SCHUMPETER DISCUSSION PAPERS

Schumpeter School International Comparative Institutions Database

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For our international comparative research on the impact of institutions on economic trends, we put together the Schumpeter School International Comparative Institutions Database.[1] The database comprises the panel data set on various indicators of employment, inequality and labor market institutions in twenty-one OECD countries during the time period 1970-2013. Countries included in the dataset are Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Japan, Luxembourg, Netherlands, Norway, New Zealand, Portugal, Spain, Sweden, the United Kingdom and the United States. The Schumpeter School International Comparative Institutions Database is available as an Excel or Stata file upon request.

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[1] This data set was used in the paper, "Does Inequality Promote Employment? An International Comparison" (Jovicic/Schettkat 2013).

1.Introduction

The subject of the effect of labor market institutions on economic trends has puzzled economists for a long time, and different empirical evidence has been presented on this issue. Some economists argue that institutions have a negative effect on unemployment and the functioning of the labor markets. Consequently, they are in favor of deregulation of labor market institutions (OECD, 1994; IMF, 2004). This view has influenced policy makers all over the world (current policy proposals in the EU is based on institutional reforms). However, theoretical and empirical research (e.g. Freeman, 2000; Agell, 1999; Blanchard and Wolfers, 1999) has produced a somewhat revised view of the OECD (2006). It is argued that institutions are not the main cause of high unemployment (Freeman, 2007; Schettkat, 2005; Howell *et al*, 2007; Carlin and Soskice, 2008); some economists encourage greater emphasis on macroeconomic policy in order to solve unemployment problems and stimulate functioning of the labor markets (Solow, 2008; Schettkat and Sun, 2009).

For our international comparative research on the impact of institutions on economic trends, we put together the Schumpeter School International Comparative Institutions Database. This database comprises the panel data set on various indicators of employment, inequality and labor market institutions in twenty-one OECD countries in the time period 1970-2013. Countries included in the Schumpeter School International Comparative Institutions Data Base are Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Japan, Luxembourg, Netherlands, Norway, New Zealand, Portugal, Spain, Sweden, United Kingdom and United States. We hope that this database will foster more research, help deepen the discussion and eventually shed light on this important topic. Similar data sets can already be found online, such as the data set from Bassanini and Duval (2006) or the Center for Economic Performance (CEP) OECD data set (2004), both of which contain various institutional variables. However, the variables are limited to periods ending in 2003 only. Our dataset extends these data to more recent time periods.

We created the database in order to offer an overview of the existing available data that can be downloaded from various websites. However, not all variables are available for all years in all countries.

Due to the importance of the topic, we constructed the database for our work on the paper "Does Inequality Promote Employment? An International Comparison," and we decided to make it available to interested researchers on request by sending an e-mail to the author at Jovicic@wiwi.uni-wuppertal.de.

2.The Data

2.1.Employment measures

Indicator: Unemployment rate

Description: Unemployment rate is calculated as the percentage of unemployed persons in the total labor force.

Source: OECD Labor Market Statistics. Data on the complete series has been updated from the OECD Economic Outlook data set (2014) for Belgium until 1985, France until 2000, Luxembourg until 1995, and the Netherlands until 1995.

Indicator: Employment to population rate

Description: The employment to population rate refers to the percentage share of employed persons in the total working age population.

Source: OECD Labor Market Statistics.

Indicator: Hours worked per head of population

Description: Indicator of average annual hours worked per head of the working age population (15-64) was calculated by the authors with the use of the following formulas:

$$total\ hours\ worked = hours\ worked\ per\ worker * employed$$

$$hw\_pop = \frac{(Total\ hours\ worked)}{(Population\ 15-64)}$$

Source: Hours worked per worker, employed persons and working age population data was taken from OECD Annual Labor Force Statistics database.

Indicator: Hours worked per employee

Description: Average annual hours actually worked per worker.

Source: OECD Labor Force Statistics Database.

2.2. Inequality measures

Indicator: Gini before taxes

Description: The Gini coefficient before taxes is related to the income received by the households before taxes and transfers. Household size has been adjusted by using the OECD equivalence scale. Data are mostly provided for every five years.

Source: OECD Income Distribution database. Missing data has been updated from the World Bank Database and National Statistical Offices (Australia until 1990, France until 1975, Germany until 1984, and Japan in 1989 and 1990).

