Not for bad weather: macroanalysis of flexicurity with regard to the crisis

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Contents

Abstract 4
Acknowledgement 4

1. Introduction 5

2. Composite indicators of flexibility, security and macroeconomic situation 13
   2.1 Data for the model 13
   2.2 Scaling and weighting 16
   2.3 Aggregation 17
   2.4 Two ways to compute the indicators 18

3. Macroeconomic analysis of flexicurity 21
   3.1 Analysis of flexicurity according to Commission's recent understanding 21
   3.2 Analysis of flexicurity according to common understanding 24
   3.3 Influence of partial indicators 28

4. Discussion: flexicurity and the crisis 31

5. Conclusions 37

6 Appendix:
   Data for the indicators of flexibility, security and macroeconomic situation 39

7. References 49

Abstract

This paper presents a macroeconomic analysis of flexicurity with regard to the current economic crisis. Flexicurity is the European labour market policy aimed at compensating the ongoing flexibilization of employment relations (deregulation of labour markets) by means of advantages in social security.

The analysis is performed with four composite indicators based on statistical figures for 25 countries. These composite indicators are flexibility, security, gravity of macroeconomic situation by 2010 and aggravation of macroeconomic situation in 2008–2010. The latter indicator is used to separate the pure effect of the crisis from previous developments. The indicator of flexibility covers both institutional and factual aspects, the security indicator includes social expenditure and benefit pay-offs, while the gravity of the macroeconomic situation is expressed in terms of output gap, public debt, size of bailout package and unemployment rate. It is shown with statistical certainty that a high degree of flexibility is not advantageous. Both the gravity of the situation by 2010 and the aggravation of the situation during the crisis in 2008–2010 depend significantly on flexibility. A possible explanation is that flexibility encourages firms to indulge in more risky market behaviour, given that potential losses can be recovered through restructurings with trouble-free labour adjustments. Restructurings require credit, making firms more sensitive to failures in the financial sector. When a crisis occurs, both economic losses for firms and labour adjustments take place on a massive scale, aggravating both the economic and the social situation (increase in the output gap and in unemployment). Flexibility-security combinations are not advantageous either, although the pure effect of the crisis is softened if social security is generous. The conclusion is that a better alternative to flexicurity would be a normalization of employment relations; in other words, low flexibility, which also would result in less social security expenditure.

The closing discussion argues that the flexibilization of employment relations and the crisis both stem from the same root: financial liberalization is the background cause of both phenomena, rendering them dependent on one another.

Keywords: European Employment Strategy, labour market policies, flexicurity, crisis, macroeconomic analysis, composite indicators.

JEL Classification: C43 – Index Numbers and Aggregation, C51 – Model Construction and Estimation, H55 – Social Security and Public Pensions, J21 – Labor Force and Employment, Size, and Structure, J88 – Public Policy

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1. Introduction

Since the 1980s, general employment insecurity has significantly increased in Europe. The strictness of employment protection legislation (EPL) has been gradually relaxed in most countries. This development is reflected by the OECD's EPL indicator (1999, 2004), last updated in 2008 (Venn 2009) – see Figure 1. Due both to these institutional changes and to employment practices, the number of atypically employed, such as part-time, fixed-term and self-employed, has grown disproportionately (Auer and Cazes 2003). According to the Eurostat *Labour Force Survey* (2010), in 2008 the share of atypical employment (defined as any employment other than permanent full-time) exceeded 40% in 10 of out the 27 Member States (see Figure 2).

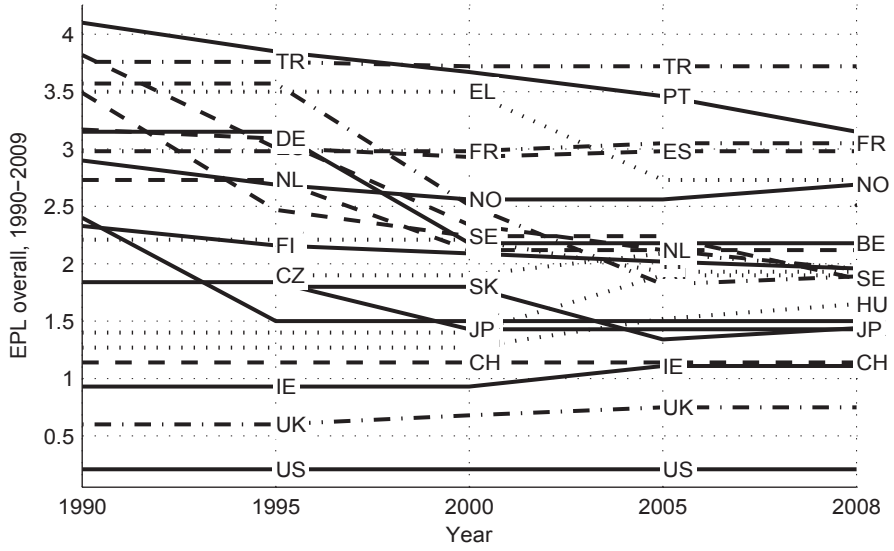
The notion of flexicurity was introduced in order to reconcile the European public with the increase in flexible employment, which entailed decreased job security and reduced eligibility for social security benefits. Wilthagen and Tros (2004) attribute the invention of the word "flexicurity" to a member of the Dutch Scientific Council of Government Policy, Professor Hans Adriaansens, and the Dutch Minister of Social Affairs, Ad Melkert (Labour Party). In the autumn of 1995, Adriaansens launched it in speeches and interviews, having defined it as a shift from job security towards employment security. He suggested compensating the fall in job security (fewer permanent jobs and easier dismissals) through improved employment opportunities and social security benefits.

For instance, relaxation of employment protection legislation would be counterbalanced by providing better conditions for temporary and part-time workers, supporting lifelong occupational training to facilitate job changes and introducing more favourable regulation of working time and additional social benefits. In December 1995, Ad Melkert presented a memorandum entitled *Flexibility and Security*, which proposed that employment protection legislation be relaxed for permanent employees, provided that temporary workers were granted regular employment status, without, however, adopting the concept of flexicurity as such. By the end of 1997, the Dutch parliament had accepted the flexibility/security proposals and shaped them into laws, which came into force in 1999.

The EU referred to flexicurity for the first time at the Lisbon summit in 2000 (Vielle and Walthery 2003, p. 2; Keller and Seifert 2004, p. 227; Kok et al. 2004). The words "flexibility" and "security" subsequently began to appear in juxtaposition in an increasing number of official documents. Following an

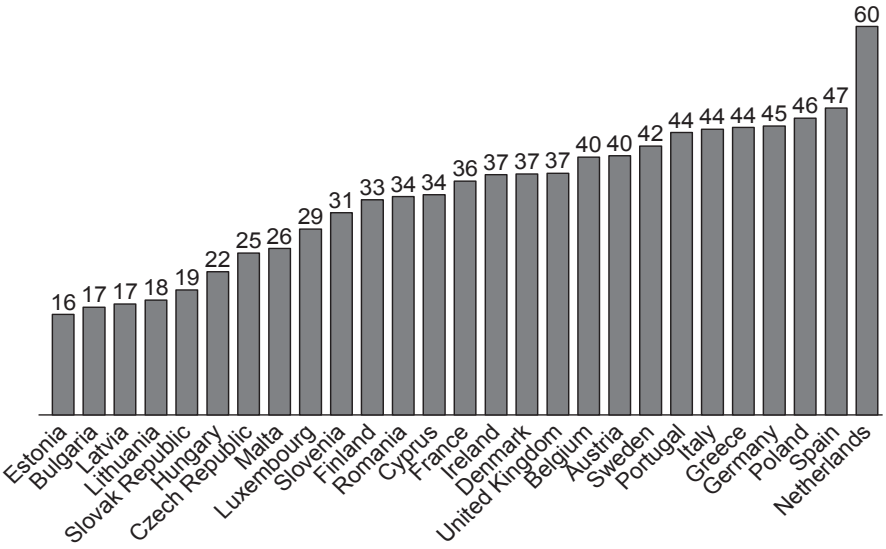
informal ministerial meeting in Villach in January 2006, flexicurity as a form of "flexibility through security" became a key topic in the EU (European Commission 2006b). A large chapter on flexicurity was included in *Employment in Europe 2006* (European Commission 2006a) and the concept was put on the agenda of the Germany–Portugal–Slovenia Trio Presidency of the EU during 2006–2007 (Bundesministerium für Arbeit und Soziales 2007).

Figure 1 **Strictness of employment protection legislation (EPL) in 1990–2008**



Source: OECD (2010), *OECD.Stat*.

Figure 2 **Percentage of atypical employment as a share of total employment in 2008**



Source: Eurostat (2010), *Labour Force Survey*, extraction on request.

In November 2006, the European Commission's DG for Employment, Social Affairs and Equal Opportunities issued a strategic Green Paper: *Modernising labour law to meet the challenges of the 21st century* (European Commission 2006c). In addition to the text, the publication contained 14 questions aimed at initiating an open online debate on legislating the flexicurity policy by making employment protection more relaxed and by introducing some security measures. The results of the debate were to be reflected in a Commission communication on flexicurity the following year, "which will set out to develop the arguments in favour of the 'flexicurity' approach and to outline a set of common principles by the end of 2007 to help Member States steer the reform efforts" (ibid., 4–5).

In June 2007, the European Commission developed its conception of flexicurity in a communication entitled *Towards Common Principles of Flexicurity: More and Better Jobs Through Flexibility and Security* and later published as a brochure (European Commission 2007), which will be cited in the following as the *Common Principles*. The major distinction of the *Common Principles* is their comprehensiveness in presenting the idea of flexicurity — including the proposal of four different pathways to implementing flexicurity in four different types of countries. The *Common Principles* were accepted by the EU Employment and Social Affairs Council Meeting on December 5/6, 2007, whose decision was endorsed by the European Council on December 14, 2007 (Council of the European Union 2008, p. 14).

In February 2008, a public initiative, *Mission for Flexicurity,* was launched in order to promote flexicurity as an official European labour market policy (European Commission 2008a). By the end of 2008, it had been followed by a communication with relevance to flexicurity: *New Skills for New Jobs: Anticipating and matching labour market and skills needs* (European Commission 2008b), which was adopted by the Council on March 9, 2009. The Council of the European Union (2009) then issued *Council Conclusions on Flexicurity in Times of Crisis*, while the DG for Economic and Financial Affairs added its voice to the promotion of flexicurity by publishing its communication *A Shared Commitment for Employment* (European Commission 2009a). Finally, the European Union retains flexicurity on Agenda 2020 as its principal labour market policy (Andor 2010).

Flexicurity has evidently been adopted earnestly and with a long-term perspective. The European Commission has launched an official flexicurity web page (2009b), while two academic web pages are dedicated to flexicurity research and are regularly updated (IAB 2009 and Flex Work Research Centre 2009).

Thus, the history of flexicurity already spans 15 years and can be tentatively divided into three periods.

1995–2001 (security for flexibly employed)
This period covers the first use of the word "flexicurity" and the first references to it by the EU. This phase is characterized by labour market reforms in the Netherlands and by the onset of the academic debate on flexicurity (Klammer

and Tillmann 2001; Wilthagen 1998 and 2001; WSI 2000). During this period, flexicurity was primarily understood as a policy to protect atypical workers against the negative consequences of labour market deregulation. The social partners did not participate in the debate.

2001–2006 (flexibility–security trade-off)
This period ran until the publication of the first European strategic document – the Green Paper issued at the end of 2006. It is marked by the shaping of the idea of flexicurity as a flexibility-security trade-off. During these years, the EU made occasional references to flexicurity as a balance between labour market flexibilization and social developments. The OECD (2004, 2006) and European Commission (2006a) mentioned flexicurity positively in their analytical publications *Employment Outlook* and *Employment in Europe*, deeming the flexicurity approach appropriate for implementing their employment strategies. The social partners began to be involved in the discussions.

2006–present (security through flexibility)
In the Commission's *Green Paper* 2006, and especially in the *Common Principles*, flexicurity is understood as security through flexibility, or even as 'flexibility security', that is, securing flexibility by adapting the labour force to flexible employment, primarily by lifelong learning. Flexibility is regarded as providing "more and better jobs" because it improves economic competitiveness and, accordingly, contributes to labour market performance. Under this understanding, the EU adopts the flexicurity approach as its official policy, discusses it with national governments and social partners, and supports flexicurity research. The concept of flexicurity engenders a vibrant response in academic and public debate.

The current discussion on flexicurity is held mainly at the qualitative level. To date, flexicurity remains a normative approach with no comprehensive operational descriptions. Some politicians and scholars caution that it is unclear which policy responses can be expected. In order to provide empirical feedback, the Employment Committee (2008, 2009) is developing a list of macro-indicators for monitoring flexicurity. There are already studies on flexicurity based on statistical data; see Bertozzi and Bonoli (2009); European Foundation (2007); Muffels (2008); Tangian (2004–2009).

The main normative argument – that flexibility improves economic performance – is still disputed, to say nothing of its derivative – that flexibility implies security. Since the current crisis has already called into question some fundamental normative beliefs such as the advantages of financial liberty, it makes sense to empirically analyse the concept of flexicurity with regard to the crisis as well. Indeed, the crisis gives us a chance to already see the policy responses today.

The current crisis, triggered by the bankruptcies of several U.S. banks in 2007–2008, is regarded by many economists to be the worst crisis since the Great Depression of the 1930s. It has resulted in the failure of key businesses, declines in consumer wealth, substantial financial commitments incurred by governments and a significant decline in economic activity. Its general impact

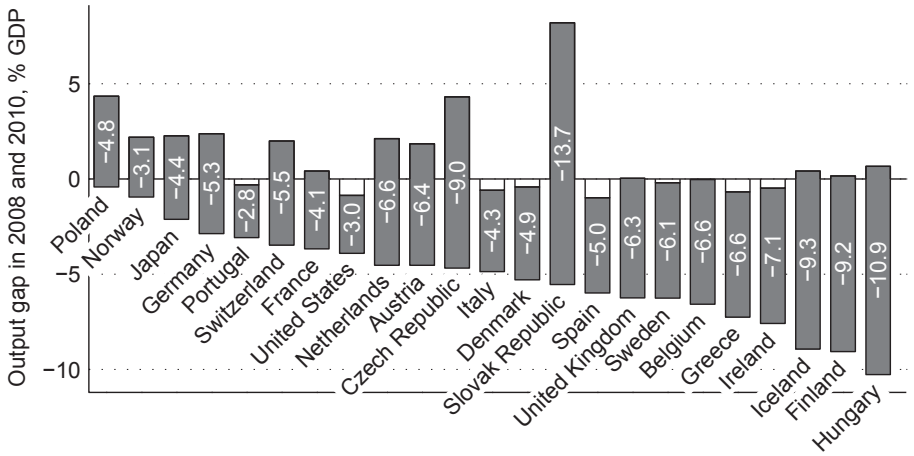
and severity lead many observers to speak of a "systemic" rather than a specific financial or economic crisis. The main risks for the world economy are expected in the years 2010–2011.

