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Employment and Social Developments in Europe 2014

Chapter 4:
Restoring convergence between Member States in the EU and EMU

Volume 2/2

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2.2.3. Convergence also requires strengthened socioeconomic stability

Strengthening the capacity to stabilise national economies and implement appropriately designed structural reforms is a necessary requirement to ensure stronger employment and social resilience, and upward socioeconomic convergence, across the EU. In the EMU context that central stabilisation capacity is currently weak: this argues for a reinforcement of the euro area fiscal stabilisation capacity. Furthermore, structural reforms could be incentivised by a discretionary fiscal capacity at the euro area level (which could, for instance, take the form of strengthened investment in cohesion funds).

Stabilisation is not only required in order to avoid labour market hysteresis effects, such as skill erosion following persistent unemployment spells (that may reduce long-term growth potential), but also because an economic downturn almost inevitably has social consequences since it tends to have its hardest impact on the most vulnerable groups (such as low skilled workers) with adverse impacts on social cohesion in the long run ([1]).

The previous analysis has suggested that, in the face of nominal and real rigidities, macro-economic shocks may have a strong adverse impact on employment and social cohesion if adjustment is left solely to market mechanisms, with potentially adverse hysteresis and cross-border effects. Structural employment and social reforms (combined with other types of structural reforms) are key to strengthening countries' capacity to absorb shocks (especially lasting shocks) and limiting adverse socioeconomic outcomes and cross-border effects. Moreover, well-designed insurance mechanisms (such as automatic fiscal stabilisers) have the potential to make a significant contribution in terms of absorbing temporary asymmetric shocks, notably since the capacity may not always be available at the national level (especially when the countries concerned have limited access to financial markets).

In these respects, it can be argued that the effectiveness and sustainability of adjustment mechanisms in E(M)U depends on the nature of the shock. In the case of a temporary demand shock, automatic fiscal stabilisers (including unemployment benefits) can dampen the fluctuations (around predetermined trends) of economic activity (including real GDP). In case of a permanent supply shock, the growth trend itself will be affected rendering automatic fiscal stabilisers unsustainable in the long run. In this case, relative prices have to adjust or structural reforms have to be implemented in order to strengthen employment and labour productivity. However, adjustment to the new equilibrium is unlikely to occur immediately and nominal rigidities will impose an additional adjustment burden, including on the labour market. When this also generates labour market hysteresis effects, additional actions may be needed to smooth the adjustment process (see, DeLong and Summers (2012), Pissarides (2014)).

([1]) Although it would have been beyond the scope of this chapter to focus also on price stability, financial stability and fiscal stability, possible interactions with labour markets have been briefly mentioned.

2.3. The contribution of employment and social policies to convergence in EU

To what extent can reforms in labour market and social institutions at national and European level contribute to a strengthening of upward convergent growth across the EU and better stabilisation of the European economy?

In recent years, there have been strong calls for such reforms and the previous section argued that in a currency union, when adjustment is left to market mechanisms, the adverse socioeconomic impact of temporary asymmetric shocks are likely to be intensified (such as distributional and hysteresis effects) — risking lasting adverse effects on long-term growth.

In that context, reforms at both the national and EU levels could contribute to strengthening growth and convergence (see, for instance, Coeuré (2014) and Sapir and Wolff (2014)). In this respect, this section focuses specifically on employment and social policies and discusses their contribution at the national and the EU level to strengthen long-term growth and better stabilise national economies.

2.3.1. Strengthening the contribution of national systems

At the national level, labour market and social protection reforms can strengthen the resilience of Member States and reduce the risk of shocks causing divergence, by a stronger contribution to growth and to stabilisation in the face of a temporary shock.
Employment-friendly social policies and better prevention of scarring effects

The design of national systems is essential to support employment and productivity growth. In particular, national employment and social protection systems should provide adequate protection against social risks as well as support to find a job, thus preventing long-lasting impacts of exclusion from the labour market and the long-term costs of shocks. They also support employment growth, notably by providing support to human capital formation, and ensuring the right incentives to work and hire.

Adequate protection against social risks includes protection for not only the active (through unemployment, disability, housing and exclusion benefits) and inactive population (through pensions and family services), but also the whole population through health benefits and services. In line with the Active Inclusion Strategy ([2]), adequate and minimum income support measures should be considered, when necessary. Beyond their direct socioeconomic impact, if well designed, such services and benefits constitute an investment (see Chapter 1) and contribute to the prevention of scarring effects. Employment and social protection systems also need to adapt to long and short-term changes in labour markets, including more frequent unemployment spells, as well as increased segmentation (see Chapter 1).

Furthermore, employment and social protection systems support the preservation and accumulation of human capital, leading to higher employment and productivity growth. They contribute to a life-cycle approach of building and preserving human capital, with

([2]) COMMISSION RECOMMENDATION of 3 October 2008 on the active inclusion of people excluded from the labour market (notified under document number C(2008) 5737), OJ L 307, 18.11.2008, p. 11–14.

impacts on education systems, childcare services and post-education systems, notably vocational training and active labour market policies (see Chapter 2).

Employment and social protection systems should also provide the right incentives to work and hire. Attention needs to be given to inactivity traps, including linked to pensions, disability or early retirement schemes (see Chapter 1). The financing of employment and social protection systems can also be made more favourable to employment and growth, notably by broadening the financing base from wages towards other financing basis, as well as introducing some social contribution exemptions for certain categories of workers (notably the lower waged, as the employment elasticity to labour costs is higher). While some positive impact on employment can be expected when these measures are well designed, they can have distributive impacts which need to be monitored (see Chapter 1).

Employment and social protection systems play a key role in stabilising aggregate demand. Unemployment benefits are particularly important and their stabilisation potential can be strengthened provided they can be made more responsive to cyclical developments (see Blanchard et al. 2010 and below, such as for instance unemployment benefit duration). Other aspects need to be considered, including short-time compensation systems and smoothing the price indexation of benefits, such as pensions, which are not directly linked to the active population.

Towards more efficient stabilisation at national level through better welfare systems

In recent years, the contribution to the stabilisation of households' income through social protection expenditure was significant in 2009, but declined from mid-2010, reversed in 2012 and was negligible in 2013. ([3]) Actually, as indexation of social benefits is generally based upon the previous year's inflation, this leads to an increase in real terms of benefits in periods of declining inflation (such as periods of low growth), amplifying the stabilisation impact, with potentially sizeable budgetary impacts.

While this is understandable for the indexation of benefits that aim at replacing labour market incomes, it is unclear that it is the most efficient in terms of stabilisation for benefits which are less directly related to the labour market such as (taken up) pensions or to a lesser extent family benefits. For these benefits, indexation rules could be smoothed over the cycle, enabling to strengthen automatic stabilisers more directly linked to labour market developments (see also Chapter 1).

Unemployment insurance could be more sensitive to the business cycle …

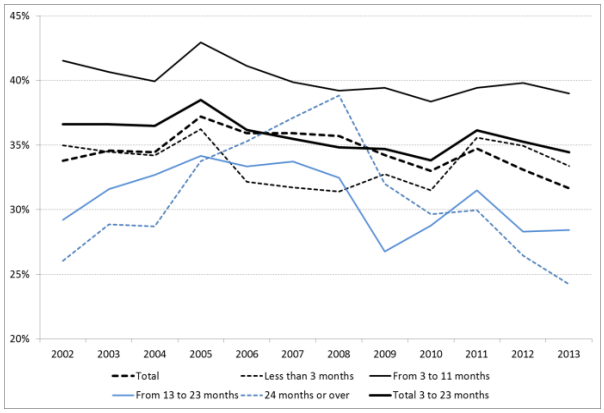
The ability of unemployment insurance schemes to stabilise an economy depends largely on their design, notably in terms of eligibility conditions and duration. The coverage of unemployment spells of less than one year is particularly relevant and there were signs of weakening of coverage for periods of between 3 and 12 months in the crisis (chart 30a), with declines in a number of Member States since 2010 (see Chart 30b, notably in Greece or Spain). Beyond 12 months, coverage has eroded in 2009 and then stabilised, but went on declining for the very long-term unemployment (more than 24 months).

([3]) See European Commission (2014a) and European Employment and Social situation report, March 2014.

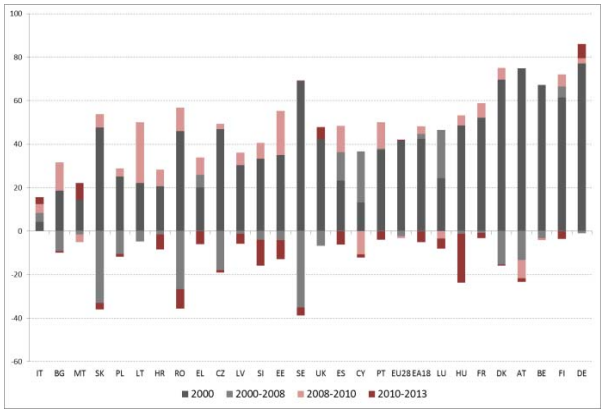
Making unemployment benefits more sensitive to the business cycle could for instance take the form of temporarily raising the duration (or coverage) of unemployment benefits([4]). Nevertheless, due regard needs to be paid to possible adverse feedbacks such as the impact on workers' behaviour with regard to job-search intensity and the readiness to accept job offers.

