How Do Wages Respond to Shocks? Discussion

Conference on Wage Dynamics in Europe, European Central Bank

Jim Malcomson

University of Oxford

25 June 2008

Introduction

- Could take as text for my discussion:
  "Never believe a piece of data until it has been confirmed by theory."

Introduction

- Could take as text for my discussion:
  "Never believe a piece of data until it has been confirmed by theory."
  - Quote from some died-in-the-wool economic theorist?

Introduction

- Could take as text for my discussion:
  "Never believe a piece of data until it has been confirmed by theory."
  - Quote from some died-in-the-wool economic theorist?
  - No, Sir Arthur Eddington, one of great astronomers of early 20th century.

Introduction

- Could take as text for my discussion:
  "Never believe a piece of data until it has been confirmed by theory."
  - Quote from some died-in-the-wool economic theorist?
  - No, Sir Arthur Eddington, one of great astronomers of early 20th century.
- Plan for discussion:

Introduction

- Could take as text for my discussion:
  "Never believe a piece of data until it has been confirmed by theory."
  - Quote from some died-in-the-wool economic theorist?
  - No, Sir Arthur Eddington, one of great astronomers of early 20th century.
- Plan for discussion:
  - In spirit of text:

Introduction

- Could take as text for my discussion:
  "Never believe a piece of data until it has been confirmed by theory."
  - Quote from some died-in-the-wool economic theorist?
  - No, Sir Arthur Eddington, one of great astronomers of early 20th century.
- Plan for discussion:
  - In spirit of text:
    - say things about theory that relate to several papers in session;

Introduction

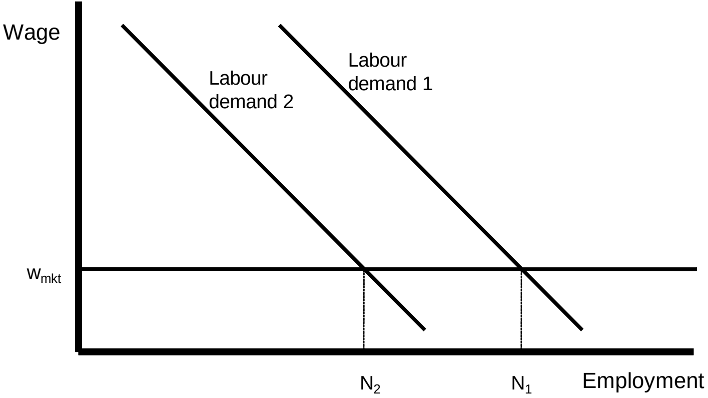
- Could take as text for my discussion:
  "Never believe a piece of data until it has been confirmed by theory."
  - Quote from some died-in-the-wool economic theorist?
  - No, Sir Arthur Eddington, one of great astronomers of early 20th century.
- Plan for discussion:
  - In spirit of text:
    - say things about theory that relate to several papers in session;
  - what can we infer from way wages respond to firm-specific shocks?

Introduction

- Could take as text for my discussion:
  "Never believe a piece of data until it has been confirmed by theory."
  - Quote from some died-in-the-wool economic theorist?
  - No, Sir Arthur Eddington, one of great astronomers of early 20th century.
- Plan for discussion:
  - In spirit of text:
    - say things about theory that relate to several papers in session;
  - what can we infer from way wages respond to firm-specific shocks?
- Make some comments specific to paper by Carlos Marques.

Wages and firm-specific shocks: perfectly competitive labour markets

- Perfectly competitive labour market: firms take wage as given.



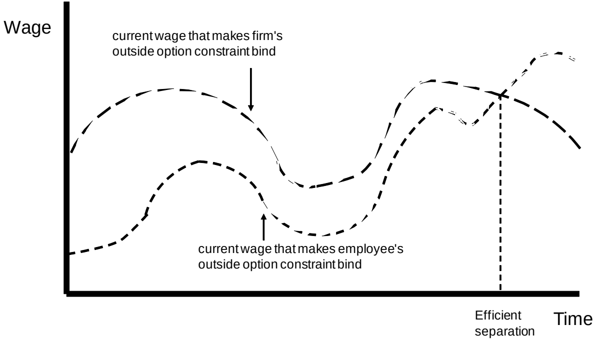
- Consider firm-specific shock shifting labour demand from 1 to 2.
- Employment responding, wage not, no more evidence of wage rigidity than of perfectly competitive labour market.