The gravity of the macroeconomic situation and national measures to surmount the crisis vary significantly across countries. This is because of national differences in economic and social policies, which, having being tested by the crisis, are then retained or revised for the future. Labour market policy, as one of the most decisive, receives particular attention.

This paper evaluates the relationship between the severity of the crisis and the levels of labour flexibility and social security. The damage caused by the crisis is considered in terms of output gap (under-utilization of full economic potential), public debt, size of bailout packages and unemployment rate (see Figures 3–6). Our goal is to elicit to what extent the overall gravity of the situation measured with a composite indicator based on these four factors depends on flexibility alone and on flexibility-security relations. The consideration of flexibility alone is aimed at macroanalysis of flexicurity in its most recent understanding – security through flexibility. The consideration of both flexibility and security is aimed at testing flexicurity in its common understanding, as a balanced combination of these two factors.

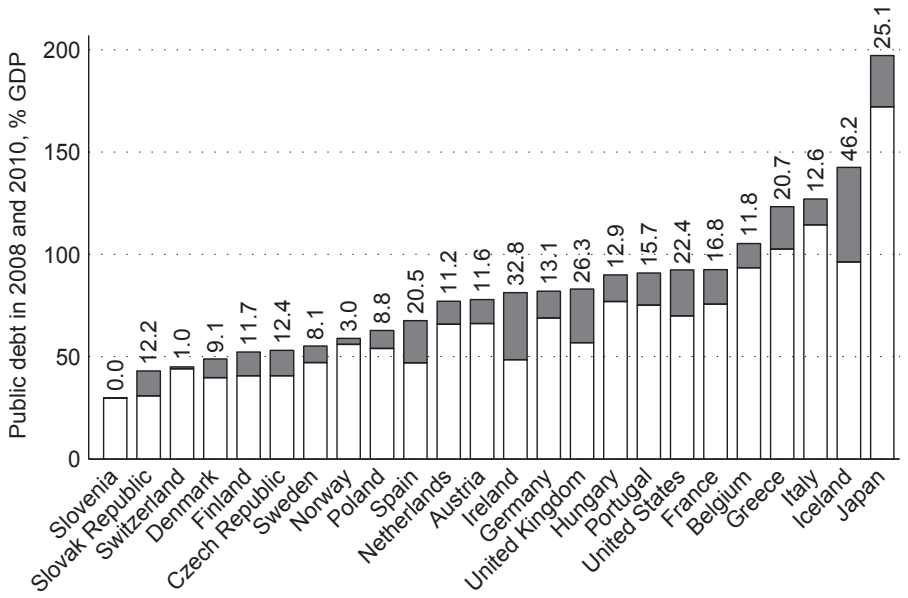
Following statistical analysis of the gravity of the macroeconomic situation for a number of countries, it is concluded with statistical certainty that flexicurity does not pass the test imposed by the crisis. The conclusion is the same for flexicurity in the recent understanding (flexibility only) and for flexicurity in its usual understanding (flexibility + security). Therefore, our report contributes to the viewpoint that the Commission's flexicurity strategy requires a profound revision and should not be continued in its current form.

Figure 3 **Change in output gap as % GDP from 2008 (top of grey bars) to 2010 (bottom of grey bars)**



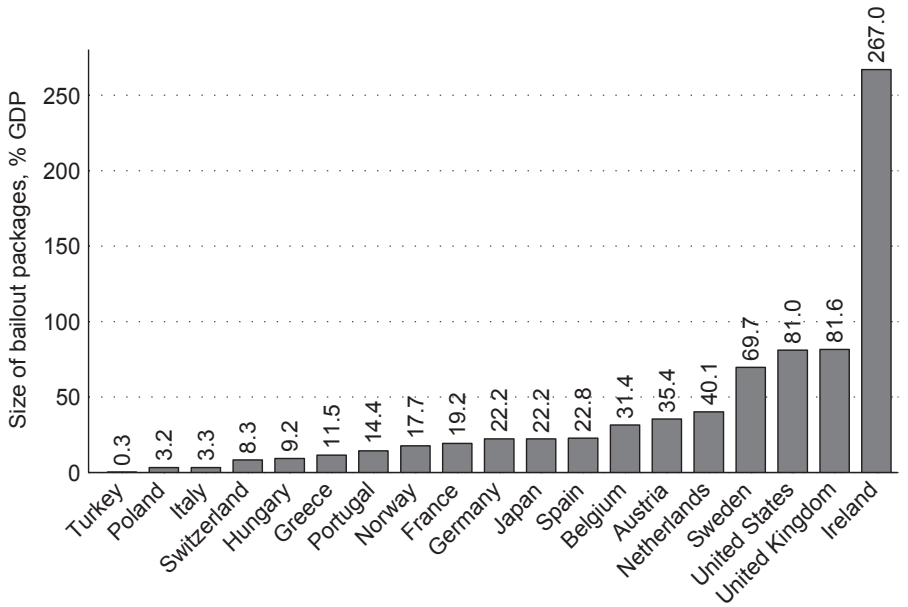
Source: OECD (2010) *OECD.Stat*.
Note: The positive values for the output gap in 2008 mean that prior to the crisis, economies were overheated, outperforming their normal potential.

Figure 4 **Change in the public debt as % GDP from 2008 (bottom of grey bars) to 2010 (top of grey bars)**



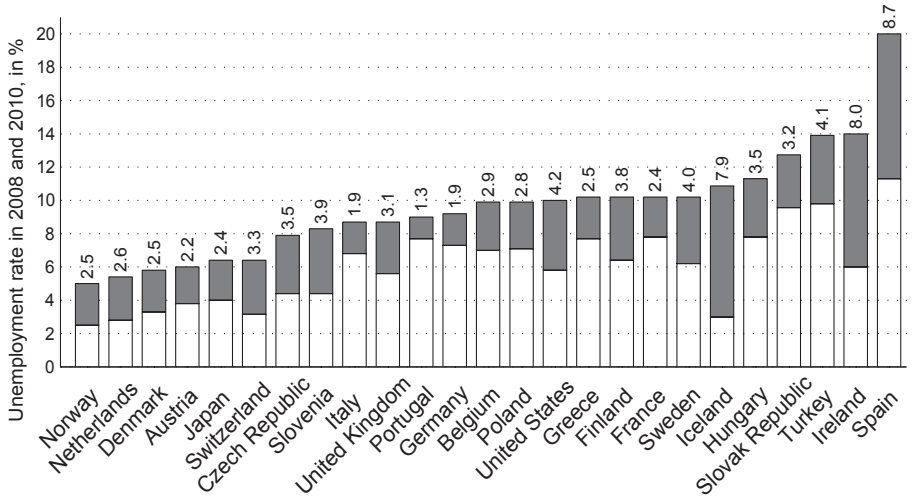
Source: OECD (2010) *OECD.Stat*.

Figure 5 **Size of bailout packages as % GDP**



Source: IMF (2009), Table 2.1.

Figure 6 **Change in unemployment rate in % from 2008 (bottom of grey bars) to 2010 (top of grey bars)**



Source: OECD (2010) *OECD.Stat*.

Section 2, "Composite indicators of flexibility, security and macroeconomic situation", describes the data and the construction of the four composite indicators: flexibility, security, gravity of macroeconomic situation by 2010 and aggravation of macroeconomic situation in 2008–2010. The latter indicator is used to separate the pure effect of the crisis from the preceding developments. The indicator of flexibility includes institutional and factual components, the security indicator includes social expenditures and pay-offs of benefits, and the gravity of macroeconomic situation is expressed in terms of output gap, public debt, size of bailout package and unemployment rate.

Section 3, "Macroeconomic analysis of flexicurity", is devoted to the mathematical model and the interpretation of the main findings. It is shown that a high degree of flexibility is not advantageous. The countries with high labour flexibility are more damaged by the crisis. Flexibility-security combinations are not advantageous either, although the pure effect of the crisis is softened if social security is generous. It is concluded that a better alternative to flexicurity would be low flexibility, which would also require lower social security expenditure.

Section 4, "Discussion: Flexicurity and the crisis", attempts to show that both labour flexibility and the crisis have their origins in financial liberalization, which explains their dependence on one another.

Section 5, "Conclusions", recapitulates the main findings of the paper.

Section 6, "Appendix: Data for the indicators of flexibility, security and macroeconomic situation", explains how to read the main table containing the data for the model.

2. Composite indicators of flexibility, security and macroeconomic situation

2.1 Data for the model

The variables for the analysis were selected to reflect both flexibility and security at the macro level. **Flexibility** breaks down into *institutional* and *factual flexibility*, the former represented by OECD indicators of strictness of employment protection legislation, the latter by statistics on atypical work and involuntary part-time employment. **Security** is represented by general social security expenditure and by social security benefits (pay-offs).

To reflect **Gravity of situation by 2010** and **Aggravation of situation in 2008–2010**, output gap, public debt, size of bailout packages and unemployment rate are considered. It should be noted that these indicators are not independent of one another. For instance, public debt is partially driven by two of the others: a decrease in production reduces the amount of taxes, and bailout packages also burden public finances. However, besides financial difficulties, there are some other effects of the crisis that should also be taken into account. For instance, the output gap reflects the decline in the standard of living. The consideration of bailout packages focuses on emergency expenditures with no expected returns, in other words pure losses (by contrast, public investments in infrastructure, innovation, science, education, health, etc., can significantly increase the public debt but promise indirect returns in future). Unemployment is regarded as the most negative social effect of the crisis, which is no less harmful than the economic downturn.

The data for **Flexibility** and **Security** are not taken from the same year as the macroeconomic data for **Gravity of situation by 2010** and **Aggravation of situation in 2008–2010**. The data for flexibility and security are taken from the last available year before the crisis in order to best reflect the state of the country when the crisis hit. The macroeconomic data, by contrast, are for 2010 (some are OECD predictions based on the most recent figures). Thus, the actual macroeconomic response to the pre-crisis state of the countries is reflected. The data for **Aggravation of situation in 2008–2010** are the change in the corresponding variables in 2008–2010. Since some figures are unavailable for 2010, they are replaced by the values for 2009.

The data for the model are brought together in Table 2 in the Appendix. It contains the following variables, grouped hierarchically:

Flexibility

Institutional flexibility (Figure 1)

1. Flexibility of regular employment (EPL indicator for regular employment, estimates in the range 0–6, taken with negative sign). Source: OECD (2010), *OECD.Stat* → Labour → Employment Protection

2. Flexibility of temporary employment (EPL indicator for temporary employment, estimates in the range 0–6, taken with negative sign). Source: OECD (2010), *OECD.Stat* → Labour → Employment Protection

Factual flexibility

3. Atypical employment as share of total employment in %. Source: Eurostat (2010*), Labour Force Survey*, extraction on request (Figure 2)

4. Involuntary part-time employment as share of total part-time employment in %. Source: Eurostat (2010), *Labour Force Survey* → Full-time and part-time employment → LFS series; complemented with OECD (2010), *OECD.Stat* → Labour → Labour Force Statistics → Involuntary part-time workers

Security

Public social expenditure

5. Total public social expenditure as % GDP. Source: OECD (2010), *OECD.Stat* → Social and Welfare Statistics → Social Protection. These figures are available only up to 2005. Figure 7 shows that they tend to change slowly, so that the figures for 2007 are unlikely to difffer much from those for 2005.

Social security benefits

6. Social security, pay-offs, as % GDP. Source: OECD (2010), *OECD.Stat* → Economic Projections → Total social security benefits, value

Gravity of situation by 2010

Gravity of economic situation by 2010

7. Output gap (under-utilization of full economic potential) as % GDP, taken with the opposite sign. Source: OECD (2010), *OECD.Stat* → Economic Projections → OECD Economic Outlook → OECD Economic Outlook Current and Recent Editions → Economic Outlook No. 86 → Supply Block → GAP (Figure 3)

8. Public debt as % GDP. Source: OECD (2010), *OECD.Stat* → Economic Projections → OECD Economic Outlook → OECD Economic Outlook Current and Recent Editions → Economic Outlook No. 86 → Government accounts → GGFLQ (Figure 4)

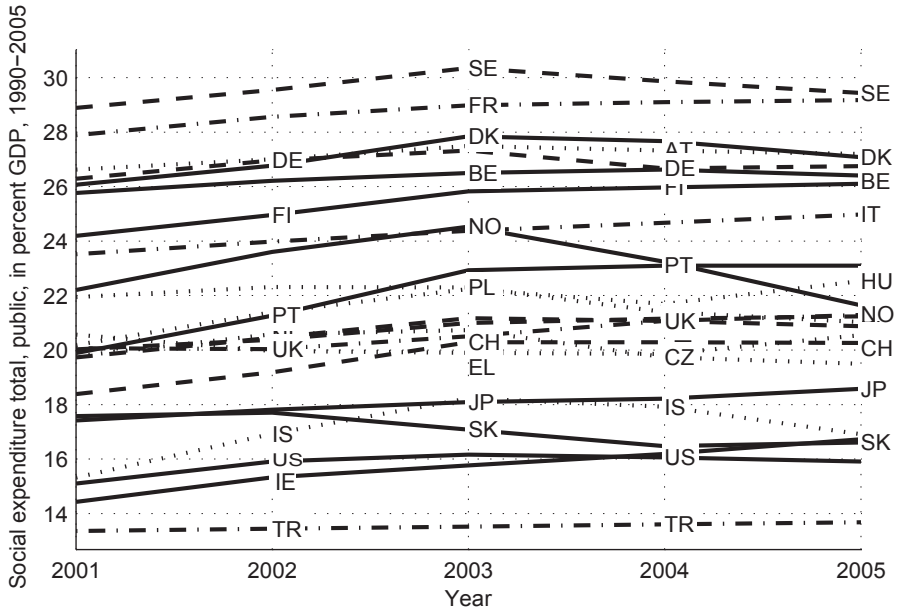
9. Bailout packages as % GDP. Source: IMF (2009), Table 2.1 (Figure 5)

Gravity of social situation

10. Unemployment rate in %. Source: European Commission (2010), *AMECO*; complemented with OECD (2010), *OECD.Stat* → Economic Projections → OECD Economic Outlook → OECD Economic Outlook Current and Recent Editions → Economic Outlook No. 86 → Labour markets → UNR (Figure 6)

Aggravation of situation in 2008–2010 consists of increments in the indices of **Gravity of situation by 2010** that occurred during the crisis (Table 2 also displays the increments)

Figure 7 **Total public social expenditure in 2001–2005 as % GDP**



Source: OECD (2010) *OECD.Stat*.

