

YOUTH UNEMPLOYMENT IN THE EURO AREA

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Introduction

Despite considerable decline, youth unemployment remains a serious problem

- for young persons:

- become demoralised
- human capital depreciating and employment prospects worsening
- possibly social exclusion

- for the whole economy:

- unutilised labour potential negatively affects potential growth
- lower labour input of young persons reduces flexibility and innovative knowledge

-- analysis of main causes of youth unemployment

-- assessment of policies raising employability of young persons

Stylised facts: the data

UN standard definition:

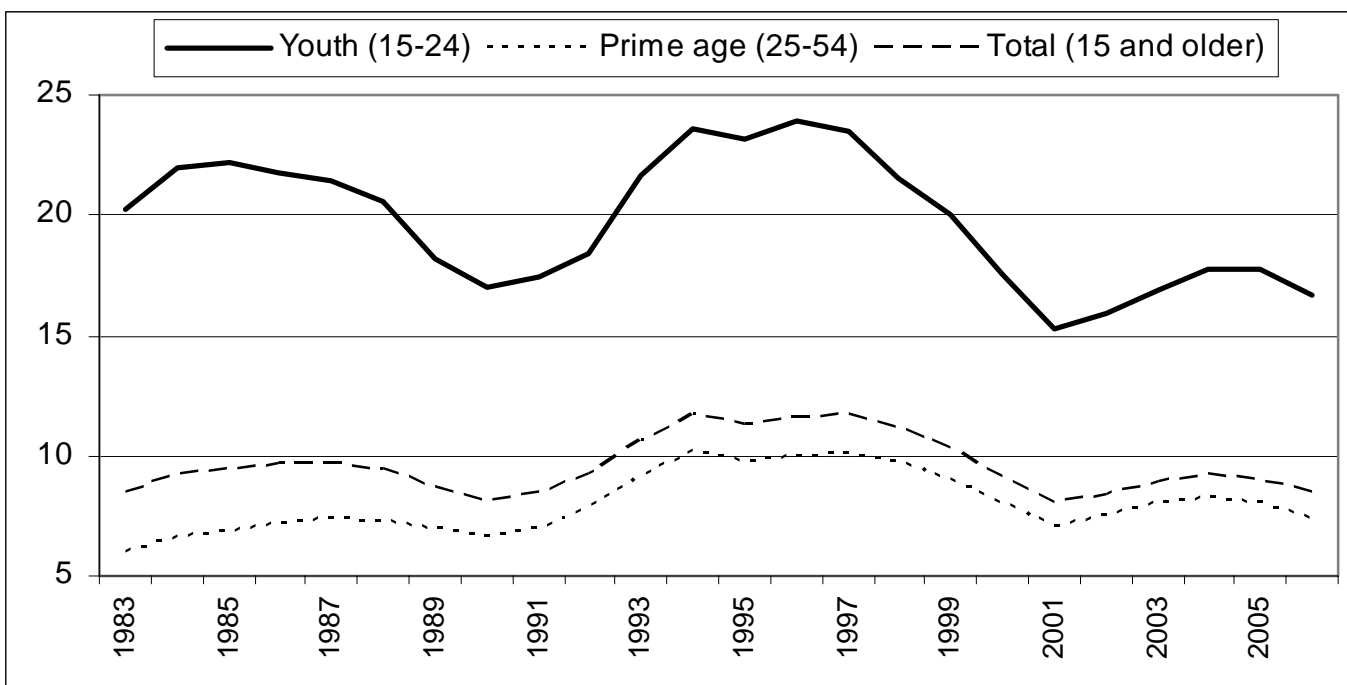
- youth 15-24: 15-19 teenagers; 20-24 young adults;
- 25-54 prime age workers

Data sources:

- Labour Force Survey (2nd quarter) 1983-2006 where available, otherwise 1995-2006
 - Problem: includes young persons still in education looking for job
- OECD Education at a glance
 - Clearer distinction of young unemployed according to whether participating in education or not
 - Problem: often only age group 20-24

Stylised facts (I): youth unemployment – euro area

Youth and prime age unemployment rate in the euro area (1983-2006)



Sources: Eurostat (EU-LFS) and ECB calculations.

