Lecture 1
Labor Market from a Flow Perspective

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Economics 714
We will introduce dynamic models of the labor market with equilibrium unemployment.

Labor market flows will be subject to frictions: it is costly for workers to find jobs and for firms to find workers to fill job openings.

This will allow us to study the factors determining the level of unemployment, its fluctuations, and how it may vary across countries.

We will also study the impacts of labor market policies and regulations.
US working age population in 2012: 243.4 million people
Labor force participation rate of about 63.6%. Employment-population ratio of 58.7%
Between 1967 and 1993 the average job loss rate was 2.7% per month, average job finding rate was 43%, and average unemployment rate 6.2%.
In September 2012 job loss rate was 1.3% per month (with 2.5% going out of labor force), finding rate was 19%, and unemployment rate was 9.1%.
Large differences in employment, unemployment, and their evolution in US and Europe.
Employment/Population and Participation Rates

Civilian Employment-Population Ratio (EMRATIO)
Civilian Labor Force Participation Rate (CIVPART)

Shaded areas indicate US recessions.
2013 research.stlouisfed.org
Separation Rate and Job Finding Rate

Job Separation Rate and Recession Indicator

Job Finding Rate and Recession Indicator

Williams Economics 714
Separation Rate and Unemployment Rate

Job Finding Rate and Trend

Unemployment Rate and Trend
<table>
<thead>
<tr>
<th>To</th>
<th>From</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not in labor force</td>
<td>92.8</td>
<td>22.7</td>
<td>3.2</td>
</tr>
<tr>
<td></td>
<td>Unemployed</td>
<td>2.5</td>
<td>49.6</td>
<td>1.5</td>
</tr>
<tr>
<td></td>
<td>Working</td>
<td>4.7</td>
<td>27.6</td>
<td>95.4</td>
</tr>
</tbody>
</table>

Table 2. Transition Matrix for the CPS, 1967-2004, Percent per Month

Source: Robert Shimer's tabulations of raw data from the CPS
Perpetual Motion

Behind the monthly jobs numbers are millions of individual movements as people find jobs and lose them, retire and graduate. Together, those movements help reveal the underlying state of the labor market.

HISTORICAL FLOWS, OR PATTERNS OF CHANGE, IN LABOR-FORCE STATUS

What happened to the unemployed

- Remained unemployed
- Dropped out of the labor force
- Found a job

Of those who left the labor force each month:

- 7% were employed in the previous month
- 6% were unemployed in the previous month

SEPTEMBER 2012 SNAPSHOT

- 136.7 million were employed in August
- 3.8M weren't in labor force in August
- 2.4M were unemployed in August
- 1.9M were employed in August
- 2.9M were new entrants to the labor force
- 7.3M were unemployed in August

OF THOSE NOT IN LABOR FORCE:

- 82.1M weren't in labor force in August
- 3.5M had jobs in August
- 2.8M were unemployed in August

Notes: Three-month moving averages are used in flow calculations; data are seasonally adjusted.

Source: Labor Department

The Wall Street Journal
### Length of Unemployment Spells

<table>
<thead>
<tr>
<th>Unemployment Spell</th>
<th>8/89</th>
<th>10/92</th>
<th>10/06</th>
<th>3/11</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 5 weeks</td>
<td>48%</td>
<td>35%</td>
<td>38%</td>
<td>18%</td>
</tr>
<tr>
<td>5 - 14 weeks</td>
<td>31%</td>
<td>28%</td>
<td>31%</td>
<td>22%</td>
</tr>
<tr>
<td>15 - 26 weeks</td>
<td>11%</td>
<td>14%</td>
<td>14%</td>
<td>15%</td>
</tr>
<tr>
<td>&gt; 26 weeks</td>
<td>9%</td>
<td>23%</td>
<td>16%</td>
<td>46%</td>
</tr>
</tbody>
</table>

- Other countries: in Germany, France or the Netherlands about two thirds of all unemployed workers in 1989 were unemployed for longer than six months.
Table 1: Unemployment and long-term unemployment in OECD

<table>
<thead>
<tr>
<th>Country</th>
<th>Unemployment (Per cent)</th>
<th>Long-term unemployment of six months and over (Per cent of total unemployment)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1974–79&lt;sup&gt;a&lt;/sup&gt;</td>
<td>1980–89&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>Belgium</td>
<td>6.3</td>
<td>10.8</td>
</tr>
<tr>
<td>France</td>
<td>4.5</td>
<td>9.0</td>
</tr>
<tr>
<td>Germany&lt;sup&gt;g&lt;/sup&gt;</td>
<td>3.2</td>
<td>5.9</td>
</tr>
<tr>
<td>Netherlands</td>
<td>4.9</td>
<td>9.7</td>
</tr>
<tr>
<td>Spain</td>
<td>5.2</td>
<td>17.5</td>
</tr>
<tr>
<td>Sweden</td>
<td>1.9</td>
<td>2.5</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>5.0</td>
<td>10.0</td>
</tr>
<tr>
<td>United States</td>
<td>6.7</td>
<td>7.2</td>
</tr>
<tr>
<td>OECD Europe</td>
<td>4.7</td>
<td>9.2</td>
</tr>
<tr>
<td>Total OECD</td>
<td>4.9</td>
<td>7.3</td>
</tr>
</tbody>
</table>
The Beveridge Curve in the U.S., 2000-2013

United States, December 2000–June 2013

2008-2013 data in red

vacancy rate (percent)

unemployment rate (percent)