
Fair Wage Preferences and the Labour Market Implications of Globalisation

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prepared for 3 lectures at the
Center for Economic Studies, Munich

Motivation for 3 Lectures

- Sizable gap between the way economists and citizens view the effects of real globalisation
 - (relative) wage versus employment effects
- The analysis of employment effects of globalisation requires a tractable framework of labour market imperfection
 - fair wage preferences of workers imply that wages are higher than the market clearing ones and thus lead to involuntary unemployment



Overview over the 3 Lectures

- I. The Fair Wage-Effort Mechanism: Theory and Empirical Evidence
- II. Fair Wage Preferences and International Outsourcing
- III. Fair Wage Preferences, Heterogeneous Firms and the Labour Market Effects of Globalisation



Lecture I: The Fair Wage-Effort Mechanism: Theory and Empirical Evidence

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Basic idea

“The more to a man’s disadvantage the rule of distributive justice fails to realization, the more likely he is to display emotional behavior we call anger” (Homans, 1961, p. 75)

- The fair-wage effort hypothesis:
 - Workers withdraw effort as their actual wage falls short of their fair wage (which depends on the remuneration of people in their reference group).



Outline of this lecture

- Motivation
- The cash poster mystery
- Efficiency wage theory
- The fair-wage effort hypothesis
- Evidence for fair wage-effort mechanism



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Motivation

- Equity theory:
 - in social exchange between two agents: perceived value of the “inputs” equals perceived value of “outcomes” (Adams, 1963)
 - in employer-employee context: perceived value of labour input will equal the perceived value of the remuneration: $e = w / \hat{w}$
 - \hat{w} perceived value of a unit of labour (fair wage);
 - e effective labour input (effort);
 - w perceived value of remuneration;



Motivation

- Relative deprivation theory
 - conception of fairness is based on comparison with salient others
 - psychological theory offers little guide as to which reference groups will be salient
 - ✓ others in similar occupations in the same firm
 - ✓ others in dissimilar occupations in the same firm
 - ✓ firm owner(s)
 - ✓ individuals in other firms



Motivation

- Social exchange theory
 - there will be an equal reward net of costs on both sides of an exchange (Blau, 1955)
 - in employer-employee context: workers whose wage is less than the fair wage \hat{w} will be unsatisfied and angry

consequence: workers reduce their effort if the wage level is too low



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The cash poster mystery

Table I: Work performance of individual cash posters

	Age in years	Time on job in years-months	Mean cards per hour	Mean errors per hour
Asnault	22	3-5	363	0.57
Burke	26	2-5	306	0.66
Coughlin	20	2-0	342	0.40
Donovan	20	1-9	308	0.79
Granara	21	1-3	438	0.65
Lo Presti	25	-11	317	0.03
Murphy	19	-7	439	0.62
Rourke	17	-4	323	0.82
Shaugnessy	23	-2	333	0.44
Urquhart	18	-2	361	0.49
Average	21.1	1-4	353	0.55

Source: Akerlof (1982)



The cash poster mystery

- Details on cash posters and the utility firm
 - the company's standard: 300 cards per hour
 - falling below the rate of 300 per hour \Rightarrow mild rebuke from the supervisor
 - uniform wage for cash posters
 - promotion not a big issue:
 - ✓ refusal of promotion by two cash posters
 - ✓ promotion not associated with higher wages
 - ✓ frequent voluntary quits by cash posters (marriage)



The cash poster mystery

- Three questions
 - Why didn't the faster cash posters reduce their speed?
 - Why didn't the firm increase the speed expected of its faster workers?
 - Why didn't the firm adjust the payment scheme?
- Difficult to explain the cash poster example with neoclassical theory of contracts
 - ⇒ *fairness preferences* matter (Akerlof, 1982)