- Big gap between youth and prime age unemployment rates
- But relative labour market position of young persons has improved somewhat

Stylised facts (II): youth unemployment – euro area countries

Youth and prime age unemployment in euro area countries (1983-2006)

Unemployed as % of the labour force

	Youth unemployment (15-24)			Prime age unemployment (25-54)		
	level	change (p.p.)	change (p.p.)	level	change (p.p.)	change (p.p.)
	2006	1983-2006	1994-2006	2006	1983-2006	1994-2006
Belgium	18.9	-5.0	-0.2	7.5	-2.0	-1.1
Germany	13.4	4.9	4.1	9.6	5.1	3.4
Greece	24.5	1.5	3.1	8.0	2.0	2.7
Spain	18.2	-22.3	-11.7	7.5	-4.8	-2.2
France	23.4	3.6	0.3	7.6	2.1	1.2
Ireland	8.4	-13.0	-12.9	3.8	-9.6	-9.0
Italy	20.6	-8.3	-1.8	5.7	1.3	1.6
Luxembourg	13.4	7.5	3.5	4.1	2.2	0.9
Netherlands	6.0	-15.0	-6.6	3.4	-6.5	-4.0
Austria	10.1	5.9	2.5	4.3	1.4	0.9
Portugal	14.8	-0.8	-1.7	7.1	2.4	0.6
Finland	26.1	7.8	8.9	6.1	1.2	2.3
Slovenia	14.5	-3.1	-	5.1	-1.0	-
Euro area	16.7	-3.6	-1.2	7.4	1.4	1.2

Source: Eurostat (EU-LFS) and ECB calculations. 1994-2006 refers to change 1983-1994 and 1995-2006 to control for the cycle.

- Heterogeneous developments at the country level
- Decline in euro area average hides that youth unemployment often increased

Stylised facts (III): long-term youth unemployment

Youth and prime age long-term unemployment in euro area countries (1995-2006)

Long-term unemployed as % of total unemployed

	Youth unemployment (15-24)			Adult unemployment (25-59)		
	level		change (p.p.)	level		change (p.p.)
	1995	2006	1995-2006	1995	2005	1995-2006
Belgium	44.4	32.3	-12.1	68.0	61.4	-6.6
Germany	26.8	36.7	9.9	51.6	60.4	8.8
Greece	49.8	47.7	-2.1	52.2	57.8	5.6
Spain	45.9	12.1	-33.8	58.6	24.7	-33.9
France	23.7	25.5	1.8	45.4	44.4	-1.0
Ireland	48.1	22.3	-25.8	66.4	37.2	-29.2
Italy	52.2	50.5	-1.7	55.6	53.5	-2.1
Netherlands	32.9	21.1	-11.8	51.6	51.1	-0.5
Austria	14.0	18.7	4.7	31.2	26.7	-4.5
Portugal	41.4	34.5	-6.9	55.4	55.6	0.2
Finland	17.3	4.9	-12.4	43.8	32.8	-11.0
Slovenia	34.6	34.8	0.2	50.3	59.5	9.2
Euro area	39.9	31.1	-8.8	52.8	50.6	-2.2

Source: Eurostat (EU-LFS) and ECB calculations.

- Long-term unemployment of young persons at high level
- Affects youth less than prime age unemployed

Stylised facts (IV): youth unemployment and education

Youth unemployment rate in euro area countries by highest level of educational attainment (1995-2006)

