Flexicurity analysis of youngsters in Europe

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DRAFT VERSION

Abstract

The paper presents some significant results of YOUTH project Young in Occupations and Unemployment: THinking of their better integration in the labour market, promoted by the European Commission – DG Employment. The paper intends to analyse if the weak group of young people may be favoured in labour market participation thanks to a combination of flexibility and security. In general, the current trend shows a larger participation of young people in flexible labour contracts. We assume that flexicurity is very important for young workers, because they are (as new entrants in the labour market and as workers with peculiar qualitative structural characteristics) particularly exposed to risks of unemployment and "atypical" employment.

In fact, flexibility can favour labour market insertion of young people, but without a combination with security features it risks creating a segment of young people in unsatisfactory jobs and a dual labour market system: one with high security (permanent contracts) and the other with low security (atypical contracts). A situation with high flexibility and low security or with low flexibility and high security is not optimal.

Key words: youth employment, labour economics policies, flexicurity.
Jel classification: J08, J21, J24.

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Introduction

In the 1990s, many experts realized that the labour flexibility requested by employers, employees and also by new institutional systems was creating categories of disadvantaged people and in the worse case, social exclusion (see Lindley, 2003). The debate thus focused on the trade-off between dynamic efficiency (necessary to meet changes) and social cohesion (the active participation in society of all). It emerged that lifelong learning contributes both to performance and productivity (increasing a country's growth rate) and to social cohesion and personal development in general.

A number of authors use flexicurity as a policy concept for ranking countries. Wilthagen and Van Velzen (2004) place different welfare regimes along the flexibility-security axes, while Tangian (2004) develops a 'flexicurity index'. Some authors trace the role of flexicurity for only a part of the labour force. Thus, Tros (2004) looks specifically at older workers.

This paper uses Principal Component analysis to cluster the EU Memebr States. The European Commission focused the attention on flexicurity in the last three years and commissioned YOUTH project. Therefore, the authors estimated flexicurity cluster analysis[4], identifying adequate indicators (Table 4) on the basis on the youth labour market outcomes and on the four policy areas identified by the European Commission as flexicurity components:

- flexible and reliable contractual arrangements;
- comprehensive lifelong learning strategies;
- effective active labour market policies;
- modern social security systems.

Methodology

Concerning the objective to create flexicurity pathways for the young within the overall flexicurity approach, we are adopting the following method:

[4] We propose to include most possible indicators in the quantitative analysis on flexicurity, omitting countries that cannot provide such indicators. Unfortunately there are countries like Malta, Bulgaria and Romania that suffer lack of data.

1) We analysed the documents collected by the YOUTH team, the documents provided by the EC on flexicurity and young people and macro and microdata at our disposal, adapting the background indicators useful for flexicurity to young people, distinguished in accordance with the four mentioned pillars (flexible contractual arrangements, comprehensive lifelong learning strategies, effective labour market policies, modern social security systems and labour market outcomes). We will consider, in part, some general indicators (such as EPL, human development indicator, labour productivity, labour productivity growth 2005-2000, expenditure in ALMP and so on) and in part specific indicators related to young people (such as rates of employment, unemployment, long term unemployment, participation in education, share of temporary contract, part time employment, working students, education attainment, some indicators calculated by EU-SILC dataset concerning the participation of young people in unemployment and some social benefits).

2) YOUTH project tried to explain youth employment features in Europe in a context of flexicurity, focusing on how to improve the unsatisfactory youth labour-market performance through the lifecycle capabilities approach. The ultimate claim of the capability approach is that the ends or goals of policies should be young people's wellbeing in all its dimensions, that is their capabilities.

The aim of the capability approach is to lead individuals to be autonomous and responsible of their own choices. Not all people have the same capabilities. Moreover, there are some people that do not have a minimum level of capabilities, necessary to actively participate in the labour market and in the society. The role of public institutions (in collaboration with the private ones) is to increase the capabilities of young people, providing resources to facilitate the achievement of the shared objectives or improving the capacity to convert the available resources into wellbeing (measurable in quality of work and quality of life). The capability approach focuses attention on the role of local communities, characterized by tangible and intangible resources and by their capacity to convert such resources into individual and collective wellbeing. The various European countries differ in their economic structures and lifestyles.

Their production processes and lifestyles depend on the tangible, intangible and human resources available, the real opportunities of the single individuals and the capacity to outline a common objective and share it with a sense of responsibility. The Youth flexicurity clusterization inserted four indicators of capability in the Principal component analysis:

- Human Development indicator;
- PISA average score;
- percentage of young people at risk of poverty;
- percentage of 20-29 years old who have at least a secondary school qualification.

