

What Happens to Performance Pay in Recession?

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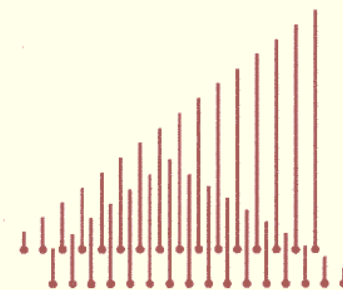
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Conference on Performance Pay

University of Aberdeen

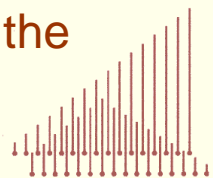
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National Institute
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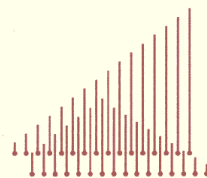
Acknowledgements/Disclaimer

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- This presentation includes work based on data from the Annual Survey of Hours and Earnings and the Monthly Wages and Salaries Survey, both produced by the Office for National Statistics (ONS) and supplied by the Secure Data Service at the UK Data Archive. The data are Crown Copyright and reproduced with the permission of the controller of HMSO and Queen's Printer for Scotland. The use of the data in this work does not imply the endorsement of ONS or the Secure Data Service at the UK Data Archive in relation to the interpretation or analysis of the data. This work uses research datasets which may not exactly reproduce National Statistics aggregates.
- This presentation also includes analysis of data from the Workplace Employment Relations Survey (WERS). The authors acknowledge the Department of Trade and Industry, the Economic and Social Research Council, the Advisory, Conciliation and Arbitration Service and the Policy Studies Institute as the originators of the WERS data, and the UK Data Archive as the distributor of the data. The National Centre for Social Research was commissioned to conduct the survey fieldwork on behalf of the sponsors. None of these organisations bears any responsibility for the author's analysis and interpretations of the data.



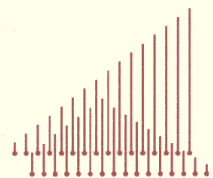
Motivation

- PRP raises labour productivity – effort and selection by high ability workers (Lazear, 1986; Prendergast, 1999)
- Evidence from single firm case studies
 - Lazear, 2000: windshields
 - Bandiera et al, 2007: strawberry pickers
 - Shearer, 2004: tree planters
- These settings not typical
 - Observable output, lower skilled workers
- PRP only really economically significant if
 - Widespread
 - Constitutes a sizeable % total wage bill
- International employee-level evidence suggests PRP not widespread (Bryson et al., 2013)
 - Perhaps not optimal for most firms/settings?



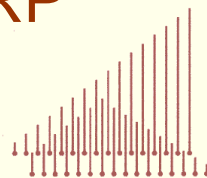
Presentation

- Overview of what we do and findings
- Background
- Hypotheses
- Data
- Results
- Implications



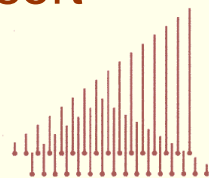
What we do

- Map change in incidence of PRP and size of PRP payments over last decade in Britain
 - Country in lower $\frac{1}{2}$ of international rankings in terms of PRP incidence (Bryson et al., 2013)
- Use large scale nationally representative data on firms, workplaces, employees
 - Monthly Wages and Salaries Survey (MWSS) and Business Structure Database (BSD)
 - Annual Survey of Hours and Earnings (ASHE)
 - Workplace Employment Relations Surveys (WERS)
- Test 3 hypotheses
 - There has been a secular rise in use of PRP
 - PRP is procyclical
 - In recession PRP firms more likely to adjust cost of labour than quantity of labour relative to non-PRP firms



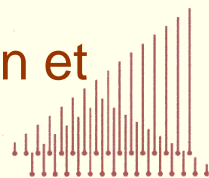
Findings

- Outside Finance:
 - % bonus pay in total pay stable in 2000s
 - real value bonus & regular pay fell from May 2008
- In Finance:
 - % bonus pay in total pay rising since mid-2000s
 - in recession real value bonuses fell but regular pay continued to rise
- No change in employment coverage of PRP schemes between 2004/11
 - mix of PRP schemes has changed
- No evidence that PRP assists employers in tackling impact of recession through adjustments to price or quantity of labour
 - Exception is share plans: reduce likelihood employers resort to cuts in fringe benefits/wages in response to recession

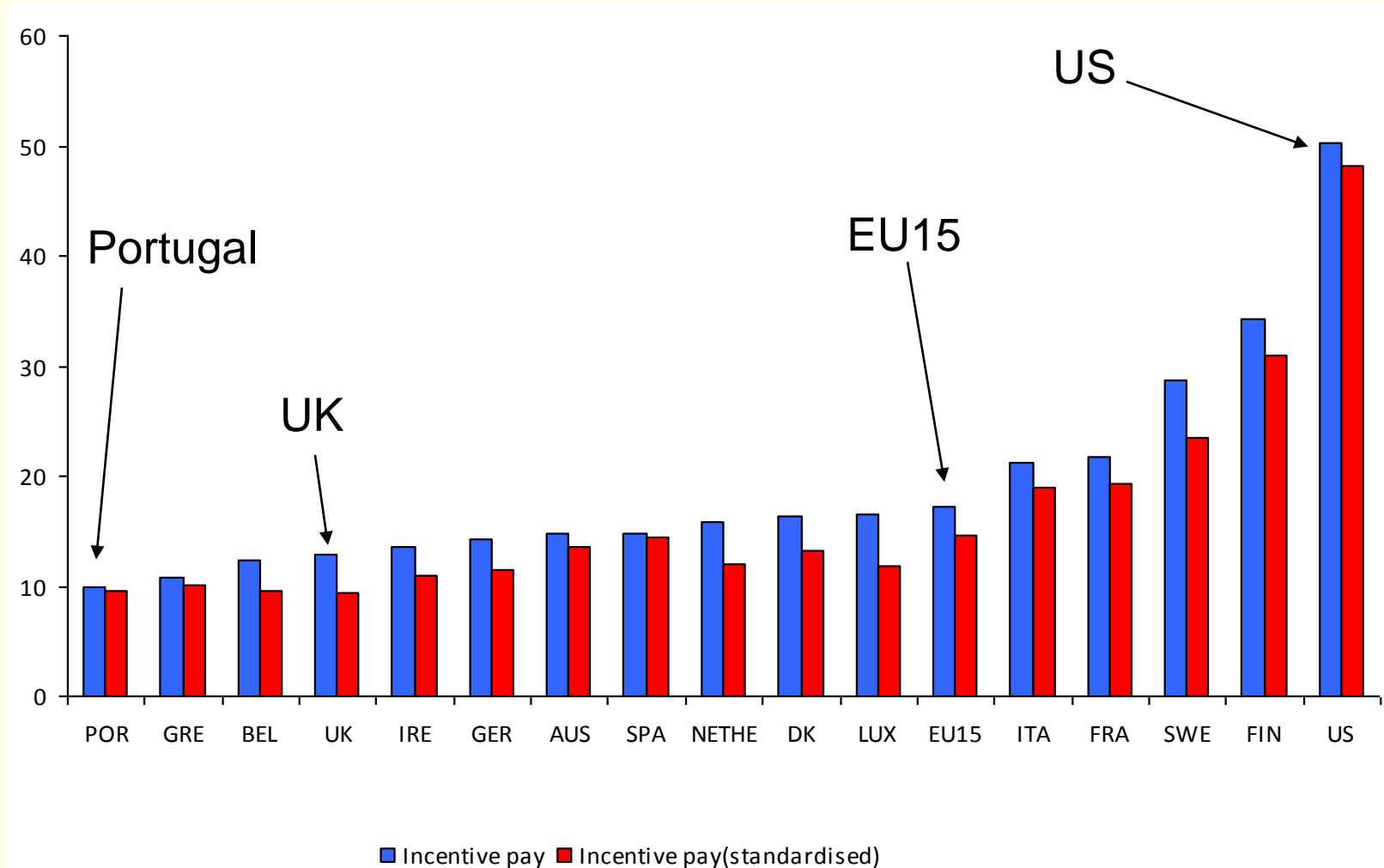


Background

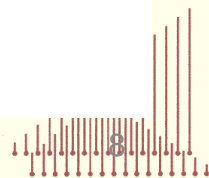
- The PRP puzzle: if it's so good, why so patchy?
- Why?
 - Good for productivity not profits (Kleiner and Freeman, 2005)
 - sometimes better to use career incentives (Predergast, 1999)
- Still, PRP an option for employers in most settings
 - The premise of “how good is it?” studies
 - There are like worlds with and without PRP
- The theory
 - PRP as a function of employer/employee preferences
 - Risk neutral firms, risk averse workers
 - Standard to think of fixed wage v piece rate
 - Efficiency/insurance trade off -> low powered incentives
- The evidence on incidence
 - PRP rate 10-15% Europe; 40% USA/Scandinavia (Bryson et al., 2003)



% private sector employees with any incentive pay

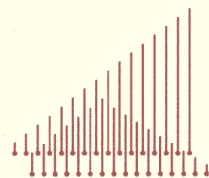


Source: EWCS and GSS



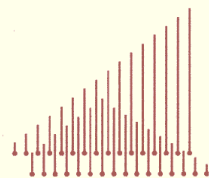
H1: Secular rise in PRP

- Sub-optimal PRP levels or change in optimal level
- Or there are real persistent problems with PRP
 - Sabotage, gaming (eg racheting), exclusive focus on incentivised targets to exclusion of all else, cost
- Decline in worker bargaining power
 - Lemieux et al. (2009) link to demise of trade unionism
 - Although de-unionisation in Britain no evidence of link to trends in PRP (Pendleton et al., 2009)
- Changes in tasks/production technology
 - Falling costs of monitoring output (McGovern et al., 2007)
 - SBTC raises demand for high ability workers attracted by PRP (Lemieux et al., 2009)
 - Evidence that PRP receipt is linked to job autonomy in US and Europe and in Europe it rises with task complexity (Bryson et al., 2013)



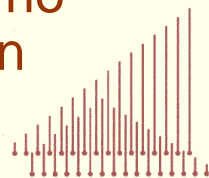
H1: Secular rise in PRP (cont.)