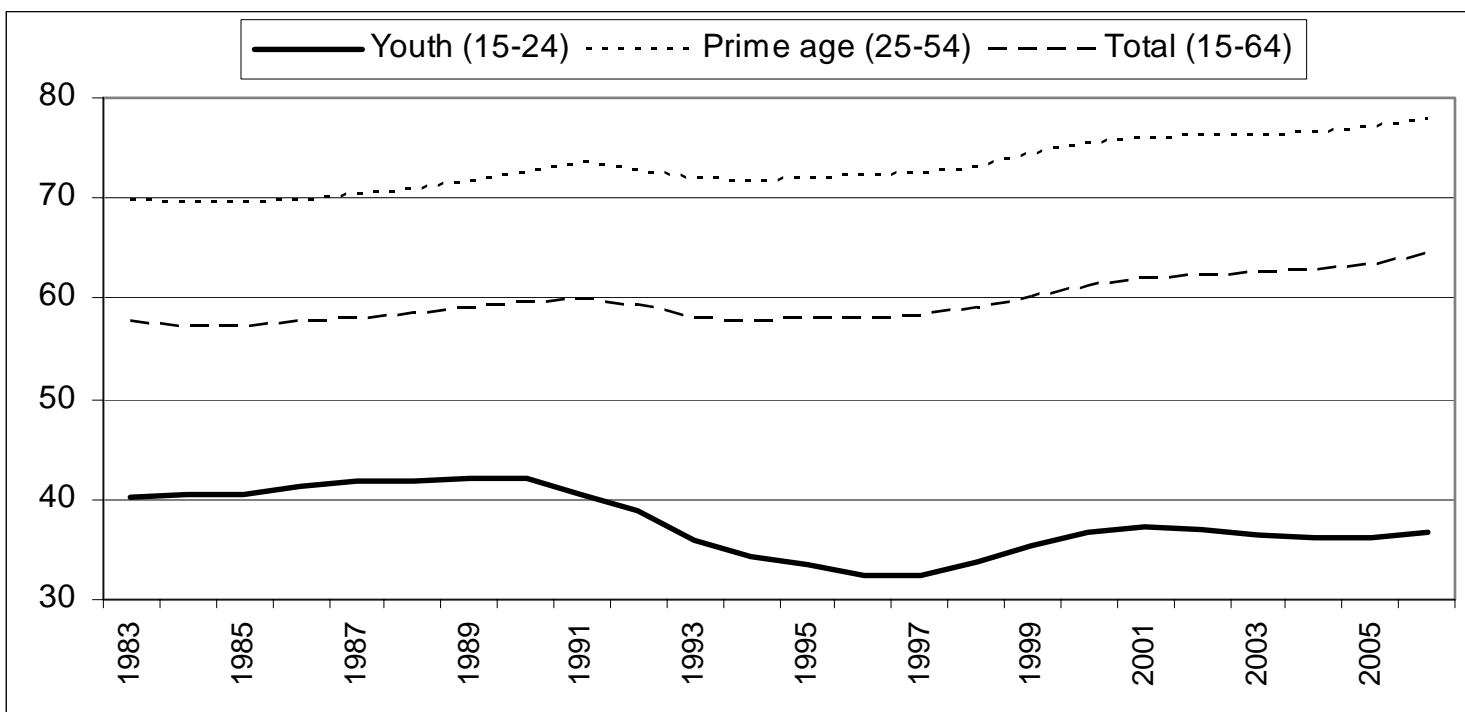
	"Primary" education			"Secondary" education			"Tertiary" education		
	level 1995	level 2006	change (p.p.) 1995-2006	level 1995	level 2006	change (p.p.) 1995-2006	level 1995	level 2006	change (p.p.) 1995-2006
Belgium	31.6	27.1	-4.5	19.8	18.1	-1.7	11.5	11.2	-0.3
Germany	9.7	16.6	6.9	7.4	10.0	2.6	6.1	7.1	1.0
Greece	20.1	21.9	1.8	32.8	25.3	-7.5	32.3	28.2	-4.1
Spain	40.7	19.7	-21.0	43.5	17.2	-26.3	43.8	15.4	-28.4
France	35.4	32.6	-2.8	23.6	18.0	-5.6	20.1	10.7	-9.4
Ireland	31.1	14.9	-16.2	14.4	7.5	-6.9	9.0	4.4	-4.6
Italy	31.6	24.6	-7.0	35.9	17.8	-18.1	33.8	24.3	-9.5
Netherlands	15.4	8.8	-6.6	6.8	3.5	-3.3	11.1	4.1	-7.0
Austria	9.3	13.5	4.2	4.4	6.1	1.7	-	-	-
Portugal	14.4	14.4	0.0	21.5	13.3	-8.2	25.9	24.7	-1.2
Finland	55.9	39.6	-16.3	33.4	17.9	-15.5	18.0	-	-
Slovenia	19.7	15.0	-4.7	15.2	14.5	-0.7	18.9	-	-
Euro area	27.5	19.6	-7.9	20.6	13.6	-7.0	25.3	12.3	-13.0

Source: Eurostat (EU-LFS) and ECB calculations.

