The Great Depression, Golden age, and Global Financial Crisis

ECONOMICS

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UCL

Lecture 17
Good policies and institutions can promote economic growth and stabilize the economy during a recession.

Major recessions and slowdowns in growth are due to policy and institutional failures.

- What caused the economic failures of the last century?
- What policy-making lessons can we learn from the past?
**Policy: Aggregate Demand Shock**

*AD Shock*  Two sources for aggregate demand shock: *change* in households’ *consumption* or firms’ *investment* demand

*Stabilisation*  Government has two broad policies that it can use to *counter-act* a *aggregate demand shock* and stabilise the economy

<table>
<thead>
<tr>
<th>Policy</th>
<th>Instrument</th>
<th>Expansionary</th>
<th>Contractionary</th>
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</thead>
<tbody>
<tr>
<td>Fiscal</td>
<td>Government spending</td>
<td><em>rises</em></td>
<td><em>falls</em></td>
</tr>
<tr>
<td>Tax</td>
<td></td>
<td><em>falls</em></td>
<td><em>rises</em></td>
</tr>
<tr>
<td>Monetary</td>
<td>Interest rate</td>
<td><em>falls</em></td>
<td><em>rises</em></td>
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</tbody>
</table>
Phillips Curve

- Oil price shocks increase inflationary expectations and inflation-stabilising unemployment rate moving the Philips curve up.


**Philips Curve**

*Philips curve*  unemployment inflation trade-off in the short run

*Higher employment may result in inflation in the short run:* increase workers’ bargaining position *leads to* higher wages *leads to* higher cost of production leads to inflation

The economy can either

- move along Philips curve as unemployment & inflation change
- or the Philips curve can shift due to the following reasons:

  If people *expect inflation to be higher* in the future, the Philips curve would shift up

Unemployment rate which keeps inflation constant is called the *inflation-stabilising unemployment rate*. If it increases, the Philips curve would shift left.
<table>
<thead>
<tr>
<th>Periods in the US Economy</th>
<th>Names</th>
<th>Dates</th>
<th>US economy features</th>
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<tbody>
<tr>
<td></td>
<td>1920s</td>
<td>1921–29</td>
<td>Low unemployment, high productivity growth, rising inequality</td>
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<tr>
<td></td>
<td>Great Depression</td>
<td>1929-41</td>
<td>High unemployment, deflation, low investment, falling inequality</td>
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<td></td>
<td>Golden age</td>
<td>1948–1973</td>
<td>Low unemployment, high productivity growth &amp; investment, falling inequality</td>
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<td></td>
<td>Stagflation</td>
<td>1973–1979</td>
<td>High unemployment and inflation, low productivity growth, lower profits</td>
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<tr>
<td></td>
<td>Great moderation</td>
<td>1979–2008</td>
<td>low unemployment &amp; inflation, investment slowing down, sharply rising inequality, rising debt</td>
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<tr>
<td></td>
<td>Financial crisis</td>
<td>2008–2015</td>
<td>High unemployment, low inflation, rising inequality</td>
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</tbody>
</table>
**Economic Epochs: Stylised facts**

**Productivity**  *three low points*

Hits a low point in 1931, 1979 and 2013.

**Unemployment**  *High, low, cyclical and high again*

High during the Great Depression, low till the 1979 and then cyclical with business cycles.

Re-emerges again in 2008 with the Financial crisis.

**Inequality**  *U-shaped*

Richest 1% had 20% of income share in 1920s.

It declined till 1979 and then started rising to the levels of 1920s.
3 epochs: Unemployment and productivity

**US:** Unemployment and productivity

- Great Depression epoch (1921–29; 1929–41)
- Golden age epoch (1948–73; 1973–79)

Dashed lines show period averages of the series.

- Productivity growth
- Unemployment rate

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3 epochs: Inequality

**US: Inequality**

![Graph showing income share of the top 1% over time with specific epochs highlighted: Great Depression (1921-29, 1929-41), Golden Age (1948-73, 1973-79), and Financial crisis (1979-2008, 2008-15).]
1920s and the Great Depression

- **Dates**: 1921–1941

- **Conventional wisdom before this epoch**
  Markets are self-correcting, efficient, and ensure the full use of resources.

- **Economic outcomes in the epoch**
  Collapse of aggregate demand, high and persistent unemployment.

- **Lessons learnt from the epoch**
  *Instability* is an intrinsic feature of the aggregate economy and aggregate demand can be stabilised by government policy.