- Shift in composition of occupations
 - Task-based polarisation of jobs leading to growth in highly autonomous skilled labour should push up demand for PRP
 - Changing occupational composition accounts for 1/3 growth in PRP in USA in 2000s whereas NS in Europe
- Shift to group/organization PRP away from piece rate
 - Reflects changing nature of work (teams etc) and drawbacks of piece rate
 - US evidence of substantial growth in financial participation schemes and group-based PRP (Dube and Freeman, 2010; Kruse et al., 2010)
 - In Europe group and individual PRP have been rising (Bryson et al., 2013)
- Lemieux et al. (2009) find big growth in PRP through to mid-1990s in USA. But Gittleman and Pierce (2012) show % jobs with PRP fell 10pp in the 2000s



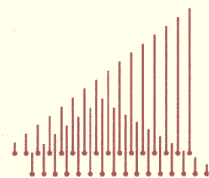
H2: PRP is procyclical

- True that PRP often just a relabeling exercise eg. Tax-efficient
- But assume PRP is genuine effort to link pay to performance then PRP should be pro-cyclical
 - On average individual firm fortunes rise and fall with rest of economy
 - Might expect fixed base pay to be less responsive to economic conditions
 - Strong support in executive compensation literature where it is bonuses that are responsive (Bell and Van Reenen, 2011)
 - Gittleman and Pierce (2012) consistent with cyclical effects
- Uncertain how *incidence* of PRP schemes will respond to cycle
 - Depends on relative bargaining power of firms/workers who will have different preferences for sharing risk in downturn
 - Need workplace or firm-level data



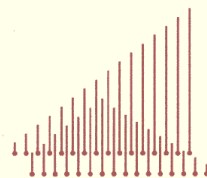
H3: PRP firms less likely to cut quantity of labour in recession

- Choice between cutting price or quantity of labour
- If non-PRP firms less able to adjust price they are more likely to adjust quantity (redundancies or hours cuts)
- If PRP firms can cut costs through PRP adjustment they are less likely to resort to cuts in base pay/fringes than non-PRP firms
- Hours of work more responsive to demand shocks in non-PRP jobs than in PRP jobs (Lemieux et al., 2012)
 - But they can't distinguish between supply and demand side responses
 - We focus on demand side using workplace manager responses to on-set of recession



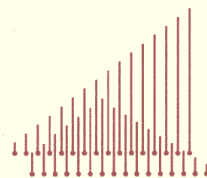
Data: Monthly Wages and Salaries Survey

- 8,500 enterprises (reporting units) per annum
- Statutory so response rates 85%
- All industries; excludes enterprises <20 employees
- Census of enterprises with 1,000+ employees remainder sampled with known probability (from IDBR)
- Panel component
 - Out-rotation after 5 years
- Monthly data on wage bill, gross pay
- All bonuses in month of payment
 - Bonus, commission, performance pay, profit related pay
- Controls matched in from Business Structure Database
- Data discontinuities mean we begin in 2000 through to 2010 (hope to add 2011)
 - Able to replicate ONS aggregate figures



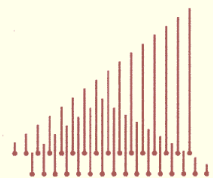
Data: Annual Survey of Hours and Earnings

- 1% sample of jobs from tax register in April each year
- Employer statutorily required to respond
- All industries, occupations
- Circa 160,000 employee jobs each year
- Panel (same last 2 digits of NI number sampled)
- Gross annual pay in tax year just ended
- Since 2002 PRP amount:
 - productivity/other bonuses, profit-sharing, piecework, commission
- We deal with a number of small data discontinuities
 - Able to replicate ONS aggregate figures



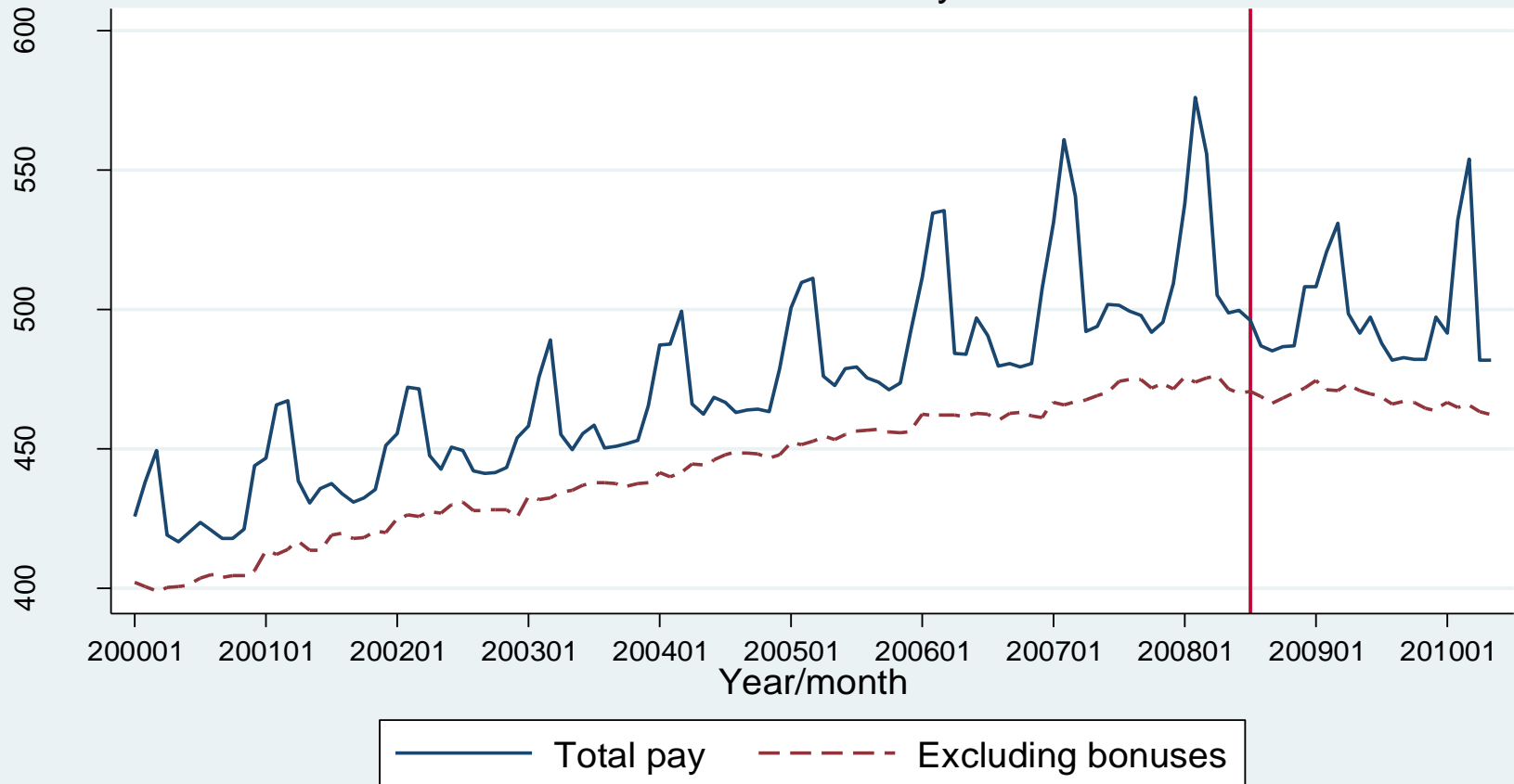
Data: Workplace Employment Relations Survey

- WERS 2011. Workplaces sampled from IDBR
- Interviews with workplace managers 03/11-06/12
- 5+ employees, all industries except mining, agriculture
- 2,680 workplaces, 47% response rate
- Incidence and employee coverage of PRP schemes:
 - payments-by-results (individual, group, workplace, organization); merit pay; share plans; profit-related pay
- Actions taken in response to recession:
 - Compulsory redundancies; reduced basic hours; pay freezes/cuts; reductions in non-wage benefits
- Random subsample of WERS 2004 followed up in panel
 - Used to test Hypothesis 3 on response to recession

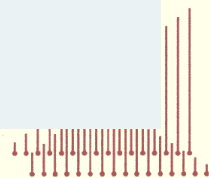


Average Real Wage Bill Per Employee

Total pay including/excluding bonuses
Whole economy

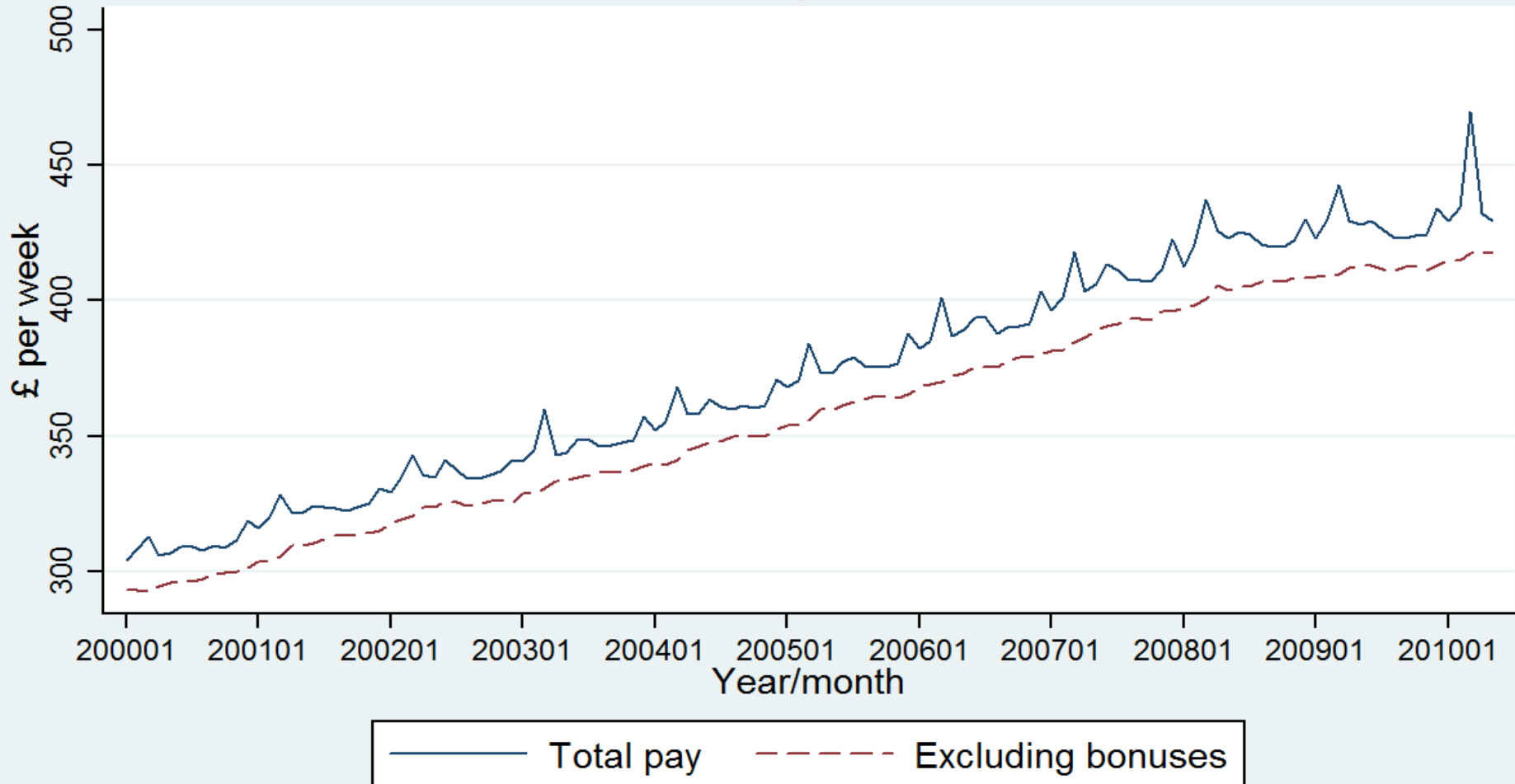


Source: Monthly Wages and Salaries Survey



Nominal Wage Bill 2000-2010, exc. Fin.

