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The EU's response to support the real economy during the economic crisis: an overview of Member States' recovery measures

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European Commission
Directorate-General for Economic and Financial Affairs
Publications
B-1049 Brussels
Belgium
E-mail: mailto:Ecfin-Info@ec.europa.eu

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LIST OF ABBREVIATIONS

ALMP	Active Labour Market Policy
DG ECFIN	Directorate-General Economic and Financial Affairs
DG EMPL	Directorate-General Employment, Social Affaires, and Equal Opportunities
DG ENTR	Directorate-General Enterprise and Industry
DG ENV	Directorate-General Environment
EERP	European Economic Recovery Plan
EIB	European Investment Bank
EMCO	Employment Committee
EPC	Economic Policy Committee
GDP	Gross Domestic Product
NRP	National Reform Programme
PPP	Public Private Partnership
R&D	Research and Development
DG REGIO	Directorate-General Regional Policy
DG RTD	Directorate-General Research
SG	Secretariat-General
SPC	Social Protection Committee
DG TREN	Directorate-General Energy and Transport

List of Member States

BE	Belgium
BG	Bulgaria
CZ	Czech Republic
DK	Denmark
DE	Germany
EE	Estonia
IE	Ireland
EL	Greece
ES	Spain
FR	France
IT	Italy
CY	Cyprus
LV	Latvia
LT	Lithuania
LU	Luxembourg
HU	Hungary
MT	Malta
NL	Netherlands
AT	Austria
PL	Poland
PT	Portugal
RO	Romania
SI	Slovenia
SK	Slovakia
FI	Finland
SE	Sweden
UK	United Kingdom

ABSTRACT

The current financial and economic crisis is the most severe of its kind experienced in several generations. It has impacted the real economy in the European Union through tighter credit conditions, collapsing confidence, and a sharp contraction in global demand and trade. This has led to a slump in investment activity and a sharp drop in output and capacity utilisation, particularly in manufacturing and construction. The depth and global nature of the crisis poses a threat to otherwise viable and competitive businesses. It could lead to massive wasteful labour shedding and the destruction of technological know how and human capital. It could leave the most vulnerable groups of the population particularly exposed. To counter these pernicious effects of the crisis the European Union has taken strong action under the European Economic Recovery Plan (EERP), encompassing financial rescue packages, fiscal stimuli, temporary support to hard-hit sectors, and targeted support to vulnerable groups. This paper provides a preliminary assessment of the adequacy of Member States' recovery plans supporting the real economy—labour markets and vulnerable groups; investment; and businesses (it does not cover financial sector support measures). It looks in particular at the time-consistency of the short-term measures designed to avert major dislocations of economic activity and assesses the compatibility of the short-term crisis response with the European Union's long-term policy objectives under the Lisbon strategy. The main finding is that the European Union's response to the crisis is strong and, at the current juncture, appears adequate and that measures being pursued under Member States' recovery plans are for the most part in line with the principles and guidelines enunciated in the EERP. However, investment support, while including a substantial element on energy efficiency, does not seem to represent a significant push toward the low-carbon economy. There continues to be scope for learning from good practices pursued by several Member States, particularly in the area of labour markets where measures may need to be stepped up, if presently forecast increases in unemployment are confirmed. Business support measures may require closer EU-level co-ordination, particularly where they are targeted at specific sectors. Finally, exit strategies from these measures are mostly missing and should be developed.

Key words: Economic Crisis, Recovery Plan, Labour Market, Investment, Infrastructure, Energy efficiency, Research and Development, Access to finance, Sectoral support, State aid, Automotive, Tourism

JEL classification: E22, E62, E65, H54, O30, O40, O52, O57, Q28, Q48, R40, H81]

1. THE ECONOMIC CRISIS: ITS IMPACT ON MEMBER STATES AND HOW THEY ARE RESPONDING TO IT

1.1. Executive summary

In the face of the deepest, most widespread recession in the post-war era, EU Member States have initiated far reaching policy responses in accordance with the European Economic Recovery Plan (EERP). An overview of the fiscal policy response has recently been provided in Public Finances in EMU 2009. This chapter provides an overview of progress with the implementation of Member States' recovery plans with a special focus on the support they provide to the real economy. The aim is to explore, albeit on a preliminary basis, whether tentative insights can be drawn on progress with overall recovery efforts, as well as future challenges and risks. It also identifies a number of measures which may be of interest to other Member States in designing recovery plans, as well as actions where cross-border spill-overs prevail and where there is hence a potential for gains from close co-ordination at EU level.

The preliminary findings are encouraging. Member States' recovery programmes constitute a robust response to the crisis and are broadly in line with the principles enunciated in the European Economic Recovery Programme (EERP), encompassing financial rescue packages, fiscal stimuli, temporary support to hard-hit sectors and targeted support to vulnerable groups. Most measures seem temporary, targeted and timely, although there are some questions relating to the reversibility of a number of policies. The stimulus package - alongside significant monetary easing and important bank rescue plans - has arguably put a "floor" under the collapse of economic activity in Europe. However, there are some indications that in their recovery efforts, Member States are veering towards "policy reform specialisation", i.e. concentrating on areas where they have been successful with reforms in the past; this risks exacerbating pre-crisis differences in competitiveness positions, yet tackling intra-euro area competitiveness issues has so far received only limited attention in Member States' recovery efforts, even in those euro area countries with large competitiveness problems.

In addition to supporting economic activity in the short-run, the EERP underlined the need for recovery measures to be consistent with longer-term goals of the single market, the Lisbon strategy and the agenda to fight climate change. Again, the preliminary findings are encouraging, in that no major inconsistencies with long-term goals have been identified. While some policies introduced as a temporary response to the crisis have in-built sunset clauses, others have not. This suggests that in the months to come, attention must to be paid to developing longer-term exit/recovery strategies and considering how the crisis could be used as a strategic opportunity to push forward with ambitious reform agendas.

A striking feature of the analysis is that, while all EU Member States share the recession experience, it plays out rather differently across Member States, and is strongly linked to the economic situation pre-dating the onset of the crisis. Countries with poor starting conditions (be it as regards fiscal space, competitiveness positions, or labour market institutions), are being especially hard-hit by the crisis. While the deep recession has forced painful adjustments in the external positions of a number of Member States and is contributing to the unwinding of imbalances across the euro-area and the EU, many of its structural causes remain. The analysis therefore confirms the validity of policy orientations on the importance of sound fiscal policies and ambitious structural reform agendas as enshrined in the Lisbon strategy and the Stability and Growth Pact. The degree of asymmetry underlines the need for country-specific policy responses to the crisis, while at the same time a high degree of co-ordination is needed to help manage potential spillover effects.

As regards progress with recovery measures in specific areas, the following insights can be drawn:

- *Labour market policies in many Member States, notably through innovative short-term working measures and common guidance developed at EU level, have been rather effective at stopping unemployment from shooting up so far. Overall, however, labour market measures only represent a small proportion of the total discretionary fiscal impulse. Given the very sharp projected rise in unemployment, and the huge economic and social costs of long-term unemployment or withdrawal from the labour force, more emphasis is now needed on policies to support the unemployed. There is considerable variation across Member States in the composition of their labour market response by type of measures, and consequently, there seems to be a large scope for policy learning between Member States going forward.*

- *Investment, especially private investment, has been hit especially hard in the current economic climate. It is therefore a welcome finding that new or accelerated spending on public investments forms a significant share (about a third) of the overall fiscal stimulus in line with the EERP. As the focus is mostly on projects already in the pipeline, most actions will support economic activity in 2009 and 2010. Moreover, while there is a degree of focus on energy efficiency, there are few indications of a substantial shift towards green investment at the aggregate level (especially compared to the fiscal stimulus imparted by non-EU countries). Going forward, a key policy issue is* *whether the observed plunge in private investment and R&D spending will be reversed in an upswing, as a failure to do so would be detrimental to potential growth (especially to the objective of closing the productivity gap): for public investment, the key issue is what happens with budgetary consolidation. With this in mind, the success of ongoing efforts by the Commission and the European Investment Bank (EIB) to accelerate the transfer of cohesion funds and to improve the absorption capacity is key.*

- *Most Member States have put in place horizontal frameworks that allow policy support to be given to sectors that are most affected by the crisis (e.g. cars, tourism, construction), and, as a general rule, these seem temporary, targeted and timely. However, there is considerable variation across Member States in terms of the support actually provided. Also, the effectiveness of national schemes for industries operating across the entire internal market could be somewhat limited. Should schemes need to be maintained beyond the year end then there would be a clear case for more co-ordination at the European level. While it is an open question as to how such ex ante co-ordination could be organised, the benefits of proceeding with a common approach under circumstances of an extended crisis can hardly be in doubt. At this juncture, European businesses also face the additional risk of an increase in the recent resurgence of protectionist tendencies globally which are reflected in various types of measures, often below the threshold of being actionable but with the potential of triggering an avalanche of "tit for tat" responses. Ensuring that measures supporting the business environment through the crisis do not contribute to such developments will be crucial. Preventing that remains an important task for monitoring and co-ordination going forward.*

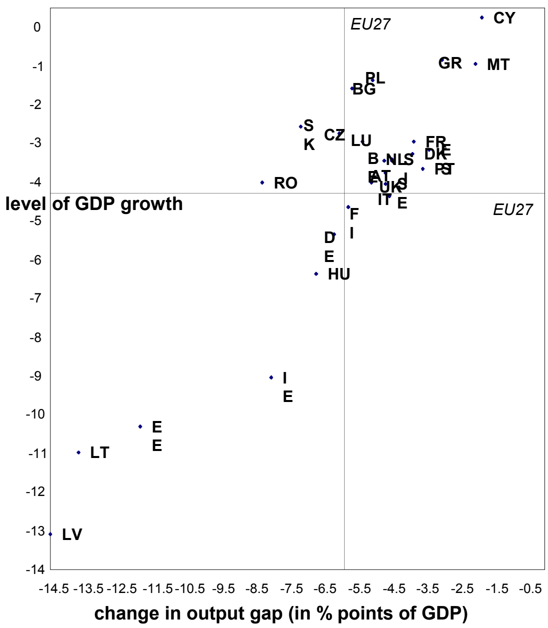
In addition, work on recovery strategies and on the well-timed withdrawal of short-term support should be aimed at raising potential growth which is likely to be subdued coming out of the crisis and at restoring the sustainability of public finances. The most immediate priorities for the banking sector remains recapitalisation and the need to properly sanitise balance sheets, failing which, the recovery is unlikely to be sustainable.

1.2. How the economic crisis and shocks have affected Member States

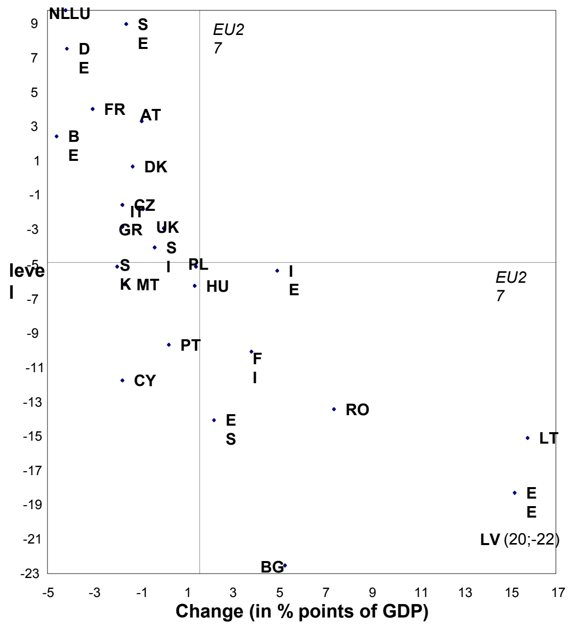
The EU economy is in the midst of its deepest and most widespread recession in the post-war era. The intensification of the financial crisis shock last autumn initiated a broad economic downturn which, in turn, has further weakened the financial sector. The nearly simultaneous collapse in demand in almost all of Europe's major trading partners further aggravated the shock to the real economy and the financial sector, pushing most European economies into a deep recession in the last quarter of 2008. The significant deterioration in economic activity in 2008 was broad based across sectors. GDP is forecast to contract by 4% in both the EU and the euro area in 2009 with a recovery projected in the second half of 2010. Substantial uncertainties regarding the economic situation and outlook prevail, and the main risk of a worse-than expected outlook comes from the potential for further negative feedback loops from the real economy (especially increases in mortgage defaults and corporate bankruptcies) to still precarious financial institutions, a development which could reinforce the deleveraging process and push the projected recovery in the real economy even further into the future. On the other hand, turning points are notoriously difficult to detect, and soft data have recently begun to improve, albeit from historic lows.

Figure 1: Some features of the economic crisis I

GDP growth level in 2009 and change in output gap 2008-09[1]



Current account (% GDP), levels in 2007 and forecast change 2007-10



Source: Commission Services

While all EU Member States share the recession experience, it nevertheless plays out differently across Member States implying that the way forward will be differentiated (see Table 1 for a synthetic overview). Whilst the primary triggers for crisis are common and affected all Member States, the variable impact on Member States' economies is owed to several factors, including differences in the size to the size and health of the financial sector, as well as their exposure to global markets.

[1] The output gap measures the difference between potential and actual GDP levels. Changes in the output gap give an indication of the *abruptness* of the crisis.

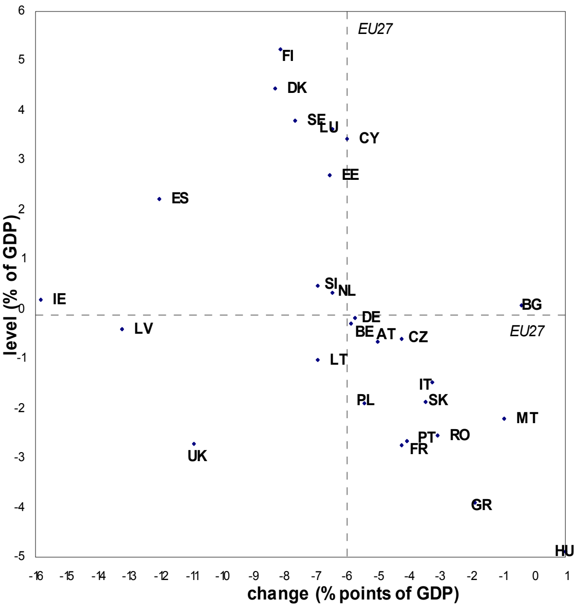
Table 1: Selected indicators on the size and impact of the economic crisis in EU27 Member States

	Selected indicators illustrating the impact of the crises in:										Manifested in:					
	Overall depth of crises			Risk exposure of industrial sectors			Labour markets			Private sector consumption	Public finance sustainability			Competitiveness issues, long term		
	GDP growth 2009	GDP growth 2009 - GDP growth 2008	Change in output gap 2008-2009	Fall in industry production index (09m2/08m2)	Export growth 2009-export growth 2008	Private sector GFCF growth 2009- p.s. GFCF growth 2008 At current prices	Change unemployment rate 2008-2010 [1]	Employment growth, accumulated 2009-10 [1]	Unemployment rate 2010 [1]	Private consumption growth 2009 - p.c. growth 2008	Budget balance, 2010- budget balance 2008 [1]	Government debt ratio, 2010 [1]	Budget balance 2010[1]	Current Account balance, % of GDP, 2009	Real effective exchange rates growth accumulated 2008-2009	
AT	-4,0	-5,8	-5,1	-14,6	-12,9	-16,5	3,3	-3,6	7,1	-0,8	-4,9	75,2	-5,3	2,7	2,0	**AT**
BE	-3,5	-4,7	-4,5	-19,0	-15,2	-13,8	3,3	-2,7	10,3	-1,7	-4,9	100,9	-6,1	-2,0	4,6	**BE**
BG	-1,6	-7,6	-5,6	-17,4	-14,0	-48,9	2,2	-3,2	7,8	-5,1	-1,8	17,3	-0,3	-18,8	18,3	**BG**
CY	0,3	-3,4	-1,9	-5,1	-7,3	-13,7	2,2	-0,3	6,0	-6,0	-3,5	47,9	-2,6	-13,9	5,4	**CY**
CZ	-2,7	-5,9	-6,0	-20,3	-18,5	-10,5	3,0	-3,0	7,4	-2,7	-3,4	37,9	-4,9	-3,2	8,0	**CZ**
DE	-5,4	-6,7	-6,2	-20.58	-18,8	-16,9	3,1	-3,7	10,4	-0,4	-5,8	78,7	-5,9	3,6	3,2	**DE**
DK	-3,3	-2,2	-3,9	-11.83	-12,9	-9,2	3,3	-4,2	6,6	-1,5	-7,5	33,7	-3,9	0,4	8,7	**DK**
EE	-10,3	-6,7	-11,8	-30.22	-13,0	-18,9	8,6	-10,6	14,1	-5,2	-0,9	7,8	-3,9	-1,1	18,2	**EE**
ES	-3,2	-4,4	-3,4	-22.00	-10,9	-19,4	9,2	-8,0	20,5	-3,2	-6,0	62,3	-9,8	-6,9	1,2	**ES**
FI	-4,7	-5,6	-5,8	-19.91	-17,2	-16,1	2,9	-3,7	9,3	-3,4	-7,1	45,7	-2,9	1,4	8,5	**FI**
FR	-3,0	-3,7	-3,9	-16.26	-12,9	-12,2	2,9	-3,4	10,7	-1,2	-3,6	86,0	-7,0	-4,3	0,9	**FR**
GR	-0,9	-3,8	-3,0	-4,9	-9,5	6,3	2,0	-1,2	9,7	-1,8	-0,7	108,0	-5,7	-11,5	6,1	**GR**
HU	-6,3	-6,8	-6,7	-25.45	-16,5	-14,2	3,4	-5,0	11,2	-5,9	-0,5	82,3	-3,9	-5,0	-8,6	**HU**
IE	-9,0	-6,7	-8,0	n.a	-8,5	-4,1	9,7	-13,0	16,0	-7,1	-8,5	79,7	-15,6	-1,8	1,0	**IE**
IT	-4,4	-3,4	-4,5	-20.71	-11,9	-17,0	2,6	-3,9	9,4	-0,8	-2,1	116,1	-4,8	-2,6	3,4	**IT**
LT	-11,0	-14,0	-13,7	-12.36	-26,4	-30,9	10,1	-10,1	15,9	-22,2	-4,8	31,9	-8,0	-1,9	-1,1	**LT**
LU	-3,0	-2,1	-5,4	n.a	-6,6	-14,2	2,1	-0,3	7,0	-0,6	-5,4	16,4	-2,8	6,1	n.a	**LU**
LV	-13,1	-8,5	-14,5	-24.16	-11,6	-31,1	8,5	-12,2	16,0	-11,0	-9,6	50,1	-13,6	-1,5	13,6	**LV**
MT	-0,9	-2,5	-2,0	n.a	6,2	11,4	1,7	-0,3	7,6	-3,3	1,5	68,9	-3,2	-7,6	1,0	**MT**
NL	-3,5	-5,6	-4,7	-5,9	-13,3	-16,7	3,4	-3,8	6,2	-1,8	-7,1	63,1	-6,1	5,7	6,4	**NL**
PL	-1,4	-6,2	-5,1	-12.36	-16,8	-18,8	5,0	-3,7	12,1	-4,7	-3,4	59,7	-7,3	-4,7	-7,9	**PL**
PT	-3,7	-3,7	-3,6	-15.59	-11,2	-19,8	2,1	-2,0	9,8	-2,9	-4,1	81,5	-6,7	-9,8	1,6	**PT**
RO	-4,0	-11,1	-8,3	-13,9	-36,3	-41,7	1,9	-1,6	7,7	-12,8	-0,2	22,7	-5,6	-7,4	-3,2	**RO**
SE	-4,0	-3,8	-4,7	-20.28	-11,1	-23,5	4,2	-4,7	10,4	-2,8	-6,4	47,2	-3,9	7,0	-13,6	**SE**
SI	-3,4	-6,9	-4,5	-21,2	-15,1	-25,3	3,0	-5,3	7,4	-2,6	-5,6	34,9	-6,5	-4,6	3,9	**SI**
SK	-2,6	-9,0	-7,2	-27,4	-13,4	-13,1	2,6	-1,3	12,1	-5,6	-3,2	36,3	-5,4	-7,5	18,9	**SK**
UK	-3,8	-4,5	-4,7	-13.90	-10,6	-7,8	3,8	-3,3	9,4	-4,8	-8,3	81,7	-13,8	-2,8	-27,2	**UK**

