and completes its inevitable cycle" (1984)
  - "[...] decennial cycles [...] as accumulation advances, are complicated by irregular oscillations following each other more and more quickly" (1867)
  - "[...] periodic cycle [...] whose crowning point is the universal crisis" (Capital's afterword to 2nd German edition)

Key Concepts: The Business Cycle

Marx vs Other Economists



Note that although not represented, everyone agreed that on average the aggregate economy was growing (the mean is increasing over time).

Key Concepts

Inflation rate i_t

The rate at which the average price of the goods in the economy is increasing over time. It's called *deflation* in the rare cases in which it is decreasing.

Key Concepts

Unemployment U_t

Proportion of workers in the economy who are not employed.

Key Concepts

Nominal & Real Prices

Nominal price: the current price of a good, i.e. the ones we observe. If the economy stays identical but for inflation increasing, it increases.
Real price: the nominal price of good, adjusted for inflation ($\frac{nominal\ p}{inflation\ rate}$). If the economy stays identical but for inflation increasing, it does not change.

The Classical School

History is written by the winners. We will look at the different schools *in their own terms*. For the Classical School, we follow mostly Kates (2010).

- Formalises the ideas of Adam Smith and David Ricardo ("Ricardo and his followers")
- Came back updated in the 1970s and 80s
- Kates (2010) declares himself champion of the Classicals, heavily armed with supporting quotes

The Classical School

- The Classical theory of cycles originates from the "General Glut" debate following Malthus' Principles of Political Economy (1820)
  - thesis: England experienced recessions after the Napoleonic Wars due to oversaving and weak demand
  - $\rightarrow$ debate: given the oversupply of *some* good is possible, is it possible to have oversupply of *all* goods?
  - let us explore the Classicals through Kates' basic propositions. Find all quotes in his paper.

The Classical School

I have the creepy feeling that there are big semantic issues behind this debate. Indeed, what the Classicals call *demand* and *supply* is not the same thing w.r.t. what economists mean since Keynes.

Say's Law

Demand *is* supply. [Supply does not cause nor create demand]

This sounds absurd. Let us try to understand what it means and implies for the business cycle.

The Classical School

Proposition 1

Recessions are never due to demand deficiency. An economy can never produce more than its members would be willing or able to buy. A general glut (i.e. general overproduction) is impossible. Neither high levels of saving nor the redirection of resources into higher levels of capital formation cause recessions to occur.

“For after a crisis the warehouses are overstocked with goods in almost every important trade; [...] And it is thought that this state of things is one of general over-production. [...] it really is nothing but a state of commercial disorganisation. (Marshall and Marshall, 1879)

Proposition 2

Demand is constituted by supply. Aggregate demand is not independent of aggregate production but is identical with it. A community's purchasing power is constituted by its value added. Aggregate demand can only increase when the value of the goods and services produced is greater than the value of the inputs used up in the production process.

"The production of commodities creates, and is the one universal cause which creates a market for the commodities produced." (Mill, 1808 [1966], p. 135)

"It is only because our exchanges are made through money that we have any difficulty in perceiving that an increase in supply is (not "causes") an increase in demand. . . ." (Clay, 1916, p. 242)

Think of **barter**!

The Classical School

Proposition 3

The process involved in purchase and sale is the conversion of one's own goods or services into money and then the re-conversion of the money one has received back into other goods and services. There is no implication of a barter economy. Money is intrinsic to the processes involved

Crucial point: Demand is here only constituted by the value added arising from the sale of produced goods. If those goods had no market, they had no value, hence they're not demand, hence neither supply. Hence ***oversupply is impossible***. Money always comes from selling something, so if you want more you need to produce and sell more: $D \equiv S$

Proposition 5

Recessions are due to structural problems of one kind or another. In particular, recessions occur where the structure of supply does not match the structure of demand. Recessions occur when the pattern of demand is different from the actual composition of output so that a significant proportion of the goods and services put up for sale remains unsold.

"No conceivable increase of production can lead to an overstocking of the market [...]. Increased production will create a proportionally increased demand [...]."
(Torrens, 1821 [1965], pp. 370–372)

"An expansion or contraction may [...] give rise to maladjustments in the economic system."
(Haberler, 1937, p. 245)

Proposition 8

Because recessions are not due to a failure of demand, practical solutions to recession do not encompass increased levels of public spending. While such expenditure may provide some limited benefit if spending is concentrated on value adding goods and services, such expenditure is merely a palliative rather than a cure.

"The utility of a large government expenditure, for the purpose of encouraging industry, is no longer maintained.... It is no longer supposed that you benefit the producer by taking his money, provided you give it to him again in exchange for his goods." (Mill, 1874 [1974])

Mill says it is like the robbed merchant, whose thief spends all the stolen money in his shop and then steals again, etc.

