

# Macroeconomics under Financial Crisis

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## Lecture 4

Schools of economic thought

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June 30, 2016

# Today's lecture

- *Introduction and recent developments in macroeconomics*
  
- *Readings:*
  - Ricardo J. Caballero (2010), “Macroeconomics after the Crisis: Time to Deal with the Pretence-of-Knowledge Syndrome” *Journal of Economic Perspectives*: Vol. 24 No. 4(pp. 85-102)
  - Michael Woodford “Revolution and Evolution in Twentieth-Century Macroeconomics” <http://www.columbia.edu/~mw2230/macro20C.pdf>
  - G Mankiw (1990) “A Quick Refresher Course in Macroeconomics” *Journal of Economic Literature*, Vol. XXVIII (December 1990), pp. 1645-1 660

# Keynes and the Great Depression



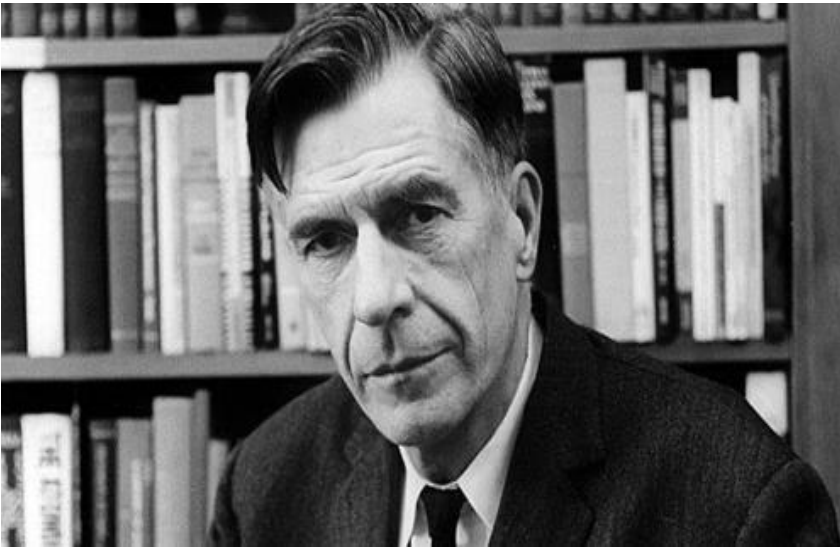
Keynes

- The history of modern macroeconomics starts in 1936, with the publication of Keynes's *General Theory of Employment, Interest, and Money*.
- The Great Depression was an intellectual failure for the economists working on *business cycle theory*—as macroeconomics was then called.
- Keynes emphasized *effective demand*, now called aggregate demand. He introduced important concepts such as the multiplier, *liquidity preference* (or demand for money), and animal spirits, or expectations.

# Wartime Planning and Controls



# Wartime Planners



**John Kenneth Galbraith (1908-  
2006)**



**Milton Friedman (1912-2006)**

# The Neoclassical Synthesis

- The *neoclassical synthesis* refers to a large consensus that emerged in the early 1950s, based on the ideas of Keynes and earlier economists.
- The neoclassical synthesis was to remain the dominant view for another 20 years. The period from the early 1940s to the early 1970s was called the golden age of macroeconomics.

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# The Neoclassical Synthesis

- The most influential formalization of Keynes's ideas was the *IS-LM* model, developed by John Hicks and Alvin Hansen in the 1930s and early 1940s.
  - Discussions became organized around the slopes of the *IS* and *LM* curves.
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# The Neoclassical Synthesis



Modigliani

- In the 1950s, Franco Modigliani and Milton Friedman independently developed the theory of consumption, and insisted on the importance of expectations.
- James Tobin developed the theory of investment based on the relation between the present value of profits and investment. Dale Jorgenson further developed and tested the theory.



Tobin

# The Neoclassical Synthesis



Solow

- In 1956, Robert Solow developed the growth model—a framework to think about the determinants of growth.