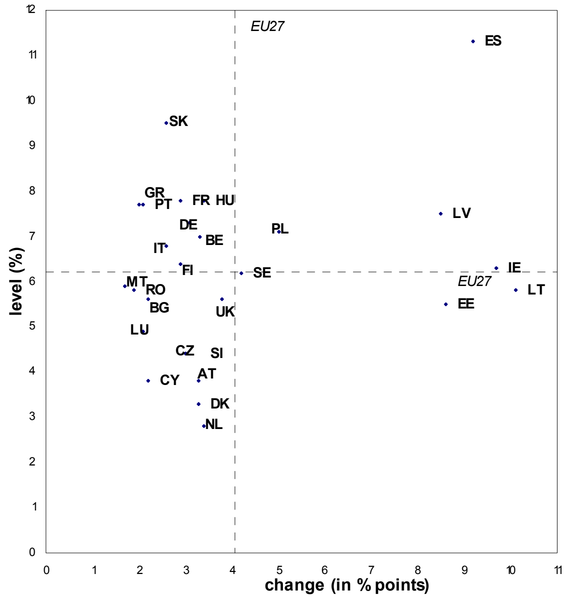
Notes: 1) 2010 projections are based on the assumption of unchanged policy. They include only measures adopted at the time of the finalisation of the Commission Spring forecast published on 4th May 2009.
Source: Commission services.

Figure 2: Some features of the economic crisis II

Budget balance, % of GDP, levels in 2007 and change 2007-10



Unemployment rate, levels in 2008 and forecast change 2008-10



Source: Commission Services

The differential impact is also strongly linked to weaknesses that pre-date the onset of the crisis. Some EU Member States faced significant imbalances that are being unwound abruptly as a result of the crisis, thereby further aggravating its impact. Housing markets were overvalued in several EU Member States, including the UK, Spain, Ireland and a few Eastern European countries[2]. In some cases, insufficient domestic savings also played a role, leading to excessive current account deficits that are now set to be corrected (see figure 1). Linked to this, other countries also face deteriorating external financing conditions, with financial markets for example displaying increased concern about some economies following the build-up of imbalances and vulnerabilities. Overall, these developments suggest that countries with poor starting conditions (be it as regards fiscal space, competitiveness positions, or labour market institutions), and which failed to use the opportunity to tackle underlying structural problems in 'good times' in accordance with policy orientations in the SGP and the Lisbon strategy, are being hit especially hard by the crisis. The considerable degree of asymmetry underlines the need for country-specific policy responses to the crisis, while at the same time a greater degree of co-ordination is necessary to help better manage potential spillover effects.

1.3. An overview of policy responses to the economic crisis

Member States, the European Union, and central banks have taken very significant policy action in the face of a crisis of unprecedented severity. The December European Council endorsed the Commission's proposal for a co-ordinated European response framed in the EERP The Spring European Council reported on the implementation of the EERP and agreed that Member States' recovery programmes are broadly in line with the principles enunciated in the European Economic Recovery Programme, encompassing financial rescue packages, fiscal stimuli, temporary support to hard-hit sectors, targeted support to vulnerable groups. Table 2 provides a synthetic overview of measures undertake in EU Members.

Regarding financial markets, EU policymakers have responded aggressively to the crisis in the banking system, particularly since October 2008. In addition to the various central bank measures to sustain liquidity, Member State governments have intervened heavily to support banks experiencing financial stress. Such interventions have mainly taken the form of re-capitalisation using public

[2] However, some correction has taken place in most EU countries and to a greater extent in those where the housing price shock was more pronounced.

funds, government guarantees on bank borrowing and, more recently, relief measures for impaired assets. The unprecedented scale of government intervention in the banking system has been justified by an enduring threat to financial stability and the need to underpin the flow of credit to the real economy. Nevertheless, the potential for such large-scale intervention to distort competition within the Internal Market and to create moral hazard cannot be ignored. EU state-aid rules have provided an important framework for ensuring a minimum level of consistency, while taking account of the exceptional circumstances created by the ongoing crisis, and the Commission has provided extensive guidance on the design and implementation of all state-aid measures in favour of banks.[3] The most acute phase of the crisis in the banking sector has now receded, but the situation remains very fragile. EU banks are still highly leveraged and persistent worries about the quality of their assets have fuelled concerns about the overall health of their balance sheets. Additional problems for banks have emerged as the financial crisis has extended to the real economy.

Regarding macroeconomic policy, there has been a very significant stimulus including monetary policy. The ECB and other European central banks have brought policy rates down to unprecedented lows and many central banks have also engaged in unconventional direct operations in financial markets, thereby providing very significant liquidity.

Regarding fiscal policy, the total EU-wide stimulus package is sizeable with the total fiscal impulse amounting to some 1.8%. Moreover, the size of fiscal stimuli has varied considerably across Member States according to the EERP, i.e. depending on the degree of fiscal space available and external competitive positions. Most measures seem temporary, targeted and timely, although there are some significant questions relating to the reversibility of a number of policies where this may be crucial for their effectiveness. The EERP measures are estimated to contribute some 1% to GDP in 2009. With growth forecast to return in the second half of 2010 and public finances in dire straits, the relatively small impulse presently planned for 2010 seems appropriate.

[3] See Communication from the Commission – *The application of State aid rules to measures taken in relation to financial institutions in the context of the current global financial crisis*, OJ C 270, 25.10.2008, p. 8 ("the Banking Communication"; Communication from the Commission – *The recapitalisation of financial institutions in the current financial crisis: limitation of aid to the minimum necessary and safeguards against undue distortions of competition*, OJ C 10, 15.01.2009, p. 2 ("the Recapitalisation Communication"); Communication from the Commission on the *Treatment of Impaired assets in the Community Banking Sector*, OJ 72, 26.03.2009 ("the Impaired Assets Communication"). For an overview of the Commission's decision-making practice, see State aid Scoreboard – Spring 2009 Update, Special edition on State aid interventions in the current financial and economic crisis, COM(2009) 164, 08.04.2009.

Table 2: Overview of policy responses to the economic crisis in EU Member States

	Financial sector[1]			Fiscal policy[2]						Real economy											
										Labour Market [3]				*Investment*			*Business support*				
					Discretionary stimulus (aggregate over 2009-10)												Sectoral support				
	Guarantees	Recapitalisation	Total stabilisation	Change in fiscal balance (aggregate over 2008-10)	overall	measures aimed at households	increased spending on labour market	measures aimed at businesses	increased investment expenditure	Encouraging flexible working time	Supporting employment by cutting labour costs	Retraining and activation	Supporting households purchasing power	Energy Efficiency	Physical infrastructure	R&D & innovation				Easing access to finance	
	bn €	bn €	% GDP	p.p. change	% GDP	% GDP	% GDP	% GDP	% GDP								automotive	tourism	construction		
BE	300	16.2	>10%	-4,9	1,8	0,9	0,5	0,1	0,3		✓		✓✓	✓	✓				✓	✓✓	**BE**
BG				-1,9	0,1	0,0	0,0	0,0	0,1		✓	✓✓								✓	**BG**
CZ				-3,4	2,2	0,1	1,1	0,5	0,5	✓		✓		✓	✓		✓	✓		✓✓	**CZ**
DK	0	13.5	5-10%	-7,5	1,5	0,0	1,0	0,1	0,4		✓✓	✓			✓					✓	**DK**
DE	449.8	106.6	5-10%	-5,8	3,6	1,5	0,5	0,8	0,9	✓✓	✓	✓✓	✓✓	✓✓	✓	✓✓	✓✓			✓✓	**DE**
EE				-0,9	0,6	0,0	0,5	0,0	0,1					✓✓						✓	**EE**
IE	400	8.5	>10%	-8,5	1,4	0,8	0,2	0,4	0,0			✓✓		✓					✓	✓	**IE**
EL	15	5	1-5%	-0,8	0,3	0,3	0,0	0,0	0,0			✓	✓					✓		✓	**EL**
ES	200	0	1-5%	-6,0	4,0	1,6	0,1	1,4	0,9		✓	✓	✓✓	✓	✓	✓	✓✓		✓	✓✓	**ES**
FR	320	43	1-5%	-3,6	1,0	0,2	0,1	0,4	0,3		✓	✓✓		✓	✓	✓	✓✓		✓	✓✓	**FR**
IT	0	20	1-5%	-2,1	1,2	0,2	0,4	0,5	0,1								✓✓			✓	**IT**
CY				-3,5	1,8	0,0	0,0	0,0	1,8						✓		✓	✓	✓		**CY**
LV	1.25	0	1-5%	-9,7	0,9	0,6	0,0	0,3	0,1				✓✓							✓✓	**LV**
LT				-4,7	0,0	0,0	0,0	0,0	n.a.			✓✓		✓						✓	**LT**
LU	0	2.876	5-10%	-5,4	n.a.	n.a.	n.a.	n.a.	1,7					✓	✓		✓			✓	**LU**
HU	5.2	1	1-5%	-0,5	0,0	0,0	0,0	0,0	n.a.			✓	✓							✓	**HU**
MT				1,5	1,2	0,4	0,0	0,2	0,6					✓	✓			✓			**MT**
NL	200	36.8	>10%	-7,1	1,6	0,4	0,2	0,5	0,5	✓	✓✓	✓		✓	✓	✓	✓			✓✓	**NL**
AT	75	15	5-10%	-5,2	3,5	2,6	0,2	0,2	0,5	✓			✓	✓✓	✓		✓			✓✓	**AT**
PL				-3,4	2,8	1,2	0,0	0,4	1,2					✓	✓		✓			✓	**PL**
PT	20	4	1-5%	-4,0	1,3	0,4	0,2	0,4	0,3				✓	✓✓	✓		✓	✓		✓✓	**PT**
RO				-0,2	0,3	0,1	0,0	0,2	n.a.		✓						✓			✓✓	**RO**
SI	12	0		-5,5	2,2	0,0	0,8	0,2	1,2	✓		✓			✓	✓				✓✓	**SI**
SK				-3,2	1,2	0,6	0,2	0,2	0,2	✓		✓✓		✓			✓	✓		✓✓	**SK**
FI	50	0	1-5%	-7,1	3,8	2,6	0,0	0,7	0,4			✓✓		✓	✓				✓	✓	**FI**
SE	150	4.8	5-10%	-6,4	3,2	0,4	1,8	0,4	0,6		✓✓	✓		✓	✓	✓	✓			✓	**SE**
UK	286	63	5-10%	-8,2	2,6	1,7	0,3	0,4	0,2			✓✓	✓✓	✓	✓		✓		✓	✓✓	**UK**

[1] ECFIN/C4/REP/51326 18 March 2009 - Bank support measures and recent developments in financial markets (note for the EFC), p. 4.
[2] Figures from Table 3 of the country fiches of May 2009
[3] ECFIN/B3/GC-FP/D(2009) REP/51628 6 April 2009 – First preliminary assessment of employment and social policies to soften the impact of the crisis (note for the EPC), p. 9.

✓✓ = highly significant measures taken	✓ = somewhat significant measures taken

However, the fiscal cost of the crisis is high and there is a very strong deterioration in public finances in the EU: the average deficit is likely to amount to 6% in 2009 and debt levels are approaching 80% in 2010, up more than 20%-points of GDP in just three years[4] (see figure 2). The sharp deterioration in public finance positions is raising concerns on the sustainability of public finances in some Member States, and more generally its effectiveness is being affected by perceptions of inter-temporal inconsistency. As fiscal space has largely been eroded, more attention now needs to be paid to the cost effectiveness of recovery measures, and the margins for policy action will increasingly lie with measures that have no budgetary costs.

Regarding ***structural stimuli*** for the real economy the EERP called for priority to be given to those reforms which, although mostly aiming to raise growth and jobs potential in the longer run, could support aggregate demand, employment and/or household income in the short-run during the crisis period, whilst at the same time improving adjustment capacity to enable a faster recovery when conditions improve. The EERP also called for these measures to be consistent with long-term public policy objectives such as those found in the Lisbon strategy, the smooth functioning of the single market, and facilitating a move towards a low-carbon economy. A more detailed assessment of progress is found in the sections below. They show that Member States are indeed undertaking policy responses in line with EERP suggestions, and that for the most part these are targeted and timely, and thus can be expected to support the economy in 2009 and 2010. Moreover, very few measures that manifestly deviate from these principles have been identified in recovery plans. However, vigilance is required going forward as much will depend on implementation on the ground. Moreover, it will be crucial to ensure that measures that were introduced to cope with the temporary drop in aggregate demand are indeed reversed when the economy improves, as a failure to do so could have negative repercussions for the efficient allocation of resources and the level playing field in the single market. While some policies have in-built sunset clauses, others have not and the political economy challenges of "reversing" temporary measures against what will still be a poor economic background should not be underestimated.

The EU is making an important contribution to the overall crisis response. Through coordinating the national policy responses at the European level, their effectiveness and efficiency are being enhanced. Furthermore, the EU is making available € 30 billion or 0.3% of GDP including a number of new public private partnerships to support people and the real economy during the crisis. The EU has simplified access to the European Social Fund and the EIB in particular has mobilised its resources to provide timely support, in particular to SMEs, taking the form of additional annual lending of € 15 billion per year in 2009 and 2010. Since the EIB announced the substantial increase in lending for low-carbon and energy saving infrastructure projects, it has been experiencing high subscription rates of projects. 24 projects to construct or operate renewable energy or high energy-efficient power plants benefitted from EIB loans amounting to €2.9 bn in 2008-2009, of which €1.5 bn were approved since the tightening of credit conditions occurred[5].

Relatively little thought has been given to developing longer-term exit/recovery strategies or considering how the crisis could be a strategic opportunity to push forward with ambitious reform agendas. As the deterioration in economic growth bottoms out, and fiscal space diminishes, the emphasis in policy agenda needs to switch accordingly. For example, there are very few measures aimed at improving the sustainability of public finances (e.g. through reinforcing medium-term budgetary frameworks) implying that work on the definition of exit strategies will now have to undertaken urgently.

1.4. A closer look at policy responses on the labour market

The financial crisis and the ensuing global downturn have begun to impact significantly on labour markets. Unemployment is now rising strongly. Projections indicate that employment will decline in absolute terms over the next two years leading to a steep rise in unemployment, which, on unchanged policies and labour market behaviour, is set to exceed 10% in 2010. Moreover, access to credit for individuals has become difficult and private pension funds are under severe strain as a result of the collapse of capital markets.

However, on a more positive note, in a number of European countries, job losses have been contained so far, largely due to recourse to increased internal flexibility in the form of shorter hours or partial unemployment benefits. This appears to have prevented more significant labour shedding, in particular in manufacturing. The in-built capacities of the social safety nets are also fully playing their role as automatic stabilisers to cushion the impact of the economic downturn. In addition, Member States are pursuing a wide range of employment policies aimed at containing the impact of the crisis on labour markets. Table 4 provides an overview of the employment and social policy measures being implemented by Member States in response to the current slowdown.

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4 See Public finances in EMU – June 2009, European Economy 5, Brussels http://ec.europa.eu/economy_finance/publications/publication_summary15289_en.htm

5 Estimates based on Commission services' calculations and analysis by JRC-IPTS

A broad consensus exists at EU level on "policy do's and don'ts" to fight unemployment in the crisis. Past experience and empirical evidence suggest that a set of overarching principles should be considered when selecting appropriate labour market measures aimed at mitigating the crisis impact and shaping a sustainable recovery. In particular:

- measures should aim at reducing the costs of adjustment and speed up transitions on the labour market;
- policies should be in synergy with the social policy goal of supporting the income of the most disadvantaged groups of the population, which in itself will assist with stimulating aggregate demand given the relatively high marginal propensity to consume out of these incomes;
- short-term measures should be time-consistent with long-term reform objectives: policies to address the crisis should not run counter to long-term reform strategies, notably the implementation of the flexicurity principles under the Lisbon Strategy;
- especially in euro area countries, these policies should also facilitate structural adjustment, in particular with regard to addressing significant divergences in external competiveness, through their impact on unit labour costs.