The Classical School

Disclaimer: Keynes masterpiece is *The General Theory of Employment, Interest and Money* (1935) aka "The General Theory" and it is the main reference.

The Classical School was unable to understand the Great Depression, hence the General Theory was written

- **Classical**: concerned with *distribution* of employment, given a certain availability
- **Keynes**: concerned with why is there certain *availability* and how to utilise it

- Frictional U_t
- Voluntary U_t

- *Involuntary* U_t !

  Classical: shouldn't exist as total wages are distributed between total workers

Keynes

The key variables to understand how an economy can get stuck in a high unemployment equilibrium are *savings*, *investment* and *demand*

- Classical: saving $\equiv$ delayed (higher) consumption $\equiv$ investment
- Keynes: capital is not necessarily productive $\rightarrow$ only if invested in productive assets
  - the entrepreneur does it only if he expects profitability, due to demand

Hence in recessionary times, the government must intervene to keep demand, consumption and productive investment high...

Keynes

...How? Keynes makes two empirical observations:

i. the poor have a much higher propensity to consume $\rightarrow$ close to 1

ii. some rich are mere *rentiers* $\rightarrow$ related to *rent-seeking* concept (Krueger 1974)

$\equiv$ a holder of capital who lives off *capital rent* i.e. *interest income*

- today capital rent could be coming from (safe) long-term bonds yielding periodic payments $\rightarrow$ opposite to investing in start-ups

$\Rightarrow$ which leads to the following prescriptions...

Keynes' Recipe

1. To boost consumption, redistribute wealth → direct taxation (on person property), progressive income (careful!) and inheritance taxes;

2. To boost productive investments *euthanise rentiers*: bring interest rates to zero;

However (2) is "unlikely [...] [to] be sufficient [...]to determine an optimum rate of investment

⇒ to secure full employment, the govt may have to perform a "**comprehensive socialisation of investment**"

Comprehensive socialisation of investment

- Not Socialism → "not the ownership of the instruments of production which it is important for the State to assume" but the $\frac{productive\_inv}{total\_inv}$
- "this need not exclude all manner of compromises and of devices by which public authority will co-operate with private initiative"
- "If two-thirds or three-quarters of total investment is carried out or can be influenced by public or semi-public bodies, a long-term programme of a stable character should be capable of reducing the potential range of fluctuation to much narrower limits"

Blog post **Keynes, Secular Stagnation, and Investment Shortfalls**

Comprehensive socialisation of investment

Social investment is intended as investment done by entities:

- concerned with the public good by their nature
- "mainly autonomous"
- fundamentally subject to the Parliament
- e.g. central banks, universities, the Port of London Authority

Classicals say that public investment inefficiently crowds out private one

- not here, because $savings = private\_inv - social\_inv$

$$\Rightarrow \text{if } savings = private\_inv, \text{ there is no need for } social\_inv$$

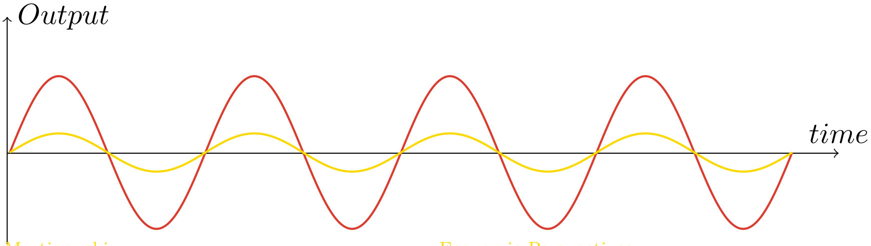
Source this and next slide is Brown-Collier & Collier (1995)

Deficit Spending

Keynes was actually not in favour of running deficits (seen as recessions-produced)

- with the right countercyclical public investment strategy, deficits can be prevented/reduced
- he was against generating deficit by slashing taxes to boost consumption
- public inv expenditures should be financed by borrowing from the public (not on the global markets)

  → because the investment is profitable, the public is repaid over time



Australia's Response to the 2008 Crisis

A) Financial stability measures: AU govt announced it would guarantee all Australian bank deposits and, for a fee, the wholesale funding of Australia's banks.

$\rightarrow$ for maintaining confidence and counter growing uncertainty

B) Fiscal Stimulus: \$10.4 billion (1% GDP) of which \$8.7 billion cash bonuses to pensioners and low-income families, \$1.5 billion to support housing construction (time-limited grant to first home buyers) and \$187 million for new training places

Did the AU govt follow Keynes' prescription?

