Today’s Topics

• Business Cycles
• Causes of The Depression
  – Keynesian
  – Monetarist
Business Cycles

• The expansions and contractions in real GDP
Business Cycles

• The expansions and contractions in real GDP
• Peak, trough, trend, expansion, contraction
• U.S. GDP has been rising over long-run, but many periods of booms and busts
• NBER business cycle dates
Contractions (recessions) start at the peak of a business cycle and end at the trough.

<table>
<thead>
<tr>
<th>BUSINESS CYCLE REFERENCE DATES</th>
<th>DURATION IN MONTHS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peak</td>
<td>Trough</td>
</tr>
<tr>
<td>Quarterly dates are in parentheses</td>
<td></td>
</tr>
<tr>
<td>June 1857(II)</td>
<td>December 1858 (IV)</td>
</tr>
<tr>
<td>October 1860(III)</td>
<td>June 1861 (III)</td>
</tr>
<tr>
<td>April 1865(I)</td>
<td>December 1867 (I)</td>
</tr>
<tr>
<td>June 1869(II)</td>
<td>December 1870 (IV)</td>
</tr>
<tr>
<td>October 1873(III)</td>
<td>March 1879 (I)</td>
</tr>
<tr>
<td>March 1882(I)</td>
<td>May 1885 (II)</td>
</tr>
<tr>
<td>March 1887(II)</td>
<td>April 1888 (I)</td>
</tr>
<tr>
<td>July 1890(III)</td>
<td>May 1891 (II)</td>
</tr>
<tr>
<td>January 1893(I)</td>
<td>June 1894 (II)</td>
</tr>
<tr>
<td>December 1895(IV)</td>
<td>June 1897 (II)</td>
</tr>
</tbody>
</table>
## BUSINESS CYCLE REFERENCE DATES

<table>
<thead>
<tr>
<th>Peak</th>
<th>Trough</th>
<th>Contraction</th>
<th>Expansion</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Quarterly dates are in parentheses</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>June 1899(III)</td>
<td>December 1900 (IV)</td>
<td>18</td>
<td>24</td>
</tr>
<tr>
<td>September 1902(IV)</td>
<td>August 1904 (III)</td>
<td>23</td>
<td>21</td>
</tr>
<tr>
<td>May 1907(II)</td>
<td>June 1908 (II)</td>
<td>13</td>
<td>33</td>
</tr>
<tr>
<td>January 1910(I)</td>
<td>January 1912 (IV)</td>
<td>24</td>
<td>19</td>
</tr>
<tr>
<td>January 1913(I)</td>
<td>December 1914 (IV)</td>
<td>23</td>
<td>12</td>
</tr>
<tr>
<td>August 1918(III)</td>
<td>March 1919 (I)</td>
<td>7</td>
<td>44</td>
</tr>
<tr>
<td>January 1920(I)</td>
<td>July 1921 (III)</td>
<td>18</td>
<td>10</td>
</tr>
<tr>
<td>May 1923(II)</td>
<td>July 1924 (III)</td>
<td>14</td>
<td>22</td>
</tr>
<tr>
<td>October 1926(III)</td>
<td>November 1927 (IV)</td>
<td>13</td>
<td>27</td>
</tr>
<tr>
<td>August 1929(III)</td>
<td>March 1933 (I)</td>
<td>43</td>
<td>21</td>
</tr>
<tr>
<td>May 1937(II)</td>
<td>June 1938 (II)</td>
<td>13</td>
<td>50</td>
</tr>
<tr>
<td>February 1945(I)</td>
<td>October 1945 (IV)</td>
<td>8</td>
<td>80</td>
</tr>
<tr>
<td>November 1948(IV)</td>
<td>October 1949 (IV)</td>
<td>11</td>
<td>37</td>
</tr>
<tr>
<td>July 1953(II)</td>
<td>May 1954 (II)</td>
<td>10</td>
<td>45</td>
</tr>
<tr>
<td>August 1957(III)</td>
<td>April 1958 (II)</td>
<td>8</td>
<td>39</td>
</tr>
<tr>
<td></td>
<td>Trough</td>
<td>Contraction</td>
<td>Expansion</td>
</tr>
<tr>
<td>------------------</td>
<td>---------------</td>
<td>-------------</td>
<td>---------------</td>
</tr>
<tr>
<td><strong>Peak</strong></td>
<td><strong>Trough</strong></td>
<td><strong>Peak to</strong></td>
<td><strong>Previous</strong></td>
</tr>
<tr>
<td>Quarterly dates</td>
<td>Quarterly dates</td>
<td>Trough</td>
<td>trough to</td>
</tr>
<tr>
<td>are in parentheses</td>
<td></td>
<td><strong>Trough</strong></td>
<td><strong>this peak</strong></td>
</tr>
<tr>
<td>April 1960 (II)</td>
<td>February 1961 (I)</td>
<td>10</td>
<td>24</td>
</tr>
<tr>
<td>December 1969 (IV)</td>
<td>November 1970 (IV)</td>
<td>11</td>
<td>106</td>
</tr>
<tr>
<td>November 1973 (IV)</td>
<td>March 1975 (I)</td>
<td>16</td>
<td>36</td>
</tr>
<tr>
<td>January 1980 (I)</td>
<td>July 1980 (III)</td>
<td>6</td>
<td>58</td>
</tr>
<tr>
<td>July 1981 (III)</td>
<td>November 1982 (IV)</td>
<td>16</td>
<td>12</td>
</tr>
<tr>
<td>July 1990 (III)</td>
<td>March 1991 (I)</td>
<td>8</td>
<td>92</td>
</tr>
<tr>
<td>March 2001 (I)</td>
<td>November 2001 (IV)</td>
<td>8</td>
<td>120</td>
</tr>
<tr>
<td>December 2007 (IV)</td>
<td>June 2009 (II)</td>
<td>18</td>
<td>73</td>
</tr>
</tbody>
</table>

