

**Labour Economics After the Crisis: What theoretical lessons to
draw from policy experience?**

*High-level expert conference organized by the European Commission
Brussels, 18-19 September 2014*

***How can regional and human
capital policies help counteract
core-periphery divergence in
Europe?***

***Re-industrialisation, innovation, job-rich sectors and skills
investment***

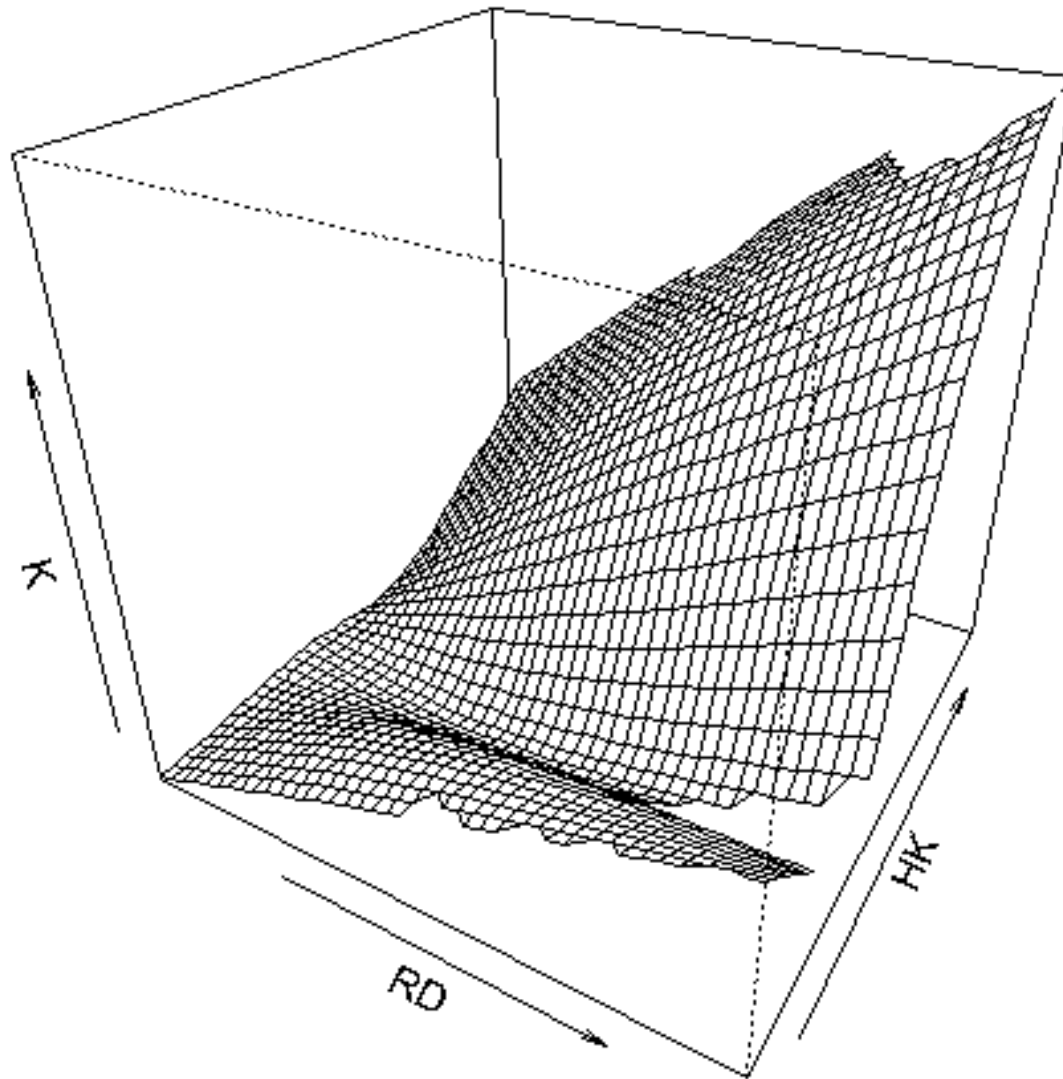
Riccardo Crescenzi

(London School of Economics)

