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No free lunch

Higher super means lower wages

Matt Cowgill

December 2020

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February 2020

No free lunch

Higher superannuation means lower wages

Brendan Coates, Will Mackey, and Matt Cowgill

grattan.edu.au/report/no-free-lunch

Who pays for super?

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What proportion of the cost of increased compulsory super contributions is borne by workers in the form of lower wage rises over the life of an enterprise agreement, on average, than would otherwise have been obtained?

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Who pays in theory?

Existing evidence

Data and method

Our results

Who pays in theory?

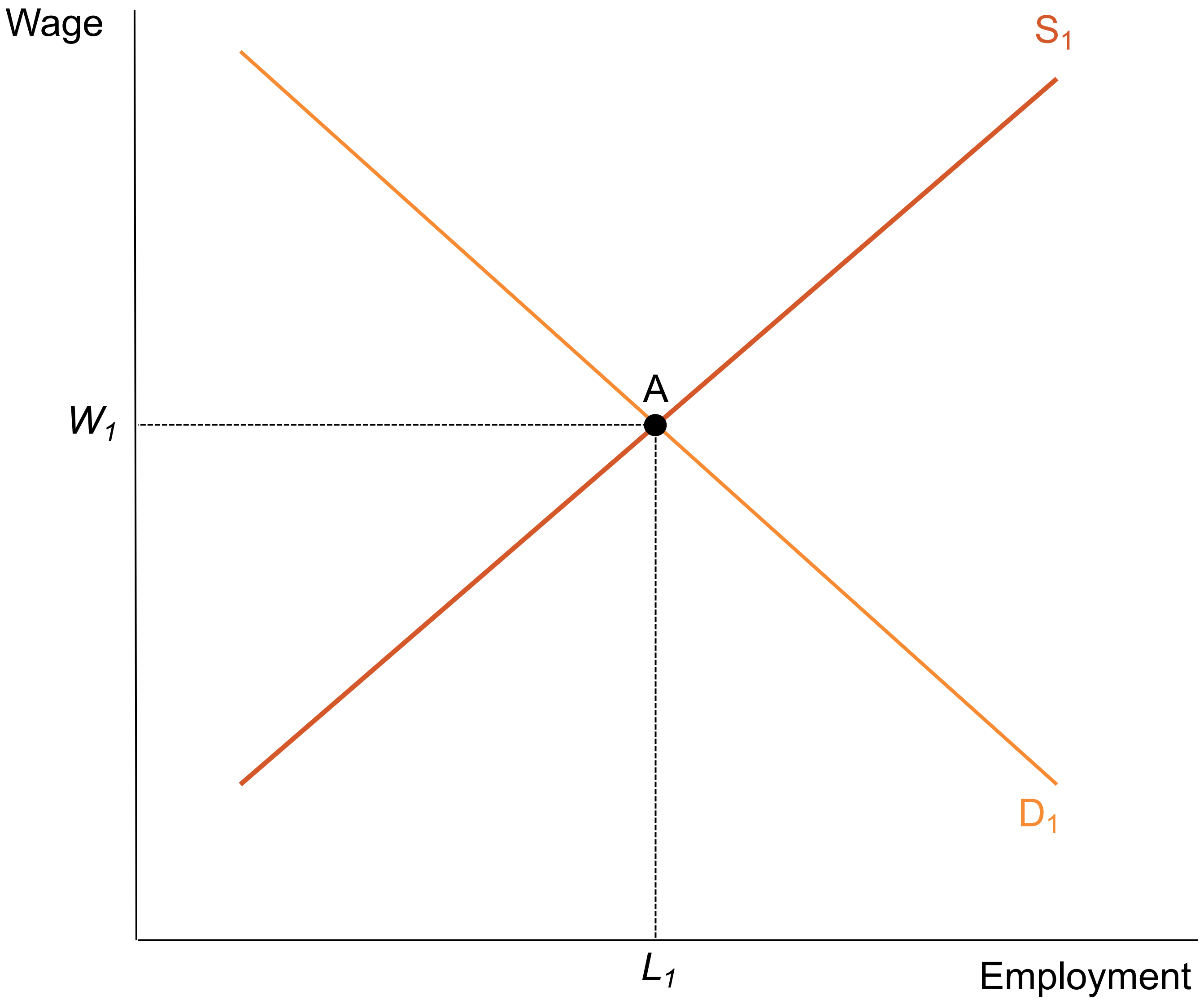
An increase in the Super Guarantee increases the cost of employing a worker.
This cost can be passed on to:

1. Consumers through higher prices ('forward shifting')

2. Workers through lower nominal wage growth ('back-shifting')

3. Investors through lower profits (with potential flow-on impacts to investment and employment)

Who bears the burden of super in theory?



Point A: No super

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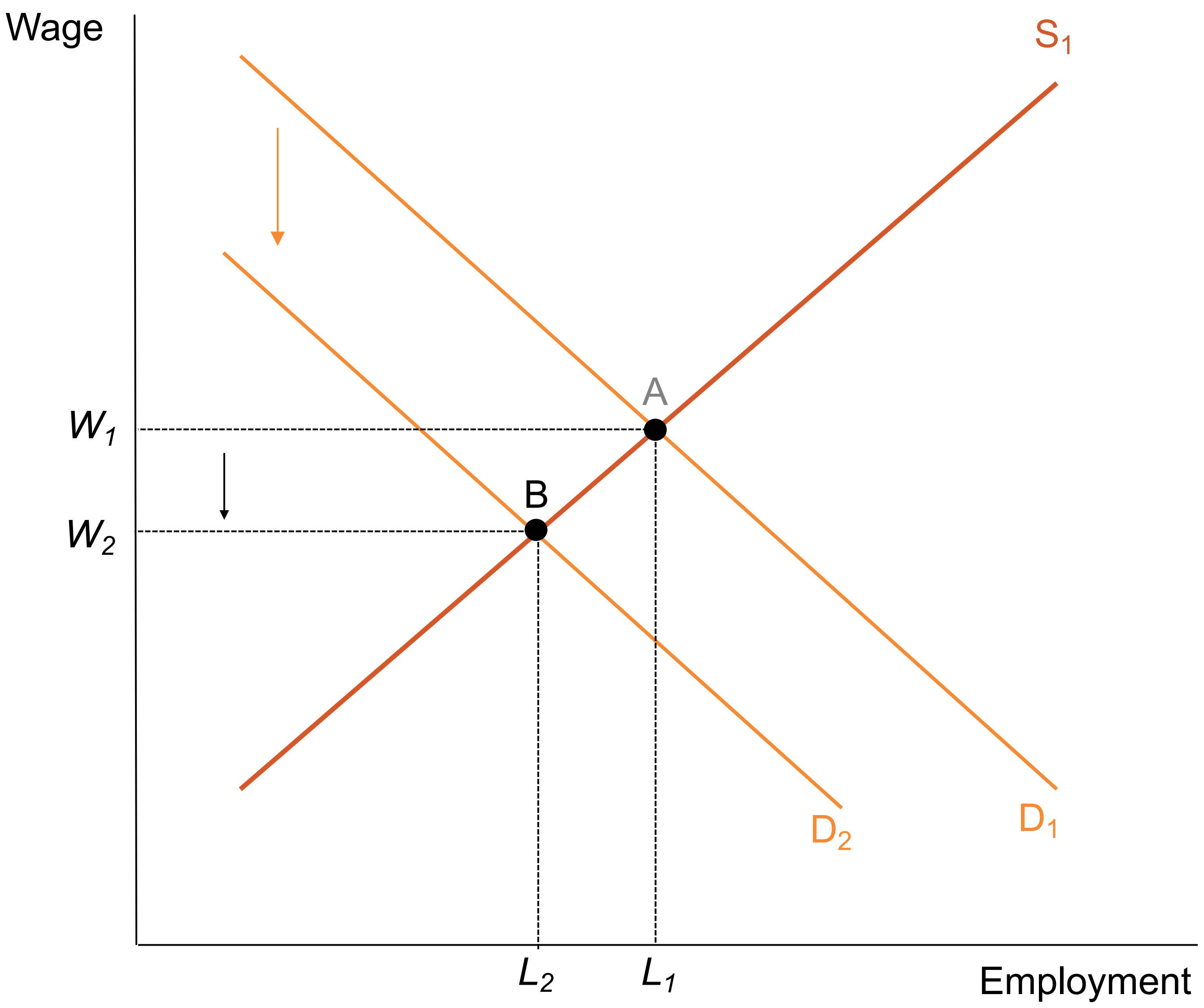
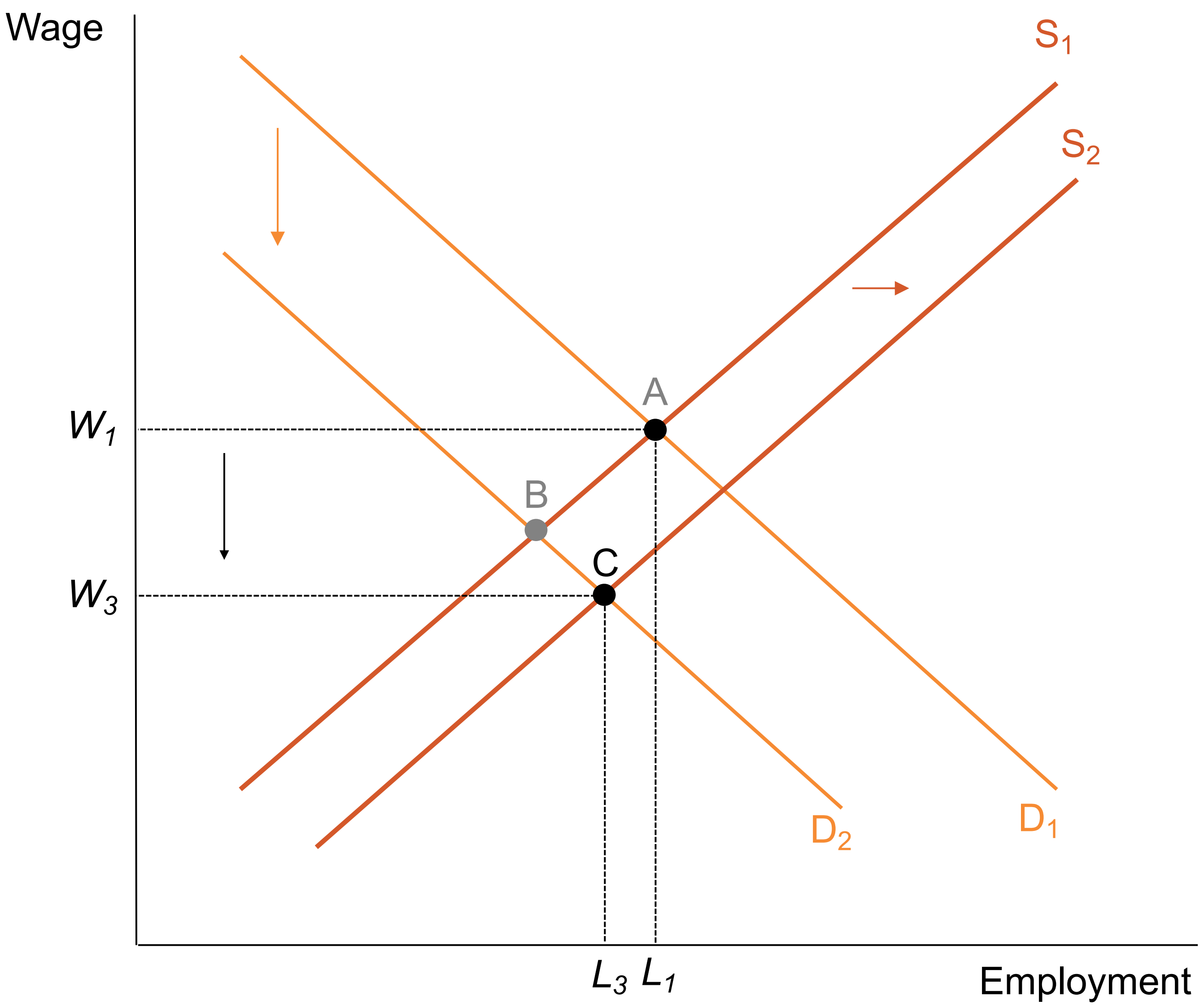


Point A: No super

Point B: Super not valued by workers

Who bears the burden of super in theory?



Point A: No super

Point B: Super not valued by workers

Point C: Super valued, but less than wages

Who bears the burden of super in theory?

