



# Temporary Employment and the Global Crisis

IAB-LASER-Workshop  
„Increasing Labor Market Flexibility -  
Boon or Bane?“

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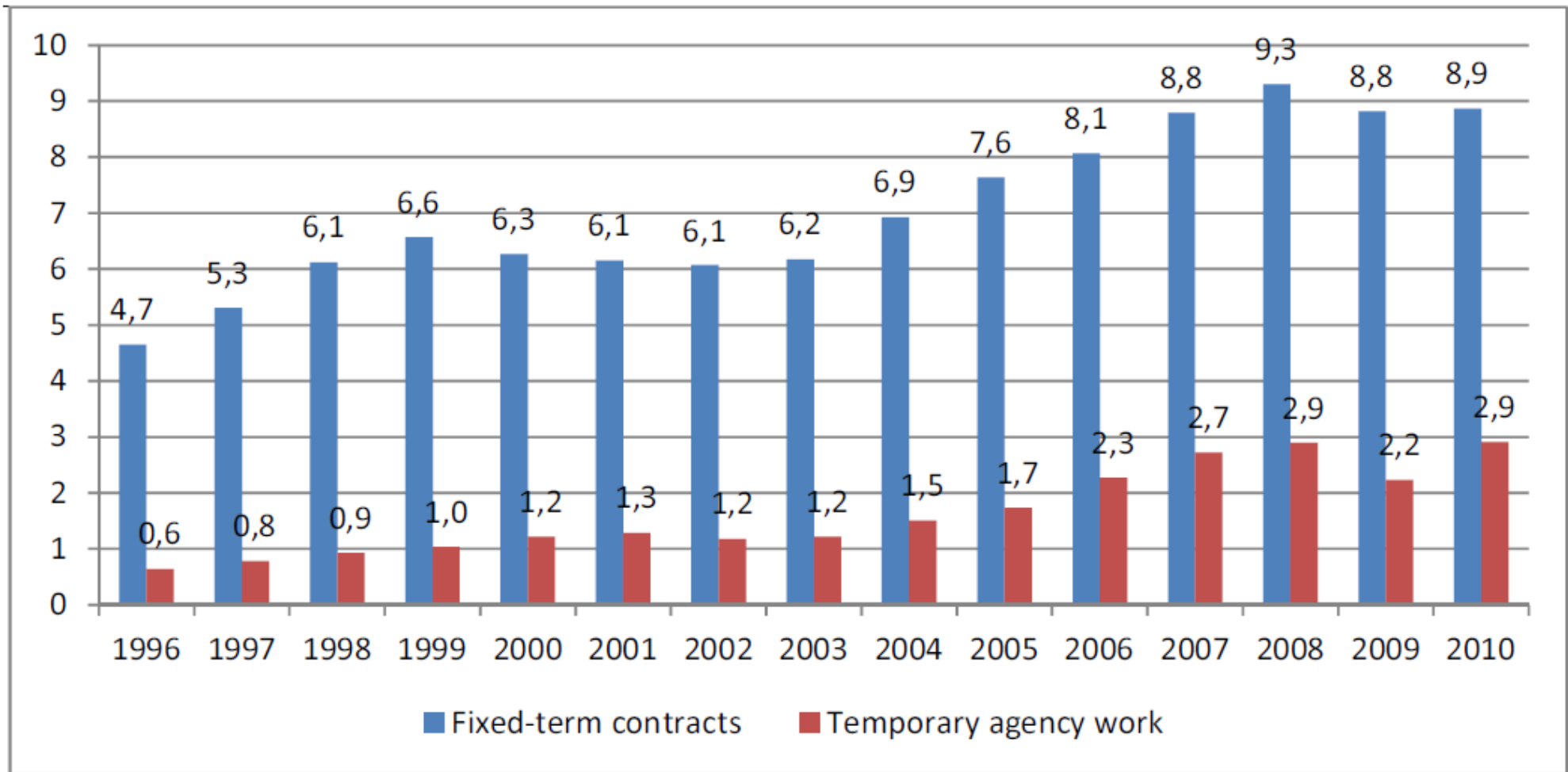
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# Co-movement of Output and Employment 2008/09

		Fall in Employment		
		< 2%	> 2% and < 4%	> 4%
Fall in Output	< 2%	Australia Greece Norway Poland		
	> 2% and < 4%	Austria Switzerland Canada France South Korea		Spain
	> 4%	Belgium Czech Republic Denmark Germany Italy	Netherlands Portugal Turkey United Kingdom	Hungary Japan Sweden United States

# Proportions of FTCs and TAWs among socially insured employees 1996-2000



# Research Questions

- Relative importance of flexibility and strategic use of FTCs and TWAs?
- Are there effects of the crisis on the incidence and intensity in the usage of FTCs and TWAs?

# Research Strategy

- Comparison of the development of the incidence and intensity of FTCs and TWAs of crisis and non crisis plants with the IAB Establishment Panel 2006-2010
- Exogeneity of the global crisis allows the identification of the relative importance of the flexibility motive.

# Agenda

- Hypotheses
- Data and Descriptives
- Method
- Econometric Results
- Conclusions
- Research Perspectives

# Hypotheses I

- During the crisis firms seek to cut production costs by reducing working time, wage costs and employment levels.
- FTCs and TWAs can be used to avoid the institutional restrictions of regular layoffs.
- FTCs have lower firing costs but similar search and hiring costs than permanent contracts.
- TWAs have higher operational costs but no firing, search and hiring costs.