Klein

- Lawrence Klein developed the first U.S. macroeconomic model in the early 1950s. The model was an extended IS relation, with 16 equations.

# The New Empirical Macroeconomics



Lawrence Klein (1920- )

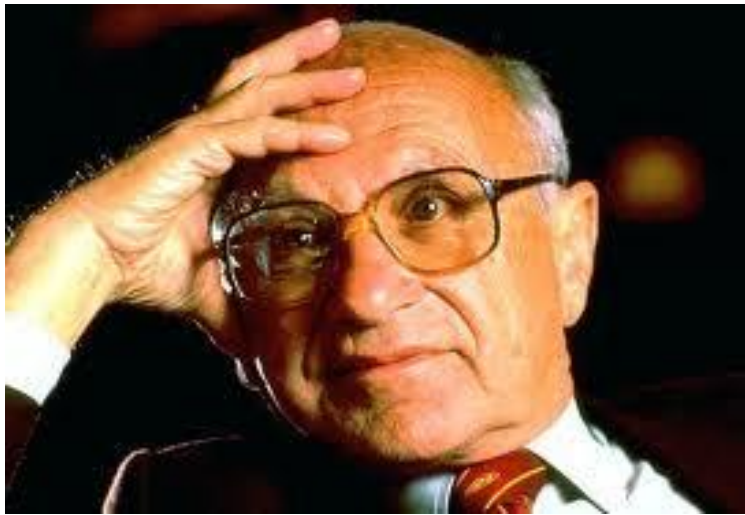
- Walrasian:
  - general equilibrium
  - individual optimization (microfoundations)
- IS-LM Keynesian
- Aggregation
  - practice demands
  - must be eliminable in theory
  - work towards maximum disaggregation

# Klein's Modeling Agenda



*In contrast with the parsimonious view of natural simplicity, I believe that economic life is enormously complicated and that the successful model will try to build in as much of the complicated interrelationships as possible. That is why I want to work with large econometric models and a great deal of computer power. Instead of the rule of parsimony, I prefer the following rule: the largest possible system that can be managed and that can explain the main economic magnitudes as well as the parsimonious system is the better system to develop and use.*  
[Klein 1992]