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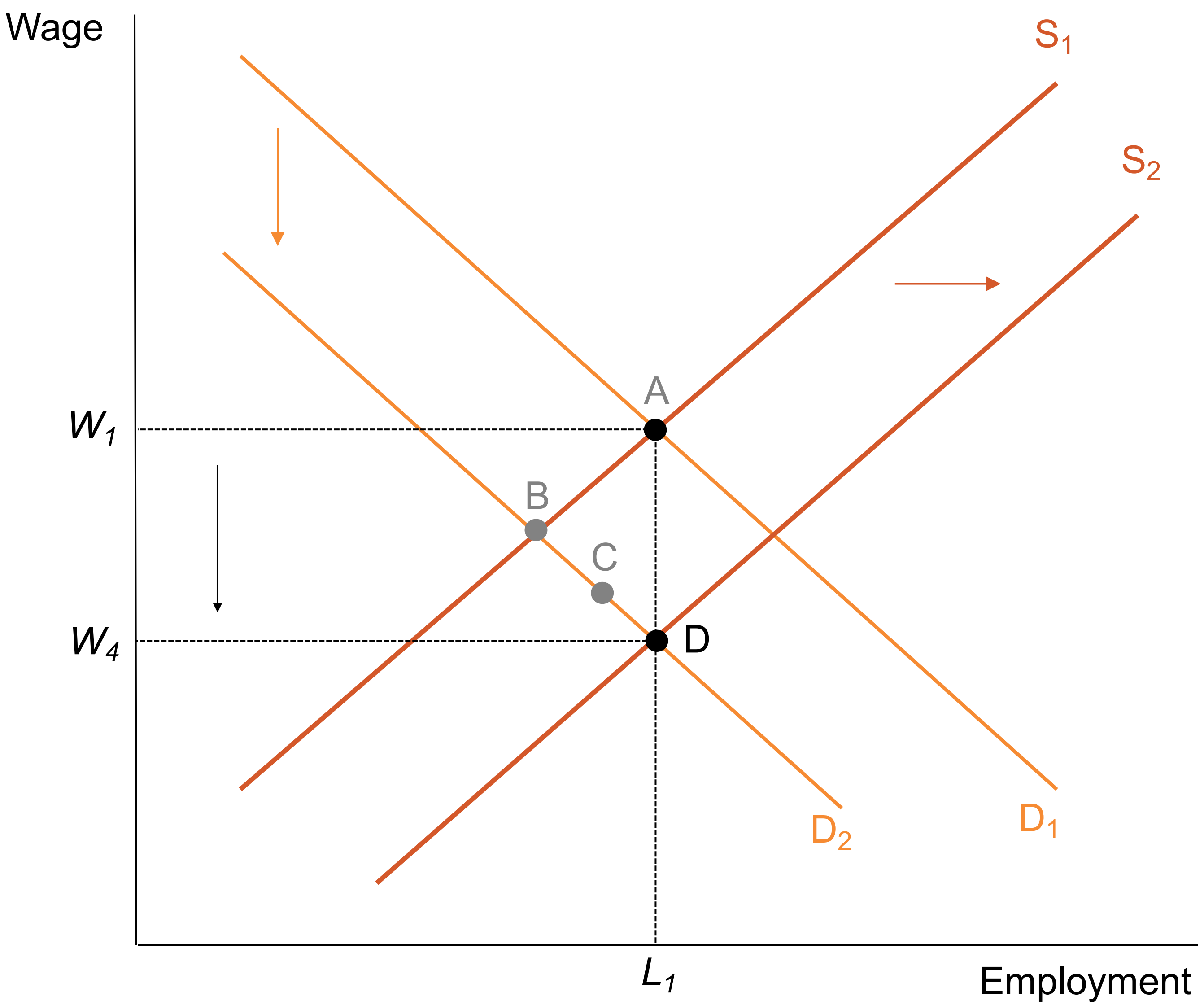

Point A: No super

Point B: Super not valued by workers

Point C: Super valued, but less than wages

Point D: Super valued as much as wages

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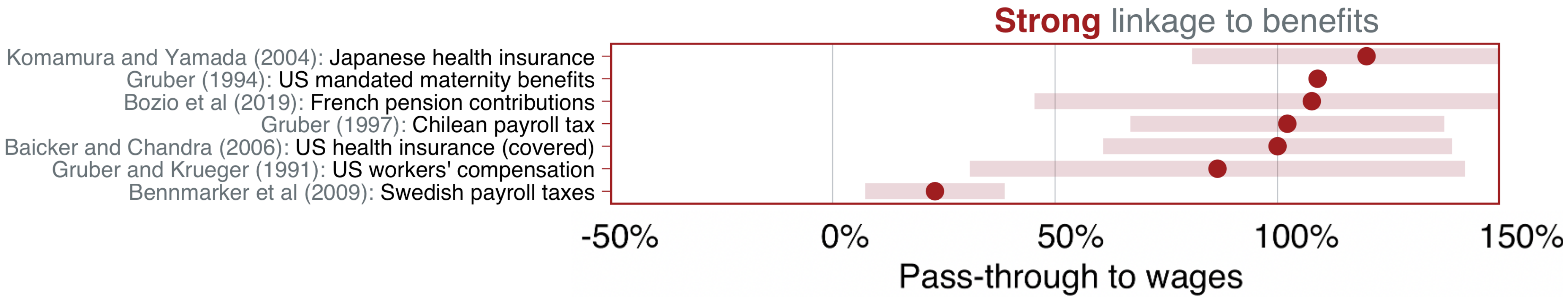
International studies find strong pass-through to wages of payments linked to workers' benefits

Pass-through from higher payments to lower wages (100% = full pass-through, 0% = no pass-through)



Notes: Classification of degree of linkage to benefits is taken from Bozio et al (2019). Shaded areas are 95 per cent confidence intervals. Some intervals extend beyond the range shown. Degree of linkage to benefits can differ across studies for the same policy (e.g. 'US unemployment benefits', 'Swedish payroll taxes') because the studies are examining different reforms or population sub-groups.

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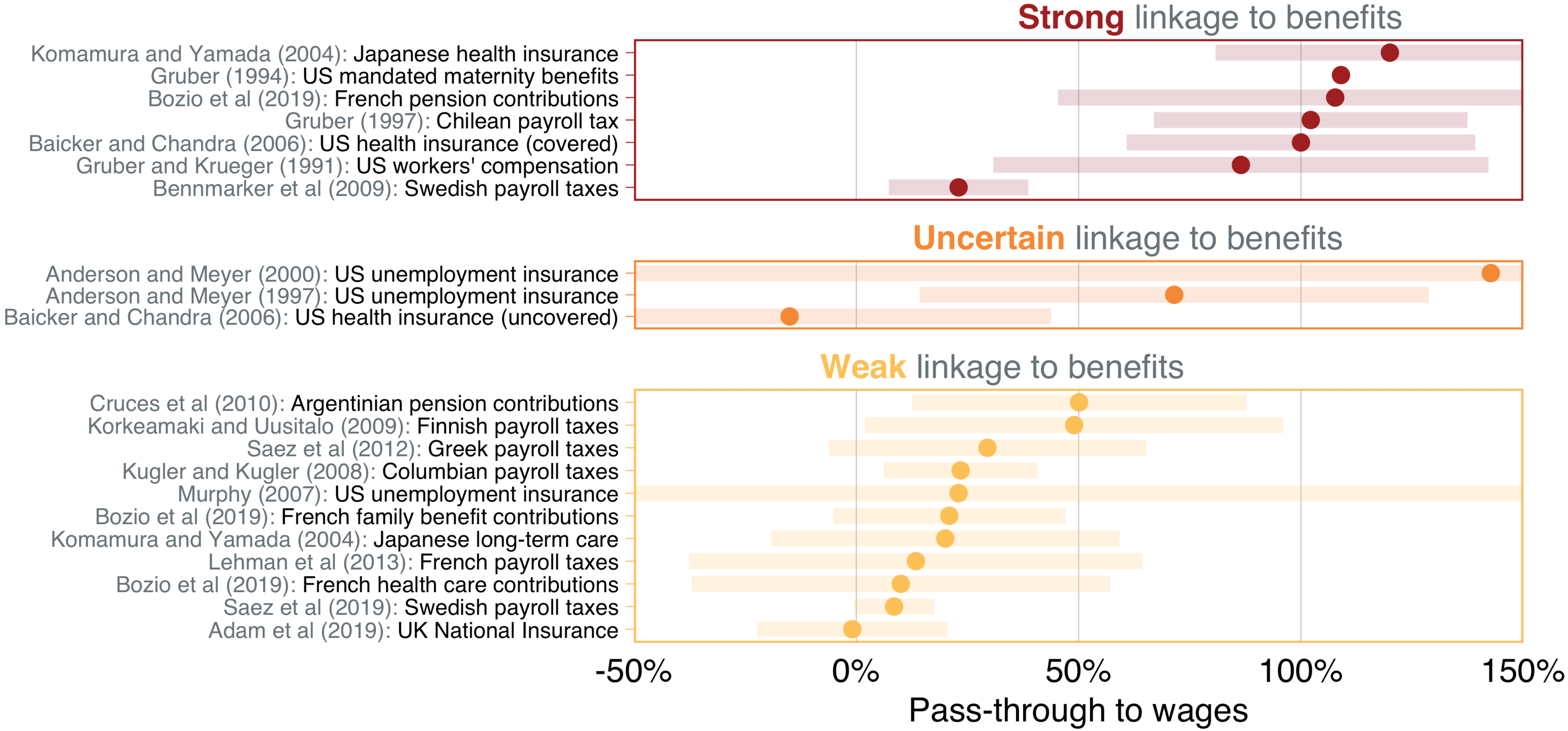

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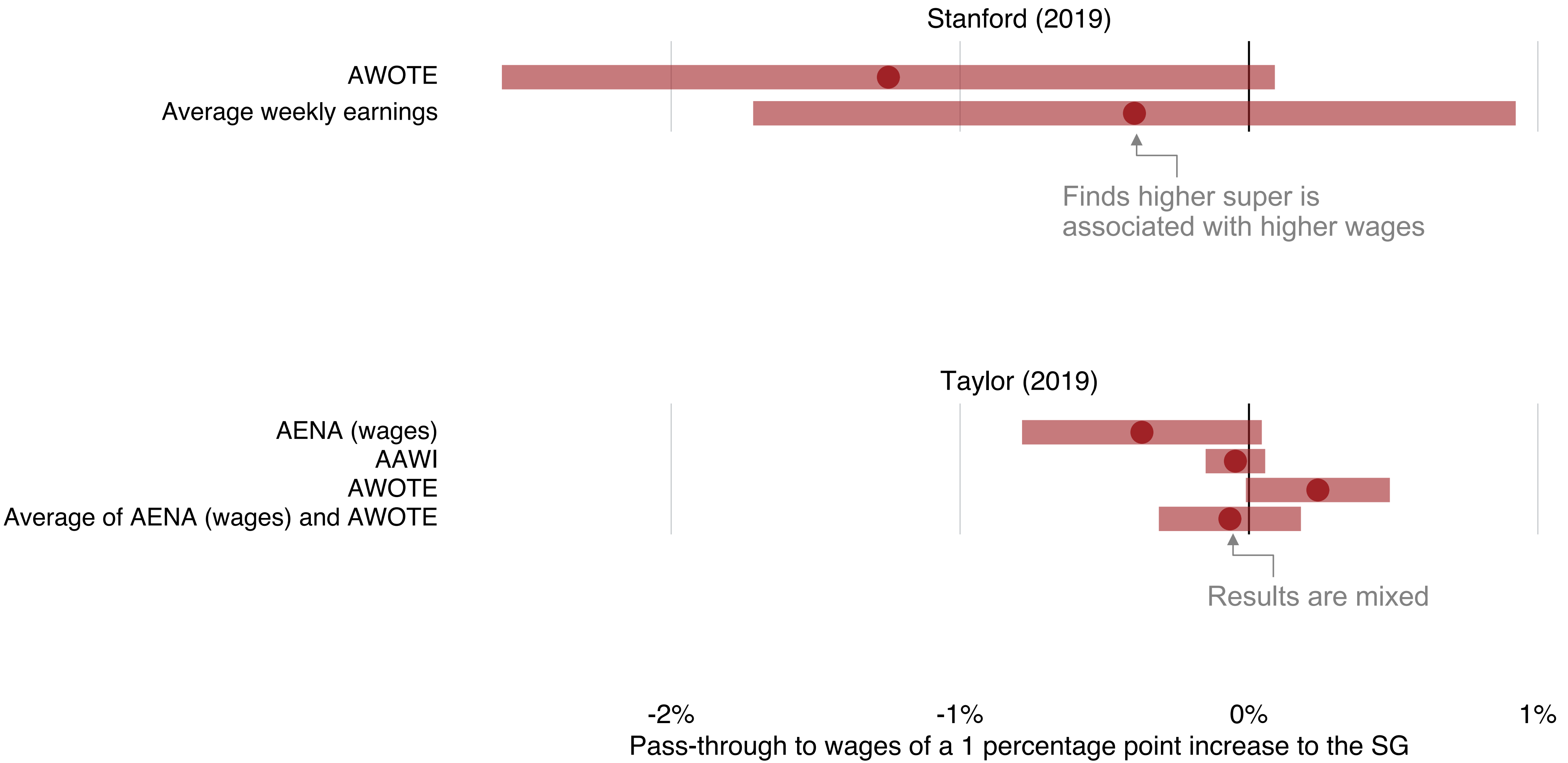
Two recent examinations of the super-wages tradeoff

Author and institution	**Taylor (2019)** McKell Institute	**Stanford (2019)** The Australia Institute (Centre for Future Work)
Observations and frequency	100 quarterly observations (1992-2018)	32 calendar-year observations (1987-2018)
Dependent variables	Average wages growth (AENA, AAWI, AWOTE, average of AWOTE and AENA)	Average wages growth (AWOTE, AWE)
Key explanatory variable	Change in SG from corresponding quarter in previous year	Change in SG from previous calendar year
Control variables	• change in unemployment rate from corresponding quarter, four-quarter lag • NAIRU gap, four-quarter lag • inflation expectations, four-quarter lag • change in non-farm GDP deflator from 8 quarters prior, four-quarter lag	• unemployment rate • log-difference in terms of trade • inflation expectations, one year lag

Recent macro-econometric approaches to the super/wages trade-off produce inconclusive results

Coefficients and 95% confidence intervals on the super/wages trade-off from Taylor and Stanford



Notes: The results from Taylor (2019) and Stanford (2019) have been 'flipped' to show the pass-through to wages. 'AENA' refers to 'Average Earnings National Accounts' for all employees; 'AAWI' is 'Average Annualised Wage Increases' for employees covered by registered federal enterprise agreements; 'AWOTE' is 'Average Weekly Ordinary Time Earnings' of full-time employees; and 'AWE' is 'Average Weekly Earnings' of all employees.
Sources: Taylor (2019, Annex Table 1). Stanford (2019, Tables 5-6). See also Nolan et al (2019).