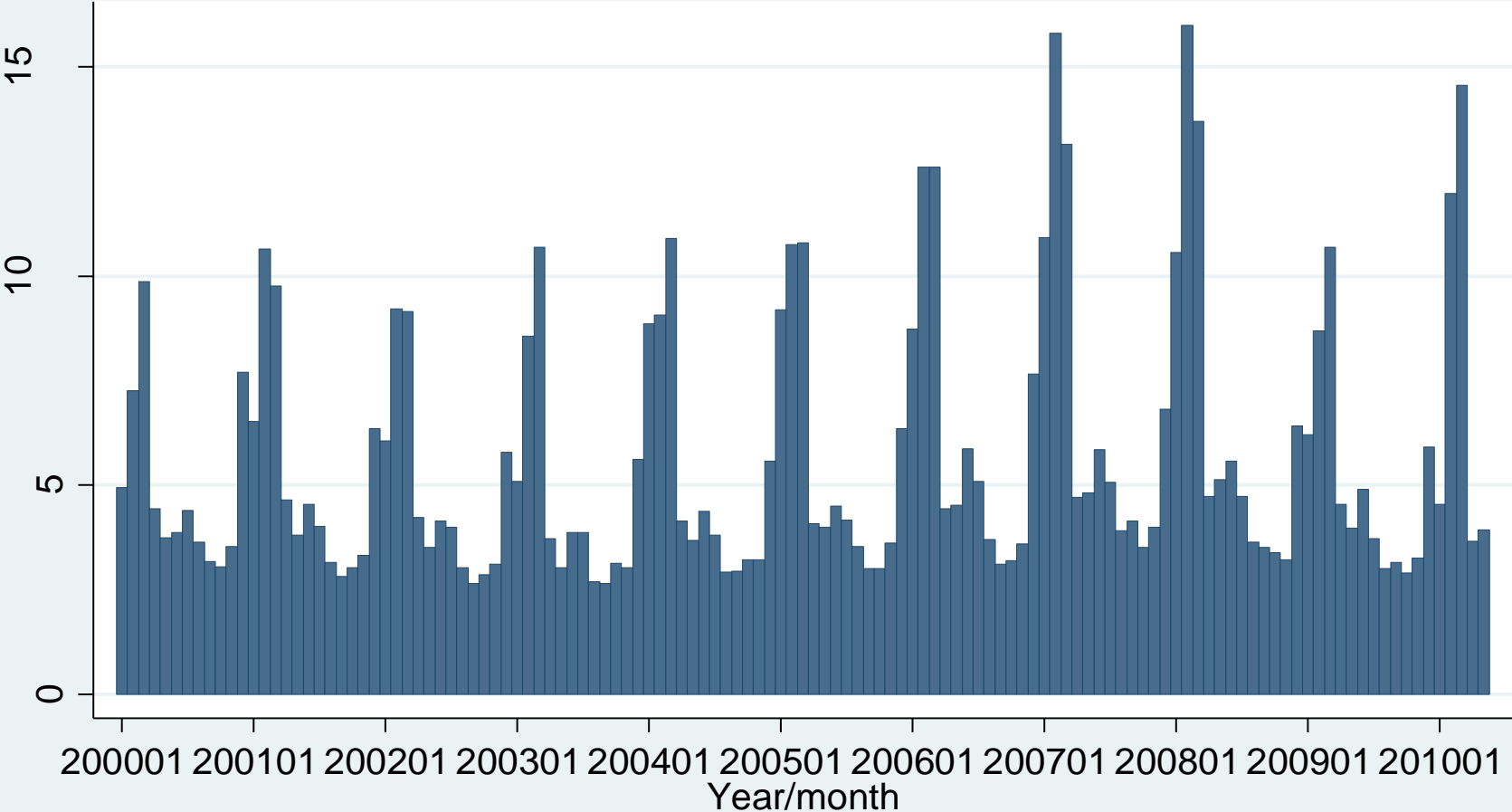
Total pay including/excluding bonuses
Whole economy minus Finance



Source: Monthly Wages and Salaries Survey

Bonuses as % Pay Bill

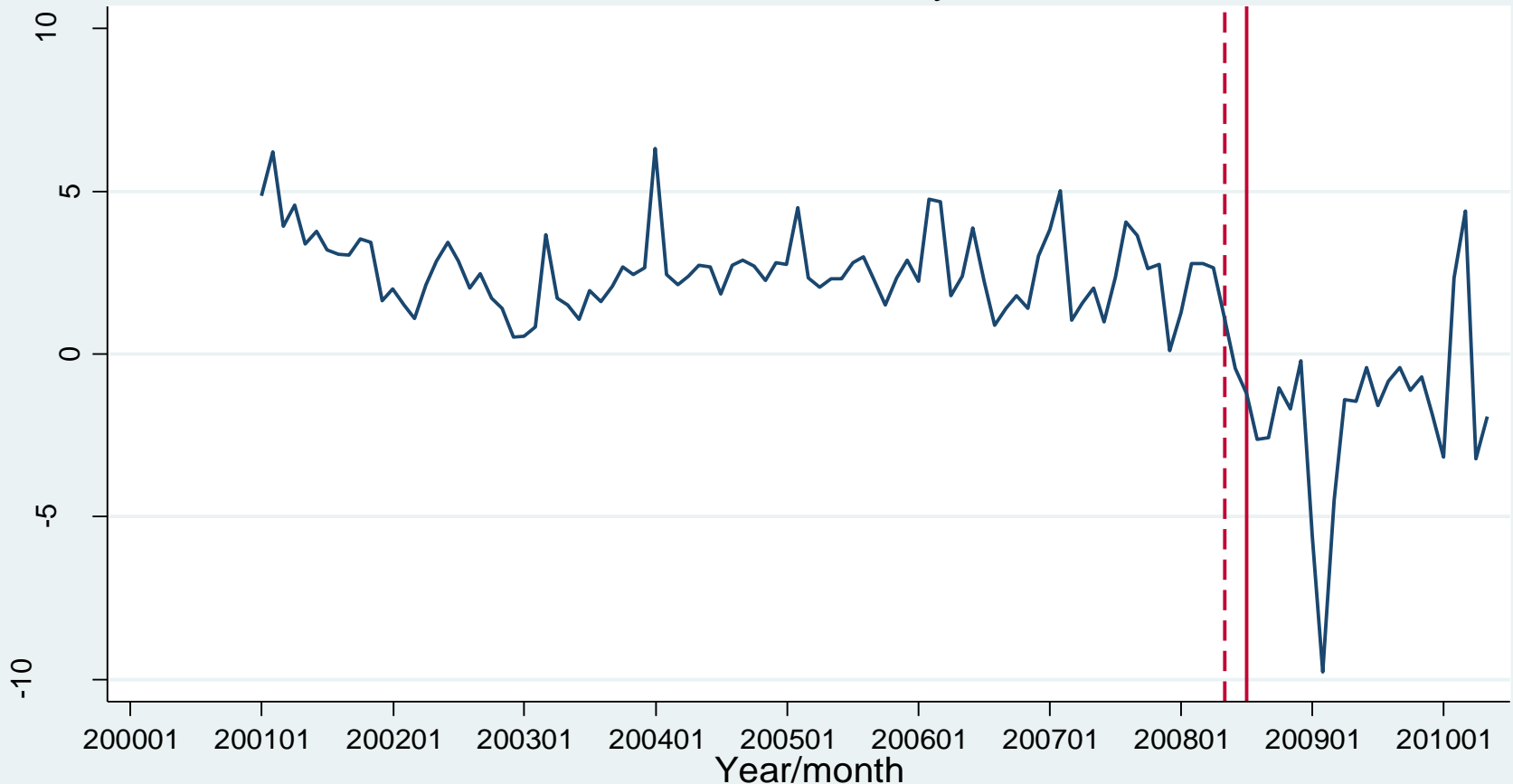
Bonuses as % of total weekly pay bill
Whole economy



Source: Monthly Wages and Salaries Survey

Monthly Growth Rate Total Pay

12-month growth in total pay including bonuses (Real, NSA)
Whole economy



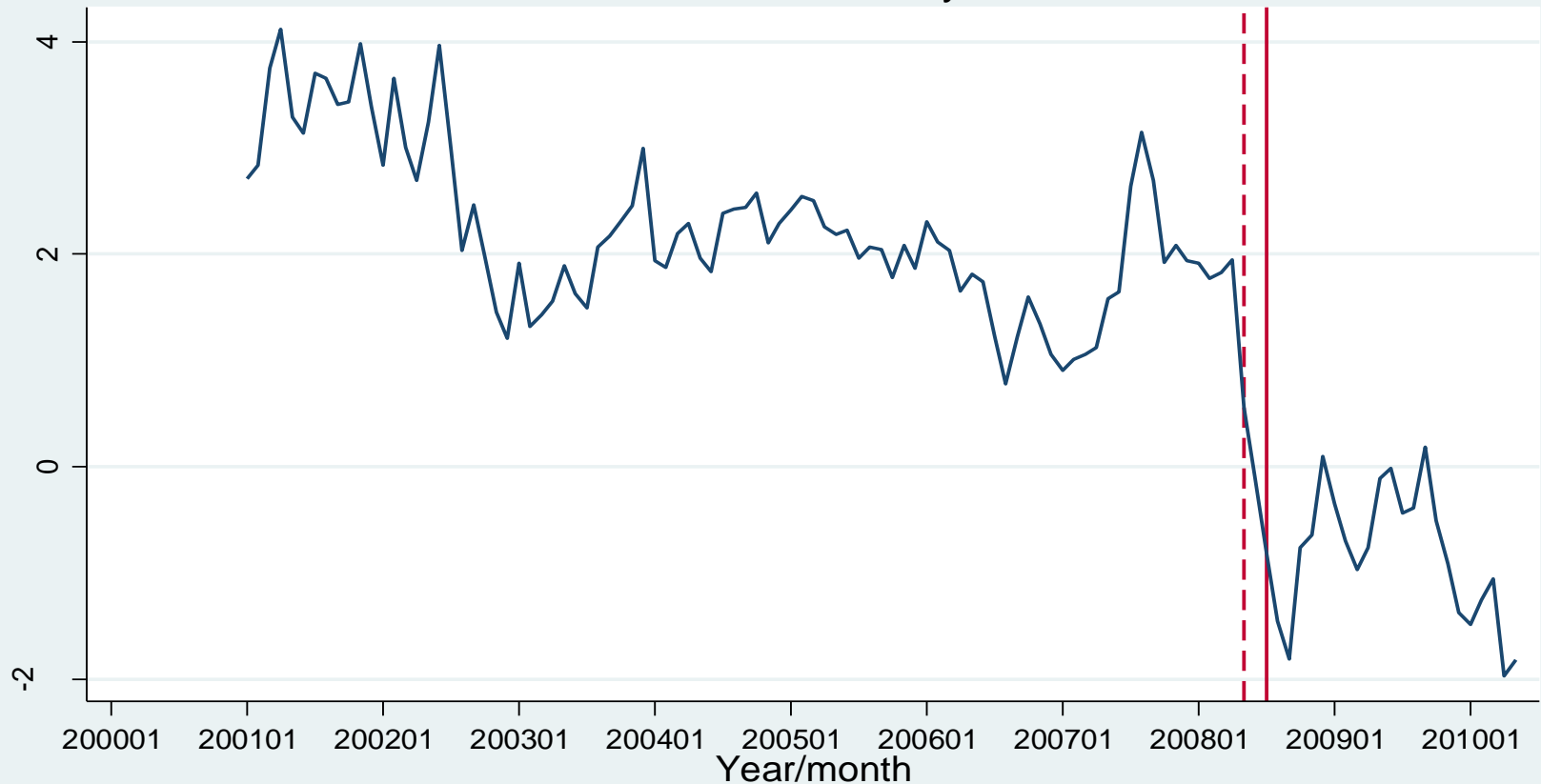
Source: Monthly Wages and Salaries Survey



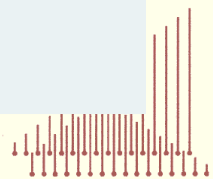
Monthly Growth Rate Regular Pay

12-month growth in regular pay (Real, NSA)