- Risk of youth unemployment declines with educational attainment
- But signs of worsening relative labour market position of young high-skilled persons in some countries

Stylised facts (V): youth employment – euro area

Youth and prime age employment rate in the euro area (1983-2006)



Sources: Eurostat (EU-LFS) and ECB calculations.

- Increasing gap between youth and prime age employment rates

Stylised facts (VI): youth employment – euro area countries

Youth and prime age employment rate in euro area countries (1983-2006)

Employed as % of population

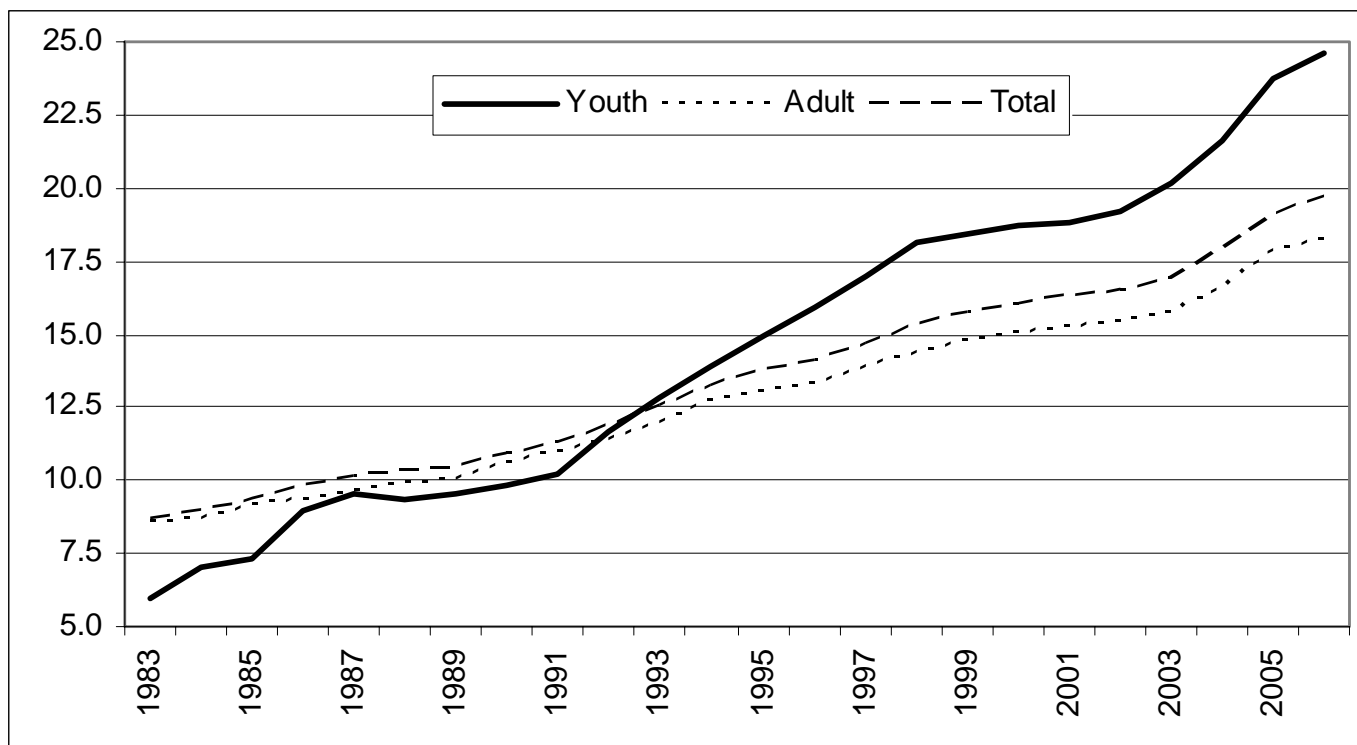
	Youth employment (15-24)			Prime age employment (25-54)		
	level 2006	change (p.p.) 1983-2006	change (p.p.) 1994-2006	level 2006	change (p.p.) 1983-2006	change (p.p.) 1994-2006
Belgium	26.2	-7.2	-4.1	78.2	10.9	5.7
Germany	42.6	-5.7	-11.1	78.8	6.2	2.5
Greece	24.5	-8.4	-3.2	75.3	10.8	4.5
Spain	39.4	13.2	3.6	75.8	18.3	9.8
France	28.3	-14.3	-7.6	79.8	2.8	1.6
Ireland	48.0	0.5	3.6	78.4	20.8	14.9
Italy	25.8	-8.5	-6.0	73.8	6.8	1.7
Luxembourg	25.0	-32.2	-20.1	80.6	13.9	6.2
Netherlands	66.2	27.7	15.4	84.1	22.1	12.1
Austria	51.5	-1.6	-1.9	81.6	8.6	5.7
Portugal	36.1	-15.9	-10.0	81.6	7.3	4.8
Finland	45.0	10.7	6.6	82.6	-3.7	-4.2
Slovenia	35.3	-0.9	-	79.9	3.4	-
Euro area	36.6	-3.5	-4.7	77.9	8.3	3.8