Indicator: Gini after taxes

Description: The Gini coefficient after taxes is related to the income received by the households after the taxes and transfers. Household size has been adjusted by using the OECD equivalence scale. Data are mostly provided for every five years.

Source: OECD Income Distribution database. Missing data has been updated from the World Bank Database and National Statistical Offices (Belgium until 1992, Ireland in 1973 and 1980).

Indicator: Redistribution measure

Description: The idea for the redistribution measure indicator comes from the authors (see Jovicic/Schettkat 2013), and it was computed as the ratio of the Gini coefficient before taxes divided by the Gini coefficient after taxes:

$$red\_m = \frac{(Gini\ before\ taxation)}{(Gini\ after\ taxation)}$$

Values above 1 indicate less inequality after taxation, while values below 1 indicate more inequality after taxation (the latter is empirically not observed). Redistribution measure is an indicator of strength of redistribution, where higher values indicate higher redistribution.

Source: Gini coefficients are taken from OECD Income Distribution database.

Indicator: Decile ratio D9/D1

Description: The decile ratio of gross earnings is an indicator of earnings dispersion. It is calculated by dividing the ratio of the 9th decile by the 1st decile of gross earnings of full-time dependent employee.

Source: OECD data set: LFS – Decile ratios of gross earnings. Missing data are updated from OECD Employment Outlook 1996 (Denmark 1995, Spain 1995).

Indicator: Decile ratio D5/D1

Description: The decile ratio of gross earnings is an indicator of earnings dispersion. It is calculated by dividing the ratio of 5th decile by the 1st decile of gross earnings of full-time dependent employees.

Source: OECD data set: LFS – Decile ratios of gross earnings. Missing data are updated from OECD Employment Outlook 1996 (Austria until 1994, Belgium until 1993, Canada until 1995, Denmark in 1995, Germany until 1990, Italy until 1984, Norway until 1995, Portugal until 1993, Spain 1995).

Indicator: Decile ratio D9/D5

Description: The decile ratio of gross earnings is an indicator of earnings dispersion. It is calculated by dividing the ratio of the 9th decile by the 5th decile of gross earnings of full-time dependent employees.

Source: OECD data set: LFS − Decile ratios of gross earnings. Missing data are updated from the OECD Employment Outlook 1996 (Austria until 1994, Belgium until 1993, Canada until 1995, Denmark in 1995, Germany until 1990, Italy until 1984, Norway until 1995, Portugal until 1993, Spain in 1995).

Indicator: Top 1% income share

Description: Top 1% income share is an indicator of distribution of top incomes using tax data.

Souce: The World Top Incomes Database created by Facundo Alvaredo, Tony Atkinson, Thomas Piketty and Emmanuel Saez.[2]

2.3. Labor market institutions measures

Indicator: Average replacement rate

Description: Average replacement rate is an OECD indicator that shows the average gross unemployment benefit replacement rate for two earnings levels, three family situations and three durations of unemployment as a percentage of previous gross earnings. A long historical series is available until 2005 and is based on the average production worker wage. After this year, the methodology changed, and OECD has been collecting the data based on the average worker wage instead. This data is available in two-year intervals only.

Source: OECD database on replacement rates.

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[2] For more details about the exact measures for specific time periods and countries as well as the data sources, go to http://topincomes.g-mond.parisschoolofeconomics.eu/

Indicator: Employment protection regulation

Description: Employment protection regulation is an index (categorical variable) constructed by OECD in order to measure the strictness of employment protection as an indicator of market flexibility. EPR focuses on regular contracts and comprises both individual and collective dismissals. Employment Protection Legislation (EPL) is constructed by comparing 21 basic items that affect the strictness of employment protection. These can be divided into three main areas: protection of regular workers against individual dismissal; regulation of temporary forms of employment; and additional, specific requirements for collective dismissals. Data is available starting from the year 1985.

Source: OECD Strictness of Employment Protection Data Set.

Indicator: Labor market programs

Description: The labor market program indicator shows the country's total public expenditure and participant stock on different labor market programs as a percentage of GDP. It contains expenditures on public employment services and administration, training, employment incentives, sheltered and supported employment and rehabilitation, direct job creation, start-up incentives, out-of-work income maintenance and support and early retirement.

Source: OECD Public Expenditure and Participant Stock on LMP Data Set.

Indicator: Minimum wage

Description: Real hourly minimum wage represents minimum wage regulated by the statute. Data is available for fifteen OECD countries. The data is presented in US$ (PPPs) and was first deflated by using the consumer price index.