Not all statistical figures are available for all the EU countries. Therefore, countries are selected so as to be sufficiently (but not necessarily completely) covered by statistics. The major restriction follows from the use of the indicators on institutional flexibility (EPL) developed by the OECD for its member countries. Since flexicurity is a European concept, we consider OECD European countries. In addition, we also consider the USA and Japan as the most important non-European OECD countries. Their inclusion/omission does not influence our conclusions: the inclusion/omission of these two countries only

changes the model's regression coefficients, R^2, and P-values up to a value of 0.03 because the vectors for the USA and Japan lie very close to the regression lines/planes (residuals are very small). Thus, a total of 25 countries are included in the model.

Some variables are merged from two sources because of missing data. The Eurostat or European Commission's data are taken first, and the missing values are taken from the OECD. Nevertheless, some minor gaps in the data remain. However, the trends revealed are quite significant so that minor inaccuracies cannot change the overall picture.

2.2 Scaling and weighting

Before creating aggregate indicators, every variable $x = (x_1, \ldots, x_n)'$, that is, a column of Table 2, is scaled/weighted. The first step in processing is scaling – making the variables comparable by bringing them into some common range. The most frequently used methods of scaling and weighting are *normalization* and *standardization* (see OECD 2005).

The normalization brings the range of every variable x to 0 – 100%:

$$x \quad \rightarrow \quad \frac{x - x_{\min}}{x_{\max} - x_{\min}} \cdot 100\%.$$

The effect of this procedure is that now the indicator takes on values between 0 and 100, which corresponds to the percentage of the observable range of the variable.

The standardization reduces the variable to the zero mean and makes its standard deviation equal to 100%:

$$x \quad \rightarrow \quad \frac{x - \mu}{\sigma} \cdot 100\% \quad \textit{(standardized variable expressed in \%)}$$

where

$$\mu = \frac{1}{n}\sum_{i=1}^{n} x_i \quad (\textit{empirical mean})$$

$$\sigma = \sqrt{\frac{1}{n-1}\sum_{i=1}^{n}(x_i - \mu)^2} \quad (\textit{unbiased empirical standard deviation}).$$

Then 0 corresponds to the mean of variable x, and 100% to its "average deviation from the mean".

Scaling changes the effective range of the variables, thereby implicitly introducing weights. The smaller the initial range of the variables, the more weight they receive due to scaling.

The subsequent aggregation of variables through their summation along the horizontal dimension of Table 2 is made with no explicitly introduced weights. According to the OECD (2005, p. 21), "most composite indicators rely on equal weighting, i.e., all variables are given the same weight". Indeed, unequal weights need a special motivation. Any deviation from equal weights is a source of debate, so to avoid this, equal weights are accepted whenever possible.

2.3 Aggregation

The penultimate section of Table 2 contains six partial indices (first-level aggregates): two for flexibility, two for security and two for gravity of macroeconomic situation. These are the mean values of the corresponding variables. In the case of standardized variables, the partial indices are also standardized column by column.

The last three columns of Table 2 contain three aggregate indices (second-level aggregates) of flexibility, security and gravity of situation by 2010. The fourth aggregate index – aggravation of situation in 2008–2010 – is also provided in the last column. These indices are obtained from corresponding partial indices in exactly the same way as partial indices are obtained from variables.

The interpretation of the aggregate indicators is as follows. Under normalization, an index is simply the mean of the corresponding codes. The index attains 0 or 100 if *all* the codes are lowest or highest, respectively.

Under standardization, a composite indicator is interpreted as a weighted sum of variables, with the weights being inversely proportional to their standard deviations. The mean is regarded as a norm, and the average deviation is regarded as a scaling factor. As we shall see, in spite of differences between the two scaling methods, the results obtained are quite similar.

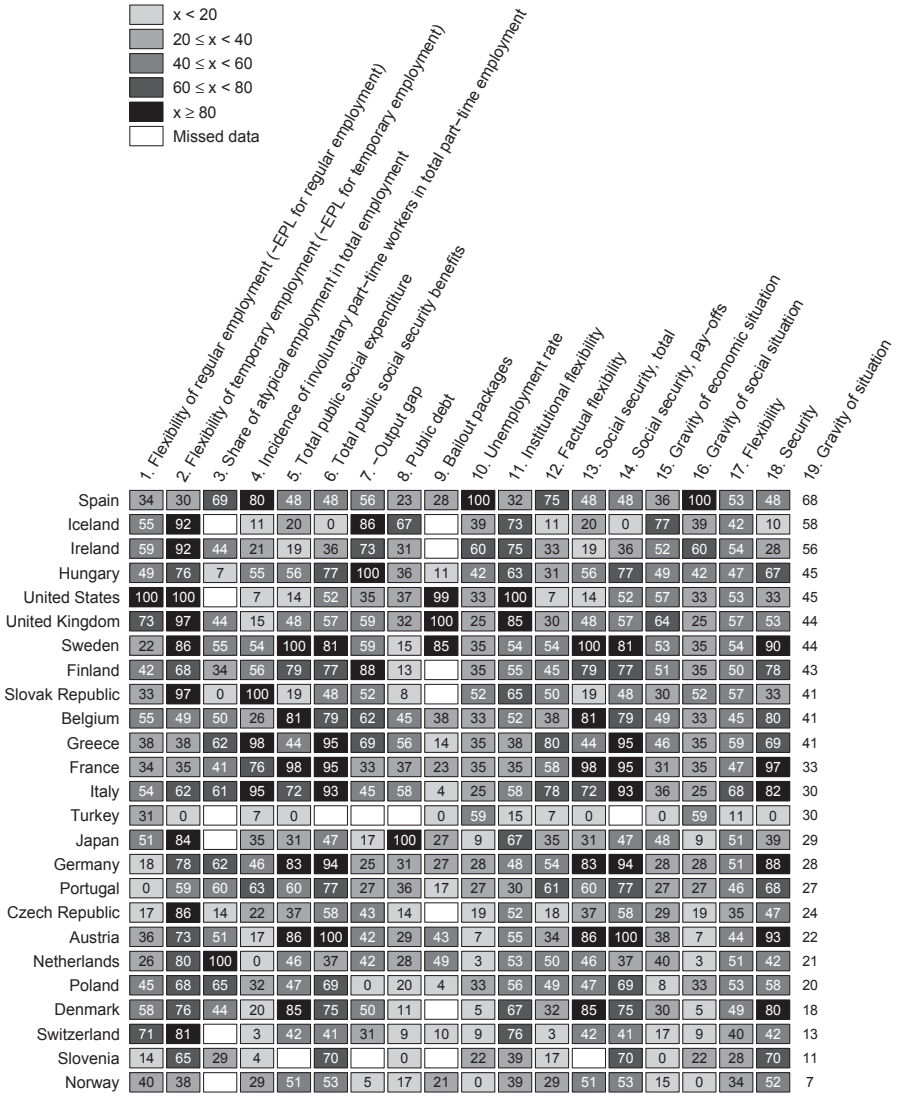
Finally, it should be noted that the effective weight of a single variable in the aggregate indicator depends essentially on the indicator structure and on the size of the groups of variables for partial indicators. For instance, the effective weights of the variables "Flexibility of regular employment" in **Flexibility** and "Total public social expenditure" in **Security** are equal to, respectively,

$$\underbrace{\frac{1}{2}}_{\substack{\text{Number of variables}\\ \text{in Institutional}\\ \text{flexibility}}} \cdot \underbrace{\frac{1}{2}}_{\substack{\text{Number of}\\ \text{partial}\\ \text{indicators}\\ \text{in Flexibility}}} = \frac{1}{4} \quad \text{and} \quad \underbrace{\frac{1}{1}}_{\substack{\text{Number of}\\ \text{variables in}\\ \text{Social security}}} \cdot \underbrace{\frac{1}{2}}_{\substack{\text{Number of}\\ \text{partial}\\ \text{indicators}\\ \text{in Security}}} = \frac{1}{2}.$$

2.4 Two ways to compute the indicators

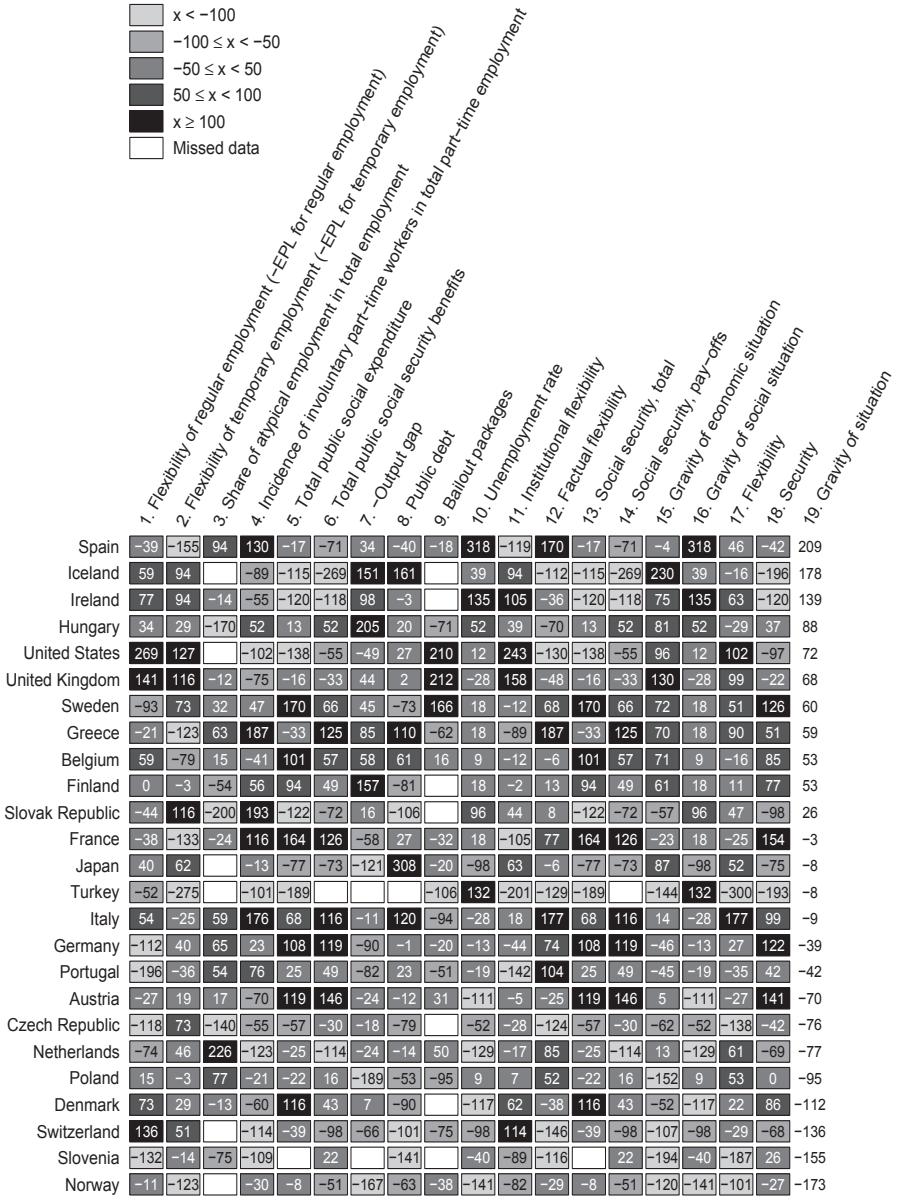
The indicators constructed with normalized and standardized variables are displayed in Figures 8 and 9. These figures are relief tables. The grey scale is used the same way as in geographical maps – high values are shown in dark colour as mountains, while low values are shown in light colour. This way the relief of the table is visualized.

Figure 8 **Indices of Flexibility, Security and Gravity of situation by 2010 based on normalized variables, in conditional %**



Source: Author's computations based on data from European Commission (2010) *AMECO*, Eurostat (2010) *Labour Force Survey* and OECD (2010) *OECD.Stat*.

Figure 9 **Indices of Flexibility, Security and Gravity of situation by 2010 based on standardized variables, in conditional %**



Source: Author's computations based on data from European Commission (2010) *AMECO*, Eurostat (2010) *Labour Force Survey* and OECD (2010) *OECD.Stat*.

For instance, in Figure 8, Spain's unemployment (10th column) is indexed as 100. This is the maximal attainable value in a normalized scale, which in the given case reflects the fact that Spain's unemployment rate of 20.4% (see Table 2) in 2010 is the highest among the 25 countries considered. Accordingly, the corresponding table cell in Figure 8 is black. In Figure 9, Spain's un-

employment rate is indexed as 318. In the standardized scale, this means that Spain's unemployment rate exceeds the average for the national unemployment rates in the 25 countries by 318, measured in % of the standard deviation from the mean (in statistical notation, this value is equal to $\mu + 3.18\sigma$). Thus, the normalized variables are useful for referring to min–max limits, while the standardized variables are useful for referring to the means.

The countries in Figures 8 and 9 are ordered by the decreasing indicator **Gravity of situation by 2010** shown outside the main body of the tables. The order of the countries is different in the two tables, but not substantially so. The correlation between country ranks based on the normalized and standardized indicators is shown in Table 1. Since the correlation is very high, we shall consider the normalized indicators only.

Table 1 **Correlation between country ranks obtained from indicators based on normalized and standardized variables**

	Correlation ρ	P-value
1. Institutional flexibility	0.9987	0.0000
2. Factual flexibility	0.9848	0.0000
3. Social security, total	1.0000	0.0000
4. Social security, pay-offs	1.0000	0.0000
5. Gravity of economic situation	0.9866	0.0000
6. Gravity of social situation	1.0000	0.0000
7. Flexibility	0.9765	0.0000
8. Security	0.9962	0.0000
9. Gravity of situation	0.9700	0.0000
10. Aggravation of economic situation in 2008-2010	0.9918	0.0000
11. Aggravation of social situation in 2008-2010	1.0000	0.0000
12. Aggravation of situation in 2008-2010	0.9958	0.0000

Note: For single variables, the correlation is always 1 because both scaling methods are linear transformations that do not change the order of the countries.

