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# Measuring Flexicurity at the Macro Level – Conceptual and Data Availability Challenges

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## **Abstract**

This working paper provides a critical discussion of attempts that have been made in recent years to measure the concept of flexicurity. It begins by addressing some conceptual aspects, looking in particular at different interpretations and definitions of the term flexicurity that one can find in the academic and policy literature. It then moves on to consider a number of problems involved in quantifying the dimensions included in the concept of flexicurity. These include the gap between formal rules and actual implementation of labour market regulation, the selective character of both flexibility and security and the existence of feedback effects between flexibility and security and vice-versa. The next two sections deal more directly with measurement issues, focusing on indicators pertaining to the various dimensions of flexicurity and to a number of flexicurity indexes that have been elaborated by researchers. The paper concludes by pointing out the limits of quantitative approaches in accounting for complex phenomena like flexicurity, and encourages researchers to complement the knowledge produced by indicators with more qualitative tools, such as typologies and fine grained accounts of policies.

## **Keywords**

Flexicurity; unemployment benefits; employment protection; active labour market policy; measurement

## Introduction

Social scientists are aware that good scientific concepts are often difficult to transpose to political debates. The opposite is also true: concepts that are successful in politics are not necessarily useful intellectual tools for social science research. The concept of “flexicurity” may be an excellent example of the latter. The notion of “flexicurity” has become extremely popular in labour market policy debates at the international, especially EU level, but also at the national level in several countries.

Flexicurity has become popular but there is no clear, precise generally accepted definition of what is meant with it. Lack of precision may be an advantage for concepts in politics (see Palier 2007), but it is a problem in research. This problem becomes particularly acute when measurement issues are discussed. Identifying indicators that allow us to measure the extent to which countries have moved in the direction of flexicurity forces us to make implicit or explicit decisions as to what we subsume under this term. A quick look at the relevant literature shows that there is a great variety of ways to understand the term. What is more, the meaning assigned to flexicurity evolves over time, and changes across countries (see Viebrock and Clasen 2007a).

The initial objective of this report was to identify indicators capable of measuring flexicurity. What seemed to us as essentially a technical issue, turned out to involve a considerable amount of conceptual work. Before measuring something, one needs to be clear as to what one wants to measure. Our aim is not to provide a thorough conceptual discussion of how the notion of flexicurity is understood in the literature. Incidentally, this job has been done in a companion report (Viebrock and Clasen 2007a, 2007b). Rather, we aim at a relatively narrow definition of flexicurity which will provide the starting point of our discussion about measurement.

Against this background, this report has several objectives. First we discuss some conceptual and measurement problems inherent in the idea of measuring flexicurity. Second, we present and discuss existing attempts at measuring flexicurity (flexicurity indexes, classifications, etc.) 5).

In the appendix we provide also information on the availability of the relevant data (appendix 1) and a dataset that can be used to study flexicurity if narrowly defined (appendix 2).

## Conceptual aspects

In order to select appropriate indicators for the measurement of flexicurity, some conceptual clarifications concerning what is actually meant with the notion is needed. It is the objective of this section.

### The flexicurity concept

Despite the growing diffusion of the concept both in the scientific debate and in the policy agenda of the EU, there is still no commonly agreed definition of flexicurity (Klammer 2004, 2005; Viebrock and Clasen 2007a: 9).

### Definitions of flexicurity

Nowadays different definitions of flexicurity are used in the labour market literature. Here we present some of these definitions and discuss the differences.

One of the most widely used definitions is the one suggested by Wilthagen and Rogowski. They define flexicurity as:

*« a policy strategy that attempts, synchronically and in a coordinated way, to enhance the flexibility of labour markets, the work organisation and labour relations on the one hand, and to enhance security – employment security and social security – notably for weaker groups in and outside the labour market on the other hand »* (Wilthagen and Rogowski 2002: 250).

From the point of view we adopt in this report, i.e. the measurement of flexicurity, some remarks have to be done concerning this definition. First of all, flexicurity is defined as a “policy strategy”, which makes it difficult to characterize it with a quantitative index and express numerically (Tangian 2004: 12). Second, flexicurity has to be a “coordinated” strategy acting at the same time on flexibility and security. In other words, policy strategies increasing both flexibility and security but in an uncoordinated way should not be considered as flexicurity strategies. Wilthagen and Tros acknowledge that this definition is “rather strict” – in particular because of the elements “synchronisation”, “deliberate” and “weaker groups” – but they argue that a strict definition is needed to make empirical research possible (Wilthagen and Tros 2004: 170).

In order to be able to measure flexicurity with quantitative indicators, Tangian suggests a more simplified definition for operational purposes:

*« Flexicurity is the employment and social security of atypically employed, that is, other than permanent full-time »* (Tangian 2004: 12).

The European Commission also relies on a less precise definition of flexicurity than the one suggested by Wilthagen and Rogowski:

*« Flexicurity can be defined as an integrated strategy to enhance, at the same time, flexibility and security in the labour market »* (European Commission 2007c: 10).

The Commission also adds that:

*« Flexicurity is about striking the right balance between flexible job arrangements and secure transitions between jobs so that more and better jobs can be created. The idea is that flexibility and security should not be seen as opposites but as complementary »* (European Commission 2007c: 11).

Another definition is the one suggested by Keller and Seifert (2004) which see flexicurity as social protection for flexible labour force, in alternative to pure flexibilisation or deregulation-only policies<sup>1</sup>.

### Flexicurity dimensions

As discussed above, the concepts of labour market flexibility and socio-economic security have multiple dimensions. In this section we discuss which dimensions have been selected by different authors in order to analyse flexicurity.

Wilthagen and Tros suggest a more precise definition of flexicurity which mentions the flexibility and security dimensions included in the concept:

*« Flexicurity is (1) a degree of job, employment, income and 'combination' security that facilitates the labour market careers and biographies of workers with a relatively weak position and allows for enduring and high quality labour market participation and social inclusion, while at the same time providing (2) a degree of numerical (both external and internal), functional and wage flexibility that allows for labour markets' (and individual companies') timely and adequate adjustment to changing conditions in order to maintain and enhance competitiveness and productivity » (Wilthagen and Tros 2004: 170).*

According to them, flexicurity policies are trade-offs between different forms of flexibility and security. Four forms of flexibility and four forms of security are included in flexicurity analysis. This produces a matrix illustrating the possible flexibility versus security trade-offs (see figure 2.1.).

Flexibility/security	Job security	Employment security	Income security	Combination security
External-numerical				
Internal-numerical				
Functional				
Variable pay				

**Figure 2.1.:** Flexibility versus security trade-offs matrix according to Wilthagen and Tros (2004: 171)

Notes:

**External-numerical flexibility:** employers' ability to adapt the number of employees to current needs.

**Internal-numerical flexibility:** employers' ability to change number and distribution of working hours without changing the number of employees.

**Functional flexibility:** employers' ability to move employees from one task to another or to change content of work.

**Variable pay:** employers' ability to modify wages according to labour market or competitive conditions.

**Job security:** certainty of retaining a specific job with a specific employer.

**Employment security:** certainty of remaining at work, not necessarily with the same employer.

**Income security:** income protection in the event that paid work ceases.

**Combination security:** workers' capacity to combine professional activity with private responsibilities.

Source: Tangian (2005: 11-12)



This matrix is intended to be an heuristic tool to empirically analyse flexicurity policies as particular trade-offs between some security and flexibility types (Wilthagen and Tros 2004: 171).

In a recent paper, Klammer (2005) suggests a similar approach to analyse flexicurity policies and suggests to include the following dimensions:

- Flexibility: external numerical, internal numerical and internal functional;
- Security: employment protection legislation and leave options, and as well social protection of people with interruptions in their occupational careers, with reduced working hours and with flexible distribution of working time.

It has to be highlighted that also much more simplified approaches to flexicurity do exist. For instance, Sperber (2005) presents a simple classification of flexicurity arrangements according to two dimensions: employment protection legislation (EPL) on the one side, social protection – measured by unemployment insurance benefits – on the other.

Another approach is suggested by Tangian (2004, 2005) who in order to construct flexicurity indexes selects three dimensions:

- EPL scores;
- Qualitative juridical data on social security benefits;
- Data on dynamics of employment types.

It has to be mentioned that a third dimension, active labour market policies (ALMPs), are often considered to be a central element building a triangle – together with labour market flexibility and socio-economic security – which describes national flexicurity arrangements (Sperber 2005). This element has been particularly highlighted concerning the Danish flexicurity model and its “golden triangle” (Madsen 2003; Bredgaard, Larsen et al. 2005). However, ALMPs are rarely included in the dimensions used to describe and measure flexicurity.

One relevant exception is the report recently published by the European Foundation for the Improvement of Living and Working Conditions (2007). In order to classify European countries according to flexicurity models, they included following dimensions in the analysis:

- Measures of labour market flexibility;
- Characteristics of security in different countries;
- Characteristics of the activation side of labour market (lifelong learning and training).

In conclusion, also in the selection of the dimensions that need to be analysed when dealing with the flexicurity concept there is no general agreement.

### **Flexicurity in the EU discourse**

The European Commission is paying increasingly attention to the flexicurity concept. This is attested by the fact that the Commission recently addressed a communication to the European Parliament and the European Economic and Social Committee entitled *Towards Common Principles of Flexicurity: more and better jobs through flexibility and security*<sup>2</sup> (European Commission 2007c).

As already mentioned, the definition of flexicurity adopted by the Commission is rather broad. Four policy components of flexicurity are promoted by the European Commission (2007c: 11-13):

- Flexible and reliable contractual arrangements: help ‘outsiders’ to find work and move into stable employment, help ‘insiders’ to prepare for job changes in case of redundancy;
- Comprehensive lifelong learning (LLL) strategies: high quality initial education, complete secondary education, acquire new skills and upgrade existing skills throughout the working life;
- Effective active labour market policies: help unemployed back to work through job placement services and labour market programmes, efficient job search support and good work incentives;
- Modern social security systems: provide adequate unemployment benefits, healthcare benefits and childcare.

These components are meant to be mutually supportive and increase employment, reduce at-risk-of-poverty rates, and improve human capital.

The Commission also summarised the key elements of the national debates on flexicurity in EU member countries, candidate countries (Croatia and Turkey) and in Norway (European Commission 2007b). Moreover, also a taxonomy of flexicurity regimes in the EU has been elaborated (see below).

