



EMPIRICAL LABOUR MARKET ANALYSIS FOR PENSION SYSTEM ANALYSTS

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INTRODUCTION

DE-COMPOSITION OF PENSION EXPENDITURES (1)

$$PE = Pensioners * Average Pension$$

$$\frac{PE}{GDP} = Pensioners * \frac{Average Pension}{GDP} * \frac{1}{Workers}$$

$$\frac{PE}{GDP} = Pensioners * \frac{Average Pension}{Average wage} * \frac{1}{Workers}$$

$$\frac{PE}{GDP} = Pensioners * \frac{Average Pension}{Average wage} * \frac{1}{Workers} * \frac{Population 65 +}{Population 65 +} * \frac{Population 15 - 64}{Population 15 - 64}$$

$$\frac{PE}{GDP} = \frac{Pensioners}{Population 65 +} * \frac{Average Pension}{Average wage} * \frac{Population 15 - 64}{Workers} * \frac{Population 65 +}{Population 15 - 64}$$

DE-COMPOSITION OF PENSION EXPENDITURES (2)

$$\frac{PE}{GDP} = \underbrace{\frac{Pensioners}{Population\ 65+}}_{\text{Eligibility}} * \underbrace{\frac{Average\ Pension}{Average\ wage}}_{\text{Generosity}} * \underbrace{\frac{Population\ 15-64}{Workers}}_{\text{Labor market effects}} * \underbrace{\frac{Population\ 65+}{Population\ 15-64}}_{\text{Old-age dependency ratio}}$$

OPTIONS FOR PENSION REFORM

- Reduced **ELIGIBILITY** by eliminating options for early retirement
- Reduced **GENEROSITY** by lowering the replacement rate
- Increased **LABOUR MARKET PARTICIPATION**
- Flattening out the trend in **OLD AGE DEPENDENCY RATIO**

or

- Increase **rate of contribution** to pension system
- Increase **transfer from general budget** funded from general taxation

LABOUR MARKET PARTICIPATION

INCREASE IN STATUTORY RETIREMENT AGE

Schedule for the Increase in the Retirement Age

Periods	Steps	Target
2012-2023	1 month per year	from 65 to 66 years of age
2024-2029	2 months per year	from 66 to 67 years of age

INCREASE IN ACTUAL RETIREMENT AGE

Retirement Pensions			
Year	Men	Women	Total
2000	62.2	62.3	62.3
2014	64.0	64.3	64.1

EMPLOYED PERSONS

(Thousand)

Erwerbstätige (in Tsd.)						
	2000	2005	2008	2009	2010	2000-2010
Total	36.604	36.566	38.734	38.662	38.938	+2.334
20 bis u. 55 J.	30.559	30.340	31.510	31.258	31.350	+791
55 bis u. 65 J.	4.291	4.441	5.233	5.484	5.758	+1.467
55 bis u. 60 J.	3.105	3.039	3.707	3.803	3.904	+799
60 bis u. 65 J.	1.186	1.402	1.526	1.681	1.854	+668

Quelle: Statistisches Bundesamt.

EMPLOYMENT RATE

(%)

Erwerbstätigenquoten (in %)						
	2000	2005	2008	2009	2010	2000 – 2010 (in %-Punkten)
Total	68,6	69,3	73,9	74,0	74,8	+6,1
20 bis u. 55 J.	77,7	75,1	78,8	78,5	79,1	+1,4
55 bis u. 65 J.	37,5	45,4	53,6	55,9	57,5	+20,0
55 bis u. 60 J.	56,5	63,3	68,6	69,9	71,3	+14,8
60 bis u. 65 J.	19,9	28,1	35,0	38,4	40,8	+20,9
60 bis u. 61 J.	29,4	43,3	48,8	51,8	54,3	+24,9
61 bis u. 62 J.	24,2	37,0	42,8	44,8	47,2	+22,9
62 bis u. 63 J.	19,9	30,6	36,3	38,9	40,8	+20,9
63 bis u. 64 J.	12,7	20,2	26,2	28,6	30,3	+17,6
64 bis u. 65 J.	10,3	14,7	21,3	22,3	24,3	+14,0

Quelle: Statistisches Bundesamt.

EMPLOYEES COVERED BY SOCIAL INSURANCE (as percentage of total employment)

Anteil sozialversicherungspflichtig Beschäftigter an Erwerbstätigen (in %)						
	2000	2005	2008	2009	2010	2000-2010 (in %-Punkten)
Total	77,0	77,3	78,8	78,7	79,2	+2,2
20 bis u. 55 J.	78,1	78,6	80,1	80,0	80,6	+2,4
55 bis u. 65 J.	68,8	67,9	71,0	71,3	71,7	+2,9
55 bis u. 60 J.	74,7	72,5	74,9	75,4	75,7	+1,1
60 bis u. 65 J.	53,6	57,8	61,5	61,9	63,3	+9,6
Quelle: Statistisches Bundesamt.						