3. Macroeconomic analysis of flexicurity

3.1 Analysis of flexicurity according to Commission's recent understanding

Let us first analyse flexicurity as the Commission recently understands the concept – with the emphasis on flexibility (which is supposed to imply security). We will consider this conception of flexicurity from two viewpoints – regarding the macroeconomic situation by 2010 and regarding the aggravation of the macroeconomic situation during the crisis in 2008–2010.

Figure 8 shows the location of the 25 countries in the plane **Flexibility–Gravity of situation by 2010**. The steep regression line with $SLOPE_{Flex}$ = 0.52 fitted to 25 observations illustrates the relationship between **Gravity of situation by 2010** and **Flexibility**. The small R^2 = 0.15 indicates that the cloud of observations is not well distributed along one line. The small P_F = 0.06 affirms that the dependence between **Gravity of situation by 2010** and **Flexibility** is statistically rather significant. All of these data can be interpreted as demonstrating that the gravity of the situation really is linked to flexibility but, nevertheless, there are also other important factors that explain the **Gravity of situation by 2010**.

The bottom plot of Figure 10 shows the regression residuals and their 95%-confidence intervals with countries-outliers emphasized by means of thick lines. The paucity of outliers (Spain and Island) attests to the explanatory capacity of the model. The residuals for the USA and Japan are among the smallest, meaning that they are close to the regression line. This implies that the inclusion of these two countries in the model has a negligible impact on the model's analytical output. Their exclusion scarcely affects $SLOPE_{Flex}$, R^2 and P_F, which in this case deviate from the values shown by about 0.03 (not illustrated by additional charts).

– Thus, the model reveals the dependence between **Gravity of situation by 2010** and **Flexibility** with statistical significance.

Figure 10 **Relationship between Gravity of situation by 2010 and Flexibility for indices based on normalized variables**

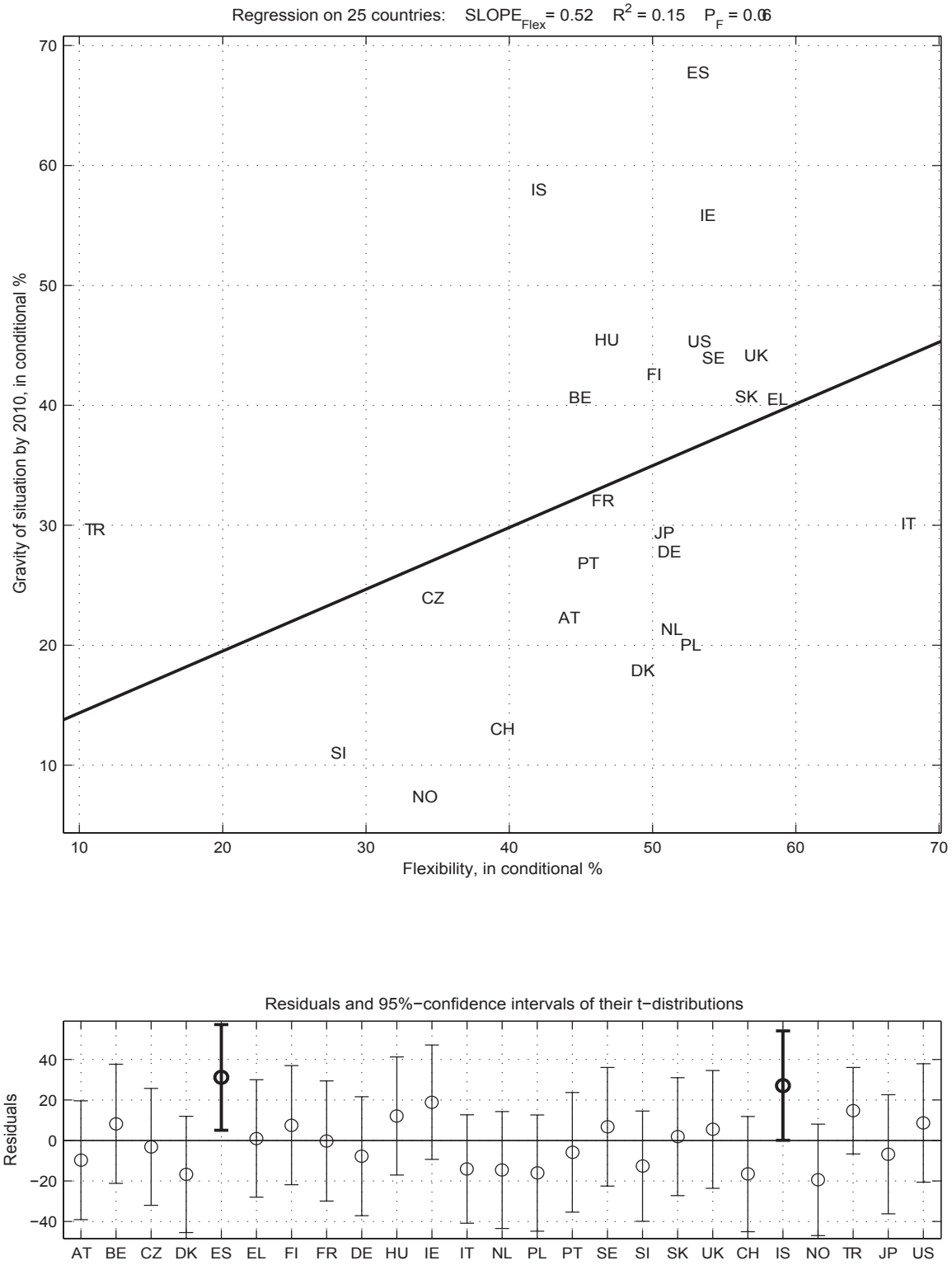
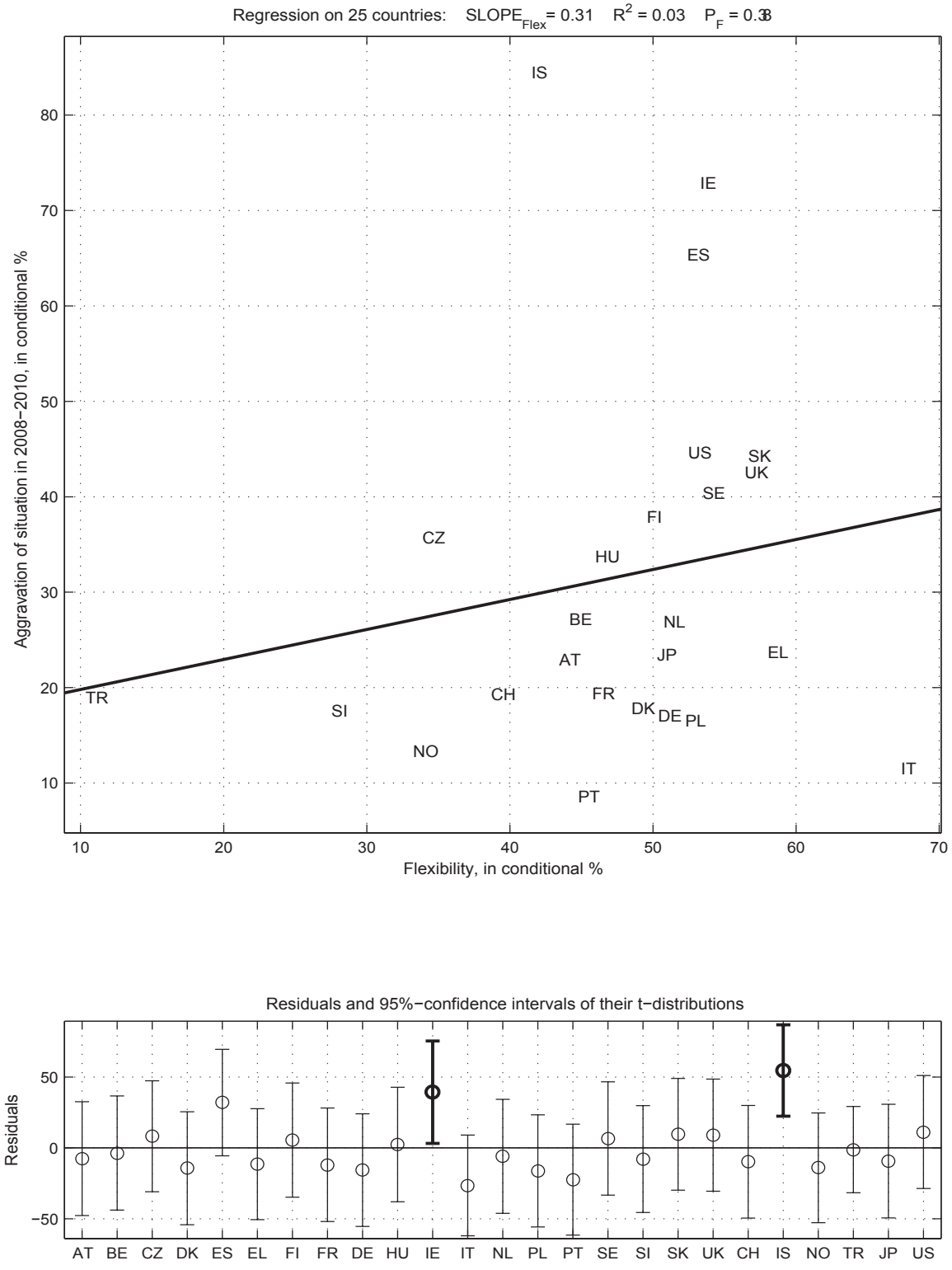


Figure 11 **Relationship between Aggravation of situation in 2008-2010 and Flexibility for indices based on normalized variables**



Now let us consider the relationship between the manifestations of the crisis, that is, of the change in macroeconomic indicators in 2008–2010, and flexibility. Figure 11 shows the location of the 25 countries in the plane **Flexibility–Aggravation of situation in 2008–2010**. The trend revealed by the regression analysis is the same as in Figure 10. The $SLOPE_{Flex} = 0.31$ of the regression line is less steep, the $R^2 = 0.03$ is smaller and $P_F = 0.38$. We can say that the trend in Figure 11 is much less salient than in Figure 10, meaning that the dependence between the **Gravity of the situation by 2010** and **Flexibility** is partially due to the pre-crisis development and partially due to the crisis itself (the contribution of the crisis is about $0.31/0.52 \approx 60\%$). The previous development contributes to this dependence as well ($\approx 40\%$ of influence), but not as decisively. The conclusion for the two charts is as follows:

– High labour flexibility demonstrates no macroeconomic advantages. It probably encourages employers to take higher risks, given that potential losses can be recovered through restructurings with trouble-free labour adjustments. Restructurings make firms more credit-dependent with their performance more sensitive to failures in the financial sector. When a crisis occurs, both economic losses for firms and labour adjustments take place on a massive scale, aggravating both the economic and the social situation (increase in the output gap and in unemployment). The burden for public finance (size of bailout packages and aid to the unemployed) further aggravates the situation. Low flexibility, by contrast, restricts labour adjustments and thereby constrains risky economic behaviour. As a result, firms (a) operate in a more secure and stable way, (b) carry out fewer labour adjustments, which is positive for employment, and, accordingly, (c) charge the state with less additional social expenditure for supporting the unemployed.

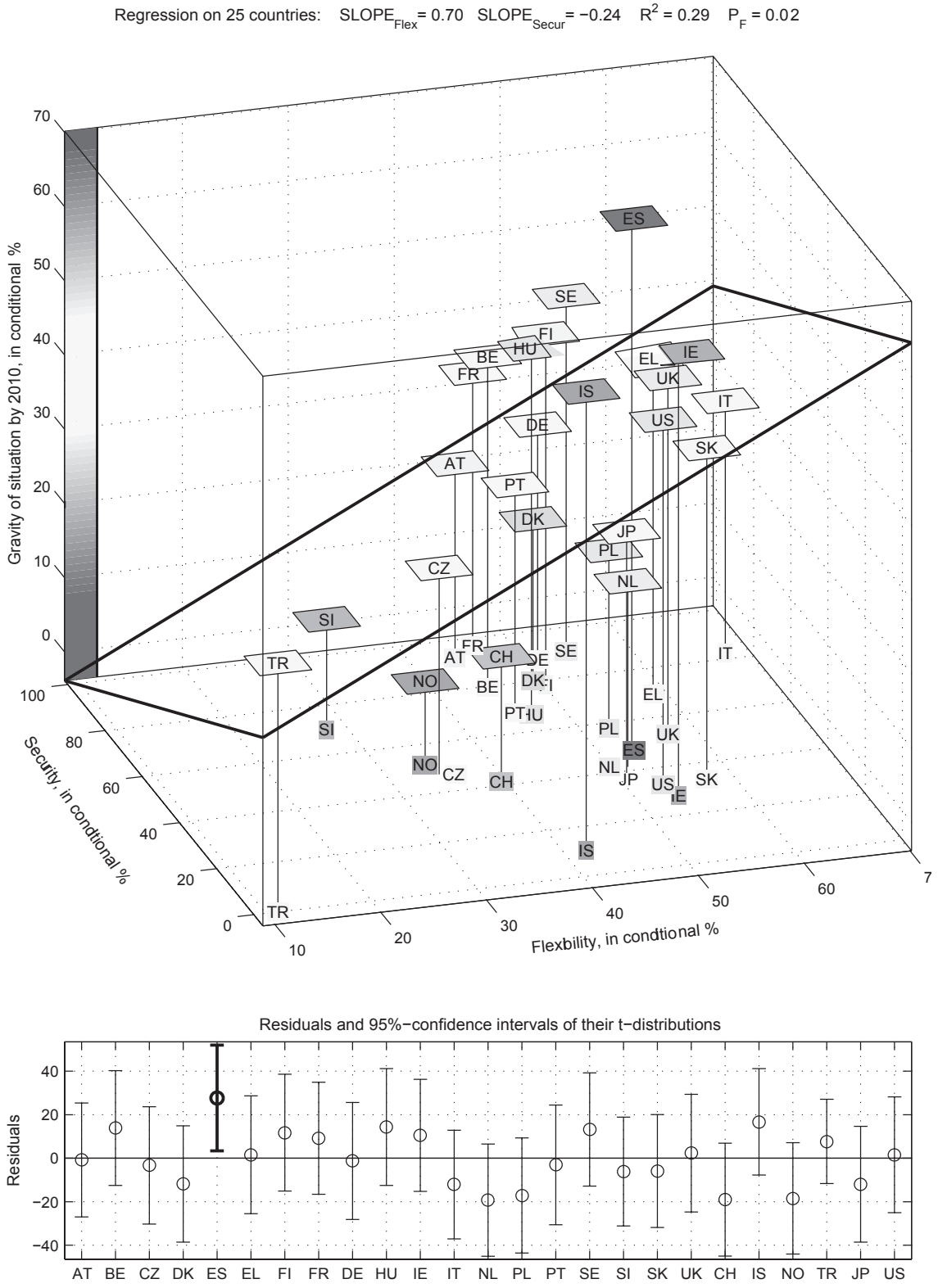
Thus, **flexibility is disadvantageous generally, and doubly disadvantageous in times of crisis.**

3.2 Analysis of flexicurity according to common understanding

Let us now analyse flexicurity as it is commonly understood (as a combination of flexibility and security) and, in this case also, from two viewpoints – regarding the macroeconomic situation by 2010 and regarding the aggravation of the macroeconomic situation during the crisis in 2008–2010.