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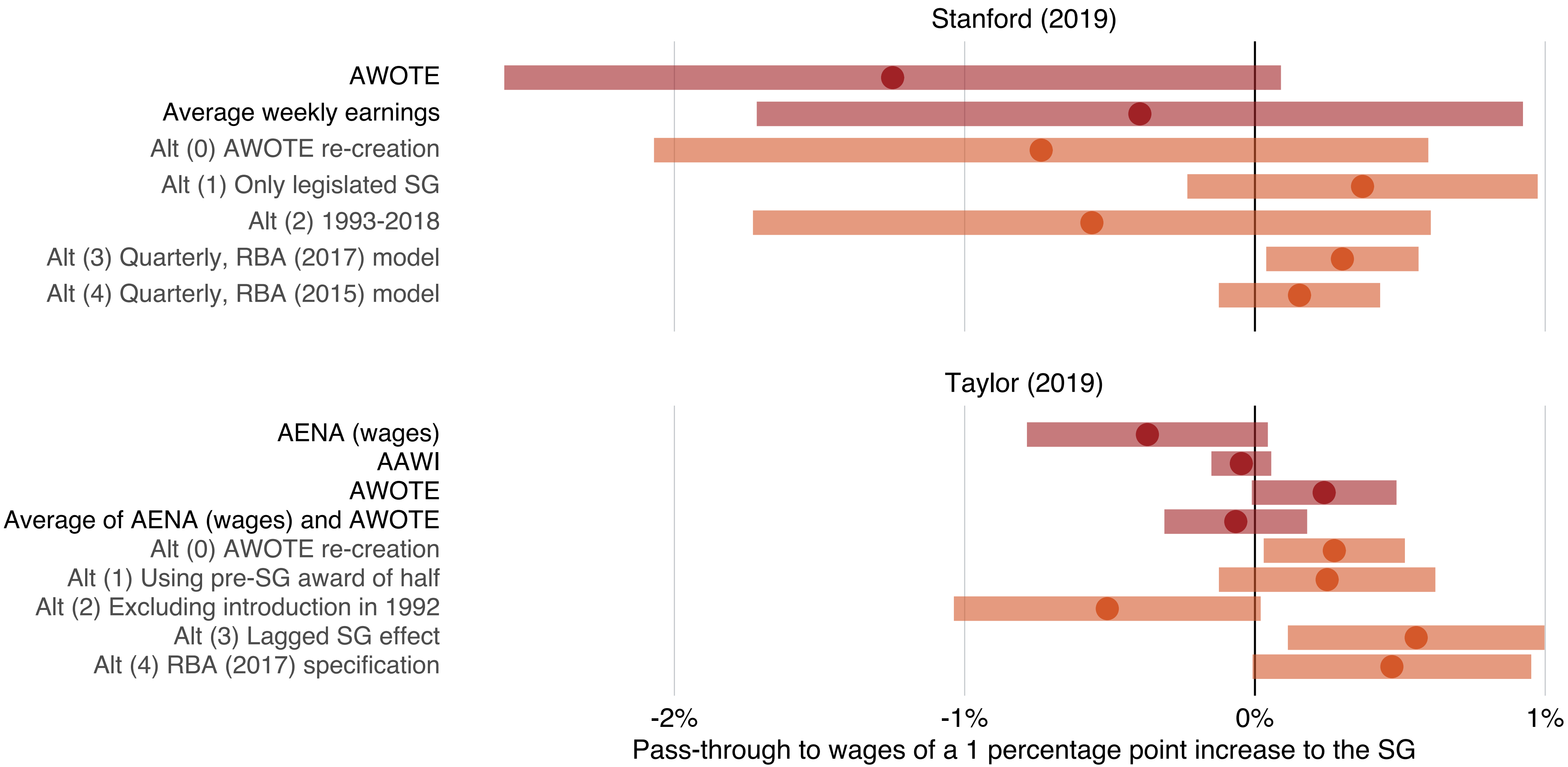

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The Workplace Agreements Database (WAD)

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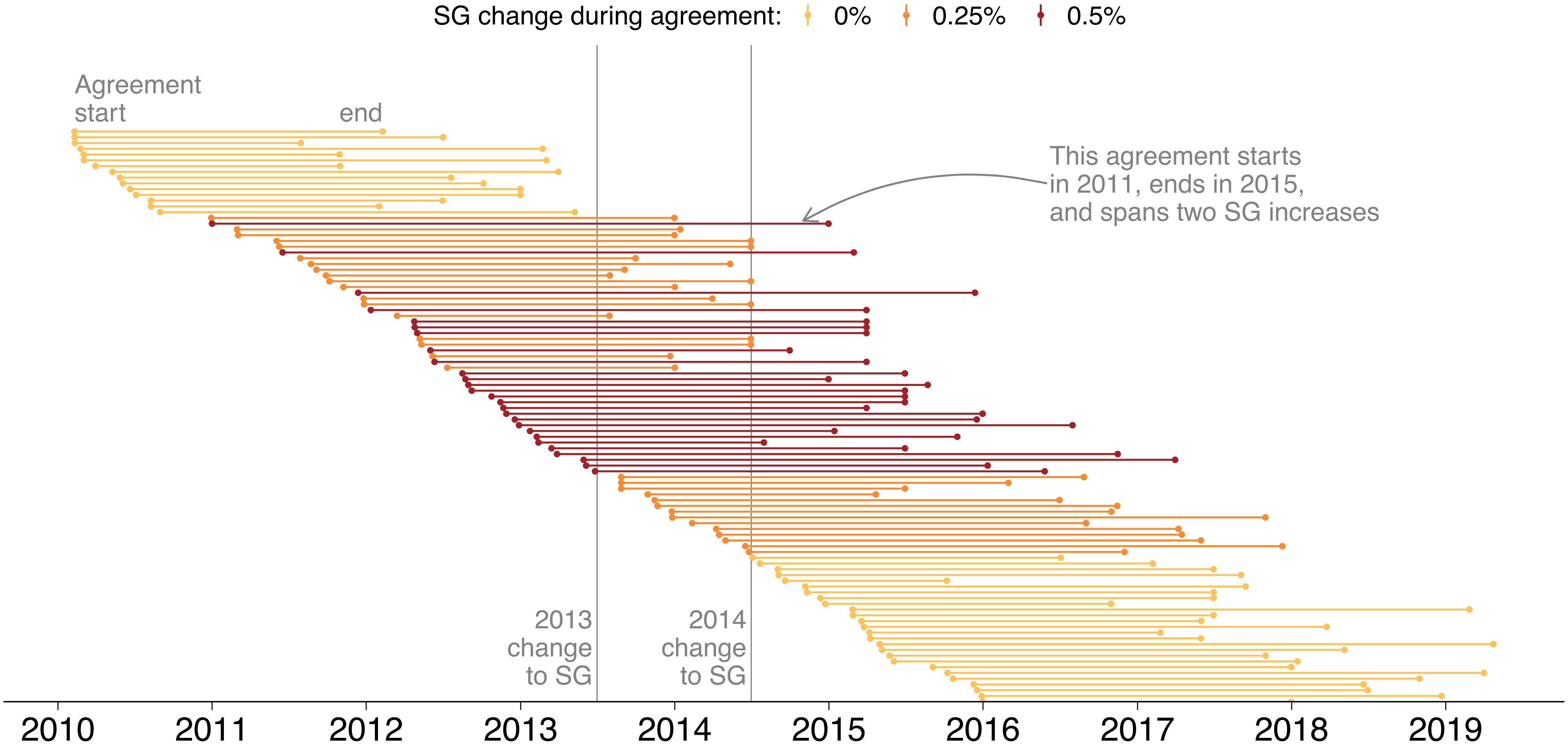
- Administrative dataset collected by Attorney-General's Department.
- Available on request to researchers since 2016.
- Contains all 160,000 federally-lodged enterprise bargaining agreements between 1991-2018.
- 80,000 have wage, employee and other required details.
- Dataset contains about 400 variables.

An illustrative look at some agreements

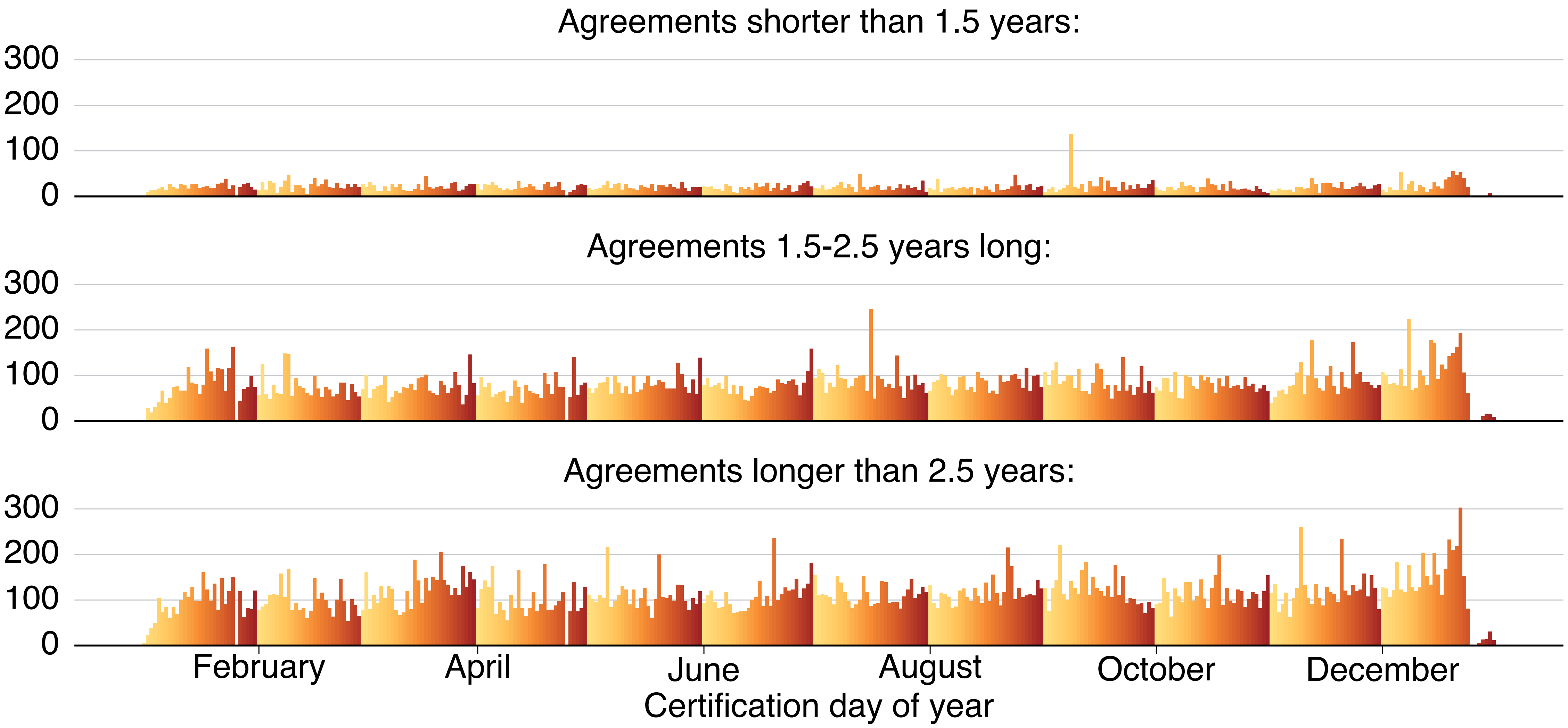
Random sample of 100 agreements starting between 2010 and 2015



Source: Grattan analysis of the Workplace Agreements Database: Attorney-General's Department (2019).