In the end, the Commission edited a list of background indicators relevant for flexicurity, which are linked to the four promoted components (European Commission 2007c: 38):

- *Flexible contractual arrangements:*
  - Strictness of employment protection, total, for permanent and non-permanent employees (OECD);
  - Diversity of and reasons for contractual and working arrangements (Eurostat).
- *Comprehensive lifelong learning strategies:*
  - Percentage of the adult population between 25 and 64 participating in education and training (Eurostat);
  - Educational attainment of age cohorts 45-54 and 25-34 (share of the population with at least upper secondary education (Eurostat).
- *Effective active labour market policies:*
  - Expenditure on active and passive labour market policies as a percentage of GDP (Eurostat);
  - Expenditure on active and passive labour market policies per unemployed person (Eurostat);
  - number of participants in active labour market policies, by type of measure (OECD);

- Share of young or adult unemployed not having been offered a job or an activation measure within 6 or 12 months respectively (Eurostat).
- *Modern social security systems:*
  - Net replacement ratios in the first as well as after 5 years (OECD);
  - Unemployment trap, seen as a measure of benefit levels (OECD-Eurostat).
- *Labour market outcomes:*
  - Employment rate, total, for women, and for older workers (Eurostat);
  - Youth unemployment ratio (15-24 years) (Eurostat);
  - Long-term unemployment rate (Eurostat);
  - Growth in labour productivity (Eurostat);
  - Quality in work (under construction);
  - At risk of poverty rates (Eurostat).

### A measurable concept of flexicurity

Our short and incomplete overview of the meanings of flexicurity shows that there are virtually no limits to how the concept can be expanded. We believe that this overarching quality may not be one of the key strength of flexicurity as a research concept, on the contrary, it contributes to confusion. If we are after a measurable quality of welfare/labour market regimes that allows us to produce meaningful cross-national comparisons, then we need to focus on a more precise definition. For this reason, we propose to focus on the narrower definitions. Quite simply, we understand flexicurity as the combination of high levels of labour market flexibility in terms of hiring and firing with high levels of economic security for wage earners.

Labour market flexibility is understood in terms of absence of regulatory constraints with regard to hiring and firing and wage determination. In other words, essential elements of the labour contract are determined by market mechanisms with no state interference. We understand economic security as the inverse of the risk of being poor ( $1 - \text{poverty risk}$ ). This definition reflects the early usages of the concept (Madsen 2003).

### Measurement issues

When it comes to measurement, a number of complications arise. These are discussed in the next sections.

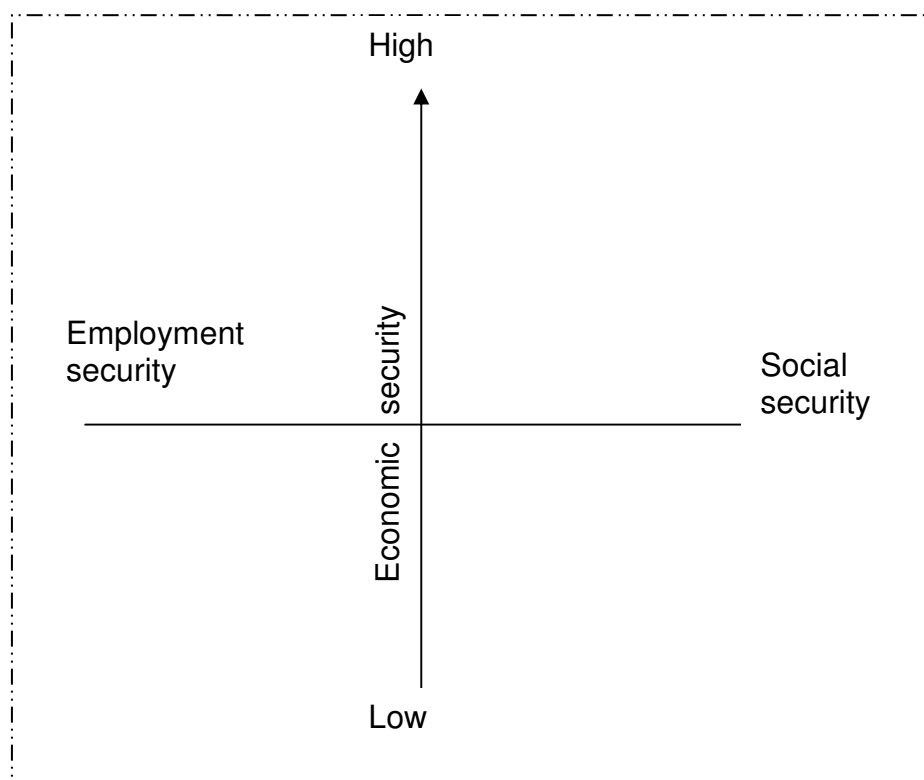
#### The multidimensional character of flexicurity

Regardless of the definition used, flexicurity is a multidimensional concept, consisting of at least two dimensions: flexibility and security. This makes it difficult to develop a flexicurity index that would, for example, rank countries depending on how “flexicure” they are. Working with more encompassing definitions of flexicurity than the one used here, Tangian identifies at least nine different relevant dimensions

across which countries should be measured (Tangian 2005: 15). The same author, subsequently suggests the same narrower definition of flexicurity used here (p.16 ff.), and discusses measurement issues in the two-dimensional space defined by labour market flexibility (which he suggest can be measured as 100% – strictness of EPL) and income security, measured as the extent of employment and social security (here he does not elaborate a precise indicator).

He then moves on to argue that various combinations of flexibility and security can be positioned over an indifference curve. In other words, wage-earners want economic security, but may be indifferent with regard to how such security is provided, whether through employment protection legislation or through social security arrangements. This view is relevant for the policy debate, since it suggests that wage-earners preferences are consistent with a shift away from EPL and towards social security, but it also sheds light on our discussion of measurement problems.

Tangian understands now flexicurity from the point of view of wage earners, and the relevant dimension is economic security. This makes the multidimensionality problem more tractable. The notion of flexicurity remains nonetheless two-dimensional, as what matters is the level of economic security experienced by citizens and the instrument used to provide it.



**Figure 3.1.:** A two-dimensional view of flexicurity

*Source: adapted from Tangian (2005).*

Figure 3.1. illustrates this point. Any horizontal line would represent here an indifference curve, positioned at a different level of economic security. Figure 3.1. would, at least theoretically, allow us to place countries and to track policy developments within countries over time.

On the basis of the model developed here and based on Tangian (2005), the measurement of flexicurity would require a two-dimensional approach and the following indicators:

### **Strictness of EPL**

This indicator is calculated by the OECD and is available for a large number of countries over a reasonable period of time. This does not mean that there are no measurement problems involved in the indicator. These are discussed in the next section.

### **Income protection by the social security system**

Here one would probably need to use a composite index taking into account the replacement rates of various income replacement schemes. These could be weighted according to their coverage rates and according to their conditionality. In fact, these features describe quite well Esping-Andersen's decommodification index (1990), which precisely refers to income protection through the social security system, but ignores the role of EPL.

### **A measure of economic security**

It may be more complicated to find an appropriate measure of economic security. Economic security can be measured in at least three different ways:

- by looking at policies;
- by looking at outcomes;
- by looking at subjective perceptions.

A focus on *policies* first, would entail ascertaining the existence of a last resort safety net, its level, whether it is available to all, and so forth. The advantage here is relative ease in finding comparable indicators. The drawback is the fact that this measurement will miss the impact of the kind of functional equivalents that are at the centre of the flexicurity debate: EPL, protection through collective agreements, etc.. Studies of functional equivalents in the provision of economic security have shown that these can be found in various policy areas, including competition and trade policy. Including various indicators in a composite index based on levels of economic security provided by policy does not seem a promising avenue. The index may quickly become too complicated. Besides, there is no guarantee that every policy contributing to the provision of economic security will be included.

A focus on *outcomes* would be particularly consistent with the definition used here. According to the definition adopted above (*1 – risk of poverty*) a poverty rate may be appropriate here. However, a poverty rate tells us little about how the poverty risk is distributed in a society. The fact that there are many poor in a society does not necessarily mean that everybody is more exposed to the risk of poverty. Societies

with strong insiders/outside cleavages may have high poverty rates but for the majority of the population the actual risk of poverty may be rather low (see also point 3.2.).

Third, one could focus on *subjective perception* of economic security, on the basis of survey data. This strategy would not face the problems identified when working with policy or outcomes data. With regard to the distribution of economic security, this approach may be promising in so far as the data being collected on the individual level, it would be possible to take this aspect into account. The disadvantage here is that subjective perception may not reflect accurately actual economic risks. They may also be contingent upon the economic cycle, generating problems of cross-national comparability (economic cycles are not exactly synchronised across OECD countries).

In sum, there doesn't seem to be a superior way to measure economic security. For the time being, we suggest keeping each of the three options open.

### **Gender, immigrant and outsider status: the selective character of both flexibility and security**

The objective of this report is to identify indicators suitable for measuring flexicurity at the macro-level, meaning at the country level. Of course, within country variation may be important in relation to any dimension we select for measuring flexicurity. Within country variation may take place across a number of cleavages. These may include gender, sectoral cleavages, vertical stratification cleavages or insider/outsider cleavages. Since economic security can be provided for example by branch-based collective agreements, it is possible that some citizens will benefit more than others. The concentration of particular groups in different sectors may thus contribute to other sorts of inequality. For instance, in some countries women and immigrants tend to be segregated in sectors enjoying less social and employment protection (retail sales, catering, cleaning, personal services).

This observation is particularly relevant in the context of the insider/outsider debate, especially in Southern European countries. In these countries, high levels of employment protection for core workers (insiders) go hand in hand with extremely low protection for the so called "atypical employees" (outsiders). These are generally employed on the basis of new types of contracts introduced in recent years. They tend to be time-limited, and as a result insecure. The insider/outsider cleavage clearly subsumes other more specific cleavages of gender, ethnicity (immigrants versus nationals) and of age (most outsiders tend to be young).

Any measurement of flexicurity should take these social divisions into account. Two strategies seem to be available. Either the flexicurity, particularly the security measurements, are weighted by the proportion of the relevant population that is concerned by a given arrangement, or different indexes are calculated for different groups in each society. The first approach has the advantage of keeping the observation at the macro-level, but loses information concerning who is covered by

which arrangement. The second approach allows us to keep this information, but forces us to move to a sub-national level of observation.

### **The use of different channels to provide security**

As argued above, economic security has been provided through a number of different channels in different countries and at different points in time. This is particularly problematic in relation to policy-based measurements of security. An additional complication arises from the fact that policies promoting economic security may take a direct or an indirect route. The direct route consists in guaranteeing either employment or a replacement income. A possible indirect route would be to promote the chances that citizens have to succeed in the labour market, for example through education, training and particularly active labour market policies. This is probably why some authors have suggested including in definitions of security a notion of skill reproduction security (Anker 2002).

It is not easy on conceptual grounds to decide whether indirect policies aiming at providing economic security should or should not be included in flexicurity measurements. It is perhaps an argument in favour of looking for alternatives to policy-based measurements. Outcomes based measurements or subjective perceptions should not be affected by this problem.