Source: Eurostat (EU-LFS) and ECB calculations. 1994-2006 refers to change 1983-1994 and 1995-2006 to control for the cycle.

- Heterogeneous developments at the country level

Stylised facts (VII): youth employment – part time contracts

Developments in euro area part-time ratios by age group (%), 1983-2006



Source: Eurostat (EU-LFS) and ECB calculations.

- Young persons increasingly in part-time work arrangements...

Stylised facts (VIII): youth employment – temporary contracts

Young and prime age employees working on temporary contracts (%), 1983-2006

	Youth temp ratio (15-24)			Adult temp ratio (25-54)		
	level	change (p.p.)	change (p.p.)	level	change (p.p.)	change (p.p.)
	2006	1983-2006	1994-2006	2006	1983-2006	1994-2006
Belgium	30.5	14.6	10.6	6.9	3.7	2.3
Germany	56.6	22.2	17.9	8.8	3.8	1.2
Greece	24.8	-3.6	-3.0	9.8	-4.3	-2.9
Spain	66.6	25.9	13.4	31.9	20.7	10.5
France	45.8	33.1	19.5	9.7	8.2	5.3
Ireland	11.9	0.9	-1.0	2.3	-1.6	-1.9
Italy	40.3	28.5	14.6	11.1	5.7	3.8
Luxembourg	29.7	20.0	6.0	3.7	1.5	0.7
Netherlands	42.8	31.0	15.9	11.0	6.7	3.3
Austria	35.3	16.6	12.3	4.5	1.1	0.5
Portugal	48.3	14.9	6.0	17.3	7.8	4.3
Finland	50.3	2.3	1.7	14.6	0.5	0.0
Slovenia	63.8	22.4	-	12.6	5.1	-
Euro area	49.7	24.9	15.5	13.0	7.6	4.0

Source: Eurostat (EU-LFS) and ECB calculations.

...and on temporary work contracts

Stylised facts: conclusion

- Euro area youth unemployment and employment have fallen over the last two decades
- May mask increase in inactivity, i.e. the fact that young people abandon the labour market
 - either due to lack of opportunities
 - or for education.
- However, when looking at country developments, no significant relationship between developments in youth unemployment and inactivity rates is found.