3) In order to do such work, we mainly analysed two age groups: 15-24 years old and 25-29[5] years old.

The statistical model

The aim is to analyse the differences and similarities among the various countries with regards to flexicurity, defining possible groups of homogeneous countries. The statistical technique used is a normalised principle component analysis. This exploratory type of factorial technique highlights significant relations between the elements of a data matrix by reducing dimensionality and building synthetic and unobservable dimensions (factorial axes) to interpret the phenomenon analysed. These factorial axes reconstruct "points of view" from which it is possible to carry out the analysis.

The original data matrix has a 24 by 30 dimension, i.e. 24 countries analysed (excluding Bulgaria, Romania and Malta because of their particularity and scarcity of data) and 30 variables (see the list of indicators). First of all, we can analyse the principal factorial plane (Graph

[5] This choice to extend the analysis to the over 24 group is also supported by EC documents on youth employment in EU ("Employment in Europe, 2007, Chapter 1 Panorama of the European Labour market, par. Labour market trend of young people, pp. 29-52", European Commission, DG Empl/D1, October 2007) showing that, in some countries, the segmentation of youngsters continues in the 25 and over age group.

1) which, as seen in the self-values panel (**Table 1**), explains around 50% of the total linear variabilities[6].

Table 1 – Eigenvalues panel

Number	Eigenvalue	Percentage	Cumulated percentage
1	**9.7053**	**31.31**	**31.31**
2	**5.1389**	**16.58**	**47.88**
3	3.2735	10.56	58.44
4	2.2999	7.42	65.86
5	1.9473	6.28	72.14
6	1.7062	5.50	77.65
7	1.3553	4.37	82.02
8	1.0289	3.32	85.34
9	0.8526	2.75	88.09
10	0.6980	2.25	90.34
11	0.6608	2.13	92.47
12	0.5260	1.70	94.17
13	0.3858	1.24	95.41
14	0.3098	1.00	96.41
15	0.2848	0.92	97.33
16	0.2248	0.73	98.06
17	0.1814	0.59	98.64
18	0.1435	0.46	99.11
19	0.1083	0.35	99.46
20	0.0738	0.24	99.69
21	0.0558	0.18	99.87
22	0.0271	0.09	99.96
23	0.0121	0.04	100.00
24	0.0000	0.00	100.00
25	0.0000	0.00	100.00
26	0.0000	0.00	100.00
27	0.0000	0.00	100.00
28	0.0000	0.00	100.00
29	0.0000	0.00	100.00
30	0.0000	0.00	100.00
31	0.0000	0.00	100.00

[6] The first two self-values explain 48% of the original inertia.

In the description of the factorial axes we have taken into account variables with a correlation coefficient of over 0.35, attempting to show up those with the highest absolute contribution[7]. The first factorial axis (Table 2) has, on its positive side, a high correlation with variables representing a strong State intervention in labour markets (such as expenditure in active and passive policies) and those indicating a good employment and young labour-market situation (high 15-24 rates of employment, high productivity, high availability of part-time work for the young in general and for students). It also has a good correlation with a high index of well-being (measured by the Human Development Index). It is evident that these variables define a Nordic type of socio-economic security, featuring an active social-protection system with strong active labour policies and extensive part-time work as a flexibility system able to integrate (more disadvantaged individuals) in the labour market. The countries most to the right in

Table 2 – First factorial axis

Variables	Coordinates	Weight	Mean	Standard deviation
long_unemp25-29	-0.75	24.00	36.758	15.913
long_unemp15-24	-0.74	24.00	26.588	15.405
growth_prod	-0.60	24.00	2.367	6.909
NEET15-29	-0.55	24.00	8.592	3.049
Poverty trap	-0.51	24.00	0.166	0.055
unemp_rates15-24	-0.41	24.00	18.296	7.363
unemp_rates25-29	-0.38	24.00	9.325	4.094
MIDDLE AREA				
partstud15-24	0.73	24.00	46.163	21.653
Passive LMP	0.74	23.00	0.900	0.670
empl_rate15-24	0.78	24.00	35.342	11.785
part15-24	0.83	22.00	0.473	0.348
Active LMP	0.83	24.00	21.196	16.387
HDI	0.84	24.00	0.909	0.038
part15-29	0.86	24.00	11.221	7.173

[7] The analyses were carried out with the SPAD 5.0. statistical package.

Graph 2 are, in fact, the Netherlands, Denmark, Sweden and Finland.