Figure 12 depicts the location of the 25 countries in the space **Flexibility–Security–Gravity of situation by 2010**. The regression plane is fitted to the 3D observations in the same way as the regression line is fitted to the 2D observations in Figures 10 and 11. The $SLOPE_{Flex} = 0.70$ of the regression plane along the axis **Flexibility** is steeper than $SLOPE_{Secur} = -0.24$ along the axis **Security**. This indicates a 3 times higher sensitivity of **Gravity of situation** to **Flexibility** than to **Security**. The greater $R^2 = 0.29$ means that **Flexibility** and **Security** together explain the **Gravity of situation** much more adequately than **Flexibility** only. This is also confirmed by the negligible $P_F = 0.02$, implying the statistical certainty of the dependence between the indicators.

Figure 12 **Relationship between Gravity of situation by 2010, Flexibility and Security for indices based on normalized variables**



The bottom plot shows the residuals and their 95%-confidence intervals. Spain is the only country-outlier of 25. Similar to the previous charts, the residuals for USA and Japan are very small, so that their inclusion in the model does not distort the picture for Europe.

– Thus, flexibility combined with security is not advantageous either**. Gravity of situation by 2010** primarily depends on **Flexibility,** although **Security**, requiring high public expenditure, explains the **Gravity of situation by 2010** as well.

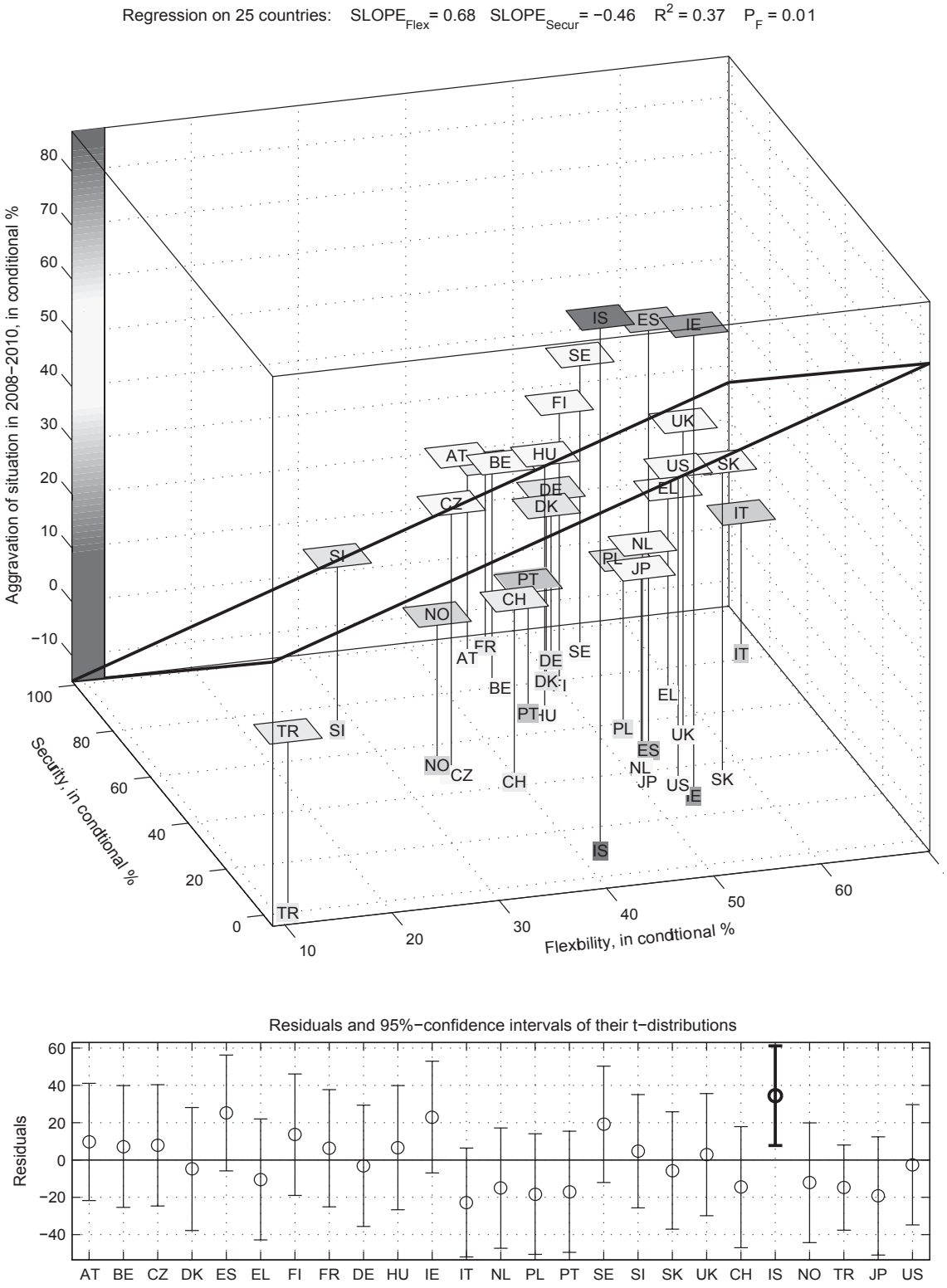
A much better alternative might be a combination of moderate flexibility and moderate security. If jobs are protected and "normal", providing a sufficient income, then there is no need for generous social security and no need for high public expenditure on it. Thus, a "normalization" of employment can reduce the risks entailed in economic shocks and decrease social security expenditure.

Focussing attention on the pure manifestations of the crisis, let us now consider the space **Flexibility–Security–Aggravation of situation in 2008–2010**. The position of the regression plane in Figure 13 is similar to that in Figure 12. The $SLOPE_{Flex} = 0.68$ along the **Flexibility** axis is similar to that in Figure 12, but the $SLOPE_{Secur} = -0.46$ is almost doubled. This means that the crisis manifests itself less evidently when social security is generous.

The quality of fit with parameters $R^2 = 0.37$ and $P_F = 0.01$ is much better than in Figures 10–12, meaning that, indeed, flexibility and security explain the severity of the crisis, in spite of quite different country measures to improve the situation, depending on different national traditions, political priorities and financial possibilities, which vary significantly across the countries (for specific explanations, see Berkmen et al. 2009).

– To conclude, the crisis manifests itself more in countries with high flexibility, and less in countries with generous social security. As mentioned previously, high flexibility encourages risky economic behaviour on the part of firms and increases public expenditure during the crisis. On the other hand, advanced social security, public works and other forms of state participation make the economy less dependent on the private sector and protect it from occasional shocks.

Figure 13 Relationship between **Aggravation of situation in 2008-2010, Flexibility** and **Security** for indices based on normalized variables

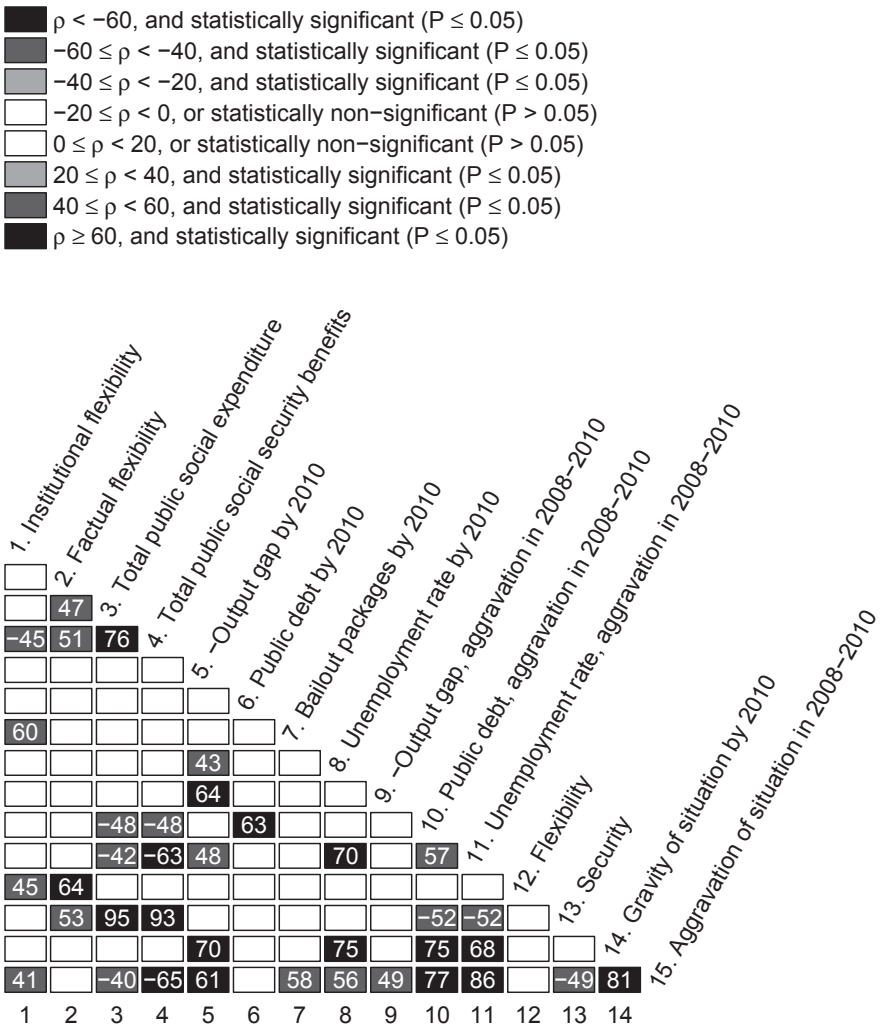


3.3 Influence of partial indicators

One can imagine charts like Figures 10–11 for all combinations of our 26 variables and indicators with the purpose of analysing their reciprocal influence. However, such a collection of charts would be practically impossible to observe because of the huge number of pairs of factors $26 \cdot 25 / 2 = 325$.

Recall that if the axes are standardized, then the coefficient at the linear term of the regression equation is none other than the correlation coefficient. An overview of dependencies between factors is therefore provided by the correlation matrix, as in Figure 14, which shows the correlation coefficients for selected variables and indicators.

Figure 14 **Correlation between indicators based on normalized variables, in %**



Note two particular observations.

– The **Gravity of situation by 2010** does not correlate significantly with two flexibility and two security factors (see the intersections of the 14th row with columns 1–4), whereas the **Aggravation of situation** in 2008–2010 crisis correlates significantly with *Institutional flexibility*, *Total public social expenditure*, and *Total public social security benefits* (see the coefficients ρ = 41%, –40%, –65% at the intersection of the 15th row with columns 1–4). A possible explanation is, once again, that weak employment protection legislation probably encourages employers to behave riskily, which eventually leads to economic problems. Factual flexibility burdens social security, especially during a crisis.

– The size of bailout package correlates with *Institutional flexibility*. This follows from the correlation coefficient ρ = 0.60 at the intersection of the 7th row with the 1st column of the table. Again, a possible explanation is that weak employment protection legislation encourages employers to engage in risky behaviour, which eventually leads to more serious economic problems and to the need for larger bailout packages.

4. Discussion: flexicurity and the crisis

We have seen that there is a clear dependence between labour flexibility and the gravity of the economic situation by 2010, which is particularly aggravated by the current crisis. What could be the explanation for this dependence? What is the link between flexibilization and the crisis? To answer these questions, we shall argue that both the crisis and flexibilization stem from the same root – financial liberalization, which is the background cause of both phenomena and renders them dependent on one another.

As follows from economic theory, the ratio between consumption and investment is reflected by the interest rate determined by banks. Consumption requires cash, and investment requires credit. A high demand for cash exhausts bank assets and banks reduce lending by increasing interest rates. Conversely, low demand for cash enables banks to reduce interest rates, which makes loans attractive, so that more money is used for investments.

However, this idealized schema is a fact of history. Indeed, the first bankers borrowed real money (gold and silver coins) and lent it at a higher interest rate. Depositors received paper certificates (transformed later into banknotes) ensuring that a certain sum of real money could be received back at any time. These certificates had the same power as real money and were used in parallel to it. Initially, they were secured 1–1 by real money, and banking operated in the economy exactly as described. There were no crises before banks expanded their lending.

Obviously, banks can gain more profits by giving more credit than they can secure, assuming that the claims do not come simultaneously. In a sense, banks issue counterfeit banknotes or, to be precise, insecure money in the form of toxic papers. The degree of insecurity depends on the local banknotes-to-asset ratio and on the global economic situation, which determines the risk of simultaneous claims.

The harmfulness of this system is twofold. First, banks can distort the natural development of the economy. If banks extend more loans than they can secure, then more labour than socially required is allocated for non-consumption purposes. If banks reduce lending, they damage economic development, which depends on loans. It should be emphasized that banks that find themselves at risk can reduce lending for their own sakes, regardless of, or even contrary to, the social preference.

Second, lending insecure (additional) money means that bankers artificially profit from the real economy, absorbing its resources and restricting its development. In simplified terms, this can be explained as follows. The annual growth of European GDP of about 1–2% means that an average enterprise is 1–2% profitable. On the other hand, the usual 5% interest rate of commercial banks means that only enterprises with profitability over 5% can afford loans. Consequently, a new enterprise with borrowed capital can survive only if it substantially outperforms others. Alternatively, an established enterprise can take out a loan for a minor development and pay it back from the profits received on the main capital.

That is the main bottleneck faced in maintaining small and medium-sized enterpreises (SMEs). Apart from the most profitable enterprises, only developing countries with a GDP growth of over 5% can provide a sufficient return. All of these factors result in few chances for European SMEs and slow down the growth of large enterprises, whereas banks are earning high profits by neglecting the needs of the real economy. Average firms have to boost their performance to meet the banks' high credit requirements. Flexibilization of employment relations was just one way to improve firms' profitability so that they could make ends meet.