Whole economy

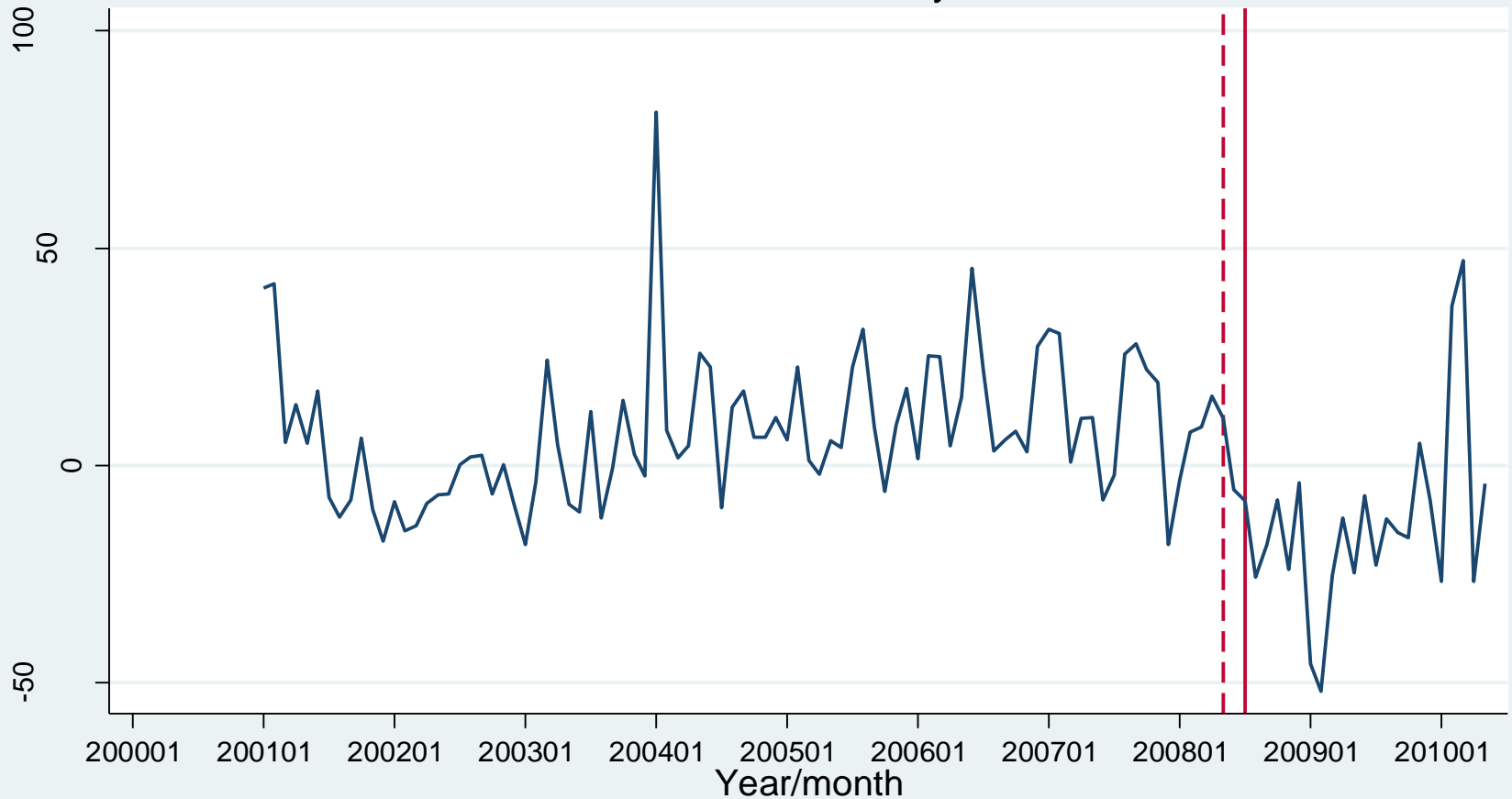


Source: Monthly Wages and Salaries Survey

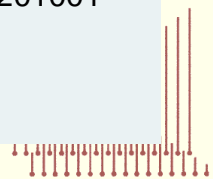


Monthly Growth Rate Bonus Pay

12-month growth in bonus pay (Real, NSA)
Whole economy

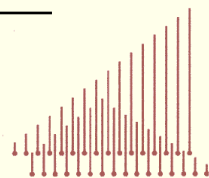


Source: Monthly Wages and Salaries Survey



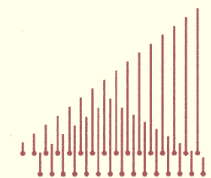
Components of Change in PRP

	% of employees in firms paying bonuses		Average bonus paid (£/employee) in firms paying bonuses	
	%	Index	£/employee	Index
2000	52.8%	100.0	44.74	100.0
2001	54.1%	102.5	47.03	105.1
2002	53.3%	101.0	43.79	97.9
2003	52.8%	100.0	44.63	99.8
2004	52.6%	99.7	51.38	114.8
2005	52.4%	99.3	56.52	126.3
2006	52.4%	99.3	66.61	148.9
2007	53.2%	100.9	73.24	163.7
2008	52.8%	100.0	73.26	163.7
2009	51.9%	98.2	53.43	119.4



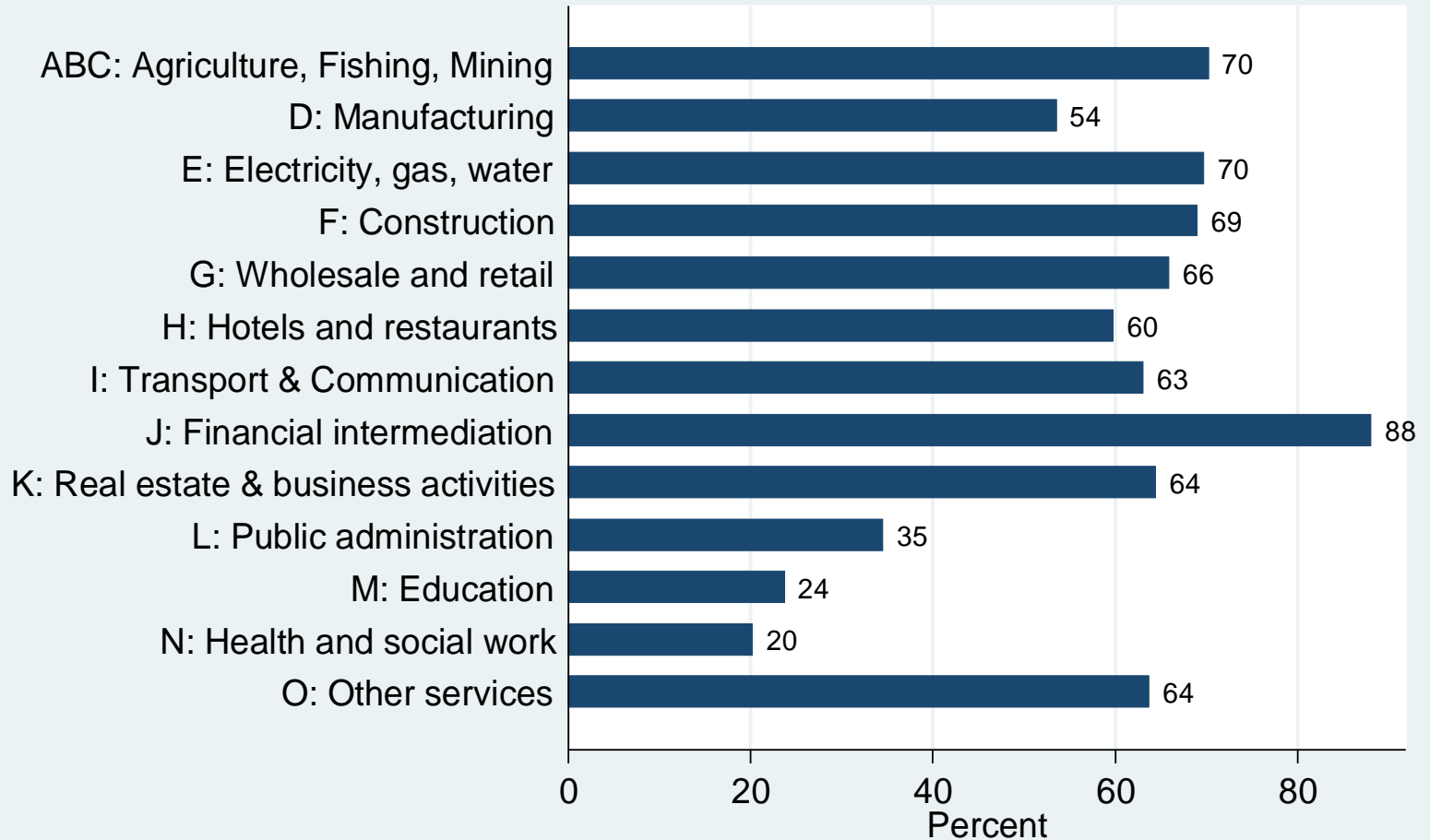
Why Finance Is Important in Understanding PRP (1)

	Share of all bonus pay	Share of all regular pay
2000	31%	7%
2001	33%	7%
2002	32%	7%
2003	29%	7%
2004	36%	7%
2005	38%	7%
2006	42%	7%
2007	43%	7%
2008	45%	7%
2009	36%	7%
2010	47%	7%

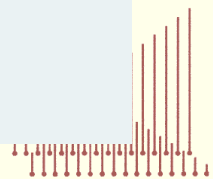


Importance of Finance (2)