The negative semiaxis, which is obviously negatively correlated with the variables of the positive side, shows a high correlation with the rates of youth unemployment, in particular long-term, with the NEET percentage, with the poverty trap risk and with the growth of productivity[8]. The positive correlation with these variables clearly represents a low level of social inclusion and security for the young, typical of east-European countries (Slovakia, Hungary, Estonia, Latvia, Lithuania, Czech Republic, Poland) and also of Greece.

Table 3 – Second factorial axis

Variables	Coordinates	Weight	Mean	Standard deviation
%30soc_benefit	-0.62	24.00	0.578	0.149
%ed_all	-0.48	24.00	0.388	0.378
%upsec20-29	-0.47	24.00	82.025	9.457
growth_prod	-0.44	24.00	2.367	6.909
PES	-0.40	22.00	0.159	0.125
PISA	-0.40	20.00	498.650	17.453
%un_benefit	-0.38	24.00	0.688	0.179
MIDDLE AREA				
unemp_rates15-24	0.47	24.00	18.296	7.363
turnover_youth_ad	0.55	24.00	1.100	0.327
unemp_rates25-29	0.55	24.00	9.325	4.094
EPL	0.67	23.00	2.387	0.614
fixed15-29	0.68	24.00	17.175	11.285
FIX stud25-29	0.69	24.00	32.758	19.384
FIX stud15-24	0.75	24.00	54.242	24.347

[8] This shows a convergence between productivity indexes in European countries.

The second factorial axis (Table 3) shows on the positive semi-axis a high correlation with the percentage of fixed-term contracts for the young and for students, with a strong youth-adult differential in the rate of turnover and with EPL, on one side, and with high rates of youth unemployment on the other. These variables represent strongly segmented economic systems, focused on a swift entry of young people into the labour market through an extensive use of fixed-term contracts and a higher turnover than the adults: the so-called flexibility at the margin (Spain).

Against this, the negative semiaxis shows a strong correlation with the growth of productivity, with the percentage of 20-29 year-olds possessing an upper secondary education qualification, with the percentage of individuals of all ages in education, with the OECD-Pisa scores, with the percentage of under 30s receiving social/unemployment benefit and with the PES. It obviously involves less segmented economic systems (but *equally flexible* if we refer to the entire labour force and not only to the young, United Kingdom and Ireland), with a high level and quality of aggregated human capital and consequent labour productivity trend.

In conclusion, it seems that the more rigid countries with less security are represented on the left of the horizontal axis, with the more flexible and secure ones going towards the right. The countries with more flexicurity are anyway those on the right of the graph. The vertical axis seems to be of more difficult interpretation, since it involves numerous variables. In particular, the different types of flexibility chosen by the various countries seem to affect their placement on the vertical axis, with those in the upper areas more "at the margin" and those underneath more "widespread".

In this case, the absence of segmentation does not have to be a condition for implementing flexicurity, as commonly asserted in

economic literature[9]. This widely-held conviction is based on Wilthagen and Tros's[10] definition of flexicurity as a "policy strategy that attempts, synchronically and in a deliberate way, to enhance the flexibility of labour markets, 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". However, neither should those measures which extend flexibility at the margin of the labour force, that is provide flexible contractual forms mainly addressed to individuals with greater employability difficulties (such as the young labour force), since they would inevitably create a segmentation on the labour market.

Against this, our research shows that, although it certainly does not seem correct to extend protection mechanisms *exclusively* to the strong segment of the labour force, flexibility at the margin is not necessary in conflict with a flexicurity model. Wilthagen and Tros claim that the greater flexibility of the youth labour market over the adult one is accompanied by higher social and employment security for the young.

It is not only the use of temporary labour contracts for young people and students that helps to "shift" countries to the right, that is towards a higher level of flexibility and security, but also and above all a widespread use of part-time work. Employment protection legislation (EPL) has no effect whatsoever on the first factor, that is, it does not affect the placement of countries to the left or right in the graph.

A high EPL value does not thus seem decisive in terms of flexicurity. Comparing Graphs 4 and 2, there is an EPL value lower than the European average both for the countries on the left side of

[9] Raitano M., Pisano E., 2007, "La flexicurity danese: un modello per l'Italia?" in P. Villa (ed.) *Generazioni flessibili. Nuove e vecchie forme di esclusione sociale*, Carocci, Roma, pp. 52-76.
[10] Wilthagen T., Tros F., 2004, "The Concept of Flexicurity: A New Approach to Regulating Employment and Labour Markets", in *Transfer*, Vol X, 2, pp. 166-186.