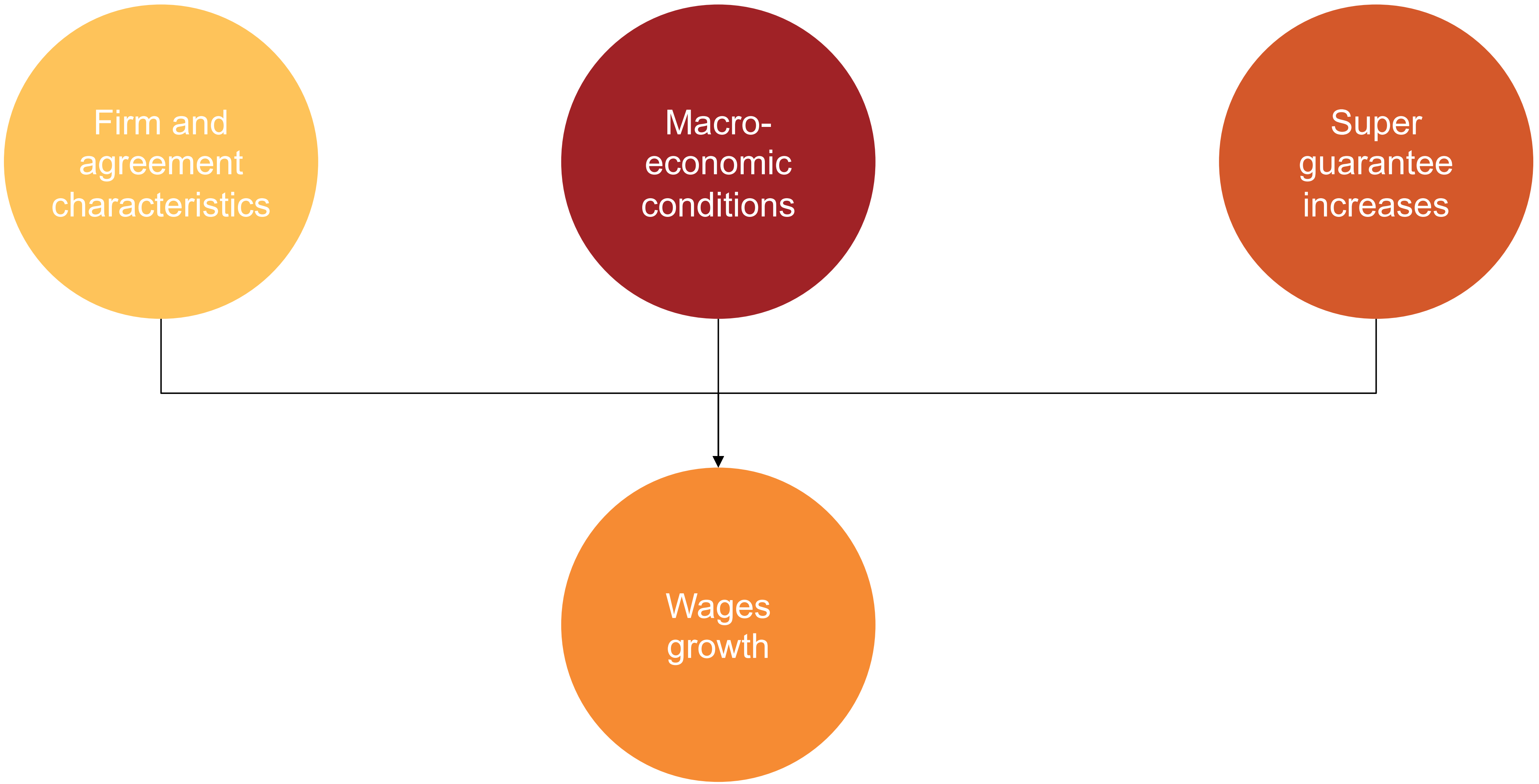
There is no clear pattern to when agreements are signed

Number of agreements by certification day of year



Source: Grattan analysis of the Workplace Agreements Database: Attorney-General's Department (2019).

Our approach



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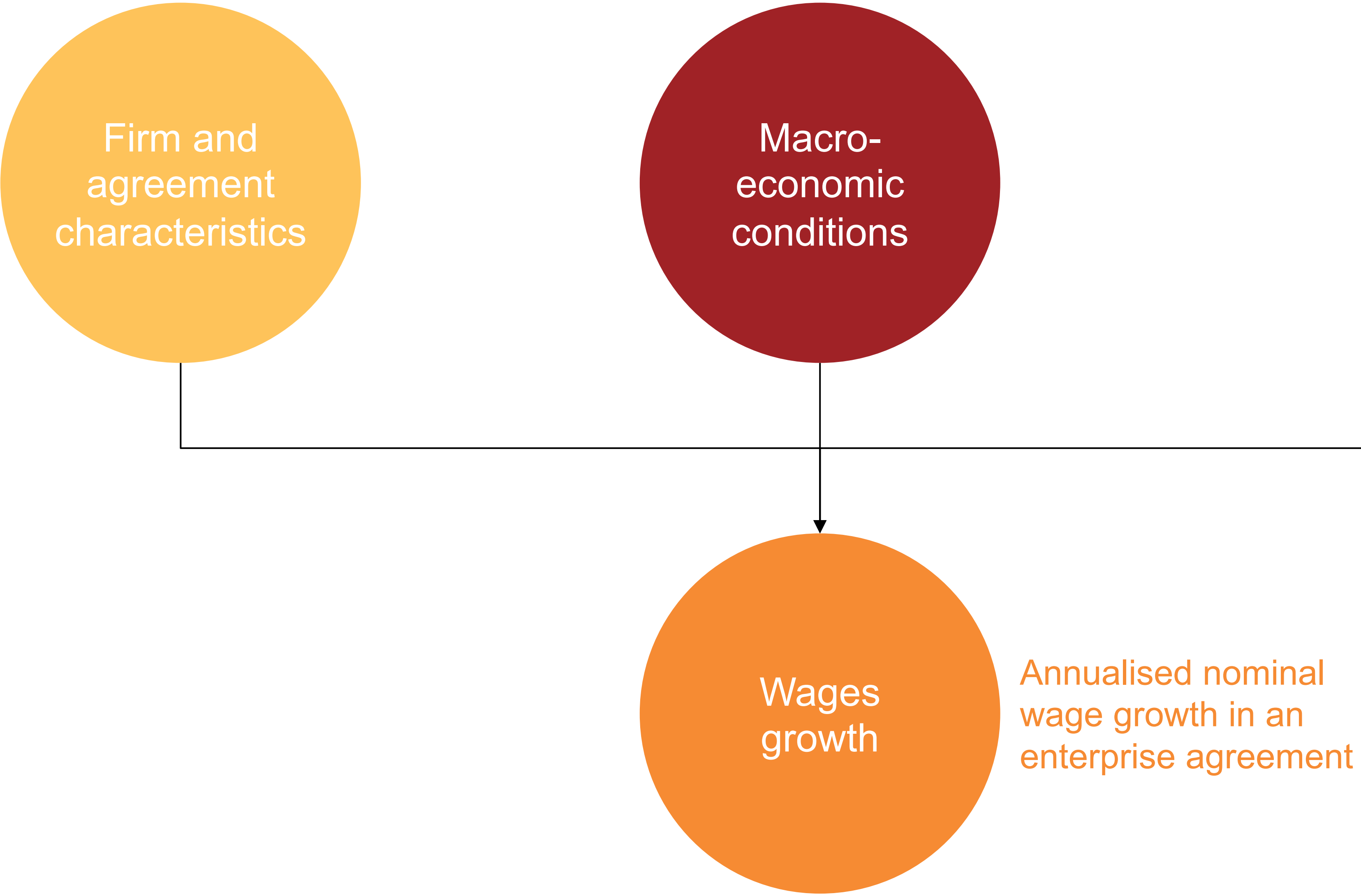
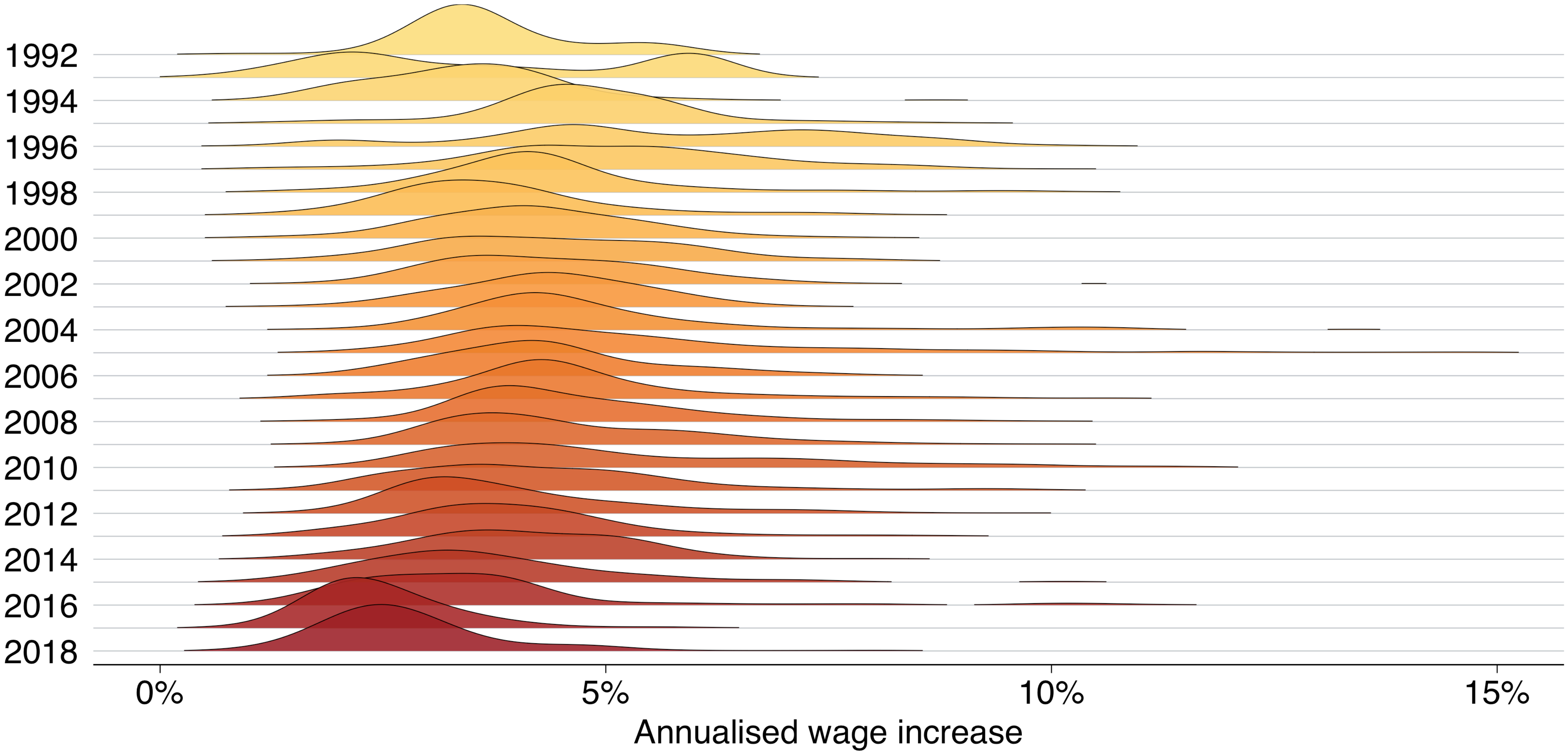


Over time, agreements have contained lower annual wage increases

Distribution of annualised wage increases in enterprise agreements, 1992- 2018, weighted by employees



Source: Grattan analysis of the Workplace Agreements Database: Attorney-General's Department (2019).