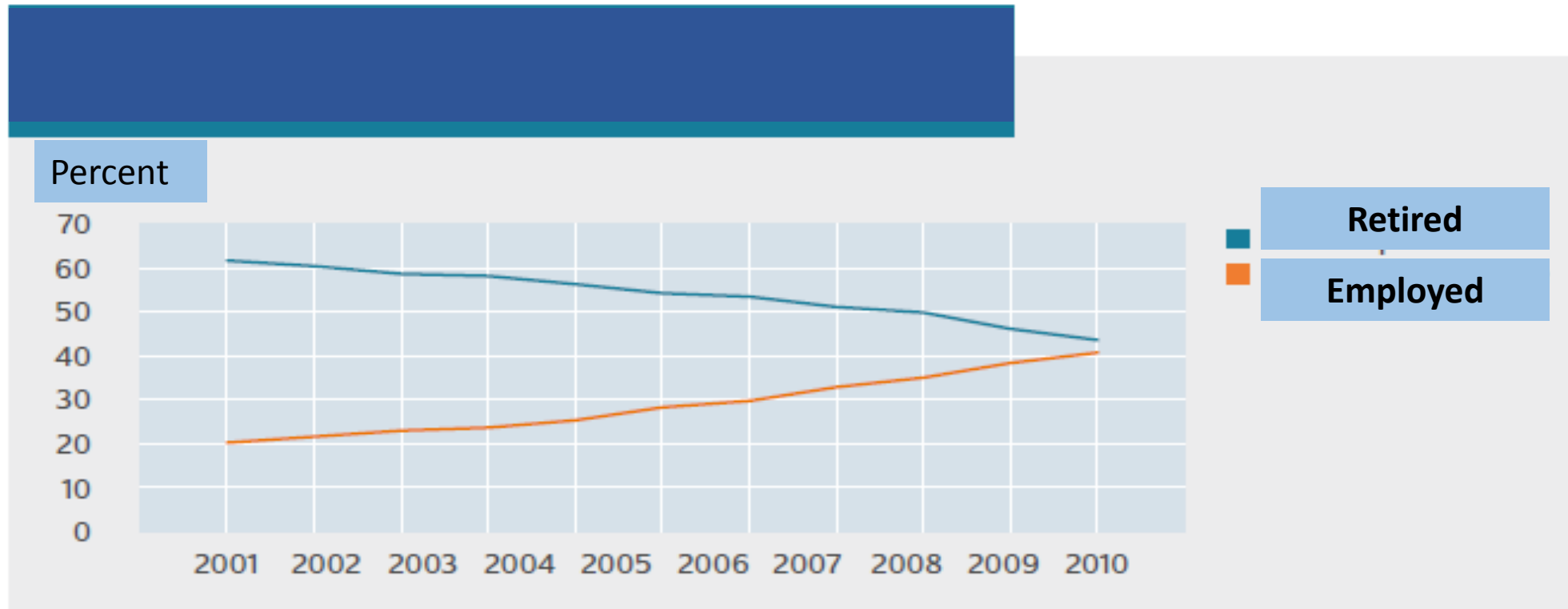
UNEMPLOYED PERSONS

(thousand)

Arbeitslose (in Tsd.)						
	2000	2005	2008	2009	2010	2000-2010
Insgesamt	3.890	4.861	3.258	3.415	3.238	-651
20 bis u. 55 J.	2.946	4.155	2.765	2.853	2.651	-295
55 bis u. 65 J.	842	582	427	496	532	-310
55 bis u. 60 J.	682	500	380	404	394	-288
60 bis u. 65 J.	160	82	47	91	138	-22