# An Opposing Current



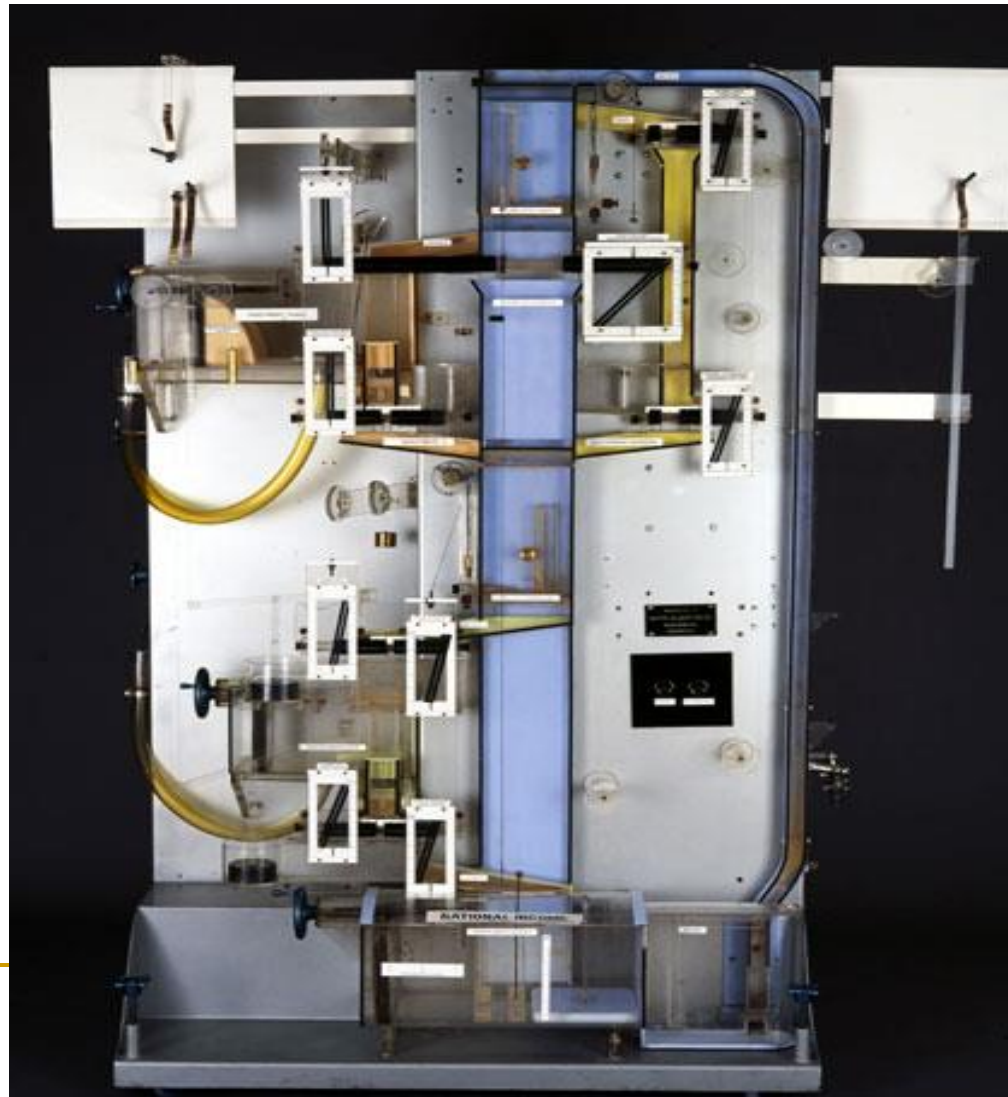
**Milton Friedman (1912-2006)**

*the focus should be on the analysis of parts of the economy in the hope that we can find bits of order here and there and gradually combine these bits into a systematic picture of the whole [1951]*

*A hypothesis is important if it 'explains' much by little, that is, if it abstracts the common and crucial elements from the mass of complex and detailed circumstances surrounding the phenomena to be explained and permits valid predictions on the basis of them alone. [Friedman 1953, p. 14]*