- **Best framework to understand the epoch**
  Keynes
The Great Depression: Causes

**Great Depression**
the period during 1930s in which there was a sharp decline in output and employment in many countries

*Caused by 3 simultaneous positive feedback mechanisms in the US*

**Pessimism about future**
households reacted to the 1929 stock market crash by saving more, further decreasing consumption

**Banking system failure**
many banks failed because loans could not be repaid; surviving banks raised interest rates

**Deflation**
Prices fell due to falling demand
The problem of deflation

Deflation affects aggregate demand through several routes:

- the real value of debt increased; debt levels were relatively high. Many debtors become insolvent, which also hurt creditors.

- farmers reacted by producing more to maintain their incomes, but this reduced prices further, leading to deflation.

- households also postponed the purchase of durables, which further reduced aggregate demand.
The Great Depression

**shocks to AD**

The downswing was driven by *big falls* in household and business *investment*, and in *consumption of nondurables*.
Initial policy issues

Government policy both amplified and prolonged the shock:

- **Contractionary fiscal policy** *austerity* to maintain balanced budget
- **Contractionary monetary policy** *real interest rate increased*
**Policy Reform**

*Roosevelt’s reforms* Roosevelt’s reforms in 1933 changed expectations, which started economy recovery

*The New Deal* government spending on public works and relief programmes to increase aggregate demand and counter-act shock

*Fiscal Policy* New Deal resulted in a budget deficit

*Monetary Policy* Nominal interest rate close to zero

*Banking System* reforms initiated to avoid bank runs
Households cut consumption to restore target wealth during depression (1929-31) and increased consumption from 1933.
Golden age of capitalism and its demise

- **Dates**: 1945–1979

- **Conventional wisdom before this epoch**
  Government policy can implement an employment target by picking a point on the Phillips curve.

- **Economic outcomes in the epoch**
  Late-60s decline in profits, investment, and productivity growth. Stable Phillips curve trade-off disappears.

- **Lessons learnt from the epoch**
  The need to maintain profits, investment, and productivity growth. The ability of a government to implement sustainable low unemployment using aggregate demand policies limited.

- **Best framework to understand the epoch**
  Friedman
The Golden Age: 1945-1979

- 1945-1979 period with high productivity growth, high employment and stable inflation
- Living standards were doubling every 20 years due to capital accumulation.
Catch-up growth

- Poor economies grew faster than richer economics to catch up.
**Golden Age: Causes**

**Goods market**
- Government’s reassurance that a policy for supporting aggregate demand would be used when necessary
- Size of governments increased continuously

**Money market**
- *Bretton Woods System* was established

  *Bretton Woods*: a post-war monetary system that maintained a system of fixed but adjustable exchange rates

**Labour market**
- *Postwar agreement between employers and workers*: sharing the gains of technological progress between workers and employers provided incentives for firms to innovate
Workers and Employers

A *virtuous circle* of low unemployment, high profits and high investment:

- High after-tax profits in many advanced economies
- Expectations of high profits led to high levels of investment
- High investment and technological progress created more jobs, keeping unemployment low

*Fair-shares bargaining:* Trade unions gave workers high bargaining power, which allowed *wages to increase*

*Technology adoption:* The union voice effect encouraged *cooperation* between workers and firms in the face of technology adoption
Using the labour market model

- Technological progress *shifted the price-setting curve up*
- *Wage-setting curve shifted up* due to increased worker bargaining power (informal agreement between employees and employers to share the gains to technological progress)

![Graph showing shifts in price-setting and wage-setting curves due to technological progress.](graph.png)
POSTWAR ACCORD ACROSS COUNTRIES

Wage restraint

- achieved by a single centralized union, or coordinated among unions (e.g. West Germany)

Government’s centralised wage policy

- set wages directly in state-owned firms, creating wage guidance (e.g. France)

Strong but fragmented unions

- resulted in weak coordination and opposition to technological progress, and the country’s performance in the golden age was worse than elsewhere (e.g. Britain).
COLLAPSE OF THE POSTWAR ACCORD

Price-setting curve eventually shifted down

- Oil price shocks in the 1970s
- Economy-wide productivity slowdown
- Workers demanded higher wages