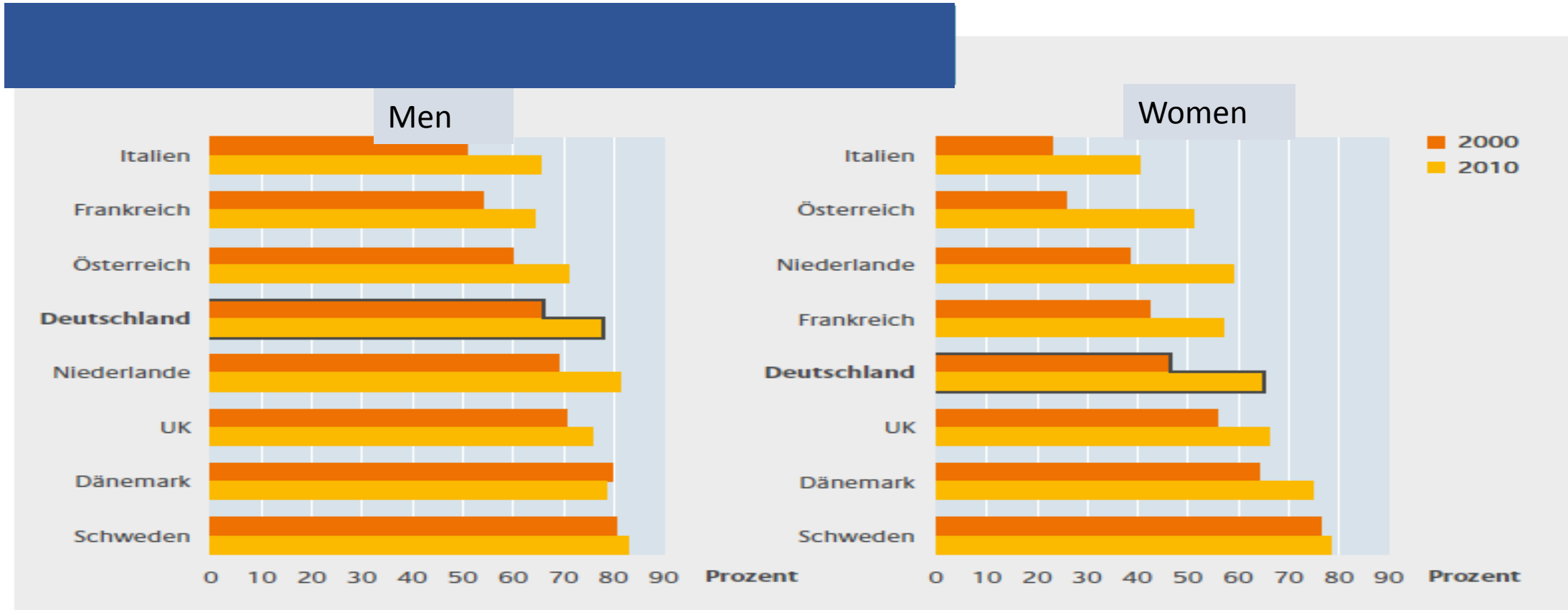
Quelle: Bundesagentur für Arbeit.

EMPLOYED AND RETIRED IN THE AGE GROUP 60-64



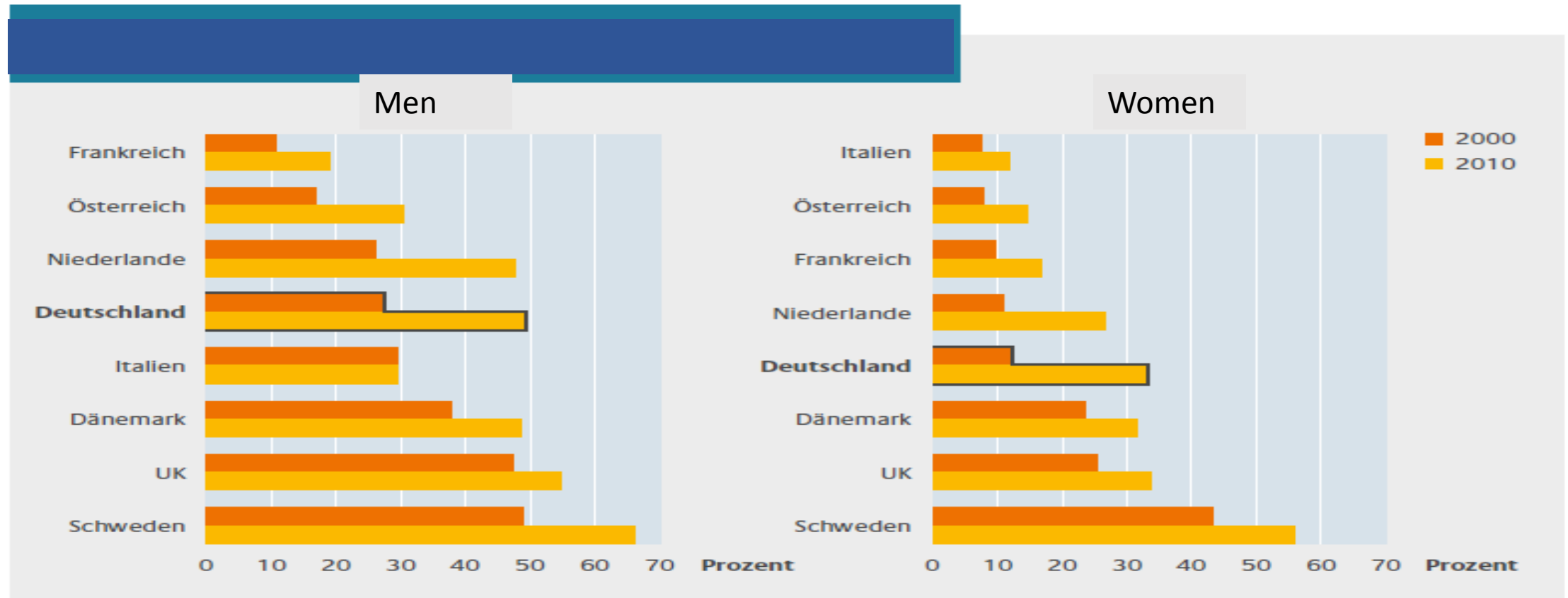
Quelle: Statistisches Bundesamt.