r.crescenzi@lse.ac.uk

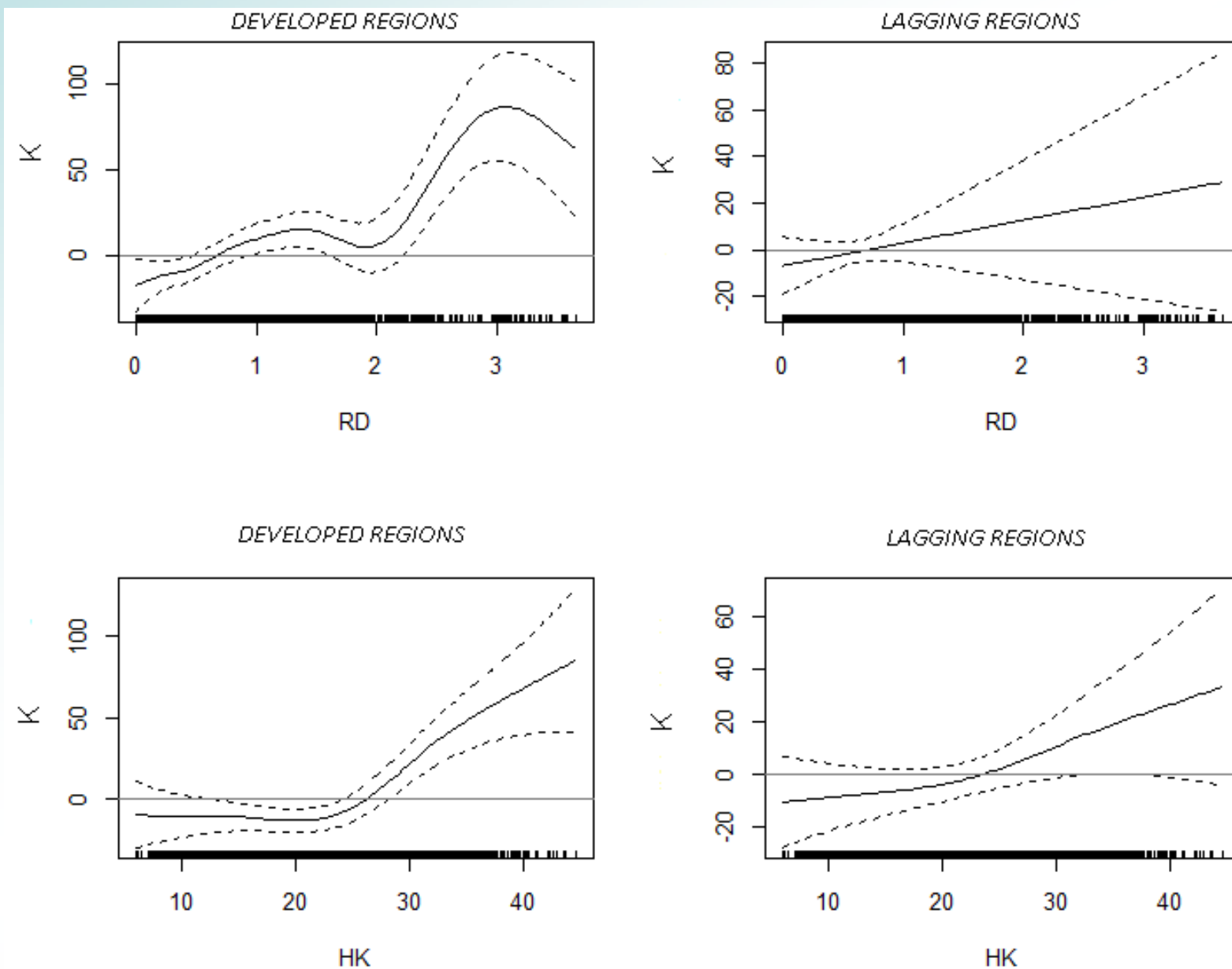


Stylised facts (1): limited regional innovation if R&D is not coupled by Human Capital



Source: Charlot, Crescenzi & Musolesi 2014

Stylised facts (2): human capital-innovation nexus weaker in the periphery



Source: Charlot, Crescenzi & Musolesi 2014

Stylised facts (3): summary

- R&D and Human Capital are highly complementary: stronger impact of R&D in Human Capital-rich regions;
- R&D maximizes its effect on innovation when it ranges between 2% and 3% of regional GDP;
- Positive impact of Human Capital only when share of regional population with tertiary education is above 20%;
- In **peripheral regions**:
 - R&D not significant driver for innovation;
 - **Human Capital exerts some influence but weaker than in the ‘core’**

Key Question

Human Capital is key to economic performance in the periphery of Europe BUT its returns are lower than in core regions.