Graph 2, with more problems in pursuing a flexicurity strategy (Hungary, Czech Republic, Slovakia, Poland and Italy) and for those in the right side (United Kingdom, Ireland, Denmark, Finland, Austria and Netherlands). In particular, a distance is noted between the positions of the Netherlands and Italy in

Graph 2 and it is considered that the difference in the EPL of the two countries is extremely modest (2.4 for Italy, equal exactly to the European average - and 2.3 for the Netherlands).

Against this, among the countries with a higher EPL than the European average we find both those with the greatest problems in terms of flexicurity (Latvia, Estonia, Lithuania, Greece and Portugal) and the more "virtuous" countries (Sweden, Belgium, Germany, Luxembourg, France and Spain).

Final remarks:

There seems to be four heterogeneous groups of countries that we can define with our analysis:

1) countries with a good degree of flexibility and security, albeit with rather segmented labour markets (top right of graph 2);
2) countries with a good degree of flexibility and security, with non-segmented labour markets (bottom right of graph 2);
3) countries lagging behind in terms of flexicurity, possessing labour markets with varying degrees of segmentation, a low level of aggregated human capital and high rates of youth unemployment (top left of graph 2);
4) countries lagging behind in terms of flexicurity, possessing labour markets with varying degrees of segmentation, a good level of aggregated human capital and good growth of labour productivity (bottom left of graph 2).

Flexicurity clusterization

GROUP OF COUNTRIES	MAIN FEATURES
Austria, Denmark, Netherlands, Sweden, Finland, UK and Ireland	countries with the best labour market performance among the 27 EU member states and with good level of flexicurity, not segmentend.
France, Belgium, Germany and Luxembourg and Slovenia*	countries with low participation of 15-24 year-olds in the labour market with medium-high level of unemployment rates for this group but with good indicators of capabilities and good share of GDP in labour- market policies. They are behind in the flexicurity implementation, in comparison with the first group.
Greece, Italy, Portugal, Spain and Poland	countries with low participation of 15-24 year olds in the labour market with medium-high level of unemployment rates for this group, poor indicators of lifelong learning, moderate expenditure in ALMP (Active labour market policies), poor in PES (Public employment Services) and good in passive labour policies. The Mediterranean countries are experimenting a segmented flexicurity.
Czech Republic, Estonia, Hungary, Latvia, Lithuania, Slovakia and Cyprus	countries with low rates of employment, high rates of unemployment, also of long duration, a high proportion of young people from low-income families and low levels of productivity linked to skill mismatches. In recent years these indicators have improved, suggesting a convergence towards the older member countries. Flexicurity is not known.

Summing up:

- there are countries, like the Mediterranean ones where flexibility risk to trap youngsters in a process of unemployment-unsecure jobs alternation, which need an adequate reform of the security measures because there is a segmentation among the core of the workforce (permanent jobs and security benefits) and the periphery (unsecure jobs and weak security).
- There are countries that could be classified as labour markets which still provide little employability for young people, albeit they are beginning to converge towards the better-off European countries. This cluster of new countries needs interventions both to promote flexibility (i.e. the

Czechs do not want part-time contracts because the low average wage and high social contributions mean low incomes) and to modernize security and learning strategies. In fact, the fast growth and convergence in terms of labour productivity and wages, risk to promote, in the next future, immediate interventions of flexibility, with the risk to face the precariousness problems met by the Mediterranean Member States.

Table 4 - **Indicators within the flexicurity cluster analysis**

FLEXIBLE CONTRACTUAL ARRANGEMENTS
EPL version 2 (TOTAL) (OECD, 2003)
share of employment with fixed-term contracts 15-24
share of employment with fixed-term contracts 25-29 (LFS, 2005 - quarterly microdata)
share of employment with part time 15-24
share of employment with part time 25-29 (LFS microdata, 2005)
part time employment (as a % of the total employment) by education status 15-24 (LFS, 2005 - quarterly microdata)
part time employment (as a % of the total employment) by education status 25-29 (LFS, 2005 - quarterly microdata)
fixed term contracts (as a % of the total number of employees) by education status 15-24 (LFS, 2005 - quarterly microdata)
fixed term contracts (as a % of the total number of employees) by education status 25-29 (LFS, 2005 - quarterly microdata)
COMPREHENSIVE LIFELONG LEARNING STRATEGIES
percentage in education 15-29 (LFS 2005 - quarterly microdata)
Human development indicator (Oecd)
% of 20-29 having completed at least upper secondary school (EU-SILC, 2005)
% of people in education that receive education allowances (EU-SILC, 2005)
OECD-Pisa, 2003
EFFECTIVE LABOUR MARKET POLICIES
expenditure in ALMP as % of GDP (eurostat 2-7)
expenditure in PES as % of GDP (eurostat 1)
out of work income support as % of GDP (passive LMP – eurostat 8)
% of under 30 beneficiaries of unemployment benefit (EU-SILC 2005)
MODERN SOCIAL SECURITY SYSTEMS
poverty indicator (percentage of under 30 whose poverty indicator is positive in EU-SILC2005)
% of under 30 receiving social benefits (EU-SILC, 2005)
LABOUR MARKET OUTCOMES
employment rates 15-24
employment rates 25-29
unemployment rates 15-24