Chart 30: Trends in unemployment coverage by duration in Europe (2000–13)

(a) Coverage by duration (aged 15–64)



(b) Coverage unemployment spell 3–12 months (aged 15-64)



Source: Eurostat, LFS, calculations DG EMPL. Note : this measure of coverage of unemployment benefits does not reflect coverage by other types of benefits. Missing data for some BG (2006-13), IE, HR (2004-13), LU (2002-13) , MT (2005-13), NL, AT (2012), UK (2009-10). Breaks in series for EE, PL, FI in 2000, BE, BG, ES, HU, PL, SE in 2001, LV, LT, RO in 2003, BG, FR, HR, LU, PL, RO, SK in 2004, all countries except SE in 2005, DE, ES, FR, HR in 2006, LV, LT, LU, FI and UK in 2007, BE, PL, FI and UK in 2008, EL, CY, LT, HU in 2009, PL in 2010, BE, BG, CZ, DE, PT and SK in 2011, DE in 2012, FR, AT in 2013.

... and complemented by other instruments, such as short-time work compensation arrangements

Well-designed short-time working arrangements can alleviate some negative employment and social outcomes during economic downturns. Such schemes, which are often the result of negotiations between employers and trade unions([5]), include temporary reductions in working time, while maintaining the existing contractual employer–employee relationship. This allows firms to avoid the costs of recruiting and training new workers ([6]) when demand recovers, and to distribute the adjustment more equitably across workers. However, such schemes are not without risks including possible deadweight costs and delays in unavoidable restructuring that might prevent more productive firms from expanding (see, for instance, Cahuc 2014). Furthermore, alternatives may exist, such as working time accounts (see, for instance, Burda and Hunt (2011) and Möller (2010)).

2.3.2 Strengthening the contribution of EU employment and social policies to long-term growth

National efforts to support employment and productivity growth could be complemented by EU employment and social policies, with three areas seen as

([4]) See, for instance, European Commission (2013a), Chapter 3, and Andersen (2014).

([5]) See European Commission, Industrial Relations in Europe 2010, Chapter 3.

([6]) See for instance, Balleer et al. (2014).

particularly important: support for human capital formation, typically through structural funds; and the introduction of EU common labour market and social benchmarks.

Furthermore, the Blueprint mentioned Convergence and Competitiveness Instruments (or CCIs) as steps to be considered in an initial phase of strengthening the EMU, which include contractual arrangements or solidarity mechanisms and financial support for the implementation of reforms. While discussions concerning such mechanisms are expected to further progress in the near future([7]), it can be noted that possible associated provisions as regards labour market institutions and social protection systems could be supportive to long-term growth and convergence, though they are not likely to strengthen short-term economic stabilisation.

Fostering investments in human capital through European funds

Proposals to increase the use of European funds to foster upwards convergence trends are rooted in early debates on the design of the EMU (see section 2.1). It remains however difficult to measure the contribution of structural and cohesion funds on convergence patterns in Europe (see e.g. Marzinotto. 2012).[8]

The new legislative framework of the European Structural and Investment (ESI) Funds adopted in 2013 (including the ESF) puts a greater emphasis on ensuring that funding priorities better reflect the investment needs of human capital development and employment, social and public administration reform — notably through the introduction of a minimum ESF share (23.1 % of cohesion policy resources). New provisions also provide for more effective and results-oriented use of the funds, such as making investments conditional on the fulfilment of ex-ante requirements. Furthermore, for the 2014-2020 period, the Common Agricultural Policy provides for a policy framework, complementary to other EU policies, aiming at the maintenance of existing jobs, the reduction of seasonality fluctuations in employment and promotion of employment and growth in rural areas. [9]

Looking forward, the above analysis suggests that in order to foster long-term growth, in particular in the regions most affected by adverse long-lasting developments, funds could further reinforce the focus on structural challenges, notably human capital formation. In this context several types of measures have been mentioned such as activation and training programmes or strengthening the administration of employment services, as well as training services and social benefits (see, for instance, Schmid 2014).

([7]) The December 2013 Council Conclusions http://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/ec/140245.pdf announced further work on the options for a 'solidarity mechanism' or a CCI.

([8]) As macroeconomic estimates generally provide positive assessments as a result of sizeable productivity improvements, but econometric assessments tend to be somewhat inconclusive. Nevertheless, the impact on GDP and employment appears more pronounced for Member States which are the main recipients of support, while the effect of funds continue to build up years after the programmes have ended (see e.g. European Commission, 2014b).

([9]) Mutually reinforcing support measures, such as investments in local services and infrastructure to improve the quality of life and improve connectivity, training and knowledge transfer actions, research and innovation can effectively contribute to tackle the structural challenges in rural areas with long term social benefits.

Common benchmarks supportive of inclusive growth

The literature on EU common benchmarks or standards covers provisions that can contribute to more mobility and adaptability in the labour markets (such as Public Employment Services and active labour market policies or employment protection legislation) as well as to reducing scarring effects and avoiding social dumping (in fields such as wages, unemployment benefits and minimum incomes). Such EU-level common benchmarks or standards are generally seen to be common rules or principles which complement the EU's substantial experience in sharing good practice examples and encourage Member States to take them up.

Common benchmarks or standards have been proposed in the past, such as in a 1992 European Council recommendation ([10]) on common criteria concerning sufficient resources and social assistance in social protection systems ([11]). More recently, this approach has been taken in the Youth Guarantee, with guidelines given to reach the desired outcomes for young people within four months and a related standard (ensure that no one stays 'NEET' for more than four months).

Looking forward, the above analysis suggests that common benchmarks can increase the effectiveness of national employment and social protection systems in reducing the lasting impacts of economic downturns. Several different types of proposals have been developed. The Youth Guarantee could be extended, as proposed by the incoming Commission President Junker ([12]), while others have proposed to cover unemployment benefit and minimum income provisions. These could contribute to ensuring the provision of adequate income support during unemployment, backed by effective activation support, for instance through high levels of coverage of benefits (for instance, through minimum duration of unemployment benefits, levels of potential coverage of the employed population ([13]) and of access to active labour market policies). Other proposals have also been made in support of minimum income guarantees based on minimum levels of resources (possibly including incomes and assets), notably for child benefits ([14]), as well as for pensions, all of which could also strengthen mobility and may also translate into transfers that could partially offset the potentially negative impacts of increased mobility on the sustainability of welfare systems.

A debate has also developed on the merits of common standards for minimum wages, typically expressed as a fraction of the median national wage ([15]), based on the argument that well calibrated common standards of minimum wages would support the labour market income of the lowest paid workers, without entailing negative effects on unemployment ([16]). It is argued that common minimum wage standards in the EMU (or EU) would help anchor national wage-setting systems and avoid countries being tempted to compete on low-paid, low-quality, low-productivity jobs, and risk social

([10]) 92/441/EEC.

([11]) See, for instance, Frazer and Marlier (2009).

([12]) See Juncker (2014).

([13]) See, for instance, ILO (2014), notably Annexes II and III.

([14]) See, for instance Atkinson (2013), and Levy et al. (2013).

([15]) See, for instance, the May 2013 French–German contribution for a stronger Europe of stability and Growth FR and DE and the interview of J.C. Juncker and M. Schultz on May 7th 2014 to *El Pais*, *La Stampa*, *Le Monde*, *Süddeutsche Zeitung* and *The Guardian*.

([16]) See, for instance, Brischoux et al. (2014).

dumping, while they could also contribute to stronger stabilisation and possibly to some rebalancing of internal demand in countries where it is relatively weak.

These different types of benchmarks or standards, could contribute to 'a gradual and monitored process of structural convergence, ensuring all countries are well equipped to reap the full economic gain from their participation in the EMU' (Von Rompuy, 2014), notably through promoting more adaptability in the labour markets, reducing scarring effects and avoiding social dumping.

2.3.3 Strengthening the contribution of EU employment and social policies to short-term stabilisation

The above analysis underlines that labour mobility remains low in Europe, notably with the Euro area (see Section 2.1) and that a euro-area fiscal capacity would have the potential to smooth the adjustment path and mitigate adverse hysteresis effects following an asymmetric temporary shock (see Section 2.2).

The *Blueprint for a Deep and Genuine Economic and Monetary Union*([17]) underlined that the creation of an EMU-wide fiscal capacity should be considered as a long-term step to improve the stabilisation of EMU economies, in particular in the case of asymmetric (temporary) shocks, as well as the need to proceed in parallel with a process of political integration.

Supporting labour mobility

Geographical labour mobility can bring substantial benefits to workers, as well as destination and origin countries, so long as potential negative side effects such as brain drain or the impact on the sustainability of public finances are monitored and addressed. The main driver of mobility between EU Member States is seen to be work opportunities ([18]), which helps explaining why mobility between euro area Member States has been limited ([19]), while in contrast, the current significant differences in unemployment rates may increasingly act as a push factor ([20]) ([21]).