Percentage of employees in firms making bonus payments

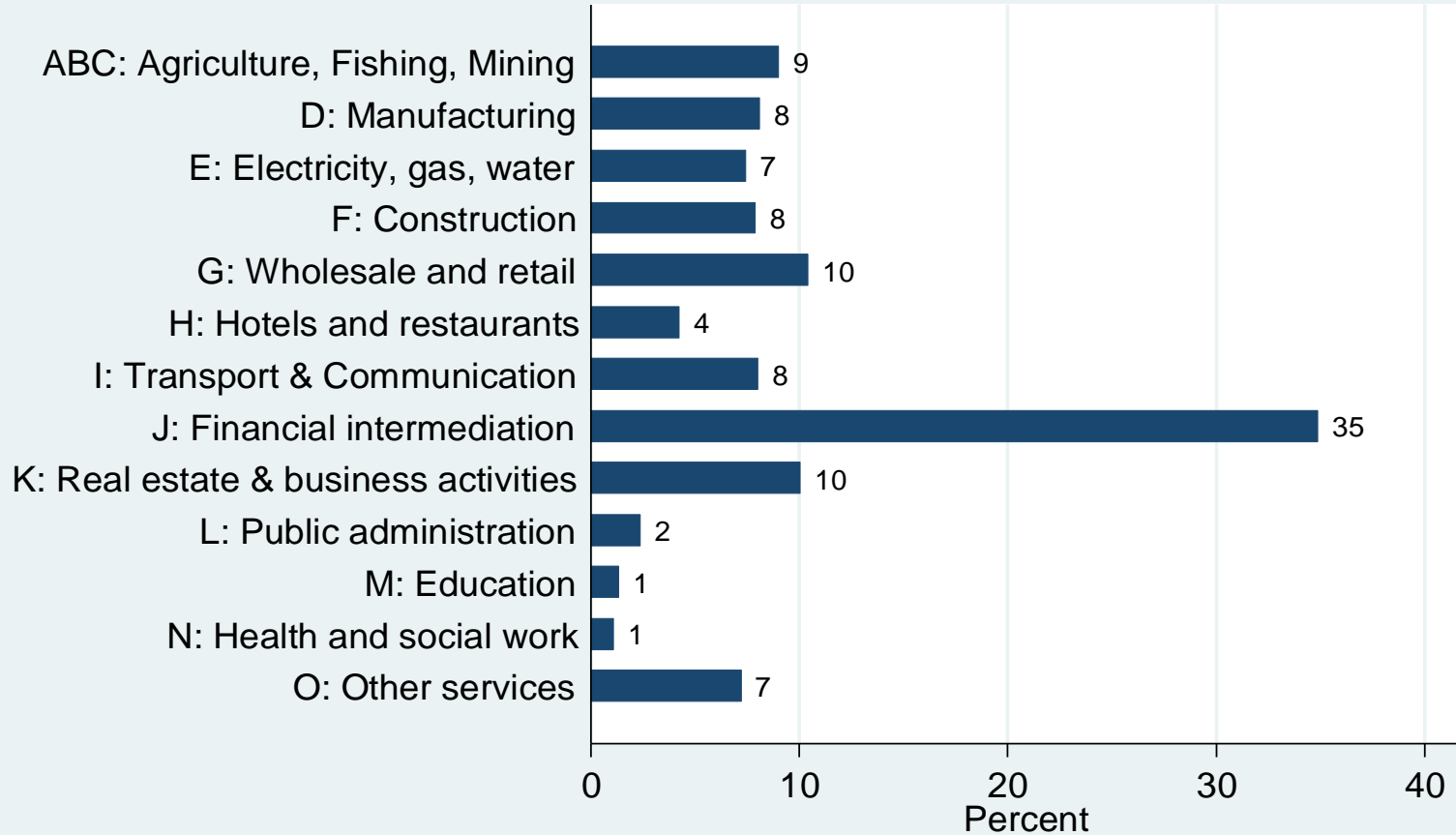


Source: Monthly Wages and Salaries Survey, Jan-Dec 2007 (pooled)

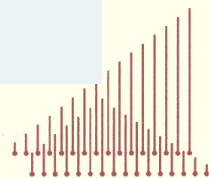


Importance of Finance (3)

Bonus payments as % of wage bill

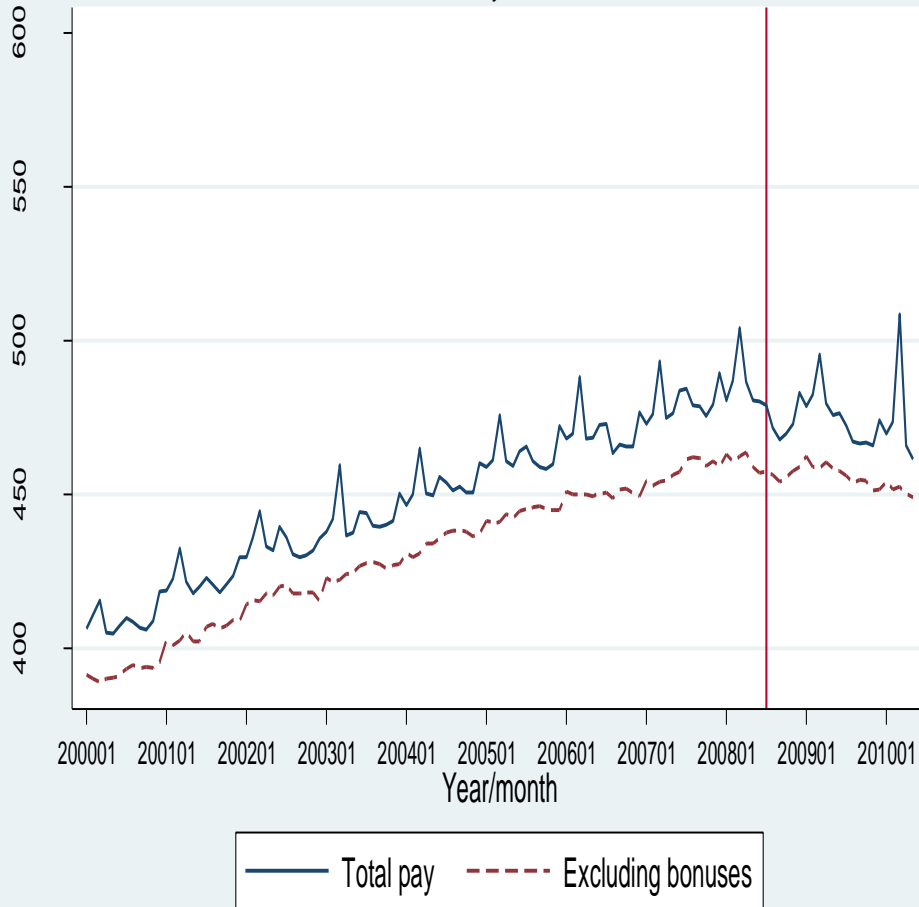


Source: Monthly Wages and Salaries Survey, Jan-Dec 2007 (pooled)



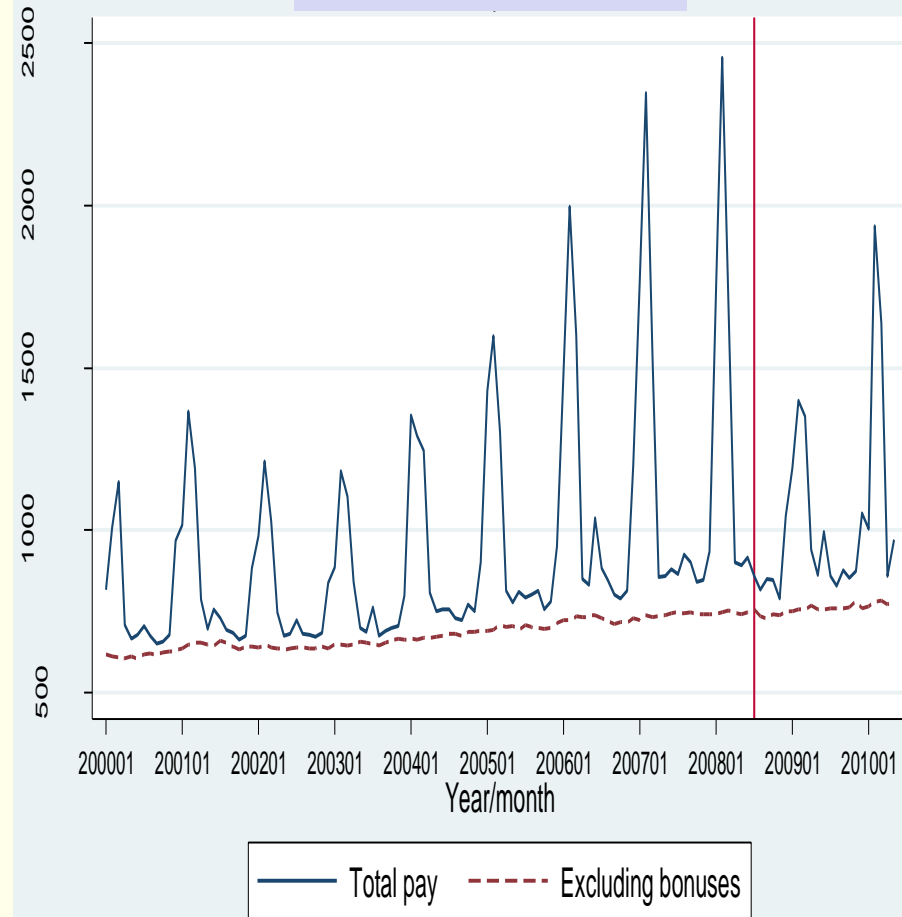
Finance and Non-Finance

Total pay including/excluding bonuses
Whole economy minus Finance



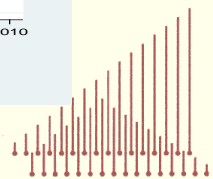
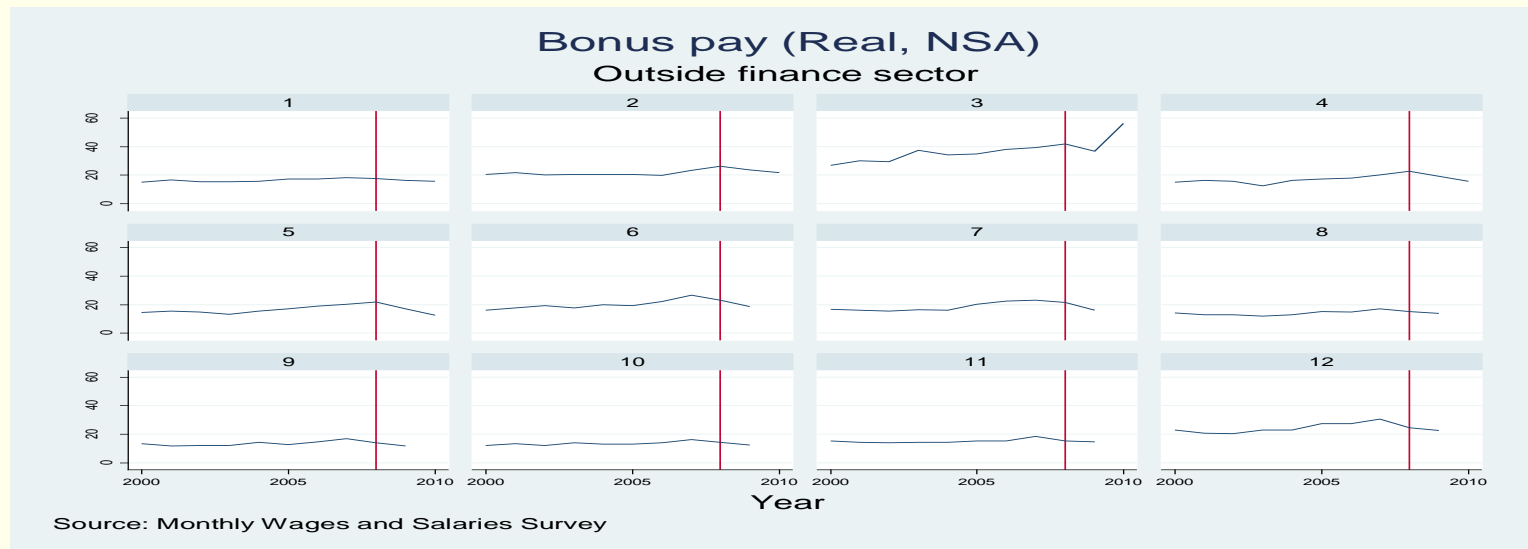
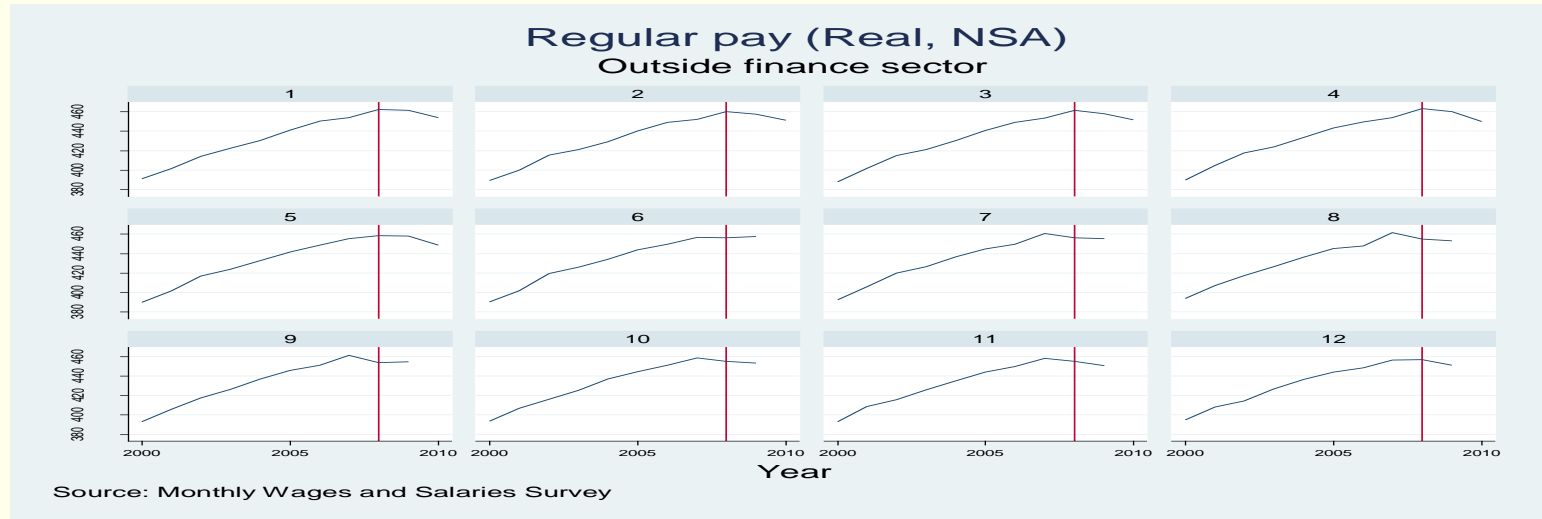
Source: Monthly Wages and Salaries Survey