unemployment rates 25-29
long-term unemployment 15-24
long-term unemployment 25-29
labour turnover[11](15_29) (LFS microdata, 2005)
labour turnover(diff_youth_adults) (LFS microdata, 2005)
labour productivity per person employed (EU27=100)
growth in labour productivity (2005-2000)
NEET rates 15-29 (LFS microdata, 2005)

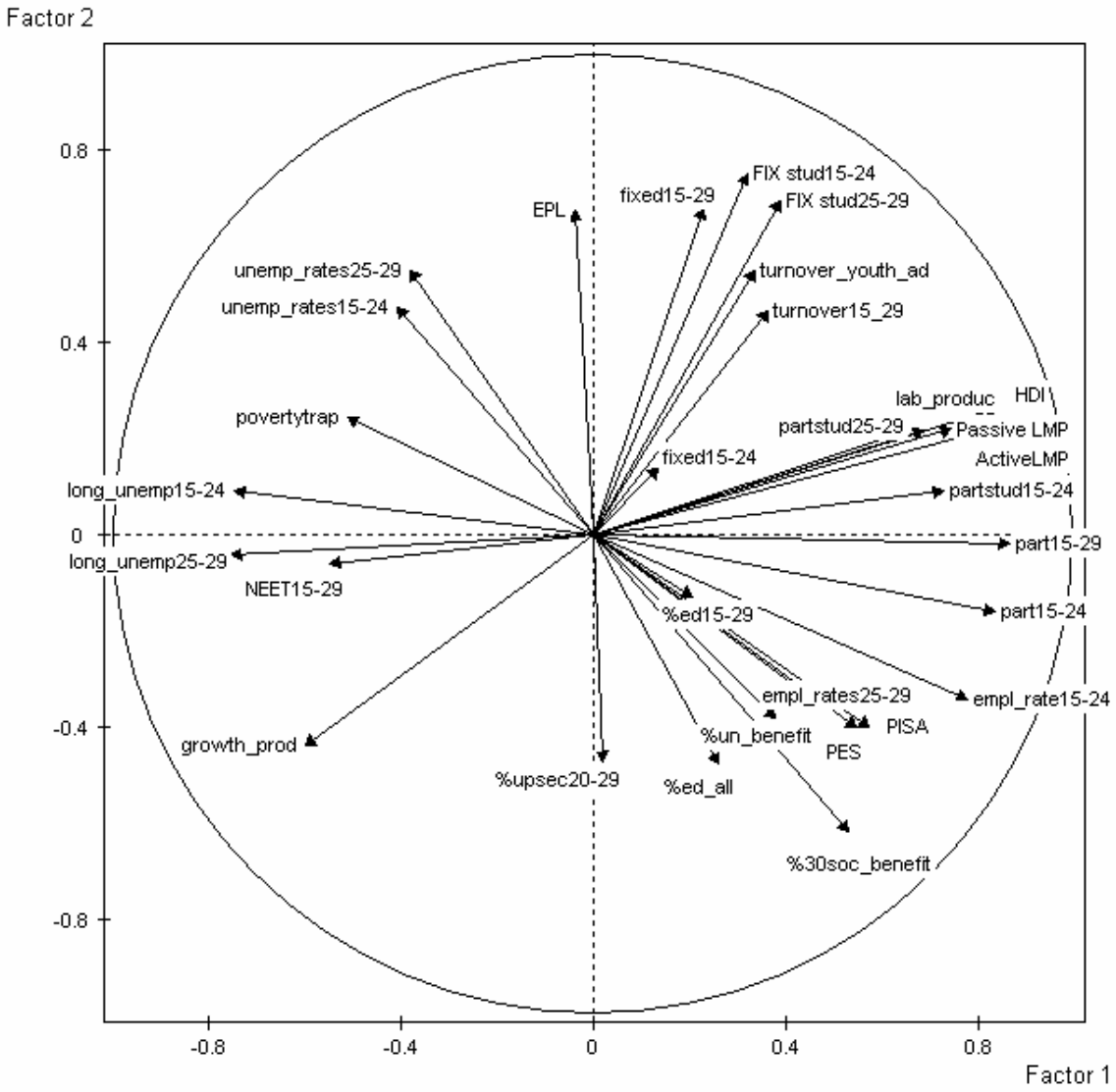
Footnote: When the source is not specified, they are macrodata downloaded by Eurostat website, year 2005, in case of LFS: spring data.