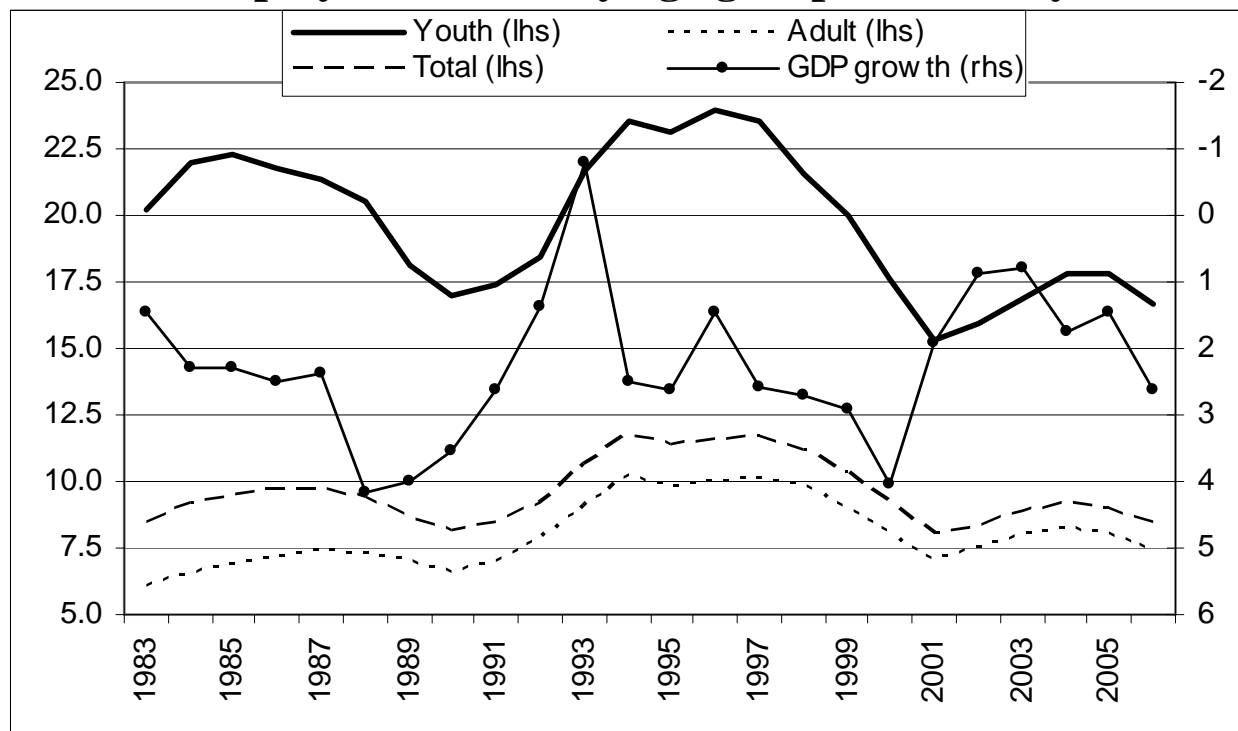
Determinants of youth unemployment: the literature

The main determinants of youth unemployment assessed in the literature:

- Economic environment (e.g. Blanchflower and Freeman 2000)
- Demographic trends (e.g. Korenman and Neumark 2000)
- Labour market institutions and regulations (e.g. OECD 1999, Neumark and Wascher 2004)
- Education (e.g. mismatch literature, literature on ‘overeducation’)

Determinants of youth unemployment: economic environment

Euro area unemployment rates by age group over the cycle (1983-2006)