Total pay including/excluding bonuses
Finance sector



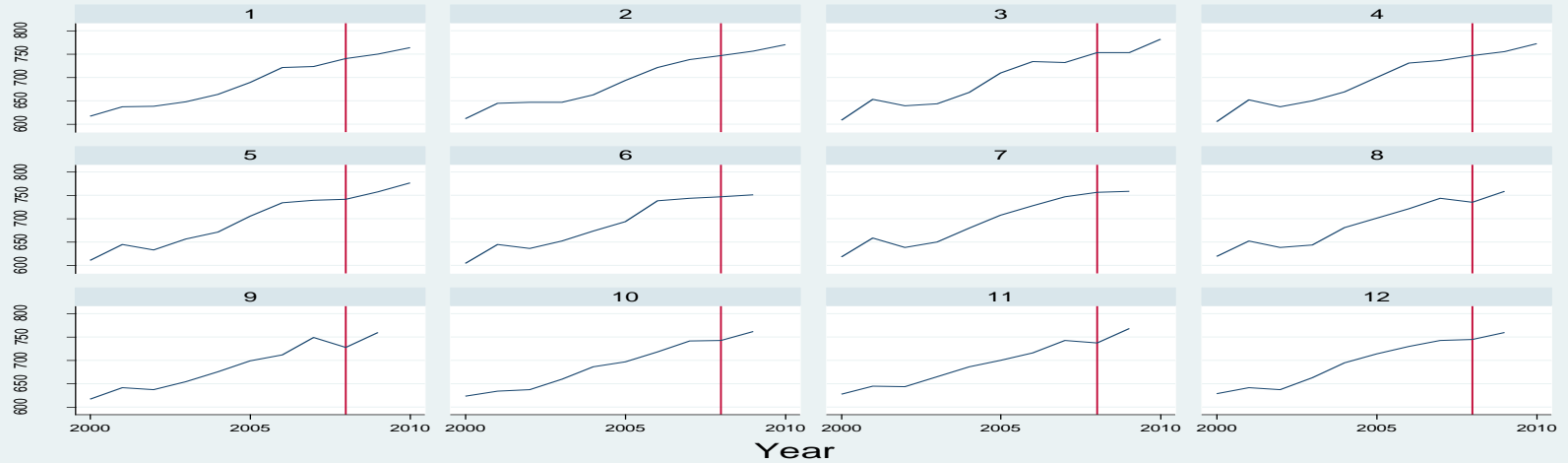
Source: Monthly Wages and Salaries Survey

Annual Change in Regular and Bonus Pay by Month, excluding Finance



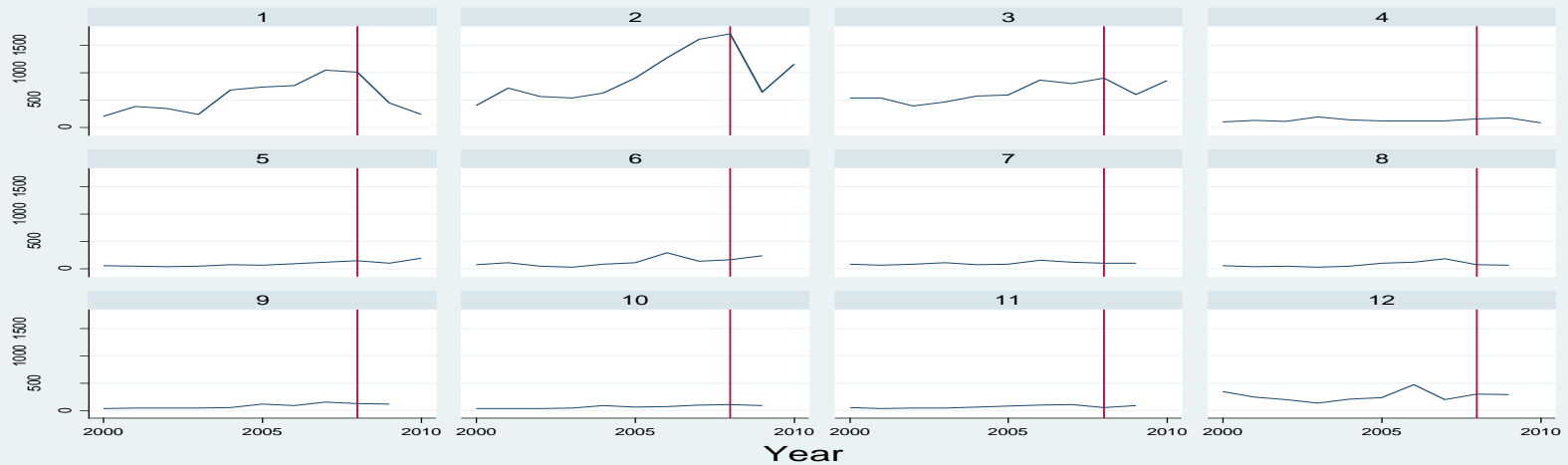
Annual Change in Regular and Bonus Pay by Month, Finance only