Despite long-standing EU-wide policy actions, obstacles can still remain such s administrative, language and housing issues, while some obstacles addressed by EU policies on employment and social protection can persist, such as improving job matching capacity across borders, coordination of social security schemes and mutual recognition of qualifications.([22])

([17]) See European Commission (2012b) and the mission letter of V. Dombroskis notably mentioning the pursuit of the '*work of the "Four Presidents' report" and the Commission Blueprint for a Deep and Genuine Economic and Monetary Union, integrating the social dimension*'.

([18]) With family reasons and the wish to study abroad also playing a role Eurostat (LFS, 2008 ad-hoc module).

([19]) European Commission, ESDE 2013, Chapter 5, Box 3, p. 284.

([20]) European Policy Center, Making progress towards the completion of the single European labour market, Issue paper no 75, May 2013

([21]) While differences in welfare systems or regimes (i.e. restrictions during the transitional arrangements phase) appear to have limited influence on the direction and distribution of flows. See notably OECD (2012b).

Looking forward, remaining obstacles to mobility and better mobility for EU citizens could be reduced, notably as regards the remaining barriers beyond language skills and housing regulations ([23]), such as for instance in the area of social security coordination, but also as regards the improvement in matching cross-border employment policies, for example, improving the recognition of qualifications and implementing and enforcement EU laws in the fight against undeclared work.

Unemployment and fiscal capacity based

Three forms of fiscal capacity linked to unemployment and providing additional short term stabilisation are most commonly discussed in academic circles (see box 5[24]):

- transfer systems (leading to budgetary flows in case of specific pre-determined circumstances);
- reinsurance systems (that provide national unemployment systems some reinsurance of their cyclical deficits);
- EMU-wide unemployment benefit systems (that partially pool fiscal risks of short-term unemployment changes).

To help plug the many gaps in the analysis of such supranational schemes (see box 5), the European Commission has commissioned a study on the feasibility and added value of a European unemployment benefit scheme, following a Pilot Project launched by the European Parliament. ([25])

Box 5: Three types of fiscal capacity strengthening short term stabilisation

Transfer mechanisms

A transfer mechanism consists in net transfers to national budgets under specific circumstances, based on a trigger that identifies when a country is entitled to access resources from the supranational fund. Payments can be set at non-frequently ('high') or frequently reached ('low') trigger values. In the first case, the fund can be seen as a 'stormy day' fund, while the second is a 'rainy day' fund.

In such a mechanism, the choice of a trigger mechanism and its implementation is particularly important. The output gap of an economy (i.e. the difference between actual and potential GDP), is theoretically the best approximation of its cyclical position and is therefore often considered as a trigger. However, it is difficult to measure and can only be definitively established a few years later ([26]). Using an output-gap based trigger can thus lead to inappropriate triggering due to revisions. Available estimates indicate that using real time estimates would significantly reduce (nearly halve) the stabilising impact, compared to actual estimates available ex-post after revisions ([27]). Directly observable indicators, such as the unemployment rate are not prone to significant revisions.

([23]) As regards the simplification of housing regulations, see OECD (2012, 2014b).

([24]) See, for instance, Bertelsmann Stiftung (2014) and Conference, *Economic shock absorbers for the Eurozone. Deepening the debate on automatic stabilizers* (2014). http://www.bertelsmann-stiftung.de/cps/rde/xchg/SID-B776DEF6-96A5BBCD/bst_engl/hs.xsl/nachrichten_121747.htm

([25])See Call for Tenders VT/2014/045, http://ec.europa.eu/social/main.jsp?catId=624&langId=en&callId=414&furtherCalls=yes)

([26]) See, for example, Kempkes (2012).

([27]) See for instance Enderlein et al. (2013) and Carnot et al. (2014).

Furthermore, there may be significant delays in implementation can result in lower stabilisation impact ([28]). The stabilisation impact of transfer mechanisms is also most likely to be effective in so far as the corresponding funds have a strong stabilisation impact, such as unemployment benefits (which support a population with a high propensity to consume out income).

Reinsurance mechanisms

In reinsurance mechanisms, Member States pay a contribution into a supranational unemployment reinsurance scheme ('fund'), which pays out to the Member State's unemployment system in cases of shocks. Setting a trigger raises the same type of concerns as with transfer mechanisms.

As the pay-outs are earmarked for national UBS, a strong stabilisation impact is generally expected. As almost by definition, reinsurance comes with experience rating and as long as contributions and pay-outs can be balanced over time, there may not be a need to have a claw-back mechanism or to issue debt. However, the estimation of the levels of contributions needed is a serious challenge for 'stormy day' funds, since it is particularly difficult to foresee significant shocks.

Beblavý et al. (2014) present simulations of a reinsurance system for the EU as a whole with payments triggered by deviations in the short-term unemployment rate from its ten-year average. National contributions depend on the scheme's overall holdings and the Member State's balance within the scheme. Simulations over the period 2000–2012 show that, on the basis of a small average contribution, the system would have provided a large degree of shock absorption (assuming a fiscal multiplier of 1.5 for unemployment benefits).

European unemployment insurance mechanisms

European unemployment insurance mechanisms operate permanently and partially pool fiscal risks of short-term unemployment changes, through a mechanism which can also be of a reinsurance type (a 'rainy day' fund working for all types of shocks), potentially requiring only small changes to national systems. Such schemes could also contribute to better labour mobility.

It is generally assumed that such a supranational scheme would remain complementary to national schemes (which could keep extending beyond the common provision according to national preferences) and focus exclusively on short-term unemployment (leaving the task of tackling long-term unemployment to national policies). In practice, however, it is not straightforward to determine a 'common core' of national unemployment benefit systems given the large differences between EU Member States ([29]) and there is a wide range of options from basic conditions generally reached by national systems, to more stringent conditions. This type of mechanism does not rely on a trigger (since its operation reflects changes in the number of unemployed eligible), minimising implementation delays and thus maximising the stabilisation impact. Earmarking to unemployment benefits is generally assumed to translate into a strong stabilisation effect. Implementation risks include moral hazard linked to the possible changes of Member States' activation efforts or a loosening of the supervision of eligibility conditions ([30]). The introduction of an EMU-level scheme may be accompanied by minimum requirements in national activation efforts, while further mechanisms to minimise moral hazard and avoid lasting transfers include experience rating and claw-back mechanisms. ([31])

Most available studies assume a borrowing facility and provide estimates of substantial stabilisation for a reasonably sized system (see, for example, Dullien 2013), while simulations of claw-back mechanisms (such as Dullien 2014) suggest that the risk of lasting transfers could be limited at the price of only a limited loss of stabilisation. Studies based on micro-simulation ([32]) also find a significant level of stabilisation, while it is likely that experience ratings and/or claw-back mechanisms would be needed to avoid some lasting net transfers. More analysis is however needed since there remain uncertainties

([28]) Such delays can typically arise, from the time needed to observe the trigger and the time needed to authorise the trigger mechanism to operate.

([29]) Though in general, differences between euro-area Member States are smaller (see Esser et al. (2013)).

([30]) See for instance Vandenbroucke and Luigjes (2014).

([31]) As well as the variety in the way unemployment benefits are considered for the eligibility and calculation of other benefits. Such mechanisms also deal with the issue of the variety of the taxation treatments of benefits, since these are then reflected in the levels of national contributions.

([32]) See Dolls et al. (2014) and Jara and Sutherland (2014).

notably on the number of eligible persons due to relatively scarce EMU-wide disaggregated information on employment histories.

Key design issues in such systems include the choice of indicator that can serve to link to national unemployment systems, and the mechanisms to guard against moral hazard or lasting transfers. Such mechanisms to avoid lasting net transfers can be conceived ex-ante ('experience rating') or ex-post ('claw-back') and could be applied separately or jointly. The ex-ante form is called 'experience rating' and consists in using contribution rates to the supranational fund which vary by Member State. The differentiation can be made in function of the recent history in terms of payments made by the supranational fund to the Member State (or another variable). Rates are automatically updated at a regular interval. The ex-post form is called 'claw-back' and the Member State's contribution rate to the supranational fund is adjusted in function of the national balance (of contributions and pay-outs) with the supranational fund, with a rule for automatic updating over time.

Such systems can be conceived to stabilise both geographically (e.g. across Member States) and over time, thereby allowing for the accumulation of reserves and temporary deficits, which could substantially increase their stabilising impact. Furthermore, a fiscal capacity of either form could be linked to some minimum requirements on labour market or social systems by, for instance, linking it to a commitment to undertake structural reforms and/or other activation policies.

Furthermore, it can be noted that the current US unemployment system actually mixes these different features (see box 6), with estimates of the stabilisation provided during a recession ranging between 15 % and 30 % of the initial drop in GDP (see Chimerine et al. (1999) as well as Vroman (2010)). (33)

Box 6: The American unemployment benefit system mixes different features

The unemployment system in the US combines a first layer of common unemployment benefit system type with very loose harmonisation criteria, a second layer of reinsurance type for big shocks, and a discretionary supplementary scheme. While the common unemployment benefit system is automatically activated by unemployment, this is not the case for the other two programmes.