Policy do's and don'ts

The above mentioned guiding principles have been largely endorsed by the EU. As stressed in the Commission Communication for the Spring European Council ("Driving European recovery")[6]*, in designing appropriate and effective measures along these broad policy guidelines, Member States should focus on the following* ***policy do's and don'ts****:*

Keeping people in employment*, notably by providing financial support to temporary flexible working-time arrangements. Temporary adjustment of working hours ("short-time") in line with production needs can be an important source of labour input flexibility. Such action needs to be combined with measures supporting employability and guiding people towards new jobs, empowering workers to take advantage of new opportunities when the economy recovers. These measures need to be coordinated to avoid negative spill-overs in other Member States.*

Reinforcing activation and providing adequate income support *for those most affected by the economic slowdown, making full use of social protection benefits, in line with the flexicurity approach. In those countries where unemployment insurance is strictly limited in time, consideration should be given to its temporary expansion and/or a reinforcement of minimum income provisions. Back to work incentives should be kept intact, and vulnerable groups supported in line with the active inclusion strategy.*

Investing in re-training and skills upgrading *particularly for workers on short time and in sectors that are declining. Preference should be given to training targeted at future labour market needs, such as green jobs. Anticipation of future skills needs should therefore be promoted. Employment Services should be enhanced to cope with increased unemployment.*

Mitigating the direct impact of the financial crisis on individuals *through specific measures to prevent over-indebtedness and maintain access to financial services. In countries with larger pre-funded schemes in their pension systems, the recovery of pension funds will be essential to protect the current and future income of pensioners.*

[6] Commission Communication for the Spring European Council, "Driving European recovery", COM(2009)114.

Ensuring the free movement of workers *within the Single Market which will be the source of new opportunities. It can help address the persistence of mismatches between skills and labour market needs, even during the downturn.*

Considering ***supporting measures*** *such as lowering non-wage costs for low-skilled workers. Wage developments and fiscal measures should take account of each Member State's competitive position and productivity growth.*

Providing sufficient support to tackle ***youth unemployment*** *and early school leavers. Time spent out of education or employment while young can have lasting effects. Member States should prepare for and encourage an increase in demand for* ***education and training,*** *as existing students stay on and displaced workers seek to re-skill. In this respect, future labour market growth areas such as 'green jobs' can already be anticipated.*

Integrating measures aimed at revising employment protection legislation within a flexicurity approach covering all its components, so as to reduce segmentation and improve the functioning of labour markets.

In line with the principle of devising measures that are time-consistent, that is, do not hamper the adjustment capacity of labour markets or put the brake on recovery, and therefore do not need to be reverted or repealed when the recovery starts, the following measures should be avoided. In particular,

Indiscriminate, tax-funded support for jobs in declining industries or regions should be avoided*, as they could reduce economic efficiency/ delay necessary restructuring.*

Direct job-creation schemes *such as in the public sector, outside of planned and needed staffing improvements in education, health and the social services****, should not be resorted to on a large scale*** *since these could artificially inflate the public sector. These schemes could provide useful if well targeted at specific vulnerable groups to help them keep in touch with the labour market.*

Policies that facilitate economic restructuring by pushing workers in declining sectors out of the labour market through ***early retirement need to be avoided*** *because of their negative effects on economic efficiency and distribution over the medium term. Enabling older workers to remain active is important to support the economic recovery and to preserve the long-term sustainability of public finances.*

Measures aimed at revising employment protection legislation *must be conducted within an integrated flexicurity approach covering all its components so as to reduce labour market segmentation and improve labour market functioning.*

Overall Member States have put significant emphasis on employment in designing their recovery packages (see tables 2 and 3): measures to support a proper functioning of the labour market and supporting household purchasing power represent almost half of the recovery measures undertaken by Member State. They represent a smaller share of the total fiscal stimulus but, nevertheless, overall considerable budgets are being allocated to supporting employment.

There is considerable variation across Member States in the composition of their labour market response by type of measures, and consequently, there seems to be a large scope for policy learning between Member States. About a quarter of the measures are likely to generate quite considerable spillovers into other Member States. This concerns policies aimed at e.g. reducing social security contributions and, in particular, subsidies to working time flexibility (e.g. through part time unemployment support). Especially in the latter case, there may be a need for stronger EU-level co-ordination to avoid competitive distortions in the internal market.

Assessed individually on a measure- by- measure basis, most measures seem compatible with the agreed principles (see table 4). The majority of measures seem to address the specific policy objective they pursue in a rather ambitious manner, although there are a considerable number of measures which could be made more effective by rendering them more comprehensive. There is also a considerable degree of targeting of measures on labour market categories that need support most (low income groups; recently laid-off workers). Short term policies also seem to be contributing to long term reform challenges with some 40% of the measures addressing Country Specific Recommendations or Key Challenges identified under the Lisbon Strategy.

There are a few measures that may risk undermining long-term policy goals or might be difficult to reverse. This concerns in particular large scale public job creation schemes. Other measures, such as fiscal support for overtime could be undesirable in the short term, since they could negatively affect job creation during the recession. Also, some 10% of the measures are likely to have permanent adverse effects on public finances. These measures should be reviewed and, where necessary, amended. Unfortunately, there seem to be very few measures aimed at improving the efficiency of welfare systems; thus, the reforms do not seem to directly contribute much to improving the sustainability of public finances. In addition, many measures tend to focus on insiders with secure jobs, but there is not much action in terms of measures for outsiders (e.g. migrants, youth unemployed) who are probably most at risk of hysteresis. *About* a quarter of the measures are likely to generate **sometimes considerable spill-overs on other Member States**. This concerns policies aimed at e.g. reducing social security contributions and, in particular, subsidies to working time flexibility (e.g. through part time unemployment support). Especially in the latter case, there may be a **need for stronger EU-level co-ordination** to avoid competitive distortions in the internal market.

On current trends, policies towards the labour market would need to be intensified to avoid a very sharp rise in unemployment in the second half of 2009 and, especially, in 2010. A number of Member States have undertaken very few labour market measures, and here policy action should be strengthened. Labour market measures represent a small proportion of the total discretionary fiscal impulse and can be rather cost-effective in the present circumstances.

1.5. A closer look at policy measures to support investment and R&D

Investment, especially private investment, has been hit hard in the current economic climate, as businesses and consumers are forced to scale down their investment plans in the face of tighter credit conditions, collapsing confidence, less favourable market conditions and considerable uncertainty surrounding future developments. The recent Commission forecast shows a two-digit decline in investment growth in the current year. The focus on investment, especially public investment, is justified both by short- and longer-term considerations. More specifically: economic analysis suggests that there are relatively large multiplier effects associated with increased public investment in fiscal stimulus packages when the economic environment is characterised by low aggregate demand and credit-constrained economic agents. Multipliers obtained in simulations with ECFIN's QUEST model also show that measures boosting investments are the only ones to have a positive impact on growth in the long-run (through accumulation of capital) as the effect of all the other fiscal measures is only temporary and limited to the period of the fiscal expansion itself**.** In addition to bolstering aggregate demand, additional public investment can also generate potentially large employment benefits compared with other stimulus measures, especially if it helps redeploy labour previously engaged in residential construction (which has been particularly hard hit and which in some countries may necessitate an eventual downsizing of the sector). Over the longer-run, higher public investment in recovery measures can remove various bottlenecks to growth, thus enabling a faster recovery when conditions improve. A key question is whether the impact of the crisis on private investment is cyclical in nature (and thus would be expected to rebound in line with the economic cycle), as a sustained fall in private investment would have implications for future potential growth rates, especially if this is compounded by future reductions in public investment in light of budgetary consolidation needs. An additional consideration is the possibility to use recovery measures targeted at investment and R&D to bolster efforts to reach other public policy goals, notably related to climate change.

New or accelerated spending on public investments forms a significant share (about a third or €65 billion) of fiscal stimuli in line with the EERP (0.32% of EU GDP in 2009 and 0.20% in 2010) over the current and next year (respectively €32 bn for physical infrastructure, €20 bn for energy efficiency and €5 bn for R&D), see table 5. The prominence attached to public investment in recovery efforts varies considerably across Member States, with the largest increases in spending as percentage points of GDP observed in DE, CY, ES, MT, NL, RO, SI and PL. A number of catching-up countries (BG, EE, EL, LV, LT) were not in a position to use fiscal stimulus as the main means to support investment, as these Member States face a lack of fiscal space and large external imbalances.

Recovery measures to support investment are broadly in line with the approach advocated in the EERP, see table 6. This is particularly true for measures to support investment in energy efficiency. In this area, Member States have widened the range of economic incentives and stepped up the associated budgetary commitment. Moreover there are signs that markets will be able to absorb this fiscal stimulus in the short term. In the area of physical infrastructure, the focus on measures already in the planning pipeline (more than one third of the measures are derived from the 2008 NRP and nearly a further 30% of the measures are frontloading of programmed projects), and the fact that a large share of projects involves the maintenance of existing infrastructure rather than new investments suggest that the majority of measures are designed to have an impact in 2009 and 2010. Nevertheless, implementation delays could put at risk the effectiveness of the measures in the short term.

Table 3: Overview of recovery measures to support the labour market in EU Member States' recovery plans

	Measures supporting the labour market and purchasing power of households											
	Total number of measures supporting the labour market and purchasing power of households	Fiscal stimulus (% of GDP)		Encouraging flexible working time	Improving job placement and investing in re-training and life-long learning	Reinforcing activation	Supporting employment by cutting labour costs	Reinforcing social protection	Supporting households purchasing power		Others	
	#	supporting the labour market	supporting purchasing power of households						Supporting the income of vulnerable groups	Mitigating the impact of the financial crisis on individuals		
BE	**23** (15 LM + 8 PPH)	0,5	0,9				✓		✓✓			**BE**
BG	**17** (14 LM + 3 PPH)	0,0	0,0			✓✓	✓	✓✓				**BG**
CZ	**11** (7LM + 4 PPH)	1,1	0,1	✓	✓							**CZ**
DK	**12** (8 LM + 4 PPH)	1,0	0,0		✓		✓✓					**DK**
DE	**17** (8LM + 9 PPH)	0,5	1,5	✓✓	✓✓		✓		✓✓			**DE**
EE	**3** (3LM + 0 PPH)	0,5	0,0									**EE**
IE	**5** (3LM + 2 PPH)	0,2	0,8		✓	✓✓		✓✓				**IE**
EL	**12** (7LM + 5 PPH)	0,0	0,3		✓			✓	✓			**EL**
ES	**20** (11 LM + 9 PPH)	0,1	1,6		✓	✓	✓			✓✓		**ES**
FR	**16** (7LM + 9 PPH)	0,1	0,2		✓✓		✓					**FR**
IT	**14** (5 LM + 9 PPH)	0,4	0,2					✓				**IT**
CY	**9** (5 LM + 4 PPH)	0,0	0,0									**CY**
LV	**7** (2LM + 5 PPH)	0,0	0,6						✓✓			**LV**
LT	**12** (11 LM + 1 PPH)	0,0	0,0			✓✓						**LT**
LU	**8** (2 LM + 6 PPH)	n.a.	n.a.									**LU**
HU	**4** (2 LM + 2 PPH)	0,0	0,0		✓					✓		**HU**
MT	**2** (2 LM + 0 PPH)	0,0	0,4									**MT**
NL	**10** (7 LM + 3 PPH)	0,2	0,4	✓	✓		✓✓					**NL**
AT	**20** (8 LM + 12 PPH)	0,2	2,6	✓					✓			**AT**
PL	**4** (2 LM + 2 PPH)	0,0	1,2									**PL**
PT	**14** (6 LM + 8 PPH)	0,2	0,4						✓			**PT**
RO	**15** (13 LM + 2 PPH)	0,0	0,1				✓				✓✓	**RO**
SI	**5** (5 LM + 0 PPH)	0,8	0,0	✓	✓							**SI**
SK	**9** (8 LM + 1 PPH)	0,2	0,6	✓		✓✓						**SK**
FI	**14** (8LM + 6 PPH)	0,0	2,6		✓✓	✓		✓				**FI**
SE	**17** (11 LM + 6 PPH)	1,8	0,4		✓	✓	✓✓	✓				**SE**
UK	**21** (5 LM + 16 PPH)	0,3	1,7		✓✓			✓	✓✓			**UK**

✓ = highly significant measures taken

✓ = somewhat significant measures taken

Table 4: Overview of labour market and social protection measures in Member States' recovery efforts (as of 15.05.2009)*

	No of measures	Countries	Good measures warranting further consideration	Consistency with principles/criteria		
				HIGH	MEDIUM	LOW
Encouraging flexible working-time	17	16 MSs: AT, BE, BG, CY, CZ, DK, DE, FR, HU, IT, LT, LU, NL, PT, SI, SK	7	11	4	2
Improving job placement and investing in re-training	74	23 MSs: AT, BE, BG, CZ, CY, DK, DE, EL, ES, FI, FR, HU, IE, IT, LT, MT, NL, PT, RO, SE, SI, SK, UK	21	35	17	19
Maintaining/reinforcing social protection	29	13 MSs: BE, BG, EL, EE, FI, FR, IE, IT, LV, PT, RO, SE, UK	0	5	9	9
Reinforcing activation	57	19 MSs: AT, BE, BG, CZ, DK, DE, EL, ES, FI, FR, IE, IT, LT, LU, MT, PL, SE, SI, SK	7	9	13	16
Supporting employment by cutting labour costs	42	17 MSs: AT, BE, BG, DK, DE, ES, FR, HU, LT, LU, LV, NL, PT, RO, SE, SI, SK	0	7	9	9
Revising EPL in line with flexicurity	4	4 MSs: BG, EE, CY, LT	0	2	2	0
Enhancing education and life-long learning	13	7MSs: AT, BG, DK, DE, LT, PT, SE	1	2	4	2
Supporting household purchasing power	71	18 MSs: AT, BE, BG, DK, DE, ES, FI, FR, IT, LU, LV, MT, PL, PT, RO, SE, SK, UK	1	3	11	13
Mitigating the impact of financial crisis on individuals	33	15 MSs: AT, BG, CY, CZ, EE, ES, FI, FR, HU, IE, IT, LT, LU, PT, UK	0	0	3	17
Others	9	11 MSs: AT, BE, CZ, DK, EE, FI, FR, LT, LV, RO, SE	0	0	3	3

*** Information is based on SCPs and their Addenda, National recovery Plans, NRPs, and information provided by EPC, EMCO and SPC members. Since the data are currently in the process of being collected the overall picture on measures adopted to respond to the crisis is still incomplete.**

*** Nine main types of policy action have been identified. Each measures is assigned to one or several of these types of policy action: note a single measure can be classified under several headings and thus a degree of double counting occurs which explains why the totals do not sum up (double counting included for total number of reforms and concerned countries, but not when considering how the measures score – i.e., the last four columns). Each measure is assessed relative to the agreed principles using criteria such as timeliness, the degree of targeting, the time consistency of short-term support measures with long-term policy such as those in the Lisbon strategy, and the possible need for coordination in light of cross-border spillovers. On this basis, it is possible to tentatively identify a number of measures which can be considered as best practice and thus which could be useful for other Member States to consider. Also, a preliminary attempt has been made to assess the consistency of measures relative to the principles/criteria. A 'high' degree of consistency is considered to occur when the measures are considered to be ambitious and comprehensive enough. A 'medium' degree of consistency is considered to occur when measures go in the right direction but are relatively limited in scope. A 'low' degree of consistency is considered to occur when measures potentially go in the wrong direction.*

Once the effect of this fiscal stimulus wears off, much larger public policy questions potentially loom. A key question concerns the extent to which the plunge in private investment observed in 2009 will be cyclical and be reversed in an upswing. The issue arises because the increase in risk premia since the beginning of the crisis may endure making it more difficult for businesses to finance/refinance investment projects. A prolonged slump in investments could have large implications for potential growth. For public investment, a key issue is what will happen to spending levels in Member States that need to undertake substantial budgetary consolidation.

Accelerating the transfer of Structural and Cohesion funds to Member States is crucial. Progress in improving absorption capacity appears to be mixed across Member States. The main recipients of cohesion policy support have taken steps to exploit the potential of EU funds in order to maintain or boost public investment during the economic crisis. Some Member States are planning a substantial frontloading of EU assistance (EE and LT), especially by implementing investment programmes for energy efficiency in buildings. For these programmes in particular, exchange of best practices and technical assistance offered by the EIB and the Commission could help minimise implementation lags. At the same time, there is slow progress in the implementation of major infrastructure projects in BG, LV, RO, SK and more particularly PL. In LV, the overall implementation targets for 2009 and 2010 are endangered by a slow increase in absorption; in IT, there are still too limited efforts to improve the efficiency of planning and project delivery compared to the reliance on infrastructure to trigger upturn. Also, RO's public investment plans seem too ambitious. Overall, there is a need for much more analysis to determine whether the steps being undertaken taken are having a material impact. In some countries with the largest planned increases in investment through cohesion funds, there are doubts as to whether these gaols can be met as increasing absorption capacity may take some time.

Most physical investment stimulus packages are considering fairly traditional types of public investment (e.g.; spending on roads, rail etc.) and there are few indications of a substantial shift towards green investment in this respect. Although recovery measures are broadly in line with the approach of the EERP, there seems to be room to improve the scope and design of measures in the area of physical infrastructure. Investment in transport infrastructure is focused on traditional infrastructure, with very few measures opting for innovative solutions, such as refining the strategies on logistics and transport technology (CZ), constructing a microwave toll system (CZ), or modernisation of air traffic control infrastructure (SI). The focus on traditional transport infrastructure might be appropriate for those Member States where less developed transport networks impair competitiveness, as it is the case in many new Member States (e.g. PL), but also other Member States could have used the opportunity of recovery intervention to achieve more efficient transport networks. In addition, only a limited number of measures are likely to contribute to a more sustainable transport system. DK is an example of good practice where the investment is part of a broader strategy with a clear focus on public transport schemes aiming at contributing to meeting climate change goals. A number of measures of varying relevance could potentially be of interest for other Member States, such as measures involving investment in urban public transport (BE, CY, CZ, GR) and measures including construction of noise screens (BE, DE). Moreover, a significant number of measures provide support to the building sector without being linked to energy efficiency improvements. This suggests that Member States have missed an opportunity to improve the environmental impact of their stimulus packages by ensuring that public support to investment projects in this sector contributes to energy efficiency improvements.