Source: OECD Earnings Database.

Indicator: Tax wedge

Description: The tax wedge is computed as taxes and social security contributions as a percentage of GDP.

Source: OECD Economic Outlook No. 93 (June 2013) dataset.

Indicator: Union density

Description: The union density indicator shows the percentage of total wage and salary earners that are trade union members. Survey data was used as a source for most of the countries; otherwise adjusted administrative data was used.

Source: Database on Institutional Characteristics of Trade Unions, Wage Setting, State Intervention and Social Pacts, 1960-2011 (ICTWSS) by Jelle Visser.

Indicator: Union membership

Description: The union membership indicator comes from administrative data sources of different countries and was constructed by the authors using the following formula:

$$um = \frac{(union\ members)}{(total\ wage\ earners)}$$

Source: The number of active trade union members and the number of wage and salary earners is taken from the OECD Trade Union database. Missing data for the United States was added from the US Current Population Survey dataset (BLS).

Indicator: Bargaining type

Description: Bargaining coordination type indicator shows the type of coordination of the wage setting. It is divided into six possible bargaining types:

6 = State-imposed bargaining

5 = State-sponsored bargaining

4 = Inter-associational by peak associations

3 = Intra-associational ("informal centralization")

2 = Pattern bargaining

1 = Uncoordinated bargaining.

Source: Database on Institutional Characteristics of Trade Unions, Wage Setting, State Intervention and Social Pacts, 1960-2011 (ICTWSS) by Jelle Visser. It is based on Traxler, Blaschke and Kittel (2001).

Indicator: Bargaining coverage[3]

Description: This measure has a range of 0-100. As noted in Vissers' database, it represents "employees covered by collective (wage) bargaining agreements as a proportion of all wage and salary earners in employment with the right to bargain, expressed as a percentage, adjusted for the possibility that some sectors or occupations are excluded from the right to bargain (removing such groups from 24 the employment count before dividing the number of covered employees over the total number of dependent workers in employment WSEE)."

Source: Bargaining coverage indicator was taken from the Database on Institutional Characteristics of Trade Unions, Wage Setting, State Intervention and Social Pacts, 1960-2011 (ICTWSS) by Jelle Visser.

Indicator: Bargaining level

Source: The bargaining level indicator illustrates the level at which bargaining takes place. This is a categorical variable showing five different possible levels:

5 = bargaining predominantly takes place at the central or cross-industry level, and there are centrally determined binding norms or ceilings to be respected by agreements negotiated at lower levels;

4 = intermediate or alternating between central and industry bargaining;

3 = bargaining predominantly takes place at the sector or industry level;

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[3] Values marked with color in the database refers to the year 1970 rather than the year 1971

2 = intermediate or alternating between sector and company bargaining;

1 = bargaining predominantly takes place at the local or company level.

Source: Database on Institutional Characteristics of Trade Unions, Wage Setting, State Intervention and Social Pacts, 1960-2011 (ICTWSS) by Jelle Visser.

Indicator: Comprehensiveness index

Description: Bargaining comprehensiveness index (see Schettkat 1994) is constructed using the following formula:

$$ci = bargaining\ coverage * bargaining\ level$$

Source: Bargaining coverage and bargaining level are extracted from the Database on Institutional Characteristics of Trade Unions, Wage Setting, State Intervention and Social Pacts, 1960-2011 (ICTWSS) by Jelle Visser.

Indicator: Unemployment benefit duration

Description: The unemployment benefits duration is expressed in years. The data is available only for a limited time period: 1981-2003. Data for Greece and Luxembourg is not available at all.

Source: Basannini/Duval (2006) database.

Indicator: Strictness of eligibility criteria for unemployment benefits

Description: This indicator measures the degree of strictness of the availability criteria for unemployment benefits; it is scored from 1 (the least strict) to 5 (the most strict). Data is collected and calculated from the Danish Ministry of Finance and is available for only two time periods (year 1997 and year 2004). The indicator is composed of the following measures: job search activity, availability while participating in activation, occupational mobility, geographical mobility, valid reasons for refusal, sanctions applied in case of resignation,

sanctions applied when activation or an job offer is rejected and sanctions applied in the case of repeated rejections. The index is calculated by giving these measures certain weights.

Source: Danish Ministry of Finance (1998) and Hasselpflug (2005).

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