1) The regular Unemployment Compensation (UC) programme. It is a partnership between the federal government and the States. In general, it provides unemployment benefits to workers who are unemployed 'through no fault of their own', and meet other eligibility requirements of State law. In most States, workers are eligible for a maximum of 26 weeks. Each State administers its own programme within guidelines established by federal law and has, within certain bounds, discretion in terms of eligibility, benefit amounts and benefit duration.

2) The Emergency Unemployment Compensation (EUC) programme, which is an example of Temporal Federal Benefits (TFB). These are paid under conditions set by emergency federal legislation in the case of a recession (see also Vroman 2010);

3) The Extended Benefits (EB) scheme, which was put in place in 1970 and extends the duration of benefits in periods of economic difficulties. This programme is permanent, but benefits can only be paid if a trigger related to the unemployment rate is 'on' in a given State. In these States, only the unemployed who have exhausted their (regular) UC and EUC benefits can receive these EB.

In the regular unemployment compensation, States have an individual State account at the federal unemployment trust fund. States are supposed to levy taxes on (mainly) employers to build up balances in their account during periods of healthy economic growth, and then draw down those balances to provide UB during downturns. States can draw on their accounts so much as to go into deficit. However, States are required to fully repay the loans, with interest, within two years of borrowing the funds. If a state does

(33) See for instance European Commission (2013c).

not repay the full amount, the federal government will recoup its funds by raising the federal payroll tax rate for the State each year until the loan is repaid. This increase is automatically triggered. This mechanism helps avoid permanent transfers for individual States for the regular (UC) benefits.

3. CONCLUSION

Addressing socioeconomic divergences in Europe requires …

The convergence in terms of economic and social performance that had been under way across the EU over the past two decades came to a halt with the crisis, and reversed strongly in the case of employment and unemployment rates. This particularly reflected the adverse impact of the crisis on Southern and peripheral EU-15 Member States, while convergence did continue for most of the Member States that joined the EU in 2004 or later.

These developments reflected both the exceptional size of the crisis but also the underlying structural imbalances that had become apparent in some Member States in the run-up to the crisis (such as weak productivity growth and divergent nominal unit labour cost growth) as well as the absence of a fiscal capacity at EMU level that would help to stabilise national economies in the face of asymmetric temporary shocks.

In that respect it has become clear that the further integration of the national economies that is going to occur in the future is likely to strengthen cross-border economic relationships between EU Member States, which, while improving their overall productivity performance through specialisation and competition, will limit for countries in the euro area their capacity to stabilise their national economy and promote sustainable growth in the face of asymmetric shocks.

In this context, the ongoing debate continues regarding the most appropriate ways to complement the ambitious reforms already undertaken with further reforms aiming to create a euro area banking union, deepening the fiscal and economic union, strengthening its social dimension, and creating a genuine political union (see, for instance, European Commission 2012).

In this process it has become increasingly clear that there is a need to look beyond the traditional macro-economic adjustment channels and consider changes in socioeconomic factors and cross-border effects (both stemming from labour markets) that may influence the depth and persistence of an economic downturn, as well as the adjustment capacity of any given economy. The analysis suggests in particular that in a monetary union, in the face of nominal and real rigidities, macro-economic shocks may have a strong adverse impact on employment and social cohesion if adjustment is left solely to market mechanisms, with potentially adverse hysteresis and cross-border effects.

… a strengthening of national reforms and of the socioeconomic dimension of European cooperation

Actions at both the national and European level can foster stronger upward socioeconomic convergence in the EU .

In particular, reforms in national-level employment and social protection systems can make them more responsive to the economic cycle and thereby contribute to the stabilisation of aggregate demand in the face of a temporary shock, while strengthening convergence and mitigating adverse labour market hysteresis effects. There is also still much room to improve employment and productivity growth, notably by supporting human capital development and providing the right incentives for employment growth.

At the European level, a range of specific proposals are been discussed in the public domain in order to speed up and strengthen the return to a path of long-term convergence, notably including: strengthening mobility; investing in human capital; and introducing more common benchmarks. In a long-term perspective, a well-designed fiscal capacity at the level of the EMU could be particularly effective, especially when combined with other wide-ranging structural reforms.

The incoming European Commission President Juncker announced his intention to promote initiatives to deepen the EMU, including proposals to encourage further structural reforms, if necessary through additional financial incentives and targeted fiscal capacity at the euro-area level ([34]). For the longer term, to restore convergence, the Blueprint for a Deep and Genuine Economic and Monetary Union ([35]) considered the creation of an EMU-wide fiscal capacity with unemployment based system as an option.

([34]) See Juncker (2014).

([35]) See European Commission (2012b) and the mission letter of V. Dombroskis notably mentioning the pursuit of the '*work of the "Four Presidents' report" and the Commission Blueprint for a Deep and Genuine Economic and Monetary Union, integrating the social dimension*'.

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ANNEX 1 — PRICE DYNAMICS IN THE EURO AREA

This annex examines empirically the pass-through of changes in nominal compensation per employee (adjusted for labour productivity) to output prices in the euro area. First, the transmission mechanisms will be specified, next the data will be discussed followed by a brief presentation of the empirical results.

Specification

A composite good is produced of which the equilibrium price is determined by the marginal production cost, PMC. However, prices adjust only slowly due to menu costs, administered prices, or backward-looking 'rule of thumb' price setting behaviour. Moreover, calculating the marginal cost and adjusting prices involves a cost that may exceed the potential gain. As a consequence, prices are adjusted for only x percent of the composite good. In that case the price at moment t is set as

$$\log(P_t) = (1-x)\log(P_{t-1}) + x \log(PR_t) \qquad (A.1)$$

with

P_t: the price at t

PR_t: the new price of the part that undergoes a price change

x: the share of the composite good that undergoes a price change.

with $0 \leq x \leq 1$ and log(.) the natural logarithm operator.

However, not all information is available to calculate the marginal production cost. As a consequence, part of the prices that are revised are set following a 'rule of thumb' rule while the other part is set based on marginal costs, i.e.

$$\log(PR_t) = y \log(PMC_t) + (1-y) \log(PB_t) \qquad (A.2)$$

with

PR_t: the new price of the part that undergoes a price change

PMC_t: the marginal cost

PB_t: the 'rule of thumb' price

y: the share of the revised prices set along marginal cost calculation

with

$0 \leq y \leq 1$

The 'rule of thumb' for price changes is driven by an extrapolation of past inflation developments and adjustment to differences between prices and marginal costs in the previous year (that are known at moment t), i.e.

$$\log(PBt/PBt\text{-}1)) = z1 \log(Pt\text{-}1/Pt\text{-}2) + z2 \log(PMCt\text{-}1 / Pt\text{-}1) \quad (A.3)$$

Taking finite differences of equations (A.1) and (A.2) yields

$$\log(Pt/Pt\text{-}1) = (1\text{-}x)\log(Pt\text{-}1/Pt\text{-}2) + x \log(PRt/PRt\text{-}1) \quad (A.4)$$

$$\log(PRt/PRt\text{-}1) = y \log(PMCt/PMCt\text{-}1) + (1\text{-}y) \log(PBt/PBt\text{-}1) \quad (A.5)$$

Inserting (A.3) into (A.5) yields

$$\log(PRt/PRt\text{-}1) = y \log(PMCt/PMCt\text{-}1) + (1\text{-}y) [z1\log(Pt\text{-}1/Pt\text{-}2) + z2 \log(PMCt\text{-}1 / Pt\text{-}1)] \quad (A.6)$$

Inserting (A.6) into (A.4) yields

$$\log(Pt/Pt\text{-}1) = (1\text{-}x)\log(Pt\text{-}1/Pt\text{-}2) + x \{ y \log(PMCt/PMCt\text{-}1) + (1\text{-}y) [z1 \log(Pt\text{-}1/Pt\text{-}2) + z2 \log(PMCt\text{-}1 / Pt\text{-}1)]\}$$

or on collecting terms

$$\log(Pt/Pt\text{-}1) = (1\text{-}x+x\ z1 - x\ y\ z1) \log(Pt\text{-}1/Pt\text{-}2) + x\ y \log(PMCt/PMCt\text{-}1) + x\ (1\text{-}y)\ z2 \log(PMCt\text{-}1 / Pt\text{-}1) \quad (A.7)$$

Finally, the production cost function (assuming a homothetic production function) read as

$$\log(PMCt) = g1 \log(Wt /PROD\_Lt) + g2 \log(PXt/PROD\_Xt) \quad (A.8)$$

with

W: nominal compensation per employee

PROD_L: labour productivity

PX: price of other production factors

PROD_X: productivity of other production factors.