While the national recovery plans include some measures to facilitate the transition towards a low-carbon economy, there is scope for stepping up actions to support green investment. On the one hand, some of the largest recovery packages (DE and UK) put the emphasis on energy efficiency in short-term recovery actions and a number of individual measures are expected to contribute significantly to long-term sustainability. On the other hand, the limited "greening" of recovery responses (e.g. especially by ES, where high energy dependency drags down growth potential, and FR) means that the environmental outreach of these measures could be limited to segments of national markets. Aggregated positive effects on productivity and learning effects between Member States to facilitate the transition to a low-carbon economy would be strengthened by enhanced policy coordination at EU level.

Member States are stimulating investments in energy efficiency with an overall envelope of some €20 billion in 2009 and 2010. This is very significant and suggests that the EERP will have longer-lasting benefits in terms of the climate and energy agenda. There are some further interesting examples of specific measures supporting energy efficiency investment which are mitigating the impact of the downturn while contributing to achieving long-term objectives. For instance, a) grants to small-scale energy efficiency renovations (e.g. UK and IE subsidies and advice for low-income households to take up cheap and cost-effective energy saving solutions; CZ, DK, LU, NL grants for individual investments in energy-saving renovations to support consumer's confidence within budgetary limits) b) public investment (e.g. LT, CZ, direct support to modernise social housing especially using structural funds co-financing; DE, FR, AT public procurement programmes for low-carbon or high energy-efficient public buildings and PT seed public investment in "smart grids" to lead businesses to these emerging markets), c) tax incentives (e.g. SE on extra tax breaks for housing renovation services supports employment; FI and IE extended tax breaks link for businesses accelerates the renewal and the penetration of productive equipment) and other financial incentives (e.g. UK, CY, MT, PT create longer-term certainty and more favourable market conditions for renewable energy integration into the grid) d) off-budget measures (e.g. AT, DE, FI guarantees and agreements with national public financial institutions to provide more loans and participate in risk capital funds encouraging "low carbon" innovations) e) non-budgetary measures (e.g. PL, BG strengthening of the legal and strategic energy framework).

Front-loaded and increased support to energy efficiency entails limited risks of crowding out, as support can be easily targeted to lift structural micro-barriers to investment (high search and transaction costs, landlord-tenant split incentives, limited access to micro-credit, etc.). Nonetheless, to maximise the benefits of such changes in budgetary expenditures and especially to deliver lasting productivity gains at an aggregated level, there is scope to improve the regulatory and administrative frameworks (e.g. realising the EU internal energy market, encouraging business-led "low-carbon" innovation, etc.). It is essential to improve job placement and re-training in the construction sector both to accelerate the absorption of public investment and to amplify the positive spill-over effects in the long-run. In this respect, a possible example of best practice are schemes in DE to increase training of workers capable of working on clean energies, whereas these accompanying measures to facilitate labour market transition and strengthening of skills in the construction sector would be appropriate in most countries. (and especially in ES marked with subdue labour productivity growth in this sector).

Examples of R&D measures that could be of interest to other Member States include a) research supporting green objectives (DE, UK, FR -applied to the automotive sector- and ES); b) reinforcing existing successful instruments to boost private R&D (e.g. IE, NL, FI, AT and DE); c) aligning short- term actions with medium- term needs (SI),- and finally, d) addressing the issue of human capital in R&D (e.g. BE and NL) recall that a major boost to R&D investments could come through the opening up of national research systems to foreign researchers. Regarding green objectives and coordination of R&D polices and programs, there could be scope for further action at the Member State / EU level. Indeed, no single European programme currently exists for fostering low-carbon technologies with the exception of fusion-related research. Pan-European cooperation is limited and synergies between Member States in the development of new energy technologies remain under-utilized, although recent initiatives, such as the EERP partnership 'European green cars initiative' have started to tackle this problem. This underscores the importance of the work in this area.

The crisis may widen the R&D gap between" innovation leaders" and "moderate innovators" and "catching-up" countries.[7] It is interesting to note that virtually all innovation leaders (DE, SE, FI, UK) and five out of six innovation followers (AT, BE, FR, IE and NL) are implementing additional R&D measures. In contrast, three moderate innovators and three catching-up countries – some of them with major financial challenges have announced no measures. Hence, in order to avoid a further widening of the R&D gap, it is important that countries that are lagging behind continue strengthening R&D framework conditions in areas such as (i) competition, (ii) skills and education, (iii) labour markets, (iv) intellectual property rights, (v) entrepreneurship and SMEs, many of which do not rely extensively on available public resources. Furthermore, many "moderate innovator" and "catching-up" countries count on structural fund support. They could also benefit from recent changes in structural funds' regulations in terms of faster access to EU resources and increased flexibility in redefining structural priorities. However, information available so far shows that no Member State is planning to use the increased flexibility to increase the share of R&D resources. Lastly, it is also of particular importance to address the negative impact of the crisis on investments by High tech SMEs and intermediate-sized fast growing enterprises.

R&D policy is instrumental in increasing Europe's productivity growth and improving its medium term competitiveness position[8]**.** This is needed to tackle the challenges posed by ageing populations and rising debt and public deficits. So far, some survey results point to a slight deterioration of firm's innovation budgets compared to the last two years. On the public side, there are relatively few indications of rolling back of existing R&D programmes; these are concentrated in countries with balance of payment crises. The additional public support as part of the Recovery plans amounts to approximately €5 billion over 2009-2010. In sum, however, this suggests that overall R&D and innovation outlays are set to decline during the crisis. However, Member States are responding differently with those that were performing best taking the most action. A widening of the gap between innovation leaders and followers could, therefore, be expected. To avoid such a widening, it is particularly important to implement the ERA policy agenda, which stresses the importance of opening up national research systems, increasing mobility of researchers, setting up pan European Research infrastructures, sharing knowledge, coordinating research programmes and opening the ERA to the world.

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[7] This terminology is taken from the European Innovation Scoreboard.

[8] A fuller picture of measures undertaken by Member States to support R&D investments during the crisis will result from the survey currently conducted by DG RTD.

1.6. A closer look at policies to support the business environment and sectors

European businesses are bearing the brunt of the fallout, and there is a considerable risk that many otherwise viable and well positioned businesses will not be able to cope. The EERP has recognised the need for public intervention to support businesses during the crisis in order to provide access to finance which markets are temporarily unable to provide (at least at economically viable conditions and prices) and to support sectors where demand has been disproportionately affected during the crisis (i.e. beyond what could be expected based on past 'normal' downturns). The measures undertaken in support of businesses, if well designed, can in the short-term help counter unnecessary wasteful labour shedding, and the destruction of otherwise viable and sound companies: They will help contain the negative effects of the crisis on potential output by preventing a permanent loss of knowledge and skills and a reduction of productive capacity far beyond what would be expected during a normal cyclical slowdown.

Table 5: Overview of recovery measures in the EU to support investment and R&D

Measures supporting investment									
	Total number of measures analysed	Fiscal stimulus (% of GDP) in 2009-2010				Significance of the support to investment			
		Overall support to investment	Public support to investment (% of GDP) with effects for the recovery						
			in physical infrastructure	in energy efficiency	in R&D	physical infrastructure	energy efficiency	R&D	
BE	8	0.25	0.11	0.12	0.02	✓	✓		BE
BG	5	> 0.14	0.14	n.a.	0				BG
CZ	14	0.54	0.33	0.19	0.02	✓	✓		CZ
DK	3	0.40	0.40	0	0	✓			DK
DE	12	0.86	0.17	0.61	0.08	✓	✓✓	✓✓	DE
EE	3	>0.09	n.a.	0.09	0		✓✓		EE
IE	7	>0.04	n.a.	0.02	0.02		✓		IE
EL	1	0	n.a.	0	0				EL
ES	9	0.93	0.84	0.01	0.08	✓	✓	✓	ES
FR	9	0.32	0.22	0.08	Off budget	✓	✓	✓	FR
IT	7	> 0.06	n.a.	0.02	0.04				IT
CY	6	1.8	1.8	n.a.	0	✓			CY
LV	1	0.13	0	0	0.13				LV
LT	8	n.a.	n.a.	<1.6	0		✓		LT
LU	6	1.7	1.5	0.18	0	✓	✓		LU
HU	5	n.a.	n.a.	< 0.1	0				HU
MT	3	0.64	0.62	0.20	0	✓	✓		MT
NL	14	0.49	0.26	0.13	0.10	✓	✓	✓	NL
AT	11	0.51	0.35	0.14	0.02	✓	✓✓		AT
PL	11	1.2	1.10	0.06	0	✓	✓		PL
PT	5	0.34	0.18	0.16	0	✓	✓✓		PT
RO	3	n.a.	n.a.	0	0				RO
SI	6	>1.2	0.88	n.a.	0.32	✓		✓	SI
SK	4	0.20	0.02	0.02	0.16		✓		SK
FI	4	0.42	0.32	0.08	0.02	✓	✓		FI
SE	3	0.56	0.34	0.13	0.09	✓	✓	✓	SE
UK	8	0.17	0.12	0.05	0	✓	✓		UK
Tot.	**176**		**€32 bn (0.25% of GDP)**	**€20 bn (0.16% of GDP)**	**€4.9 bn (0.04% of GDP)**	**85 meas.**	**57 meas.**	**34 meas.**	

Source: Commission services based on publicly available recovery packages and information provided by Memeber States

<u>Note:</u> The breakdown by area of investment reflects information made publicly available between November 2008 and end April 2009. Updates have been introduced since then for "overall support to investment" (e.g. new measures introduced in IT).

In addition, there are some discrepancies between the estimates of the overall fiscal stimulus and those of public support to investment in different areas for the following reasons:

- Off-budget measures have been included in the assessment (especially in the case of: AT, BG, EE, SI),
- There are some overlaps across domains (especially for SE, FR).

Table 6: Measures supporting investment

		Overview of measures		Compatibility with guiding principles and long term objectives		Conclusion	
	Total number of measures	*MS having taken action in this area*	*High short-term effectiveness*	*High potential to tackle efficiently climate and energy issues*	*Potential for lifting structural bottlenecks to investment*	*Interesting practices that could be emulated by others*	*Measures with uncertain impacts*
Physical infra-structure	84	All but Latvia	8 measures within the response by 5 MS (DE, ES, FR, NL, UK)	1 measure by DK (possibly 9 measures within the response by BE, CY, CZ, DE, EL, UK)	12 measures within the response by BE, BG, CZ, DE, FR, LU, PL, SK)	1 measure by DK (possibly 11 measures by BE, CY, CZ, DE, EL, SE, SI, UK)	15 measures to be linked to sustainable objectives in 7 MSs (AT, DE, ES, FR, NL, PT, UK)[1]
Energy efficiency	57	24 MS (AT, BE, BG, CY, CZ, DE, DK, EE, ES, FI, FR, HU, IE, IT, LT, LU, MT, NL, PL, PT, SE, SI, SK, UK)	37 measures, esp. within the response by 15 MS(AT, CZ, DE, DK, EE, ES, FI, FR, IE, LT, LU, NL, PT, SE, UK)	22 measures, esp. within the response by 8 MS (AT, CZ, DE, DK, EE, CZ, LT, PT)	12 measures, esp. within the response by 5 MS (PL, FI, SE, UK, DE)	15 measures, esp. within the response by 9 MS (AT, DE, DK, FI, CZ, IE, LT, PT, PL, SE)	10 measures esp. within the response by 5 MSs (BE, BG, IT, ES, HU)
R&D investment	37	18 MS (AT, BE, BG, CZ, DE, ES, FI, FR, IE, IT, LT, LV, NL, RO, SE, SI, SK, UK)	11 measures (SE, DE, FR, ES, NL, AT, IE, FI)	3 measures (DE, FR, ES)	4 measures (ES, BE, SI, IT)	14 measures (DE, FR, ES, FI, AT, IT, NL, SI, IE, BE)	-

[1] In addition, measures carrying significant risks are those involving public support to oversized construction sectors (in particular ES and IE), as well as measures in those Member States with a need to improve their absorption capacity (in particular BG, PL, RO, SK, IT).

Source: Commission services based on publicly available recovery packages and information provided by Member States

The EERP has underlined the critical importance of actions to support business and sectors being time-limited for the duration of the crisis. This is important because a trade-off exists between the desirable support of viable businesses in the short-term with potentially adverse distorting effects of such support over the medium-term, if they are extended in time beyond the downturn. A failure to ensure that support is adequately targeted and temporary could hinder essential adjustment processes from taking place, crowd-out the private sector from resuming normal activities when conditions stabilise, and undermine the functioning of the single market.

As illustrated in table 7, the overall response to the crisis in terms of measures supporting businesses and sectors is strong, and could be expected to provide material support in the short term. Member States have taken a large number of measures in this area and committed about 16 percent of the overall discretionary fiscal stimulus to supporting businesses. There are three main types of action, namely measures to ease financing constraints on businesses, sector specific support (both on the demand and supply side) and non-financial support measures.

Most measures supporting the business environment focus on improving access to finance (at least 20 billion euro) and whilst it is too early to assess their effectiveness, their design seems largely appropriate as they to a large extent extend or top up existing schemes to improve businesses' access to finance The remainder of the support measures cover demand side measures (at least 30 billion euro), but there is also considerable supply side support (at least 25 billion euro). Whilst the latter may be justified to avoid that otherwise viable companies go under or because they directly address certain externalities (e.g. greening of car technology), further analysis of this relatively large contribution is warranted in light of its inherently strong impact on the internal market. e.g. direct state aids to large companies in specific sectors such as the car industry).

Most measures seem temporary, targeted and timely. However, while the most affected sectors are broadly the same in all Member States, there is a considerable variation across Member States in terms of support actually provided – both in terms of sectoral composition and regarding the mix between supply and demand side measures. Therefore, whilst the schemes are consistent with internal market and state aid rules, they could nevertheless have an important impact on the internal market through their differential impact on corporations depending on the Member State in which they are located. Moreover, given the different incentive structures, the effectiveness of the scheme for industries that are essentially operating across the whole of the internal market (i.e. are European) could be somewhat limited. Should schemes need to be maintained beyond the year end then there would clearly be a case for more co-ordination at the European level. Closer ex ante co-ordination could then be considered as a necessary tool to ensure that the EU's industrial base can be protected against the destruction of otherwise viable and sound companies, as well as to avoid a loss of knowledge and skills, and a reduction of productive capacity without de facto undermining the foundations of the single market. While it is an open question as to how such *ex ante* co-ordination could be organised, the benefits of proceeding with a common approach under circumstances of an extended crisis can hardly be in doubt. At this juncture, European businesses also face the additional risk of an increase in the recent resurgence of protectionist tendencies globally which are reflected in various types of measures, often below the threshold of being actionable but with the potential of triggering an avalanche of "tit for tat" responses[9]. Ensuring that measures supporting the business environment through the crisis do not contribute to such developments will be crucial. Preventing that remains an important task for monitoring and co-ordination going forward. These questions should be addressed in the context of the review of the Temporary State Aid Framework that are scheduled for the second half of 2009.

Member States have placed the main focus on measures to ease financing constraints which account for two thirds of measures taken to support businesses and the majority of the fiscal stimulus (79% in 2009 and 89% in 2010 as a first approximation). This reflects the sill difficult situation in the financial sector. The measures to address this are assessed to be effective and to have relatively few unwanted side effects in terms of trade offs with single market and long-term objectives. This is in good part a function of the fact that many of the measures pursued in this area are extending or topping up existing instruments. They tend to alleviate the negative effects of the deterioration of lending conditions and provide relief to businesses and SMEs in particular.

Most Member States have put in place horizontal frameworks that allow policy support to be given to sectors that are most affected by the crisis (e.g. cars, tourism, construction). These sectors receiving support in the EERP context account for a large share in the EU27 economy in terms of value added (9.8%) and jobs (12.9%)) A significant amount of sectoral support measures goes to the automotive sector in Member States where this sector accounts for a high share in the economy both directly and indirectly. Two thirds of these measures aim at easing financial constraints for car makers (loans and guarantees) or supporting them to green their product. Demand measures aim at boosting car

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[9] Deutsche Bank Research, 4 June 2009 "*Back to the bad old days? The return of protectionism.*"

consumption while renewing the fleet to cleaner vehicles. Tourism is another supported sector in Member States where targeted sectoral support measures both on the supply and the demand side play a key role.

***Non-financial business support measures, given their structural nature and predominantly long-term effects, will in all likelihood not make a significant contribution to the short-term response*.** However, in view of the expected impact of the crisis on potential output, such productivity-enhancing structural reforms are crucial going forward and should therefore be pursued with the same urgency at the current juncture as the short-term measures.

***Member States have responses to support businesses and sectors during the crisis are in line with the suggested actions of the EERP*,** and the actions, which in many case appear to be capable of having an impact on economic activity in the short run, have benefited from guidance developed at EU level. This is important as most measures, including measures supporting specific sectors (especially in countries with large industrial sectors), have an inherent potential to distort competition or hinder the process of economic restructuring within the EU, and thus should be temporary.