Facts are taken from AU govt website (link)

The Austrian School: von Mises

- Hayek's boss and mentor
- Just like Keynes, he is critical of Versailles Treaty (WWI peace)
- Against protectionism and *zero-sum game* politics, underlines how the welfare of nations is interdependent
- Liberal, he advocates for free trade between states
- Also stresses the right to self-determination (political independence) of nations

The Austrian School: Hayek

- Philosophically, the individual and his freedom are the priority
- Agrees with Hayek on the theoretical existence of a positive equilibrium in an economy
- Against govt intervention, which only interferes with the free-market's *natural forces* which, through unaltered prices, lead the economy out of a recession
- Society and the economy are far too complex for the govt to skilfully intervene
- Sees *The General Theory* are a recipe for dealing with a historical situation, not generalisable
- On the effectiveness of govt, if Hayek is a optimist (govt can help where markets fail), he is a pessimist
- Lastly, the response to a recession is: austerity (no action is also preferred to stimuli)

What causes the business Cycle?

- Hayek: overinvestment in the industrial sector financed by forced saving and the downward manipulation of interest rates

  $\Rightarrow$ easy bank credit finances industrial sector booms & excessive consumption $\Rightarrow$ unsustainable loan expansion and bankruptcy (2008?)

  - Solution: prevent the artificial boom by use of an international gold standard and "freely competitive banking"
- Keynes: low expected rates of return on capital (low expected inv profitability) $\Rightarrow$ increase savings (= less productive inv)$\Rightarrow$ less demand $\Rightarrow$ more unemployment

Based on Prof. Harold Chorney's material (link) and Beaudry et al. (2014)

Fear The Boom And Bust

Monetarists

- 1960s and early 1970s
- Govt should **not intervene**. If there's a recession, it is probably its fault → let the market heal
- The Great Depression was for them caused by bad monetary policy: contractionary monet policy after a series of bank collapses
- The only policy concern is monetary:

  avoid inflation, it prevents the price system from efficient allocation
- Gained traction thanks to oil-price-shock-induced high unemployment *and* high inflation

  → in this supply-side-shock scenario, standard Keynesian remedies were useless (as govt found) hence they fell from grace

New Classical Macroeconomics

- Evolution in the late 70s to the 80s of monetarism
- UChicago's Robert Lucas Jr and UMinnesota Thomas Sargent
- Back to stressing general equilibrium, no intervention, no involuntary U
- Lucas (1978): "there is also a voluntary element in all unemployment"
- Their revolution is both methodological and theoretical
- Methodology: here starts the microfoundation literature
  - Empirical macro models are criticized
  - Lucas critique: these models are not good for policy evaluation, as agents adapt their expectations based on expected policies, something that a macro model does not capture

    $\Rightarrow$ micro-founded macro models are proposed and developed
- Theoretical: **rational expectations**

New Classical Macroeconomics: Expectation

- All econ agents have expectations about the future (forward-looking)
- If they are wrong, they update them and won't make the same mistake again
- They have a complete understanding of the structure of the macroecon and adjust their behaviour so that their plans (which are optimal) will eventually be fulfilled
- Agents make mistakes *stochastically* based on wrong expectations $\Rightarrow$ econ fluctuations
- Those mistakes are random, not systematic

  $\rightarrow$ undermines monetary and fiscal policy
- Any systematic policy change by the govt does not affect real Y nor U

  $\rightarrow$ it is expected and agent's behaviour is modified w no mistake to accommodate the expected change (in real terms)

New Classical Macroeconomics

- Monetary policy should follow a rule (no discretion) $\rightarrow$ anchors expectations (less errors)

- Decisively "macroeconometric models were subjected to a decisive test in the 1970s. A key element in all Keynesian models is a trade-off between inflation and real output [Phillips curve]: the higher is the inflation rate, the higher is output" (Lucas and Sargent 1979)

$\rightarrow$ then *stagflation* happened, "This was econometric failure on a grand scale"

New Classical Macroeconomics

- rational expectations + $S = D \Rightarrow$ systematic aggregate-demand policies do not have real effects
- The Phillips curve is observable because policy is always in part unanticipated
- However, a policy is effective as long as unexpected $\Rightarrow$ cannot guide an economy this way

New Keynesian Macroeconomics

- Micro-foundations, attention to individuals' behaviour
- Imperfect (inefficient) markets $\Rightarrow$ D shifts can affect move output from its potential
- For a number of reasons, prices take time to adjust, e.g. asymmetry of information in financial markets, trade unions, menu costs
- Imperfect competition between firms: to a fall in demand they might respond by lowering production thus cutting costs and keeping profits constants

  $\rightarrow$ do not lower prices (competitive market behaviour)

Punchline: If the price mechanism is impeded in bringing the output back to potential, the govt has space to intervene and help

Inseparability of Dimensions

As you can see from our discussion, the economic and politico-philosophical dimensions are hard to disentangle in this arena

- What is the role of government?
- What are the limits to what the govt can or should do?
- What are the limits of the free market? Is it perfect?
- Is freedom of the individual more important than public welfare, or the opposite?