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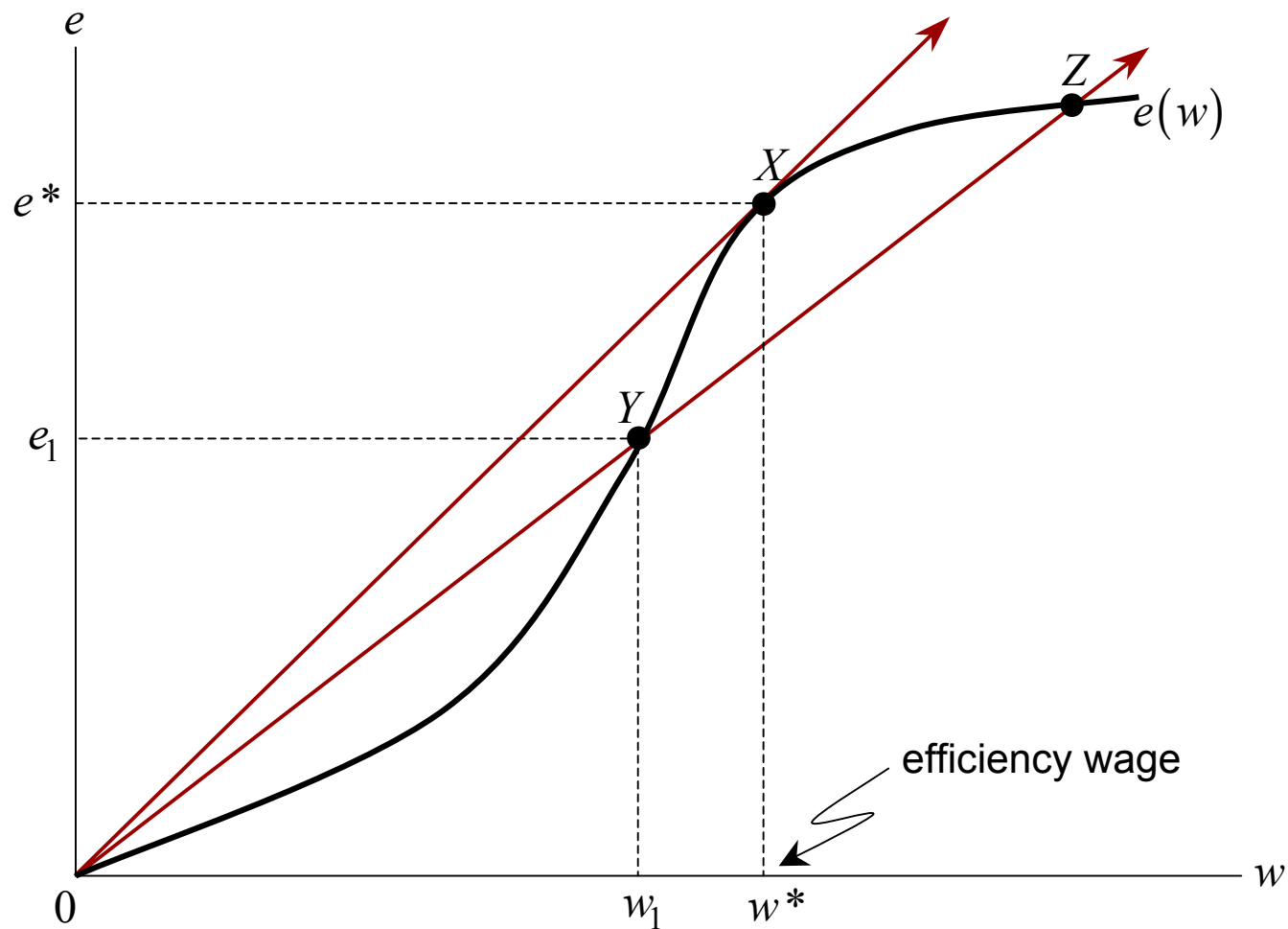


The efficiency wage literature

- Existing theories of efficiency wages
 - morale (Solow, 1979)
 - unobservable worker characteristics and adverse selection (Weiss, 1980)
 - fairness preferences (Akerlof, 1982; Akerlof and Yellen, 1988; 1990)
 - moral hazard – shirking (Shapiro and Stiglitz, 1984)



Determination of the efficiency wage



Determination of the efficiency wage

- Result: *The efficiency wage minimizes labour costs per efficiency unit. In an interior equilibrium, the relevant condition is*

$$\frac{de(w)}{dw} \frac{w}{e} = 1$$

implying that the elasticity of effort e with respect to wage w is equal to unity.