Graph 1 – Principal factorial plane: the circumference of correlations

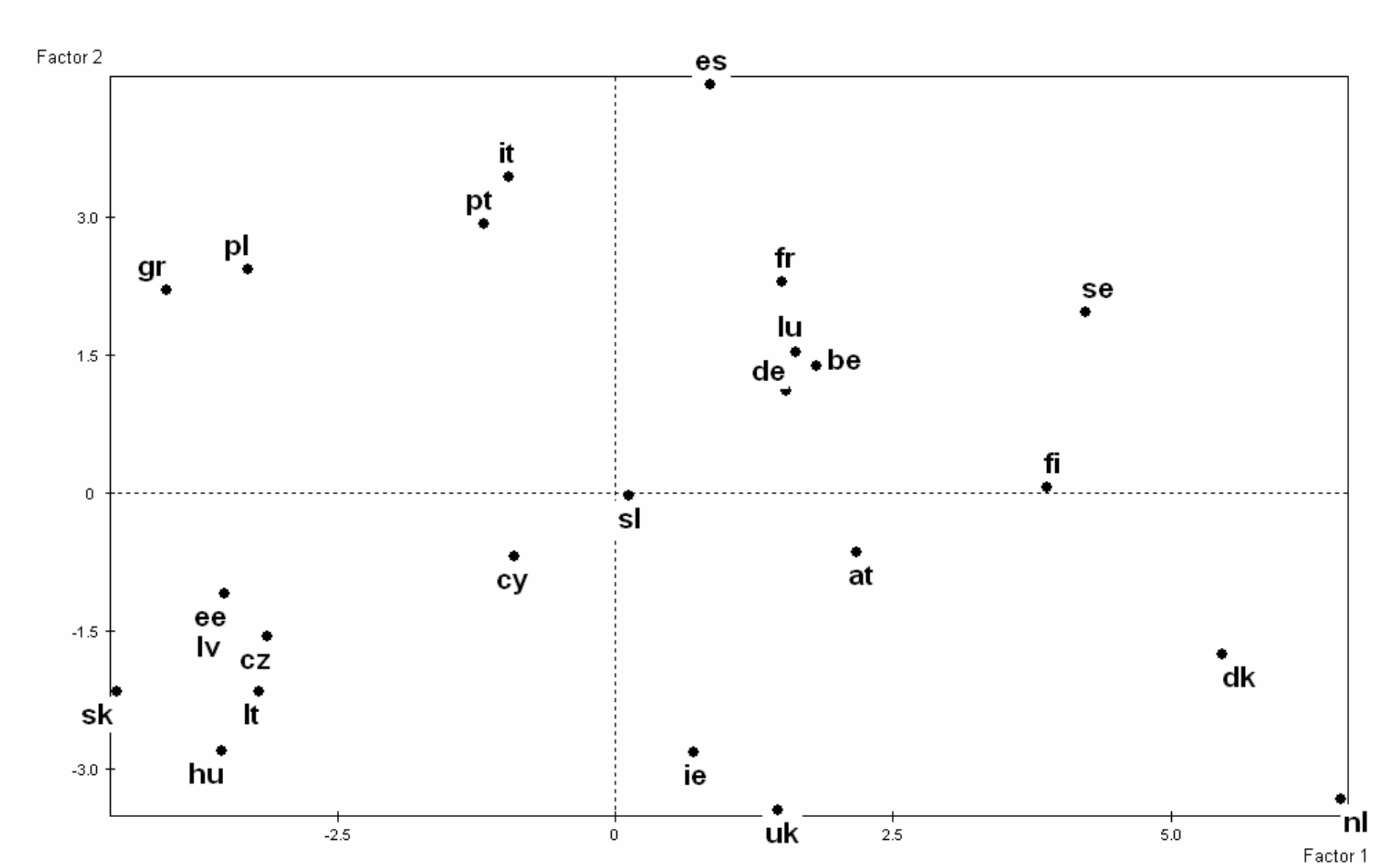
[11] Labour turnover$_{(2005)}$ = HR + FR where:

the hiring rate, HR, is $HR_{2005} = \frac{no.\ of\ workers\ who\ started\ to\ work\ in\ 2005}{Employment\ in\ 2005}$