Inserting equation (A.8) into (A.7) and adding a term MU to capture a price mark-up, yields an equation that can be estimated as

$$\log(Pt/Pt\text{-}1) = a \log(Pt\text{-}1/Pt\text{-}2) + b \log(NULCt/NULCt\text{-}1)$$

$$+ e \ \log[(PXt/PROD\_Xt)/ [(PXt-1/PROD\_Xt-1)]$$

$$+ f \log(PMCt-1 / Pt-1) + g\ MUt + constant \qquad (A.9)$$

with

$$a= (1-x+x\ z1 – x\ y\ z1)$$

$$b= x\ y\ g1$$

$$e= x\ y\ g2$$

$$f= x\ (1-y)\ z2$$

Towards empirical application

The empirical analysis is based on harmonised, seasonally-adjusted and working-time adjusted, quarterly Eurostat data. The business cycle effect is measured by fluctuations in national gross domestic product([36]). Prices as well as gross value added are net of indirect taxes and subsidies. The sample size runs from 1995q1 until 2013q2. Quarterly changes are measured compared to the same quarter in the previous year. Due to limited availability of quarterly data, the price of oil is the only other factor cost that has been taken into account in the regression. Equation (A.9) has been estimated using the Engle-Granger Two-Step estimation procedure. First, the error correction term ERT (=log(PMCt-1 / Pt-1)) is estimated. Next, the error correction mechanism (as specified in equation A.9) is estimated for each of the Member States of the euro area for which quarterly data are available (i.e. all Member States excluding Ireland, Greece and Malta). Implicitly the constant term in the regression covers variables that can drive a (permanent) discrepancy between prices and nominal unit labour cost, but for which no quarterly data are available.

Point estimates

Instrumental variables estimation techniques have been used to avoid potential simultaneity biases. Estimation results are shown in Table 1. Point estimates in bold with t-values below. All significant point estimates have the expected sign.

Table A.1: Estimation results — total economy

([36]) A better measure would have been the output gap. However, as quarterly data are used, such data are not readily available.

	Lagged inflation	Nominal unit labour cost	Output	ERT	Price of oil	Constant	Euro dummy	R-squared	Durbin-Watson
BE	**0,28**	**0,15**	**0,28**	**-0,24**	**0,00**	**0,01**		**0,56**	**1,50**
	1,87	2,93	3,56	-3,21	-0,53	3,38			
DE	**0,79**	**0,04**	**0,02**	**-0,14**	**0,00**	**0,00**		**0,72**	**1,83**
	9,87	1,02	0,52	-2,33	-1,31	2,23			
EE	**-0,18**	**0,69**	**0,31**	**-0,63**	**0,01**	**0,00**	**0,00**	**0,92**	**1,98**
	-2,18	13,40	10,46	-8,11	2,04	1,65	1,15		
ES	**0,75**	**0,10**	**0,11**	**-0,13**	**0,00**	**0,00**		**0,88**	**2,09**
	6,06	1,15	1,50	-1,31	0,41	0,84			
FR	**0,68**	**0,29**	**0,21**	**-0,03**	**0,00**	**0,00**		**0,84**	**1,26**
	7,43	2,91	3,63	-0,30	-1,12	-1,30			
IT	**0,40**	**0,47**	**0,15**	**-0,41**	**-0,01**	**0,00**		**0,77**	**1,42**
	4,45	7,03	2,98	-2,93	-1,47	0,68			
CY	**0,52**	**0,13**	**0,17**	**-0,10**	**0,01**	**0,00**	**0,01**	**0,72**	**1,76**
	2,76	3,58	1,63	-1,70	2,18	0,59	1,70		
LU	**0,28**	**0,07**	**0,22**	**-0,56**	**0,03**	**0,01**		**0,41**	**1,62**
	2,29	0,29	0,86	-3,98	1,84	0,98			
NL	0,57	0,26	0,21	-0,29	0,01	0,00		0,81	1,66
	4,88	2,48	2,70	-3,37	1,18	-0,17			
AT	**0,61**	**0,15**	**0,13**	**-0,16**	**0,00**	**0,00**		**0,72**	**1,10**
	6,69	4,20	3,69	-4,29	0,62	1,59			
PT	**0,73**	**0,10**	**0,05**	**-0,08**	**0,00**	**0,00**		**0,90**	**1,34**
	7,26	2,19	0,73	-0,94	-1,11	1,82			
SI	**0,75**	**0,11**	**0,17**	**-0,07**	**-0,01**	**0,00**	**0,00**	**0,93**	**1,56**
	8,47	1,61	4,00	-1,10	-2,56	-0,12	0,76		
SK	**0,27**	**0,49**	**0,35**	**-0,60**	**0,00**	**-0,01**	**-0,01**	**0,61**	**1,65**
	2,27	3,71	2,12	-4,39	0,06	-0,43	-0,47		
FI	**0,54**	**0,34**	**0,20**	**-0,41**	**0,00**	**0,00**		**0,76**	**1,96**
	6,42	4,99	3,52	-3,90	0,06	-1,89			

Source: DG EMPL estimates using Eurostat data; sample 1995q1–2013q2
Note: point estimates in bold, t-values below

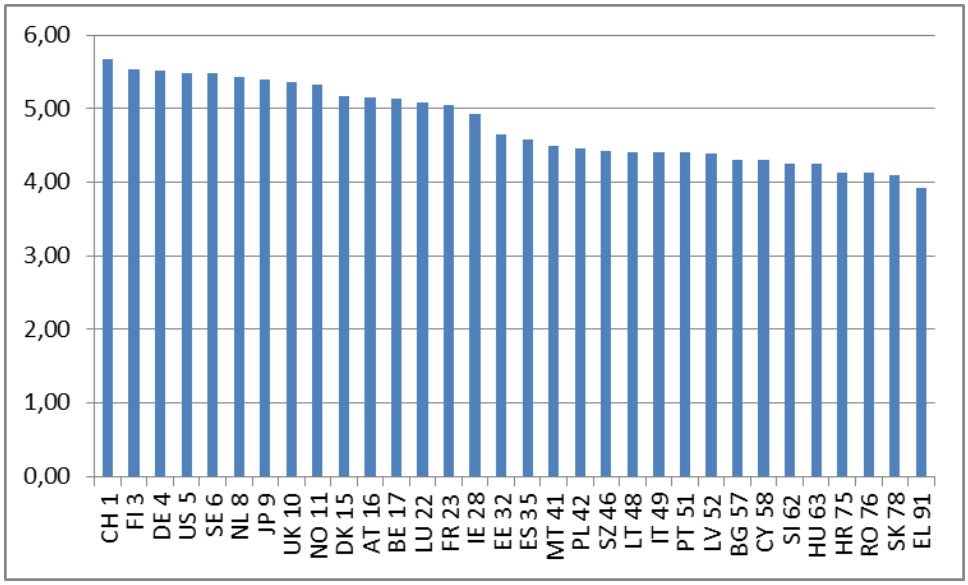
ANNEX 2 — MEMBER STATES' OVERALL CAPACITY TO PROMOTE PRODUCTIVITY GROWTH: 2013–14 RANKING

Capacity to promote productivity

The 'competitiveness indicator'([37]) of the World Economic Forum provides a benchmark to assess a country's capacity to promote productivity growth that underpins strong sustainable inclusive growth. It aggregates a broad set of indicators that covers a country's institutions, infrastructure, macro-economic environment, technological readiness, and capacity to innovate. See World Economic Forum (2014) for more details.

Chart X1 shows how the EU Member States compare to each other (as well as to the US, Japan, Norway and Switzerland) in terms of their capacity to promote productivity growth. Among the EU Member States, the Nordic Member States as well as Germany, the Netherlands and the United Kingdom show the strongest capacity to promote productivity growth (and they are also among the top performers in the world), while most Member States that joined the EU in 2004 or later, as well as Greece, Portugal and Italy, showed the weakest capacity to promote productivity.

Chart X1: 'Competitiveness indicator': 2013–14 rankings



Source: World Economic Forum.
Note: country labels with their ranking

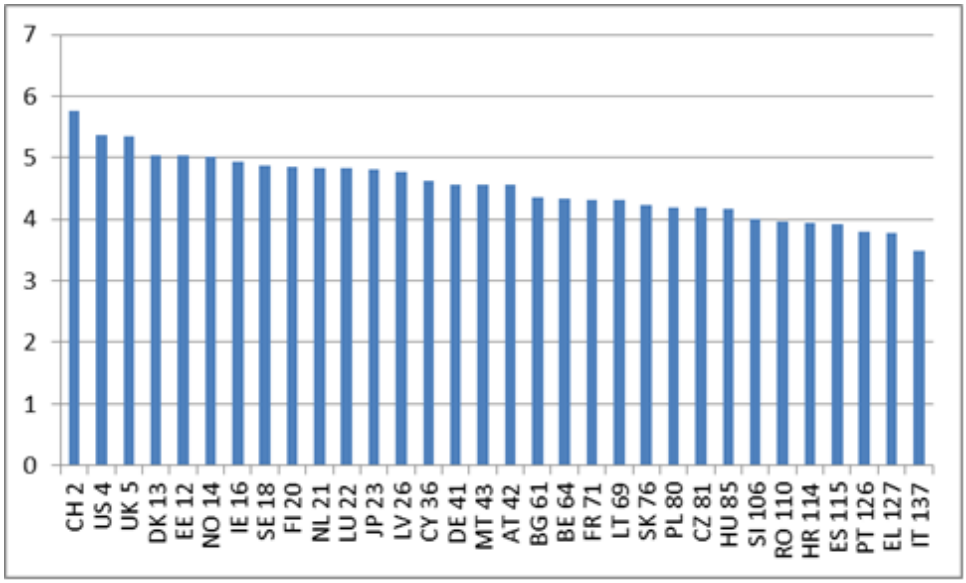
Labour market efficiency

([37]) Such indicators should not be confused with indicators that measure enterprises' competitiveness. At the level of countries, international trade is about a mutually beneficial exchange in which a country specialises in the production of goods and services for which it has a comparative advantage. In other words, international trade provides a country (as well as its trading partner) the opportunity to improve its production efficiency, thereby also improving its national productivity level — see, for instance, Krugman (1994).