EMPLOYMENT OF THE AGE GROUP 50-59 IN INTERNATIONAL COMPARISON



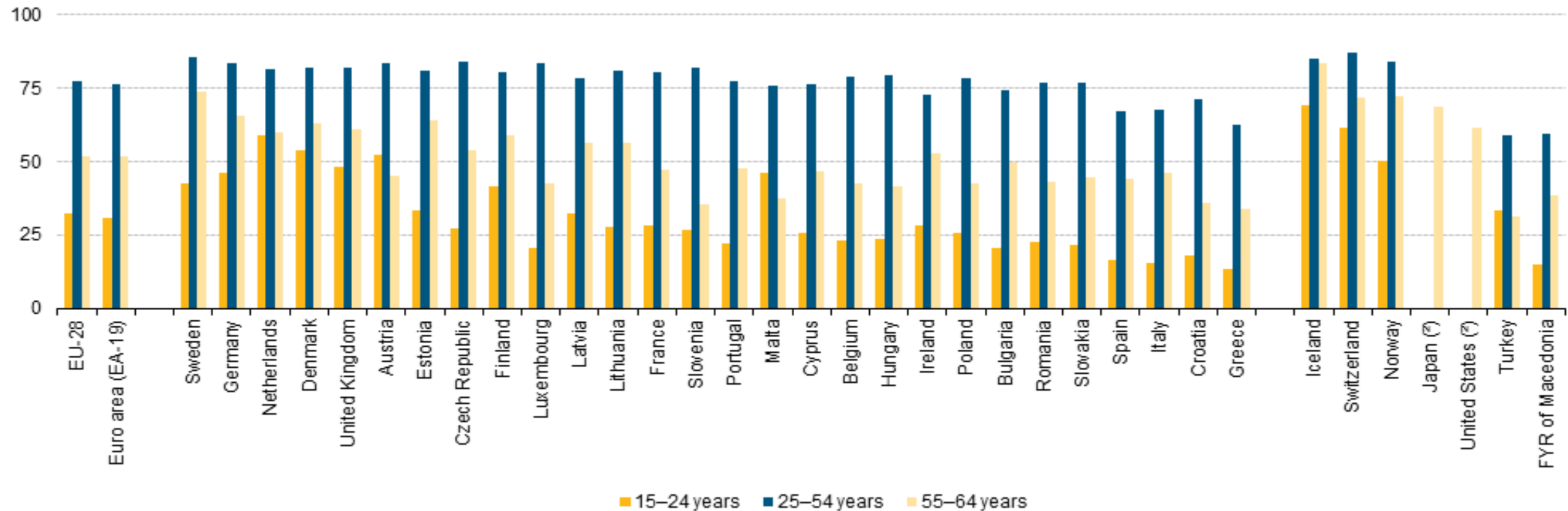
Quelle: Eurostat.

EMPLOYMENT OF THE AGE GROUP 60-64 IN INTERNATIONAL COMPARISON



Quelle: Eurostat.

