

Lecture 2. Collective bargaining, Shocks, and Unemployment.*

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This second lecture triggered/organized around two sets of facts:

- **The unemployment miracles:** The Netherlands, Ireland. How did they do it?

More generally, what explains the differences in the timing and the size of the unemployment turnarounds?

Tentative conclusion: Attitudes of unions, role of collective bargaining.

- **The decrease in the labor share.** Why has the labor share decreased so much in most Continental European countries since the mid 1980s?

Dynamic responses to factor prices? Biased technological progress? Weaker unions, and/or changes in the nature of bargaining?

Lecture somewhat tentative. The first theme because I have just started exploring. The second theme because I am not sure yet. Because the two themes cry for an integrated explanation, which I do not yet have.

THE UNEMPLOYMENT MIRACLES

Some countries went through very high and then very low unemployment. Focus on two of them: the Netherlands, and Ireland

For real? Yes. (The non-explanations. Part time, reduced workweek, disability, and participation rates in the Netherlands.) In-migration in Ireland.

Ireland

Go through the same exercise as we did for France in Lecture 1 (the facts through the lenses of the model):

- w and a : Wage moderation, from mid 80s on. (Note: no increase in w/a from 1970 to 1985. Have to look elsewhere for an explanation of high unemployment)
- w/a and (an/k) . The sharp turnaround in (an/k) from 1985 on.
- The poor investment performance. Investment rate sharply down from 1980 to 1985, with little recovery. (more after 1996. for the economy as a whole: from 18.6% of GDP in 1996, to 23.6% in 2000).

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- The key: Movements in interest rates. Very low in the 1970s, increasing until the early 1990s, more than offsetting the increase in profit rate.
 - Now: w/a still very low, and r sharply down: $\pi - uc$: up since 1992. So future appears bright.

Going behind proximate causes:

- FDI, then more, leading to high g_a .
- Integration to the UK labor market, leading to growth of w linked to UK g_a . Immigration.
- Low interest rates. Fiscal consolidation, and the Euro.
- Recipe not easily exportable. Role of collective bargaining?

The Netherlands

On the surface, many similarities with Ireland:

- w and a : Sharp wage moderation from early 80s on.
- w/a and (an/k) . The turnaround in (an/k) from early 1980s on.
- The mediocre investment performance. The key: A sharp increase in interest rates, very low in mid 1970s, increasing to the early 1990s.
- Now: w/a still very low, and r sharply down: $\pi - uc$: up since 1992. So, again, the future is bright.

Going behind the proximate causes:

- The Wassenaar tripartite agreement. 1982.
An apparently messy agreement: wage moderation, early retirements, shorter workweek.
- The role of centralized collective bargaining? (compare to the failure of the Moncloa agreements in Spain) or a change in attitude of the unions?
- Again, steady fiscal consolidation (from 7% deficit in 1983, to balance in 2000), and the Euro.

Why in the Netherlands, and not in France or Germany?

A tentative story (work in progress)

- Increase in capital mobility across sectors, countries. Deregulation of goods markets, and reduction of pure rents.

Leading to a much more long run elastic demand for labor than earlier in time.

- Two learning processes at work. About the slowdown of tfp growth. About the slope of the long run labor demand curve.

Can explain why lasted longer than under a pure tfp slowdown explanation, and the sharp wage moderation.

- Why in the Netherlands? In more open economies, faster consequences, faster learning.

Other factors: Communist versus social democratic unions. The role of public sector, of public sector unions.

General conclusions. Wage moderation behind the unemployment miracles. Why? Attitudes of the unions?

THE DECREASE IN THE LABOR SHARE

- In continental European countries, a dramatic decrease in the labor share, starting in the 1980s. Figure.
- How rare? Over long periods of time: The U.S. share very flat. Evidence from France over 50 years, from Piketty.
- Measurement issues? Yes: Self employment, stock options... Makes cross country comparisons difficult. Probably not important for the fact at hand.

Where from?

Not implied by wage moderation (w increasing by less than a). The Cobb Douglas case with no cost of adjustment (w moves with y/n).

(Difference between w/a and “wage gap” measures)

Obviously not a puzzle in itself. Could come from:

- Dynamic response of factor quantities to factor prices
- Biased technological progress
- Shifts in rents

Look at each one in turn:

- **Dynamic response of factor quantities to factor prices.**

Except with Cobb Douglas and no costs of adjustment, would expect movements in the share:

- Could come from the dynamic effects of the initial wage increase, and a long run elasticity of substitution between capital and labor $\sigma > 1$. (Caballero and Hammour)
- Could come from the dynamic effects of later wage moderation, and a short run elasticity of substitution between capital and labor $\sigma < 1$.

The evidence. Look at w/a and an/k for four countries. The initial response of an/k to the increase and then the decrease in w/a . But as wage moderation continues, an/k remains low.

