

# A BRIEF HISTORY OF MACROECONOMICS

APRIL 1, 2009

## THE PHASES OF MACROECONOMICS

- Three seminal phases of the history of macroeconomic thought/practice
  - Phase I: Measuring macroeconomic activity (1930's – 1950)
  - Phase II: Keynesian-inspired macroeconometric models (1950 – 1970's)
  - Phase III: Dynamic General Equilibrium (DGE) methodology (1980's – today)

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  - Phase I: Measuring macroeconomic activity (1930's – 1950)
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  - Phase III: Dynamic General Equilibrium (DGE) methodology (1980's – today)
  - Phase IV?  
What changes are forthcoming in the profession (policy-making and theory) spurred by current financial and economic downturn?  
  
Focus on linkages between financial markets and the macroeconomy?  
  
Who knows...

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## THE BIRTH OF MACROECONOMICS

- "Macroeconomics" born as a field during and because of the Great Depression
  - Idea that government could/should regulate the periodic ups and downs of the economy rose to prominence
- John Maynard Keynes, *The General Theory of Employment, Interest, and Money* (1936)
  - Basic tenet: various "rigidities" in many markets lead to "disequilibria" that can last a long time

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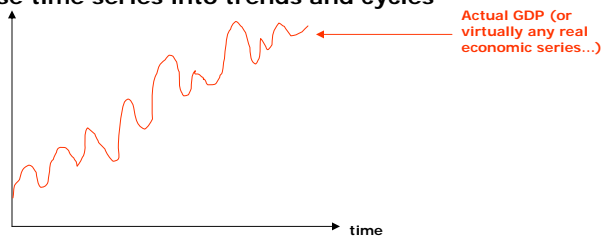
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- ❑ **Burns and Mitchell, *Measuring Business Cycles* (1946)**
  - ❑ First systematic accounting of the co-movement of various aggregates
    - ❑ i.e., GDP, consumption, employment, inflation, unemployment rate, etc...

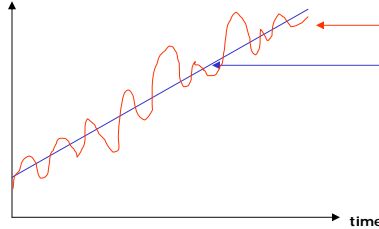
## LONG-RUN GROWTH VS. BUSINESS CYCLES

- ❑ **Decompose time series into trends and cycles**



## LONG-RUN GROWTH VS. BUSINESS CYCLES

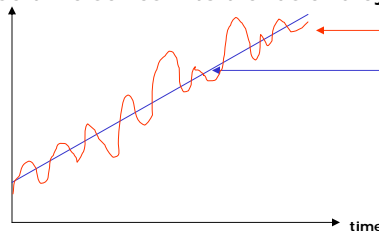
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Actual GDP (or virtually any real economic series...)  
 Long-run trend of GDP  
 -- a linear trend very simple; but can also construct (more nuanced) nonlinear trends (statistics and econometrics)

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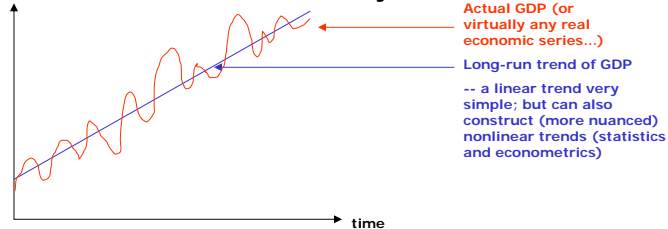


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- Two clear patterns
  - Long-run growth
  - Frequent and sometimes big short-run fluctuations around long-run trend
- Are the short-run fluctuations tightly related to the long-run trend?
  - Conventional view in economics is "no"

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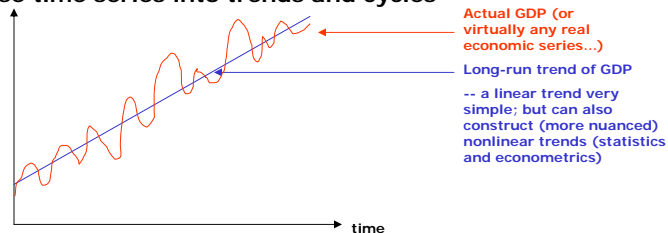
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  - But (very) recent work provocatively suggests answer may be "yes"
    - Linkage through R&D: R&D typically thought to be a driver of long-run growth...but perhaps cyclical fluctuations in R&D themselves have consequences for "business cycles" (much more research needed here...)

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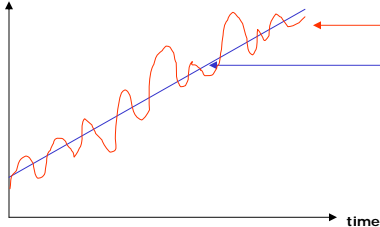
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- Under the "no" view, a separation of fields
  - Studying the trend ("economic growth" and "development")
  - Studying the fluctuations ("macroeconomics")