One of the dimensions to assess a country's 'competitiveness' is its labour market efficiency, which captures, inter alia, the flexibility and cost at which labour can be reallocated, wage flexibility, incentives to perform on the job, barriers to entry and gender balance.

Chart X2 shows that there are some notable differences across EU Member States. Strong labour market efficiency is to be found in the United Kingdom, Denmark, Estonia, Ireland, Sweden and Finland, while the weakest form of flexibility is to be found in Italy, Greece, Portugal, Spain, Croatia and Romania.

Chart X2 — Labour market efficiency: 2013–14 ranking



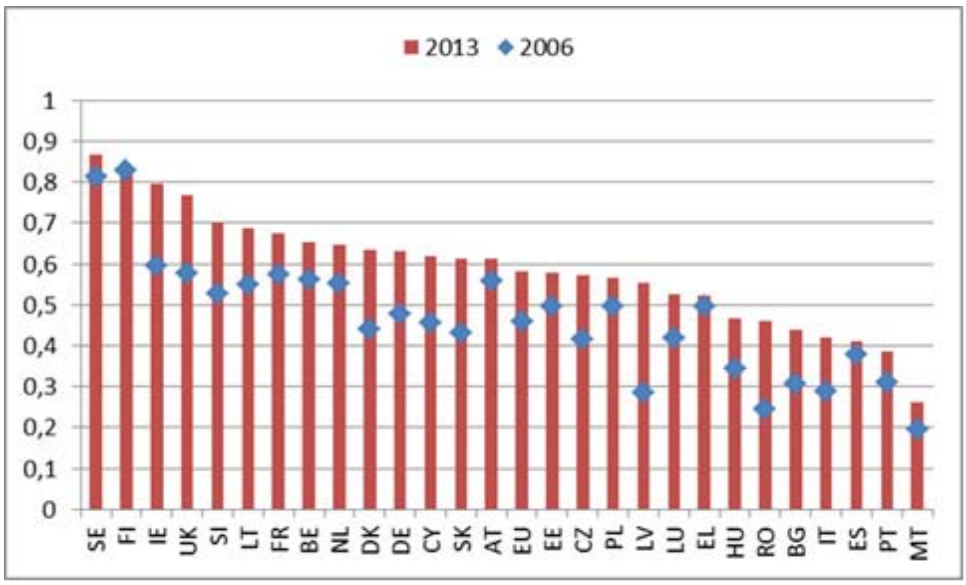
Source: World Economic Forum.
Note: country labels with their ranking.

Human resource potential

Finally, Chart X3 shows developments in human resources across EU Member States for 2006 and 2013([38]) — based on the EU-Innovation Union Scoreboard. In 2013, Sweden, Finland, Ireland and the United Kingdom scored best, while Malta, Portugal, Spain and Italy scored worst. Nevertheless, several Member States recorded notable increases between 2006 and 2013, including Ireland, the United Kingdom, Denmark, Slovenia and Romania. See European Commission (2014) for more details.

([38]) i.e. a measure of the availability of a highly skilled and educated workforce which is one of the three dimensions of a country's innovation capacity. See European Commission (2014) at http://ec.europa.eu/enterprise/policies/innovation/files/ius/ius-2014_en.pdf.

Chart X3: Human resources



Source: EU-Innovation Union Scoreboard

Note: value between 0 and 1. A higher value indicates stronger human resources.
Note: The indicators capture: new doctorate graduates, population aged 30–34 with completed tertiary education and population aged 20–24 having completed at least upper secondary education. See European Commission (2014).

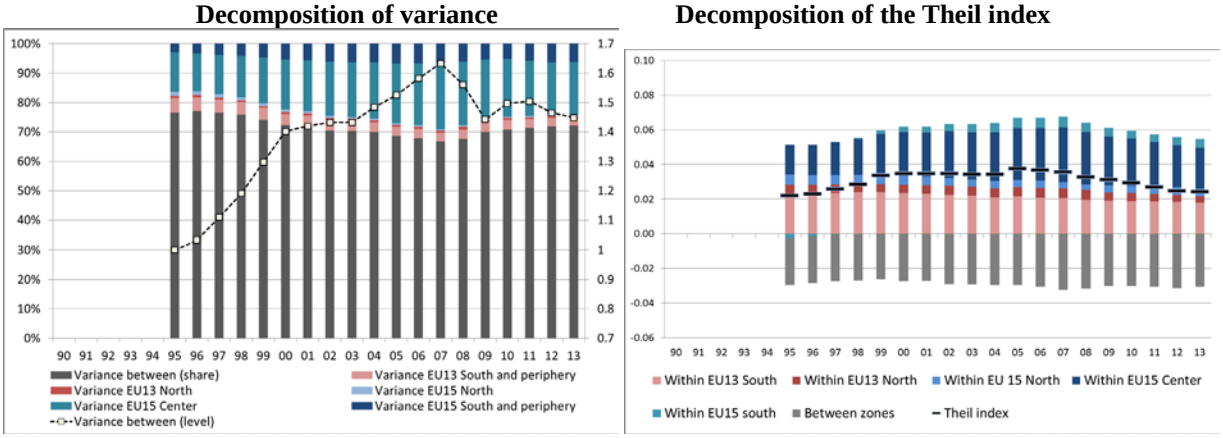
ANNEX 3 — BETWEEN AND WITHIN ZONES CONVERGENCE

This annex provides detailed information on the relative contribution of between zones and within zones trends in dispersion to the overall dispersion trend in the EU as a complement to section 1. For this purpose, two decomposition methods are used, one the one side the standard decomposition of variance and on the other side the decomposition of the Theil index.

GDP per capita

Chart 1: Between and within zones contributions to GDPpc dispersion in the EU (1995–2013)

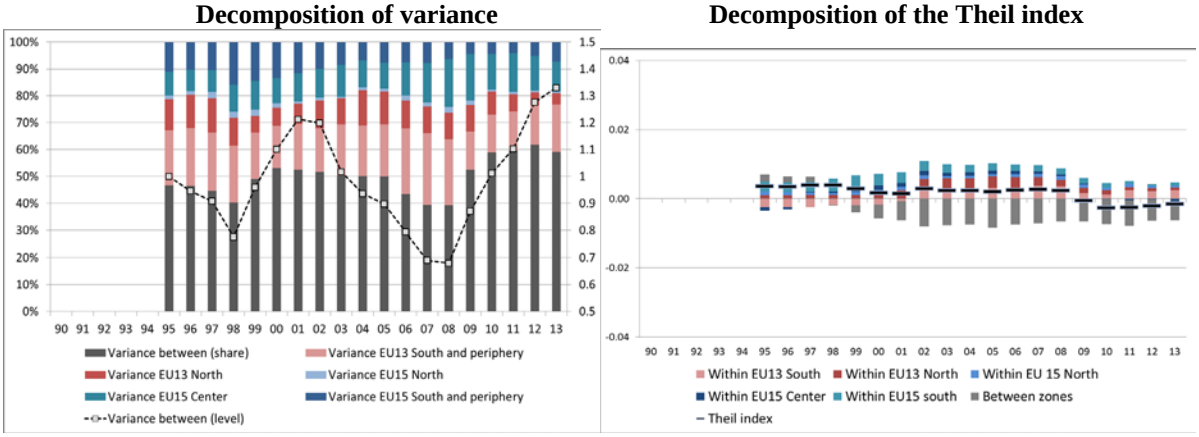
Decomposition of variance | **Decomposition of the Theil index**



***Source*: Eurostat, calculations DG EMPL. *Note*: calculations based on GDP in real terms, in euros.** Between and within contributions to total variance are based on uneweighted averages by zone, while the Theil index is based on weighted averages (including the EU-28 weighted average). *Note* — some missing values in the beginning of the period were kept constant for the calculation of dispersion and averages: BG, EE, HR, CY, MT (1995-99), LV (1995-98), EL, LT, SK (1995-97), PL, RO (1995-96), HU, SI (1995).