(Solow, 1979)



Implications of efficiency wages

- Firms have no incentive to reduce wages because effort/work quality would decline, due to adverse selection, shirking or perception of unfair treatment
- Wages above the market-clearing ones lead to aggregate unemployment
- Unemployed workers cannot underbid wages of those who are employed



The bonding critique

- Job seekers should be willing to take actions that would “buy” a job in a firm
 - worker can post a bond at the time of hiring
 - if shirking (or worker is of bad quality), the firm can dismiss the worker and keep the bond (enforceability?)
- This criticism is less severe in the case of fairness preferences and if effort is not directly observable (for third parties)



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The fair wage-effort hypothesis

- Early contributions
 - Akerlof (1982)
 - Akerlof and Yellen (1988, 1990)
- Recent developments
 - Kreickemeier and Nelson (2006)
 - Danthine and Kurmann (2006)
 - Egger and Kreickemeier (2006)



Early contributions to the literature

■ Akerlof (1982)

- effort norm is a function of the wage of the firm relative to the reference wage (and $e = e_n$)

$$e_n = -a + b(w/\hat{w})^\gamma, \quad a, b > 0, \quad 0 < \gamma < 1$$

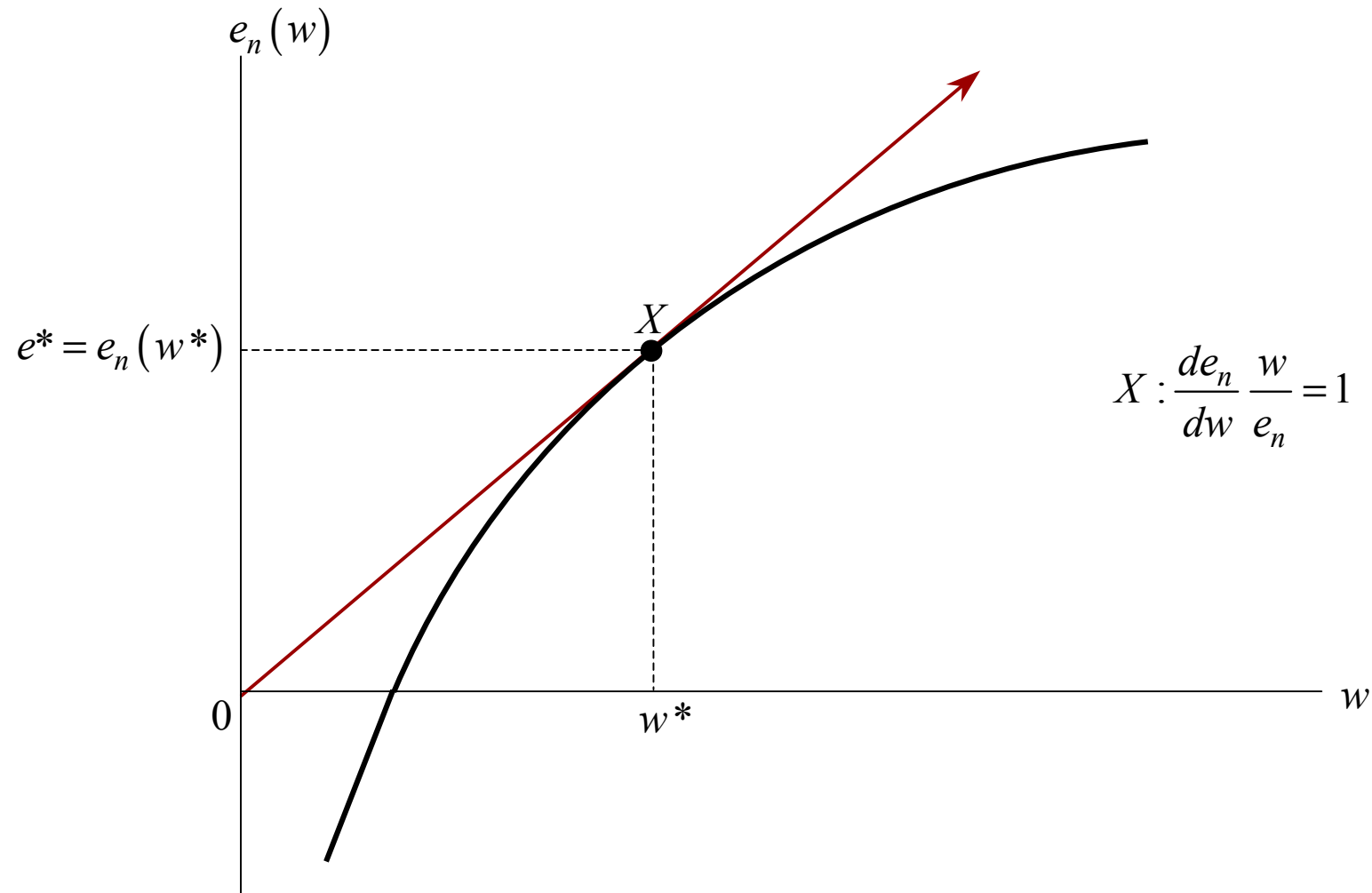
- The fair reference wage (outside perspective) is