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# BUSINESS CYCLES

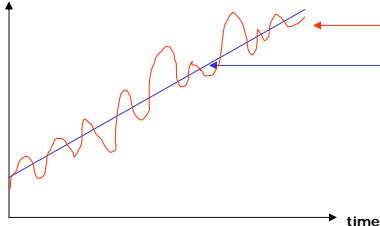
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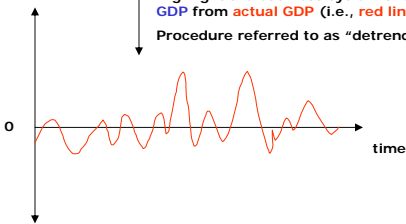
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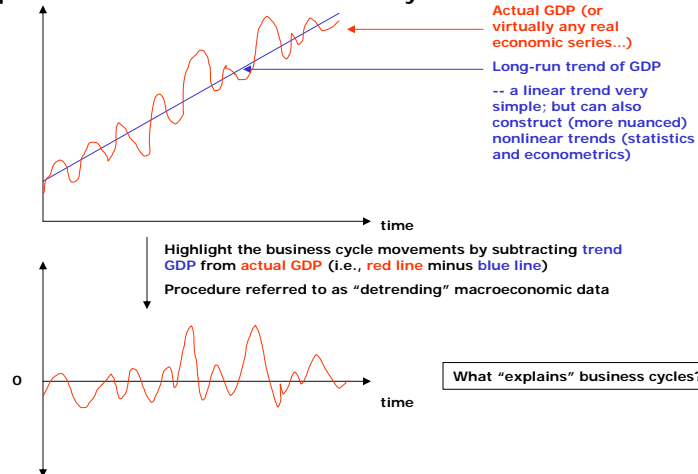
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Long-run trend of GDP  
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Highlight the business cycle movements by subtracting trend GDP from actual GDP (i.e., red line minus blue line)  
Procedure referred to as "detrending" macroeconomic data



## BUSINESS CYCLES

- Decompose time series into trends and cycles



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## PRINCIPLES OF KEYNESIAN MACROECONOMICS

- **Basic Tenet:** price rigidities/inflexibilities characterize many goods markets and factor markets
  - "Sticky prices"
- (Many) other rigidities/inflexibilities affect markets' functioning as well...
- ...but price (and wage) rigidities the central tenet
  - More general discussion in Akerlof (2007) essay

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- ❑ **Keynes’ General Theory** just a verbal description of things...

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## THE RISE OF MACROECONOMICS

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    - ❑ i.e., GDP, consumption, employment, inflation, unemployment rate, etc...
- ❑ How to **“model”** (i.e., conceptually/rigorously/mathematically think about) business cycles?
  - ❑ Phase II: The big macroeconomic models

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## THE GLORY DAYS OF MACROECONOMICS

- Big “Keynesian macroeconometric” models prominent by the 1960’s, led by
  - Kennedy’s Council of Economic Advisers (Solow, Tobin, Samuelson)
  - MIT/Penn/Federal Reserve Board
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General idea of Keynesian-inspired macroeconometric models

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Dozens or hundreds of variables and equations, some of which describe how policy affects the economy

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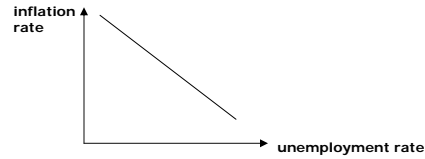
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- **An approach to macroeconomic policy-making embodied most succinctly in the view and purported promise of the Phillips Curve**

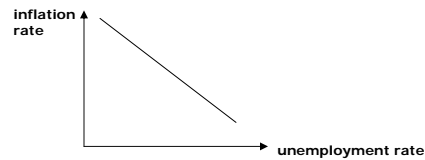
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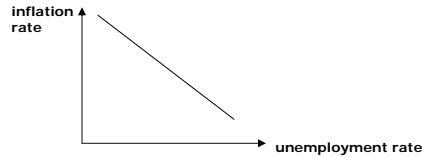
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- **Came to be the centerpiece for policy advice...**
  - **...for fiscal policy** (given forceful voice during the Kennedy administration – CEA populated with future Nobel Laureates Robert Solow, James Tobin, Paul Samuelson...John Kenneth Galbraith a more muted enthusiast of this approach to policy formulation)

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  - ...and eventually for monetary policy
    - Rise of an activist Fed: raising/lowering interest rates to “fine tune” macroeconomic performance

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General idea of Keynesian-inspired macroeconomic models  
One of these equations is the Phillips Curve

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- Lucas Critique (1976): The alpha’s themselves should be thought of / modeled as functions of government policy!

## THE LUCAS CRITIQUE

- ❑ Crucial inconsistency in Keynesian macroeconomic approach
  - ❑ The estimated coefficients (the alpha's) themselves may change if policy (monetary and/or fiscal) changes!
  - ❑ In which case the macroeconomic approach *cannot* usefully give policy advice – unless one “knows”/makes assumptions about **how** the alpha's themselves depend on policy...

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- ❑ Discovered in the 1970's amidst world-wide macroeconomic turbulence induced (seemingly...) by the two oil crises
  - ❑ The usual Phillips relation “stopped working” even as policy-makers tried harder than ever to exploit it
  - ❑ Led to breakdown of existing macroeconomic theory and opened the door for a complete re-thinking of the basic tenets of macroeconomics

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- Keynesian macroeconomic models are *not economic models*
  - Merely a statistical description of historical events
  - Economics: the study of how incentives influence behavior of individuals/market participants
  - A damning criticism of the entire macroeconomics profession...

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  - Phase II: The big macroeconomic models
    - Death knell spelled by the devastating Lucas Critique
  - Phase III: Microeconomic foundations and DGE modeling