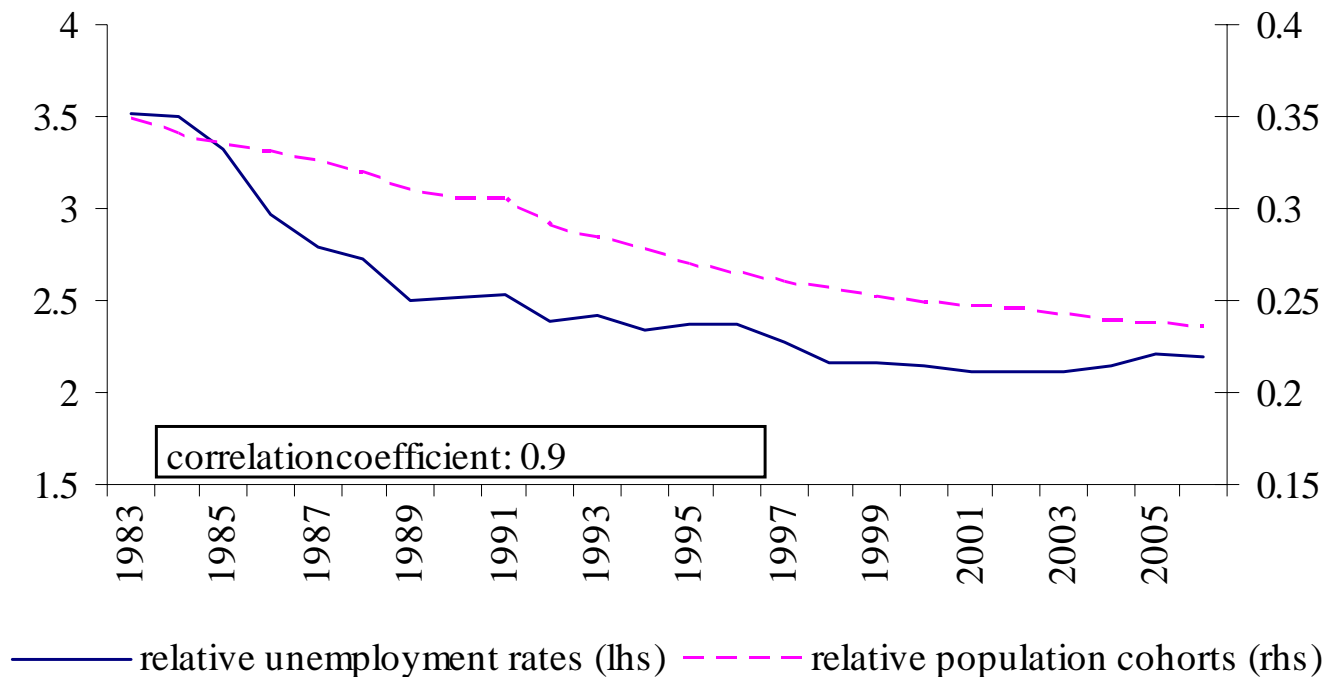


Sources: Eurostat (EU-LFS) and ECB calculations.

- Negative relationship between unemployment rate and activity
- Variability of youth unemployment much higher

Determinants of youth unemployment: demographics

Developments in relative unemployment rates and cohort sizes in the euro area (1983-2006)



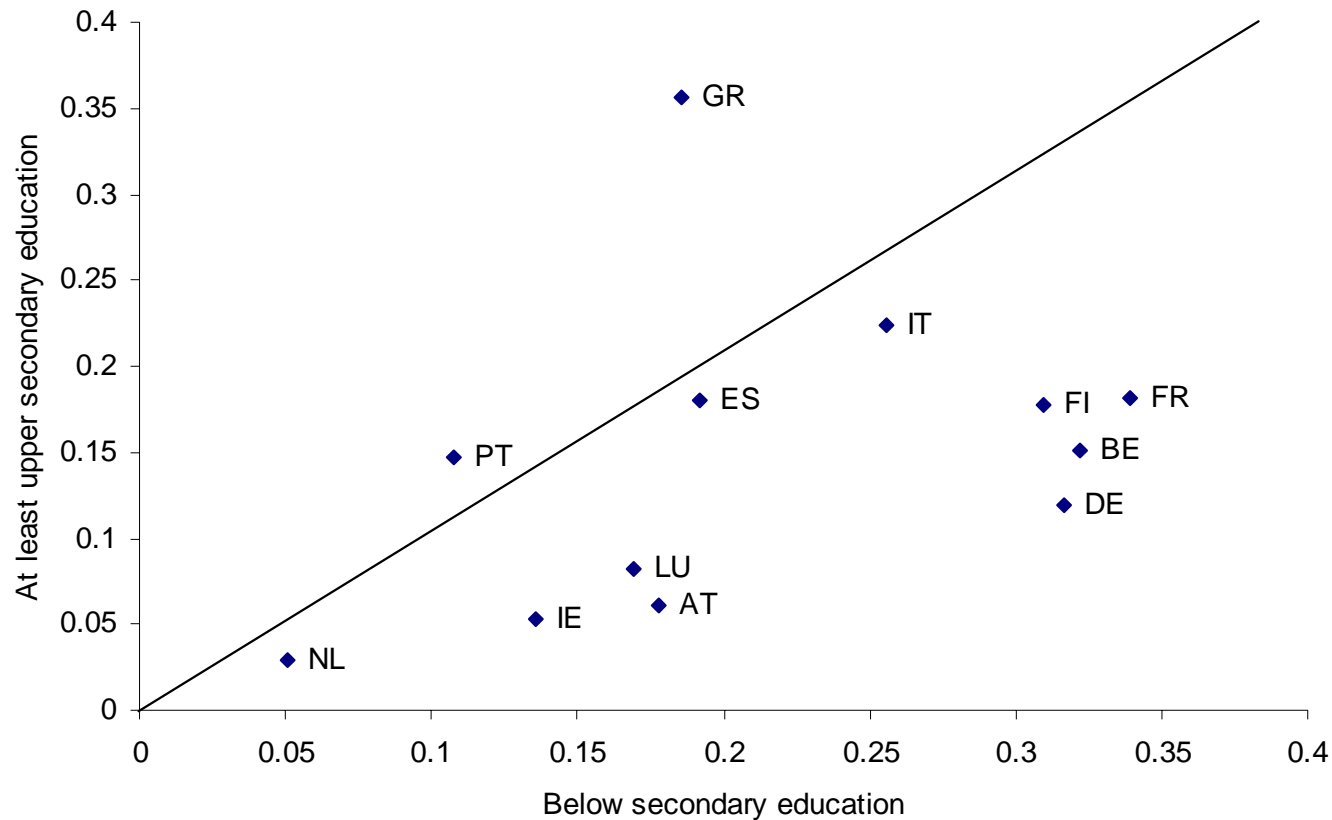
Sources: Eurostat (EU-LFS) and ECB calculations.