*We curtsy to Marshall, but we walk with Walras [1949]*

# Hydraulic Keynesianism: The Phillips Machine or Moniac



# Phillips Machine: Schematic

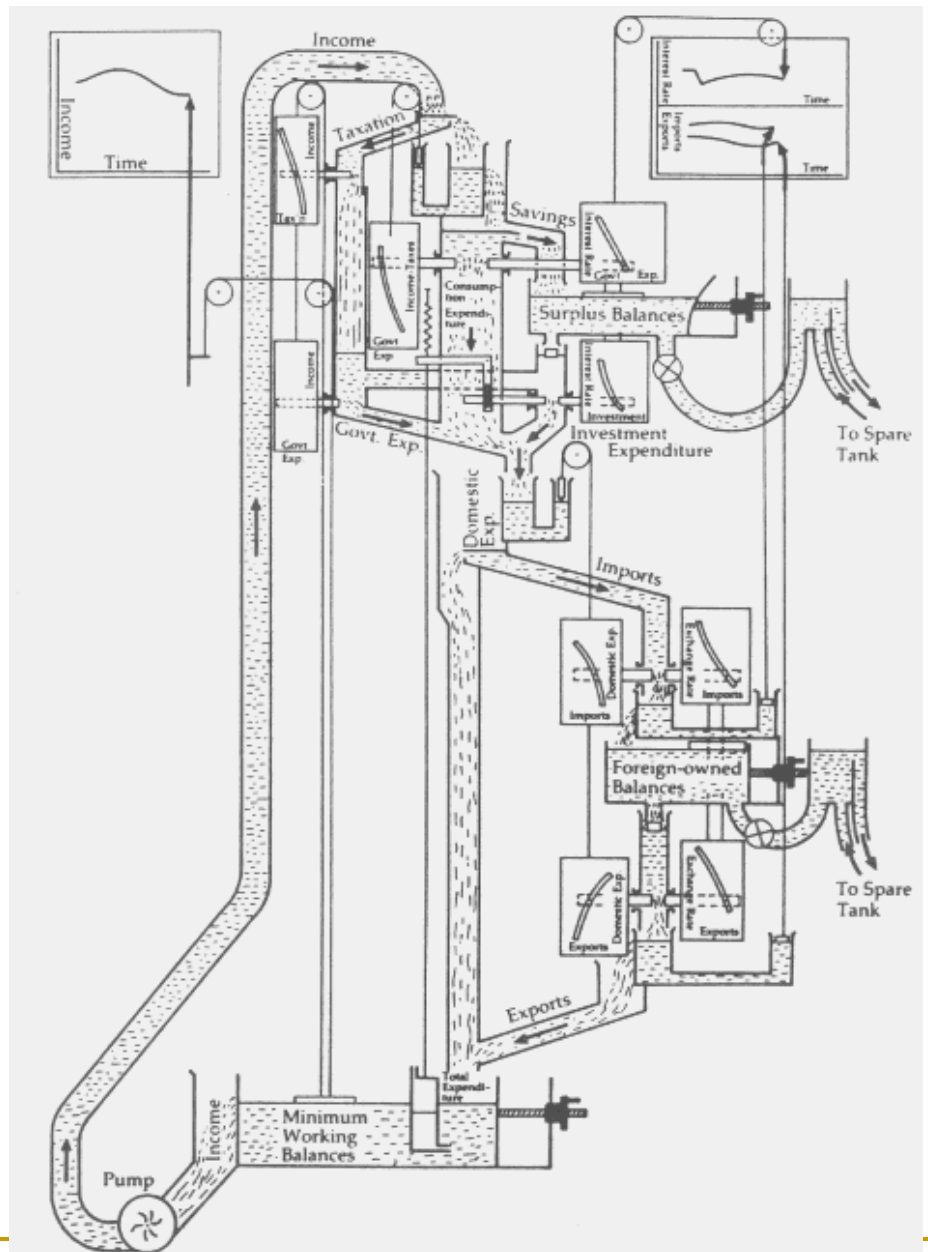
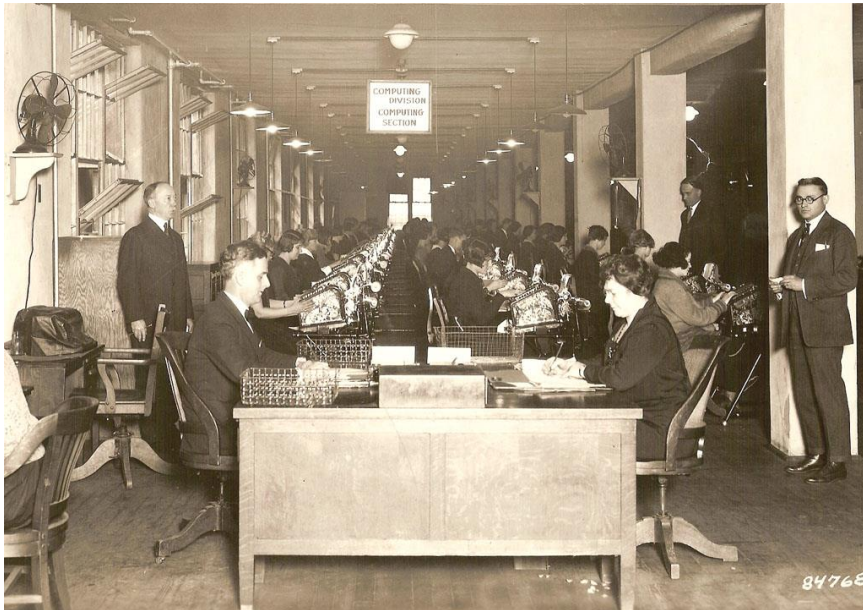


Diagram of the Phillips machine. Source: LSE Quarterly, Winter 1988, Nick Barr.

