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**Well-being of children and labour markets in Europe
Different kinds of risks resulting from various structures and changes in the labour
markets**

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**Kuznets revisited:
Single Mothers, child poverty and the structural change of labor markets**

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In 1955, Simon Kuznets conjectured a curvilinear, inverted U-shaped relationship of income inequality with economic development. His explanation of the peculiar shape of this relationship stresses the dualism between the agricultural and non-agricultural sectors of modernizing societies. In the course of modernization, a larger part of the labor force shifts from the low-income agricultural sector to the modern, high productivity industrial sector (Lindert 2000, Nielsen/Alderson 1997). Today, however, this dualism will not have an important effect on poverty rates any more. The proportion of value added and the labor force in agriculture has fallen to about 3 or 5% in OECD-countries.

Nevertheless, the pattern identified by Kuznets can today be applied to the more recent structural change of labor markets between the goods producing and the service sector to predict child poverty of single mothers. Since the 70s, manufacturing has continued to shrink in most OECD-countries with a corresponding loss of relatively well paid jobs. At the same time, service sector employment has continually grown so that it accounts for up to more than 80% of overall employment. Repeatedly, scholars have assumed that this displacement has an inverse effect on income inequality and poverty rates. Service employment is more differentiated than industrial employment and shows less overall wage compression. Already Baumol (1967) maintained a chronic cost disease of personal and household related services which accounts for a growing low wage sector. Recently, Freeman und Schettkat (2000) have shown that relative wages in the low pay sector – i.e. services in restaurants, hotels, retail, wholesale and private households – are equally low in Germany and the United States even though Germany's overall pay structure is more egalitarian. There can be no doubt that low paid employment is among the fastest growing sectors in contemporary societies. Scholars disagree whether quality, payment and subjective job satisfaction of service sector jobs is generally and on average lower than in the industrial world. A recent OECD study even

concluded that the proportion of well paid and highly evaluated service jobs was higher than industrial jobs. In contrast to this view, other scholars stress that higher wage dispersion was a precondition of job growth in the low productivity service sector (Iversen/Wren 1998).

It is not my intention here to contribute to these discussions. Rather, I want to answer the question whether the sectoral displacement between the goods producing sector in agriculture and industry, on the one hand, and the service sector, on the other hand, contributes to higher income inequality and, correspondingly, higher child poverty rates among single mothers. Higher shares of single mother households, more female education and work participation rates coincide historically with the transition of industrial to post-industrial service societies (Pfau-Effinger 1996). Without doubt, both processes affect single mother child poverty rates.

Revisiting Kuznets, I now want to detect the effect of this transition, relate it to recent demographic developments, and disentangle several effects. Since there is considerable variance of these processes across OECD countries, it is possible to causally analyze recent developments.

Chart 1 shows child poverty rates in Canada, Germany, Italy, the Netherlands, and the UK as representatives of the three world of welfare capitalism:

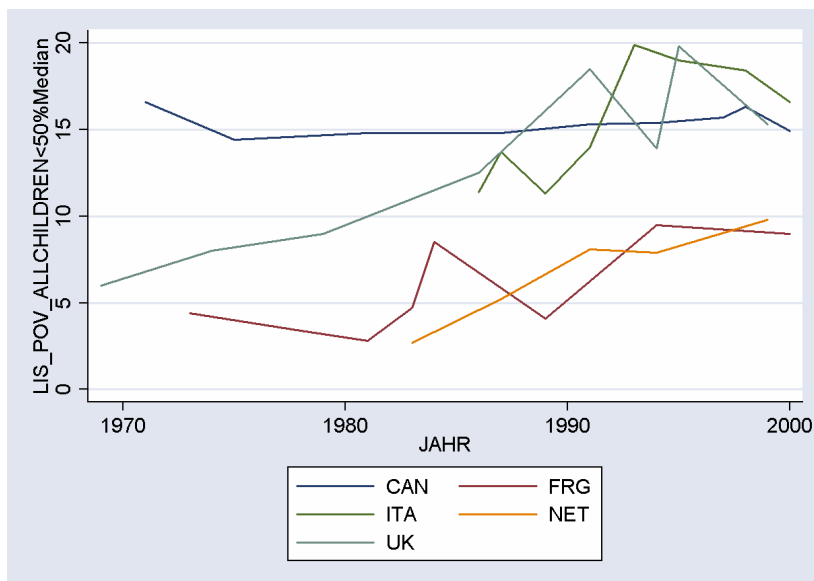


Chart 2 shows the dualism between the service sector (ISIC50-55, 75-99) and the other ISIC groups since the 70s.