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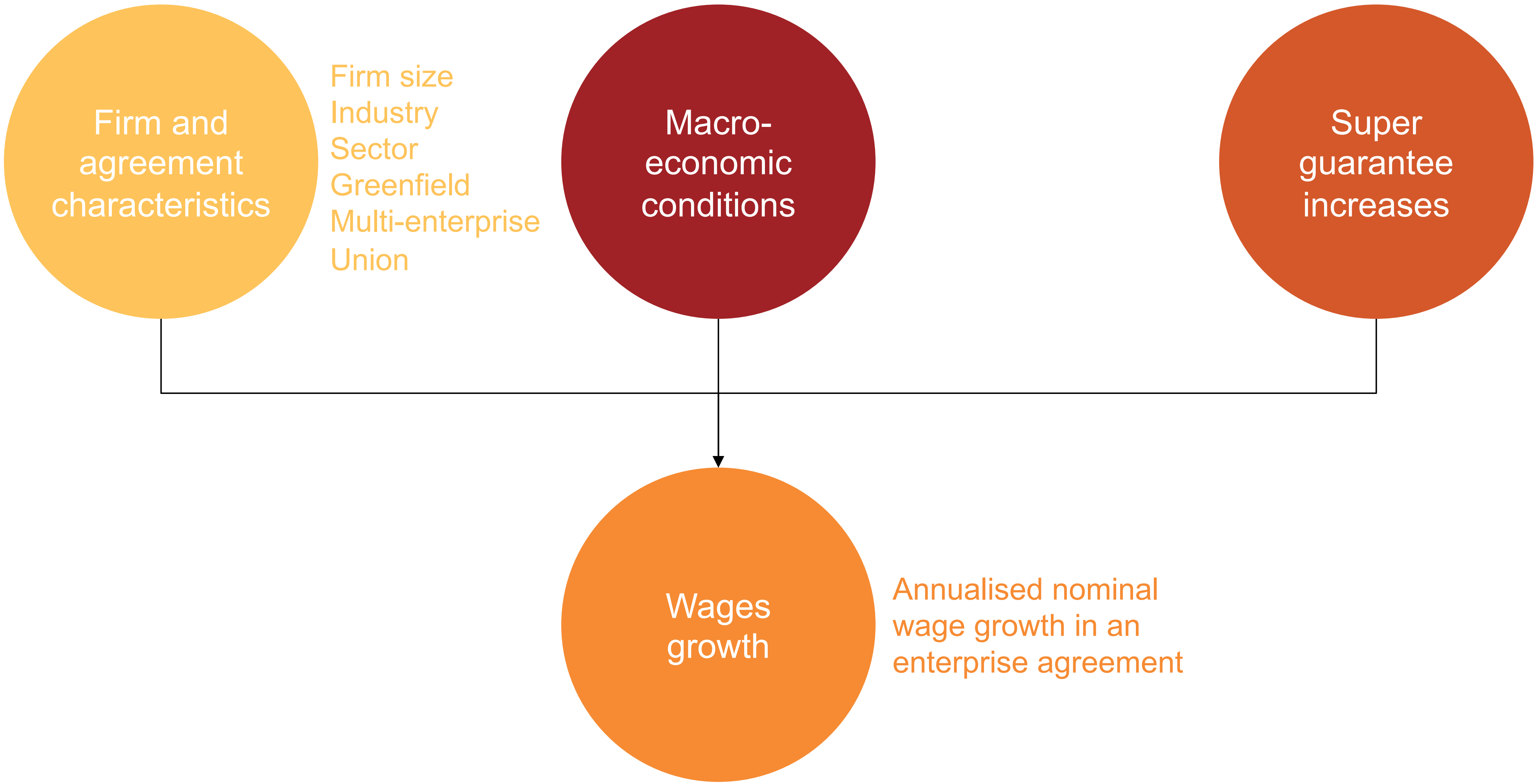

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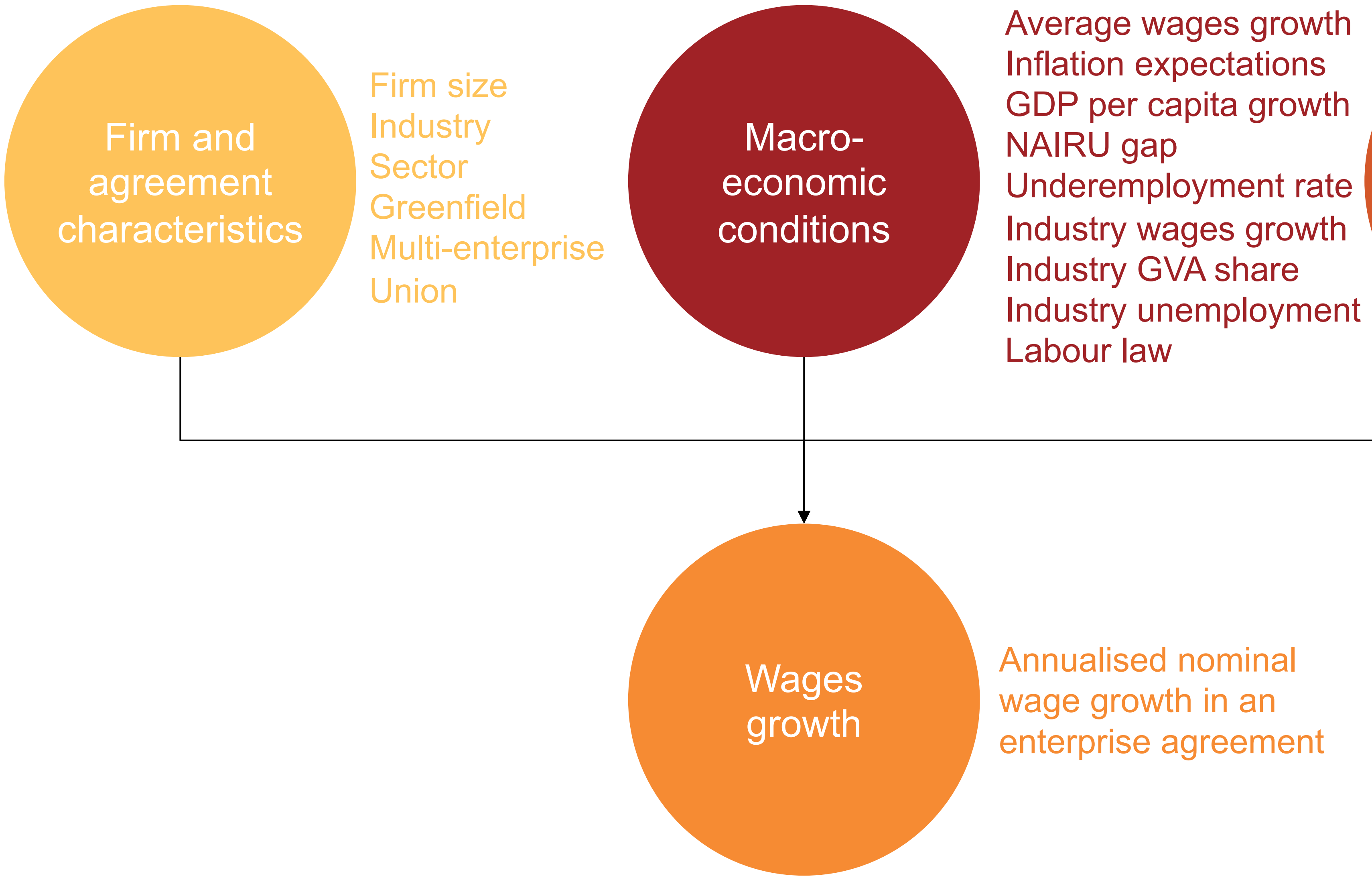

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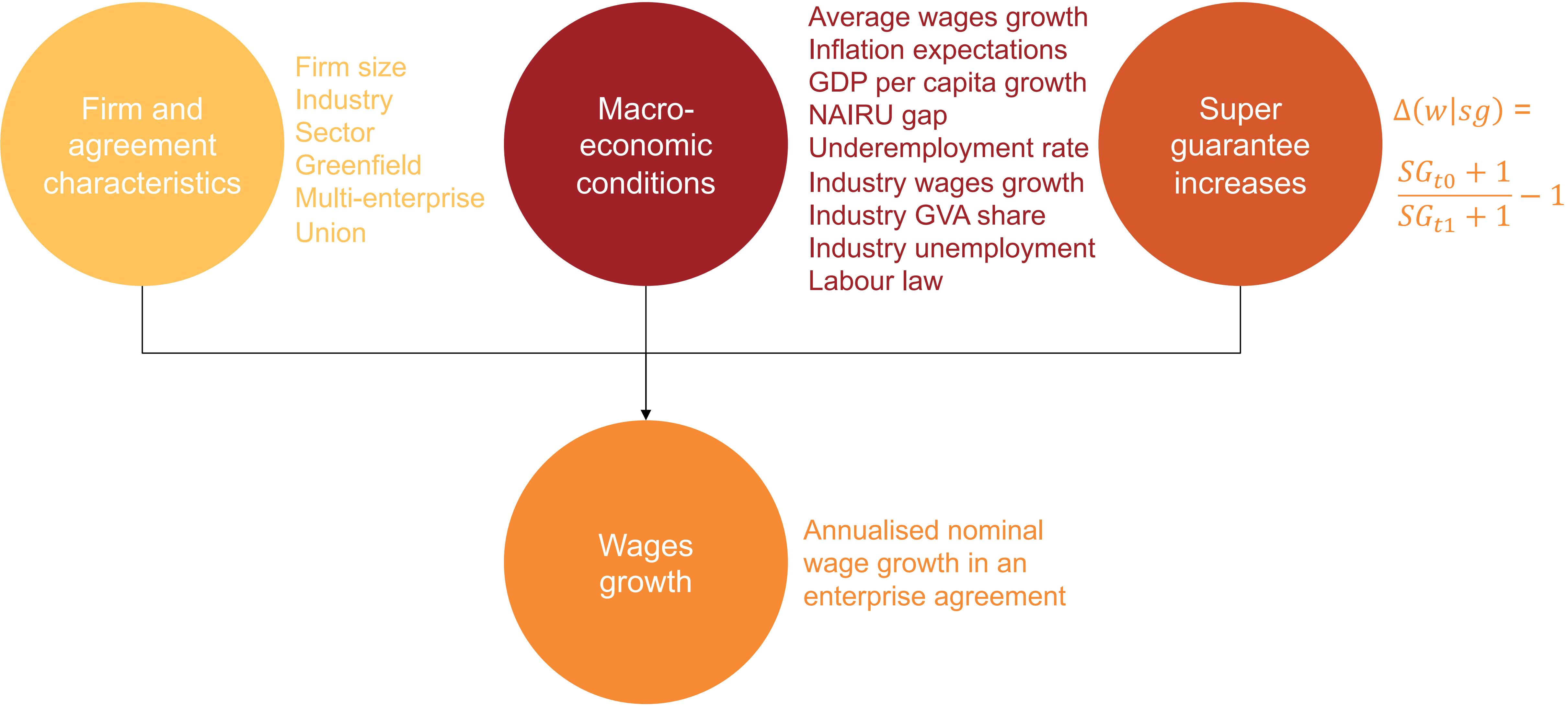

The Superannuation Guarantee: actual, legislated and proposed

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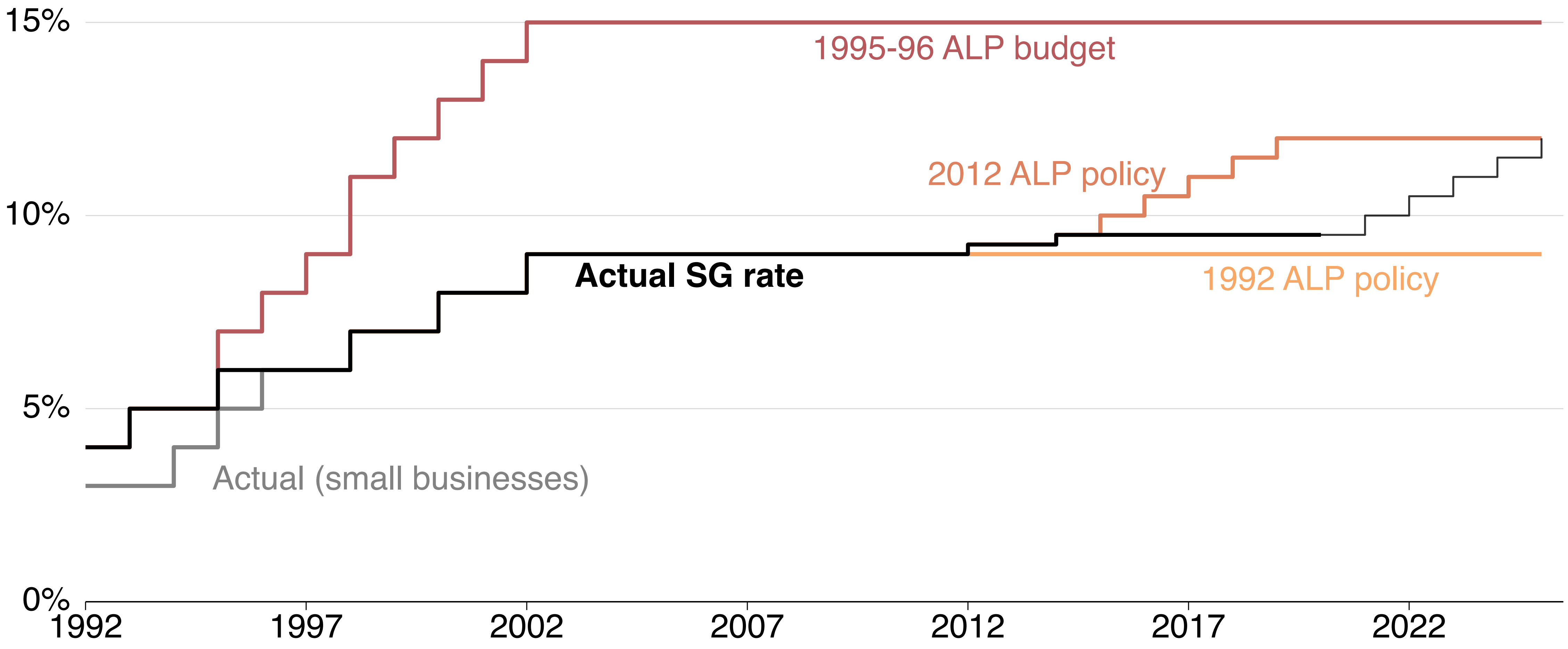
Per cent of ordinary time earnings



Note: In the 1990s, the Super Guarantee increased at different rates at different times, for small and large firms.
Source: Daley et al (2018, Figure 9.1).