## Hypotheses II

- Therefore, FTCs are used for screening and expected adjustments, whereas TWAs are rather used if unexpected adjustments are necessary.
- FTCs and TWAs can also be adopted in order to raise efficiency beyond the reduction of turnover costs (by lower wages and/or higher work effort of entrants, cf. Kvasnicka & Werwatz 2002; Mertens et al. 2007; Engellandt & Riphahn 2005; Dolado & Stucchi 2008).



## Hypotheses III

- Thus, we expect a sharp rise in the TWAs and a slower increase of FTCs in the crisis plants after the crisis.
- Strategic use of TWAs and FTCs is identified by a small variation in the intensity of temporary employment in crisis plants.

## Data and Descriptives (1)

### German IAB Establishment Panel Survey

- since 1993 in West Germany
- since 1996 also in East Germany
- annual survey of almost 16,000 establishments
- face-to-face interviews
- panel response rate over 85 %
- all establishment sizes and sectors covered
- linked with the employment statistics register

# Data and Descriptives (2)

## Proportion of Establishments affected by the global crisis

(examples)

<b>Manufacturing Industry</b>	0.45
...Automotive	0.52
...Chemistry	0.45
...Food Industry	0.19
...Mechanical Engineering	0.61
<b>Construction</b>	0.24
<b>Hotels and Restaurants</b>	0.22
<b>Banking and Insurance</b>	0.12
<b>Wholesale and Retail</b>	0.24
<b>Service Activities</b>	0.20
...Advertising and Market Research	0.37
...Legal and Tax Consulting	0.14
...Management Consulting	0.22
...R&D	0.35
...Temporary Employment Agencies	0.66
<b>Total</b>	<b>0.27</b>

## Development of the depend variables for crisis plants (2008-2010)

year	Fixed-term contracts		Temporary agency workers	
	incidence	intensity	incidence	intensity
2008	0.529	0.083	0.443	0.110
2009	0.465	0.067	0.236	0.086
2010	0.463	0.063	0.332	0.100

# Method

$$y_{it} = \gamma C_i + T_t' \tau + (C_i T_t)' \delta + x_{it}' \beta + \varepsilon_{it}, \quad t: 2006, \dots, 2010$$

with

$y$  temporary employment

$C$  crisis dummy

$T$  vector of time dummies

$\gamma, \tau, \delta$  regression coefficients

$\varepsilon$  error term

$t$ : 2006, ..., 2010

$i$ : establishments

# Econometric Results I

## Incidence of FTCs and TWAs

	Fixed term contracts			Temporary agency workers		
	Non-crisis plants (1)	Crisis plants (2)	Difference (3)=(2)-(1)	Non-crisis plants (4)	Crisis plants (5)	Difference (6)=(5)-(4)
'07 vs. '06	0.032**	0.002	-0.029	0.027**	0.050***	0.023
'08 vs. '07	-0.036**	-0.011	0.025	0.007	0.001	-0.007
'09 vs. '08	-0.012	-0.051***	-0.039**	-0.056***	-0.196***	-0.140***
'10 vs. '09	0.008	0.022*	0.014	0.059***	0.116***	0.056***

\*\*\*/\*\*/\* indicates significant at the 1/5/10 % level. The results are based on the estimating equation 1). The detailed results can be found in table 1 appendix. Own calculations based on the IAB Establishment Panel Data Survey.

## Econometric Results II: Intensity of FTCs and TWAs

	Fixed term contracts			Temporary agency workers		
	Non-crisis plants (1)	Crisis plants (2)	Difference (3)=(2)-(1)	Non-crisis plants (4)	Crisis plants (5)	Difference (6)=(5)-(4)
'07 vs. '06	-0.012	0.008	0.019**	0.011	0.010	-0.001
'08 vs. '07	0.015***	0.011***	-0.004	-0.002	0.007	0.009
'09 vs. '08	0.001	-0.017***	-0.017***	0.007	-0.024***	-0.031***
'10 vs. '09	0.007	-0.004	-0.012*	0.015*	0.015**	-0.001

\*\*\*/\*\*/\* indicates significant at the 1/5/10 % level. The results are based on the estimating equation 1). The detailed results can be found in table 1 appendix. Own calculations based on the IAB Establishment Panel Data Survey.

# Conclusions I

1. Pro-cyclical change of the incidence and intensity of FTC and TWA employment.
2. Relative changes amongst these two forms of employment are more pronounced in the case of TWAs compared to FTCs.
3. Significant decline of the incidence of TWAs is not restricted to crisis plants. Decline in the incidence of FTCs is found only for crisis plants.



## Conclusions II

4. For both forms of temporary employment the intensity drops significantly for the crisis plants.
5. In relation to the mean values of the incidence and intensity of FTCs and TWAs the effect of the crisis is moderate in the amount of 20 to 25 % albeit significant

 importance of strategic use of temporary employment

# Research Perspectives

1. Robustness checks with alternative crisis indicators.
2. Consideration of the severity of the crisis at the establishment level.
3. Extension of the analyses to the service sector.

Thank you very much  
for your attention!

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