Regular pay (Real, NSA) Finance sector

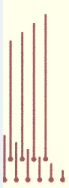


Source: Monthly Wages and Salaries Survey

Bonus pay (Real, NSA) Finance sector

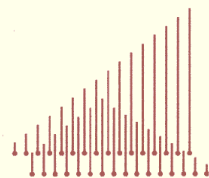


Source: Monthly Wages and Salaries Survey

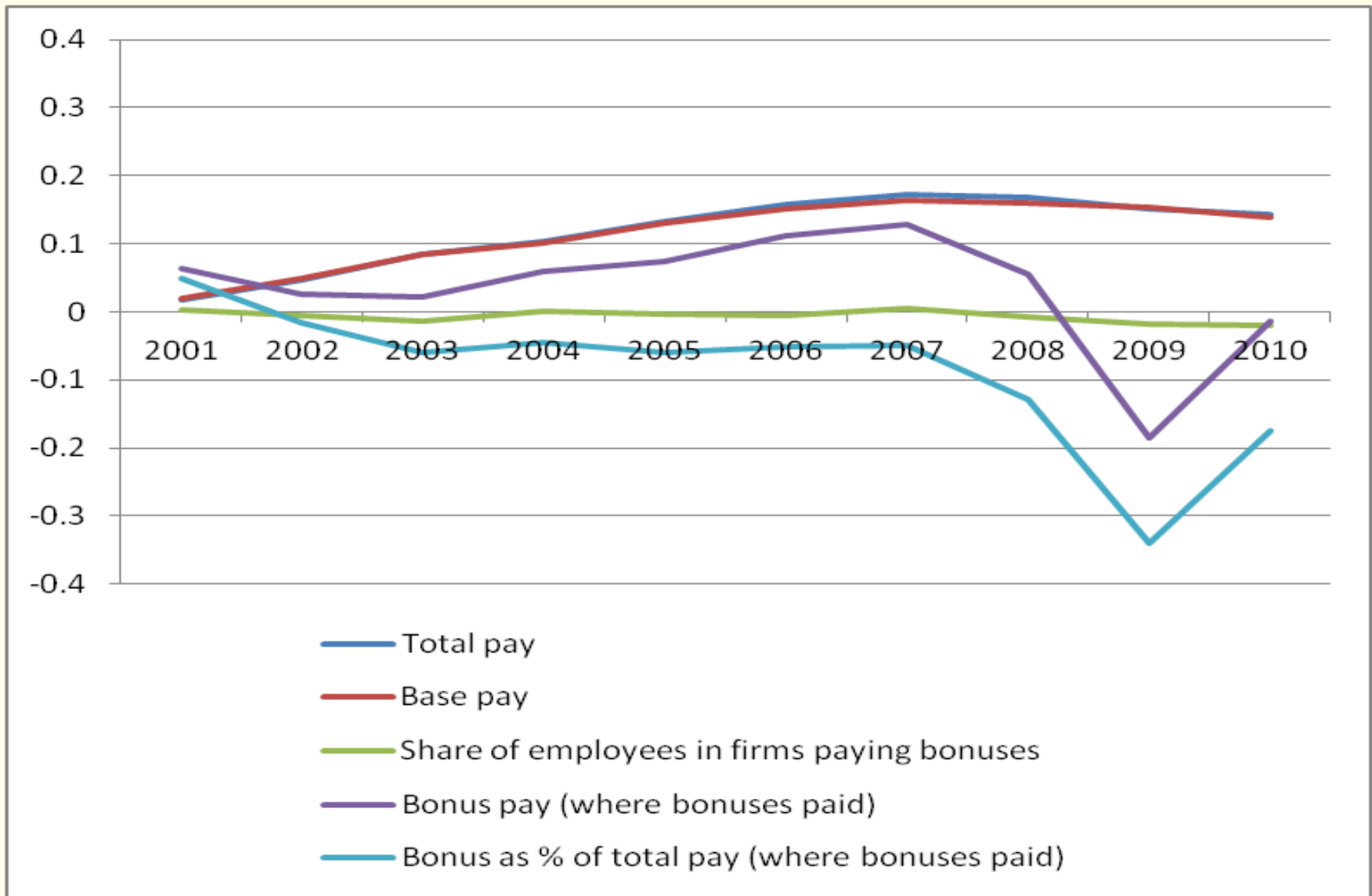


Workplaces using PRP (employment weighted), WERS

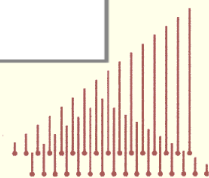
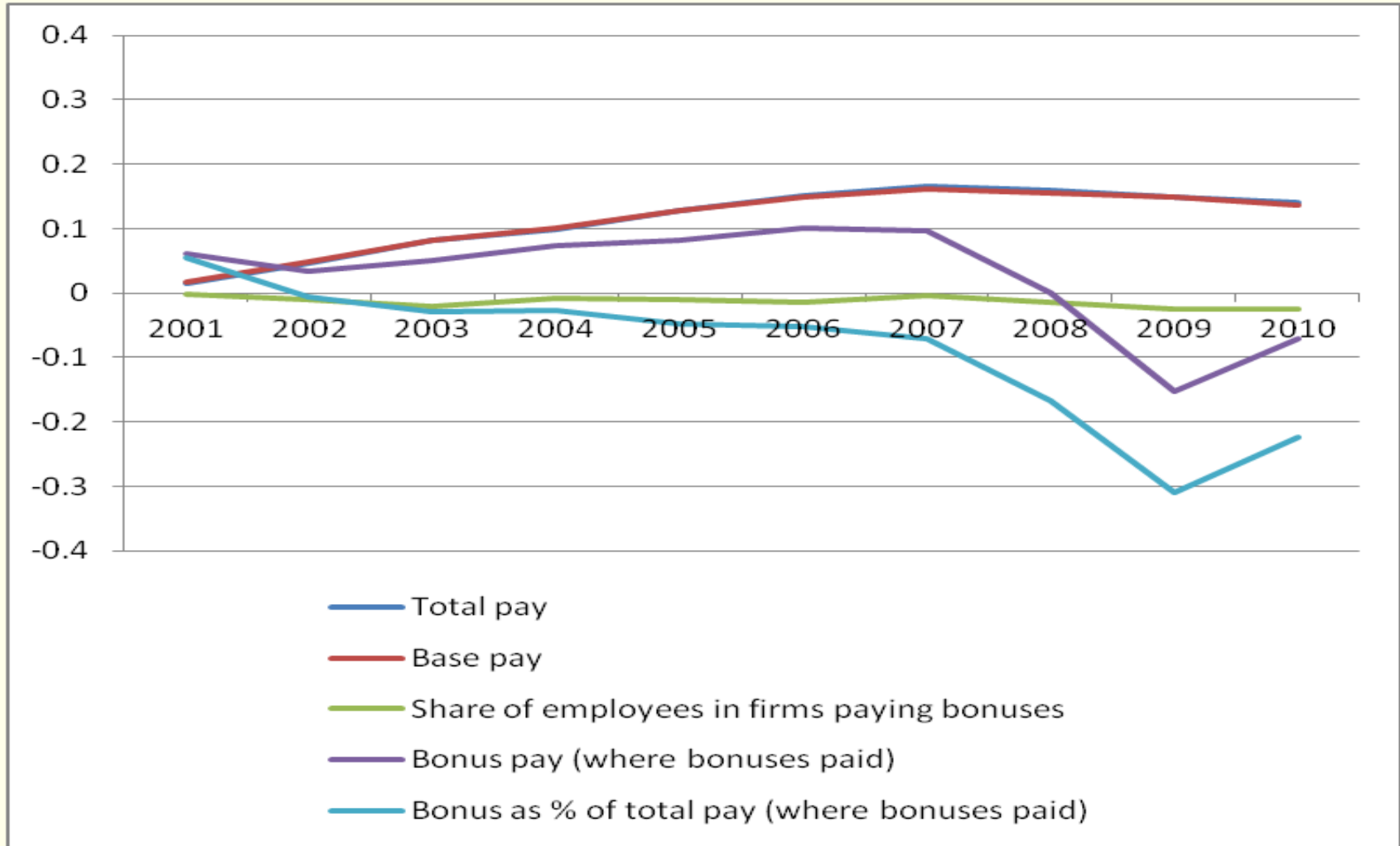
	<i>Public Sector</i>		<i>Private sector</i>		<i>All</i>	
	<i>2004</i>	<i>2011</i>	<i>2004</i>	<i>2011</i>	<i>2004</i>	<i>2011</i>
Any payments-by-results	12	10	38	37	32	31
Any merit pay	22	20	25	33	25	30
Any PBR or merit pay	32	27	52	55	47	48
Any profit-related pay	2	3	43	41	33	32
Any share schemes	1	2	31	25	24	20
At least one of the above	32	30	71	70	62	60



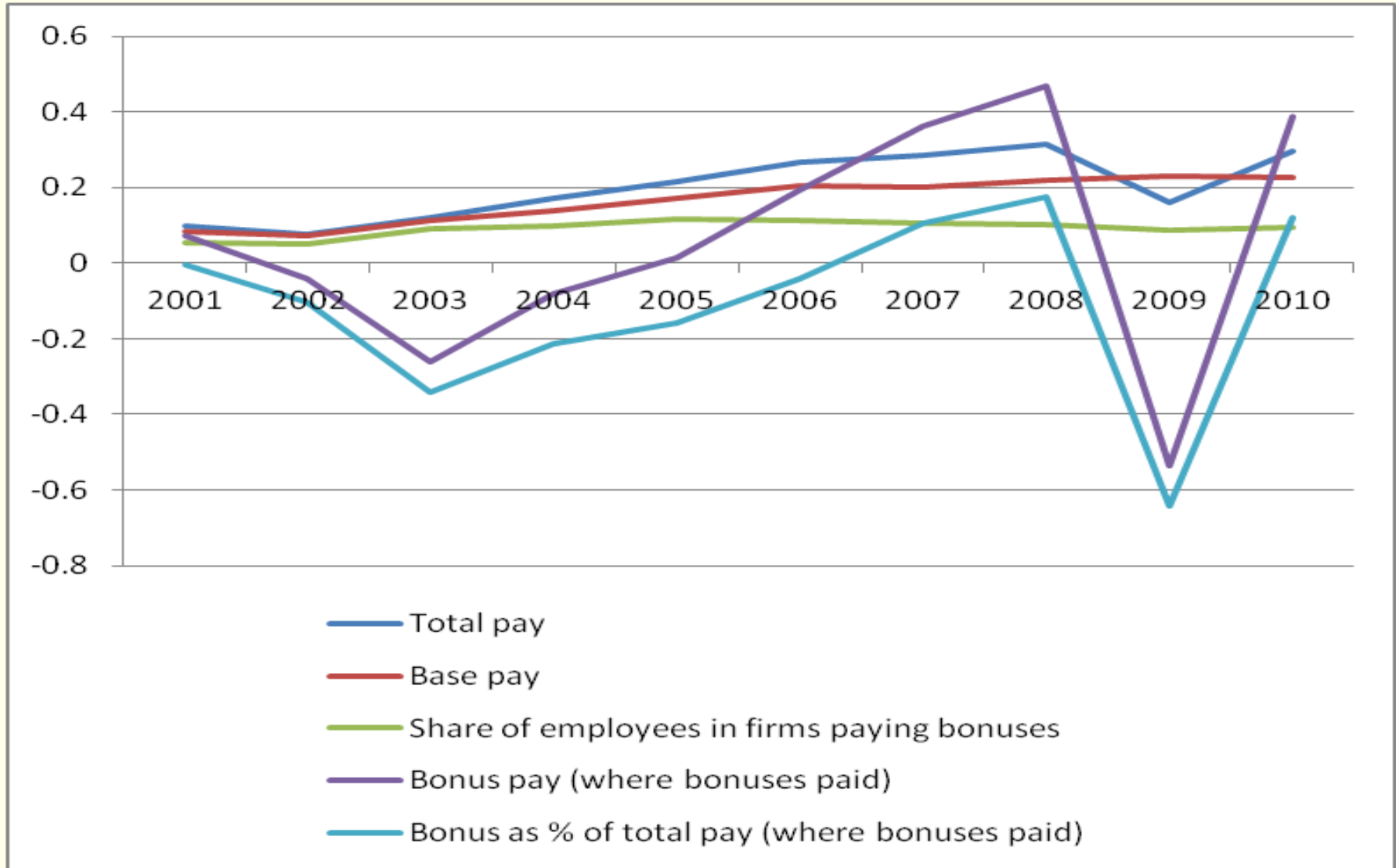
Regression Adjusted Time-trend, Whole Economy, MWSS



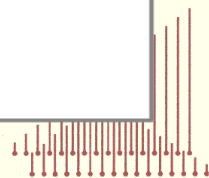
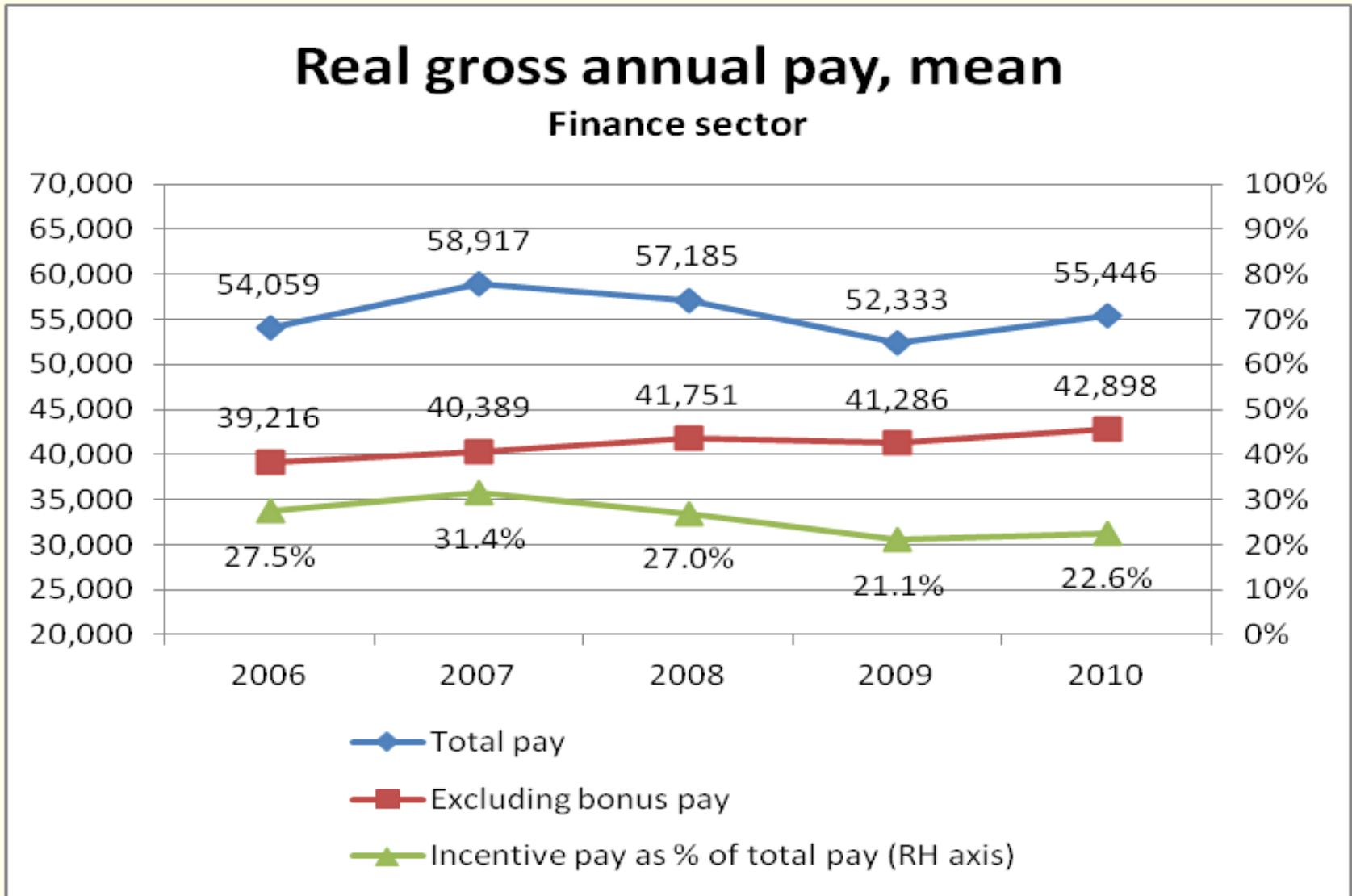
Regression Adjusted Time-trend, exc Finance, MWSS