We use three models of increasing complexity to measure the super-wages trade-off

Wages growth = Super guarantee increases + Macro-economic conditions + Firm and agreement characteristics

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Model (1)

$$wage\_inc_{i,t} = \beta_0 + \beta_1 \Delta(w|sg)_i + \beta_2 awote\_growth_{t-1} + \beta_3 inflation\_exp_t + \beta_{4a} gdp\_percap\_growth_t + \beta_{5a} nairu\_gap_t + \beta_{6a} underemploy_t + \beta_7 tot\_change_t + \varepsilon_i$$

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Model (2) $= \text{Model (1)} + \beta_{4b} \Delta gdp\_percap\_growth_t + \beta_{5b} \Delta nairu\_gap_t + \beta_{6b} \Delta underemploy_t + \beta_8 labour\_law_t + \beta_{9a} \Delta industry\_share\_1year_{i,t} + \beta_{9b} \Delta industry\_share\_2year_{i,t} + \beta_{10} industry\_awote\_growth_{it-1} + \beta_{11} \Delta industry\_unemployment\_rate_{it} + \beta_{12} duration_i + \beta_{13} \log(employees)_i + \beta_{14} industry_i + \beta_{15} sector_i + \beta_{16} state_i + \beta_{17} greenfield_i + \beta_{18} multi\_enterprise_i + \beta_{19} union_i + \varepsilon_i$

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Model (3) $=$ Model (2) $+ \beta_{20} sector_i \times state_i \times union_i + \beta_{21} industry_i \times industry\_unemployment\_rate_{i,t} + \beta_{22} industry_i \times industry\_awote\_growth_{it-1} + \varepsilon_i$

Who pays in theory?

Existing evidence

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Around 80 per cent of the cost of higher compulsory super is borne by workers in the form of lower wage increases

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	Model (1)	Model (2)	Model (3)
$\Delta(w\|sg)$	**0.702*****	**0.771*****	**0.805*****
	(0.158)	(0.124)	(0.119)
$awote\_growth_{t-1}$	0.915***	0.583***	0.559***
	(0.180)	(0.123)	(0.120)
$inflation\_exp_t$	0.163***	0.299***	0.291***
	(0.088)	(0.094)	(0.084)
$gdp\_percap\_growth_t$	0.489***	0.445***	0.396***
	(0.167)	(0.127)	(0.119)
$\Delta gdp\_percap\_growth_t$		-0.073**	-0.070**
		(0.032)	(0.029)
$nairu\_gap_t$	-0.129***	-0.333***	-0.475***
	(0.140)	(0.112)	(0.099)
$\Delta nairu\_gap_t$		0.706***	0.544***
		(0.267)	(0.239)
$underemploy_t$	-0.280***	-0.126	-0.105
	(0.099)	(0.090)	(0.086)
$\Delta underemploy_t$		-0.186***	-0.093***
		(0.238)	(0.224)
$industry\_awote\_growth_{it-1}$		0.097**	*Interaction*
		(0.045)	
$industry\_unemployment\_rate_{it}$		-0.031	*Interaction*
		(0.027)	
$duration$		-0.851***	-0.847***
		(0.046)	(0.040)
$logemp$		-0.033*	-0.036**
		(0.019)	(0.016)
(Intercept)	4.855***	5.291***	4.237
	(0.173)	(0.239)	(3.471)
Observations	78072	78072	78072
Adjusted R2	0.087	0.420	0.479

Notes: ***$p < 0.01$; **$p < 0.05$; *$p < 0.10$. *Standard errors are shown in parentheses. Terms of trade and factor variables (industry, state, sector, union, greenfield, multi-enterprise, labour law period) coefficients are not shown.*

Around 80% of the cost of super comes out of wages in our preferred model

Signs mostly as expected

Preferred model explains around half the variation in agreement-level wages growth

Our findings have broad support

RBA: We **broadly support the methodology used by Grattan Institute** and use it as our baseline assumption for the private sector.

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Retirement Income Review: The review considered the trade-off between the SG and wages in detail. **The weight of evidence suggests the majority of increases in the SG come at the expense of growth in take-home wages.** This view is based on empirical research, economic theory, evidence across a number of countries, and the original policy intent of the SG.

Recent paper by Bruenig and Sobeck finds similar super-wages trade-off

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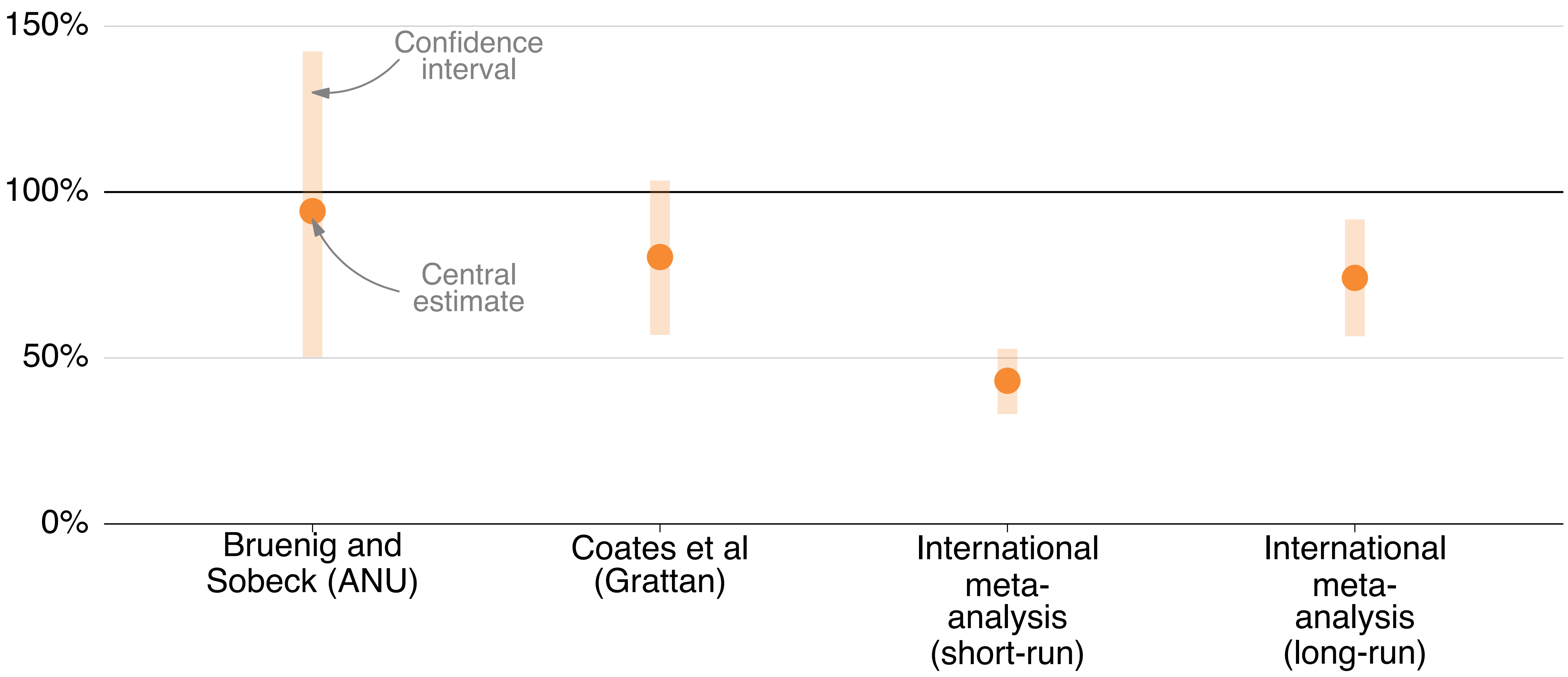
Estimates of the proportion of higher compulsory super or mandated benefits that comes from wages



Notes: Bruenig and Sobeck estimate relates to the 2002-03 SG change. The international meta-review is of 52 empirical studies of the incidence of labour taxes and social security contributions.
Sources: Bruenig and Sobeck (2020) as published in Retirement Income Review (2020); Coates et al (2020); Melguizo and González-Páramo (2013).

February 2020

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Bruce Bastian (ISA) analysis of the super-wages trade-off

- Uses a subset of the WAD
- Compare agreements lodged before the 2013 election with those lodged immediately after the introduction of the Bill delaying the SG increase
- Does not acknowledge the possibility that the likelihood of a Coalition victory was factored into wage negotiations before the 2013 election. The Coalition had a substantial lead in the polls for an extended period and had an explicit policy to delay the SG increase by two years.
- Treat all agreements in the pre-election group as the same, despite the fact that some of them were set to run significantly past the SG date and others were only set to run a few months past that date. In other words, they do not account for the fact that the effect of an SG change on wages growth will differ across agreements based on the proportion of the agreement's life that spans the higher SG period.

Most agreements have a notional life of 2 to 3 years, and most agreements are for mid-sized enterprises