Table 7: Measures supporting businesses, companies and sectors in the EU

Measures supporting businesses, companies and sectors													
	Total number of measures supporting businesses	Fiscal stimulus associated with business support measures	Sectoral support measures								Easing financing constraints	non-financial support to business	
		% GDP	automotive		tourism		construction		other				
			demand	supply	demand	supply	demand	supply	demand	supply			
BE	14	0,1						✓			✓✓	✓	**BE**
BG	6	0,0									✓	✓	**BG**
CZ	14	0,5	✓		✓					✓	✓✓	✓	**CZ**
DK	3	0,1									✓	✓	**DK**
DE	13	0,8	✓✓	✓							✓✓	✓	**DE**
EE	3	0,0									✓	✓	**EE**
IE	2	0,4					✓				✓		**IE**
EL	5	0,0			✓	✓					✓		**EL**
ES	37	1,4	✓	✓✓				✓		✓	✓✓	✓✓	**ES**
FR	22	0,4	✓	✓✓			✓	✓		✓	✓✓	✓	**FR**
IT	7	0,5	✓	✓✓							✓	✓	**IT**
CY	5	0,0	✓			✓		✓				✓	**CY**
LV	8	0,3									✓✓		**LV**
LT	5	0,0									✓	✓	**LT**
LU	7	n.a.	✓								✓		**LU**
HU	7	0,0									✓	✓	**HU**
MT	5	0,2				✓						✓	**MT**
NL	14	0,5	✓								✓✓	✓	**NL**
AT	14	0,2	✓	✓							✓✓	✓	**AT**
PL	7	0,4	✓								✓	✓	**PL**
PT	15	0,4	✓	✓		✓				✓	✓✓	✓	**PT**
RO	12	0,2	✓								✓✓	✓	**RO**
SI	9	0,2									✓✓		**SI**
SK	12	0,2	✓		✓						✓✓	✓	**SK**
FI	4	0,7						✓			✓		**FI**
SE	6	0,4		✓							✓		**SE**
UK	14	0,4	✓	✓			✓				✓✓		**UK**

✓✓ = highly significant measures taken | ✓ = somewhat significant measures taken

Note: The figures in the first column "measures' supporting business" come from the common data set on recovery measures dated 24 April. The figures in the second column on the fiscal stimulus come from Commission services based on publicly available recovery packages and information provided by Member States

2. FIRST ASSESSMENT OF EMPLOYMENT AND SOCIAL POLICIES TO SOFTEN THE IMPACT OF THE CRISIS

2.1. Introduction

Labour market policies to support the unemployed are becoming increasingly important as the current economic crisis adds to the growing number of unemployed. Through income support schemes and active labour market programmes, labour market policies across the EU aim to help the unemployed search for a new job and, if necessary, improve their skills.

This chapter provides a first preliminary assessment of those policies being implemented to support the labour market in Member States' recovery programmes against agreed principles and seeks to evaluate their adequacy in light of the projected slowdown, identify possible broad examples of best practice, and establish whether reform efforts can be considered appropriate in light of economic conditions and involve an appropriate degree of co-operation at EU level. The assessment is based on information coming from Member States' Stability and Convergence Programmes (SCPs) and their Addenda, National recovery Plans, National Reform Programmes (NRPs), and information provided by the Economic Policy Committee (EPC), Employment Committee (EMCO) and Social Protection Committee (SPC) members. It is necessarily a preliminary assessment given that the dataset is incomplete and still being updated with information on national recovery measures. Moreover, answering the question as to whether reform efforts are adequate enough in light of the economic situation would need to take into account country-specific crisis circumstances of the crisis, the labour market situation of the different Member States, possible spill-overs and the EU dimension. Annex 2.2 provides further detail on the approach taken towards assessing the measures.

The analysis is preliminary and in many instances of a qualitative nature. Nonetheless, it aims to identify a number of candidates for best practice and draws preliminary insights on factors that can contribute to successful short-term strategies.

2.1.1. The impact of the crisis on labour markets in Member States

Following strongly positive developments during 2005-2007, labour markets started to weaken in most EU Member States in the course of 2008. National accounts estimates reported in Table 8 for the fourth quarter of 2008 puts the number of persons employed lower by 0.3% (672 000 persons) compared to the previous quarter in the EU27 and in the Euro-area (453 000 persons). In the third quarter compared to the second quarter, employment was lower by -0.2% and -0.1% for the EU27 and euro area respectively. Amongst Member States, the contraction of employment in Spain and Latvia is particularly striking (down -2.1% and -2.8% respectively).

While the number of people employed in both the EU27 and the euro-area in quarter 4 of 2008 was unchanged from the numbers employed in quarter 4 of 2007, on the other hand the number of employed in both areas had been up 0.6% in Q3 of 2008 by comparison with Q3 2007. In other words, the trend has evidently turned down. And, once again, individual Member States are experiencing very different developments. In Latvia, employment declined -5.4% from 2007Q4 to 2008Q4, in Spain it declined -3.0%; conversely, it grew +3.0% in Poland, 2.2% in Slovenia, +2.1% in Slovakia and +2.1% in Bulgaria.

Over the whole year of 2008, employment grew by 0.8% (1 137 000 persons) in the **euro area** and also in the **EU27** (1 760 000 persons), compared with +1.8% in 2007. Member States show very different patterns: negative growth rates were recorded in Hungary (-1.2%), UK (-0.7%), Spain (-0.5%), Lithuania (-0.5%) and Ireland (-0.2%), while growth was still sustained in Luxembourg (+4.7%), Slovak Republic (+2.8%), Poland (+2.7%), Netherlands (+1.8%), Austria (+1.8%) and Slovenia (+1.8%).

Table 8: Employment growth rates in the EU in 2008

	Percentage change compared with the previous quarter				Percentage change compared with the same quarter of the previous year			
	2008				2008			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
EA15	0.4	0.1	-0.1	**-0.3**	1.5	1.1	0.6	**0.0**
EU27	0.4	0.0	-0.2	**-0.3**	1.5	1.1	0.6	**0.0**
EA16	0.4	0.1	-0.1	**-0.3**	1.5	1.1	0.6	**0.0**
Belgium	0.5	0.3	0.3	**0.0**	1.9	1.7	1.7	**1.2**
Bulgaria	:	:	:	**:**	4.8	3.4	3.0	**2.1**
Czech Republic	0.3	0.1	0.1	**-0.1**	2.0	1.6	1.0	**0.2**
Denmark	0.6	0.0	-0.4	**-0.6**	1.9	1.7	0.4	**-0.5**
Germany	0.6	0.2	0.2	**0.1**	1.7	1.5	1.4	**1.0**
Estonia	2.2	-2.3	0.3	**:**	2.0	-0.5	-0.3	**-0.2**
Ireland	-0.2	-0.9	-0.6	**:**	2.4	0.3	-1.1	**:**
Greece	0.4	0.1	0.1	**0.6**	1.3	1.5	1.1	**1.0**
Spain	0.3	-0.3	-0.9	**-2.1**	1.7	0.3	-0.8	**-3.0**
France	0.2	0.0	-0.1	**-0.2**	1.2	0.8	0.4	**-0.1**
Italy	0.0	0.1	-0.3	**-0.1**	0.9	0.8	-0.2	**-0.2**
Cyprus	:	:	:	**:**	2.4	2.7	3.5	**:**
Latvia	-0.1	-0.5	-2.1	**-2.8**	5.6	3.4	0.2	**-5.4**
Lithuania	-0.3	-0.6	0.2	**-0.6**	0.9	-0.6	-1.0	**-1.2**
Luxembourg	1.2	1.1	1.0	**:**	5.2	5.0	4.5	**:**
Hungary	:	:	:	**:**	-1.7	-2.0	-0.9	**-1.1**
Malta	:	:	:	**:**	2.8	2.9	2.4	**1.9**
Netherlands	0.4	0.3	0.0	**c**	1.9	1.7	1.2	**c**
Austria	1.1	0.2	0.1	**0.1**	2.2	2.0	1.5	**1.4**
Poland	:	:	:	**:**	7.0	5.4	3.7	**3.0**
Portugal	0.3	0.0	-0.6	**0.3**	0.9	1.2	-0.2	**-0.1**
Romania	:	:	:	**:**	:	:	:	**:**
Slovenia	0.7	0.7	0.6	**0.4**	3.3	3.1	2.9	**2.2**
Slovakia	0.7	0.0	1.4	**-0.1**	2.8	2.9	3.2	**2.1**
Finland	0.6	0.3	-0.4	**0.2**	2.3	1.9	0.8	**0.8**
Sweden	:	:	:	**:**	1.7	1.3	0.7	**0.0**
United Kingdom	0.3	0.0	-0.3	**-0.2**	1.5	1.2	0.4	**-0.2**
Norway	0.7	0.8	0.7	**-0.3**	4.1	3.5	3.2	**1.9**

Table 9 reports Euro-area and EU27 unemployment rates and Table 10 the corresponding number of unemployed persons. In one year (February 2008 – February 2009) the EU27 unemployment rate rose 1.1 percentage points (about 3 million persons) to 7.9%, while the euro-area's unemployment rate rose 1.3 percentage points (roughly 2.1 million persons) to 8.5%.

Among the Member States, the lowest unemployment rates in February 2009 were recorded in the Netherlands (2.7%) and the highest in Spain (15.5%), Latvia (14.4%) and Lithuania (13.7%). Compared with a year ago, the highest increases were recorded in Latvia (6.1% to 14.4%), Ireland (4.8% to 10.0%) and Spain (9.3% to 15.5%). These last two cases suggest that rises in unemployment were higher in those countries more suffering from the collapse of housing and financial market bubbles.

Table 9: Unemployment rates in the EU and euro area

	Feb 2008	Aug 2008	Sept 2008	Oct 2008	Nov 2008	Dec 2008	Jan 2009	Feb 2009
EA16	7.2	7.6	7.7	7.8	8.0	8.1	8.3	**8.5**
EU27	6.8	7.0	7.1	7.3	7.4	7.6	7.7	**7.9**
BE	7.0	7.4	7.2	7.1	6.9	6.8	7.0	**7.1**
BG	6.2	5.3	5.2	5.1	5.0	5.3	5.3	**5.5**
CZ	4.5	4.3	4.3	4.4	4.5	4.6	4.9	**4.9**
DK	3.1	3.3	3.4	3.6	3.8	4.1	4.4	**4.8**
DE	7.6	7.2	7.1	7.1	7.1	7.2	7.3	**7.4**
EE	4.1	6.4	6.8	6.9	7.4	8.4	9.1	**9.9**
IE	4.8	6.6	7.1	7.6	8.2	8.7	9.3	**10.0**
EL	7.8	7.5	7.5	7.8	7.8	7.8	:	**:**
ES	9.3	11.7	12.3	13.1	13.8	14.3	14.8	**15.5**
FR	7.6	7.8	7.9	8.0	8.2	8.3	8.5	**8.6**
IT	6.6	6.7	6.7	6.9	6.9	6.9	:	**:**
CY	3.7	3.7	3.8	3.8	3.9	4.2	4.3	**4.5**
LV	6.1	7.5	8.1	9.2	10.3	11.4	13.0	**14.4**
LT	4.4	6.4	6.5	7.2	8.3	9.7	11.6	**13.7**
LU	4.4	5.0	5.1	5.1	5.3	5.5	5.7	**5.9**
HU	7.6	7.8	7.8	7.8	8.1	8.4	8.4	**8.7**
MT	5.9	5.9	5.7	5.9	6.1	6.0	6.3	**6.4**
NL	2.8	2.7	2.7	2.7	2.7	2.7	2.7	**2.7**
AT	3.9	3.8	3.9	4.0	4.1	4.2	4.3	**4.5**
PL	7.6	6.9	6.8	6.8	6.9	7.0	7.1	**7.4**
PT	7.7	7.8	7.8	7.8	7.9	8.0	8.1	**8.3**
RO	5.8	5.7	5.7	5.8	5.8	5.8	:	**:**
SI	4.6	4.3	4.1	4.2	4.2	4.1	4.3	**4.6**
SK	10.2	9.1	9.0	9.0	9.1	9.2	9.5	**9.8**
FI	6.3	6.5	6.5	6.5	6.6	6.6	6.7	**6.8**
SE	5.9	6.1	6.4	6.7	7.0	7.0	7.2	**7.5**
UK	5.1	5.8	5.9	6.1	6.3	6.4	:	**:**
NO	2.5	2.4	2.5	2.8	2.9	3.0	3.1	**:**

Table 10: Seasonally adjusted number of unemployed persons (millions)

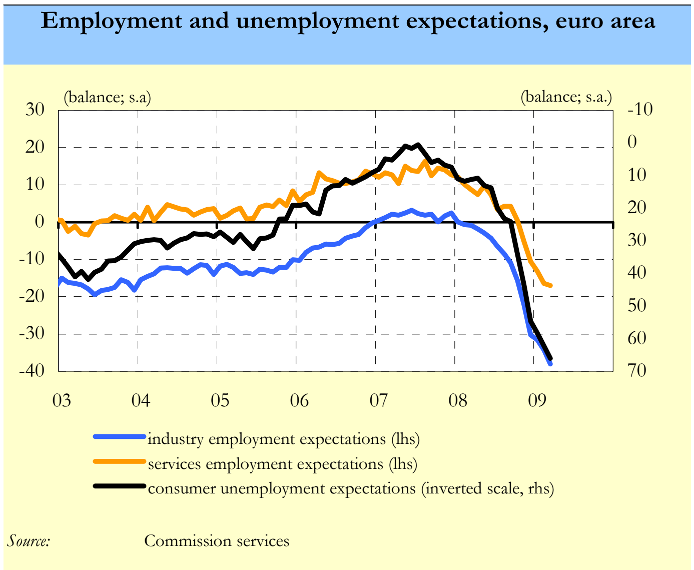
	Feb 2008	Aug 2008	Sept 2008	Oct 2008	Nov 2008	Dec 2008	Jan 2009	Feb 2009
EA16	11.361	11.915	12.087	12.381	12.609	12.843	13.167	**13.486**
EU27	16.137	16.844	17.066	17.469	17.840	18.240	18.678	**19.156**

It is also worth noting that males account for almost all the increase of unemployment rate in the last year. Indeed, the unemployment rate for males rose from 6.2% to 7.8% in the EU27 (6.5% to 8.1% in the Euro-area), while the female unemployment rate increased from 7.4% to 8.0% in the EU27 (8.2% to 8.9%in the Euro area). However this fact should be accompanied by a deeper analysis of worker flows in order to assess whether there are relevant movements towards inactivity among female workers.

In February 2009, youth unemployment rate (under-25s) was 17.3% in the **euro area** and 17.5% in the **EU27**. In February 2008 it was 14.5% and 14.7% respectively. The lowest rates were observed in the **Netherlands** (5.5%) and **Denmark** (9.4%), and the highest in **Spain** (31.8%) and **Sweden** (24.1%). The rise in Spain's youth unemployment rate was very strong in the last twelve months (from 20.9% to 31.8%), signalling that employment adjustment in countries with dual labour markets will probably more affect those groups of workers with less protected jobs, such as the young.

While the extent of labour market adjustment that will result from the crisis and its persistency remain very uncertain, depending in part on factors outside the labour market itself, there can be no doubt that a significant negative adjustment is a real risk. Looking ahead, the labour market situation is expected to deteriorate markedly as employment usually reacts with a lag to developments in economic activity and companies are increasingly cutting their recruitment plans. Typically, the lag is about 2-3 quarters, as firms may use various margins of adjustment before reducing their workforce. Figure 3 shows how employment expectations in the euro-area have rapidly deteriorated whilst the expectation of being made unemployed has soared. The labour-market expectation series characteristically tracks quite closely the actual evolution, so further significant labour-market adjustments appear to be in the pipeline in the months and quarters ahead. In addition, in Member States with relatively more segmented labour markets, concerns have recently grown that many temporary positions may not be renewed, adding to the likelihood of a significant contraction of employment in the coming months.

Figure 3: Employment and unemployment expectations in the euro area



In addition, there are at least two factors that suggest that European economies may face a larger if less persistent labour market adjustment in the current economic crisis compared with past slowdowns:

– **In the mid 1990s, increasing numbers of Member States started to introduce reforms that increased the flexibility of their labour markets**. The intense job creation in services has been associated with new forms of more flexible employment relationships. In some sectors, part-time and casual employments represent the main formal employment relationships. Since these contractual arrangements have reduced the hiring and firing costs, a wider employment response over the cycle should not surprise;

– **Reforms to the tax and benefit systems have reduced benefits generosity**, while access to early retirement has been tightened. This has increased the availability to work of less attached individuals even in times of crisis.

Higher flexibility and adaptability of the labour market, triggered by more flexible labour market institutions, will imply deeper and swifter response to shocks, whose strength will nevertheless largely depend on factors outside the labour market itself. The increased internal flexibility (flexible working-time arrangements, temporary closures, training leaves etc.) that has been observed in some firms and industries in the past months, with corresponding labour cost reductions - in some cases taking the form of nominal wage concessions in return for employment stability - appears to have prevented more significant labour shedding so far, in particular in manufacturing. Such measures are promising and consideration should be given to how they could further be supported in the short-term. Moreover, if the right policies are set in place, and provided that the other main economies to the same, employment growth may relatively fast revert towards the pre-shock levels when the economy recovers. Given the nature of the shock, not all countries are equally hit. The impact is showing to be stronger in countries more exposed to the boom-bust cycle in construction and finance. It is expected to be more persistent wherever job-specific skills reduce workers' mobility across sectors.

ECFIN's most recent forecast projects employment growth to turn negative in 2009 and 2010. Unemployment is also projected to rise significantly and risks going above 10% in 2010. With labour productivity expected to fall back below trend, even to turn negative in 2009 before rebounding only slightly positively in 2010, labour hoarding is projected to build up further in 2009.

Historical experience suggests that youth, the low-skilled and immigrants are those most likely to be hit by rising unemployment. In addition, all persons on temporary contracts will be particularly vulnerable to the economic crisis. In terms of sectoral employment, the recession is going to most intensively affect workers in the construction sector, in the banking and financial sector and in the car industry. The weaker labour market has started to be reflected in wages; the acceleration in labour costs registered during much of 2008 appears to have come to an end.

Conditional on the outlook for GDP, the labour market forecasts of other international organisations appear to be broadly in line with ECFIN projections. The IMF autumn WEO is a bit more on the optimistic side, having not yet incorporated more recent gloomier statistical evidence (an increase in the euro-area unemployment rate to 8.3 % next year for GDP growth of +0.2, subsequently revised down to -2.0). By contrast, the recent OECD Economic Outlook Interim Report (March 2009) foresees the euro-area unemployment rate rising to 10.1% in 2009 and then 11.7% in 2010, conditional on GDP growth rates of -4.1 and -0.3% in the respective years.