- Pure decline in youth cohort relative to prime age workers seems to have supported decline in youth unemployment

Determinants of youth unemployment: education

Young unemployed not in education by level of educational attainment (2003)

Unemployed aged 20-24 as % of labour force aged 20-24



Sources: OECD and ECB calculations.

Determinants: some evidence (I)

- Regression analysis done in two steps:
 1. Cross country youth unemployment related to:
 - demographic trends
 - economic environment
 - labour market institutions and policies
 2. Country fixed-effects related to education
- Countries: in addition to euro area countries, the sample includes the UK, the US, Canada, Australia, Denmark, Sweden, Norway and Switzerland
- Period: 1985-2002

Determinants: some evidence (II)

Step I

Regression scenarios for the youth unemployment rate					
	Scenario (1)	Scenario (2)	Scenario (3)	Scenario (4)	Scenario (5)
<i>Demographic trends</i>					
Share of youth population t	36.35 (2.31)	37.41 (2.41)	180.06 (7.32)	39.56 (2.54)	31.16 (1.72)
<i>Economic environment</i>					
Unemployment rate (25-54) t	2.06 (21.55)	2.06 (21.91)		2.11 (21.55)	1.75 (19.89)
Real GDP growth $t-1$			-0.78 (5.75)		
<i>Labour market institutions and policies</i>					
Unemployment benefits replacement rate t	14.65 (3.00)	14.26 (2.99)	11.17 (1.37)	14.82 (3.11)	-0.64 (0.13)
Unemployment benefit duration t	-15.56 (3.94)	-15.97 (4.21)	-20.00 (3.09)	-15.04 (3.92)	-2.92 (0.79)
Co-ordination in bargaining t	0.73 (1.77)	0.73 (1.78)	-2.08 (3.13)	0.87 (2.05)	0.90 (2.64)

Union density t	0.01 (0.38)				
Employment protection t	1.93 (3.55)	1.89 (3.54)	0.43 (0.47)	1.72 (3.15)	1.76 (4.18)
Tax wedge t	-0.22 (2.73)	-0.22 (2.72)	0.58 (4.72)	-0.24 (2.86)	-0.05 (0.78)
ALMP for the youth t	-11.70 (4.67)	-11.69 (4.68)	-5.66 (1.34)	-11.35 (4.53)	-10.09 (4.96)
<i>The role of the service sector</i>					
Share of service in total employment t				-20.09 (1.42)	
Part-time 15-24 t					0.22 (5.80)
Time dummies	Yes	Yes	Yes	Yes	Yes
Country dummies	Yes	Yes	Yes	Yes	Yes
Number of observations	247	247	247	247	226
R-squared	0.96	0.96	0.89	0.96	0.97

Determinants: some evidence (III)

Step 2

	Youth unemployment rate fixed effects			
	Scenario (1)	Scenario (2)	Scenario (3)	Scenario (4)
Intercept	13.65 (1.66)	18.29 (1.88)	-3.73 (1.87)	84.38 (2.15)
Share of students in upper secondary education following vocational programmes	-0.22 (1.62)			
Average years of education of persons aged 25 and above		-1.84 (1.86)		
Share of the young population not in school			1.27 (2.76)	
Mean score on OECD PISA (mathematics scale)				-0.16 (2.14)
Number of observations	15	18	18	17
R-squared	0.10	0.15	0.31	0.21

Conclusion

- Youth unemployment seems to be positively correlated with
 - Economic downturns (more than prime-age)
 - Low level of education
 - High employment protection and bargaining co-ordination
- Policy recommendations would include:
 - Reduce employment protection for the young
 - Flexible working-time arrangements
 - Increase product market competition
 - Increase the level and quality of education

Thank you