When do wages respond to firm-specific shocks?

- Wages respond to firm-specific shocks when:
  - firm's have labour market power (monopsony):
    - differences in wage response reflect differences in degree of market power;
  - there are turnover costs;
  - wages governed by contracts negotiated:
    - to share risk;
    - to protect investments (avoid hold-up);
    - by collective bargaining.
- Say a little about each of these.

Turnover costs

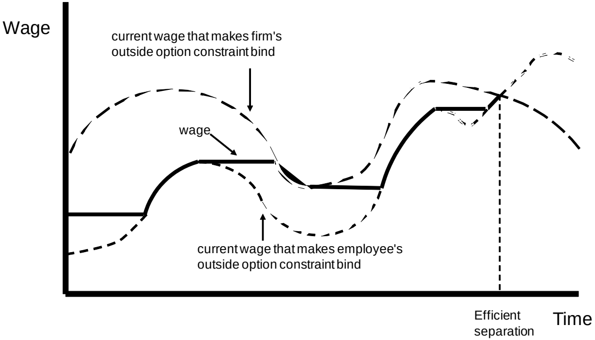
- With turnover costs: max wage firm will pay $>$ min wage worker will accept (if continued employment efficient).



- Line for firm affected by firm-specific shocks, line for employee not.
- Bargaining (individual or collective) typically means wage responds to firm-specific shocks;
  - efficient bargaining implies employment occurs if and only if efficient;
  - *so:* model no role for employment policy.

Insuring employees

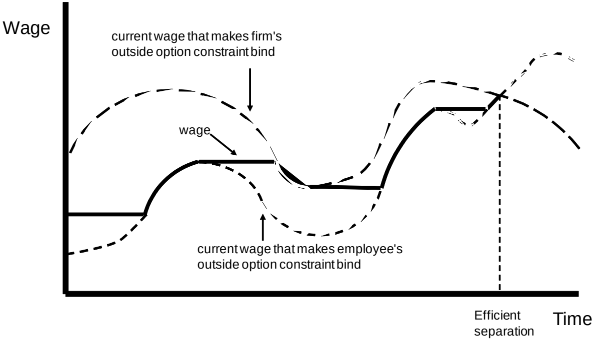
- Limited commitment model (Thomas and Worrall, *REStuds*, 1988);
  - most plausible because no legally enforceable contracts.



- Wage for individual firm sometimes responds to firm-specific shocks;

Insuring employees

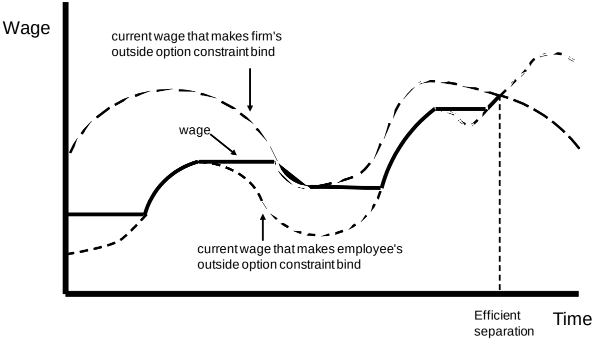
- Limited commitment model (Thomas and Worrall, *REStuds*, 1988);
    - most plausible because no legally enforceable contracts.



- Wage for individual firm sometimes responds to firm-specific shocks;
    - but amount of response depends on where in gap currently are, not independent of history.

Insuring employees

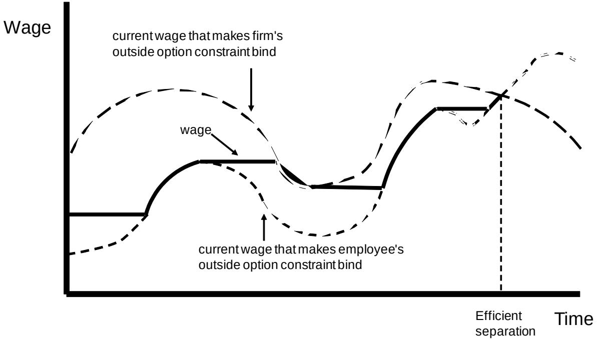
- Limited commitment model (Thomas and Worrall, *REStuds*, 1988);
  - most plausible because no legally enforceable contracts.