2.1.2. *The rationale for focussing on labour market issues*

The financial market turmoil of the last months is translating into a decline in labour demand which could soon bring the unemployment rate to much higher levels. This is both important and sobering because unemployment leads to poverty, rising social and political tensions and slower long term growth. It also fuels demands for protectionism. Above all, it wastes human potential.

The consequences of inadequate policy response on employment and social conditions would be grave. In a situation of prolonged economic crisis and of hampered labour market transitions, and in the absence of ad-hoc policy measures to facilitate the matching process and labour reallocation across sectors, both frictional and structural unemployment are expected to increase considerably. **Long-term unemployment** will also increase with large costs for individuals (rising income insecurity and impact on low-income groups, labour market and social marginalisation), for public finances and for the economy as such, not to mention the consequent decline in human capital and participation rates. Adjustment costs are likely to increase unless there is a timely policy response that prevents a temporary increase in the number of unemployed becoming entrenched as unemployment with a persistently higher duration: the loss of a firm's specific human capital makes the long-term unemployed less employable. This will in turn postpone the recovery.

Inaction in providing adequate social security nets for all those losing a job could result in insufficient working of the automatic stabilizers. Moreover, in a highly uncertain environment with high and rising unemployment, the prospect of losing jobs makes employed, especially the most credit-constrained households, more risk-adverse, inducing a downward revision of their consumption plans. The interaction between poor labour market prospects and uncertain/insufficient income support may **impair aggregate demand, ultimately making unemployment overshoot**.

Inaction will also threaten fiscal sustainability as a result of both a decline in fiscal revenue (low employment – low labour tax base, low profits – low capital tax base, low purchasing power – low sales tax base) and a strong increase in expenditures (an increased number of unemployment claims, social assistance). Last but not least, exceptionally unfavourable labour market developments are expected to deteriorate the social impact of the crisis as they will hit in particular disadvantaged groups, which will pop up in their higher long-term unemployment, labour market disenfranchisement, social exclusion and poverty. This could ultimately lead to **political tensions and social unrest**.

The self-fulfilling spiral of low aggregate demand, gloomy expectations, high uncertainty, low investment, high (long-term) unemployment and low consumption requires timely and bold policy packages (to be reversed at later stage when recovery starts), comprising targeted measures in policy fields beyond the labour market itself. **Early policy action** will be necessary in particular to contain uncertainty, i.e. to increase the confidence of firms about future demand, the confidence of households about future employment prospects and the confidence of financial institutions about credit repayment. The beneficial response to a reduction in uncertainty will be strengthened if complemented with well targeted measures that support incentives for people and firms to invest produce and work.

Labour market issues need to be focused on in order to develop policy that minimises the impact of the downturn on unemployment to the greatest extent possible. Designing such policy starts by establishing the facts with a comprehensive assessment. However, a comprehensive assessment of specific labour market policies clearly needs to be seen against the background of other features of the policy response to the crisis, because implementation of all the financial markets measures, the co-ordinated fiscal expansion and structural reforms in product markets aim to restore confidence, in turn supporting demand and potential growth. Reinvigorated economic growth should significantly increase employment.

In the absence of a focus on labour market issues at the EU level, there is a real high risk that the current economic downturn will encourage Member States to consider unilateral action with negative spill-over effects that seriously damage growth and jobs prospects. Countering such risks calls for **a more effective coordination** between Member States, particularly when support is directed to sectors (or services) where intra-Community trade is important. Despite diversity, increasing evidence of interconnections and common challenges make effective coordination and renewed solidarity not only a matter of altruism and respect of common values, but also the most effective way to stabilise national economies, restore growth and maintain social cohesion.

This explains why the EERP (henceforth EERP) endorsed by the European Council of 12 December 2008[10] underlined the importance of coordinated action and the role of intra-community solidarity as the most effective way to **stabilise national economies, restore growth and maintain social cohesion,** giving the increasing interconnections, spill-overs and common challenges.

2.1.3. Some guiding principles for labour market policies during the crisis

The search for policy measures that could help limit the fall-out of the current deep and protracted recession on the labour market is critical. To strike the right balance between short and long run policy responses, labour market policies taken in response to the crisis need to fulfil a number of conditions.

A key condition of short-term interventions is their time consistency, that is, they do not hamper the adjustment capacity of labour markets or put the brake on recovery, and therefore do not need to be reverted or repealed when the recovery starts. This is a *sine qua non* of ensuring that labour market policies taken in response to the crisis will all contribute to enhancing employment and growth prospects in the medium term. To be most effective, short term measures have to be timely and temporary when necessary, and especially well targeted. Moreover, they must be consistent with the *flexicurity* principles enshrined in the Lisbon Strategy, to further reduce labour market rigidities, raise employability and ease transitions towards newly created jobs. In particular, it is important that measures designed to prevent job losses do not impede adjustment and ongoing structural changes. The focus on skills and productivity also needs be maintained to secure sustainable, long-term growth in the longer run. Finally, the strong complementarities existing between tax and transfer policies and active labour market programmes need to be fully exploited, to avoid that people get trapped in (long-term) unemployment when the economy recovers.

In line with this overall approach, the Commission has identified a number of principles for the short-term, to direct the policy response contingent to the crisis. Its March 2009 Communication for the Spring European Council ("Driving European recovery") suggests that Member States should focus on:

- **Keeping people in employment**, notably by providing financial support to temporary flexible working-time arrangements ("short-time") in line with production needs, which can be an important source of labour input flexibility. Such action needs to be combined with measures supporting employability and guiding people towards new jobs, empowering workers to take advantage of new opportunities when the upturn comes. Measures in this field could need to be coordinated to avoid negative spill-over in other Member States.

- **Reinforcing activation and providing adequate income support** for those most affected by the economic slowdown, making full use of social protection benefits, in line with the flexicurity approach. In those countries where unemployment insurance is strictly limited in time, consideration should be given to its temporary expansion and/or a reinforcement of minimum income provisions. Back to work incentives should be kept intact, and vulnerable groups supported in line with the active inclusion strategy.

- **Investing in re-training and skills upgrading** particularly for workers on short time and in sectors that are declining. Preference should be given to training targeted at future labour market needs, such as green jobs. Anticipation of future skills needs should therefore be promoted. Employment Services should be enhanced to cope with increased unemployment.

- **Mitigating the direct impact of the financial crisis on individuals** through specific measures to prevent over-indebtedness and maintain access to financial services. In countries with larger pre-funded schemes in their pension systems, the recovery of pension funds will be essential to protect the current and future income of pensioners.

- **Ensuring the free movement of workers** within the Single Market. This can help address the persistence of mismatches between skills and labour market needs, even during the downturn. In this context, the Posted Workers Directive serves to facilitate free movement of workers in the context of cross-border provision of services, whilst effectively safeguarding against social dumping. The Commission will work with the Member States and Social Partners on a shared interpretation of the Directive to ensure that its practical application - in particular administrative cooperation between Member States - works as intended.

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[10] See the Commission Communications: "From Financial crisis to recovery: A European framework for action", EU COM(2008)706, Brussels, 29.10.2008 and "A European Economic Recovery Plan", COM(2008)800, Brussels, 26.11.2008.

- **Considering supporting measures such as lowering non-wage costs for low-skilled workers**. Wage developments and fiscal measures should take account of each Member State's competitive position and productivity growth.

- **Providing sufficient support to tackle youth unemployment and early school leavers**. Time spent out of education or employment while young can have lasting effects. Member States should prepare for and encourage an increase in demand for **education and training,** as existing students stay on and displaced workers seek to re-skill. In this respect, future labour market growth areas such as 'green jobs' can be already anticipated.

- **Integrating measures aimed at revising employment protection legislation within a flexicurity approach** covering all its components so as to reduce segmentation and improve the functioning of labour markets.

By contrast, the following set of measures would be better avoided:

- **Indiscriminate, tax-funded support for jobs in declining industries or regions should be avoided**, as they could reduce economic efficiency/ delay necessary restructuring.

- **Direct job-creation schemes** such as in the public sector, outside of planned and needed staffing improvements in education, health and the social services**, should not be resorted to on a large scale** since these could artificially inflate the public sector. These schemes could provide useful if well targeted at specific vulnerable groups to help them keep in touch with the labour market.

- **Early retirement policies that "facilitate" economic restructuring by pushing workers in declining sectors out of the labour market should be avoided** because of their negative effects on economic efficiency and distribution over the medium term. Enabling older workers to remain active is important to support the economic recovery and to preserve the long-term sustainability of public finances, especially in a demographic context of ageing.

- **Measures aimed at making employment protection legislation more restrictive** should also be resisted as they run counter to the flexicurity principle of protecting people in the market and not the job, lengthen the adjustment period and reduce the pace of the employment growth in future.

However, it is not sufficient that Member States just introduce short-term labour market policies to counter the crisis following the principles discussed above. Member States' policies also need to be diversified and country-specific as there is a great degree of uncertainty regarding which measures will be most effective.[11] How that can be done is described in annex 2.1.

2.2. Member States' response to the crisis

This section provides a preliminary assessment of the effectiveness and efficiency of national measures undertaken so far by EU Member States to support the labour market and vulnerable groups in the short-term.

2.2.1. How Member States' responses were assessed

In order to collect possible evidence on the **effectiveness/efficiency** of Member States' policy responses, the following dimensions were looked at:

- the extent to which measures are **targeted** at specific groups in the labour market (e.g. young/older workers) or society (e.g. vulnerable households) that are being most affected by the crisis and/or have a relative high propensity to consume;

- their **timeliness**; and

- the extent to which they are **in line with the broad principles** on employment and social policies in times of crisis outlined in the Commission Communication of 4 March, **and possible pitfalls** (do's and don'ts).

Other dimensions, such as whether the volume of active labour market policies (ALMPs) and the administrative capacity of public agencies are sufficient to cope with increasing needs, the level of involvement of the social partners

[11] In the current context, characterized by a number of events and macroeconomic conditions not experienced in recent decades, existing estimates of fiscal multipliers are less reliable in informing policy-makers about which measures will be relatively effective in supporting demand.

in decision-making, or the volume of the measures under consideration, and therefore their financial cost, would of course deserve further attention when assessing their effectiveness/efficiency.

Regarding the **compatibility of measures with long-term policy goals**, the analysis has focused on:

- their **time consistency**, i.e. their compatibility with longer-term efforts, for instance to strengthen incentives to work or to adjust the balance between taxes on capital and labour, and, where relevant, their reversibility; and

- their **compatibility with** country-specific recommendations and key challenges under the **Lisbon Strategy**.

Regarding the need for EU level coordination in the light of **potential for negative spill-over effects** of national measures across Member States, the main parameter looked at concerns the implications for external competitiveness (e.g. for labour taxation and financial support to working time reductions limited to one country).

More specifically, labour market and social protection measures in recovery programmes have been classified into nine broad types of action, and assessed or mapped against a number of criteria. The mapping of reform measures was conducted by comparing a set of key characteristics of such measures against what is generally considered to be "best practice" emerging from the economic literature and compatible with the existing legal framework and Internal Market, in terms of efficiency/effectiveness of the measures, their time-consistency, their compatibility with long-term objectives and potential spill-over effects.

2.2.2. Overall support for labour markets and social protection measures

In order to alleviate the human cost of the crisis, over the last months the EU countries have introduced a wealth of measures to support the labour market and vulnerable groups.

As indicated in the Commission Communication of 4 March*,* Member States have focused on four broad types of priorities:

– **maintaining existing jobs:** short-time working allowances, reduced social security contributions, wage subsidies and support to SMEs;

– **ensuring rapid (re-) integration into the labour market:** vocational training and support for the disadvantaged, changes in sickness or disability benefits, and new eligibility rules for unemployment benefits;

– **supporting the most vulnerable:** increase in minimum income/wage, extended coverage or duration of unemployment benefits, higher housing or family allowances, tax rebates or exemptions, and measures against over-indebtedness or repossession;

– **strengthening social protection and investing in social and health infrastructure:** investments in housing, hospitals, primary care, long-term care infrastructure and schools, and actions to help pension funds meet their long term liabilities.

A thorough review of measures contained in the dataset developed by DG ECFIN with the assistance of the EPC, EMCO and SPC provides an overall picture of the intensity and direction of national reform efforts. Measures to support a good functioning of the labour market and those supporting households' purchasing power count respectively for 23% and 21% of the total number of fiscal stimuli measures recorded so far, the other actions reported in the dataset being substantially related to supporting industrial sectors, businesses and companies and to supporting the investment activity.

The labour market and social policy response to the crisis appears to be very much in line with the guiding principles set in the Communication of 4 March. A simple counting of the labour market stimuli measures is enough to see that the majority of policy interventions (25%) were intended to 'improving job placement and investing in training' and lifelong learning (and education), and therefore to increasing the employability especially of those hit by the crisis, improving the matching process, and ultimately facilitating labour market transitions. 'Reinforcing activation' and 'supporting employment by cutting labour costs', thus stimulating labour demand while keeping high the incentives not to withdraw from the labour market during the crisis, were also high on the reform agenda (respectively 16% and 12% of recorded measures).[12]

[12] The 8% of measures in the field of reinforcing social protection can be seen together with the 18% of measures aimed at supporting households' purchasing power, which are largely targeted at low-income households. 9% of total interventions classified as supporting labour market and purchasing power of vulnerable groups were intended to

5% of measures adopted in the field of encouraging flexible working time are also positively contributing to the stimuli effort, as long as for the large majority they enhance public support for 'short-time' working arrangements, improve eligibility conditions for companies, extend their access and combine, to some extent, these schemes with strengthened support for the on-the-job training of employees concerned.

In addition to the young and the low paid, laid-off workers have now emerged as a new target group for improving job placement and training. Targeting is also an important element of measures in the field of reinforcing social protection and activation, as well as of measures supporting employment by cutting labour costs. The overwhelming majority of measures to support the purchasing power of households are targeted at low-income groups.

Some 47% of measures appear to be contributing to long term goals, and 43% are also in line with the Country Specific Recommendations and/or Key Challenges set in the framework of the Lisbon Strategy, thus participating to the long-term economic policy objectives of the different Member States. On the other hand, a few measures may risk undermining long-term policy goals (such as improving incentives to work) and be difficult to reverse. These mainly concern a certain number of interventions to subsidise public job creation in a limited number of countries. While publicly sponsored job creation schemes, notably in the public sector, could prove necessary in case of very large unemployment growth and to prevent severe social consequences of the crisis, evidence shows in fact that beneficiaries of job-creation schemes enjoy delayed labour market integration in comparison to non-participants. A few measures giving accrued fiscal incentives to overtime also risk having an undesirable negative impact on job creation over the short run.

Also, while 13% seemed to be likely to have permanent adverse effect on budget, practically no measures were adopted to improve cost efficiency of social policy spending.

Notwithstanding the fact that the labour market stimuli efforts seem adequate in terms of policy choices, their intensity appears quite limited in many countries. Measures sometimes lack ambition or are rather isolated. While information on the budgetary impact of these measures is too piecemeal for a careful evaluation of how much of the fiscal packages and of GDP has been spent in these fields by individual Member States, large packages and bold/ innovative measures seem in a minority.

Finally, EU level co-ordination could be strengthened to avoid possible negative spill-over effects from as much as 22% of the measures, e.g. in the field of social security contributions rebates affecting labour costs, wage moderation interventions or subsidies to working time flexibility.

2.2.3. Encouraging flexible working-time to avoid mass lay-offs

Temporary working time reductions, temporary production site closures and other forms of short-time work implemented by firms to prevent mass layoffs in the short-term are increasingly being supported by public funds in many European countries. These schemes, which allow companies to temporarily reduce activity below contractual agreements, even to full suspension, have proved effective in the short-term in containing wasteful labour shedding due to the demand shock.[13] Member States have either introduced new forms of public support for flexible working time or temporary unemployment (PT, SI, HU, SK), or extended the duration and/or the level of already existing public support (AT, DE, FR, NL, BE and IT). Others are planning similar measures (BG, CZ, DK).

The coverage of these schemes, generally limited to workers under permanent contracts or in specific sectors/ firms with a minimum specific numbers of employees, is also being extended, notably to atypical workers in DE and FR. Short-time allowances have been extended in AT (from 3 to 6 months in general, to 18 months if prolonged) and DE (initially from 12 to 18 months, and further on to 24 months in total in June 2009). Some countries (FR, LU) have relaxed/ extended the criteria for applying for State support, while others have increased the amount of financial support available to employers (e.g. AT, DE). To have access to such schemes, stricter conditionality (e.g. facing falling demand of at least 30% over the short term, commitment not to lay-off workers and establishing a plan for sustained employment after completion of the scheme) is being increasingly imposed on firms (AT, HU, NL, SI), to deal with the potential shortcomings linked to these schemes (e.g. risk of deadweight loss, or of prolonging the moment of the inevitable closure of the company/plant thus delaying structural change where needed).

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mitigate the impact of financial crisis on individuals more in general (facilitations for payment of mortgage, VAT reductions, etc.).

[13] Job retention mechanisms put in place by companies that are experiencing a cyclical fall in demand vary a lot across countries, due to differences in national labour law or national collective bargaining regimes. In addition, the modalities and the level of involvement of public institutions in supporting the use of flexible working time also vary within the EU. See: Eurofound (2009), *Europe in Recession: Employment initiatives at company and Member State level*

An interesting characteristic of recent measures to facilitate short-time work is that countries are increasingly trying to encourage in-work vocational training for those workers who have been put on temporary unemployment/reduced working time. Whilst training has been made compulsory only in CZ and NL, other Member States provide incentives for using the reduced hours for training activities (AT, BE, DE, HU), in order to maximise the employability of workers on short-time arrangements. Coupling short-time schemes with training arrangements could prove all the more important, because staff remains on the payroll in exchange for government subsidies. Short-time working schemes may in fact lead to companies getting massively overstaffed. If the duration of the crisis is longer than expected, then even generous government schemes might not be sufficient to retain workers in part-time employment on account of the high costs for companies. Given the time limitations on many short-time schemes, the risk is that once they end, unemployment could increase dramatically. To prove their effectiveness, short-term measures therefore need to be complemented by measures supporting employability and labour market transitions as well as strong interventions in other fields.