### **The gap between formal rules and their actual implementation**

Comparative studies have shown that the same formal rules can be applied and interpreted differently in different countries. This may be the case in particular in relation to EPL, where the enforcement of legal rules by the administration and by the courts may vary across countries. For this reason, some authors prefer survey based measurements of EPL strictness, asking multinational employers how difficult it is to terminate an employment relationship in different countries (Mares 1996). Alternatively, one could look at indicators that look at the actual implementation: e.g. the frequency of dismissals that are rejected by the courts as illegal.

The OECD collects data on the proportion of dismissals that are challenged in the courts and the proportion of cases that are won by workers. This information, however, is available for a few countries only and a quick overview suggests that it is not easily comparable (the incidence of arbitration, for example, varies across countries) (OECD 2004: 68).

### **Feedback effects from security to flexibility and vice-versa**

The whole conceptual debate on flexicurity assumes that flexibility and security are two unrelated dimensions of the concept. However, there certainly are feedback effects. First, a generous, unconditional, and long lasting unemployment or social assistance benefit would be a major source of economic security (or, in Esping-Andersen's words, highly decommodifying) but it would reduce wage flexibility by raising the "reservation wage", i.e. the wage level below which people are not prepared to accept a job. Higher reservation wages in some European countries

relative to the US may contribute to explain the slower job creation in the low-skill service sector in that continent.

## Flexicurity indicators

### Employment protection

The most commonly used indicator to measure labour market flexibility are employment protection legislation (EPL) indexes. Among these indexes, the one developed by the OECD (1999: 48-132, 2004: 61-125) is by far the most popular one. There are many reasons for that. First of all, the OECD index covers 28 countries and provides diachronic data since the late 1980s to nowadays. Second, this index provides not only a summary indicator of national EPL strictness, but also sub-indicators for protection of regular employment, regulation of temporary employment, and regulation of collective dismissal.

Despite its success among scholars, the OECD index has also been often criticised for several reasons. One of the main critics is that similar levels of formal regulation can involve very different practices. This is why the comparative analysis of labour market regulatory regimes should also include their coverage, judicial interpretations, current practice, etc. (Samek Lodovici 2000: 32-33). Emmenegger (2007: 10-12) summarises the main criticisms that have been addressed to the OECD index:

- The importance of non-statutory regulations such as collective agreements, that sometimes play a bigger role than legal provisions;
- The implementation of the legislation – or rule of law – can strongly differ among countries and also within countries;
- The difference between legislation and current practice, with attention to the judges decisions;
- The subjectivity of the weighting of the different elements of the index.

Emmenegger addresses this last issue by partially adjusting the weightings used by the OECD in the construction of the index.

The question here is whether there are good and reliable alternatives to the use of the OECD index or not. It must be underlined that the OECD index is the most detailed indicator available nowadays (Emmenegger 2007: 10). Nevertheless, other strategies to measure labour market flexibility exist in the labour market literature.

Büchtemann and Walwei (1996: 668-671) provide an exhaustive illustration of different studies on this question and summarise and compare country rankings according to the “restrictiveness” of their dismissal-protection system. Among the different studies mentioned, they identify some studies that rely on survey data: subjective ratings by officials of national business associations, surveys among employers, etc. Other studies rely exclusively on legal information (as done by the OECD) and some others combine surveys and legal information. Unfortunately, all these studies are limited to a small number of countries and for one point in time



only. As suggested by Mares (1996: 4-5), the use of survey data enables to solve some of the problems that data on legal regulations raise: the importance of non-statutory regulations, implementation problems, differences between law and practice, etc.

How do we measure the effort made by the welfare state (as opposed to employment law) in guaranteeing people's economic security? The most commonly used indicator, social expenditure as a proportion of GDP, has been strongly criticised (Esping-Andersen 1990: 19-21; Allan and Scruggs 2004: 497; Scruggs 2006: 351-352). First of all, expenditure levels do not show only states' efforts in this field, they reflect the impact of other socio-economic trends such as unemployment and ageing as well. Second, the variations in economic performance – in particular economic growth – of the countries can also modify the figures. Third, social policy reforms often change the expenditure situation with an extended time-lag. Therefore, the use of expenditure to compare a country's situation in recent years can be problematic. Fourth, differences in the taxation of social transfers distort the degree to which social expenditure results into disposable income for benefit recipients.

Alternatives include entitlements based indicators, such as Esping-Andersen's decommodification index (1990) or Lyle Scruggs' CWED (Comparative Welfare Entitlements Dataset) database (Scruggs 2006; Scruggs and Allan 2006).

### **Economic security**

As argued above, measurements of security should be based on outcomes, and not on the policies that are in place. In addition to the problems mentioned (potential incapacity to capture the effects of functional equivalents), measuring security through input based indicators (e.g. strictness of EPL, generosity of unemployment benefits), assumes an effect of policy instruments that may not necessarily be confirmed empirically. In this respect, it is noteworthy to point out that measurements of subjective job security are not that well correlated with the strictness of EPL (OECD 2004). This counterintuitive finding may be related to the fact that EPL affects differently different groups of employees.

Looking at outcomes, we have two options to measure economic security:

- Objective measurements of the risk of the worsening of a household's financial situation;
- Subjective measurements, based for instance on surveys.

From a theoretical point of view, there are no strong reasons to favour one approach over the other. In addition, these two measurements cover slightly different aspects of flexicurity. In an ideal world, one would want to be able to rely on both.

### **Objective measurements of economic security**

With regard to objective measurements, we are certainly confronted with a problem of data availability. Poverty rates are easily available on a comparative basis, also across time (for instance through the Luxembourg Income Study). However, a poverty rate cannot be used to estimate the extent of "average" insecurity

experienced in a country. To do this would imply that the poverty risk is assumed to be randomly distributed, which is rather implausible.

An alternative way to study the objective dimension of economic insecurity would be to look at transitions between different economic situations and shifts in household incomes. This could be done by using longitudinal panel data. Such an approach would allow us to produce a more complex picture than simply an “average” indicator of economic security in a country. One could for example focus on the poverty risk of different socio-economic groups, looking at the probability for given profiles at time  $t$  to experience poverty at time  $t + 1$ .

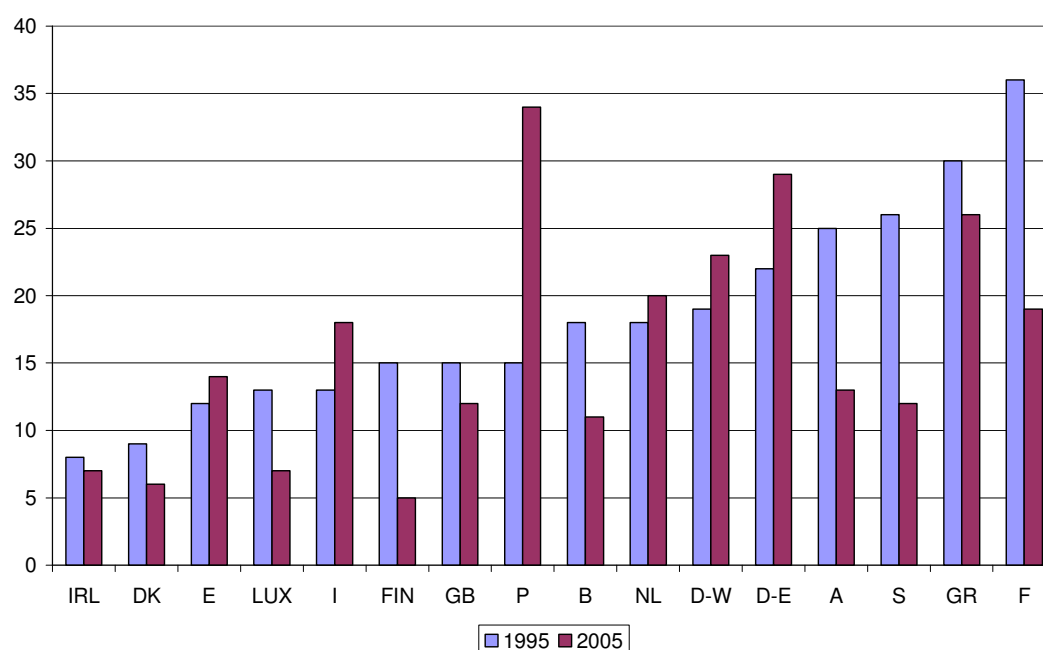
Since the objective of this report is to discuss the issue of measuring flexicurity at the macro- (country) level, separate analyses should be carried out for different countries. This exercise, which would be rather time consuming, is clearly beyond the scope of this report.

### **Subjective measurements of economic security**

Questions concerning various aspects of economic security are asked in several surveys (see appendix 1 for details). Two sorts of questions seem particularly relevant to the discussion on flexicurity: perceptions of job security, i.e. based on the assessment of the likelihood of someone losing his or her job, and perceptions of financial security, i.e. based on the assessment of being financially worse off in the future.

Questions concerning job security are contained in the ISSP 1997 module on work orientations, and in various Eurobarometer surveys. It is important when using such indicators, to distinguish between the perceptions of different categories of workers, clearly between those covered by standard open ended contract and those on fixed-term contracts or other in forms of atypical employment. The assessment of job security is indeed significantly different between these two groups of workers (OECD 2004; Rueda 2007).

With regard to income security, various Eurobarometer survey have included questions asking for an assessment of the likely evolution of a household financial situation<sup>3</sup>. The extent to which people expect their financial situation to get worse may be seen as an indication of the perception of economic insecurity. Again, this is micro-level data, and to obtain the sort of macro-level data that are discussed in this report, one needs to aggregate them. The simplest way to do this, is to focus on the percent of respondent believing it likely to experience a worsening of one’s financial situation.