- Wage for individual firm sometimes responds to firm-specific shocks;
  - but amount of response depends on where in gap currently are, not independent of history.
- Employment efficient, so model no implications for employment policy.

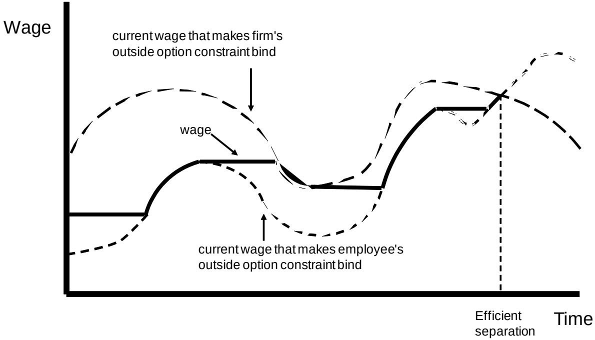
Protecting investments

- To protect general investments when turnover costs, MacLeod and Malcomson (*AER*, 1993) show illustrated contract efficient.



Protecting investments

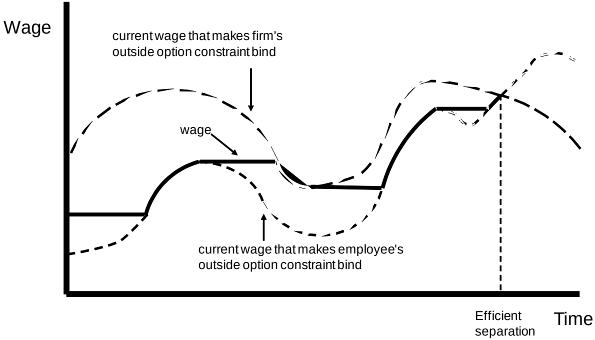
- To protect general investments when turnover costs, MacLeod and Malcomson (*AER*, 1993) show illustrated contract efficient.



- Exactly like insurance model, except

Protecting investments

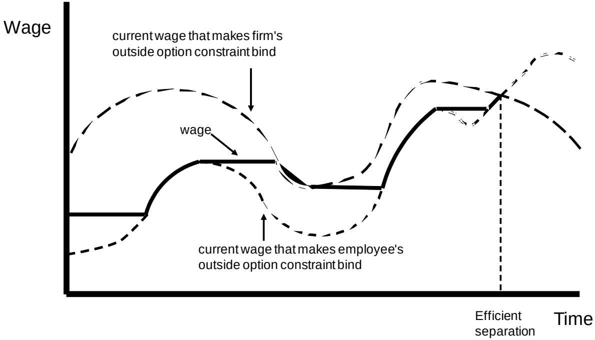
- To protect general investments when turnover costs, MacLeod and Malcomson (*AER*, 1993) show illustrated contract efficient.



- Exactly like insurance model, except
  - wage can be rigid in nominal terms (for insurance, must be real terms).

Protecting investments

- To protect general investments when turnover costs, MacLeod and Malcomson (*AER*, 1993) show illustrated contract efficient.



- Exactly like insurance model, except
  - wage can be rigid in nominal terms (for insurance, must be real terms).
- Employment efficient: wage rigidity still no implications for employment policy.