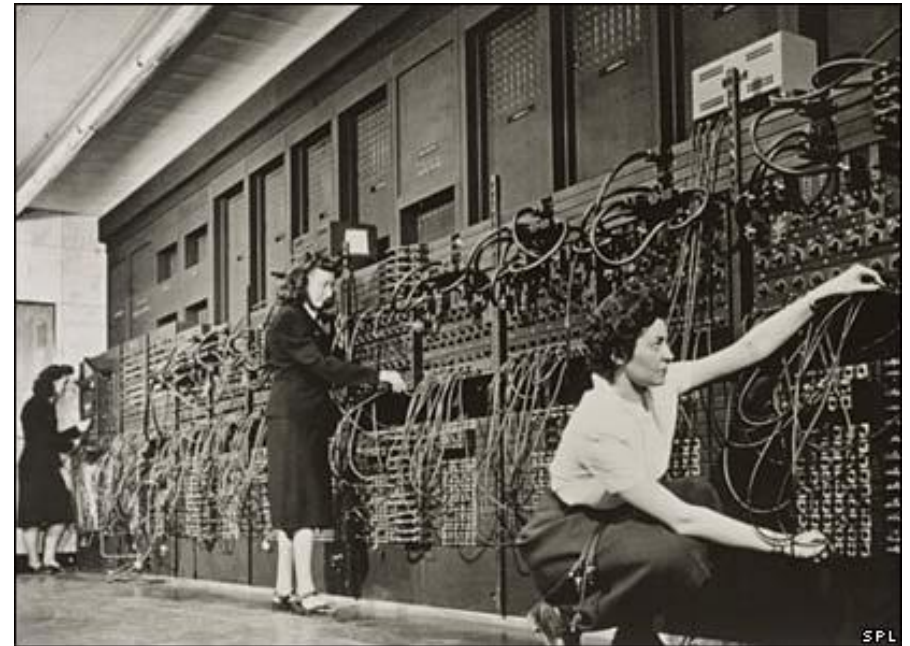
# Computing Power as a Limitation on Economic Modeling

## Before World War II



**Burroughs Adding Machines in Veterans Bureau Computing Section**

## After World War II



**Eniac: The First American Digital Computer**

# Monetarism



Friedman

- Milton Friedman was the intellectual leader of the monetarists, and the father of the theory of consumption.
- He believed that the understanding of the economy remained very limited, and questioned the motives and ability of governments to improve macroeconomic outcomes.

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# *Keynesians and monetarists*

- In the 1960s, debates between ***Keynesians*** and ***monetarists*** dominated the economic headlines. The debates centered around three issues:
    1. The effectiveness of monetary policy versus fiscal policy.
    2. The Phillips curve.
    3. The role of policy.
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# *Keynesians and monetarists*

- Friedman challenged the view that fiscal policy could affect output faster and more reliably than monetary policy.
  - In a 1963 book, *A Monetary History of the United States, 1867-1960*, Friedman and Anna Schwartz reviewed the history of monetary policy and concluded that monetary policy was not only very powerful, but that movements in money also explained most of the fluctuations in output.
  - They interpreted the Great Depression as the result of major mistake in monetary policy.
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# *Keynesians and monetarists*



Phelps

- The Phillips curve had become part of the Neoclassical synthesis, but Milton Friedman and Edmund Phelps argued that the apparent trade-off between unemployment and inflation would quickly vanish if policy makers actually tried to exploit it.
- By the mid 1970s, the consensus was that there was no long-run trade off between inflation and unemployment.