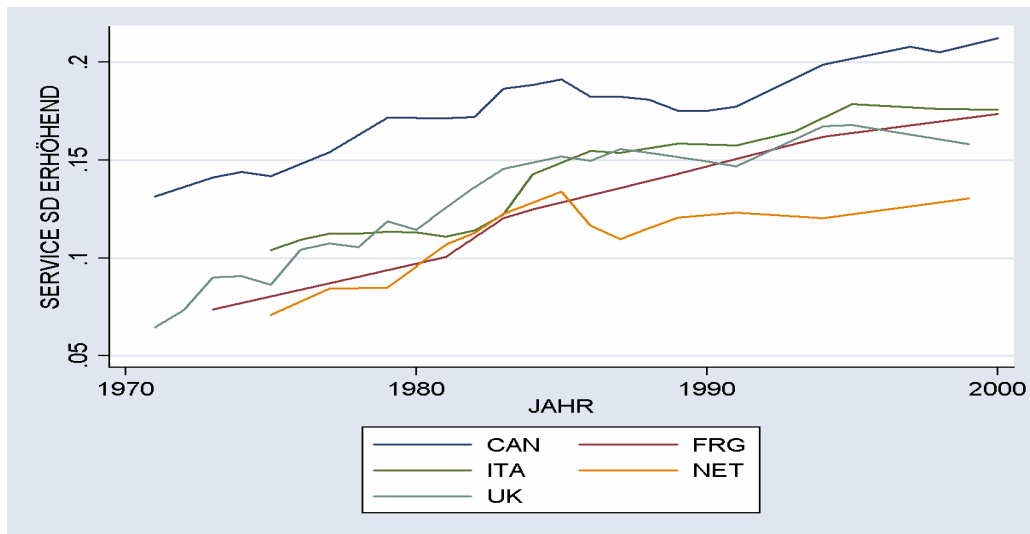
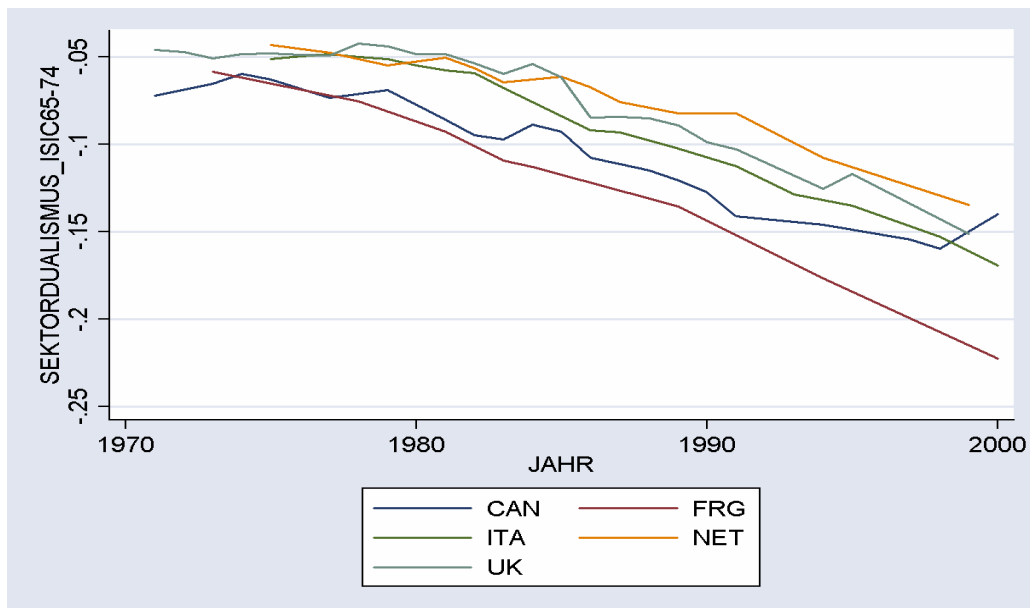


Chart 3 shows the sector dualism if ISIC 65-74



I will now show statistically that there is a significant effect of sector dualism on child poverty and that this effect is even stronger than the redistributive efforts of the welfare state.