Average, all cycles:
1854-2009 (33 cycles) | 16 | 42 |
1854-1919 (16 cycles) | 22 | 27 |
1919-1945 (6 cycles) | 18 | 35 |
1945-2009 (11 cycles) | 11 | 59 |

* 32 cycles
** 15 cycles
Causes of The Depression

• Debate began immediately
• No period more studied in Economic History
• Relevance for today (Japan, housing, financial sector)
• Since output and prices fell, must explain drop in spending (Aggregate Demand)
2 Views on the Causes of The Depression

• Keynesian
  – John Maynard Keynes
  – British, wrote during Depression
  – “animal spirits” – investors and consumers decided not to spend

• Monetarist
  – Milton Friedman (died recently)
  – Financial (monetary) disaster

• It is likely that no single explanation will do
Keynesian Explanation

- Gross Domestic Product (GDP) is purchased by four types of spenders:
  - Consumption (households)
  - Investment (businesses)
  - Government Spending
  - Net Exports (foreign sector)

- $G$ rose a bit, and Net Exports not too important, so we will focus on $C$ and $I$
Consumption

Fell 23% (’29-’33) in real terms

1. **Wealth Effect** from 1929 Stock Market Crash
   - Lots of paper wealth lost (12% of value in one day)
   - Many stocks down 50% or more
   - Many more people owned stocks than previously
Consumption

2. People **uncertain of future**
   Switched away from big ticket durables (washing machines) since they didn’t want to be stuck with payments

3. Farm income fell (drought)

Employed people (not unemployed) responsible for the big drop in consumption
Investment

• Fell to almost zero
• Even today, the most volatile component of spending

1. Residential Housing construction fell
   • Housing was overbuilt in the 1920s—by 1929 housing starts way down

2. Uncertainty
   • Business will only invest once they believe that recession is nearly over
   • But when would this awful recession end?
   • With Deflation, people thought the best thing to do is to hold cash
Monetarist (Friedman, Schwartz)

- “Credit makes the world go ‘round”
Monetarist (Friedman, Schwartz)

- Money supply contracted and caused reduction in credit and spending
- **Money Supply** = currency + checking accounts
- Banks issue loans which provide credit and checking accounts
- Loans come from **reserves**
  (= vault cash + accounts at the Fed)
Why did the Money Supply fall?

• People withdrew cash (reduced vault cash)
  – Due to Bank Panic or Run on Bank
  – “It’s a Wonderful Life”
Why did the Money Supply fall?

• Banks held more Excess Reserves due to greater uncertainty
  – Same thing today

• Gold Standard (Eichengreen)
  – Fed tried to maintain gold standard
  – Since currency backed by gold, reserves were limited by gold, so Fed couldn’t increase reserves
  – Countries that left the gold standard recovered quicker (U.S. was one of the last)
Why did the Money Supply fall?

• Fed made a Mistake
  – *Nominal* Interest Rate was falling, which *may* signal easy monetary policy
  – Temin interprets this as a drop in the demand for money (few wanted to borrow)
  – But Real Interest Rate was high since inflation was negative (deflation)

\[
\text{Interest rate}_{\text{real}} = \text{Interest rate}_{\text{nominal}} - \text{inflation rate}
\]
Why did the Money Supply fall?

- Bank Failures
  - 9,000 Banks failed 1930-33 (1/3 of all)
  - 3 Failure Waves:
    - Oct 30-"Bank of US" in NY failed
      - Psychological importance?
    - March 31-Britain off gold standard, which made people want to convert $ to gold, and US reserves fell
    - March 33-large wave of failures
      - Due to Asymmetric Information (Bernanke) customers can’t easily borrow from a new bank
Bank Failures and the Bank Failure Rate 1920–1939

Monetary Policy Response to Bank Failures

• Bank Holiday March 1933
  – All banks close for one week to get “examined”
  – We did this in 2009 with our big banks!

• Off Gold Standard in 1933
  – Gold coins had to be surrendered for cash
  – By not adhering to gold standard, Fed could increase money supply even more
  – Returned to gold standard in 1934 for international payments, but not for domestic transactions
Monetary Policy Response to Bank Failures

• Federal Deposit Insurance (FDIC)
  – In 2008, FDIC limits on accounts was raised temporarily (now permanent)

• Reconstruction Finance Corporation
  – Government directly lent to banks and businesses
  – In 2008, Fed started lending to non-banks and buying lots of Mortgage Backed Securities and other bonds
1937 Recession and two possible causes

- **Deficit fell**, which is *contractionary* fiscal policy
  - (Roosevelt campaigned on Balance Budget)
  - Today we know that “austerity” has led to sluggish growth in Greece

- **Fed raised reserve requirements** in ’37
  - Worried about excess reserves held by banks
  - This contracts the money supply
  - Today the worry is that bank excess reserves will soon turn into loans and lead to inflation
Can it happen again? (Is it happening now?)

Page 441:

• Government may not make the same mistakes

• Services are a larger part of the economy (haircuts sales fluctuate less than car sales)

• Two-earner households provides “insurance” against income loss
Conclusion

• Cause of The Great Depression still debated
• Probably Keynes identified the start
  – People faced uncertainty and spent less
• Probably monetarists explain the depths
  – Financial collapse
• A role for NIRA? (we will discuss next time and in D Section)
  – This was Government sanctioned monopolies
• Could it happen again?
  – Fed is more sophisticated
  – FDIC
  – But Housing and Wall Street today got out of control too!