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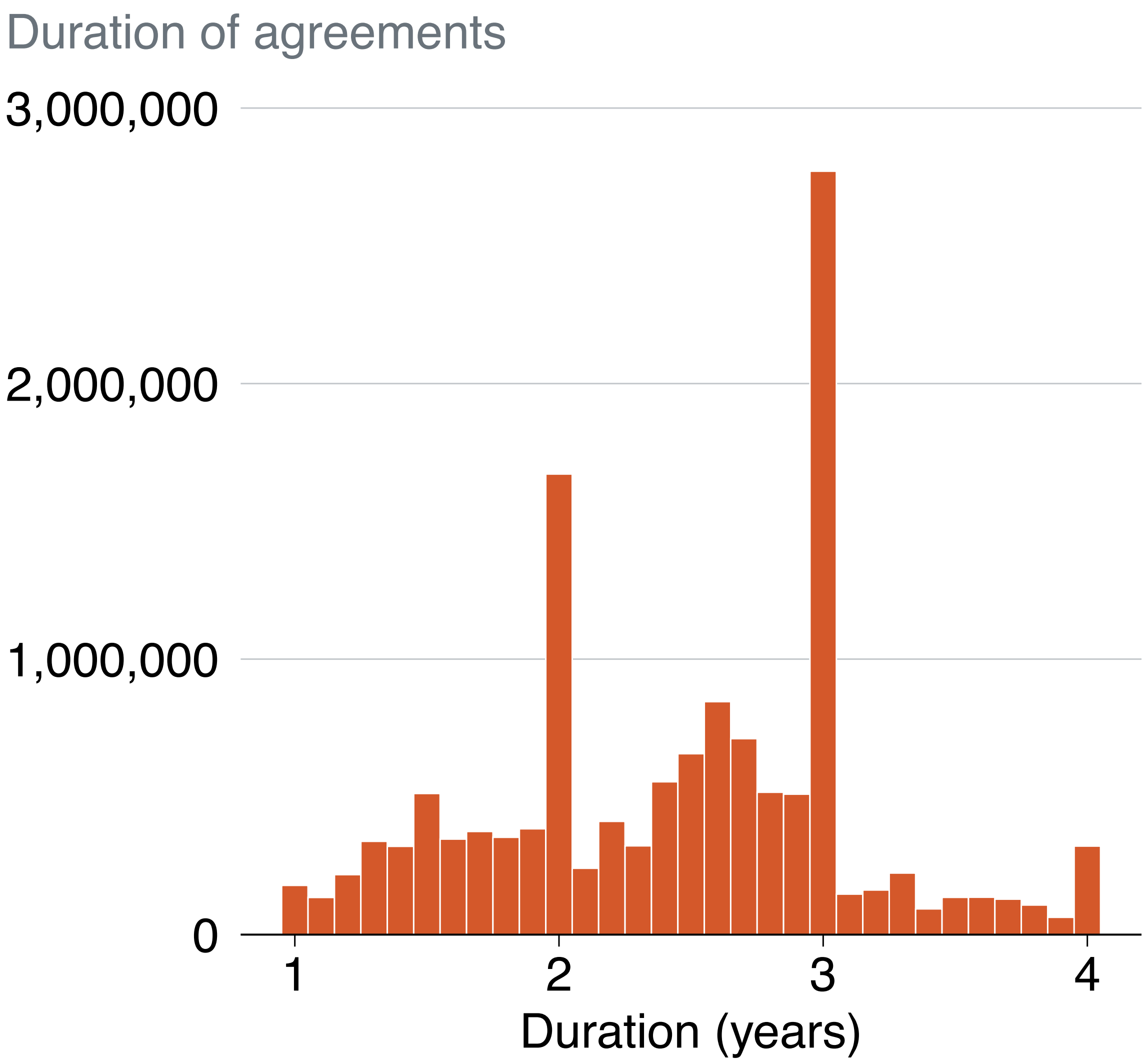
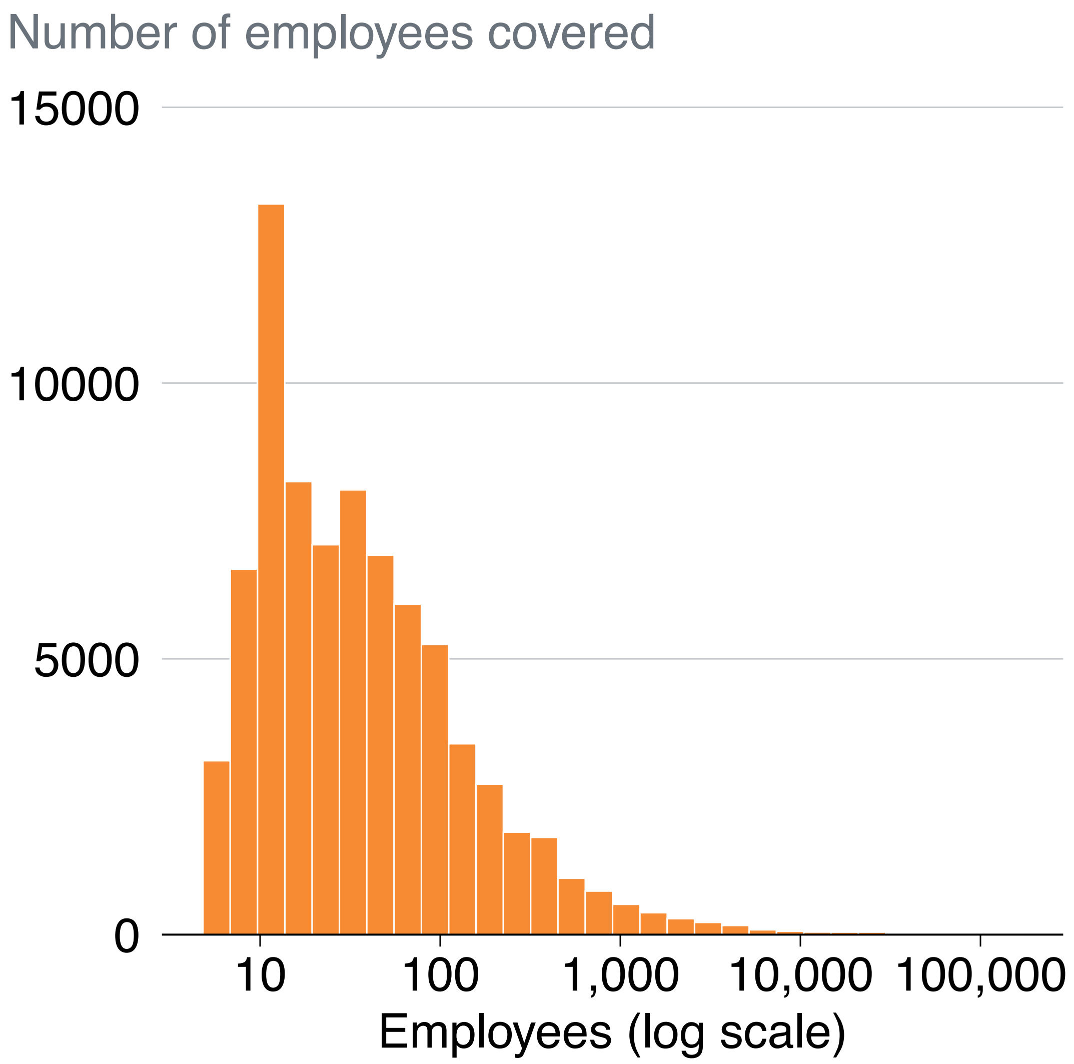




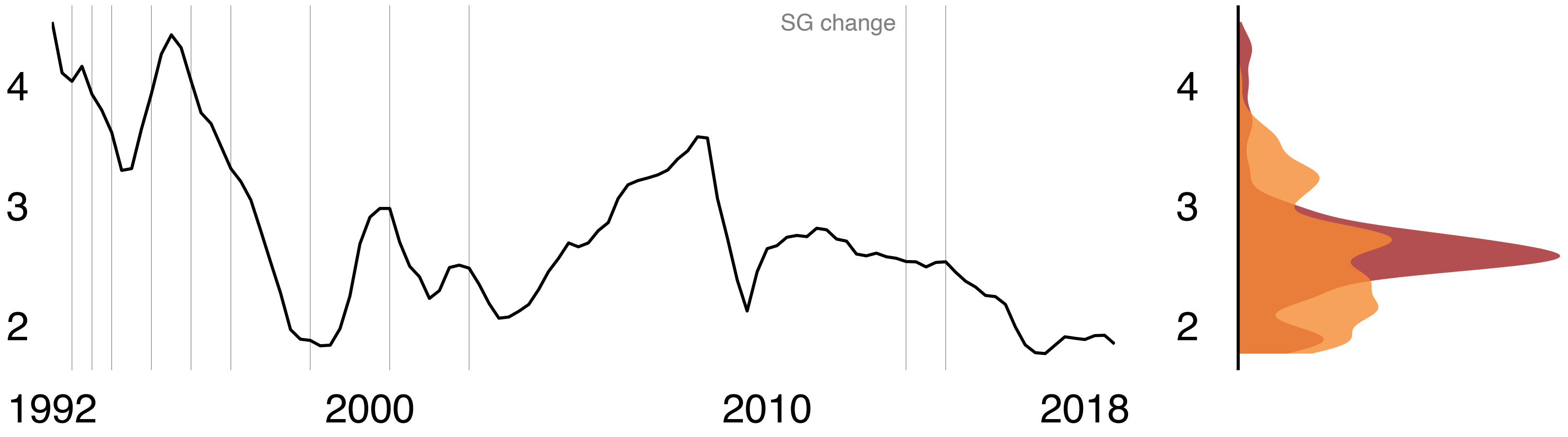
Source: Grattan analysis of the Workplace Agreements Database: Attorney-General's Department (2019).

We have agreements that do and do not cover an SG change from a broad range of macroeconomic conditions

Time-series

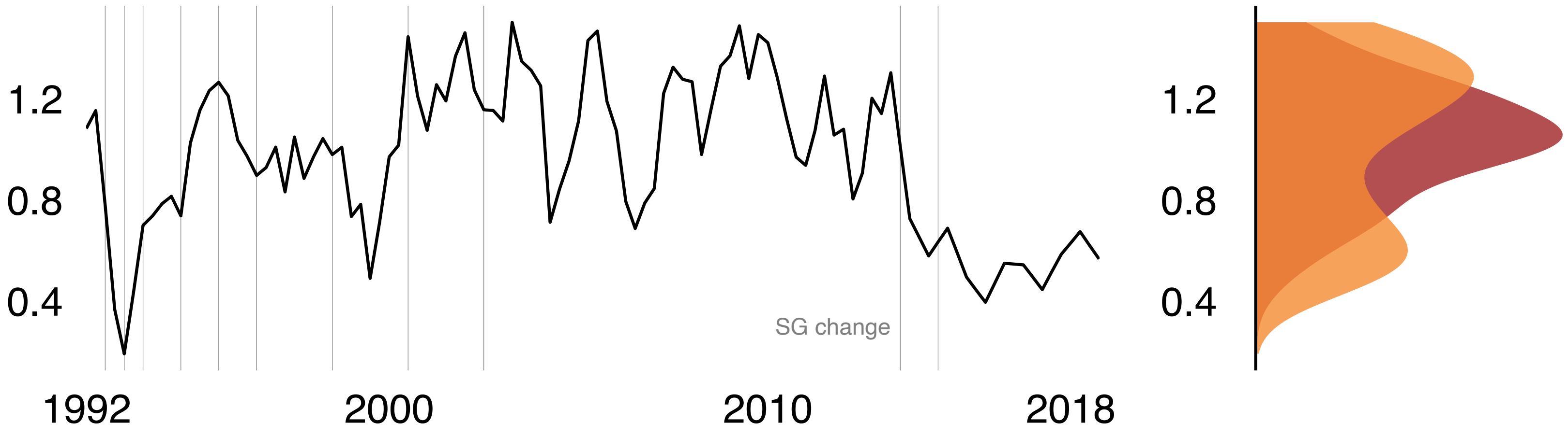
Distribution of agreements **with**/**without** SG change

Inflation expectations
Per cent



Data source: RBA

Quarterly AWOTE growth
Per cent



Data source: ABS

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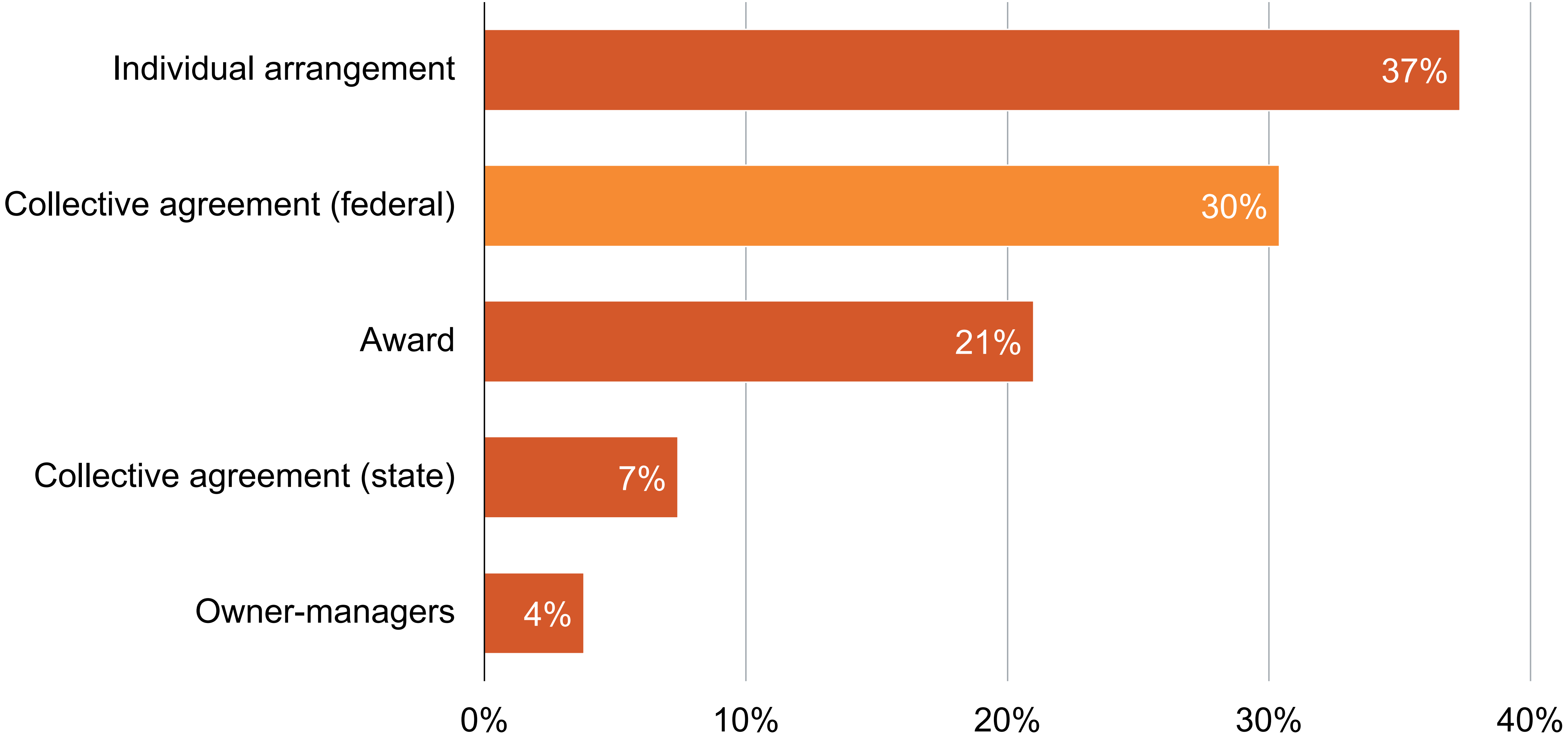
What about other workers?