Conclusions from micro models

- With efficient bargaining and no private information, bargaining ensures employment takes place whenever efficient.
- All wage negotiation does is divide the gains;
  - if inhibited employment, in interests of both parties to renegotiate.
- Implications:

Conclusions from micro models

- With efficient bargaining and no private information, bargaining ensures employment takes place whenever efficient.
- All wage negotiation does is divide the gains;
  - if inhibited employment, in interests of both parties to renegotiate.
- Implications:
  1. when assessing wage response to shocks, not obvious testing risk sharing;

Conclusions from micro models

- With efficient bargaining and no private information, bargaining ensures employment takes place whenever efficient.
- All wage negotiation does is divide the gains;
  - if inhibited employment, in interests of both parties to renegotiate.
- Implications:
  1. when assessing wage response to shocks, not obvious testing risk sharing;
  2. wage rigidity *per se* not reason for inefficient labour market;

Conclusions from micro models

- With efficient bargaining and no private information, bargaining ensures employment takes place whenever efficient.
- All wage negotiation does is divide the gains;
  - if inhibited employment, in interests of both parties to renegotiate.
- Implications:
  1. when assessing wage response to shocks, not obvious testing risk sharing;
  2. wage rigidity *per se* not reason for inefficient labour market;
     - need to know more than that wage rigidity exists to know whether has implications for employment policy;

Conclusions from micro models

- With efficient bargaining and no private information, bargaining ensures employment takes place whenever efficient.
- All wage negotiation does is divide the gains;
    - if inhibited employment, in interests of both parties to renegotiate.
- Implications:
    1. when assessing wage response to shocks, not obvious testing risk sharing;
    2. wage rigidity *per se* not reason for inefficient labour market;
        - need to know more than that wage rigidity exists to know whether has implications for employment policy;
    3. not clear makes sense to look for coefficient of *current* wage response to *current* shocks that independent of history.

- Concerned with economy-wide wage and price responses to macro shocks;
    - underlying model is union bargaining.
- In view of restricted time, limit myself to a few points concerning:
    1. theoretical model;
    2. estimation;
    3. identification and interpretation of shocks;

  that might help improve what is overall a thoughtful and carefully written paper.

- Underlying model explicitly union bargaining;
  - only union model with inherent dynamics I know of is "insider-outsider", which not model in paper;
  - dynamics left to be captured non-theoretically by VAR.
- As somebody interested in theory, disappoints me because many of distinguishing characteristics of theories concern dynamics;
  - but recognise that is a somewhat personal point of view.
- Could generate theoretical dynamics by models discussed above?
  - *Conjecture:* those models apply if efficient bargaining union model, though must aggregate for macro effects studied in paper.
  - *If so,* history still matters for shocks correlated across firms.
- VAR allows for history but possibly not in appropriate way;
  - small changes in opposite direction from previous period should produce no wage change.

- Identifies model empirically by assuming wage responds to consumer price with coefficient 1 and independent of producer price;
  - latter seems at odds with gain sharing in bargaining.
- Treats government employment as determined in same way as private.
- Estimation conditional on unemployment rate (i) weakly exogenous in wage determination, and (ii) an I(1) variable;
  - passes tests but seems appropriate to ask to confirm with theory;
  - (i) possibly consistent with "efficient bargaining" union model;
    - but not with "right to manage", which actually seems more in tune with what done in paper;
  - (ii) hard to believe given long-run properties of unemployment rates.

- Identification of shocks depends on weak exogeneity of unemployment rate, productivity, and import prices.
- Import prices: affect producer mark-up but exogenous proportion of consumer prices: theoretically consistent with
  1. consumer choice theory?
  2. weak exogeneity of import prices?
- Procedure to identify shocks is to impose sufficient zeros in matrices of long-run and contemporaneous responses to ensure just identified;
  - *then:* interpret shocks in terms of model;
  - *for example:* shock with no long-run effect on *real* variables interpreted as *import price shock*;
  - *implication:* should interpret statements like variation in forecast errors of prices is attributable "mainly to import price shocks" as "mainly to *what interpret as* import price shocks"?

Concluding remarks

- Interpreting slow adjustment of wages as wage rigidity requires careful thinking about model:
  - non-response to firm-specific shocks consistent with perfectly competitive labour market, response with monopsony;
  - insurance implies response history-dependent.
- Wage rigidity *per se* does not necessarily imply employment inefficiency;
  - so unclear what policy conclusions follow from empirical estimates;
  - unless can attribute to a particular cause through a model.
- Different models have many of same empirical implications, even about dynamics;
  - so: to attribute measured wage rigidity to a particular cause need to test implications about which models differ.
- As Eddington said, need to have evidence confirmed by theory to make believable.