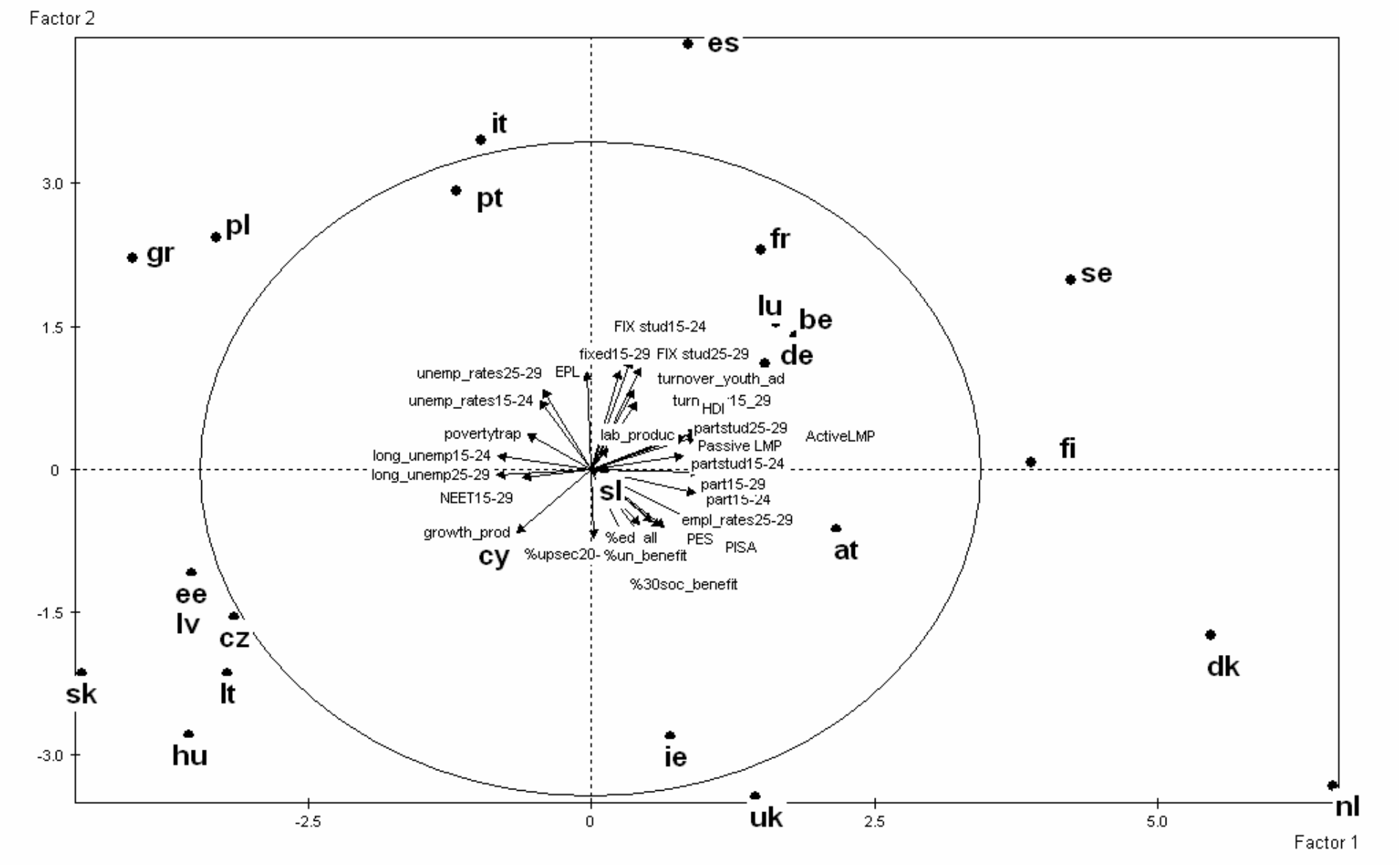
and the firing rate, FR, is $FR_{2005} = \frac{\text{no. of workers who lost their jobs in 2005}}{\text{Employment in 2005}}$