Will this time be different?

Around a third of employees have their pay set by a federally registered enterprise agreement

Proportion of employees by method of setting pay



Source: ABS (2019d) and Attorney-General's Department (2019c).

The Fair Work Commission grants lower award wage rises when super goes up

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The SG rate increase to apply from 1 July 2013 is a moderating factor in considering the adjustment that should be made to minimum wages.

As a result, though it would not be appropriate to quantify its effect, the increase in modern award minimum wages and the NMW we have awarded in this Review is lower than it otherwise would have been in the absence of the SG rate increase.

- Fair Work Commission, 2013 Annual Wage Review

The Fair Work Commission has kept minimum wages steady as a percentage of the median wage

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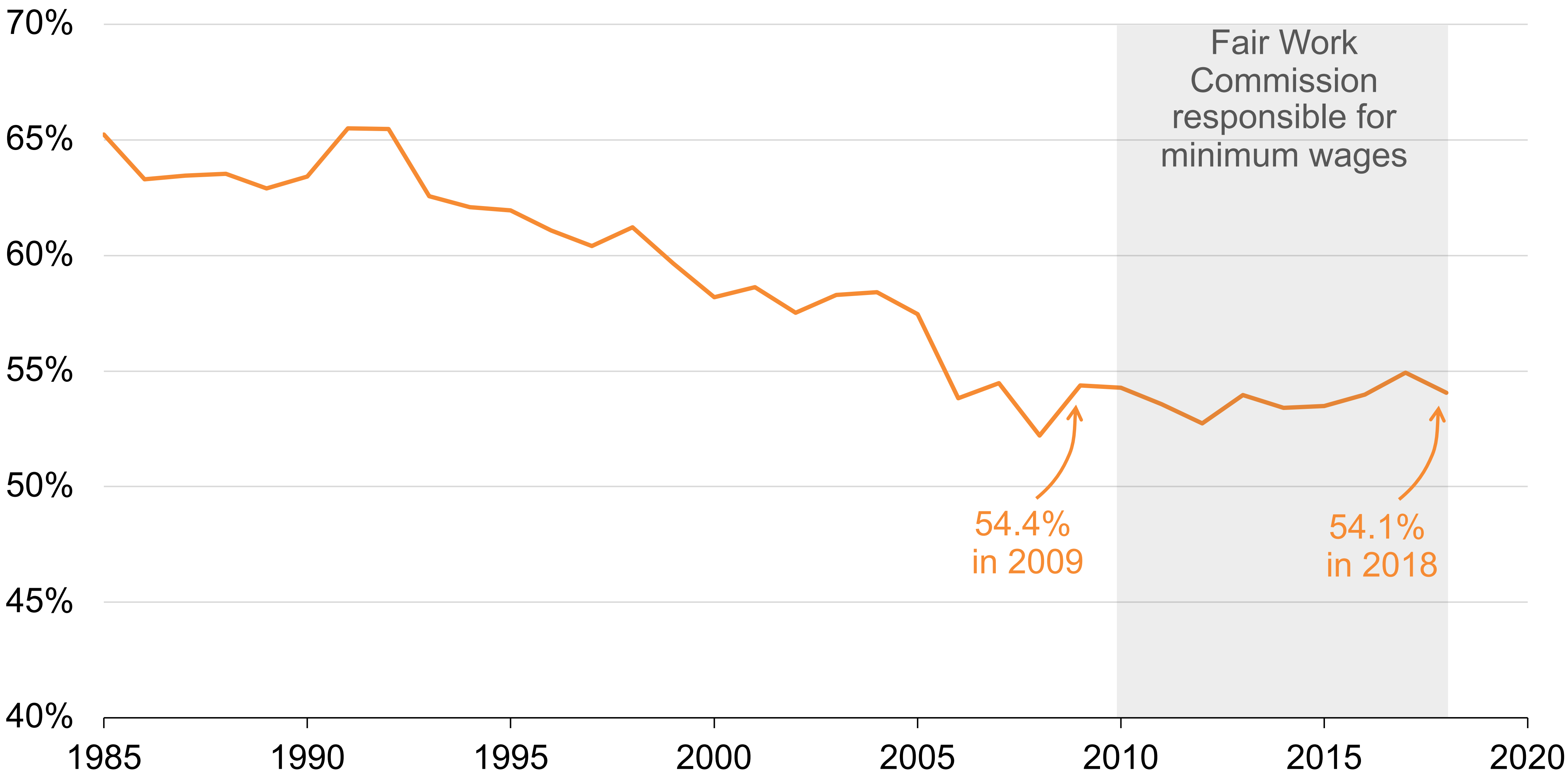
Full-time minimum wage as a percentage of full-time median earnings



Source: OECD.Stat

Pay growth is more responsive to economic conditions for workers on individual arrangements

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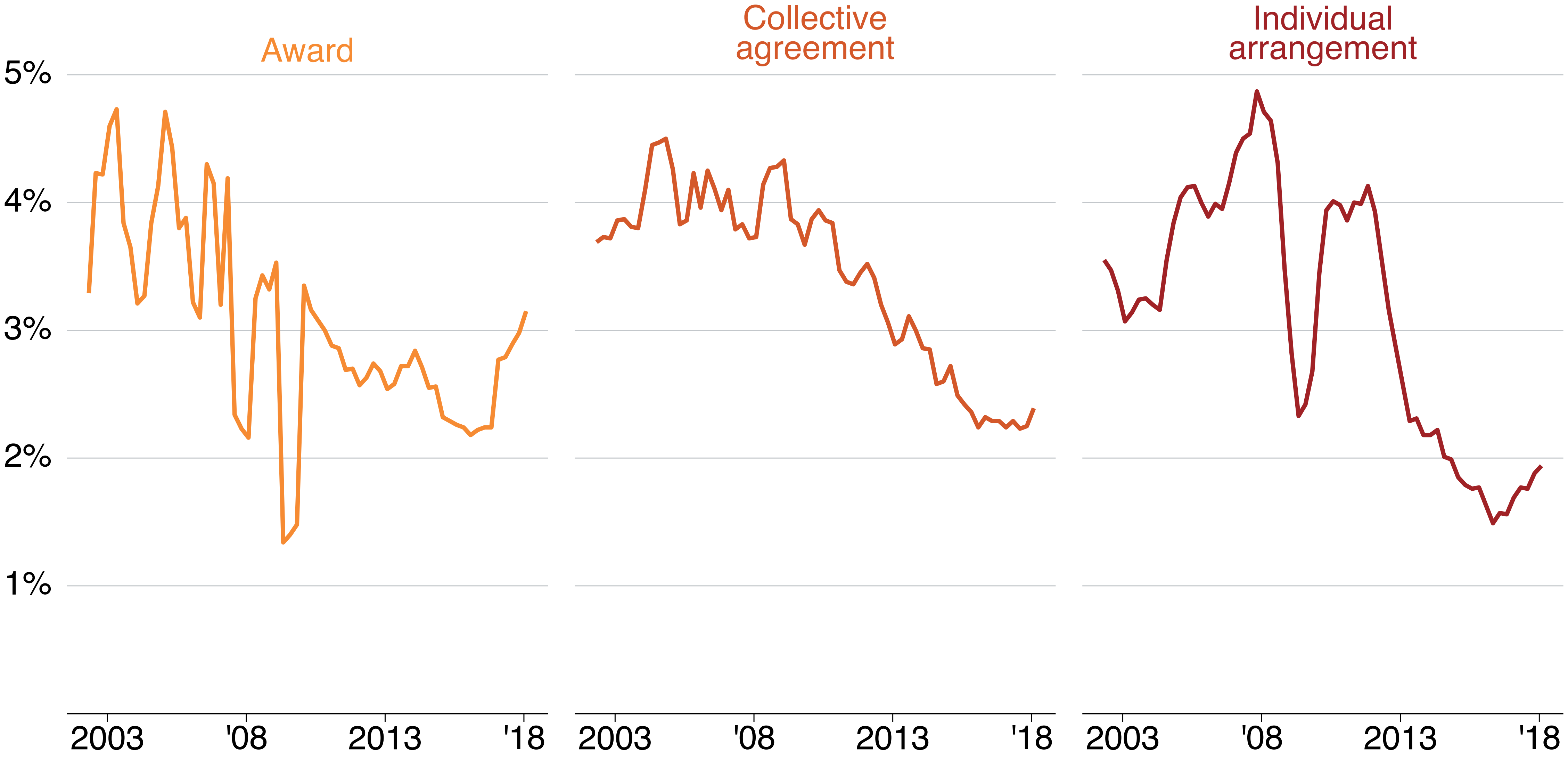
Average annual wages growth by method of setting pay



Notes: The WPI data measures wage changes for individual jobs, rather than individual workers.
Source: Unpublished ABS WPI data reported in Bishop & Cassidy (2019).

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Possible reasons:

1. We don’t have an Accord now
2. Slow wages growth in recent years shows super doesn’t drive wages growth
3. Wages are ‘socially determined’; labour markets aren’t competitive
4. Wages growth is so low that there’s no scope to pass on super rises

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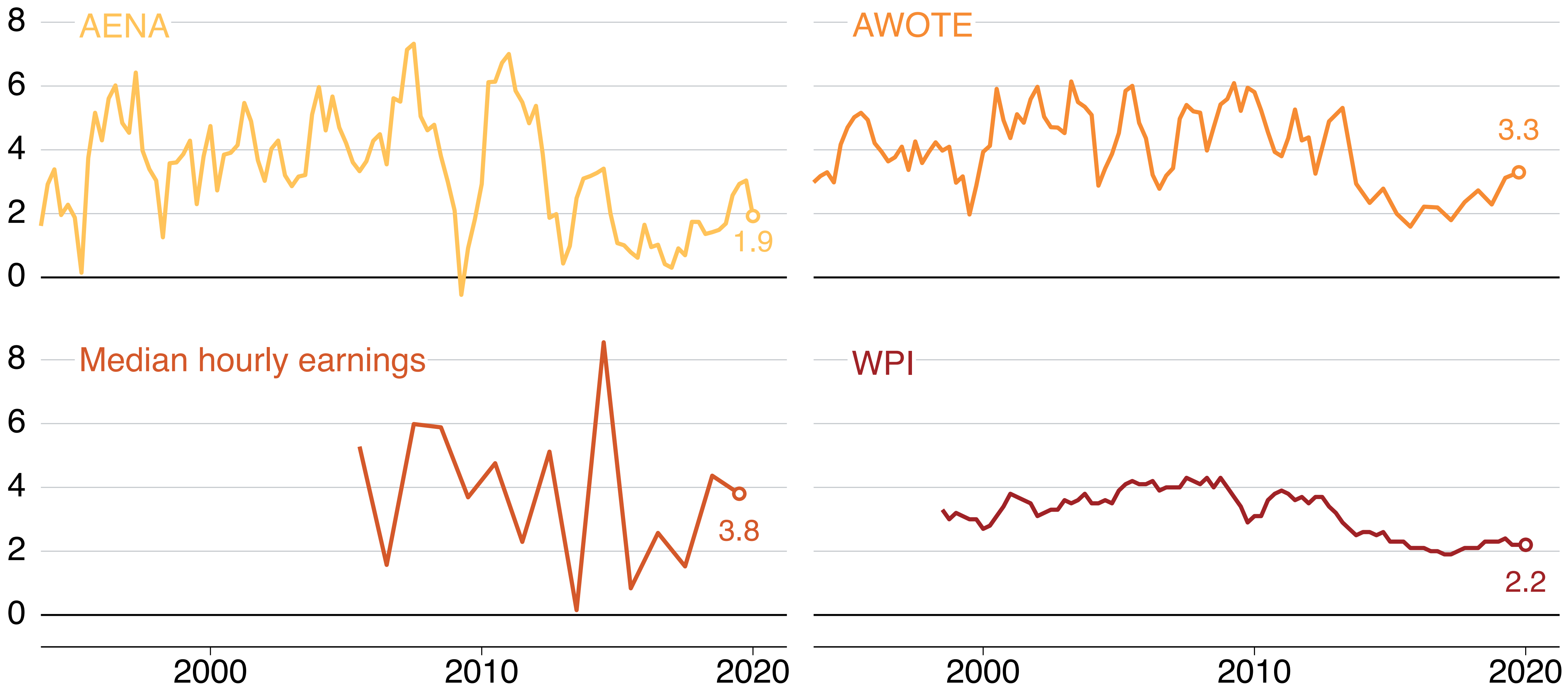
Wages growth has slowed, but wages were still growing… at least before COVID-19

Annual wages growth, per cent



Notes: `AENA (wages and salaries)' stands for `average earnings in the National Accounts'; `AWOTE' is `average weekly ordinary time earnings' of full-time adults; and `WPI' is the `Wage Price Index'.
Source: ABS 5206; ABS 6302; ABS 6333, ABS 6345.