EMPLOYMENT BY AGE GROUP IN INTERNATIONAL COMPARISON



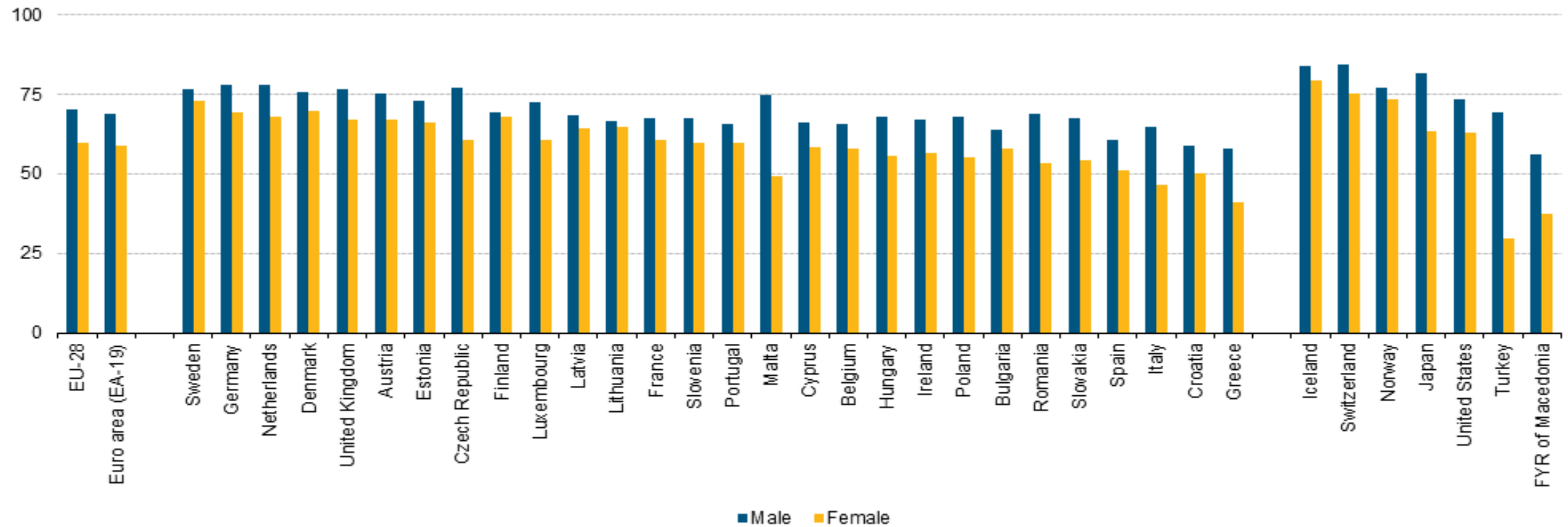
(*) The figure is ranked on the overall employment rate.

(†) 15-24 years and 25-54 years: not available.

Source: Eurostat (online data code: lfsi_emp_a)

EMPLOYMENT RATES BY GENDER

age group 15–64, 2014



(*) The figure is ranked on the overall employment rate.

Source: Eurostat (online data code: lfsi_emp_a)

LABOUR MARKET AND PENSION SYSTEM

(1)

- Employment opportunities
 - Labour market for older workers has improved
 - Labour market participation of women has increased

LABOUR MARKET AND PENSION SYSTEM

(2)

- Policy Issues

- Labour market reform of 2004 ?
 - Unemployment benefit reduced
 - Mandatory job seeking
 - Counselling services expanded
- External versus internal flexibility
 - Labour market regulation: labour contract law unchanged
 - Collective agreements on overtime (time accounts), etc.
- Retirement age: edging up to 67 by 2030
- Partial pension and work

EARNINGS RISK

SOURCES OF INCREASED EARNINGS RISK

(1)

EMPLOYMENT

- Absorption of the labour force increased in Germany
- More non-standard types of employment
 - Part-time
 - Term contract
 - Temporary employment
 - Marginal occupation
 - Self employment

SOURCES OF INCREASED EARNINGS RISK (2)