Factor 2
0.8
0.4
0
-0.4
-0.8
-0.8
-0.4
0
0.4
0.8
Factor 1
EPL
fixed15-29
FIX stud15-24
FIX stud25-29
turnover_youth_ad
turnover15_29
unemp_rates25-29
unemp_rates15-24
lab_produc
HDI
partstud25-29
Passive LMP
ActiveLMP
fixed15-24
partstud15-24
povertytrap
long_unemp15-24
part15-29
long_unemp25-29
NEET15-29
%ed15-29
part15-24
empl_rates25-29
empl_rate15-24
PISA
%un_benefit
PES
growth_prod
%upsec20-29
%ed_all
%30soc_benefit

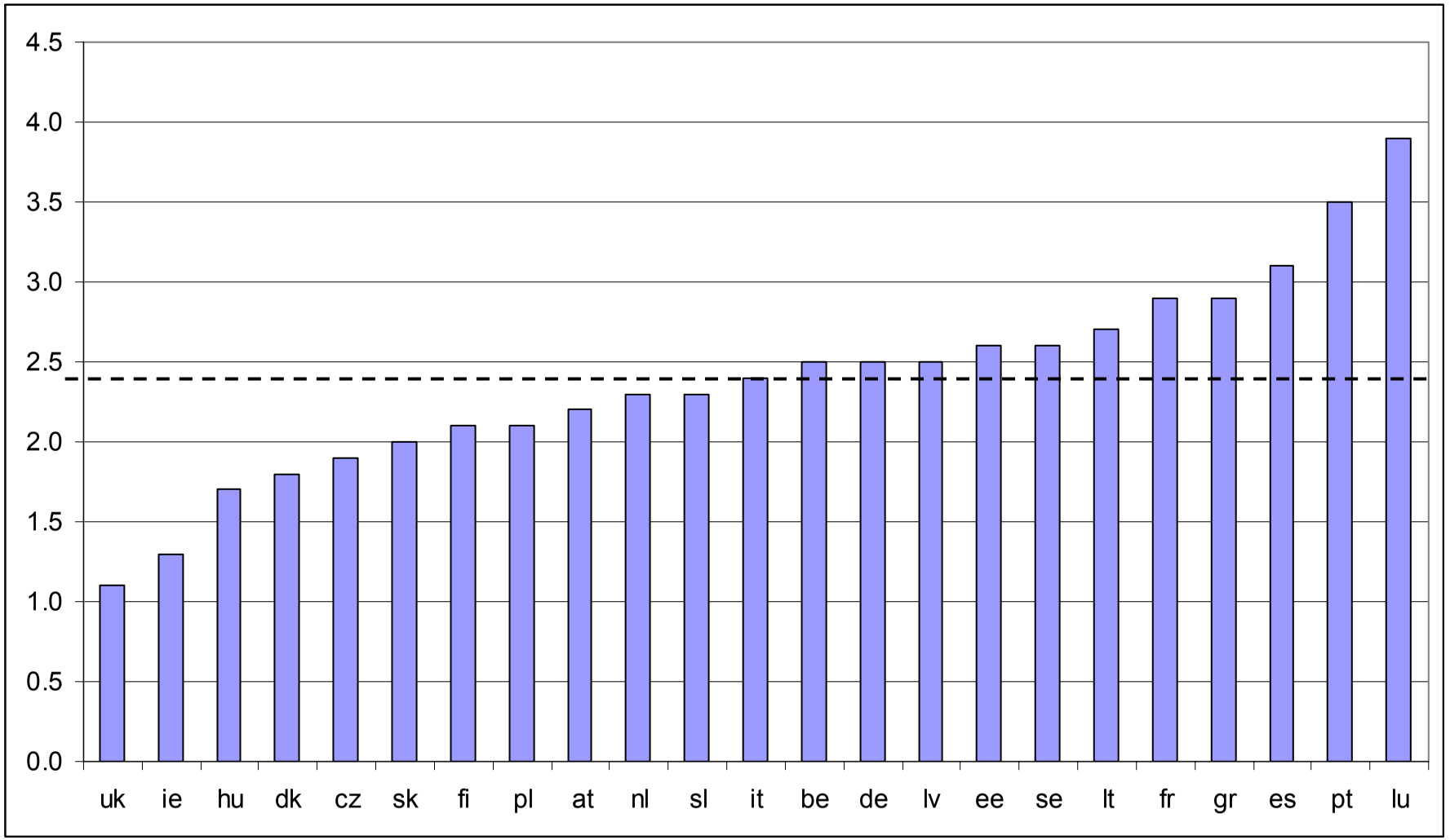
Graph 2 – Position of countries on principal factorial Plane



Graph 3 – Main factorial plane: self-vectors and countries



Graph 4 – EPL Version 2 (TOTAL), OECD 2003



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