Chart 2: Between and within zones contributions to ER dispersion in the EU (1995–2013)

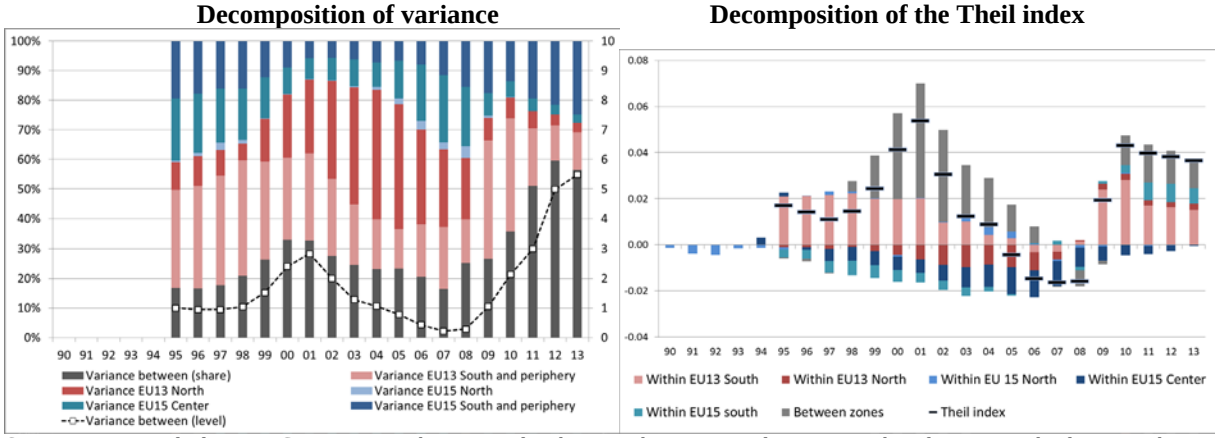
Decomposition of variance | **Decomposition of the Theil index**



Source: Eurostat, calculations DG EMPL. *Note*: between and within contributions to total variance are based on unweighted averages by zone, while the Theil index is based on weighted averages (including the EU-28 weighted average). *Note* — some missing values in the beginning of the period were kept constant for the calculation of dispersion and averages: s HR (1995-01), BG, MT (1995-99), CY (1995-98), LT, LV, SK (1995-97), CZ, EE, PL, RO (1995-96), HU, SI (1995), AT, FI, SE (1990-94).

Chart 3: Between and within zones contributions to UR convergence in EU
(1995–2013)

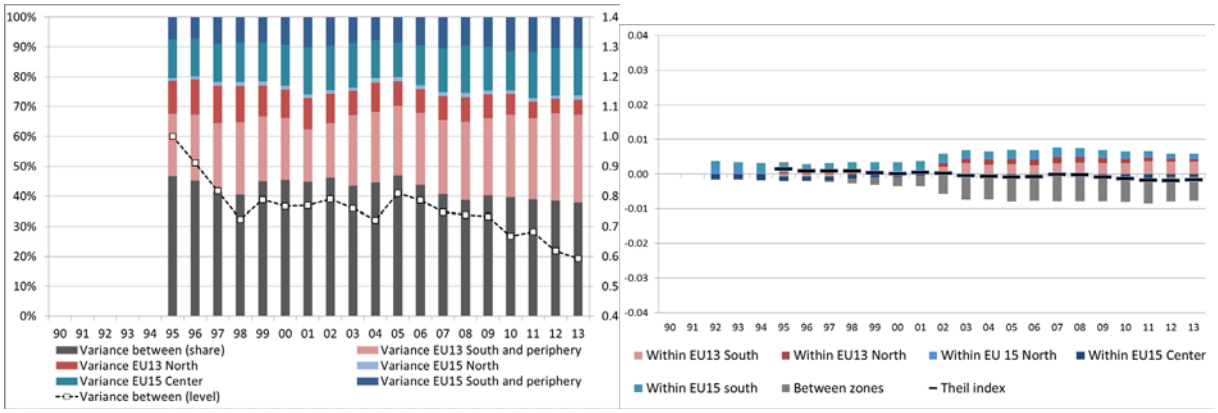
Decomposition of variance **Decomposition of the Theil index**



Source: Eurostat, calculations DG EMPL. *Note*: between and within contributions to total variance are based on uneweighted averages by zone, while the Theil index is based on weighted averages (including the EU-28 weighted average). *Note* : some missing values in the beginning of the period were kept constant for the calculation of dispersion and averages: BG, CY, EE, HR, MT (1995-99), LV (1995-98), LT (1995-97), PL, RO (1995-96), HU, SI (1995), AT (1990-93), DE (1990), EL (1990-97).

Chart 4: Between and within zones contributions to activity rates convergence in EU
(1995–2013)

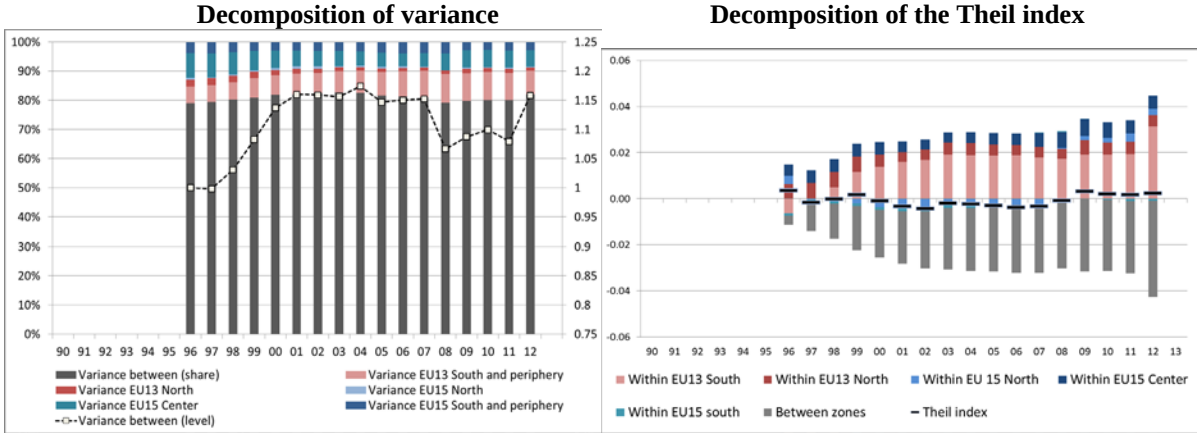
Decomposition of variance **Decomposition of the Theil index**



Source: Eurostat, calculations DG EMPL. *Note*: between and within contributions to total variance are based on unweighted averages by zone, while the Theil index is based on weighted averages (including the EU-28 weighted average). *Note* — some missing values in the beginning of the period were kept constant for the calculation of dispersion and averages: HR (1995-01), BG, CY, MT (1995-99), CZ, EE, LV, LT, SK (1995-97), PL, RO (1995-96), HU, SI (1995), IT (1992), AT (1992-93).

Chart 5: Between and within zones contributions to GHDI convergence in EU
(1995–2013)

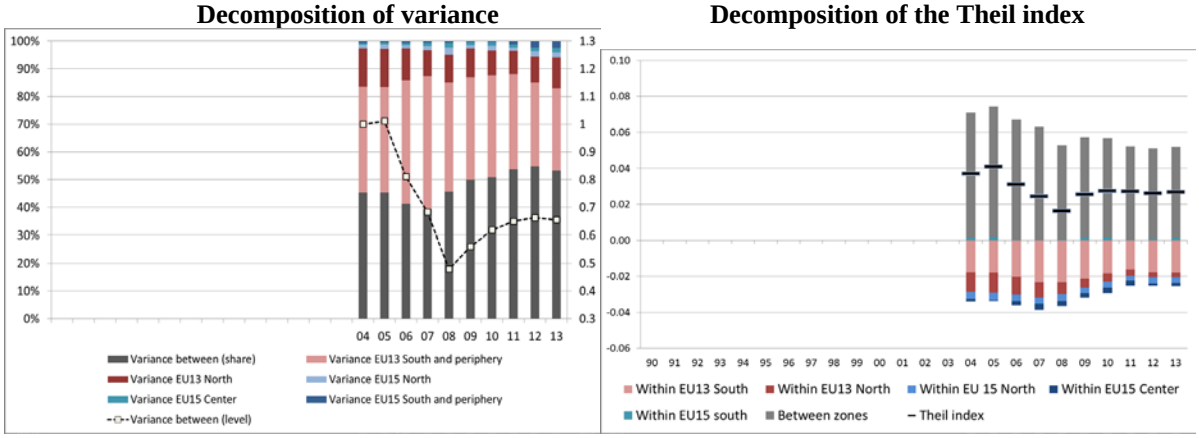
Decomposition of variance **Decomposition of the Theil index**



Source: Eurostat, calculations DG EMPL. *Note*: values in real Euros deflated by HICP ; between and within contributions to total variance are based on unweighted averages by zone, while the Theil index is based on weighted averages (including the EU-28 weighted average). Note — missing data for MT, some missing values in the beginning of the period were kept constant for the calculation of dispersion and averages: LU (1996-2005), BG, HR, IE (1996-01), EL, ES, RO (1996-99).