2.2.4. *Improving job placement and investing in life-long learning*

Nineteen European countries intervened to improve the design and capacity of their ALMPs and training offer to respond to the new, pressing needs resulting from the spreading out of the crisis. Some countries heavily invested in improving and better tailoring the services provided by their public agencies to ease labour market transition (e.g. DK, EL, FI, UK), others only introduced minor changes to date (e.g. IT, MT).

A majority of interventions were characterised by a clear targeting, to adequately respond to changing needs and priorities. Measures explicitly designed to support and ease the re-integration into the labour market of recently laid-off workers were adopted in AT, BE, FI, FR, ES, NL, SE, SI, SK and UK. Other target groups typically included older workers, low-skilled, long-term unemployed, and the young.

Improving the administrative capacity of PES and their modernisation, there including increased and better targeted labour market training and vocational education opportunities for the unemployed, was at the centre of action in countries such as DE, DK, EL, ES, FR, HU, SE, SK and UK. Measures adopted in this field often represented a frontloading/upgrading of already planned medium-term reform agenda (e.g. AT, DE, HU, PT, SK, UK) in line with longer-term policy objectives, or their simple implementation (FR).

Some countries also focused on reinforcing the preventative arm of their ALMPs. NL developed the so-called "mobility centres", temporary public-private partnerships aimed at intensifying speedy and timely assistance to job seekers and businesses to prevent as much as possible forced lay offs. Employees who are threatened by unemployment will be assisted in finding a new job, or temporarily be sent on secondment at other employers, if necessary through additional education and training.

Training opportunities and incentives were expanded in most countries (e.g. AT, BG, EL, FI, FR, HU, PT, RO, SI, SE, UK). On-the-job training was increasingly recognised as a key-tool to improve the employability also of employed workers. RO introduced a 50% support on expenses for continuous vocational training for both employees and unemployed. DE established a new programme to support further vocational training for temporary workers, through a system of training vouchers. PT expanded the provision of job training to beneficiaries of minimum income. Financial support to access education was enhanced in AT, PT and SE.

Subsidised job creation schemes in the public sector were introduced notably in CZ, HU, SK and RO. While such schemes could prove necessary at a certain stage, in case of very large unemployment growth and to prevent severe social consequences of the crisis, they need to be well targeted and properly designed to avoid longer term negative effects on both public budgets and their beneficiaries.

Specific interventions to support workers threatened by mass dismissals in those sectors which are being most hit by the crisis were adopted in ES, including in-work vocational training, social security rebates to preserve existing jobs, subsidies for job search and mobility.

2.2.5. *Supporting employment by cutting labour costs and reinforcing activation*

Rebates on social security contributions to boost labour demand during the crisis were typically made conditional upon job creation (BE, ES, FR HU, PT, SE, SK). Measures were often targeted to those most difficult to employ, sometimes to SMEs (e.g. FR, PT) or to the self-employed (SI, SK). In a few cases the fiscal boost was directed towards sustaining employment in specific sectors, such as household related employment services and building maintenance (DE, SE), or strategic activities or sectors such as R&D and investment and renewable energies (BE, ES).

Lowering labour costs for both employers and employees featured already in some medium-term national reform programmes, in line with the CSR or PTW under the Lisbon Strategy, and gained additional relevance in the framework of the crisis (BE, FR, SE, DE). BE extended its intersectoral structural wage adjustment system, a scheme that reduces wage costs via a partial exemption from withholding tax on wages. BG announced its intention to align wage increases in the public sector with productivity growth.

Improving the incentives to work embedded in the tax and benefit system was also high on the policy agendas, and in line with the long term goals of most countries. Income supplements and targeted in-work tax credits (BE, NL, SE, SK) were reinforced, commuters tax allowances (AT, DE, SK) increased, the design of unemployment insurance modified so as to increase work attractiveness (BG, ES, IT), and new social assistance schemes implemented, conditional upon availability to work (FR). A few measures were also taken to support female labour market participation (e.g. MT, NL).

Apart from tax measures, where the tax pressure on labour was mainly reduced especially for low-wage earners (e.g. FI, MT, PL, SE), most of these measures appear to be temporary and contingent to the economic crisis. The risk of permanent adverse effect on public budgets seems to be quite limited in this field.

2.2.6. Mitigating the impact of financial crisis on household and individuals

Most Member States took action to provide additional support to people's income, although to different degrees. Measures range from increasing the level of minimum income or minimum wage, extending the coverage or duration of unemployment benefits, reinforcing other social benefit, to introducing tax rebates or exemptions for specific groups. Comprehensive social welfare packages were adopted in IE and UK, to face the social consequences of the crisis in an integrated way. In IE, this includes increases in old-age and other pensions, fuel allowances, unemployment and child benefits.

Interventions in this field can be broadly regrouped as follows:

– Temporary extensions of unemployment benefits to cushion the unfolding employment impact of the crisis. The generosity (level and/or duration) of unemployment benefits was increased in BE, BG, EL, IT, LT and RO. Their coverage was also extended (BG, FR, IT, PT) and the conditions for having access to unemployment benefits relaxed in SE and FI.

– Increases in the guaranteed minimum income and level of other benefits to directly support people's income, especially the most vulnerable, there including families with children (e.g. BE, BG, DE, FR, LT, LU and UK). In some countries measures were introduced to support low-income pensioners (see BE, EL, FR, RO and SE). Allowances to support heating/ electricity costs were introduced in BE, DE, HU, IT. One-off payments to temporarily alleviate the situation of the most vulnerable households, targeted at specific items were introduced in BG, FR, IT.

– Tax rebates or exemptions/ allowances for low-income groups (notably AT, BE, DE, FR, LU, MT, PL). Tax rebates have been also targeted at specific expenditure, such as the reduction of VAT on oil used for heating purposes in CY, or health-care insurance contributions in DE

– Increases in the level of minimum wages (BG, ES, LV)

– General VAT reductions to support aggregate demand in the UK; on pharmaceutical products in FR, LT and AT and on food in FI

– Measures to protect mortgage holders against repossessions, to address over-indebtedness, or to create incentives for banks to give access to credit to individuals, including people on low income (ES, FR, IT, PT). Some countries have taken measures to protect mortgage holders from defaulting on their mortgage payments and risk losing their homes.

2.3. The case for a coordinated policy response at EU level

It follows from the analysis above, that about a quarter of the measures are likely to generate considerable spill-overs on other Member States. This notably concerns policies aimed at e.g. reducing social security contributions and, in particular, subsidies to working time flexibility. Especially in the latter case, there may be a need for stronger EU-level co-ordination to avoid competitive distortions in the internal market.

Public interventions to help firms overcome heavy falls in demand in one country, by putting personnel on short-time/ temporary unemployment schemes, might negatively affect over the short-term the firing decisions of multinational companies, concerning their sites in those countries where public support is not provided at all or is not set at a comparable level. Improved coordination in this field could prove necessary to avoid side-effects across the borders.

Similarly, large cuts in non-wage labour costs in those countries which have already gained in external competitiveness on account of relatively low growth in unit labour costs over the past years could be detrimental for the competitive position of those EU countries which have been recording significant competitiveness losses. This could lead to further competitive losses, given that some of the same countries with weak competitive positions are also experiencing fiscal sustainability concerns, which would limit the feasibility of large tax cuts. This suggests that further co-ordination at EU level, and especially within the euro area, could be beneficial.

The EERP takes stock of the increasingly common challenges faced by Member States and underlines the importance of improved coordination as the most effective way to stabilise national economies, restore growth and maintain social cohesion.

The EU Common Principles on *Flexicurity*, those on Active Inclusion, the common objectives on social protection and the Stability and Growth Pact partially respond to this, by providing key guidance to ensure that measures adopted are well in line with agreed economic policy goals, and guarantee an adequate level of security during the recession while keeping on the path towards the modernisation of labour markets. Yet, in a number of areas sketched above, stronger EU-level co-ordination might be needed to avoid that the measures introduced in some countries entail competitive distortions and negative spill-over effects on other countries.

2.4. Concluding remarks: Tentative findings of assessment of recovery measures against the guiding principles

Overall Member States have put **significant emphasis on employment** in designing their recovery packages: measures to support a proper functioning of the labour market and supporting household purchasing power represent just over half of the recovery measures undertaken by Member State. Although they cover a smaller share of the total fiscal stimulus, overall, considerable budgets are being allocated to supporting employment.

However, there is **considerable variation across Member States** in the composition of their labour market response by type of measures as evidenced by table 4.

There seems to **be a large scope for policy learning across Member States**. A preliminary assessment of the same type of measures in different countries has identified a series best practices that warrant close consideration more widely (see box hereafter).

Assessed individually on a measure- by- measure basis, **most measures seem compatible with the agreed principles and policy do's and don'ts**. The majority of measures seem to address the specific policy objective they pursue in a rather ambitious manner, although there are a considerable number of measures which could be made more effective by rendering them more comprehensive. There is also a **considerable degree of targeting** of measures on labour market categories that need support most (low income groups; recently laid-off workers). Short term policies also seem to be **contributing to long term reform challenges** with some 40% of the measures addressing Country Specific Recommendations or Key Challenges identified under the Lisbon Strategy.

However, there are **a few measures that may risk undermining long-term policy goals** or might be difficult to reverse - in particular, public job creation schemes. Other measures, such as fiscal support for overtime could be undesirable in the short term, since they could negatively affect job creation during the recession. Also, some 10% of the measures are likely to have **permanent adverse effects on public finances**. These measures should be reviewed and, where necessary, amended.

Unfortunately, there seem to be **very few measures aimed at improving the efficiency of welfare systems** as a result of which the reforms do not seem to directly contribute much to improving the sustainability of public finances. Of course, the measures addressing long term responses will indirectly support public finances.

About a quarter of the measures are likely to generate **sometimes considerable spill-overs on other Member States**. This concerns policies aimed at e.g. reducing social security contributions and, in particular, subsidies to working time flexibility (e.g. through part time unemployment support). Especially in the latter case, there may be a **need for stronger EU-level co-ordination** to avoid competitive distortions in the internal market.

Some examples of good practice:

UK *developed a comprehensive* ***strategy on employment****, notably through the "New Opportunities White Paper". The employment package includes: increased training opportunities for the unemployed; strengthened pre-redundancy support; further support for those who are still unemployed after six months, there including and expanded range of work and training options. The Jobseeker's Allowance has been reformed with the introduction of a personalised, contracted Personal New Deal to provide the right support for skills and back-to-work activity, through a staged programme of support for all Jobseeker's Allowance customers. A National Employment Partnership has been also set up to examine what more employers can do to tackle unemployment, supported by a substantial expansion of JobCentre Plus Local and of JobCentre Plus Rapid Response Centre for employers.*

DE *extended the period of receipt of* ***short-time allowance*** *from 12 to 18 months limited to 2009; simplified the application and procedure for receipt of short-time allowance; and introduced support to companies to ensure that short-time takes precedence over redundancies by reimbursing 50% of employers' social security contributions in 2009 and 2010. Employers who give their workers on short-time the opportunity to participate in qualification measures will be reimbursed with the full amount of SSC. A federal programme on funding qualification for workers on short-time will enhance in 2009 workers' adaptability to the requirements of the labour market. The programme distinguishes between qualification measures geared to the labour market in general and specific qualification measures focussing more strongly on the needs of the respective company. The amount of assistance varies between 25 and 80% of training course costs, depending on type of training, size of the company, and persons participating in the scheme.*

Annex 2.1: The need to take country specificities into account

Whilst there are principles that should underscore short-term labour market policies introduced by Member States to counter the crisis, nonetheless each Member State's policies need to be diversified and country-specific as there is a great degree of uncertainty regarding which measures will be most effective.[14] To define a suitable short-term reaction for a Member State that responds to the severe worsening of labour market conditions in a way that respects the guiding principles discussed above and yet respects national specificities, it is useful to briefly recall the main mechanisms guiding labour market responses to shocks and the specific characteristics of this crisis.

The labour market response to shocks may occur through (i) "price" adjustment, i.e. through changes in wages/labour costs, and (ii) "quantity" adjustment, i.e. through changes in the total number of hours worked (i.e. either the number of people employed or in the average hours worked), and ensuing (iii) labour mobility (geographical and occupational).

The appropriate response to shocks depends on their nature (**demand or supply shocks**) and whether the shock is **generalised or sector-specific**, **permanent or temporary**. Cost-effective policy responses should address in different ways cases where a sectoral reallocation of labour is needed from situations that entail a temporary reduction or suspension of the production. The two need different short-term policy responses.

The current economic crisis requires a restructuring of certain sectors (sector-specific supply shocks) amid a generalised weakness of the labour demand. Thus, the required policy-response needs to be tailored to the specialisation structure of each country.

Measures aimed at reducing the costs of adjustment and speeding-up transitions on the labour market are best placed to respond to shocks implying a relocation of resources from one occupation or sector to another (i.e. sector-specific supply shocks). Measures aimed at avoiding wasteful labour shedding are most used by industries temporally affected by short-term demand disturbance. Measures to support the income and purchasing power of those hit by the economic crisis are most needed in case of prolonged slow-down to help low-income households through the recession and the recovery period. Targeted tax cuts to enterprises or households may favour a pick up in the aggregate demand in case of short-term disturbances. However, when uncertainty prevails and precautionary motives are the reason of a built-up of inventories, of a downward revision of investment and of bleak demand prospects, tax cuts might not have the desired effects, as any cut would rather give rise to an increase in savings.

Beside the nature of the shock, the **measures** countries are taking in line with the common EU guidelines **should also be tailored according to their specific labour market institutional set-up**. For example, measures may differ in importance for countries depending on whether in the past they preferred legislation to protect workers in their jobs (high EPL) rather than in the labour market through adequate social safety nets (income insurance). Underdeveloped social security infrastructure (for instance in the case of New Member States and Mediterranean countries) may prevent these countries from effectively providing adequate income support during the recession.

Measures should also take account of the **fiscal situation of MS**. Those countries with strong budgetary positions and/or facing a large shock should be ready to do more. Coordinated action could be also needed to define possible EU intervention to support some MS with financing the consequences of asymmetric economic shock for their social protection and unemployment insurance systems.

[14] In the current context, characterized by a number of events and macroeconomic conditions not experienced in recent decades, existing estimates of fiscal multipliers are less reliable in informing policy-makers about which measures will be relatively effective in supporting demand.

Annex 2.2: The Commission / EPC dataset on measures in Member States' recovery programmes including an assessment module

The information set developed by the Commission with input from the EPC, EMCO and SPC includes reforms that are relevant in the short-run for the recovery process, irrespective as to whether they were devised specifically as a response to the economic cycle. The data set only includes information on reforms which are relevant for (i) sustaining aggregate demand, (ii) sustaining employment, (iii) addressing competitiveness problems and (iv) protecting incomes of disadvantaged groups during that period. Information has been drawn from several sources including the Addenda to SCPs, reforms reported in NRPs and contributions from EPC, EMCO and SPC members.

Measures have been classified in four broad types and respective sub-categories: *measures and reforms aimed at supporting industrial sectors, businesses and companies*; *measures and reforms aimed at supporting a good functioning of labour markets* (including (i) promoting wage moderation, (ii) temporary working-time reduction, (iii) reduction of tax on labour, (iv) unemployment benefit system and social assistance, and (v) easing labour market transitions); *measures and reforms aimed at supporting investment activity; measures and reforms that support household purchasing power*, including (i) general income support, (ii) targeted income support, and (iii) household subsidy for certain types of goods/services.

An assessment module has been developed to allow for a preliminary mapping of the intensity and direction of the employment and social reform effort. The mapping exercise was conducted by comparing a set of key characteristics of structural reform measures against what is generally considered to be "best practice" emerging from the economic literature and compatible with the existing legal framework and Internal Market. The following categories were used to conduct the assessment: a) effectiveness/efficiency, b) compatibility with long-term objectives and c) potential spill-over effects.

In order to collect broad evidence on the **effectiveness/efficiency** of the policy response, the assessment module provides information on the extent to which measures are adequately **targeted**; their **timeliness**, i.e. their capacity to rapidly produce effects; the extent to which they are **in line with the broad principles** on employment and social policies in times of crisis outlined in the Commission Communication of 4 March, **and possible pitfalls** (doe's and don'ts). Information on the budget volume of each measure is still piecemeal to usefully contribute to this assessment.

Regarding the **compatibility of measures with long-term objectives**, the analysis has focused on: whether short-term measures are **timely**, for instance if they contribute to strengthen incentives to work or to adjust the balance between taxes on capital and labour, or need to be reversed in order not have permanent negative effects on the achievements of long term objectives such as improving the incentives to work; and their **compatibility with country-specific recommendations and key challenges under the Lisbon Strategy**.

Regarding the need for EU level coordination in the light of **potential for negative spill-over effects** of national measures across Member States, two main parameters have been used: competitiveness (e.g. labour taxation) and cross-border social effects (e.g. financial support for working time reductions limited to one country).

Table 11: ECFIN Dataset's Assessment module

Timeliness	Adequately targeted *(allow 2 choices when there is a package of measures)*	Key guiding principles *(report one or two)* *First principle and the degree of compliance*		Pitfalls	Time consistency	Compatibility with policy objective of Lisbon strategy	Need for coordination *Possible negative spillover to other Member States*	Candidate for Best Practice
• **Implemented in 2009** • **Most of the effect after 2010** • **Insufficient information**	• **Not relevant** • **Targeted: young** • **Targeted: older workers** • **Targeted: women** • **Targeted: low-income households** • **Targeted: low-skilled** • **Targeted: migrants** • **Targeted: workers hit by collective dismissal** • **Targeted: long term unemployed** • **Targeted: others** • **Not targeted enough**	• **Encouraging flexible working-time** • **Improving job placement and investing in re-training** • **Maintaining/reinforcing social protection** • **Reinforcing activation** • **Supporting employment by cutting labour costs** • **Revising EPL in line with flexicurity** • **Enhancing education and life-long learning** • **Supporting household purchasing power** • **Mitigating the impact of financial crisis on individuals** • **Not following key guiding principles** • **Insufficient information** • **Other**	• **Strong** • **Medium** • **Weak** • **Insufficient information**	• **No pitfalls** ***[by default]*** • **Large public direct job creation** • **Inefficient job support** • **Reducing labour supply (e.g. early retirement)** • **Reducing labour market flexibility and hampering transition (e.g. more restrictive EPL, reduced WT flexibility)** • **Harming the free movement of workers** • **Deteriorating competitiveness and fiscal position** • **Other**	• **Not consistent with preserving incentive to work but only temporary** • **Costly social protection but only temporary** • **Risk of permanent adverse effect on budget** • **Risk of permanent adverse effect on incentive to work** • **Contribution to long term goal*** • **Other**	• **Key challenges** • **CSRs/PTWs** • **Both** • **N.A.**	• **Competitiveness** ***(e.g. labour taxation; wage moderation)*** • **Social dumping** ***(e.g. financing working time reduction limited to one country)***	

*Long-term goals can, for instance, include modernising social protection; labour supply friendliness; no budget slippage.