$$\hat{w} = w_0^{1-U} b^U$$

where U is the unemployment rate, w_0 are wages paid outside the firm and b are unempl. benefits



Early contributions to the literature



Early contributions to the literature

- Akerlof and Yellen (1988, 1990)

- motivated by the equity theory: effort is given by

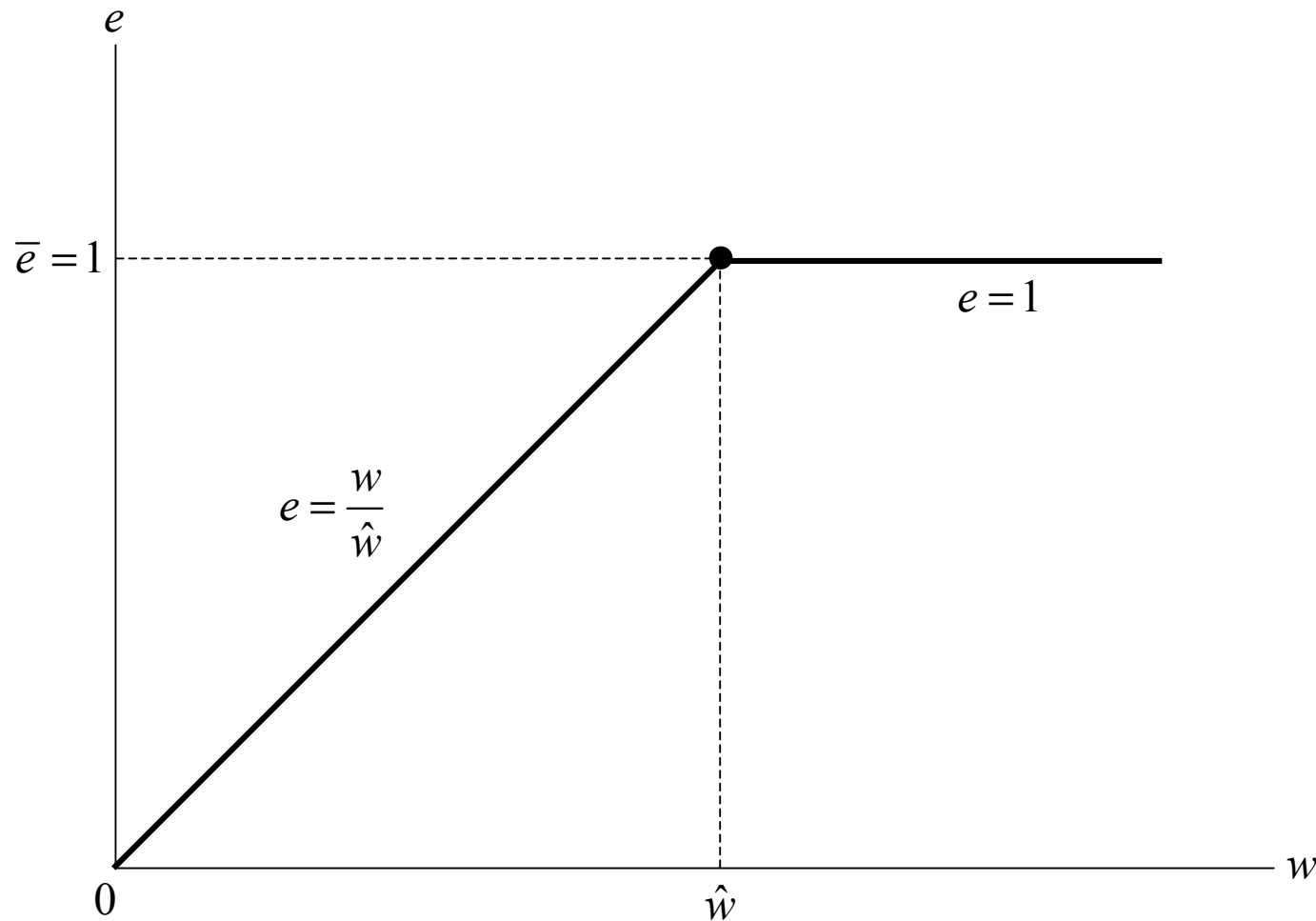
$$e = \min(w/\hat{w}, \bar{e})$$

where \bar{e} is the upper bound of effort and $e = w/\hat{w}$ as long as $e \leq \bar{e}$

- the upper bound of effort captures the idea that overpayment does not increase input (ambiguous experimental results): $\bar{e} = 1$ for notational simplicity;