How can regional and human capital policies help?

... let me discuss a practical example



An example: Master and Back

- Focus on the impact of a **mobility grant scheme funded by the European Social Fund** in Sardinia (ex-Objective 1 region in the Italian Mezzogiorno).
- The Master & Back scheme aims to **foster regional human capital and increase the employability** of local graduates by covering the cost of post-graduate studies in other regions or countries.
- Launched in 2005 more than 200 million Euros have been spent so far;

Evidence from ongoing research (1)

- Crescenzi, Gagliardi and Orru (2014) look at the **quality of job matching following the completion of the program**.
- The analysis looks at **vertical matching** and **horizontal matching**.
 - **Vertical matching**: formal level of education required in the job description/specifications corresponds to the actual formal qualification of the worker;
 - **Horizontal** matching between actual skills and those practically required by current job tasks.

Results: Vertical Job Matching

Table 2: Treatment Status and Vertical Job Matching

Dep.Var:	(1)	(2)	(3)	(4)	(5)	(6)
Vertical matching	OLS	OLS	OLS	OLS	OLS	2SLS
Treatment status	0.0752** (0.0307)	0.113*** (0.0314)	0.123*** (0.0316)	0.124*** (0.0319)	0.0907** (0.0370)	-0.190 (0.408)
Female	-0.0294 (0.0265)	-0.0274 (0.0261)	0.00948 (0.0265)	-0.0049 (0.0267)	-0.0037 (0.0266)	-0.0004 (0.0279)
Married	0.0220 (0.0316)	0.0190 (0.0315)	0.0127 (0.0311)	0.0001 (0.0307)	0.00250 (0.0308)	-0.0140 (0.0400)
Age	-0.0086** (0.0042)	-0.0099** (0.0042)	-0.0093** (0.0041)	-0.0103** (0.0041)	-0.0095** (0.0041)	-0.0104** (0.0043)
Master (first level)		0.0490 (0.0705)	0.0801 (0.0712)	0.0366 (0.0717)	0.0321 (0.0720)	-0.0212 (0.106)
Master (second level)		0.106*** (0.0312)	0.118*** (0.0310)	0.0856*** (0.0314)	0.0862*** (0.0313)	0.0532 (0.0589)
Phd		0.212*** (0.0316)	0.169*** (0.0321)	0.153*** (0.0329)	0.152*** (0.0330)	0.111 (0.0697)
Economics and Statistics			-0.135*** (0.0411)	-0.0958** (0.0431)	-0.0970** (0.0427)	-0.0835* (0.0475)
Other social sciences			-0.148*** (0.0392)	-0.127*** (0.0397)	-0.126*** (0.0396)	-0.0806 (0.0739)
Humanities			-0.155*** (0.0329)	-0.176*** (0.0321)	-0.176*** (0.0320)	-0.181*** (0.0344)
Public Sector				0.162*** (0.0325)	0.167*** (0.0327)	0.168*** (0.0334)
Manufacturing				0.314** (0.144)	0.293** (0.143)	0.305** (0.145)
Services				0.188 (0.142)	0.183 (0.141)	0.205 (0.145)
Sardinia					-0.0635* (0.0349)	-0.174 (0.163)
Constant	1.077*** (0.140)	1.060*** (0.139)	1.109*** (0.138)	0.880*** (0.195)	0.910*** (0.195)	1.061*** (0.295)
Observations	960	960	960	960	960	960
R-squared	0.012	0.041	0.069	0.102	0.106	0.057