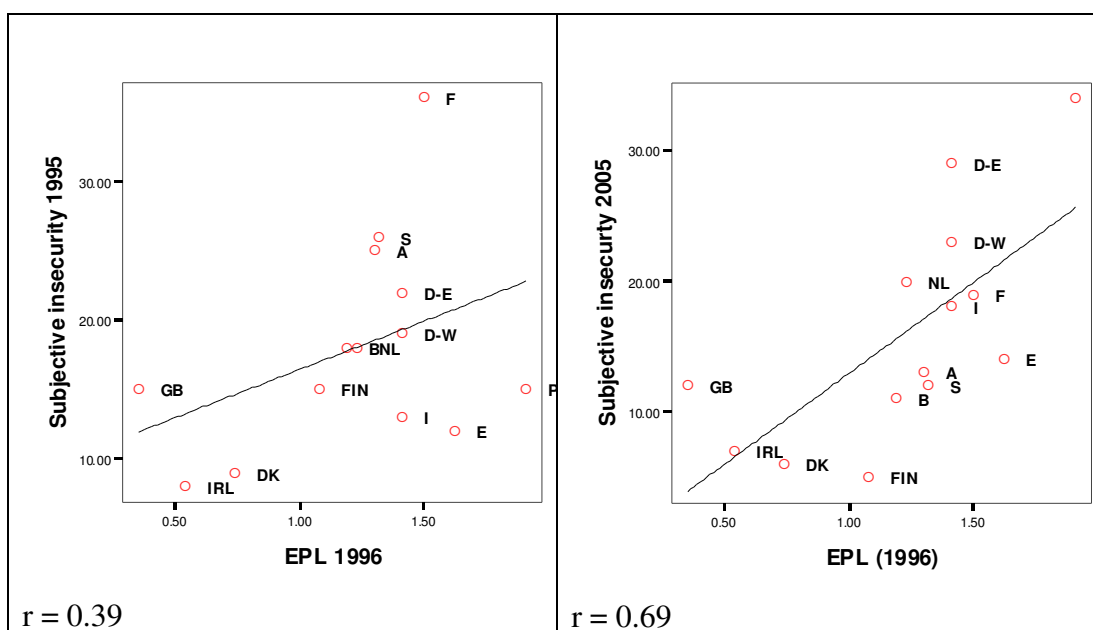


**Figure 4.1.:** Perceptions of financial insecurity: proportion of respondents answering that they expect their household's financial situation to get worse over the next 12 months (% of valid responses)

*Source: EB 44.1 (1995) and EB 63.4 (2005).*

Subjective perception of economic (in-)security as reported in figure 4.1. show substantial country variation and relatively little stability over time (Pearson's correlation coefficient between 1995 and 2005 is 0.40). It is also reasonable to assume that respondent will reply the question on financial security on the basis of their perception of the overall economic situation. In this respect, subjective indicators of economic security are likely to be, at least partly, cyclical. But outcome indicators of subjective (in-)security correlate with measurements of security enhancing policies?

With regard to EPL, this seems not to be the case. As the correlation analysis shown in figure 4.2. demonstrate, the relationship between the strictness of EPL and the feeling of economic security is, contrary to expectation, positive: citizen of countries with higher levels of EPL experience more economic insecurity. This counterintuitive finding confirms the result of a similar analysis carried out with different data by the OECD (2004). The effect seems also to be stable across time, as the positive relationship is visible both in 1995 and in 2005<sup>4</sup>.



**Figure 4.2.:** Relationship between subjective perceptions of economic security and employment protection legislation

Source: *Subjective insecurity EB 44.1; EPL Baker et al. (2004).*

We have checked other correlations between different subjective and objective indicators of flexibility and security in the conclusion.

### Existing flexicurity indexes and classifications

Up to now only a few attempts of “measurement” of flexicurity – scores, indexes, classifications – can be found in the literature in this area. In particular, quantitative analyses are very limited in number. The existing studies differ greatly under many aspects: the selection of the indicators, data sources, statistical techniques, number of countries, number of years, etc.

Here we present an overview of the available literature dealing with the measurement of flexicurity (see figure 5.8. for summary).

#### The classification of flexicurity arrangements by Sperber (2005)

A first example of a classification of national flexicurity models is suggested by Sperber (2005). As the author himself concedes, this is a « *very simple model of institutional arrangements for flexibility and security* » (Sperber 2005: 192). His assumption is that every flexicurity arrangement is an intersection between two basic dimensions:

- Employment protection legislation (EPL);
- Social security, more precisely unemployment insurance benefits (UIB).

Labour market flexibility and security can be represented by these two dimensions and every point in this plane represents a flexicurity arrangement. Relying on Auer and Cazes (2003: 12), he outlines four basic combinations of employment protection and social security. First, some countries – e.g. United States and the United Kingdom – combine a low level of EPL with a low level of UIB. Second, countries such as France and Germany have both a high level of EPL and UIB. Third, it is possible to rely on high EPL but low UIB, as it is the case in Southern European countries – Portugal, Greece, Italy and Spain – and in Japan. Fourth, a high level of UIB can be combined with low EPL as can be seen in Denmark, Finland and Belgium, and somewhat in the Netherlands and Ireland.

The classification of national flexicurity arrangements is obtained by ranking OECD member countries by their EPL strictness, measured by the OECD EPL indicator, and by their UIB generosity, measured by UIB expenditure as a percentage of GDP. The result of this classification is shown in figure 5.1.

Employment Protection Legislation (EPL)	High level of EPL	Japan (14;04)	France (21;20)
	Low Level of EPL	United States (01;03)	Denmark (08;27)
		Low Level of Social Protection	High Level of Social Protection

**Social protection (UIB)**

**Figure 5.1.:** A simple classification of flexicurity arrangements

Notes: (X;Y)

X = Ranking of 26 countries by their EPL strictness (based on OECD EPL indicator), “the higher the more strict”.

Y = Ranking of 27 countries by their UIB generosity (UIB expenditure as a percentage of GDP), “the higher the more generous”.

Source: Sperber (2005: 193).

This is obviously a very simplified way to address the issue of the measurement of flexicurity. The chosen indicators raise many critical questions. Concerning the measurement of flexibility by relying on the OECD EPL indicator only, the issue has already been discussed and the main criticisms addressed to the indicator can be found in the discussion above. Sperber himself shows in his paper that perceived job insecurity behaves differently from objective security measures. The same phenomenon has also been highlighted by Auer and Cazes (2003) and the OECD (2004), which show that stricter EPL is correlated negatively with workers’ perceptions of employment security<sup>5</sup>, while generous unemployment benefits are

correlated positively. This finding is summarised by saying that « *unemployment benefits re-assure workers while EPL makes them worry* » (OECD 2004: 92).

The measurement of social security in Sperber's analysis is also problematic. First of all, he exclusively focus on UIB while many other benefits or programs can strongly influence the security dimension (sickness benefits, maternity, pensions, etc.). Second, he measures UIB generosity by the UIB expenditure as a percentage of GDP. As argued above, this is a problematic measurement of the level of generosity. Expenditure data indeed do not show only benefits' generosity, they reflect the impact of other major socio-economic trends as well, in particular the evolution of the unemployment rate and the national GDP. This means for instance that increasing UIB expenditure as a percentage of GDP does not implies more generous benefits, but only an increase in unemployment rates or a decreasing GDP growth.

### **Tangian's flexicurity quantitative index and vectors (2004-2006)**

Since 2004, Andranik Tangian has published many discussion papers dealing with the measurement of flexicurity and the construction of a quantitative flexicurity index (Tangian 2004, 2005; Seifert and Tangian 2006; Tangian 2006b, 2006a).

He uses various definitions of flexicurity, of which we focus on two. First we look at Tangian's work on flexicurity understood as the level of security enjoyed by atypical workers (Tangian 2004: 12) His approach consists in measuring security levels for eight different employment categories such as permanent part-time, fixed-term full-time, self-employed, etc<sup>6</sup>. Finally, the flexicurity index is obtained by calculating the weighted average of the security level with respect to the size of the different employment groups, with exception of the "normally" employed, i.e. permanent full-time employed.

This strategy allows Tangian to deal with the problem of the selectivity, or the non-homogeneous distribution, of both flexibility and security (see above).

The security level is measured combining employment security and social security and relies on six indicators (the indicators' weight is shown in brackets):

- Strictness of EPL (50%);
- Entitlement to paid holidays (10%);
- Entitlement to paid sick leave (10%);
- Entitlement to paid maternity leave (10%);
- Entitlement to participation in a public pension scheme (10%);
- Entitlement to unemployment insurance (10%).

Tangian relies on OECD data, both for EPL and for fringe benefits (OECD 1999: 66, 2002: 144-150), and covers 13 years (1990-2003). As an example, the results for 2002 are presented in figure 5.2.

Tangian further develops his measuring instruments in his later papers, and moves to a definition of flexicurity which is more in line with the one used in this paper, i.e. the combination of both high levels of labour market flexibility and of

economic security (Tangian 2005, 2006b, 2006a). In 2006 he underlines that « *although flexicurity is getting to be adopted as a European policy, there exists neither its “official” definition, nor even an unambiguous idea of it, to say nothing of monitoring instruments* » (2006a: 9-10). Since then, a rather vague definition has been adopted by the Commission. However, no operational control and empirical feedback about this promoted policy are available.

	Norm-security in %	All-security in %	Flexicurity in %	Ranking norm-security	Ranking all-security	Ranking flexicurity
<i>Sweden</i>	82.9	76.2	<b>64.9</b>	1	1	<b>1</b>
<i>Netherlands</i>	75.3	68.3	<b>62.4</b>	3	2	<b>2</b>
<i>Norway</i>	68.6	65.5	<b>60.0</b>	4	3	<b>3</b>
<i>Finland</i>	64.8	60.2	<b>51.3</b>	11	8	<b>4</b>
<i>Switzerland</i>	64.6	57.8	<b>50.6</b>	12	10	<b>5</b>
<i>Danemark</i>	66.2	61.0	<b>50.4</b>	8	6	<b>6</b>
<i>Belgium</i>	68.0	61.3	<b>49.4</b>	5	5	<b>7</b>
<i>Germany</i>	67.2	60.3	<b>49.2</b>	6	7	<b>8</b>
<i>France</i>	60.3	56.1	<b>47.9</b>	13	11	<b>9</b>
<i>Austria</i>	65.4	58.1	<b>43.7</b>	10	9	<b>10</b>
<i>Spain</i>	53.3	46.8	<b>39.3</b>	15	15	<b>11</b>
<i>Italy</i>	76.1	61.4	<b>35.9</b>	2	4	<b>12</b>
<i>Poland</i>	66.2	54.0	<b>34.7</b>	7	12	<b>13</b>
<i>United Kingdom</i>	46.8	42.2	<b>34.1</b>	16	16	<b>14</b>
<i>Czech Republic</i>	55.9	49.5	<b>29.8</b>	14	13	<b>15</b>
<i>Portugal</i>	65.7	49.2	<b>28.1</b>	9	14	<b>16</b>

**Figure 5.2.:** Norm-security, all-security and flexicurity in 2002, in % and ranking, according to Tangian (2004)

Notes:

*Norm-security: security of “normally” employed (permanent full-time).*

*All-security: security of all employed, weighted according to the size of the employment groups.*

*Flexicurity: security of the “not normally” employed groups (other than permanent full-time), weighted according to the size of the employment groups.*

Source: Tangian (2004: 16).

A static flexicurity classification is suggested by Tangian (2006a: 13), in which he classifies ten countries in four different groups (see figure 5.3.):

- *Flexicure* countries: relaxed labour market regulation and generous social system;
- *Inflex-secure* countries: strict labour regulation and strong social security;
- *Flex-insecure* countries: flexible employment relations and relatively low social protection;
- *Inflex-insecure* countries: poor social security and strict labour market regulation.