Early contributions to the literature

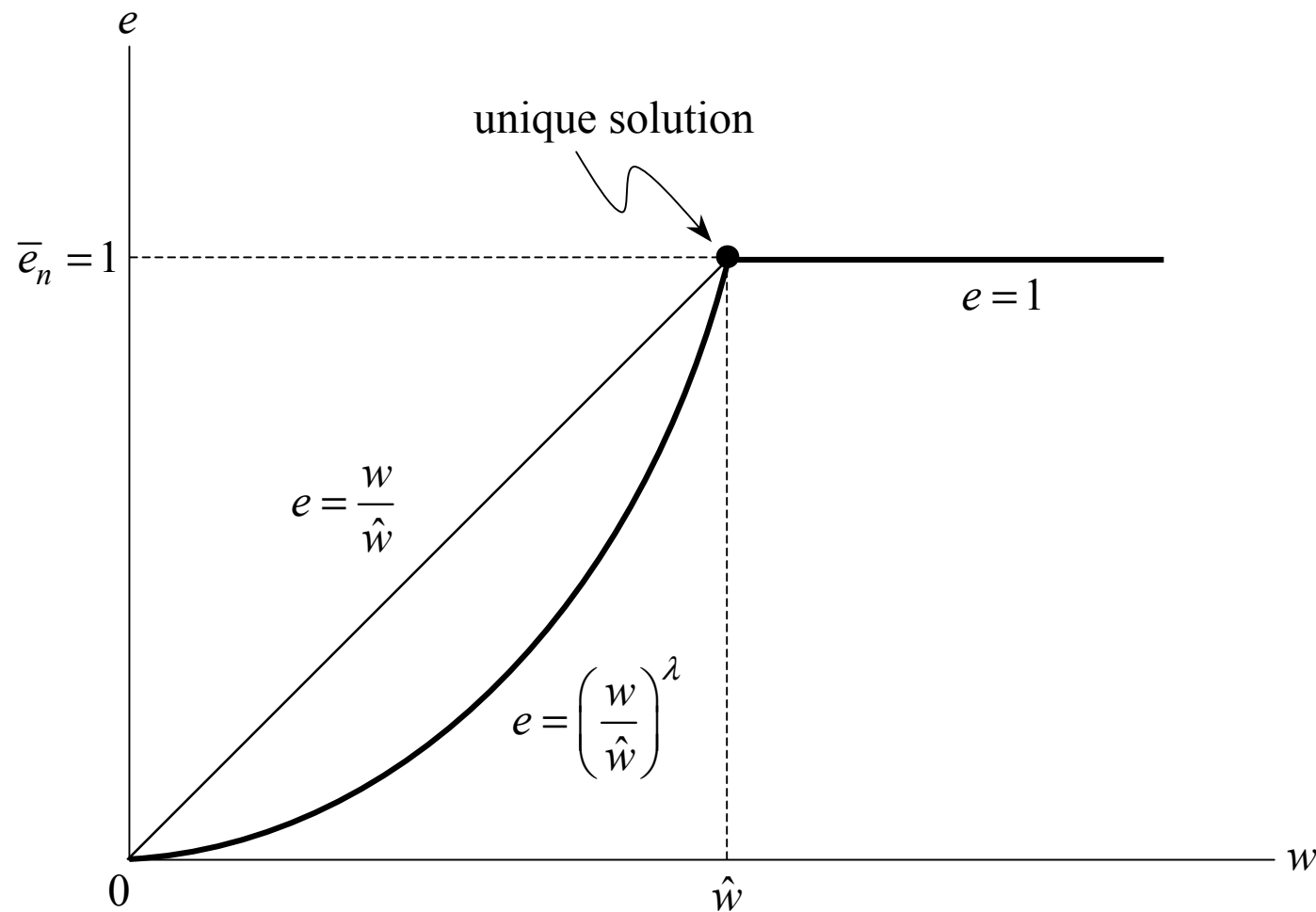


Early contributions to the literature

- Akerlof and Yellen (1988, 1990), contd.
 - firms have no incentive to set $w > \hat{w}$
 - firms are indifferent between all $w \leq \hat{w}$
 - to obtain a unique solution ...
 - ✓ the firm has a small preference for paying \hat{w} (Akerlof and Yellen, 1988, 1990)
 - ✓ modified effort equation: $e = \min\left(\left(w/\hat{w}\right)^\lambda, 1\right)$, $\lambda > 1$



Early contributions to the literature



Early contributions to the literature

- Akerlof and Yellen (1988, 1990), contd.
 - the fair (reference) wage depends on wages received by other members of the same firm and “market conditions”
 - two types of workers skilled/unskilled \Rightarrow group-specific reference wage

$$\hat{w}_i = \theta w_j + (1 - \theta) w_i^c, \quad i \neq j$$

where $\theta \in [0, 1]$ is a fairness parameter and w_i^c is the “market-clearing wage” of group i .



Early contributions to the literature

- Akerlof and Yellen (1988, 1990), contd.
 - this fair wage model implies ...
 - ✓ wage compression (if $\theta > 0$)
 - ✓ some low-paid (unskilled) workers are unemployed
 - ✓ all high-paid (skilled) workers are employed and the reference wage is not binding for this group



Recent developments

- Kreickemeier and Nelson (2006)
 - reformulation of the reference wage

$$\hat{w}_i = \theta w_j + (1 - \theta)(1 - U_i) \bar{w}_i, \quad i \neq j$$

where U_i is the group-specific unemployment rate and \bar{w}_i is the average wage of a type i worker outside the firm

- ✓ firm-internal reference point: w_j
- ✓ firm-external reference point (expected income outside the firm): $(1 - U_i) \bar{w}_i$



Recent developments

- Danthine and Kurmann (2006)