Robust standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1

Results: Horizontal Job Matching

Table 4: Treatment Status and Horizontal Job Matching

Dep Var:	(1)	(2)	(3)	(4)	(5)	(6)
Horizontal matching	OLS	OLS	OLS	OLS	OLS	2SLS
Treatment status	0.0904** (0.0372)	0.111*** (0.0381)	0.117*** (0.0393)	0.124*** (0.0394)	0.0851* (0.0442)	0.232 (0.470)
Female	-0.0767** (0.0305)	-0.0744** (0.0304)	-0.0565* (0.0317)	-0.0704** (0.0322)	-0.0690** (0.0321)	-0.0707** (0.0324)
Married	0.0684* (0.0350)	0.0654* (0.0351)	0.0625* (0.0352)	0.0580 (0.0353)	0.0608* (0.0353)	0.0695 (0.0446)
Age	-0.0148*** (0.00480)	-0.0152*** (0.00484)	-0.0150*** (0.00490)	-0.0160*** (0.00492)	-0.0151*** (0.00493)	-0.0147*** (0.00514)
Master (first level)		0.0652 (0.0782)	0.0787 (0.0778)	0.0482 (0.0784)	0.0431 (0.0787)	0.0710 (0.118)
Master (second level)		0.0440 (0.0362)	0.0506 (0.0364)	0.0288 (0.0372)	0.0295 (0.0371)	0.0468 (0.0665)
Phd		0.124*** (0.0473)	0.103** (0.0483)	0.0912* (0.0489)	0.0897* (0.0488)	0.111 (0.0831)
Economics and Statistics			-0.0584 (0.0471)	-0.0348 (0.0486)	-0.0361 (0.0483)	-0.0432 (0.0533)
Other social sciences			-0.0810* (0.0460)	-0.0742 (0.0466)	-0.0735 (0.0467)	-0.0972 (0.0878)
Humanities			-0.0753* (0.0392)	-0.0949** (0.0395)	-0.0938** (0.0394)	-0.0912** (0.0402)
Public Sector				0.105*** (0.0364)	0.111*** (0.0365)	0.110*** (0.0364)
Manufacturing				0.00999 (0.133)	-0.0144 (0.132)	-0.0208 (0.134)
Services				-0.00624 (0.128)	-0.0125 (0.127)	-0.0242 (0.133)
Sardinia					-0.0732* (0.0387)	-0.0152 (0.190)
Constant	1.178*** (0.164)	1.159*** (0.165)	1.185*** (0.167)	1.187*** (0.203)	1.222*** (0.203)	1.143*** (0.322)
Observations	960	960	960	960	960	960
R-squared	0.024	0.031	0.036	0.045	0.049	0.039

Robust standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1

Evidence from ongoing research (2)

Some positive effect of M&B mobility grants on both vertical and horizontal skills matching

HOWEVER

After appropriately **controlling for the (self)selection into the programme**:

- Effect **not** significant;
- No effect neither for beneficiaries working in Sardinia nor for those who remain / move elsewhere.

Some tentative conclusions

- Human Capital in peripheral regions deserves special attention;
- Brain drain and skill-mismatch are key problems;
- Regional and human capital policies should be closely coordinated;
- Learning mobility schemes are promising tools;
- Selection mechanisms of the beneficiaries need to be carefully designed in order to broaden participation among groups and categories that would otherwise not be involved;
- Supply-side labour market policies cannot be decoupled from appropriate demand side policies in lagging regions.

References

Crescenzi R. & Rodríguez-Pose A. "[Innovation and Regional Growth in the European Union](#)", Berlin, Heidelberg and New York: Springer, September 2011 [ISBN 978-3-642-17760-6]

Charlot S., Crescenzi R. and Musolesi A. 2014 "Econometric Modelling of the Regional Knowledge Production Function in Europe", Journal of Economic Geography (In press)

Crescenzi R., Gagliardi L. and Orru' E. 2014 "Learning mobility grants and skill (mis)matching in the labour market. The case of the 'Master and Back' Programme", mimeo

THANKS

For more ongoing research visit my Website:

<http://personal.lse.ac.uk/crescenzi/>

Or e-mail me:

r.crescenzi@lse.ac.uk