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# *Keynesians and monetarists*

- Skeptical that economists knew enough to stabilize output, and that policy makers could be trusted to do the right thing, Milton Friedman argued for the use of simple rules, such as steady money growth.
  - Friedman believed that political pressures to “do something” in the face of relatively mild problems may do more harm than good.
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# Keynes vs Hayek

- The debate between J.M. Keynes and F.A. Hayek, both living and teaching in Britain in the 1930s, was one of the great debates of the century.
- Keynes: a charming globetrotter Keynes
- Hayek: quiet and studious, never really did gain an audience.
- In one sense, however, this debate never really occurred, since Keynes was prematurely declared the victor in the late 1930s.
- <https://www.youtube.com/watch?v=d0nERTFo-Sk>
- <https://www.youtube.com/watch?v=GTQnarzmTOc>

UPDATE: The lyrics:

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We've been going back and forth for a century

[Keynes] I want to steer markets,

[Hayek] I want them set free

There's a boom and bust cycle and good reason to fear it

[Hayek] Blame low interest rates.

[Keynes] No... it's the animal spirits

[Keynes Sings:]

John Maynard Keynes, wrote the book on modern macro

The man you need when the economy's off track, [whoa]

Depression, recession now your question's in session

Have a seat and I'll school you in one simple lesson

BOOM, 1929 the big crash

We didn't bounce back—economy's in the trash

Persistent unemployment, the result of sticky wages

Waiting for recovery? Seriously? That's outrageous!

I had a real plan any fool can understand

The advice, real simple—boost aggregate demand!

C, I, G, all together gets to Y

Make sure the total's growing, watch the economy fly

We've been going back and forth for a century

[Keynes] I want to steer markets,

[Hayek] I want them set free

There's a boom and bust cycle and good reason to fear it

[Hayek] Blame low interest rates.

[Keynes] No... it's the animal spirits

You see it's all about spending, hear the register cha-ching

Circular flow, the dough is everything

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So if that flow is getting low, doesn't matter the reason

We need more government spending, now it's stimulus season

So forget about saving, get it straight out of your head

Like I said, in the long run—we're all dead

Savings is destruction, that's the paradox of thrift

Don't keep money in your pocket, or that growth will never lift...  
because...

Business is driven by the animal spirits

The bull and the bear, and there's reason to fear its

Effects on capital investment, income and growth

That's why the state should fill the gap with stimulus both...

The monetary and the fiscal, they're equally correct

Public works, digging ditches, war has the same effect

Even a broken window helps the glass man have some wealth

The multiplier driving higher the economy's health

And if the Central Bank's interest rate policy tanks

A liquidity trap, that new money's stuck in the banks!

Deficits could be the cure, you been looking for

Let the spending soar, now that you know the score

My General Theory's made quite an impression

[a revolution] I transformed the econ profession

You know me, modesty, still I'm taking a bow

Say it loud, say it proud, we're all Keynesians now

We've been goin' back n forth for a century

[Keynes] I want to steer markets,

[Hayek] I want them set free

~~There's a boom and bust cycle and good reason to fear it~~

[Keynes] I made my case, Freddie H

Listen up , Can you hear it?

Hayek sings:

I'll begin in broad strokes, just like my friend Keynes

His theory conceals the mechanics of change,

That simple equation, too much aggregation

Ignores human action and motivation

And yet it continues as a justification

For bailouts and payoffs by pols with machinations

You provide them with cover to sell us a free lunch

Then all that we're left with is debt, and a bunch

If you're living high on that cheap credit hog

Don't look for cure from the hair of the dog

Real savings come first if you want to invest

The market coordinates time with interest

Your focus on spending is pushing on thread

In the long run, my friend, it's your theory that's dead

So sorry there, buddy, if that sounds like invective

Prepared to get schooled in my Austrian perspective

We've been going back and forth for a century

[Keynes] I want to steer markets,

~~[Hayek] I want them set free~~

There's a boom and bust cycle and good reason to fear it

[Hayek] Blame low interest rates.

[Keynes] No... it's the animal spirits

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The place you should study isn't the bust

It's the boom that should make you feel leery, that's the thrust

Of my theory, the capital structure is key.

Malinvestments wreck the economy

The boom gets started with an expansion of credit

The Fed sets rates low, are you starting to get it?