The Structure of Scientific Revolutions

I'm really sorry but we need to take a step back to the philosophy, better, sociology, of science

- *The Structure of Scientific Revolutions*, Thomas Kuhn, 1962
- **Paradigm**: a way of doing science and seeing the world
  - includes: claims (results), methods for data collection and analysis, habits of scientific thought and action
  - there is usually one paradigm at a time per field
  - it organises research so that it can be deep and effective
- **Puzzle**: an unexplained phenomenon is expected to be solved eventually
- **Crisis**: when a paradigm ceases to lead/inspire research (many/big puzzles)
- **Revolution** The moment in which a new paradigm replaces then one in crisis

Based on Godfrey-Smith (2003)

Normal Science

- There is general agreement on what to research, how, and how to evaluate solutions
- Research is progressive and well-organised and formalised by textbooks
- Order allows research to go deep $\rightarrow$ this might end up starting a crisis
- It is usually a big discovery to create the first paradigm and lead research
- Fundamentals are not debated, there is no time to waste
- Each new case is framed and fitted in the paradigm
- Failing to do so *after a while* leads to a crisis

Revolutions

- *If* a paradigm experiences a crisis *and* a rival paradigm emerges, a revolution might occur
- This means that the new will replace the old
- In this transition, the old scientists will not be able to undestand the new ones:
  - they use different concepts and words
  - they give different meaning to old concepts
  - they see the world differently and have different problems
- Hence there is some degree of *incommensurability*
- There is a general sense that more has been earned than lost, but it is almost impossible to prove it

Concluding Thoughts

- Bringing these notions into the history of macro is a difficult and painful exercise
- It seems that for every economic crisis there a paradigm shift in macro
- The new paradigm is consistent with the previous crises but usually not with the next one (loop)
- However, it would be unfair to deny that we have learnt something
- Monetary policy has been successful after adopting an “expectations stance” (inflation targeting, forward guidance)
- There is a good evidence that tax cuts are not usually stimulative... etc.

Concluding Thoughts

- We do know something
- However, we still lack a fundamental, structural understanding of the economy
- Think about the credit-boom-generated housing bubble: surely Hayek would have seen that
- Incommensurability:
  - Austrians and Monetarists are libertarians, Keynes is for big-state
  - Friedman is a pragmatist (instrumentalist) while Lucas and Sargent are concerned with elegance and mathematical simplicity
  - Keynesians look at things from a macro perspective, with big empirical aggregate macromodels, New Classicals and New Keynesians want internal consistency with micro-founded models
- In my view, a lot of damage to the field is done by methodological dogmatism, lack of diversity and of interdisciplinarity

Bibliography

Beaudry P, D Galizia and F Portier (2014) *Reconciling Hayek's and Keynes' views of recessions*, CEPR Discussion Paper 9966, NBER Working Paper 20101.

de Sismondi, Jean Charles Léonard (1819) *Nouveaux principes d'économie politique, ou de la richesse dans ses rapports avec la population*

Keynes, John Maynard (1935) *The General Theory of Employment, Interest and Money* (link)

— *Essays in Persuasion. The Collected Writings of J.M. Keynes*, vol. IX. London: Macmillan, 1972.

Krueger, Anne O. (1974) *The Political Economy of the Rent-Seeking Society*, American Economic Review 64: 291–303.

Marx, Karl (1863) *Theories of Surplus Value*

— **(1848)** "On the Question of Free Trade" in *Speech to the Democratic Association of Brussels* (link)

— **(1867)** Capital, Volume 1, (link)

Bibliography

Godfrey-Smith, Peter (2003) *Theory and Reality : An Introduction to the Philosophy of Science*, University of Chicago Press

Kates, Steven (2010) *Why Your Grandfather's Economics Was Better Than Yours: On the Catastrophic Disappearance of Say's Law*, vol.13, No.4, The Quarterly Journal of Austrian Economics, Winter 2010.

Lucas, Robert E. Jr (1978) *Unemployment Policy*, The American Economic Review, Vol. 68, No. 2

Sangkuhl, Elfriede (2015) *How the Macroeconomic Theories of Keynes influenced the Development of Government [...] Using Australia as Example*, Athens Journal of Law 1(1):32-52.

Brown-Collier, E. K., and Bruce E. Collier (1995) *What Keynes Really Said about Deficit Spending*, Journal of Post Keynesian Economics, Vol. 17, No. 3, pp. 341-355

Stiglitz, Joseph (2013) *The Price of Inequality: How Today's Divided Society Endangers Our Future*, New York : W.W. Norton & Company.