- include firm owners into the reference group of workers and account for a “rent-sharing” motive
- with only one type of labour, the reference wage is

$$\hat{w} = (y/n)^\theta b^{1-\theta}$$

where y/n is output per worker and b are unemployment benefits

- ✓ works well in explaining wage rigidity in GE
- ✓ no firm heterogeneity



Recent developments

- Egger and Kreickemeier (2006)
 - account for a rent-sharing motive of workers in a Melitz (2003)-type model with heterogeneous firms
 - with only one type of labour, the reference wage is

$$\hat{w}(\phi) = \phi^\theta ((1-U)\bar{w})^{1-\theta}$$

where ϕ denotes the firm-specific productivity level



Recent developments

- Egger and Kreickemeier (2006), contd.
 - is closest to the idea of gift exchange that “more profitable firms pay higher wages” (Fehr and Gächter, 2000, p. 172).
 - provides new explanation for within-group wage inequality
 - is consistent with empirical stylized fact that more productive firms pay higher wages



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Evidence for fair wage-effort mech.

■ Experimental evidence

□ Fehr, Kirchsteiger and Riedl (1993):

- ✓ one-sided oral auction
- ✓ buyers (employers) are price-makers
- ✓ sellers (employees) determine quality of the good (effort level) at stage 2
- ✓ excess supply of workers and 12 (two stage) periods

Central result: Wages and effort levels were substantially above those predicted by the standard theory.

⇒ Evidence for fair-wage effort hypothesis



Evidence for fair wage-effort mech.

- ❑ Fehr and Falk (1999):
 - ✓ double auction experiments (where both firms and workers can make wage bids)
 - ✓ two types of experiments: one, where the worker can freely choose her effort level (*incomplete contract*), and one, where the experimenter chooses the effort level at stage 2

Central results:

- ✓ frequent underbidding by workers but refused by firms if contracts are incomplete
- ✓ effort of workers positively related to the wage level



Evidence for fair wage-effort mech.

■ Evidence from interviews

□ Bewley (1999, 2005), Howitt (2002):

- ✓ 336 managers, labour leaders, and employment counsellors, mostly in Connecticut

Central results:

- ✓ good morale (related to fairness) among a firm's workforce has positive effect on profits by increasing the workers' productivity, effort, etc.
- ✓ wage cuts decrease morale (interpreted as unfair if no good reason) and wage underbidding from outsiders is ineffective



Evidence for fair wage-effort mech.

- Evidence from questionnaire surveys
 - Agell and Lundborg (1995, 1999, 2003)
 - ✓ 179 Swedish manufacturing firms in 1991 and 157 firms in 1998

Central results:

- ✓ wage cuts are strongly resisted by employees
- ✓ desire to preserve external wage relativities is important to explain downward wage rigidity
- ✓ managers reject low offers from outsiders to avoid pay inequities



Evidence for fair wage-effort mech.

- (Indirect) empirical support
 - Blanchflower, Oswald, and Sanfey (1996)
 - ✓ identify a positive relation between long-run wages and the profitability of non-unionized companies or non-unionized industries, respectively
 - Krueger and Summers (1987, 1988)
 - ✓ a worker's industry exerts a substantial impact on her wage even if controlling for human capital and a variety of job characteristics.
 - ✓ wage differentials are positively correlated with industry profitability.



Evidence for fair wage-effort mech.

- (Indirect) empirical support
 - Bayard and Troske (1999)
 - ✓ in the U.S. “a significant portion of the firm-size wage premium is the result of employees working in more productive establishments” (p. 102).
 - Winter-Ebmer and Zweimüller (1999)
 - ✓ “firm-size wage differentials in Switzerland cannot be explained by job-heterogeneity” (p. 93)
 - ✓ only “half of the differential (the size of which is comparable to the differential in the United States) is accounted for by worker heterogeneity” (p. 93).



Evidence for fair wage-effort mech.

- (Indirect) empirical support
 - “Gift exchange” (or, alternatively, rent sharing) as an explanation for these empirical regularities
 - Fairness preferences can explain, why the strength of unions is unimportant for the wage patterns across firms and industries.



Outlook

- Lecture II: Fair Wage Preferences and International Outsourcing
Egger and Kreickemeier (2005)
- Lecture III: Fair Wage Preferences, Heterogeneous Firms and the Labour Market Effects of Globalisation
Egger and Kreickemeier (2006)



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