MODEL DESIGN

Dependant variable:

Child poverty rates in single mother households. Data source: Luxembourg Income Study (LIS) Key Figures, accessed at <http://www.lisproject.org/keyfigures.htm> on 03/13/2006

Independent variables:

1. *Sectordualism*: difference between value added in the goods producing sector and the overall service sector. Data are taken from the OECD STAN (Structural Analysis) database.
2. *Individual earnings inequality* of full-time, year-round employed individuals, often called pay inequality. It refers to the ratio of annual earnings of a person and the 50th percentile of the earnings distribution to a person at the 10th percentile. Data are taken from an unpublished OECD dataset (*Trends in earnings dispersion*)
3. *State redistribution*. Data source: *Luxembourg Income Study*, variables earning, dpi. Gini coefficient for household earnings minus Gini coefficient for posttax-posttransfer household income. Household heads aged twenty-five to fifty-nine only. Incomes adjusted for household size using the square root of the number of persons in the household as the equivalence scale. Incomes top-coded at 1 percent of the unequivalized median and bottom-coded at 1 percent of the equivalized mean (Kenworthy 2004: 180).
4. Female work participation rates. Data source: Huber et al. 2004, Comparative Welfare State dataset.
5. Foreign Trade Surplus: Huber et al. 2004
6. Direct Foreign Investment: Huber et al. 2004
7. Migration: Huber et al. 2004

METHODS

The presented models follow the methodological framework of Alderson und Nielsen (2002). The estimation uses the STATA-procedure *xtgee* as a variant of the *Generalized Linear Model* (GLM). Other than a model with fixed effects (FEM), this estimator removes only a fraction of the country specific variance and treats it as a part of the error term instead of adding a country specific constant to the model. It wastes less between-country variation

and allows the estimation of effects which remain relatively constant over time, such as levels of income inequality and poverty rates. This procedure is adequate because the variance of poverty child rates in single mother households to be explained does not only contain synchronous country differences of an institutional kind which change less over time. Furthermore, it accounts for possible unobserved heterogeneity. The definitions of incomes may vary from one country to the next. Such unobserved differences will become part of the error term so that the residuals pertaining to a country correlate at different time points by the same amount, denoted Φ . In the panel context, ordinary least squares (OLS) estimation underestimates standard errors. Therefore, *xtgee* estimates the unobserved, time independent factor Φ simultaneously with the coefficients.

In addition, I apply robust estimates of the standard errors of the estimate using the Huber/White/sandwich formula. These are valid even if the correlation structure (specified as exchangeable) is not as assumed.

As in Alderson/Nielsen (2002: Fn 24), variance inflation factors (VIF) were calculated for the OLS analogues of the presented models. All VIFs were below the usual cutoff of 10 that is said to indicate collinearity problems. Furthermore, the OLS analogues were checked according to the classic advice of Farra and Glauber (1967) which means exchanging the dependant variable with each independent variable to see if explained variance is higher for any of the independent variables. There were no hints at multicollinearity.

Furthermore, for all presented models, the Hadi (1992, 1994) multivariate outlier procedure was used. Norway 2000 was identified as an outlier. Excluding this observation does not, however, change results.

RESULTS

XTGEE-Regression of child poverty rates in single mother households Model estimates for 18 OECD Nations, 1975-2000

Modell	1		2	
	Coefficient	t	Koeff.	T
Individual earning inequality	.68***	9.82	.65***	7.34
Service sector dualism	.26**	2.24	.28**	2.52
Female labor participation	-.30***	-3.63	-.36***	-4.55
Redistribution	-.09**	-2.19	-.11*	-1.90
Foreign Trade			-.11	-0.89
Foreign Direct Investment			.10	1.03
Migration			.02	0.27
Constant			6.70**	0.23
Φ	.278		.149	
R ²	74.7		78.8	
N	77		75	

Note: Semi-robust, standardized coefficients; * P < .10, einseitig; ** P < .05; *** P < .01.;
R²: squared correlation of predicted and actual values

A pooled time series of cross sections shows that these variables account for almost 90% of OECD-cross-country variation in child poverty rates in single mother households since the 70s (as a substitute measure of fit, I use the squared correlation of the predicted rates with actual values). Therefore, the Kuznets-pattern is confirmed on a reversed basis: Since the 70s, overall and especially female labor participation rates have grown strongly. This expansion, however, does not increase but decrease overall work productivity. The difference in value added per capita between the service sector and the industrial sector has increased by up to 8%. Total sector dualism of ISIC-groups 75-99 has now reached up to more than 15% in some countries and up to 20% for the total service sector.