Workers’ increasingly strong bargaining position implied that

- Employers bore the costs of the oil price shocks
- Lower investment and productivity growth
- Rising inflation and high unemployment
COLLAPSE OF THE POSTWAR ACCORD

\[ B \rightarrow C \rightarrow D \]
Stagflation

Persistent *high inflation combined with high unemployment*. Result of an *upward shift of Phillips curve*.
# Types of Crises

<table>
<thead>
<tr>
<th>Great Depression</th>
<th>Golden Age</th>
<th>Stagflation</th>
</tr>
</thead>
<tbody>
<tr>
<td>caused by shocks and amplification mechanism of the aggregate demand</td>
<td>active management of demand side by the government, while problems were creeping up on the supply side</td>
<td>caused by shocks and amplification mechanism on both the demand and supply side</td>
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</tbody>
</table>

Problems on the supply side of the economy depressed the rates of profit, investment, and productivity growth.
THE GREAT MODERATION


- Conventional wisdom before this epoch
  Instability has been purged from capitalist dynamics; minimally regulated financial markets work well.

- Economic outcomes in the epoch
  Financial and housing market crash of 2008.
SUPPLY-SIDE REFORMS

Stagflation leads to policies centred on shifting the balance of power between employers and workers:

Restrictive monetary and fiscal policy

- governments tolerated high unemployment rates to lower inflation and reduce workers’ bargaining power

Shifting the wage-setting curve down

- through cuts in unemployment benefits and legislation that reduced trade union power

Results in “The Great Moderation”

- Productivity growth no longer shared with workers
- Low and stable inflation, falling unemployment
- Investment did not match the growth in profits
**Great Moderation**

The chart illustrates the productivity and real wages indices from 1949 to 2014, highlighting two distinct epochs:

- **Golden Age epoch (1949–73; 1973–79)**
- **From stagflation to financial crisis epoch (1979–2008; 2008–16)**

The productivity index shows a steady increase throughout, with a significant upward trend post-1979. The real wages index remains relatively flat, indicating a period of wage stagnation during the golden age before experiencing a slight increase post-1979.
PROBLEMS WITH THE GREAT MODERATION

Rising inequality

- Rising debt
- Increasing house prices
- Rising inequality due to end of fair-shares bargaining

Financial deregulation

results in higher debts as households improve their consumption via borrowing
Great Moderation

1948–73; 1973–79
Golden age epoch

From stagflation to financial crisis epoch

Percent of GDP for each category

Financial business sector
Households
Non-financial business sector
Government

Debt (% of GDP)

Year
**Housing Boom and the Financial Accelerator**

- **Buying a house:** mortgage requires a secured (collateralised) loan
- **Financial accelerator:** when house prices go up, so does the value of collateral, and households can borrow more.
- This pushes up house prices further and *sustains the bubble.*
**Sub-prime borrowers:** borrowers with no collateralisable wealth

- Poor households usually require collateral to borrow.
- Home loans’ risk falls when house prices are expected to rise.
- Lenders ask for lower deposits, or even no deposit at all.
**FINANCIAL DeregULATION**

*Banks lend more and more*

*Great moderation, rising house prices, and the development of fancy new financial assets* (CDOs and MBSs) made it profitable for banks to *significantly increase lending* recklessly.
Households borrow more and more

High *debt-to-income ratio* lead to the house prices becoming unsustainable and collapsing in 2008 (*Financial Accelerator*)

![Graph showing the relationship between household debt-to-income ratio and house price index over time. The graph indicates a significant increase in both ratios from 1973 onwards, peaking around 2005 before collapsing in 2008.](image)
The financial crisis

- Great Moderation ended by the global financial crisis, triggered by fall in US house prices
The financial crisis

Great Moderation ended by the global financial crisis, triggered by fall in US house prices and started a range of feedback processes

- **Consumption fell** especially among poorer households with subprime mortgages (due wealth targeting)
- **Spillover effects** to the financial sector through the subprime mortgages because borrowers were caught in negative home equity and could not repay the loans
- **Investment fell,** which increased unemployment

In spite of *bank bailouts* and *stabilisation policies,* there followed a sustained global fall in aggregate output
Financial Crisis

1990-2006  rising house prices increased consumption through debt

2006-2009  Household net worth shrank with rising unemployment

Household cut consumption as wealth below target
FROM STAGNATION TO THE FINANCIAL CRISIS

- **Dates:** 1979–2016

- **Conventional wisdom before this epoch**
  Instability has been purged from capitalist dynamics; minimally regulated financial markets work well.