Since the 1970s, under the pressure of bankers, Western governments began to introduce financial liberalization so as to simplify the access of Western capital to the world markets. There was also the hope of improving living standards in industrialized countries and of solving the poverty problem in the Third World, while simultaneously enhancing the West's political influence during the Cold War. Investments in countries with low labour costs promised cheap goods for consumers and high returns for investors. At the same time, the target countries were expected to benefit from modern technology and job creation. That was the theoretical starting point for the current globalization (World Bank 2002).

Since then, world prices have become more equalized, and import goods are no longer as cheap as in the 1970–1980s. Living standards in the industrialized countries, even in the United States, improved visibly exclusively for top earners. According to Krugman (2006),

> Even households at the 95th percentile — that is, households richer than 19 out of 20 Americans — have seen their real income rise less than 1 percent a year since the late 1970s. But the income of the richest 1 percent has roughly doubled, and the income of the top 0.01 percent — people with incomes of more than $5 million in 2004 — has risen by a factor of 5.

As for developing countries, the poverty problem was not solved at all and inequality actually increased (Stiglitz 2002).

At the beginning of the 1990s, European industry began to improve its competitiveness by (1) participating in financial speculation and (2) using atypi-

cal forms of employment. The first option was inspired by the invention of derivatives – sophisticated financial products based on other financial products. Financial speculation became quite popular, and many formerly purely industrial enterprises are now involved in these activities. For instance, Chang (2009) called Porsche a "hedge fund with a car maker attached". The second tactic was facilitated by the European Employment Strategy with its flexibilization of labour relations.

However, the questions that emerge are, where do the additional profits come from, which role does the state play in this development, and what are the policy responses?

As for financial liberty, the profits obviously come from foreign investments based on European high technologies and advanced knowhow. At the same time, it should not be forgotten that European science, engineering, industrial culture, education and even private property are historical achievements of the entire European population, which gave Europe its economic advantages. All of these are a kind of common "European heritage", whose profits should belong to all Europeans. Yet Europe's legislators devised the rules that transformed all these features into foreign profits for just a few investors. If the economy were to remain closed, then all the gains would be eventually redistributed within Europe. The financial openness of Europe means that the common European advantages work only for private investors, speculators and other profiteers rather than for the whole of the European population.

On the other hand, financial liberty leads to stock exchange crushes that have a negative impact on the real economy, employment and the social situation. Thus, the problem of socially unfair redistribution of income is also exacerbated by the problem of huge losses from the fall in production during such crises. In order to acquire financial profits, financial intermediators victimize the real economy and social development.

As for flexibilization, it provides a number of benefits for employers, including financial advantages. The business world divests itself of restrictions, managers improve performance by rotating and squeezing personnel, and firms gain higher profits. However, advantages do not come from nothing. All expenses are covered by the state in the form of additional social security expenditure. Therefore, this type of flexibilization scenario turns out to be a long-term indirect government subsidy to firms. Since the state budget originates from taxpayers, employees contribute considerably to this subsidy.

An innovative feature of this type of employment relations is intermediation by the state in income redistribution. Employment relations were formerly restricted to the employer–employee axis. In the early stages of capitalism, the employer simply underpaid workers. The employer used the advantage of having the means of production and purchased the employee's ability to work rather than the results of the work and used this device to obtain added value. Now industrial relations no longer constitute an axis but a circle – employer–employee–state–employer – with a sophisticated money loop based

on legislation, social security and tax systems. The relationship between an individual employer and an individual employee is now extended to all employer-employee relations, the added value being redistributed through all these systems.

At the same time, the opportunity for making foreign investments, which actually means exporting jobs, gave employers a legal instrument of pressure on their governments: "If you do not relax employment protection according to our requirements, we shall continue moving jobs abroad, where labour is cheaper and employment protection is less strict, and you will remain here facing an army of unemployed". Thus, having liberalized the financial markets, European governments paved the way to a loss of control over their own labour markets.

To make the flexibilization strategy acceptable for Europeans, the concept of flexicurity has now been introduced. It was mainly motivated by economic reasoning that backs up the doctrine of sustainable development. However, sustainable development – the main argument for flexibilization – is only necessary insofar as it improves the living and working conditions. If wellbeing is not enhanced under "sustainable development" and better labour market performance (if any) is achieved at the price of stress and lack of confidence in the future, then the principle of "sustainable development" can be called into question. Are higher industrial productivity and competitiveness in fact the primary human goals? Why is sustainable development placed above social values? In other words, is it more important to be economically rich than to be socially healthy?

All of these considerations suggest that changes are required to current political philosophy; see Degryse and Pochet (2009). Sustainable *social* development should be prioritized over sustainable development. Indeed, the current crisis demonstrates that European policymakers are more inclined to save commercial banks than the real economy. Instead of providing favourable loans to enterprises in need through national institutions, the European Central Bank (ECB) offers unprecedented 1% loans to commercial banks, providing opportunities to make new profits on this recovery measure. In fact, the ECB is bailing out private banks and securing their expansive lending beyond their actual assets rather than helping the real economy.

The close relationship between politics and the market economy headed by owners and employers inevitably implies that the interest of this segment of the population is taken into account as the first priority. It contradicts the fundamental democratic principle of respect for a majority, which in the context of this discussion is obviously constituted by employees. Therefore, favouring economic priorities over social priorities amounts to privileging a minority of the population while disregarding the majority. This has certain moral connotations, given that the rich are allowed to multiply their wealth through different high-level operations involving currencies, shares and so-called "financial products" that in everyday life would be qualified instead as artful frauds. Indeed, fortunes are legally made simply by moving money from one account to

another, although the gains are clearly obtained not from heaven but from the losses of unprivileged customers. A policy that supports the unfair redistribution of income can hardly be defined as democratic.

Thus, financial liberty and labour flexibility stem from the one root – market economy aimed at profitability. Bankers profit from the economy, employers wish to share the burdens of competition with employees, and politicians seek to shift the responsibility for employment from the state to individuals. And flexicurity, with its latent redistribution of income through taxes and social security, decreases the total demand, contributes to overproduction and unemployment, and ultimately aggravates the crisis. This is exactly what is observed in the model presented in this paper.

Since the way out is generally through the same door as the way in, the solution is the elimination of the main evil – financial liberty. The radical solution would be to remove finances from the market economy by nationalizing the financial sector and making it non-profit, reducing financial functions to payments. This would restore control of the labour markets through the "normalization" of employment, provide favourable conditions for developing small and medium-sized enterprises, exclude leakages of resources from the real economy and ultimately prevent crises.

5. Conclusions

1. The 15-year history of flexicurity shows that its definition has been changed in favour of a growing emphasis on flexibility. Initially, flexicurity was understood as protection of atypical workers, then as a flexibility-security trade-off, and finally as security through flexibility, or even 'flexibility security', that is, securing flexibility by adapting the labour force to flexible employment, primarily by lifelong learning.

2. The macroeconomic analysis of flexicurity is performed with four composite indicators based on statistical figures for 25 countries. These composite indicators are flexibility, security, gravity of macroeconomic situation by 2010 and aggravation of macroeconomic situation during the crisis (in 2008–2010). It is shown with statistical certainty that high flexibility is not advantageous. Flexibility-security combinations are not advantageous either, although the pure effect of the crisis is softened if social security is generous. A better alternative to flexicurity would be "normalization of exployment relations", that is, low flexibility, which also would make income redistribution more fair and would not require high social security expenditure.

3. The study argues that both flexibilization and the crisis stem from the same root – from financial liberalization, which is the background cause of both phenomena, making them dependent on each other. Since both have negative consequences, the conclusion is that the political philosophy of social and economic development should be revised, with social priorities being given precedence over economic priorities.

6 Appendix Data for the indicators of flexibility, security and macroeconomic situation

Table 2 illustrates two steps in constructing the composite indicators of flexibility, security and gravity of macroeconomic situation. Consider the first column of Table 2 (see extraction below):

Extraction from table 2, p.41

	Institutional flexibility 1 (increasing) Flexibility of regular employment (–EPL for regular employment) / Rank Score 0–6
AT	2008: – 2.37 / 14
Austria	1990 → 2008: + 0.55 / 4
(...)	(...)
US	2008: – 0.17 / 1
United States	1990 → 2008: 0.00 / 10

The top heading, "Institutional flexibility", indicates that the variable is used for constructing the partial indicator *Institutional flexibility*. The second heading starts with 1 – the number of the variable in the overall list of variables *and* indicators. "Increasing" means that the higher the code, the higher the "Institutional flexibility" (in other cases "Factual flexibility", "Security" or some other aggregate indicator to which the variable contributes). "Decreasing" would mean the higher the code the lower the "Institutional flexibility". In this case, the variable should be taken with the opposite sign so as to change the direction of increase. The variable label is underneath, in this case "Flexibility of regular employment (–EPL for regular employment)". The variable is based on the OECD index of strictness of employment protection legislation for regular employment with the negative sign – so as to meet the increase in flexibility. "Rank" after the slash refers to values after the slash in the table cells. Besides the values of the variables, their ranks in the given column are also displayed. The reference to the data source is provided in a small font. Here, the path to the EPL indicator in the OECD.Stat (2010) web page is given.

The third heading shows the units of measurement. The initial OECD EPL indicator is expressed in conditional scores ranging from 0 to 6.

The first table cell shows the value –2.37 of the indicator for Austria in 2008 with a negative sigh. Its rank in the column (with the negative sign) is 14. The next line shows that flexibility in Austria increased by 0.55 since 1990, and that such an increase is ranked 4 in the column.

The layout of Table 2 changes from column 11 in Sheet D. Now the columns display the first-level aggregate indicators of countries. Here, the first-level aggregate indicators are given for normalized variables in conditional %. The elements are the mean values of the corresponding elements of the relevant variables.

The last three columns of Table 2 (Sheets F and G) show the second-level aggregate indicators "Flexibility", "Security" and "Gravity of situation". Their elements are the mean values of the corresponding elements of the relevant first-level aggregate indicators. The second-level aggregate indicator "Aggravation of situation" (during the crisis) is given in the column "Gravity of situation" in the second row of the cells.

Note that the years in one and the same column are not always the same. This is a result of the irregular availability of data. For instance, some figures were available for 2009 but not for 2010. In these cases, the available data were used and the year indicated is the mean year of the data used for the given indicator, which is not rounded but reduced to the integer part.

Table 2 **Data for the model (Sheet A)**

	Institutional flexibility		Factual flexibility
	1 (increasing) Flexibility of regular employment (-EPL for regular employment) / Rank Score 0–6	2 (increasing) Flexibility of temporary employment (-EPL for temporary employment) / Rank Score 0–6	3 (increasing) Share of atypical employment in total employment / Rank %
AT Austria	2008: – 2.37 /14 1990-2008: +0.55 / 4	2008: –1.50 /10 1990-2008: 0.00 / 15	2008: 40.00 /9 1995-2008: +10.00 / 4
BE Belgium	2008: –1.73 /6 1990-2008: –0.05 / 12	2008: –2.63 /15 1990-2008: +2.00 / 4	2008: 39.80 /10 1990-2008: +7.90 / 5
CZ Czech Republic	2008: –3.05 /22 1993-2008: +0.26 / 6	2008: –0.88 /4 1993-2008: –0.38 / 17	2008: 25.00 /17 1997-2008: +1.20 / 10
DK Denmark	2008: –1.63 /5 1990-2008: +0.05 / 8	2008: –1.38 /9 1990-2008: +1.75 / 5	2008: 37.20 /12 1990-2008: –2.90 / 14
ES Spain	2008: –2.46 /16 1990-2008: +1.42 / 1	2008: –3.50 /18 1990-2008: +0.25 / 13	2008: 47.40 /2 1990-2008: –2.40 / 13
EL Greece	2008: –2.33 /13 1990-2008: –0.08 / 13	2008: –3.13 /16 1990-2008: +1.62 / 6	2008: 44.40 /5 1990-2008: –12.40 / 16
FI Finland	2008: –2.17 /11 1990-2008: +0.62 / 3	2008: –1.75 /11 1990-2008: +0.13 / 14	2008: 33.20 /15 1995-2008: –1.80 / 12
FR France	2009: –2.45 /15 1990-2009: –0.11 / 14	2009: –3.25 /17 1990-2009: +0.38 / 12	2008: 36.10 /14 1990-2008: +2.70 / 8
DE Germany	2008: –3.00 /21 1990-2008: –0.42 / 16	2008: –1.25 /8 1990-2008: +2.50 / 3	2008: 44.60 /4 1990-2008: +11.00 / 2
HU Hungary	2008: –1.92 /9 1990-2008: 0.00 / 10	2008: –1.38 /9 1990-2008: –0.75 / 18	2008: 22.10 /18 1997-2008: –9.50 / 15
IE Ireland	2008: –1.60 /4 1990-2008: 0.00 / 10	2008: –0.63 /3 1990-2008: –0.38 / 17	2008: 37.10 /13 1990-2008: +1.80 / 9
IT Italy	2008: –1.77 /7 1990-2008: 0.00 / 10	2008: –2.00 /13 1990-2008: +3.38 / 1	2008: 44.10 /6 1990-2008: +10.40 / 3
NL Netherlands	2008: –2.72 /19 1990-2008: +0.36 / 5	2008: –1.19 /7 1990-2008: +1.19 / 8	2008: 60.00 /1 1990-2008: +17.30 / 1
PL Poland	2008: –2.06 /10 1990-2008: 0.00 / 10	2008: –1.75 /11 1990-2008: –1.00 / 19	2008: 45.80 /3 1997-2008: +6.60 / 7
PT Portugal	2009: –3.63 /24 1990-2009: +1.20 / 2	2009: –2.13 /14 1990-2009: +1.25 / 7	2008: 43.60 /7 1990-2008: +0.10 / 11
SE Sweden	2008: –2.86 /20 1990-2008: +0.04 / 9	2008: –0.88 /4 1990-2008: +3.20 / 2	2008: 41.50 /8 1995-2008: –2.40 / 13
SI Slovenia	2008: –3.15 /23	2008: –1.88 /12	2008: 31.20 /16 1996-2008: +2.70 / 8
SK Slovak Republic	2008: –2.50 /17 1993-2008: –0.03 / 11	2008: –0.38 /2 1993-2008: +0.75 / 10	2008: 19.30 /19 1998-2008: +6.90 / 6
UK United Kingdom	2008: –1.12 /2 1990-2008: –0.17 / 15	2008: –0.38 /2 1990-2008: –0.13 / 16	2008: 37.30 /11 1990-2008: +1.20 / 10
CH Switzerland	2008: –1.16 /3 1990-2008: 0.00 / 10	2008: –1.13 /6 1990-2008: 0.00 / 15	No data
IS Iceland	2008: –1.73 /6	2008: –0.63 /3	No data
NO Norway	2008: –2.25 /12 1990-2008: 0.00 / 10	2008: –3.13 /16 1990-2008: +0.41 / 11	No data
TR Turkey	2008: –2.56 /18 1990-2008: +0.08 / 7	2008: –4.88 /19 1990-2008: 0.00 / 15	No data
JP Japan	2008: –1.87 /8 1990-2008: 0.00 / 10	2008: –1.00 /5 1990-2008: +0.81 / 9	No data
US United States	2008: –0.17 /1 1990-2008: 0.00 / 10	2008: –0.25 /1 1990-2008: 0.00 / 15	No data

