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Determinants of Firm Sponsored Training in Europe

An International Comparison based on the Continuing Vocational
Training Survey 2 (CVTS2)

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Outline of presentation

1. Motivation and research question

2. Theoretical considerations

3. The data

4. The model and estimation results

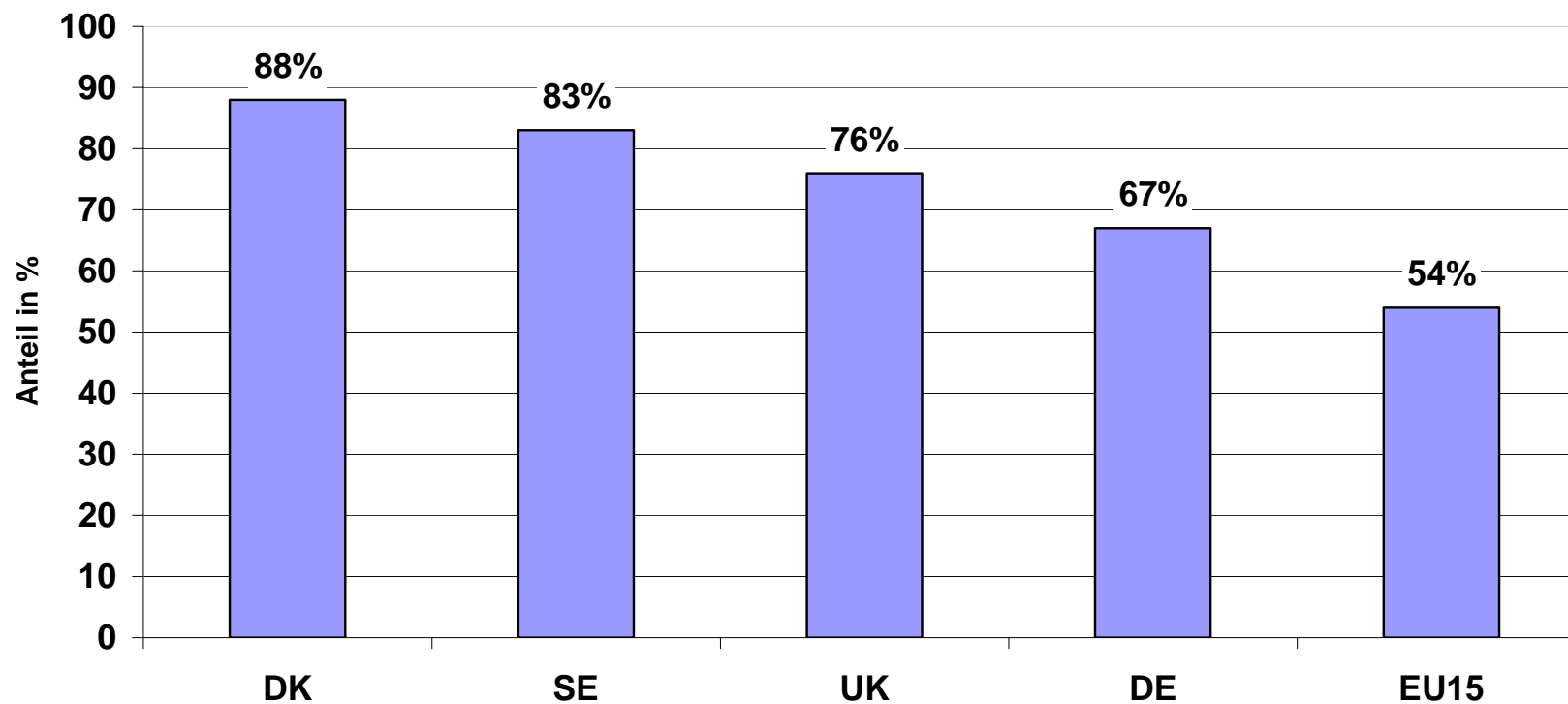
5. Research perspectives

Motivation and research questions

- Firm sponsored CVT is an **important element of life-long-learning**
- CVT plays important role for EES (productivity, quality of work)
- Large **differences** between European countries in CVT, but also between industries, firms of different size, employee participation rates
- How can the differences in training activities be explained?