Tangian argues that a monitoring instrument should better describe the dynamic aspect of flexicurity. This is why the two dimensions of figure 5.4. should be transformed into dynamic axes: an horizontal axis displaying strictness of employment legislation ( $flexibility = 100\% - strictness\ of\ EPL$ ) and a second axis showing an aggregated social security measure. He explains that while many flexibility and security dimensions can be theoretically distinguished – as done for exemple by Wilthagen in his flexicurity trade-offs matrix (see figure 2.1.) – it is possible to restrict attention to these two main factors of flexicurity that can be represented quantitatively (Tangian 2005: 15-16).

Social security	Labour market regulation	
	Relaxed	Strict
Generous	<b>Flexicure countries:</b> Denmark Finland Switzerland	<b>Inflex-secure countries:</b> Netherlands Sweden Norway
Poor	<b>Flex-insecure countries:</b> United Kingdom	<b>Inflex-insecure countries:</b> Spain Portugal Czech Republic

**Figure 5.3.:** Static flexicurity classification of some European countries according to Tangian (2006a)

Source: Tangian (2006a: 13).

Vectors are used to show countries changing position in this two dimensional flexibility-security plane over the years. For instance, the static position of a single country in one given year (for example 1995) is expressed like that:

$$1995 \leftrightarrow (EPL_{1995}, S_{1995})$$

$EPL$  = strictness of EPL

$S$  = social security



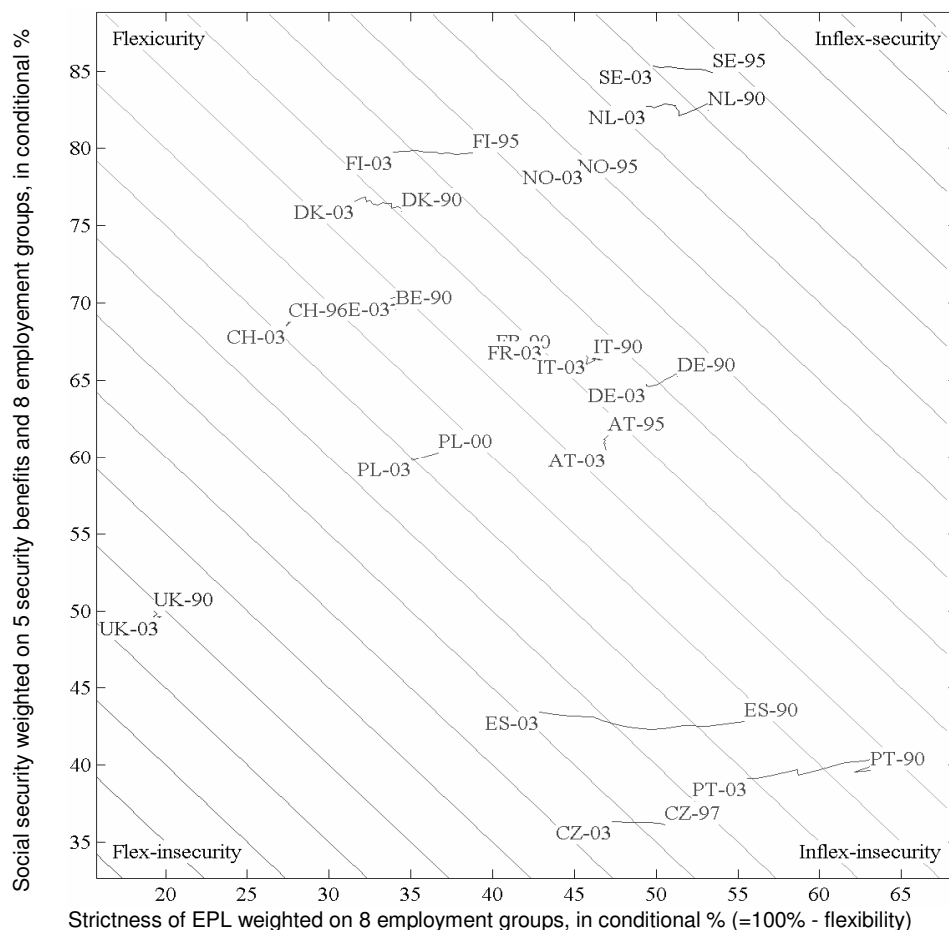
The vector for one country – i.e. the direction of change in terms of flexibility-security trade-off from one year to some years later (from 1995 to 2000 in this example) – is expressed like that:

$$2000 \leftrightarrow (EPL_{1995} \pm \Delta EPL, S_{1995} \pm \Delta S) = (EPL_{2000}, S_{2000})$$

$\pm \Delta EPL$  = increment or decrement in the strictness of EPL from 1995 to 2000

$\pm \Delta S$  = increment or decrement in social security from 1995 to 2000

The vectors for sixteen countries starting in different years and all ending in 2003 are shown in figure 5.4. Data used to measure EPL and S and the employment categories are the same than in the previously described 1994 analysis.



**Figure 5.4.:** Flexibility security trajectories in the background of diagonal flexicurity isolines according to Tangian (2005)

Source: Tangian (2005: 19).

Flexicure countries are located in the top-left corner of the figure, inflex-secure countries in the top-right corner, flex-insecure in the left-bottom corner and inflex-insecure in the bottom-right corner. In terms of dynamics, pursuing a flexicurity policy corresponds to a motion of the country's vector towards lower strictness of EPL and higher social security ("North-West") (Tangian 2006a: 20). The vectors presented in figure 5.4. show that in reality the direction followed by most countries is deregulation without social security compensation. As summarised by Tangian, « *with the only short-time exceptions for Denmark and the Netherlands, [...] deregulation-only policies are unambiguously prevailing, whereas the much promoted flexicurity is practically invisible* » (Tangian 2005: 18)<sup>7</sup>.

### **The mapping of different flexicurity models by the European Commission (2006-2007)**

Another attempt to measure flexicurity can be found in the *Employment in Europe* 2006 and 2007 reports edited by the European Commission (2006, 2007a). The objective is to build a taxonomy of European flexicurity systems/models.

The methodology used in these reports is described as a tandem approach, relying on Principal Components Analysis (PCA) followed by Clustering Analysis (CLA). Starting from a number of labour market indicators, PCA enables to identify the main axes or dimensions that differentiate flexicurity systems. The PCA coordinates can then be used to classify countries into clusters.

18 countries are included in the 1996 analysis. Four variables are selected in order to represent the four policy components of flexicurity that are promoted by the Commission<sup>8</sup>. These variables are (European Commission 2006: 103):

- The strictness of EPL as a proxy for numerical flexibility (overall OECD indicator);
- Expenditure on active and passive – ALMPs and unemployment benefits – labour market policies as percentage of GDP (Eurostat's Labour Market Policy Database);
- Percentage of population aged 25-64 participating in education or training programmes (Eurostat);
- Average tax-wedge – wedge between the labour cost to the employer and the net take-home pay of the employee – as a proxy for the distortions created by the tax system (OECD).

The result of the PCA is that three principal components account for 92% of the overall variability. These components capture the following dimensions: a) income/employment security, b) numerical external flexibility/employability, and c) tax distortions. The results of the following clustering analysis are presented in figure 5.5.

	Continental	Eastern	Nordic	Mediterranean	Anglo-Saxon
<i>Countries</i>	Austria Belgium France Germany	Czech Republic Hungary Italy Poland Slovakia	Denmark Finland Netherlands Sweden	Greece Portugal Spain	Ireland United Kingdom
<i>Security</i>	<i>Intermediate-to-high</i>	<i>Low</i>	<i>High</i>	<i>Relatively low</i>	<i>Low</i>
<i>Flexibility</i>	<i>Intermediate-to-low</i>	<i>Intermediate-to-high</i>	<i>Intermediate-to-high</i>	<i>Low</i>	<i>High</i>
<i>Taxation</i>	<i>Intermediate-to-high</i>	<i>Intermediate-to-high</i>	<i>Intermediate-to-high</i>	<i>Unclear pattern</i>	<i>Low</i>

**Figure 5.5.:** The five flexicurity systems and their characteristics according to the European Commission (2006)

*Source: European Commission (2006: 103-107).*

The 2007 *Employment in Europe* report includes a revised version of the 2006 taxonomy, including 22 countries. The new analysis wants to correct a major shortcoming of the previous study by including forms of flexibility which are enacted within the firm (work organisation, working time). Whereas the same statistical methodology is applied, seven variables are selected this time (European Commission 2007a: 168-169):

- The strictness of EPL to measure external numerical flexibility (overall OECD indicator);
- Percentage of population aged 25-64 participating in education or training programmes (Eurostat);
- Expenditure on active and passive – ALMPs and unemployment benefits – labour market policies as percentage of GDP (Eurostat’s Labour Market Policy Database);
- An indicator on work intensity and the irregularity of working schedules to measure internal flexibility;
- An indicator on flexible working-time and atypical work to measure internal flexibility;
- An indicator on autonomy and complexity of tasks to measure functional flexibility;
- An indicator on rotation and teamwork to measure functional flexibility.

The last four indicators – dealing with internal and functional flexibility – are calculated relying on the results of the European Working Conditions Survey (EWCS) in 2005<sup>9</sup>. This means that these indicators have been created relying on survey data: nine questions are used to build the two internal flexibility indicators and

eleven questions for the functional flexibility indicators (European Commission 2007a: 163-166).

The PCA result is that the three principal components account for 85.6% of the overall data variability. The components represent the following dimensions: a) advanced forms of internal flexibility and security, b) external flexibility, and c) basic forms of functional flexibility (European Commission 2007a: 169-171). The result of the new clustering of countries (see figure 5.6.) is not very much different from the 1996 version.

Continental	Central, Eastern and Greece	Nordic and the Netherlands	Mediterranean	Anglo-Saxon
Austria Belgium Germany France	Bulgaria Czech Republic Estonia Greece Hungary Lithuania Poland Slovakia Slovenia	Denmark Finland Netherlands Sweden	Spain Italy Portugal	Ireland United Kingdom

**Figure 5.6.: The five flexicurity systems according to the European Commission (2007a)**

*Source: European Commission (2007a: 172).*

#### **The mapping of different flexicurity models by the European Foundation for the Improvement of Living and Working Conditions (2006-2007)**

The measurement of flexicurity suggested by the European Foundation for the Improvement of Living and Working Conditions (2007) is similar to the one promoted by the European Commission (2006, 2007a). In particular, the same statistical methodology – PCA and cluster analysis – is applied. The main differences are the number of countries (25 countries are covered) and the choice of the variables to be included.