The fast growth of the service sector has paradoxical effects on child poverty in single mother households. On the one hand, it accounts for more females in the labor force. As such, higher participation rates have a negative effect on child poverty rates in single mother households. On the other hand, it increases both the amount of single mother households due to the decline of the male breadwinner model and, with relatively low paid jobs, the likeliness of falling below the 50% income median. Comparative evidence suggests different stages of development in the three worlds of Anglo-Saxon, Nordic, and continental European countries (Esping-Andersen 1990).

DISCUSSION

Since the 70s, the OECD countries have experienced two major crises:

First, modern nation-states and their economies pass through an *endogenous* crisis in the transition to post-industrial service societies (Scharpf/Schmidt 2000). It is not globalization measured as trade penetration, foreign direct investment, and migration but rather this internal structural crisis which causes higher child poverty rates. The more or less advanced level of transition to post-industrialism determines cross-country variation in child poverty rates.

Second, private households enter a crisis adapting to the decline of the male breadwinner model. This crisis coincides historically with globalization and the transition to post-industrial societies. These two crises intensify mutually, increasing the number of households with single mothers and poor children.

Comparative evidence suggests that the welfare state is successful in diminishing child poverty rates. But the welfare state will not be able to deal with the problem alone. Even if, as in Sweden, the state provides ample public service sector employment, the sector dualism of service work increases dramatically so that the probability of a higher share of the labor force falling below the poverty line will increase. In fact, it is surprising to see that sector dualism in Sweden was 3 to 5% higher than in the US, where service employment is much more boosted by markets.

Following Baumol (1967), scholars have many times blamed the “cost disease” of low productivity service work for continuous low pay level. This assumption has limited justification. It must not make us believe that low pay for person- and household related service work will be a permanent feature of post-industrial societies. Some more recent discussion about the low wage sector argue amazingly similar to 19th century debates about Ferdinand Lasalle’s “iron law of wages” which said that wages could not be increased above subsistence level. Its contemporary version maintains that the price of person- and household related service work was the main predictor of job growth. Today, such fatalism towards child poverty rates and single mother jobs is inadequate for at least two reasons:

First, several OECD countries like Canada, the US, and the United Kingdom have made encouraging experiences with earned income taxation for low income citizens (vgl. Katz 1998, Moffitt 2003, Dilnot/McKrae 2000). As long as service society markets do not provide appropriately balanced wage levels, the welfare state must moderate wage inequality. Negative income taxes realize redistributions with a relatively low degree of bureaucratic complexity without impairing work motivation (vgl. Meyer/Holty-Eakin 2002, Hotz/Scholz 2000, 2004).

Second, there is no reason to believe that person- and household-related service work must stay at the current low level, let alone having them fall there so that more jobs would be created. Such a misleading interpretation of Baumol’s cost disease theorem must be

contradicted strongly. In contrast to what many economists and unfortunately even sociologists believe, the market price of service work is not determined by its productivity, meaning the output within an amount of time. Those who believe in the productivity law will consider consumer service work as chronically sick so that a new iron law of low wages will appear appropriate. Actually, income chances of service workers are determined by the real subjective belief in interchangeability (Scharpf 1985). As long as people evaluate consumer service products according to an alternative in-house solution, i.e. doing the job themselves, the price of service work will remain the major determinant of employing service workers in the household, going out for dinner, having companies do the laundry, gardening, nursing and daycare. However, when high female employment rates become irreversible, people will evaluate service work according to other features, especially inevitability. The *Work-Life-Disbalance* highlighted by Hochschild (???) might in the future displace peoples' subjective evaluations of what is an appropriate price for service work. The scarcer the time of the *dual earner couples*, the more they will be compelled to accept higher prices for substitute reproductive work (OECD 2002).

This is why the Great U-Turn in income inequality and child poverty rates may well again adapt to a curvilinear shape – especially if the transition to a post-industrial service society has advanced to a very high level such as in the US. Recent numbers point to the formation of a plateau in sector dualism of ISIC75-99 at a level between 10 and 15%. The inequality of income of full-time, year-round employees has not risen any more since the mid-90s. At the same time, it seems that the Nordic and continental European countries still face a substantial part of this journey.

Today, we are in the middle of this inevitable process. The recent rise in child poverty rates in single mother households is frightening. However, from Kuznets we can learn that such a rise may be a limited process due to sectoral displacements in the labor markets.

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