Table 2 **Data for the model (Sheet B)**

	Factual flexibility 4 (increasing) Incidence of involuntary part-time workers in total part-time employment / Rank %	Social security, total 5 (increasing) Total public social expenditure / Rank % GDP	Social security, pay-offs 6 (increasing) Total public social security benefits / Rank % GDP
AT Austria	2008: 10.70 /18 1995-2008: +3.40 / 15	2005: 27.20 /3 1990-2005: +3.33 / 12	2007: 18.00 /1 1990-2007: +0.52 / 12
BE Belgium	2008: 14.30 /14 1990-2008: –16.90 / 23	2005: 26.40 /6 1990-2005: +1.51 / 18	2007: 15.39 /7 1990-2007: –0.39 / 13
CZ Czech Republic	2008: 12.60 /15 1997-2008: +8.50 / 7	2005: 19.50 /18 1990-2005: +3.46 / 11	2007: 12.82 /14 1995-2007: +2.07 / 7
DK Denmark	2008: 12.00 /17 1990-2008: +0.30 / 20	2005: 27.08 /4 1990-2005: +1.94 / 15	2007: 14.98 /11 1990-2007: –1.98 / 18
ES Spain	2008: 34.90 /4 1990-2008: +9.10 / 6	2005: 21.24 /13 1990-2005: +1.29 / 20	2007: 11.64 /18 1990-2007: –0.88 / 14
EL Greece	2008: 41.70 /2 1990-2008: +13.10 / 3	2005: 20.55 /16 1990-2005: +4.08 / 10	2007: 17.39 /3 1990-2007: +4.40 / 2
FI Finland	2008: 25.90 /7 1991-2008: +3.86 / 13	2005: 26.10 /7 1990-2005: +1.94 / 16	2007: 15.15 /10 1990-2007: +0.56 / 11
FR France	2008: 33.20 /5 1992-2008: –2.10 / 21	2005: 29.17 /2 1990-2005: +4.08 / 9	2007: 17.43 /2 1990-2007: +1.06 / 9
DE Germany	2008: 21.90 /10 1990-2008: +17.40 / 2	2005: 26.75 /5 1990-2005: +4.47 / 7	2007: 17.21 /4 1991-2007: +1.91 / 8
HU Hungary	2008: 25.50 /8 1995-2008: +1.75 / 18	2005: 22.54 /10 1999-2005: +1.46 / 19	2007: 15.23 /8 1991-2007: –2.43 / 20
IE Ireland	2008: 12.50 /16 1990-2008: –17.90 / 24	2005: 16.73 /21 1990-2005: +1.80 / 17	2007: 10.23 /23 1990-2007: –1.47 / 17
IT Italy	2008: 40.40 /3 1990-2008: +3.20 / 16	2005: 24.98 /8 1990-2005: +5.03 / 6	2007: 17.12 /5 1990-2007: +2.10 / 6
NL Netherlands	2008: 4.40 /25 1990-2008: –21.70 / 25	2005: 20.88 /15 1990-2005: –4.69 / 24	2007: 10.36 /22 1990-2007: –7.88 / 24
PL Poland	2008: 16.60 /12 1997-2008: +4.90 / 10	2005: 21.03 /14 1990-2005: +6.11 / 4	2007: 14.18 /13 1995-2007: –2.79 / 21
PT Portugal	2008: 28.40 /6 1990-2008: +4.30 / 12	2005: 23.10 /9 1990-2005: +10.21 / 1	2007: 15.16 /9 1990-2007: +6.33 / 1
SE Sweden	2008: 24.90 /9 1990-2008: +9.10 / 5	2005: 29.43 /1 1990-2005: –0.77 / 22	2007: 15.66 /6 1990-2007: –2.01 / 19
SI Slovenia	2008: 6.10 /23 1996-2008: –4.40 / 22	No data	2007: 14.36 /12 1995-2007: –1.27 / 16
SK Slovak Republic	2008: 42.48 /1 1994-2008: +24.61 / 1	2005: 16.61 /22 1995-2005: –2.02 / 23	2007: 11.59 /19 1994-2007: –3.27 / 22
UK United Kingdom	2007: 10.10 /19 1990-2007: +3.70 / 14	2005: 21.29 /12 1990-2005: +4.27 / 8	2007: 12.75 /15 1990-2007: +1.01 / 10
CH Switzerland	2008: 5.50 /24 1991-2008: +4.58 / 11	2005: 20.26 /17 1990-2005: +6.89 / 3	2007: 10.83 /21 1990-2007: +3.10 / 4
IS Iceland	2008: 8.50 /20 1991-2008: +5.47 / 9	2005: 16.91 /20 1990-2005: +3.17 / 13	2007: 5.79 /24 1990-2007: –1.14 / 15
NO Norway	2008: 15.60 /13 1990-2008: +2.07 / 17	2005: 21.64 /11 1990-2005: –0.66 / 21	2007: 12.23 /16 1990-2007: –3.29 / 23
TR Turkey	2008: 7.00 /21 1991-2008: +6.35 / 8	2005: 13.68 /24 1990-2005: +6.05 / 5	No data
JP Japan	2008: 17.58 /11 1990-2008: +11.81 / 4	2005: 18.58 /19 1990-2005: +7.16 / 2	2007: 11.56 /20 1990-2007: +4.22 / 3
US United States	2008: 6.91 /22 1998-2008: +0.87 / 19	2005: 15.91 /23 1990-2005: +2.55 / 14	2007: 12.08 /17 1990-2007: +2.10 / 5

Table 2 **Data for the model (Sheet C)**

	Gravity of economic situation		
	7 (increasing) -Output gap / Rank % GDP	8 (increasing) Public debt / Rank % GDP	9 (increasing) Bailout packages / Rank % GDP
AT Austria	2010: 4.53 /14 2008-2010: +6.38 / 10	2010: 77.85 /13 2008-2010: +11.64 / 17	2008: 35.40 /6 2007-2008: +35.40 / 6
BE Belgium	2010: 6.58 /6 2008-2010: +6.55 / 9	2010: 105.25 /5 2008-2010: +11.76 / 15	2008: 31.40 /7 2007-2008: +31.40 / 7
CZ Czech Republic	2010: 4.68 /13 2008-2010: +9.00 / 5	2010: 53.07 /19 2008-2010: +12.37 / 13	No data
DK Denmark	2010: 5.30 /11 2008-2010: +4.88 / 16	2010: 48.83 /21 2008-2010: +9.07 / 19	No data
ES Spain	2010: 5.98 /9 2008-2010: +4.99 / 15	2010: 67.55 /15 2008-2010: +20.51 / 7	2008: 22.80 /8 2007-2008: +22.80 / 8
EL Greece	2010: 7.26 /5 2008-2010: +6.58 / 8	2010: 123.30 /4 2008-2010: +20.74 / 6	2008: 11.50 /13 2007-2008: +11.50 / 13
FI Finland	2010: 9.06 /2 2008-2010: +9.22 / 4	2010: 52.31 /20 2008-2010: +11.66 / 16	No data
FR France	2010: 3.67 /17 2008-2010: +4.09 / 20	2010: 92.47 /6 2008-2010: +16.80 / 8	2008: 19.20 /10 2007-2008: +19.20 / 10
DE Germany	2010: 2.87 /20 2008-2010: +5.25 / 14	2010: 82.00 /11 2008-2010: +13.15 / 10	2008: 22.20 /9 2007-2008: +22.20 / 9
HU Hungary	2010: 10.28 /1 2008-2010: +10.94 / 2	2010: 89.92 /9 2008-2010: +12.93 / 11	2008: 9.20 /14 2007-2008: +9.20 / 14
IE Ireland	2010: 7.59 /4 2008-2010: +7.11 / 6	2010: 81.29 /12 2008-2010: +32.79 / 2	2008: 267.00 /1 2007-2008: +267.00 / 1
IT Italy	2010: 4.86 /12 2008-2010: +4.27 / 19	2010: 127.01 /3 2008-2010: +12.61 / 12	2008: 3.30 /16 2007-2008: +3.30 / 16
NL Netherlands	2010: 4.53 /15 2008-2010: +6.64 / 7	2010: 77.08 /14 2008-2010: +11.25 / 18	2008: 40.10 /5 2007-2008: +40.10 / 5
PL Poland	2010: 0.41 /23 2008-2010: +4.76 / 17	2010: 62.81 /16 2008-2010: +8.81 / 20	2008: 3.20 /17 2007-2008: +3.20 / 17
PT Portugal	2010: 3.08 /19 2008-2010: +2.77 / 23	2010: 90.91 /8 2008-2010: +15.74 / 9	2008: 14.40 /12 2007-2008: +14.40 / 12
SE Sweden	2010: 6.25 /7 2008-2010: +6.06 / 12	2010: 55.16 /18 2008-2010: +8.11 / 21	2008: 69.70 /4 2007-2008: +69.70 / 4
SI Slovenia	No data	2008: 29.85 /24	No data
SK Slovak Republic	2010: 5.54 /10 2008-2010: +13.75 / 1	2010: 43.00 /23 2008-2010: +12.15 / 14	No data
UK United Kingdom	2010: 6.25 /8 2008-2010: +6.29 / 11	2010: 83.09 /10 2008-2010: +26.27 / 3	2008: 81.60 /2 2007-2008: +81.60 / 2
CH Switzerland	2010: 3.47 /18 2008-2010: +5.47 / 13	2010: 45.01 /22 2008-2010: +0.98 / 23	2008: 8.30 /15 2007-2008: +8.30 / 15
IS Iceland	2010: 8.93 /3 2008-2010: +9.35 / 3	2010: 142.54 /2 2008-2010: +46.24 / 1	No data
NO Norway	2010: 0.95 /22 2008-2010: +3.15 / 21	2010: 58.96 /17 2008-2010: +2.98 / 22	2008: 17.70 /11 2007-2008: +17.70 / 11
TR Turkey	No data	No data	2008: 0.30 /18 2007-2008: +0.30 / 18
JP Japan	2010: 2.11 /21 2008-2010: +4.38 / 18	2010: 197.20 /1 2008-2010: +25.07 / 4	2008: 22.20 /9 2007-2008: +22.20 / 9
US United States	2010: 3.90 /16 2008-2010: +3.03 / 22	2010: 92.43 /7 2008-2010: +22.45 / 5	2008: 81.00 /3 2007-2008: +81.00 / 3

Table 2 **Data for the model (Sheet D)**

	Gravity of social situation	1st-level aggregate indicators	
	10 (increasing) Unemployment rate / Rank %	11 (increasing) Institutional flexibility / Rank Conditional %	12 (increasing) Factual flexibility / Rank Conditional %
AT Austria	2010: 6.00 /17 2008-2010: +2.20 / 18	2008: 54.71 /13 1990-2008: +37.77 / 11	2008: 33.70 /13 1995-2008: +64.81 / 5
BE Belgium	2010: 9.90 /9 2008-2010: +2.90 / 13	2008: 51.75 /16 1990-2008: +44.30 / 6	2008: 38.18 /11 1990-2008: +39.36 / 22
CZ Czech Republic	2010: 7.90 /14 2008-2010: +3.50 / 9	2008: 51.58 /17 1993-2008: +25.56 / 15	2008: 17.77 /19 1997-2008: +55.50 / 10
DK Denmark	2010: 5.80 /18 2008-2010: +2.50 / 16	2008: 66.70 /7 1990-2008: +44.16 / 7	2008: 31.97 /15 1990-2008: +39.75 / 21
ES Spain	2010: 20.00 /1 2008-2010: +8.70 / 1	2008: 31.81 /23 1990-2008: +64.27 / 2	2008: 74.57 /3 1990-2008: +50.09 / 14
EL Greece	2010: 10.20 /7 2008-2010: +2.50 / 16	2008: 37.68 /21 1990-2008: +39.15 / 10	2008: 79.82 /1 1990-2008: +37.57 / 23
FI Finland	2010: 10.20 /7 2008-2010: +3.80 / 8	2008: 54.90 /12 1990-2008: +41.16 / 8	2008: 45.31 /10 1993-2008: +45.44 / 19
FR France	2010: 10.20 /7 2008-2010: +2.40 / 17	2009: 34.65 /22 1990-2009: +24.18 / 17	2008: 58.46 /5 1991-2008: +46.58 / 18
DE Germany	2010: 9.20 /10 2008-2010: +1.90 / 19	2008: 48.30 /18 1990-2008: +39.95 / 9	2008: 54.06 /7 1990-2008: +81.61 / 2
HU Hungary	2010: 11.30 /5 2008-2010: +3.50 / 9	2008: 62.51 /9 1990-2008: +14.27 / 21	2008: 31.15 /16 1996-2008: +30.19 / 24
IE Ireland	2010: 14.00 /2 2008-2010: +8.00 / 2	2008: 75.23 /4 1990-2008: +18.49 / 19	2008: 32.50 /14 1990-2008: +28.01 / 25
IT Italy	2010: 8.70 /12 2008-2010: +1.90 / 19	2008: 57.98 /10 1990-2008: +61.41 / 3	2008: 77.74 /2 1990-2008: +65.27 / 4
NL Netherlands	2010: 5.40 /19 2008-2010: +2.60 / 15	2008: 53.00 /15 1990-2008: +46.20 / 5	2008: 50.00 /8 1990-2008: +50.00 / 15
PL Poland	2010: 9.90 /9 2008-2010: +2.80 / 14	2008: 56.49 /11 1990-2008: +11.41 / 22	2008: 48.58 /9 1997-2008: +60.71 / 6
PT Portugal	2010: 9.00 /11 2008-2010: +1.30 / 20	2009: 29.70 /24 1990-2009: +69.71 / 1	2008: 61.37 /4 1990-2008: +49.11 / 16
SE Sweden	2010: 10.20 /7 2008-2010: +4.00 / 6	2008: 54.32 /14 1990-2008: +60.45 / 4	2008: 54.19 /6 1992-2008: +50.09 / 13
SI Slovenia	2010: 8.30 /13 2008-2010: +3.90 / 7	2008: 39.33 /19	2008: 16.85 /20 1996-2008: +44.10 / 20
SK Slovak Republic	2010: 12.74 /4 2008-2010: +3.18 / 11	2008: 64.93 /8 1993-2008: +30.57 / 13	2008: 50.00 /8 1996-2008: +82.49 / 1
UK United Kingdom	2010: 8.70 /12 2008-2010: +3.10 / 12	2008: 84.87 /2 1990-2008: +16.72 / 20	2007: 29.60 /17 1990-2007: +50.32 / 12
CH Switzerland	2010: 6.41 /15 2008-2010: +3.25 / 10	2008: 76.19 /3 1990-2008: +22.83 / 18	2008: 2.89 /24 1991-2008: +56.74 / 9
IS Iceland	2010: 10.87 /6 2008-2010: +7.88 / 3	2008: 73.35 /5	2008: 10.77 /21 1991-2008: +58.66 / 8
NO Norway	2010: 5.00 /20 2008-2010: +2.50 / 16	2008: 38.84 /20 1990-2008: +27.51 / 14	2008: 29.41 /18 1990-2008: +51.32 / 11
TR Turkey	2010: 13.90 /3 2008-2010: +4.10 / 5	2008: 15.46 /25 1990-2008: +25.00 / 16	2008: 6.83 /22 1991-2008: +60.57 / 7
JP Japan	2010: 6.40 /16 2008-2010: +2.40 / 17	2008: 67.33 /6 1990-2008: +32.08 / 12	2008: 34.61 /12 1990-2008: +72.35 / 3
US United States	2010: 10.00 /8 2008-2010: +4.20 / 4	2008: 100.00 /1 1990-2008: +22.83 / 18	2008: 6.58 /23 1998-2008: +48.74 / 17