Three groups of indicators trying to measure labour market flexibility, security and activation have been used. These groups include sixteen different indicators selected by the European Foundation (2007: 46-47):

- Total expenditure on social protection as percentage of GDP (Eurostat);
- Total expenditure on social protection per capita (Eurostat);
- Job tenure (Eurobarometer)<sup>10</sup>;
- Unemployment insurance (Eurobarometer)<sup>11</sup>;

- Ease of finding a new job (Eurobarometer)<sup>12</sup>;
- Mobility (Eurobarometer)<sup>13</sup>;
- Training (percentage of respondents who have participated in training during the last 12 months, Eurobarometer);
- Lifelong learning (percentage of population aged 25-64 participating in education and training over the four weeks prior to the survey, Eurostat);
- Part-time workers (Eurostat);
- Long-term unemployed (Eurostat);
- Youth unemployment rate (Eurostat);
- Employment rate of people aged 55-64 years (Eurostat);
- Trust (Inglehart, Basáñez et al. 2004)<sup>14</sup>;
- Gini coefficient (Eurostat);
- Poverty (at risk-of-poverty rates, Eurostat);
- Early school-leavers (Eurostat).

The result of the PCA analysis is that three principal components account for 86% of the common variance shared by the 16 indicators (2007: 28-29). These factors are: a) adaptability/flexibility, b) social security, and c) social cohesion.

Continental	Anglo-Saxon	Nordic	Baltic states with Ireland and Cyprus	Mediterranean	New central European member states
Austria Belgium Germany France Luxembourg	Netherlands United Kingdom	Denmark Finland Sweden	Cyprus Estonia Ireland Lithuania Latvia	Greece Spain Italy Malta Portugal	Czech Republic Hungary Poland Slovenia Slovakia

**Figure 5.7.:** The six flexicurity systems according to the European Foundation (2007: 29-30)

*Source: European Foundation (2007: 29-30).*

The grouping of countries on the basis of a cluster analysis resulted in six country groups (see figure 5.7.). The European Foundation (2007: 38) underlines that these country groups have to face different challenges in order to follow the direction drawn by the EU flexicurity guidelines. For the continental group, which is characterised by a high level of social security, the main challenge will be the flexibilisation of the labour market. The greatest challenge for the Anglo-Saxon group and the Baltic states group are the social protection issues. Both social security and labour market flexibility will have to be enhanced by the Mediterranean and New central European member states groups. In the end, the Nordic and the Liberal groups are already close to the model promoted by the EU.

Figure 5.8.: Existing flexibility indexes, classifications, and typologies

<i>Author(s)</i>	<i>Sperbet (2005)</i>	<i>Tangian (2004, 2005, 2006b, 2006a)</i>	<i>European Commission (2006)</i>	<i>European Commission (2007a)</i>	<i>European Foundation for the Improvement of Living and Working Conditions (2007)</i>
<i>Dimensions</i>	<ul style="list-style-type: none"> <li>- employment protection legislation</li> <li>- social protection</li> </ul>	<ul style="list-style-type: none"> <li>- employment protection legislation</li> <li>- social security</li> <li>- employment types</li> </ul>	<ul style="list-style-type: none"> <li>- income/employment security</li> <li>- numerical external flexibility/employability</li> <li>- tax distortions</li> </ul>	<ul style="list-style-type: none"> <li>- advanced forms of internal flexibility and security</li> <li>- external flexibility</li> <li>- basic forms of functional flexibility</li> </ul>	<ul style="list-style-type: none"> <li>- adaptability/flexibility</li> <li>- social security</li> <li>- social cohesion</li> </ul>
<i>Data</i>	<ul style="list-style-type: none"> <li>- OECD EPL index</li> <li>- unemployment insurance benefits generosity (UIB expenditure as % of GDP)</li> </ul>	<ul style="list-style-type: none"> <li>- OECD EPL index</li> <li>- qualitative juridical data on social security (unemployment insurance, public pension, sick leave, maternity leave, holidays)</li> <li>- 8 employment types</li> </ul>	<ul style="list-style-type: none"> <li>- OECD EPL index</li> <li>- expenditure on active and passive labour market policies (as % of GDP)</li> <li>- percentage of population aged 24-65 in education or training</li> <li>- average tax-wedge (OECD)</li> </ul>	<ul style="list-style-type: none"> <li>- OECD EPL index</li> <li>- percentage of population aged 24-65 in education or training</li> <li>- expenditure on active and passive labour market policies (as % of GDP)</li> <li>- work intensity and irregular work</li> <li>- flexible working-time and atypical work</li> <li>- autonomy and complexity of tasks</li> <li>- rotation and teamwork</li> </ul>	<ul style="list-style-type: none"> <li>16 indicators:</li> <li>- social expenditure per capita</li> <li>- job tenure</li> <li>- unemployment insurance</li> <li>- ease of finding a new job</li> <li>- mobility</li> <li>- training</li> <li>- lifelong learning</li> <li>- part-time workers</li> <li>- long-term unemployed</li> <li>...</li> </ul>
<i>Countries and years</i>	26-27 countries, late 1990s	16-22 countries, 1990-2003	18 countries, early 2000s	22 countries, early 2000s	25 countries, early 2000s
<i>Output</i>	Classification of flexibility arrangements into 4 groups	Country flexibility index, country flexibility vectors (mid 1990s-2003)	Classification of countries into 5 groups (Continental, Eastern, Nordic, Mediterranean, Anglo-Saxon)	Classification of countries into 5 groups (Continental, Central Eastern & Greece, Nordic & the Netherlands, Mediterranean, Anglo-Saxon)	Classification of countries into 6 groups (Continental, Anglo-Saxon, Nordic, Baltic state & Cyprus, Mediterranean, New central European MS)

## Conclusion

Flexicurity is certainly more than a political gadget. The idea that labour market flexibility, which is good for job creation, can be combined with economic security, which is good for people's well being, has relevance to both policy and research. In addition, social scientists have shown that labour market rigidities have played an important role in guaranteeing economic security to wage earners, but the same results can probably be obtained through other channels, making harmful rigidities redundant. Flexicurity is a phenomenon which is certainly worth studying, and measuring.

In this paper we have highlighted several problems and difficulties involved in providing a measurement of a complex concept such as flexicurity. Some of these problems were related to the lack of clarity surrounding the concept itself. We dealt with this first type of problems by pragmatically deciding to focus on the narrower definition. A second series of problems proved more intractable. How to account for different degrees of dispersion around the mean in the relevant indicators? How to appropriately project the multidimensional quality of flexicurity onto a single index? The various attempts at measuring flexicurity have turned to sometimes quite sophisticated technique. We are not sure, however, that they have managed to deal with the problems highlighted under "measurement issues" in this working paper.

In the end, our analysis highlights the difficulties involved in attempting to quantify complex social phenomena and concepts. Flexicurity, a useful concept, may need to be apprehended qualitatively as well as quantitatively. The tools of the qualitative researcher, such as typologies, fine grained descriptions, have a role to play here.

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<sup>1</sup> Cited in European Foundation for the Improvement of Living and Working Conditions (2007: 8).

<sup>2</sup> COM(2007) 359, adopted on 27 June 2007.

<sup>3</sup> The precise wording of the question is « *Do you think that in 12 months time the financial situation of your household will be: 1 = better; 2 = worse; 3 = the same?* ».

<sup>4</sup> Data on EPL refers to 1996 in both graphs, but levels of EPL are pretty stable over time

<sup>5</sup> The OECD relies on the International Social Survey Programme (ISSP) 1997 to measure perceived job insecurity, in particular the answer to the question: « *Do you worry about the possibilities of losing your job?* ».

<sup>6</sup> The eight employment categories analysed by Tangian (2004: 22) are: 1. permanently full-time employed, 2. permanently part-time employed, 3. fixed term full-time employed, 4. fixed-term part-time employed, 5. full-time self-employed in agriculture, 6. full-time self-employed not in agriculture, 7. part-time self-employed in agriculture, 8. part-time self-employed not in agriculture.

<sup>7</sup> Tangian (2005, 2006a) obtains similar results by repeating the same analysis only for the seven not "normally" employed (i.e. permanent full-time employed) employment categories.

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<sup>8</sup> The dimensions are a) Flexible and reliable contractual arrangements, b) Comprehensive lifelong learning (LLL) strategies, c) Effective active labour market policies and d) Modern social security systems.

<sup>9</sup> This survey, directed by the European Working Conditions Observatory (EWCO), aims to provide an analysis of working conditions in the EU27, in the two candidate countries (Turkey and Croatia), and in Switzerland and Norway. For the 2005 survey, nearly 30,000 individual workers were interviewed in face-to-face interviews in their own homes in the period September-November 2005.

<sup>10</sup> Percentage of respondents who answered “more than 11 years” to the following question: « *For how long have you been working for your current employer or last employer if you are not currently working?* ».

<sup>11</sup> Percentage of respondents who answered “more than 71% of your current income” to the following question: « *If you were to be laid off, how much do you think the unemployment insurance and the welfare system in your country will compensate you for the loss of income during the first six months as a percentage of your current income?* ».

<sup>12</sup> Percentage of respondents who answered “very likely” to the following question: « *If you were to be laid off, how would you rate on a scale of one to 10, the likelihood of you finding a job in the next six months, where “one” means that it “would be not at all likely” and “10” means that it “would be very likely”?* ».

<sup>13</sup> Percentage of respondents who answered “more than six times” to the question: « *How many times have you changed employer in your working life so far?* ».

<sup>14</sup> Percentage of respondents who answered “most people can be trusted” to the following question: « *Generally speaking, would you say that most people can be trusted?* ».



## Appendix

### Appendix 1: Key data sources on flexibility, security and flexicurity

The data selection to analyse the tension between flexibility and security is directly oriented by the choice of the dimensions to measure labour market flexibility and socio-economic security. In this part we list some of the existing data to analyse this tension trying to include multiple dimensions, thus offering the choice whether to include or not some dimensions into the analyses.

While flexibility and security indicators are certainly central aspects to be included here, we do not limit our inventory to these two concepts. We indeed include data on active labour market policies (ALMPs) as well.

The following selection has been done relying to some extent on the EDACwowe data center (<http://www.edacwowe.eu>).

#### a) Labour market flexibility

As already mentioned, it is possible to distinguish between subjective (perceived) and objective labour market flexibility. Whereas objective indicators mainly rely on employment protection legislation, subjective indicators are based on survey data.