Chart 6: Between and within zones contributions to AROPE convergence in EU
(1995–2013)

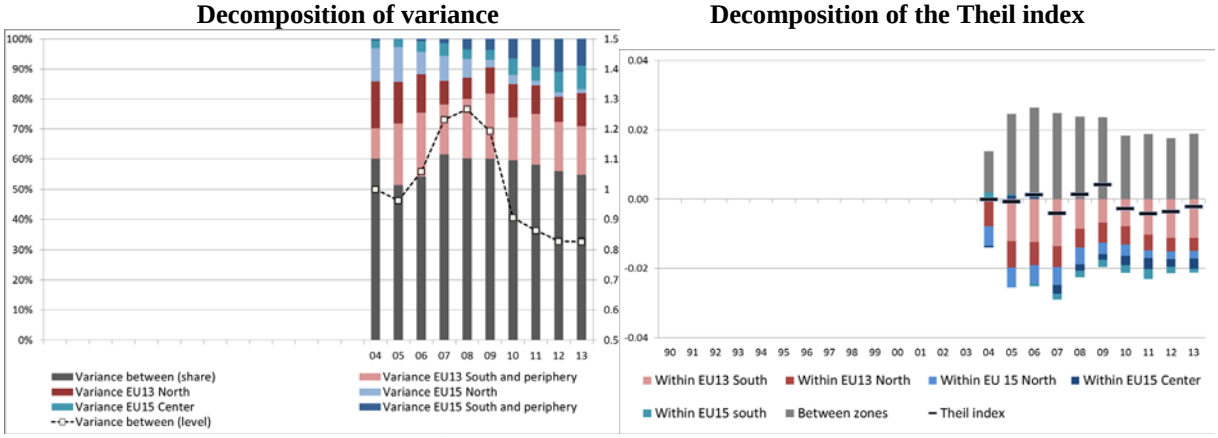
Decomposition of variance **Decomposition of the Theil index**



Source: Eurostat, calculations DG EMPL. *Note*: between and within contributions to total variance are based on uneweighted averages by zone, while the Theil index is based on weighted averages (including the EU-28 weighted average). *Note* — some missing values at the beginning of the period were kept constant for the calculation of dispersion and averages: HR (2004-09), RO (2004-06), BG (2004-05), CZ, DE, CY, LV, LT, HU, MT, NL, PL, SI, SK, UK (2004).

Chart 7: Between and within zones contributions to AROP convergence in EU
(1995–2013)

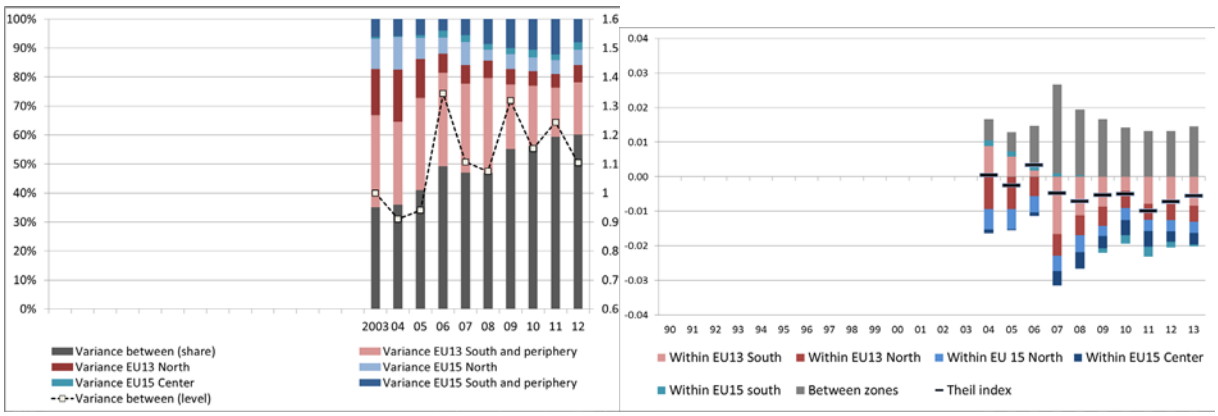
Decomposition of variance **Decomposition of the Theil index**



Source: Eurostat, calculations DG EMPL. *Note*: between and within contributions to total variance are based on unweighted averages by zone, while the Theil index is based on weighted averages (including the EU-28 weighted average). The dates correspond to the dates of the SILC waves which refer to households' incomes on the year before. *Note* — some missing values at the beginning of the period were kept constant for the calculation of dispersion and averages: RO (2005-06), CZ, DE, CY, LV, LT, HU, MT, NL, PL, SI, SK, UK (2004).

Chart 8: Between and within zones contributions to S80/S20 convergence in EU
(1995–2013)

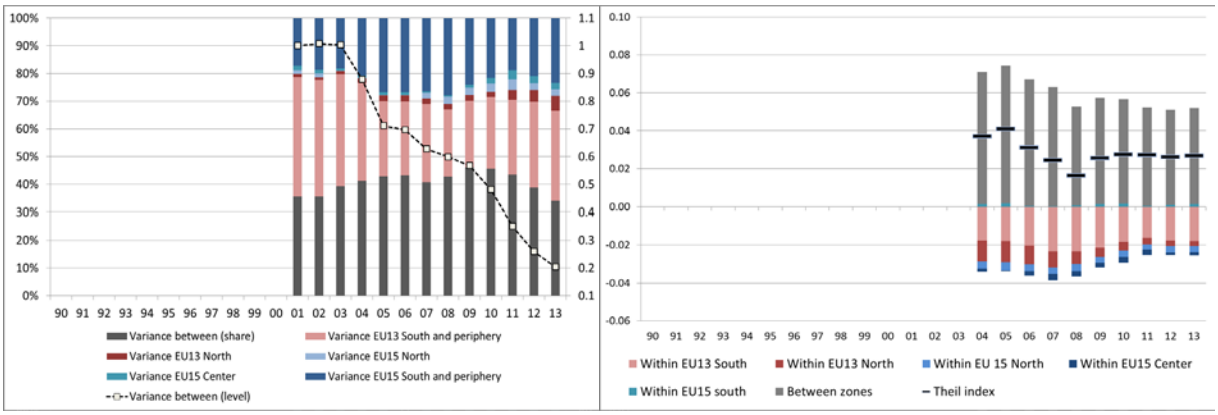
Decomposition of variance **Decomposition of the Theil index**



Source: Eurostat, calculations DG EMPL. *Note*: between and within contributions to total variance are based on unweighted averages by zone, while the Theil index is based on weighted averages (including the EU-28 weighted average). The dates correspond to the dates of the SILC waves which refer to households' incomes on the year before. Note — some missing values at the beginning of the period were kept constant for the calculation of dispersion and averages: CZ, DE, CY, LV, LT, HU, MT, NL, PL, SI, SK, UK (2004).

Chart 9: Between and within zones contributions to Early school leavers convergence in EU (1995–2013)

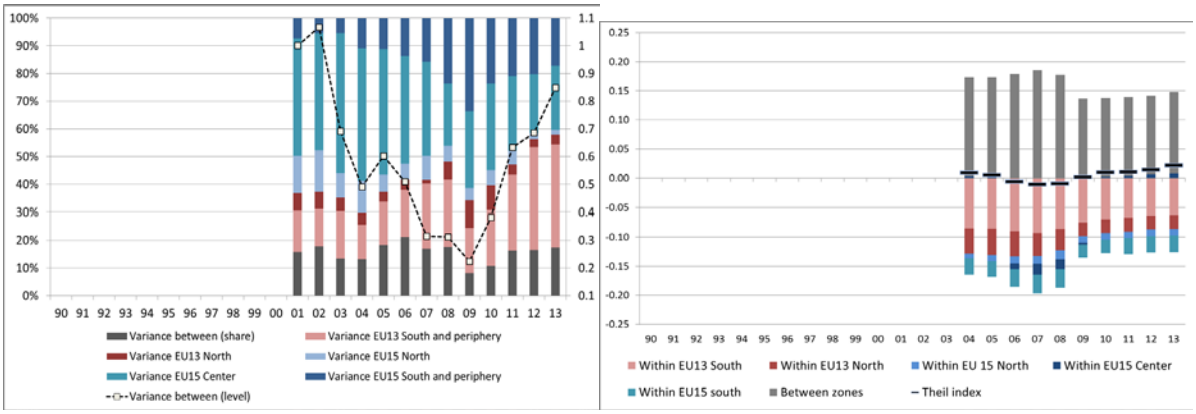
Decomposition of variance **Decomposition of the Theil index**



Source: Eurostat, calculations DG EMPL. *Note*: between and within contributions to total variance are based on unweighted averages by zone, while the Theil index is based on weighted averages (including the EU-28 weighted average). The dates correspond to the dates of the SILC waves which refer to households' incomes on the year before. Note — some missing values at the beginning of the period were kept constant for the calculation of dispersion and averages: CZ , IE, HR, LV, SK(2001) and UK (2003).

Chart 10: Between and within zones contributions to NEETs convergence in EU (1995–2013)

Decomposition of variance **Decomposition of the Theil index**



Source: Eurostat, calculations DG EMPL. Note: between and within contributions to total variance are based on unweighted averages by zone, while the Theil index is based on weighted averages (including the EU-28 weighted average). The dates correspond to the dates of the SILC waves which refer to households' incomes on the year before. Note — some missing values at the beginning of the period were kept constant for the calculation of dispersion and averages:. CZ , IE, HR, LV, SK(2001).