WAGES

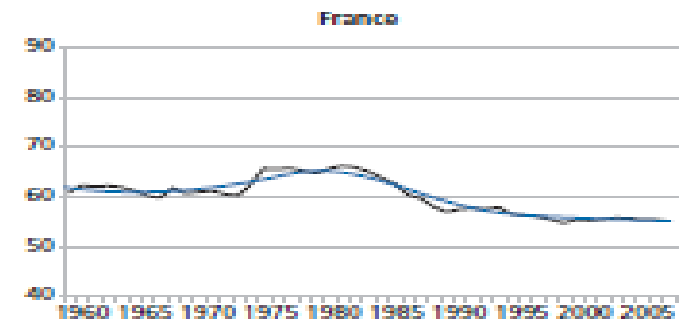
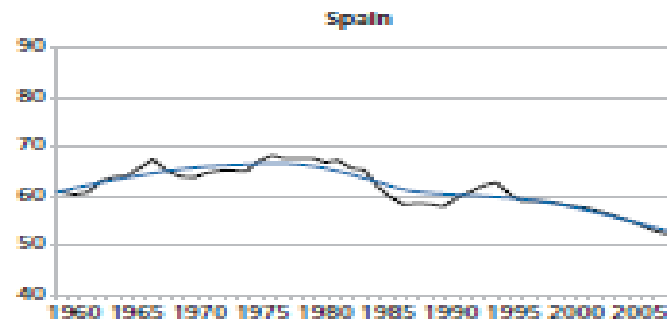
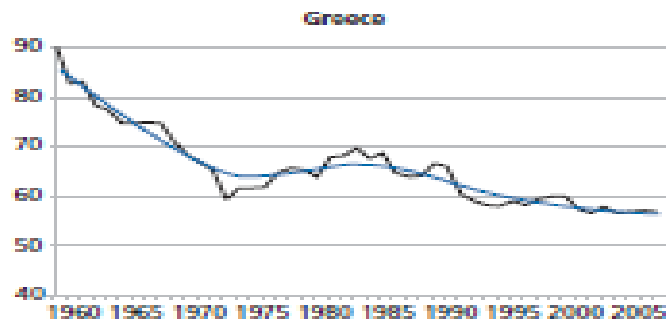
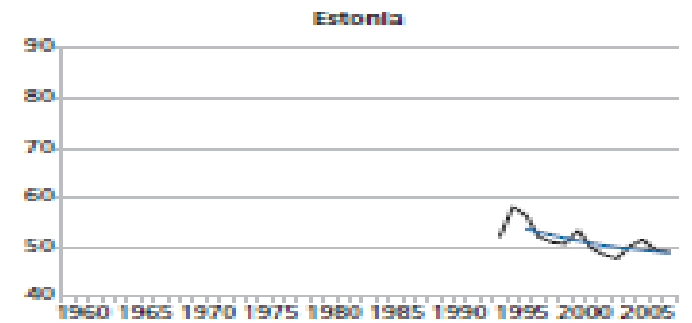
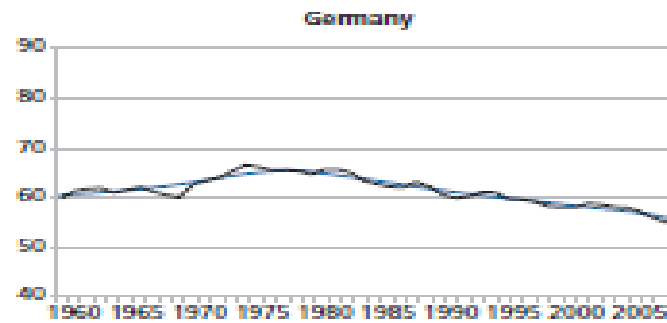
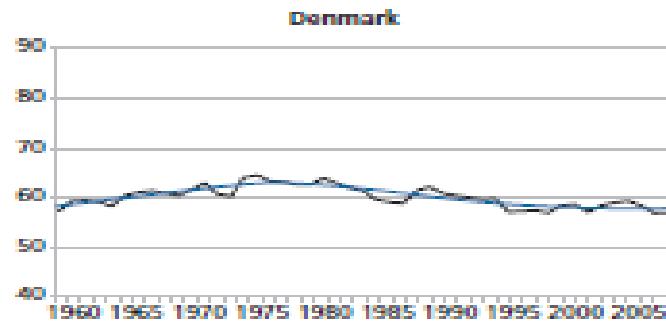
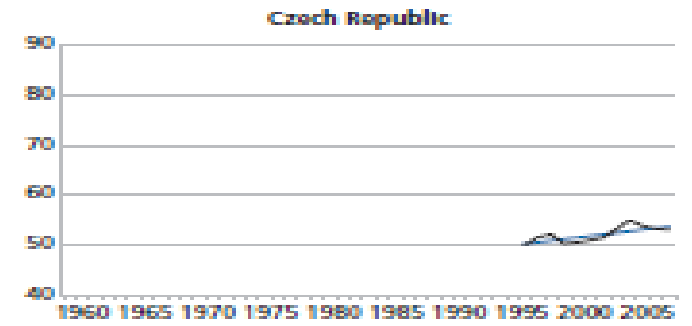
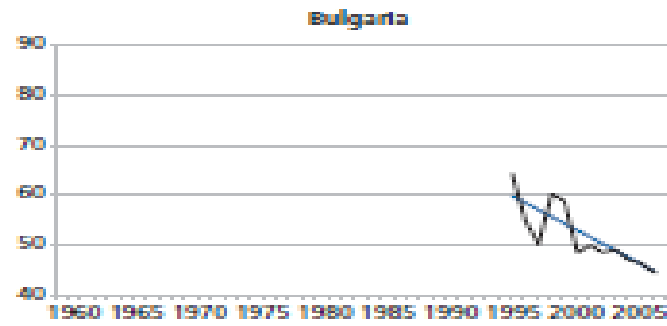
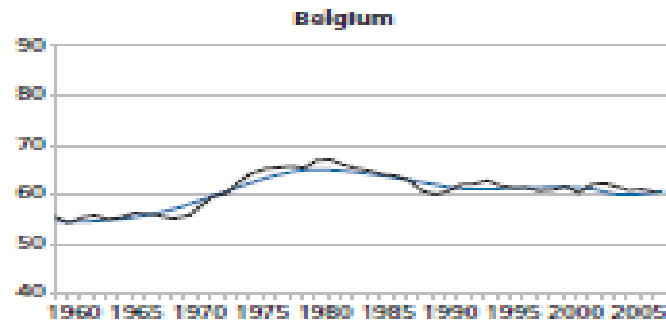
- Secular decline in the labour share
- Increasing inequality- ambiguity
 - Minimum wages
 - Low wage sector