#### Objective labour market flexibility

Database	Description	Countries	Years	Link/source
<b>OECD labour market programmes database</b>	Strictness of EPL (for all jobs, regular employment, temporary employment)	28 countries: EU member countries – Bulgaria, Cyprus, Estonia, Latvia, Lithuania, Luxembourg, Malta, Romania, Slovenia + Australia, Japan, Korea, Mexico, New Zeland, Norway, Switzerland, Turkey, United States	1990, 1998, 2003	<a href="http://www.oecd.org/document/4/0,3343,en_2649_39023495_3_8939524_1_1_1_1,00.html">http://www.oecd.org/document/4/0,3343,en_2649_39023495_3_8939524_1_1_1_1,00.html</a>  OECD (2004)
<b>Employment protection</b>	Employment protection index based on Baker et al. (2004)	13 countries: Austria, Belgium, Denmark, Finland, France, Germany, Italy, Ireland, Netherlands, Portugal, Sweden, United Kingdom	1996	Rueda (2007: 58)

#### Subjective labour market flexibility

See subjective security.

### b) Security

Also the security issue can be measured either by selecting objective indicators or subjective indicators. Objective indicators provide data on the “generosity” of social security benefits (replacement rate, generosity index or decommodification index). Subjective data measure the “insecurity” feeling in survey data.

#### Objective security

Database	Description	Countries	Years	Link/source
<b>Comparative Welfare Entitlements Dataset (CWED)</b>	Decommodification indices, benefit generosity indices (unemployment insurance, sickness insurance, pension, and overall)	18 countries: EU member countries – Bulgaria, Cyprus, Czech Republic, Estonia, Greece, Hungary, Latvia, Lithuania, Luxembourg, Malta, Poland, Portugal, Romania, Slovakia, Slovenia, Spain + Australia, Canada, Japan, New Zealand, Norway, Switzerland, United States	1971-2002	<a href="http://www.sp.uconn.edu/~scruggs/wp.htm">http://www.sp.uconn.edu/~scruggs/wp.htm</a>  Scruggs (2004)
<b>Benefits and Wages statistics (OECD)</b>	Net replacement rates (NRR)* during the initial phase of unemployment, for long-term unemployment, and over a 5-year period of unemployment; gross replacement rates (GRR)**	29 countries: EU member countries – Bulgaria, Cyprus, Estonia, Latvia, Lithuania, Malta, Romania, Slovenia + Australia, Iceland, Japan, Korea, Mexico, New Zealand, Switzerland, Turkey, United States	*2001-2005 **1961-2005	<a href="http://www.oecd.org/document/29/0,3343,en_2825_497118_39_618653_1_1_1_1,00.html">http://www.oecd.org/document/29/0,3343,en_2825_497118_39_618653_1_1_1_1,00.html</a>  OECD (2007)

#### Subjective security

Database	Description	Countries	Years	Link/source
<b>European Quality of Life Survey (EQLS)</b>	Q11: how likely do you think it is that you might lose your job in the next 6 months? Q27. How much trust do you have in the ability of the following two systems to deliver when you need it? a) state pension system; b) social benefit system.	28 countries: EU member countries + Turkey	2003	<a href="http://www.data-archive.ac.uk/doc/5260%5Cmrdoc%5Cpdf%5C5260userguide1.pdf">http://www.data-archive.ac.uk/doc/5260%5Cmrdoc%5Cpdf%5C5260userguide1.pdf</a>  European Foundation (2004)
<b>European Social Survey (ESS)</b>	D53. How worried are you, if at all, that your income in old age will not be adequate enough to cover your later years? E52. How likely would you say it is that you will become unemployed in the next 12 months? F8f. How worried, if at all, are you	20 countries: EU member countries – Austria, Czech Republic, Greece, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta,	2006 (round 3, ESS3)	<a href="http://ess.nsd.uib.no/">http://ess.nsd.uib.no/</a>

	that you will not be able to retire at age you would like to? F33. How do you feel about your household's income nowadays?	Netherlands + Norway, Switzerland, Russian Federation		
<b>Eurobarometer (EB)</b>	QA4b. What are your expectations for the next twelve months: will the next twelve months be better, worse or the same, when it comes to the financial situation of your household? QA4c. ...your personal job situation? QA18a. What do you think are the two most important issues facing your country at the moment? (max. 2 answers, including unemployment).	30 countries: EU member countries + Croatia, Turkey, Macedonia	April-May 2007 (EB 67)	<a href="http://www.gesis.org/en/data_service/eurobarometer/index.htm">http://www.gesis.org/en/data_service/eurobarometer/index.htm</a>

### c) Activation

Database	Description	Countries	Years	Link/source
<b>Social Expenditure Database – SOCX (OECD)</b>	Active labour market programmes expenditure, total and by type of programme (at current prices, per head, in % of GDP, etc.)	30 countries: EU member countries – Bulgaria, Cyprus, Estonia, Latvia, Lithuania, Malta, Romania, Slovenia + Australia, Canada, Iceland, Japan, Korea, Mexico, New Zealand, Switzerland, Turkey, United States	1980-2003	<a href="http://www.oecd.org/document/9/0,3343,en_2649_33933_3814_1385_1_1_1_1,00.html">http://www.oecd.org/document/9/0,3343,en_2649_33933_3814_1385_1_1_1_1,00.html</a>
<b>Eurostat</b>	Life-long learning, adult participation in education and training	34 countries: EU member countries + Croatia, Macedonia, Turkey, Iceland, Norway, Switzerland, United States	1995-2006	<a href="http://epp.eurostat.ec.europa.eu">http://epp.eurostat.ec.europa.eu</a>
<b>Eurostat</b>	Public expenditure on active and passive labour market programmes (in % of GDP)	26 countries: EU member countries – Cyprus	1998-2006	<a href="http://epp.eurostat.ec.europa.eu">http://epp.eurostat.ec.europa.eu</a>
<b>Incidence of unemployment benefit refusals and sanctions (OECD)</b>	Sanctions for behaviour before benefits starts, sanctions and refusals for behaviour during benefit period (in %)	13 countries: Australia, Belgium, Canada, Czech Republic, Denmark, Finland, Germany, Japan, Switzerland, New Zealand, Norway, United Kingdom, United States	1996-1998	OECD (2000: 136)

**Appendix 2: Dataset for flexicurity analysis**

The SPSS (Statistical Package for the Social Sciences) dataset including the variables listed below is available on the EDACwowe website (<http://www.edacwowe.eu>).

<b>Variable</b>	<b>Description</b>
<i>COUNTRY</i>	
<i>countryname</i>	
<i>EPLoecd1990v1</i>	Overall EPL version 1 1990 (source: OECD Employment Outlook 2004)
<i>EPLoecd1998v1</i>	Overall EPL version 1 1998 (source: OECD Employment Outlook 2004)
<i>EPLoecd2003v1</i>	Overall EPL version 1 2003 (source: OECD Employment Outlook 2004)
<i>EPLoecd1998v2</i>	Overall EPL version 2 1998 (source: OECD Employment Outlook 2004)
<i>EPLoecd2003v2</i>	Overall EPL version 2 2003 (source: OECD Employment Outlook 2004)
<i>EPLrueda</i>	Employment protection in 1996, source: Rueda (2007), based on Baker et al. (2004)
<i>JOBSECeqls</i>	EQLS 2003, Q11: "How likely do you think is that you might lose your job in the next 6 months?", percentage answering "very or quite likely".
<i>TRUSTPENSeqls</i>	EQLS 2003, Q27a: "How much trust do you have in the ability of the state pension system to deliver when you need it?", percentage answering "hardly any trust/no trust at all".
<i>TRUSTBENeqls</i>	EQLS 2003, Q27b: "How much trust do you have in the ability of the social benefit system to deliver when you need it?", percentage answering "hardly any trust/no trust at all".
<i>OLDINCOMEess</i>	ESS3-2006 ed. 2.0, D53: "Worried that income in old age will not be adequate to cover later years. Express your opinion on a scale of 0 to 10, where 0 means 'not worried at all' and 10 means 'extremely worried' ". Percentage answering 8, 9 and 10.
<i>JOBSECess</i>	ESS3-2006 ed. 2.0, E52: "Become unemployed in the next 12 months, likely". Percentage answering "likely" and "very likely".
<i>RETAGEess</i>	ESS3-2006 ed. 2.0, F8f: "Worried not being able to retire at the age you would like to. Express your opinion on a scale of 0 to 10, where 0 means 'not worried at all' and 10 means 'extremely worried' ". Percentage answering 8, 9 and 10.
<i>INCSECess</i>	ESS3-2006 ed. 2.0, F33: "Feeling about household's income nowadays". Percentage answering "difficult" and "very difficult" on present income.
<i>DECUNEMPCwed</i>	CWED (Scruggs) v. 1.2, unemployment

	decommodification score year 2002
<i>DECSICKcwed</i>	CWED (Scruggs) v. 1.2, sickness decommodification score year 2002
<i>DECPENScwed</i>	CWED (Scruggs) v. 1.2, pension decommodification score year 2002
<i>DECTOTcwed</i>	CWED (Scruggs) v. 1.2, overall decommodification score year 2002
<i>GENUNEMPcwed</i>	CWED (Scruggs) v. 1.2, unemployment generosity score year 2002
<i>GENSICKcwed</i>	CWED (Scruggs) v. 1.2, sickness generosity score year 2002
<i>GENPENScwed</i>	CWED (Scruggs) v. 1.2, pension generosity score year 2002
<i>GENTOTcwed</i>	CWED (Scruggs) v. 1.2, overall generosity score year 2002
<i>NRRUBoecd1</i>	Net replacement rate of unemployment benefit at initial phase of unemployment, for single person without children, 100% of AW, year 2005 (source: OECD Benefits and Wages)
<i>NRRUBoecd2</i>	Net replacement rate of unemployment benefit at initial phase of unemployment, for one earner married couple with 2 children, 100% of AW, year 2005 (source: OECD Benefits and Wages)
<i>NRRUBoecd3</i>	Average of net replacement rates over 60 months of unemployment without social assistance, for single person without children, average 67% and 100% of AW, year 2005 (source: OECD Benefits and Wages)
<i>NRRUBoecd4</i>	Average of net replacement rates over 60 months of unemployment without social assistance, one earner married couple with 2 children, average 67% and 100% of AW, year 2005 (source: OECD Benefits and Wages)
<i>NRRUBSAoecd5</i>	Average of net replacement rates over 60 months of unemployment with social assistance, for single person without children, average 67% and 100% of AW, year 2005 (source: OECD Benefits and Wages)
<i>NRRUBSAoecd6</i>	Average of net replacement rates over 60 months of unemployment with social assistance, one earner married couple with 2 children, average 67% and 100% of AW, year 2005 (source: OECD Benefits and Wages)
<i>ALMPEXPoecd</i>	Total public expenditure on active labour market programmes, as a % of GDP, year 2003 (source: SOCX OECD).
<i>UNEMPRATEoecd</i>	Standardised unemployment rate, in %, year 2003 (source: OECD labour force survey)
<i>ALMPWEIGHTEDoecd</i>	Weighted ALMP expenditure, $ALMP\ SOCX_{oecd} / UNEMPRATE_{oecd}$ (= ALMP expenditure per 1% unemployment)
<i>BENSANOecd</i>	Incidence of unemployment benefit sanctions for behaviour before benefits start, in %, 1996-1998 (source: OECD)