Share of companies with CVT courses 1999

(as per cent of all companies w/more than 10 employees)



Theoretical starting point: risk management and human capital investment

- In contrast to Becker (1964) subsequent **human capital research** reveal various situations and institutional conditions that let **firms invest in general training** and find strong **interdependencies** between general and specific training (Stevens 1994, Acemoglu/Pischke 1998, Balmaceda 2005)

⇒ Risk management perspective:

- **Firms** try to insure themselves against
 - (1) loss of **training investment** and returns (special work contracts, selection)
 - (2) losses due to **future economic shocks** (broad and transferable qualification pool) (Alewell 1999, Berthold/Stettes 2004)
- **Workers** try to insure themselves against
 - (1) **unemployment** (better outside and inside options, reputation)
 - (2) **opportunistic firm behaviour** (firm sponsored general training, works councils, work contracts, promotion) (Predergast 1993, Gerlach/Jirjahn 1998)

Theoretical expectations: influences on firms training decisions

- Research on skill-biased technical/organisational change states: **innovation** raises qualification level (Berman/Bound/Machin 1998)
- Asymmetric information on value (Katz, Ziderman 1990) and insecurity about benefits of training (Zwick 2002): better transparency, reduction of insecurity through **assessment of skill needs**
- Dual moral hazard can be reduced by involvement of works councils and unions -> **collective training agreements**

The data: Continuing Vocational Training Survey 2 (CVTS2)

- Continuing Vocational Training Survey 2 (CVTS2) took place in 2000 in 25 European countries. Four of them (Germany, Sweden, Denmark, UK) are available for our econometric analyses (micro data)
- Statistical unit is the company (10 or more employees), most field of economic activity (NACE)
- Contains structural data of the company, information about training policy, CVT courses

Logistic regression model: determinants of CVT courses

		DE	DK	SE	UK
INNO- VATION	NEW_PROD introduction of new products	1.572*** (0.001)	1.643 (0.203)	1.051 (0.826)	44.762*** (0.000)
	NEW_TEC introduction of new technologies	1.806*** (0.000)	0.925 (0.846)	1.592** (0.027)	0.888 (0.692)
	ORG_CHA major organisational change	1.746*** (0.000)	2.483** (0.035)	1.491* (0.084)	1.905* (0.090)
HRM STRATEGY	SN_MAN assess. of skill needs manager	3.004*** (0.000)	5.764* (0.100)	3.665*** (0.000)	5.961*** (0.001)
	SN_ALL assess. of skill needs all employees	4.602*** (0.000)	4.455*** (0.000)	4.429*** (0.000)	9.286*** (0.000)
	APPREN_C apprentices/other training contracts	3.384*** (0.000)	1.819** (0.014)	1.435 (0.190)	1.077 (0.779)
COLL. AGREE- MENTS	AGRE_CO training agreement company level	4.814*** (0.001)	5.899** (0.016)	11.115*** (0.000)	not asked
	AGRE_SP training agreement social partners	1.099 (0.803)	8.366** (0.040)	2.947* (0.093)	1.068 (0.869)
	industry dummies and log size	included	included	included	included
	No. of observations	3184	1250	2771	941
	McFaddens p^2_{MF}	0.33	0.25	0.36	0.51

logit coefficients displayed as odd ratios, p values in parentheses

* significant at 10%; ** significant at 5%; *** significant at 1%

Source: CVTS2, own calculations

Preliminary results

- In all countries, at least one of the **indicators for innovation** have a positive influence on training, supporting the notion of skill-biased technical and organisational change - large differences in strength of the effects (UK, DK) need further examinations
- **Assessment of skill needs** on company level for all employees appears to be an effective way either to induce or complement training activities
- In all countries except UK **common agreements on training** have a positive influence on CVT activities. The effect is stronger for agreements only on company level
- In Denmark and particularly in Germany investments in **initial vocational training** (e.g. apprenticeship) have a positive impact on CVT

Research perspective

- Inclusion of **context variables** in model or interpretation: e.g. unemployment rate (regional or industry level if possible), labour turnover rates, average training costs, CVT system
- Explanation of unexpected or **extreme results** (effects of new products in UK and new technology in UK and Denmark)
- Systematic analysis of **retrospective and prospective questions** on training activities in order to address time lags
- Development of **2nd model**: training participation rate as dependent variable

Thank you!

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