Macroeconomics
Lecture 1 — An Intro to Macro

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Macroeconomics: objects

Main objects of study — *aggregate* measures of economic activity.

Interactions of various **markets**. . .

▷ Goods:
  - ▷ Consumption goods
  - ▷ Investment goods
    (capital)
▷ Services

▷ Labor
▷ Finance:
  - ▷ Banking
  - ▷ Market finance
▷ Currency

. . . and **policies**:

▷ Monetary   ▷ Fiscal   ▷ Regulation

One (even huge) market is not "macro" enough: e.g. real estate

Macroeconomics: motivation

Why care for the macro-economy?

- ▷ As **households**, we are all affected:

    - ▷ Crises $\Rightarrow$ unemployment: lives depend on business cycles

    - ▷ Need to check macro for big decisions: housing, retirement, own business...

- ▷ **Businesses**: cycles influence demand and supply chains, interest rates, exchange rates, inflation...

- ▷ **Policymakers**: macro policy has proven to be influential. In addition, people tend to (over-)associate macro phenomena with politics $\Rightarrow$ pressure on politicians

Macroeconomics rules: Keynes

> *Practical men who believe themselves to be quite exempt from any intellectual influence, are usually the slaves of some defunct economist.*
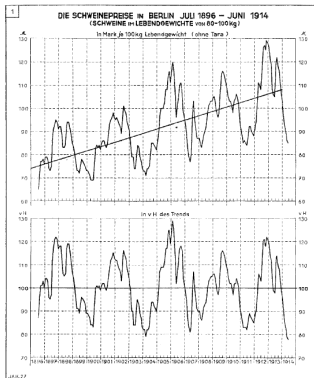
John Maynard Keynes

N. B.: Keynes *is* the most influential macroeconomist to date. . .

What are business cycles?

Historically, Smith, Marx, Kondratiev and others thought of cycles literally — economic indicators following sine waves

Famous example (not macro) — pork cycles:

Pork prices in Berlin, July 1896 - June 1914

Towards modern business cycles

▷ **National Bureau of Economic Research** (NBER), founded 1920, influential group of economists

▷ Persuaded that statistical methods make study of economic phenomena (cycles) possible

▷ Idea by Arthur Burns & Wesley Mitchell:

   ▷ Focus on boom and bust periods ⇔ peaks and troughs of cycle

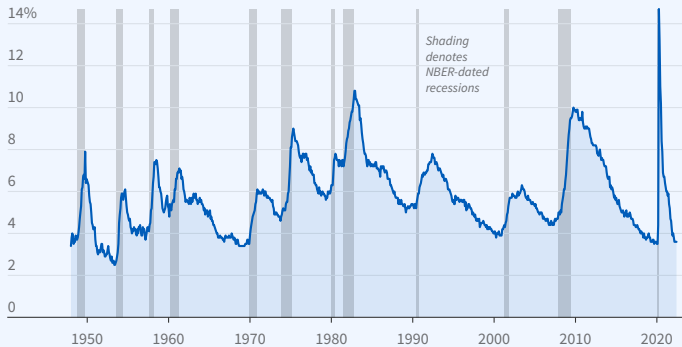   ▷ Identify common patterns for different booms and busts

Burns-Mitchell Diagrams: an example
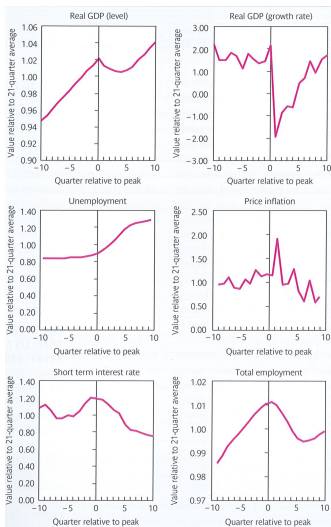
▷ peak of GDP = vertical line
▷ Unemployment = **countercyclical**
▷ Inflation = procyclical (***lagging*** the cycle)
▷ Short term interest rate, employment = **procyclical**

Recession dating by NBER

Unemployment Rate and Recessions since 1948

Shading denotes NBER-dated recessions

Source: Unemployment data is from the Federal Reserve Bank of St. Louis

Methodology of Macroeconomics: Theory

▷ Macro deals with complex relationships of dynamic variables

▷ Theory with a good deal of *abstraction* necessary:

    ▷ **exogenous** variables are taken as given, "out of nowhere"

    ▷ **endogenous** variables are explained by the model
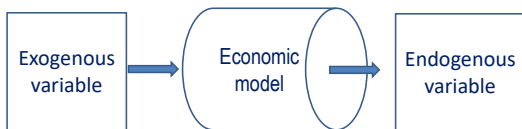
Models can be fun

Macroeconomic crises and monetary policy can be seen on a real-life historical example of... a **baby-sitters cooperative**

- ▷ Parents babysit each others' children
- ▷ A currency — *scrpis* — introduced to promote fairness
    - ▷ 1 *scrip* = 1 hour of baby-sitting
    - ▷ rigid price set *exogenously*, rather than *endogenously* determined by market
    - ▷ each family receives a number of scrips to begin with
- ▷ if a couple wants more babysitting for their child, need to babysit more
- ▷ some have busy periods: cannot babysit, but need babysitting ⇒ need excess *reserves* of scrips

Source: Joan and Richard Sweeney "Monetary Theory and the Great Capitol Hill Baby-Sitting Co-op Crisis." Journal of Monetary Economics, 1978.

A crisis

▷ Some babysitting-scripts accounting problems ⇒ an episode with a decrease of scrips in circulation: an **exogenous shock**

▷ parents worried they don't have enough reserve scrips and reduce spending. . .

▷ . . . others have less scrips, worried they don't have enough, and so on

▷ A vicious cycle / *coordination failure* / bad *equilibrium*

▷ a monetary problem (exogenous) causing a decline of activity (endogenous): babysitting has stopped
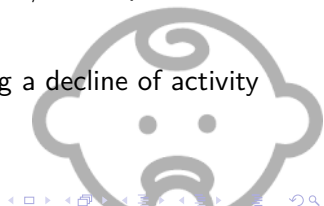
Methodology of Macroeconomics: Data

▷ Unrealistic models are fine as long they:

  ▷ Give novel insights (M. Friedman)

  ▷ Are *falsifiable* — can be proven wrong (K. Popper)

▷ Confronting macro **theories** with **data** is challenging:

  ▷ aggregate indices: measurement problems

  ▷ how to separate correlation and causality? Natural experiments, as in applied micro, are hard to find

  ▷ expectations are crucial, but never directly measurable

▷ Solutions:

  ▷ complex reduced form econometrics — VAR (Nobel prize of C. Sims)

  ▷ output of calibrated or estimated models (involving expectations) to be compared to reduced-form estimates: importance of **impulse response** analysis

Macro dichotomies

Macroeconomics

Theoretical
- ▷ A zoo of models (see next slides)
- ▷ **Focus for this course**

Empirical
- ▷ Model estimation
  - ▷ introduction with practical implementation (coding) **in TD**
- ▷ VAR
  - ▷ see Econometrics class

Macro dichotomies

Macroeconomic models

Short-run

▷ Most of macroeconomists' job. Why?

   ▷ Immediately applicable?

   ▷ Most politicians' focus?

▷ **Focus of this course**

Long-run

▷ More substantial problems

▷ See Growth course (unless you are in financial track!)

Macro dichotomies

Macroeconomic models

Dynamic

▷ The modern approach

▷ **Most of the course**

Static

▷ Keynes-Hicks heritage (20th century)

▷ **Beginning of course**

Macro dichotomies

Macroeconomic models

Closed economy

▷ Wild simplification, but...

▷ ... most macro scholars
based in the U.S. — large
and independent enough
⇒ closed economy is most
studied model

▷ **Most of the course**

Open economy

▷ Small open economy
models: country as
price-taker

▷ Large open economy
models: country influences
prices

▷ Will see both **occasionally**
in the course

Macro dichotomies

Macroeconomic models

Flexible price (neoclassical)

- ▷ Usually result in optimal allocations
    - ▷ *laissez-faire* economics
- ▷ Useful to understand how a perfect world would work — normative approach
- ▷ **Most of the course**

Sticky price (Keynesian)

- ▷ Associated with corrective interventions, such as Keynesian demand management
- ▷ **Beginning** and **middle** of course