LABOUR MARKET REFORM AND PENSION SECURITY

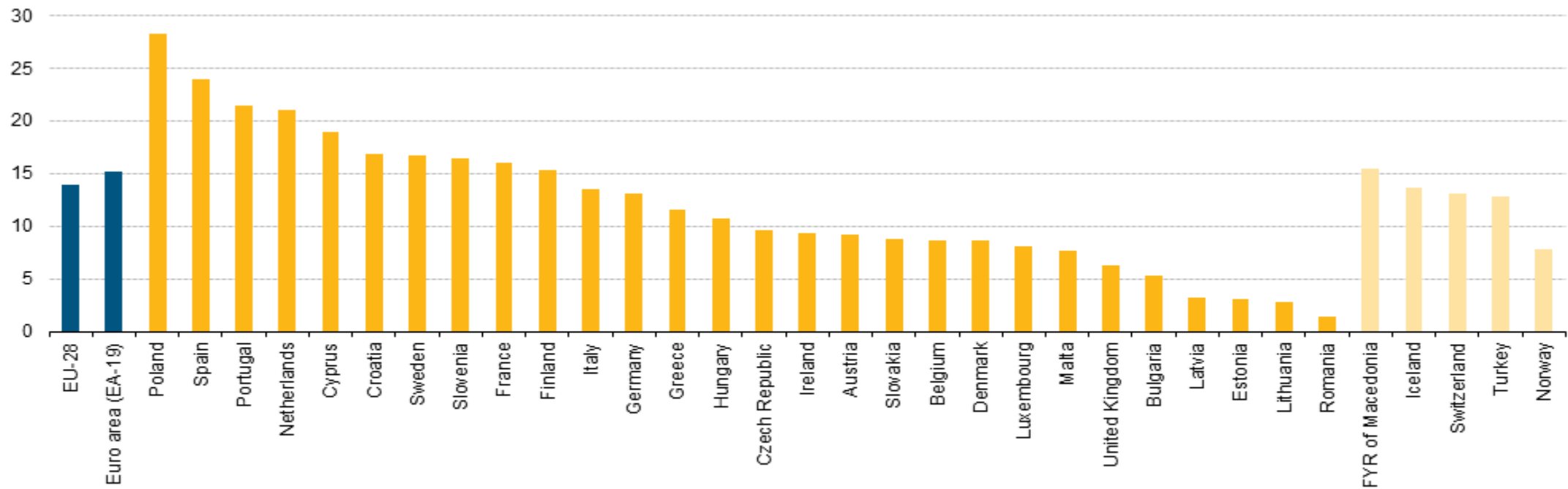
WAGE RATE	EMPLOYMENT RECORD	MONTHLY PENSION
Euro per Hour		Euro
7.00	45	547
8.00	45	625
9.00	45	703
9.50	45	742
11.00	45	858
11.00	40	763
12.00	45	938

Chart 4: Labour income share in Europe

— contemporaneous — trend



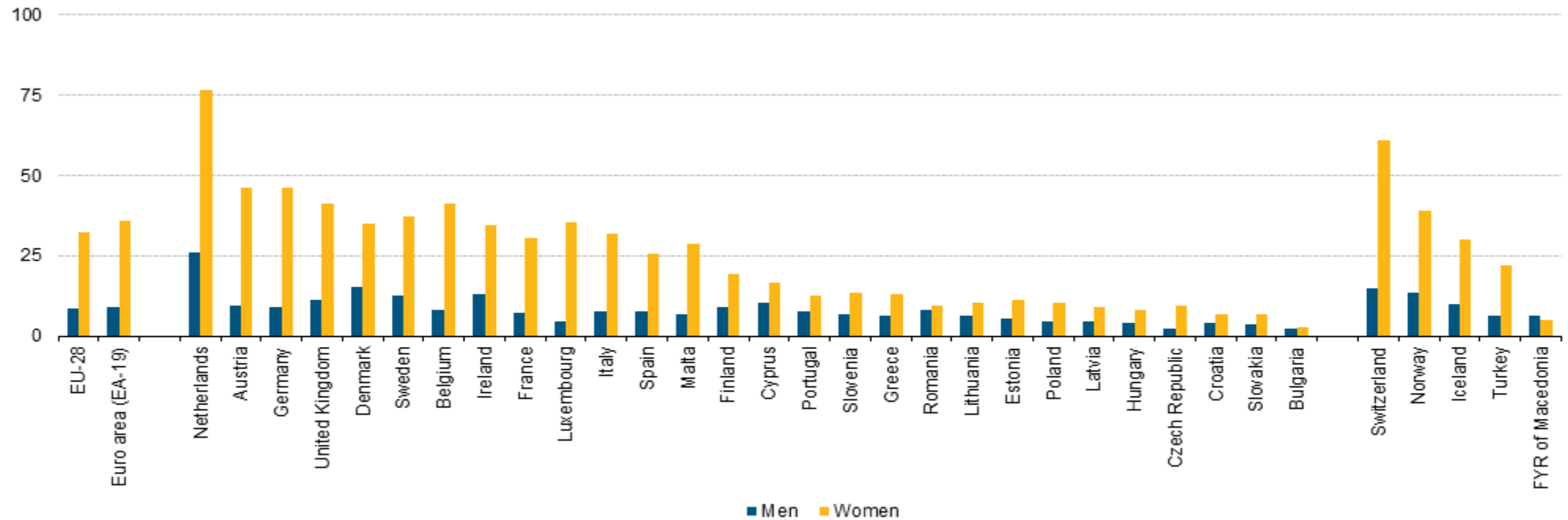
PROPORTION OF EMPLOYEES WITH A CONTRACT OF LIMITED DURATION age group 15–64, 2014