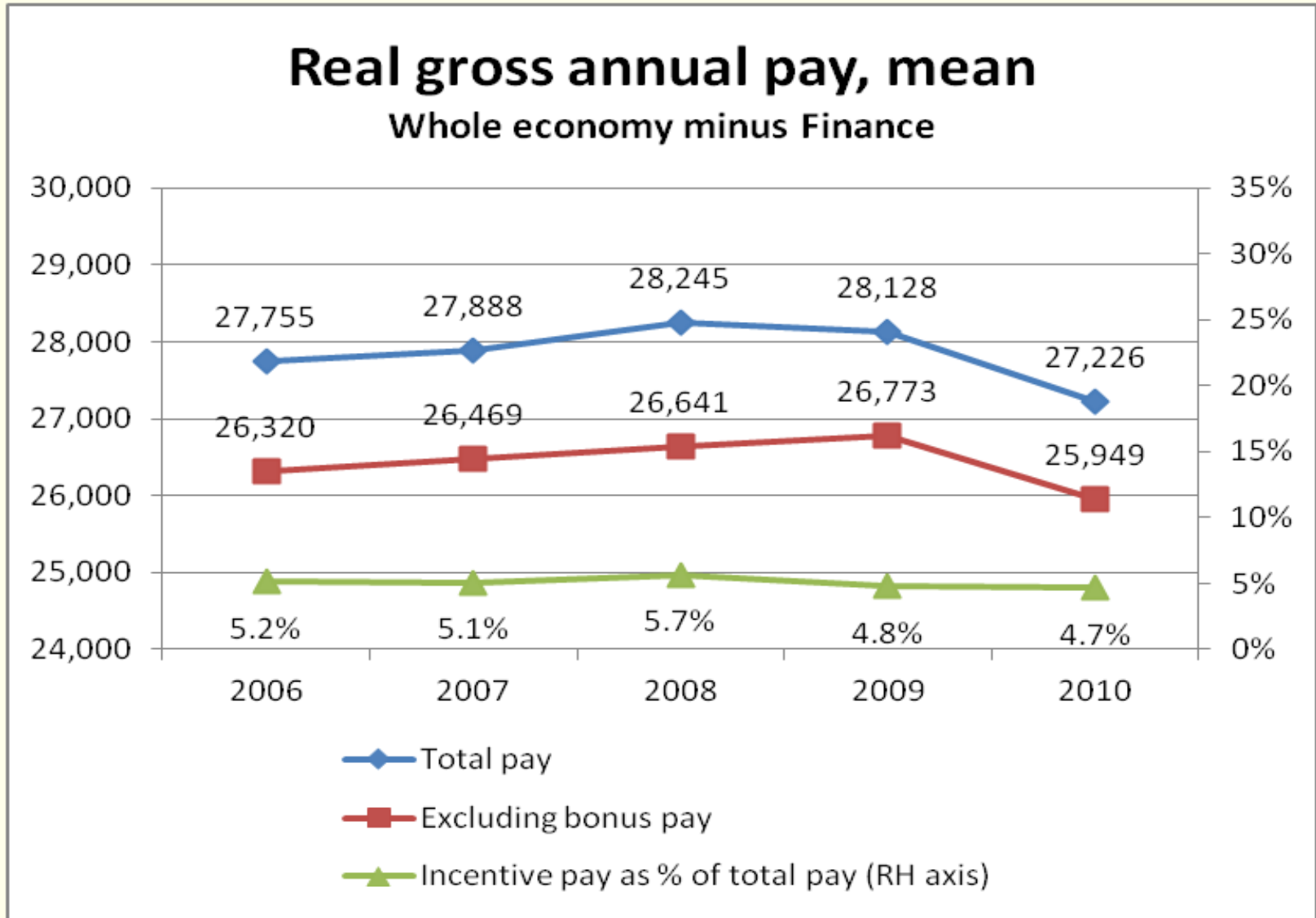
Regression Adjusted Time-trend, Finance only, MWSS



Real Annual Pay, Finance only, ASHE

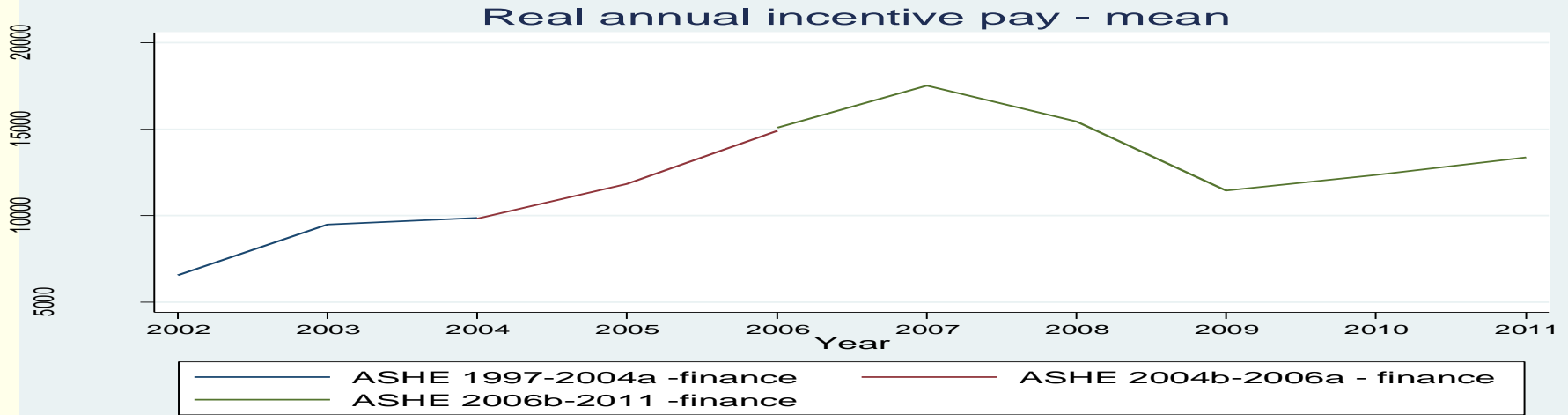


Real Annual Pay, Excluding Finance, ASHE

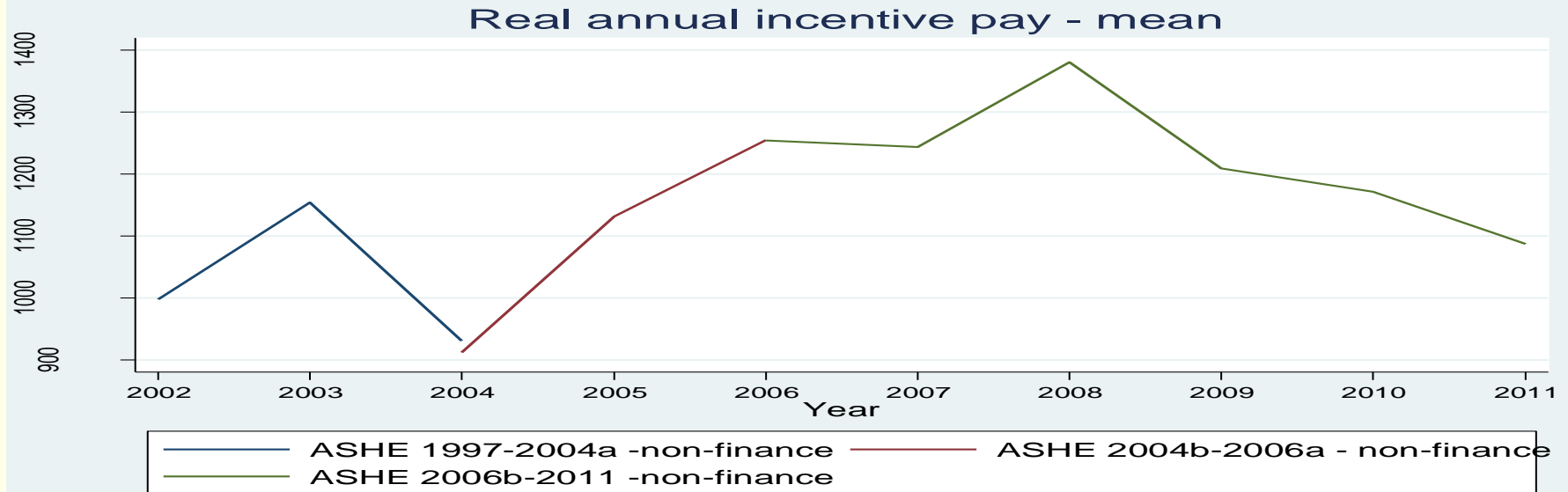


Real Mean Annual Incentive Pay, ASHE

Finance above; Non-finance below



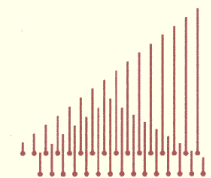
Source: Annual Survey of Hours and Earnings



Source: Annual Survey of Hours and Earnings

Private sector responses to recession, WERS

	Compulsory redundancy		Reduced basic hours		Freeze/cut wages		Reduced non-wage benefits	
	M (1)	M (2)	M (3)	M (4)	M (5)	M (6)	M (7)	M (8)
Merit Pay	.003 (0.05)	-.004 (0.07)	-.049 (0.73)	-.053 (0.75)	.076 (0.92)	.042 (0.45)	-.041 (0.95)	-.028 (0.66)
PBR	.062 (1.18)	.065 (1.30)	-.060 (1.15)	-.061 (1.15)	0.064 (0.85)	.094 (1.33)	.011 (0.30)	.029 (0.77)
Profit-related pay	.078 (1.50)	.006 (0.12)	-.037 (0.64)	-.050 (0.89)	.026 (0.36)	.043 (0.61)	.123 (2.33)	.105 (2.20)
Share plan	-.050 (1.00)	-.046 (0.84)	.138 (1.44)	.054 (0.62)	-0.263 (3.81)	-.209 (2.69)	-.091 (2.57)	-.099 (2.07)
Controls?	No	Yes	No	Yes	No	Yes	No	Yes
Adj-rsq	.02	.15	.02	.18	.04	.15	.04	.16



Conclusion

- H1: secular rise? Yes but...
 - Rising as a % total pay from mid-2000s, mainly Finance
 - No change in employees covered by bonuses/PRP schemes in general in 2000s
- H2: pro-cyclical? Yes but...
 - Big fall in bonuses in Fin and Non-Fin with recession
 - But bounced back in Finance in 2010
- H3: helps tackle recession? No but...
 - No link to adjustments to labour price/quantity
 - Except for share plans
- Other big finding
 - Sector-specific response of base pay
 - Big cyclical adjustment in non-Finance, not Finance
- Interpretation
 - Firms needed BIG adjustments in face of this huge recession
 - In non-Finance that meant base pay
 - In Finance it meant bonuses (at least for a while!)