Table 2 **Data for the model (Sheet E)**

	1st-level aggregate indicators		
	13 (increasing) Social security, total / Rank Conditional %	14 (increasing) Social security, pay-offs / Rank Conditional %	15 (increasing) Gravity of economic situation / Rank Conditional %
AT Austria	2005: 85.82 /3 1990-2005: +53.82 / 12	2007: 100.00 /1 1990-2007: +59.11 / 12	2009: 37.87 /12 2007-2009: +33.75 / 11
BE Belgium	2005: 80.77 /6 1990-2005: +41.64 / 18	2007: 78.60 /7 1990-2007: +52.70 / 13	2009: 48.60 /8 2007-2009: +32.71 / 12
CZ Czech Republic	2005: 36.91 /18 1990-2005: +54.66 / 11	2007: 57.59 /14 1995-2007: +70.05 / 7	2010: 28.55 /18 2008-2010: +41.73 / 8
DK Denmark	2005: 85.09 /4 1990-2005: +44.52 / 15	2007: 75.28 /11 1990-2007: +41.54 / 18	2010: 30.43 /16 2008-2010: +19.40 / 18
ES Spain	2005: 47.97 /13 1990-2005: +40.12 / 20	2007: 47.86 /18 1990-2007: +49.25 / 14	2009: 35.54 /14 2007-2009: +30.74 / 15
EL Greece	2005: 43.59 /16 1990-2005: +58.83 / 10	2007: 95.00 /3 1990-2007: +86.44 / 2	2009: 46.33 /10 2007-2009: +31.10 / 14
FI Finland	2005: 78.86 /7 1990-2005: +44.47 / 16	2007: 76.63 /10 1990-2007: +59.41 / 11	2010: 50.54 /6 2008-2010: +41.97 / 7
FR France	2005: 98.36 /2 1990-2005: +58.87 / 9	2007: 95.32 /2 1990-2007: +62.93 / 9	2009: 31.22 /15 2007-2009: +23.85 / 17
DE Germany	2005: 82.95 /5 1990-2005: +61.48 / 7	2007: 93.55 /4 1991-2007: +68.93 / 8	2009: 27.67 /19 2007-2009: +25.99 / 16
HU Hungary	2005: 56.23 /10 1999-2005: +41.29 / 19	2007: 77.33 /8 1991-2007: +38.32 / 20	2009: 48.95 /7 2007-2009: +37.78 / 9
IE Ireland	2005: 19.33 /21 1990-2005: +43.54 / 17	2007: 36.37 /23 1990-2007: +45.12 / 17	2009: 51.72 /5 2007-2009: +55.22 / 4
IT Italy	2005: 71.71 /8 1990-2005: +65.19 / 6	2007: 92.79 /5 1990-2007: +70.20 / 6	2009: 35.62 /13 2007-2009: +14.87 / 20
NL Netherlands	2005: 45.68 /15 1990-2005: 0.00 / 24	2007: 37.45 /22 1990-2007: 0.00 / 24	2009: 39.63 /11 2007-2009: +36.18 / 10
PL Poland	2005: 46.64 /14 1990-2005: +72.49 / 4	2007: 68.72 /13 1995-2007: +35.83 / 21	2009: 7.76 /23 2007-2009: +13.57 / 21
PT Portugal	2005: 59.80 /9 1990-2005: +100.00 / 1	2007: 76.70 /9 1990-2007: +100.00 / 1	2009: 26.96 /20 2007-2009: +17.13 / 19
SE Sweden	2005: 100.00 /1 1990-2005: +26.31 / 22	2007: 80.86 /6 1990-2007: +41.34 / 19	2009: 53.22 /4 2007-2009: +44.28 / 6
SI Slovenia	No data	2007: 70.19 /12 1995-2007: +46.48 / 16	2008: 0.00 /24
SK Slovak Republic	2005: 18.60 /22 1995-2005: +17.92 / 23	2007: 47.50 /19 1994-2007: +32.47 / 22	2010: 29.89 /17 2008-2010: +63.14 / 2
UK United Kingdom	2005: 48.30 /12 1990-2005: +60.10 / 8	2007: 57.00 /15 1990-2007: +62.56 / 10	2009: 63.64 /2 2007-2009: +62.95 / 3
CH Switzerland	2005: 41.78 /17 1990-2005: +77.73 / 3	2007: 41.24 /21 1990-2007: +77.25 / 4	2009: 16.64 /21 2007-2009: +12.18 / 22
IS Iceland	2005: 20.49 /20 1990-2005: +52.75 / 13	2007: 0.00 /24 1990-2007: +47.40 / 15	2010: 76.81 /1 2008-2010: +79.96 / 1
NO Norway	2005: 50.55 /11 1990-2005: +27.03 / 21	2007: 52.71 /16 1990-2007: +32.33 / 23	2009: 14.75 /22 2007-2009: +10.42 / 23
TR Turkey	2005: 0.00 /24 1990-2005: +72.04 / 5	No data	2008: 0.00 /24 2007-2008: 0.00 / 24
JP Japan	2005: 31.07 /19 1990-2005: +79.50 / 2	2007: 47.28 /20 1990-2007: +85.16 / 3	2009: 48.05 /9 2007-2009: +31.95 / 13
US United States	2005: 14.16 /23 1990-2005: +48.57 / 14	2007: 51.54 /17 1990-2007: +70.26 / 5	2009: 57.33 /3 2007-2009: +50.05 / 5

Table 2 **Data for the model (Sheet F)**

	1st-level aggregate indicators		Aggregate indicators
	16 (increasing) Gravity of social situation / Rank Conditional %	17 (increasing) Flexibility / Rank Conditional %	18 (increasing) Security / Rank Conditional %
AT Austria	2010: 6.67 /17 2008-2010: +12.16 / 18	2008: 44.21 /19 1992-2008: +51.29 / 8	2006: 92.91 /2 1990-2006: +56.47 / 12
BE Belgium	2010: 32.67 /9 2008-2010: +21.62 / 13	2008: 44.97 /18 1990-2008: +41.83 / 13	2006: 79.68 /7 1990-2006: +47.17 / 16
CZ Czech Republic	2010: 19.33 /14 2008-2010: +29.73 / 9	2008: 34.67 /22 1995-2008: +40.53 / 15	2006: 47.25 /17 1992-2006: +62.35 / 8
DK Denmark	2010: 5.33 /18 2008-2010: +16.22 / 16	2008: 49.33 /14 1990-2008: +41.96 / 12	2006: 80.18 /6 1990-2006: +43.03 / 20
ES Spain	2010: 100.00 /1 2008-2010: +100.00 / 1	2008: 53.19 /8 1990-2008: +57.18 / 4	2006: 47.92 /16 1990-2006: +44.69 / 18
EL Greece	2010: 34.67 /7 2008-2010: +16.22 / 16	2008: 58.75 /2 1990-2008: +38.36 / 18	2006: 69.29 /10 1990-2006: +72.63 / 4
FI Finland	2010: 34.67 /7 2008-2010: +33.78 / 8	2008: 50.10 /13 1991-2008: +43.30 / 10	2006: 77.74 /8 1990-2006: +51.94 / 14
FR France	2010: 34.67 /7 2008-2010: +14.86 / 17	2008: 46.56 /16 1990-2008: +35.38 / 21	2006: 96.84 /1 1990-2006: +60.90 / 10
DE Germany	2010: 28.00 /10 2008-2010: +8.11 / 19	2008: 51.18 /11 1990-2008: +60.78 / 2	2006: 88.25 /4 1990-2006: +65.20 / 7
HU Hungary	2010: 42.00 /5 2008-2010: +29.73 / 9	2008: 46.83 /15 1993-2008: +22.23 / 25	2006: 66.78 /12 1995-2006: +39.81 / 21
IE Ireland	2010: 60.00 /2 2008-2010: +90.54 / 2	2008: 53.87 /6 1990-2008: +23.25 / 24	2006: 27.85 /23 1990-2006: +44.33 / 19
IT Italy	2010: 24.67 /12 2008-2010: +8.11 / 19	2008: 67.86 /1 1990-2008: +63.34 / 1	2006: 82.25 /5 1990-2006: +67.70 / 6
NL Netherlands	2010: 2.67 /19 2008-2010: +17.57 / 15	2008: 51.50 /10 1990-2008: +48.10 / 9	2006: 41.56 /18 1990-2006: 0.00 / 25
PL Poland	2010: 32.67 /9 2008-2010: +20.27 / 14	2008: 52.53 /9 1993-2008: +36.06 / 19	2006: 57.68 /13 1992-2006: +54.16 / 13
PT Portugal	2010: 26.67 /11 2008-2010: 0.00 / 20	2008: 45.53 /17 1990-2008: +59.41 / 3	2006: 68.25 /11 1990-2006: +100.00 / 1
SE Sweden	2010: 34.67 /7 2008-2010: +36.49 / 6	2008: 54.26 /5 1991-2008: +55.27 / 6	2006: 90.43 /3 1990-2006: +33.83 / 22
SI Slovenia	2010: 22.00 /13 2008-2010: +35.14 / 7	2008: 28.09 /24 2002-2008: +33.46 / 23	2007: 70.19 /9 1995-2007: +46.48 / 17
SK Slovak Republic	2010: 51.61 /4 2008-2010: +25.39 / 11	2008: 57.46 /3 1994-2008: +56.53 / 5	2006: 33.05 /21 1994-2006: +25.19 / 24
UK United Kingdom	2010: 24.67 /12 2008-2010: +24.32 / 12	2007: 57.23 /4 1990-2007: +33.52 / 22	2006: 52.65 /14 1990-2006: +61.33 / 9
CH Switzerland	2010: 9.40 /15 2008-2010: +26.38 / 10	2008: 39.54 /21 1990-2008: +39.79 / 16	2006: 41.51 /19 1990-2006: +77.49 / 3
IS Iceland	2010: 39.13 /6 2008-2010: +88.95 / 3	2008: 42.06 /20 1999-2008: +40.75 / 14	2006: 10.24 /24 1990-2006: +50.08 / 15
NO Norway	2010: 0.00 /20 2008-2010: +16.22 / 16	2008: 34.13 /23 1990-2008: +39.41 / 17	2006: 51.63 /15 1990-2006: +29.68 / 23
TR Turkey	2010: 59.33 /3 2008-2010: +37.84 / 5	2008: 11.15 /25 1990-2008: +42.79 / 11	2005: 0.00 /25 1990-2005: +72.04 / 5
JP Japan	2010: 9.33 /16 2008-2010: +14.86 / 17	2008: 50.97 /12 1990-2008: +52.21 / 7	2006: 39.18 /20 1990-2006: +82.33 / 2
US United States	2010: 33.33 /8 2008-2010: +39.19 / 4	2008: 53.29 /7 1994-2008: +35.79 / 20	2006: 32.85 /22 1990-2006: +59.41 / 11

Table 2 **Data for the model (Sheet G)**

	Aggregate indicators 19 (increasing) Gravity of situation / Rank Conditional %
AT Austria	2009: 22.27 /19 2007-2009: +22.96 / 15
BE Belgium	2009: 40.63 /10 2007-2009: +27.17 / 11
CZ Czech Republic	2010: 23.94 /18 2008-2010: +35.73 / 9
DK Denmark	2010: 17.88 /22 2008-2010: +17.81 / 19
ES Spain	2009: 67.77 /1 2007-2009: +65.37 / 3
EL Greece	2009: 40.50 /11 2007-2009: +23.66 / 13
FI Finland	2010: 42.60 /8 2008-2010: +37.88 / 8
FR France	2009: 32.94 /12 2007-2009: +19.36 / 16
DE Germany	2009: 27.84 /16 2007-2009: +17.05 / 21
HU Hungary	2009: 45.47 /4 2007-2009: +33.75 / 10
IE Ireland	2009: 55.86 /3 2007-2009: +72.88 / 2
IT Italy	2009: 30.14 /13 2007-2009: +11.49 / 24
NL Netherlands	2009: 21.15 /20 2007-2009: +26.88 / 12
PL Poland	2009: 20.21 /21 2007-2009: +16.92 / 22
PT Portugal	2009: 26.82 /17 2007-2009: +8.56 / 25
SE Sweden	2009: 43.94 /7 2007-2009: +40.38 / 7
SI Slovenia	2009: 11.00 /24 2008-2009: +17.57 / 20
SK Slovak Republic	2010: 40.75 /9 2008-2010: +44.27 / 5
UK United Kingdom	2009: 44.15 /6 2007-2009: +43.64 / 6
CH Switzerland	2009: 13.02 /23 2007-2009: +19.28 / 17
IS Iceland	2010: 57.97 /2 2008-2010: +84.45 / 1
NO Norway	2009: 7.38 /25 2007-2009: +13.32 / 23
TR Turkey	2009: 29.67 /14 2007-2009: +18.92 / 18
JP Japan	2009: 28.69 /15 2007-2009: +23.41 / 14
US United States	2009: 45.33 /5 2007-2009: +44.62 / 4

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