	employment outlook 2000))
<i>BENSAN2oecd</i>	Incidence of unemployment benefit sanctions and refusals for behaviour during benefit period, in %, 1996-1998 (source OECD employment outlook 2000))
<i>FINSITeb</i>	EB67, QA4b: "Will the next twelve months be better, worse or the same, when it comes to the financial situation of your household?", % answering "worse"
<i>JOBSITeb</i>	EB67, QA4c: "Will the next twelve months be better, worse or the same, when it comes to your personal job situation?", % answering "worse"
<i>UNEMPISSUEeb</i>	EB67. Q18a: "What do you think are the two most important issues facing your country at the moment?", % answering "unemployment" as one of the two most important issues.
<i>LLLeurostat</i>	Life-long learning, % of the adult population aged 25 to 64 participating in education and training, year 2006 (source: Eurostat)
<i>ALMPEXPeurostat</i>	Public expenditure on active labour market measures (incl. training, job rotation/sharing, employment incentives, integration of disabled, direct job creation, start-up incentives), as a % of GDP, year: 2005 (source: Eurostat)
<i>PLMPEXPeurostat</i>	Public expenditure on passive labour market measures (incl. out-of-work income maintenance - unemployment benefits - and early retirement), as a % of GDP, year: 2005 (source: Eurostat).
<i>UNEMPRATEeurostat</i>	Harmonized unemployment rate, in %, year: 2005 (source: Eurostat).
<i>ALMPWEIGHTEDeurostat</i>	Weighted ALMP expenditure, ALMPEXPeurostat / UNEMPRATEeurostat (= ALMP expenditure per 1% unemployment), year: 2005.

**Appendix 3: List of abbreviations**

ALMP	<i>Active labour market policy</i>
CLA	<i>Clustering analysis</i>
CWED	<i>Comparative Welfare Entitlements Dataset</i>
EB	<i>Eurobarometer</i>
ENIQ	<i>European Network on Indicators of Social Quality</i>
EPL	<i>Employment protection legislation</i>
EQLS	<i>European Quality of Life Survey</i>
ESS	<i>European Social Survey</i>
EU	<i>European Union</i>
EWCO	<i>European Working Conditions Observatory</i>
EWCS	<i>European Working Conditions Survey</i>
GDP	<i>Gross domestic product</i>
ILO	<i>International Labour Office</i>
ISSP	<i>International Social Survey Programme</i>
LLL	<i>Lifelong learning</i>
MS	<i>Member state</i>
OECD	<i>Organisation for Economic Co-operation and Development</i>
PCA	<i>Principal component analysis</i>
SOCX	<i>Social Expenditure Database (OECD)</i>
TLM	<i>Transitional labour markets</i>
UIB	<i>Unemployment insurance benefits</i>

## References

- Allan, J. P. and L. Scruggs (2004), "Political Partisanship and Welfare State Reform in Advanced Industrial Societies", *American Journal of Political Science*, 48(3): 496-512.
- Anker, R. (2002), "People's Security Surveys: An outline of methodology and concepts", *International Labour Review*, 141(4): 309-329.
- Auer, P. and S. Cazes (2003), Introduction, in P. Auer and S. Cazes, Eds, *Employment stability in an age of flexibility*, Geneva, International Labour Office: 1-21.
- Baker, D., A. Glyn, D. Howell and J. Schmitt (2004), "Unemployment and Labour Market Institutions: The Failure of the Empirical Case for Deregulation", *SCEPA Working Paper*, 2004(4).
- Bredgaard, T., F. Larsen and P. K. Madsen (2005), "The flexible Danish labour market - a review", *CARMA Research Papers*, 2005:01.
- Brodsky, M. M. (1994), "Labor market flexibility: a changing international perspective", *Monthly Labor Review*(November 1994): 53-60.
- Büchtemann, C. F. and U. Walwei (1996), Employment Security and Dismissal Protection, in G. Schmid, J. O'Reilly and K. Schömann, Eds, *International Handbook of Labour Market Policy and Evaluation*, Cheltenham, Edward Elgar: 652-693.
- Chung, H. (2006), Labour Market Flexibility, for Employers or Employees? A multi-dimensional study of labour market flexibility across European welfare states, *ESPAnet Annual Conference*, Bremen.
- Chung, H. (2007), Flexibility for whom? A new approach in examining labour market flexibility focusing on European companies, *International Research Conference on Social Security*, Warsaw.
- Emmenegger, P. (2007), Barriers to Entry. Insider/Outsider Politics and the Political Determinants of Job Security Regulation, Berne, IPW, University of Berne.
- Esping-Andersen, G. (1990), *The Three Worlds of Welfare Capitalism*. Cambridge, Polity Press.
- European Commission (2006), Employment in Europe 2006, Luxembourg, European Communities.
- European Commission (2007a), Employment in Europe 2007, Luxembourg, European Communities.
- European Commission (2007b), European Employment Observatory Review: Autumn 2006, Luxembourg, European Communities.
- European Commission (2007c), Towards Common Principles of Flexicurity: More and better jobs through flexibility and security, Luxembourg, European Communities.



European Foundation for the Improvement of Living and Working Conditions (2004), *Quality of life in Europe*. Luxembourg, Office for the Official Publications of European Communities.

European Foundation for the Improvement of Living and Working Conditions (2007), *Approaches to flexicurity: EU models*. Luxembourg, Office for Official Publications of the European Communities.

Inglehart, R., M. Basáñez, J. Diéz-Mereano and L. Halman, Eds, (2004), *Human Beliefs and Values: a cross-cultural sourcebook on the 1999-2002 surveys*, Mexico, Siglo XXI.

Keizer, M. (2004), Social Quality and the Component of Socio-economic security, Amsterdam, European Foundation on Social Quality.

Keller, B. and H. Seifert (2004), "Flexicurity - the German trajectory", *Transfer. The European Review of Labour and Research*, 10(2): 226-247.

Klammer, U. (2004), "Flexicurity in a life-course perspective", *Transfer. The European Review of Labour and Research*, 10(4): 282-299.

Klammer, U. (2005), "Flexicurity schemes", *Trends in social cohesion*, 15: 157-189.

Madsen, P. K. (2003), "Flexicurity" Through Labour Market Policies and Institutions in Denmark, in P. Auer and S. Cazes, Eds, *Employment stability in an age of flexibility*, Geneva, International Labour Office.

Mares, I. (1996), "Firms and the Welfare State: The Emergence of New Forms of Unemployment", *WZB Discussion Paper*, FS I 96 - 308.

Nickell, S. (1997), "Unemployment and Labor Market Rigidities: Europe versus North America", *Journal of Economic Perspectives*, 11(3): 55-74.

OECD (1999), *OECD Employment Outlook 1999*. Paris, OECD.

OECD (2000), *OECD Employment Outlook 2000*. Paris, OECD.

OECD (2002), *OECD Employment Outlook 2002*. Paris, OECD.

OECD (2004), *OECD Employment Outlook 2004*. Paris, OECD.

OECD (2007), *Benefits and Wages 2007. OECD Indicators*. Paris, OECD.

Palier, B. (2007), "Tracking the Evolution of a Single Instrument Can Reveal Profound Changes: The Case of Funded Pensions in France", *Governance: An International Journal of Policy, Administration, and Institutions*, 20(1): 85-107.

Rueda, D. (2007), *Social Democracy Inside Out. Partisanship and Labor Market Policy in Advanced Industrialized Democracies*. Oxford, Oxford University Press.

Samek Lodovici, M. (2000), The Dynamics of Labour Market Reform in European Countries, in G. Esping-Andersen and M. Regini, Eds, *Why Deregulate Labour Markets?*, Oxford, Oxford University Press: 30-65.

Scruggs, L. (2004), Welfare State Entitlements Data Set: A Comparative Institutional Analysis of Eighteen Welfare States, *Version 1.2*.

- Scruggs, L. (2006), "The Generosity of Social Insurance, 1971-2002", *Oxford Review of Economic Policy*, 22(3): 349-364.
- Scruggs, L. and J. Allan (2006), "Welfare-state decommodification in 18 OECD countries: a replication and revision", *Journal of European Social Policy*, 16(1): 55-72.
- Seifert, H. and A. Tangian (2006), "Globalization and deregulation: Does flexicurity protect atypically employed?", *WSI-Diskussionspapier*, 143.
- Solow, R. M. (1998), "What is Labour-Market Flexibility? What is it Good for?", *Proceedings of the British Academy*, 97: 189-211.
- Sperber, S. (2005), "What are the ingredients of "good" flexicurity arrangements? Some ideas for identifying factors that make for success", *Trends in social cohesion*, 15: 191-209.
- Standing, G. (2002), *Beyond New Paternalism. Basic Security as Equality*. London / New York, Verso.
- Tangian, A. (2004), "Defining the flexicurity index in application to European countries", *WSI-Diskussionspapier*, 122.
- Tangian, A. (2005), "Monitoring flexicurity policies in the EU with dedicated composite indicators", *WSI-Diskussionspapier*, 137.
- Tangian, A. (2006a), "European flexicurity: concepts (operational definitions), methodology (monitoring instruments), and policies (consistent implementations)", *WSI-Diskussionspapier*, 148.
- Tangian, A. (2006b), "Monitoring flexicurity policies in Europe from three different viewpoints", *WSI-Diskussionspapier*, 145.
- Van der Maesen, L. J. G. and A. C. Walker (2005), "Indicators of Social Quality: Outcomes of the European Scientific Network", *European Journal Of Social Quality*, 5(1/2): 8-24.
- Viebrock, E. and J. Clasen (2007a), "Flexicurity and welfare reform: a state of the art review", *RECOWE Strand 1: Working Paper I*.
- Viebrock, E. and J. Clasen (2007b), "Welfare reform and labour market dynamics: a preliminary review of the literature", *RECOWE Strand 1: Working Paper II*.
- Wilthagen, T. (2002), "The Flexibility-Security Nexus: New approaches to regulating employment and labour markets", *Flexicurity research paper FXP*, 2003-2.
- Wilthagen, T. and R. Rogowski (2002), The legal regulation of transitional labour markets, in G. Schmid and B. Gazier, Eds, *The Dynamics Of Full Employment. Social Integration Through Transitional Labour Markets*, Cheltenham, Edward Elgar: 233-273.
- Wilthagen, T. and F. Tros (2004), "The concept of 'flexicurity': a new approach to regulating employment and labour markets", *Transfer. The European Review of Labour and Research*, 10(4): 166-186.

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