Anticipations of high w/a in the future? Seems unlikely. Long lags in response to wage moderation? Seems too long.

- **Biased technological progress.**

An obvious example: an increase in α , the coefficient on capital in a Cobb Douglas production function.

Why then and there? A more sophisticated hypothesis: Endogenous technological progress: Firms worried about labor costs and substituting away from labor in the choice of technology. (Return to this later).

- **A shift in rents from labor to capital** : Lower wages at given employment. Or lower employment at given wages.

Points to weaker or more moderate unions (does not do it per se. re: Cobb Douglas), or/and changes in the nature of collective bargaining.

Efficient bargaining, labor hoarding

Until now, assumed firms took the bargained wage as given. Wage was allocative in the short run. As pointed first by Leontief, inefficient. The firm and the union should bargain over both the level of employment and the wage:

- Level of employment should be set at the efficient level: marginal revenue product equals reservation wage.
- Wage should then split the rents, according to relative bargaining power.

A graphical representation:

- Nash bargaining between workers with linear utility and the firm, with weights β , $1 - \beta$.
- Firm: marginal revenue and average product curves.
- Workers: reservation wage decreasing function of unemployment, $f(u)$
- Employment: n^* so that $f(u^*) = MRP$
- Wage: $w = (1 - \beta)MRP + \beta ARP$.

Suppose workers (union) become weaker, so β decreases. Leads to same employment, lower wage, lower labor share.

A simple **Cobb Douglas** example.

Suppose production is given by: $y = n^\alpha k^{1-\alpha}$.

Firm maximizes profits. Union cares about $nw + (\bar{n} - n)f(u)$. Then:

- Employment given by: $n = k(f(u)/\alpha)^{1/(\alpha-1)}$, independent of β .
- Wage given by $w = (\alpha + \beta(1 - \alpha))(n/k)^{\alpha-1}$
- Labor share given by $(\alpha + \beta(1 - \alpha))$

In the **short run**, a lower β leads to:

- no change in employment
- a decrease in the wage, a decrease in the labor share
- an increase in the profit rate

In the **long run**, capital accumulates, and the capital labor ratio increases, until the profit rate is back to its initial value, and:

- Unemployment is lower.
- The wage recovers—not all the way.
- The labor share remains lower.

Simulation, based on model of Lecture 1, with efficient bargaining instead. A decrease in β from 0.2 to 0.0.

Implications, variations, and open questions.

- Results are even more striking if consider the implications of the model with concave utility. Then, contract curve is upward sloping.

A decrease in β leads to a decrease in the labor share and an increase in unemployment in the short run.

- A tentative interpretation for what happened in the 1980s and the 1990s: Weaker unions, and a transfer of rents.

Have unions become weaker? Unionization rates down. Why?

Relation to product market deregulation? (Blanchard Giavazzi):

Direct effect of product market deregulation is likely to go the other way: Leads to lower monopoly power, lower markups, higher wage share.

Indirect effect: Smaller rents to extract. Less incentives to unionize.

- Weaker unions or more foresighted unions? Back to the first theme of the lecture:

The intertemporal trade-off. If capital supply is more elastic, or product market deregulation has reduced pure rents, unions will want to reduce rents now in exchange for higher employment in the future.

Would offer an attractive explanation for both sets of facts. But no strong cross-country correlation between wage moderation and decrease in labor share.

Why little decline in the share in Anglo-Saxon countries? Figure. One would have expected a larger decline in union power in the UK, a larger decline in labor hoarding. (Thatcher).

- Two alternative interpretations:

A breakdown in bargaining: a shift from efficient to inefficient bargaining:

Efficient bargaining is time inconsistent. Ex-post, the firm increases profit by going from A to B . May lose in the long run, but gains in the short run.

More product market competition may force firms to break implicit contracts in the labor market.

Or conversely: The removal of inefficient labor hoarding (note: initially: $MRP < w$) ?

- A gloomier interpretation. (Caballero and Ham-mour). Endogenous choice of technology. Firms have introduced technologies which reduce the scope for hold-ups by workers. (Could go either way, in terms of capital intensity.)
- An important puzzle (because it is so striking). The labor share and inflation. Figure.

Causality from inflation to the share? (Blanchard and Muet, 1992, for France) Probably not.

Causality from the share to inflation? (Gertler and Gali, 2000. Wages higher than labor productivity lead firms to try to increase prices, leading to higher inflation). Hard to explain the behavior of the share.

Common causes?

Conclusions

Wage moderation, Decrease in the labor share:

Clearly reflect changes in collective bargaining:

- Smarter unions? Learning about the slope of long run labor demand. Choosing a lower wage, a lower β if efficient bargaining. .
- Weaker unions? Leading to a lower β .
- Change in the nature of collective bargaining?

Now turn to role of specific labor market institutions.
(clearly not independent)