Source: Eurostat (online data code: lfsa_etpga)

PERSONS EMPLOYED PART-TIME

age group 15–64, 2014, (% of total employment)



(*) The figure is ranked on the overall part-time employment rate.
 Source: Eurostat (online data code: ifsa_eppga)

	Persons working part-time, age group 15–64			Persons with a second job, age group 15 and over		
	2004	2009 (*)	2014 (†)	2004	2009 (*)	2014 (†)
EU-28	16.7	18.0	19.6	3.6	3.8	4.0
Euro area (EA-19)	17.0	19.3	21.5	3.0	3.4	3.9
Belgium	21.5	23.2	23.7	3.8	4.0	4.3
Bulgaria	2.7	2.1	2.5	0.8	0.6	0.6
Czech Republic	4.4	4.8	5.5	2.5	1.9	2.2
Denmark	21.9	25.2	24.6	11.4	9.2	7.6
Germany	21.9	25.3	26.5	2.7	3.7	5.0
Estonia	6.9	9.4	8.3	3.6	4.2	4.7
Ireland	16.6	21.0	23.0	2.0	2.3	2.4
Greece	4.5	5.9	9.3	2.4	3.4	1.7
Spain	8.8	12.4	15.8	2.1	2.3	2.2
France	16.9	17.2	18.6	2.9	3.4	4.5
Croatia	6.5	6.5	5.3	3.1	2.7	2.4
Italy	12.4	14.1	18.1	2.1	1.5	1.3
Cyprus	7.5	7.5	13.5	6.9	3.9	3.7
Latvia	10.2	8.2	6.8	6.6	4.6	4.5
Lithuania	8.4	7.9	8.6	5.1	4.8	6.4
Luxembourg	16.3	17.6	18.5	1.5	3.2	3.2
Hungary	4.3	5.2	6.0	1.8	1.9	1.7
Malta	7.8	11.0	15.4	4.7	5.1	5.0
Netherlands	45.2	47.7	49.6	6.1	7.3	8.4
Austria	19.9	23.9	26.9	5.2	4.1	4.5
Poland	9.6	7.7	7.1	7.8	7.4	6.4
Portugal	8.2	8.5	10.1	6.2	6.5	4.5
Romania	9.2	8.5	8.7	3.4	3.0	1.9
Slovenia	8.3	9.5	10.0	3.1	3.5	4.0
Slovakia	2.5	3.4	5.1	0.9	1.0	1.0
Finland	12.8	13.3	14.1	4.0	4.4	5.3
Sweden	23.1	26.0	24.6	9.2	8.2	9.2
United Kingdom	25.1	25.0	25.3	3.8	3.9	3.9
Iceland	19.2	23.0	19.7	11.8	9.1	9.8
Norway	29.1	27.8	25.7	7.6	8.8	8.8
Switzerland	32.0	33.7	36.3	6.4	7.4	7.1
FYR of Macedonia	:	5.3	5.8	:	2.3	1.2
Turkey	:	10.6	11.1	:	2.7	3.2

(*) 2004–09: break in series.

(†) Belgium, Bulgaria, the Czech Republic, Germany, France, the Netherlands, Poland, Portugal, Romania, Slovakia and Turkey: break in series.

(‡) 2009–14: break in series.

Source: Eurostat (online data codes: lfsa_eppga, lfsa_e2gis and lfsa_egan)

LABOUR MARKET REFORM: THE CASE OF GERMANY

- External versus internal flexibility
- Wage restraint
- Low wage sector

RESULTS

- General decrease in unemployment
- Increase in labour market participation
- BUT: Increase in old age poverty risk for marginal groups

Q & A



Thank you very much!
Vielen Dank!



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