- **Economic outcomes in the epoch**
  Financial and housing market crash of 2008.

- **Lessons learnt from the epoch**
  Debt-fuelled financial and housing bubbles can co-exist with low and stable inflation, and will destabilise an economy in the absence of appropriate regulations.

- **Best framework to understand the epoch**
  Minsky
LESSONS LEARNT

The graph illustrates the index of world industrial production over time, comparing the periods of the Great Depression, the Golden Age, the Oil Crisis, and the Great Moderation. The x-axis represents months into the crisis, while the y-axis shows the index of industrial production. Key events and crises are marked with specific months and years:

- **Jan 1930**: Starting point for the Great Depression
- **Jan 1931**: Initial decline in industrial production
- **Jan 1932**: Further decline
- **Jan 1933**: Bottom of the crisis
- **Jan 2009**: Start of the Global Financial Crisis
- **Jan 2010**: Early recovery
- **Jan 2011**: Moderate recovery
- **Jan 2012**: Recovery continues
- **April 2008**: Beginning of the Global Financial Crisis
- **June 1929**: Beginning of the Great Depression

The data points show how industrial production was affected during these economic epochs, with notable declines and recoveries. The graph provides a visual summary of the economic conditions and the lessons learnt from these historical events.
LESSONS LEARNT

From 1925:
GDP-weighted average for 21 countries

From 2004: world
<table>
<thead>
<tr>
<th>EPOCH</th>
<th>DATES</th>
<th>PRIOR CONVENTIONAL WISDOM</th>
<th>THE LESSON</th>
<th>WHAT ECONOMISTS LEARNED</th>
<th>PRIMARY AUTHOR</th>
</tr>
</thead>
</table>
| 1920s AND GREAT DEPRESSION | 1921-1941   | Markets are self-correcting, efficient, and ensure the full use of resources.            | Collapse of aggregate demand, high and persistent unemployment.          | • Instability is an intrinsic feature of the aggregate economy  
• Aggregate demand can be stabilised by government policy  
• Demand matters                                                                 | Keynes         |
| GOLDEN AGE OF CAPITALISM AND ITS DEMISE | 1948-1979   | Government policy can implement an employment target by picking a point on the Phillips curve. | Late 60s decline in profits, investment and productivity growth. Stable Phillips curve trade-off disappears. | • With given institutions, the need to maintain profits, investment and productivity growth can limit the ability of a government to implement sustainable low unemployment  
• Supply matters  
• Institutions matter                                                                 | Friedman       |
| FROM STAGNATION TO THE FINANCIAL CRISIS | 1979-2013   | Instability has been purged from capitalist dynamics; minimally regulated financial markets work well. | Financial and housing market crash of 2008.                             | • Debt-fuelled financial and housing bubbles will destabilise an economy in the absence of appropriate regulations  
• Institutions matter  
• Money matters                                                                 | Minsky         |
## Different Experiences of the Three Epochs

<table>
<thead>
<tr>
<th>Name of Period</th>
<th>Differences between US and other rich countries</th>
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<tbody>
<tr>
<td><strong>Great Depression</strong></td>
<td></td>
</tr>
<tr>
<td>US</td>
<td>Large, sustained downturn in GDP starting from 1929</td>
</tr>
<tr>
<td>UK</td>
<td>Avoided a banking crisis, experienced a modest fall in GDP</td>
</tr>
<tr>
<td><strong>Golden age</strong></td>
<td></td>
</tr>
<tr>
<td>US</td>
<td>Technology leader</td>
</tr>
<tr>
<td>Outside US</td>
<td>Diffusion of technology creates catch-up growth, improving productivity</td>
</tr>
<tr>
<td><strong>Financial crisis</strong></td>
<td></td>
</tr>
<tr>
<td>US</td>
<td>Housing bubble creates banking crisis</td>
</tr>
<tr>
<td>Germany, Nordic countries</td>
<td></td>
</tr>
<tr>
<td>Japan, Canada, Australia</td>
<td></td>
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<tr>
<td>Did not experience bubble, largely avoided financial crisis</td>
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</tbody>
</table>
SUMMARY

- Epochs
  - Great Depression
  - Golden Age and Stagflation
  - Great moderation and Financial Crisis

- Economists have learned from the successes and the failures of the three epochs.
- Successful policies in each epoch did not prevent positive feedback processes that contributed to subsequent crises.
- No school of thought has policy advice that would have been good in every epoch.