That new money is confused for real loanable funds

But it's just inflation that's driving the ones

Who invest in new projects like housing construction

The boom plants the seeds for its future destruction

The savings aren't real, consumption's up too

And the grasping for resources reveals there's too few

So the boom turns to bust as the interest rates rise

With the costs of production, price signals were lies

The boom was a binge that's a matter of fact

Now its devalued capital that makes up the slack.

Whether it's the late twenties or two thousand and five

Booming bad investments, seems like they'd thrive

You must save to invest, don't use the printing press

Or a bust will surely follow, an economy depressed

Your so-called "stimulus" will make things even worse

It's just more of the same, more incentives perverted

And that credit crunch ain't a liquidity trap

Just a broke banking system, I'm done, that's a wrap.

We've been goin' back n forth for a century

[Keynes] I want to steer markets,

[Hayek] I want them set free

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There's a boom and bust cycle and good reason to fear it

[Hayek] Blame low interest rates.

[Keynes] No it's the animal spirits

# The Rational Expectations Critique



Lucas



Sargent



Barro

- In the early 1970s, Robert Lucas, Thomas Sargent, and Robert Barro led a strong attack against mainstream macroeconomics.
- They argued that the predictions of Keynesian macroeconomics were wildly incorrect, and based on a doctrine that was fundamentally flawed.

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# The Rational Expectations Critique

- Robert Lucas argued that macroeconomic models did not incorporate expectations explicitly; that the models captured relations as they had held in the past, under past policies. They were poor guides to what would happen under new policies.
  - This critique of macroeconometric models became known as the ***Lucas Critique***.
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# The Implications of Rational Expectations



Hall

- Robert Hall showed that if consumers are very foresighted, then changes in consumption should be unpredictable.

- Consumption will change only when consumers learn something new about the future. Since news about the future cannot be predicted, changes in consumption are highly random. This consumption behavior, known as the *random walk of consumption*, has served as a benchmark in consumption research ever since.

# The Implications of Rational Expectations



Dornbusch

- Rudiger Dornbusch developed a model of exchange rates that shows how large swings in exchange rates are not the result of irrational speculation but, instead, fully consistent with rationality.

# The Implications of Rational Expectations



Fischer

- Stanley Fischer and John Taylor showed that the adjustment of prices and wages in response to changes in unemployment can be slow even under rational expectations.



Taylor

- They pointed to the ***staggering*** of both wage and price decisions, and explained how a slow return of output to the natural level can be consistent with rational expectations in the labor market.

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# Current Developments

- The *new Keynesians* are a loosely connected group of researchers working on the implications of several imperfections in different markets.
- One line of research focuses on the determination of wages in the labor market. George Akerlof has explored the role of “norms,” or rules that develop in any organization to assess what is fair or unfair.



Akerlof

# Current Developments

- Another line of *new Keynesian* research has explored imperfections in credit markets. Ben Bernanke has studied the relation between banks and borrowers and its effects on monetary policy.
- Yet another direction of research is ***nominal rigidities*** in wages and prices. The ***menu cost*** explanation of output fluctuations, developed by Akerlof and N. Gregory Mankiw, attributes even small costs of changing prices to the infrequent and staggered price adjustment.

# Current Developments



Romer

- Robert Lucas and Paul Romer have provided a new set of contributions under the name of *new growth theory*, which take on some of the issues initially raised by growth theorists of the 1960s.
- New growth theory focuses on the determinants of technological progress in the long run, and the role of increasing returns to scale.

# Schools of Economic Thought

	Liberals	Classical Liberals & Conservatives
Mainstream	Keynesians Neoclassical Synthesis New Keynesians	Classicals Neoclassical Synthesis Monetarists Real Business Cycle New Neoclassical Synthesis
Consensus (old)	The Neoclassical Synthesis	
Consensus (recent)	The New Neoclassical Synthesis/ New Keynesian	
Heterodox	Post-Keynesians Marxists/Socialists Institutionalists, Structuralists, etc	Supply-siders Austrians

The End