3. PROMOTING INVESTMENT IN TIMES OF CRISIS: A PRELIMINARY ASSESSMENT OF NATIONAL RECOVERY MEASURES TO SUPPORT INVESTMENT IN PHYSICAL INFRASTRUCTURE, ENERGY EFFICIENCY AND R&D ACTIVITY

3.1. Introduction

The EERP proposed to increase available Community funding for large-scale infrastructure projects by € 5bn and announced a set of measures to accelerate the implementation of Structural Funds[15], as well as an increase of the EIB's lending volume. The European Council of 19 and 20 March 2009 concluded that good progress had been made with the implementation of the EERP, but recognised that it would take time for the positive effects to work their way through the economy. This chapter takes a closer look at one important type of measures included in recovery programmes, namely measures to support investment activity and R&D. The assessment has been carried out as part of a wider Commission effort to assess progress in implementing EERP recovery measures, including measures to support the labour market and business sectors[16].

The assessment carried out in this chapter is based on information submitted to the Commission through the EPC, as well as on publicly available information (such as websites on recovery plans provided by national authorities)[17]. As for the other thematic chapters, the Commission has sought to develop general guidelines or criteria to assess recovery measures to support investment and R&D, which in particular examine:

- The effectiveness/efficiency of recovery measures in terms of actually supporting demand, employment, and vulnerable groups in the short term, while minimising negative side-effects in the long term. The efficiency of reform measures has been assessed, wherever possible, by comparing design characteristics against what can generally be considered to be best practice.

- The compatibility of recovery measures with the achievement of longer term goals, such as facilitating a swift adjustment/recovery, and in particular with EU broad objectives like the functioning of the single market or actively contributing to meeting climate change goals.

The aim of the analysis is to try to identify, even tentatively, examples of measures which may be of interest to other Member States and/or where there is the potential for improvements by increasing the coordination across recovery measures, or the compatibility with long-term policies.

3.1.1. The impact of the crisis on investment activity

The crisis has hit investment severely. The Commission's Spring 2009 forecast points to a contraction of 10.5% in 2009 in the EU, following flat growth in 2008 (see figure 4); investment growth is also forecast to remain negative in 2010 (-2.9%). This is a substantial revision of the autumn forecast, the largest across all demand components.

The fall is particularly acute in investment in equipment (-16.4% in 2009 and -3.6% in 2010 in the euro area), though growth in construction investment will also remain in the red (with an expected contraction of 6.5% in 2009 and of 2.5% in 2010). As a result, the current fall in total investment growth is more severe than in previous downturns. Specifically, investment in equipment has been hit by weakening demand, reduced availability of funding and waning confidence, as shown in the Economic Sentiment Indicator[18] and the composite Purchasing Management Index

15 See Annex 3.2 on the use of Structural Funds in the recovery measures by Member States.

16 See: *Note for the attention of the Economic Policy Committee. A first preliminary assessment of employment and social policies to soften the impact of the crisis* ECFIN/REP/51628 (April 2009); *Overview of progress – recent measures taken by Member States to support the labour market* ECFIN/REP/52201 (May 2009); *Note for the attention of the Economic Policy Committee. A closer first look at measures supporting European Industry and SMEs* ECFIN/REP/52199 (May 2009)

17 The assessment has taken into account new measures adopted or announced by Member States in response to the crisis until the end of April 2009, as well as measures predefined in the National Reform Programmes provided that they have a significant stimulus effect in the short term. As additional measures have been adopted or started being implemented since May 2009, this chapter presents a preliminary and non-definitive assessment of the recovery measures supporting investment. Further exchanges of views with Member States and in-depth analysis are currently undertaken by Commission services (see draft paper for the Environment Council *Green elements from Member States recovery plans,* May 2009 and documents for the EMCO Ad Hoc Group meeting, 11 June 2009).

18 European Commission, DG ECFIN *Business and consumer survey results* (May 2009)

(PMI)[19]. In turn, investment in construction is negatively affected by the large downturn in the housing market, particularly in Member States, such as the UK, IE and ES. All in all, the expected slump would have been higher had it not been for public investment stimulus measures. Indeed, public investment in the EU is forecast to reach 2.8% of GDP in 2009, from 2.6% in 2008.

Short-term prospects are not particularly promising. Survey results show that managers expect weak demand for some time, which could translate into further reduced investment. Although some confidence indicators have improved recently, they still point to continued weakness in economic activity[20]. On the financing side, the EU banking system remains under considerable stress, as shown, *inter alia*, in the high spreads on credit default swaps and in banks' tighter credit standards. Furthermore, private consumption is forecast to remain weak, due to losses in financial and housing wealth. These are likely to boost savings over next year despite lower price pressures and interest rates. According to the accelerator theory, depressed private consumption should translate into weak investment prospects. Finally, throughout 2009 construction investment will, in all likelihood, be dragged down by the ongoing correction in the housing markets of several Member States[21].

3.1.2. The rationale for focussing on investment and R&D in recovery plans

The slump in investment activity has major economic consequences, notably on potential growth and the achievement of the EU climate change goals.

A key issue is whether the observed plunge in private investment in 2009 is cyclical in nature and thus could be expected to be reversed in an upswing: if not, there are potentially large negative implications for potential growth. For public investment, a key issue is what will happen to spending levels in Member States that need to undertake substantial budgetary consolidation. Large public interventions – not only in investment-related areas − contribute to deteriorating public finances, which are already burdened by the economic downturn and the prospect of ageing populations. This results in a widening in yield spreads relative to benchmarks, and hence increases opportunity costs of debt issuance from Member States with declining fiscal space, which could, in turn, jeopardize future investments in public infrastructure.

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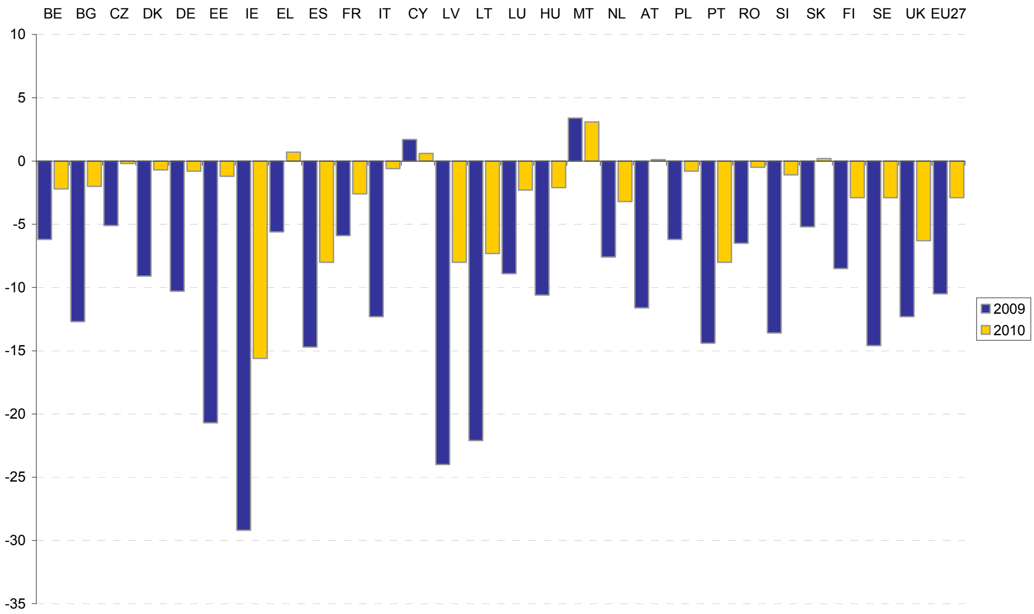
19 Institute for supply management *Manufacturing ISM Report On Business* (May 2009)

20 According to DG ECFIN *Business and Consumer Survey results* (April 2009), the six-monthly industrial investment survey carried out in March and April of this year shows that managers in most Member States expect a sharp decrease in their investment volumes in 2009 compared to 2008. More specifically, in 2009 real investment is expected to drop by 18% in the EU and by 20% in the euro area. This represents a significant downward revision of expectations from the -5% reported in both regions in the previous investment survey conducted in Autumn 2008.

21 Indeed, whereas the Economic Sentiment Indicator (ESI) for the EU and the euro area has improved in April and May 2009 for the first time since May 2007, construction sentiment declined.

Figure 4: Total investment, volume (% change on preceding year)



Source: Commission's Spring 2009 Economic Forecast.

Yet, the decline in physical investments is at odds with the need to adapt the infrastructure to climate and energy challenges. The Climate and Energy package adopted by the Council and the European Parliament in December 2008 has set legally binding targets for 2020: to cut EU greenhouse gas emissions to 20% below 1990 levels and to increase the share of renewable energy to 20%. Achieving these targets requires structural changes in EU energy production and consumption patterns, on the part of public authorities, energy regulators, infrastructure operators, the energy industry and end-users. It entails investments from now up to 2020 to upgrade buildings, energy and transport infrastructures, to diversify energy production and to better address demand needs[22]. R&D investments are also needed to increase productivity growth and to improve Europe's competitiveness position. Note that higher productivity growth is needed given the growth constraints imposed by ageing populations and the current rise in debt and public deficits.

3.1.3. Criteria guiding the assessment

The assessment of investment and R&D measures is based on criteria falling into the following four broad categories.

- Timeliness: i.e., whether the measure is planned to be implemented in 2009 and/or 2010 and whether or not there is available evidence on significant delays. In some cases, this will depend on the existence of proper framework conditions. In this case, it is useful to analyze whether the measures are coordinated with other policies, such as the removal of administrative burdens, or other supportive conditions. Attention is also paid to whether the measure frontloads or builds on existing plans or schemes.

- Temporary: in some cases, it is useful to analyse whether the measure is temporary, with a view to minimizing its budgetary impact.

- Targeted: i.e., whether the measure is addressed towards specific groups or sectors hard hit by the crisis. In some cases, the appropriateness of the measures to the specific conditions of the Member States has been considered.

- EU value added and compatibility with long-term objectives: i.e., whether the measure is likely to yield positive spill-over effects at the EU level (like the improvement of international transport connections) and/or, whether it is in line with broader long-term objectives (such as improvements in energy-efficiency and climate change goals).

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22 Buildings account for over 40% of the EU energy consumption and transport infrastructure over 20% and a large share of the least-cost climate change abatement options is to be realised in these two sectors.

The use of the flexibility introduced within the EU regulations on State aid as well as coordination with accompanying measures to facilitate the transition in the labour market are also considered.

In addition, the assessment takes into account the budgetary impact as well as the use of EU support (such as Structural Funds). The following sections provide further information on the assessment criteria used for each type of investment, whenever relevant.

3.2. Member States' response to the crisis

3.2.1. Overall support to investment and R&D

In line with the EERP, measures to support investment have featured prominently in Member States' recovery plans.

Rather than looking at the nominal number of measures in recovery programmes, a more insightful indicator is to consider the size of the discretionary fiscal stimulus over 2009-2010 that was targeted at infrastructure spending. As indicated in Table 12[23], this varies across Member States. It is significant in countries such as CY (1.8% of GDP), LU (1.7%), SI (1.2%), PL (1.2%), ES (0.9%), DE (0.9%), MT (0.6%) and SE, CZ, AT and NL (around 0.5%). In contrast, the budgetary stimulus is negligible or inexistent in BG, EE, IE, EL, LV, HU, SK and UK, the majority of which virtually have no budgetary space. Overall, the total planned stimulus over 2009-10 considered in this assessment is around €57bn (0.45% of EU GDP), which is more than the amount of resources allocated to sectoral support. Physical infrastructure is by far the largest investment category (around €32 bn and 56% of total investment measures), followed by energy efficiency-related investments (€20 bn and 35% of the total number of investment measures), the remaining €4.9 bn (9% of the measures) going to investment in R&D.

The remainder of this section contains a more in-depth description and assessment of the three main types of investment, namely on physical infrastructure, energy efficiency and R&D.

3.2.2. Physical infrastructure

3.2.2.1. Description of policy measures

Nearly all Member States have announced measures aimed at supporting investment in physical infrastructure (see Table 13). The current assessment is based on information on 85 measures foreseen in 26 Member States (all but LV)[24]. Two-thirds of the measures consist of direct investment by the public sector, but some Member States foresee private investment, either in combination with public funding (usually PPPs, for example in BE, CY, EL, NL, PL and SK), or through other financial instruments such as advantageous conditions for credits (DE), tax incentives (LU and PT) or subsidies (NL). 6 measures involve off-budget expenditure (AT, BG and SI). Some Member States foresee regulatory measures aimed at accelerating investment by simplifying procedures (BE and LU), by facilitating PPPs (BE, CZ and RO), or at speeding up the absorption of structural funds (BG, HU and PL). Finally, a few measures consist in adopting investment-related strategies (CZ and PL). Some of the measures supporting physical infrastructure are accompanied by measures aimed at minimising the administrative burden created, such as simplification of public procurement rules

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[23] Table 12 reflects information made publicly available between November 2008 and the end of April 2009. The information might therefore differ from the estimates provided by other related documents where updates have been introduced since then. Besides, there are some discrepancies between the estimates of the overall stimulus and those of public support to investment in different areas, as there are some overlaps across domains (especially for SE, FR). Off-budget measures have been included in the assessment (especially in the case of AT, BG, EE and SI) and to estimate the size of the stimulus where relevant for support to "physical infrastructure" and for "energy efficiency", even though they have no budgetary consequences. Estimates for support R&D corresponds to new measures in response to the crisis with budgetary impact, excluding off budget measures. Last, estimates take into account new measures adopted or announced by Member States in response to the crisis until the end of April 2009, as well as measures predefined in the National Reform Programmes provided that they have a significant stimulus effect in the short term. As additional new measures are adopted or start being implemented, these estimates will need to be revised.

[24] Five additional measures have not been considered in the assessment for varied reasons. LT has announced an across-the-board 10% cut in public investment. The cut does not affect ongoing projects, but new ones, as well as projects whose construction would last for more than five years. This measure is accompanied by a reduction in the land appropriation. To our knowledge, the increase in infrastructure investment initially announced in BG is also not going to be implemented in practice, since the government has subsequently adopted budget cuts. Moreover, the measures announced by CZ are accompanied by an extension of the existing toll system to vehicles above 3.5t, which has not been considered as a measure supporting investment activity. Finally, the initially foreseen package to accelerate investment in IT by around € 8bn over 2009-2011 as compared to previous plans will most probably be shifted towards reconstruction of the regions affected by the earthquake.

(among others, DE, FR, HU, NL, PL and SK). Some Member States foresee investment packages by municipalities to support their access to credit (DE, DK, ES and FR)[25].

The stimulus resulting from the measures aimed at supporting investment in physical infrastructure is estimated at about €21.5 bn (0.17 % of EU GDP) in 2009 and €10.34 bn (0.08 % of GDP) in 2010, but the total stimulus could be significantly higher[26]. It should be noted that at least one sixth of the budgetary stimulus in physical infrastructure corresponds to measures which were already planned before the crisis (€2.85 bn in 2009 and €2.26 bn in 2010)[27]. In addition, the impact of the budgetary stimulus will be supported by regulatory measures, measures encouraging private investment, as well as additional measures involving off-budget expenditure foreseen by national authorities[28].

Source: Commission services based on publicly available recovery packages and information provided by Member States

The budgetary impact of the measures aimed at increasing investment in physical infrastructure is high compared with the measures aimed at increasing investment in other areas, but it seems more modest when compared with other figures on investment. For example, for the period 2007-2013, the Community foresees to contribute some €109bn to financing transport projects of the TEN-T network, besides the funds allocated through the cohesion policy to other transport projects, utilities, energy, telecommunication, education and health. In 2005 national governments spent on traditional infrastructure (mainly transport) around 1.2% of GDP in the cohesion countries and new Member States, and 0.7% of GDP in the EU-15. The total government investment (including social infrastructure, public goods and housing) amounted to about 3.5% of GDP in the cohesion and new Member States, and to 2.3% of GDP in the EU-15[29].

25 In addition, FI use extensively various schemes addressing local investment involving off-budget expenditure.

26 Information on the budgetary impact is available for only two-thirds of the measures. In addition, RO has planned to substantially increase public investment in 2009 compared to 2008 (from around 5.7% of GDP in 2008 to some 6.5% of GDP. IE has reduced public investment in 2009 by around € 2bn compared to earlier plans, but capital expenditure still represents more than 4% of GDP.

27 The stimulus provided by measures already planned before the crisis represents most probably a higher percentage of the overall stimulus, since for many of these measures no information on the stimulus is available.

28 For example, the FR recovery plan includes additional investment by public companies (€ 4bn).

29 González Alegre, J., and A. Kappeler,, A. Kolev, and T. Välilä *Composition of government investment in Europe: Some forensic evidence*, in European Investment Bank papers, Vol. 13, No 1

Table 12: Overview of recovery measures supporting investment by Member State

	Number of measures analysed	Size of the stimulus (% of GDP) in 2009-2010				Significance of the support to investment			
		Overall support to investment	Public support to investment (% of GDP) with effects for the recovery						
			in phys. infrastr.	in energy efficiency	in R&D	Phys. infrastr.	Energy efficiency	R&D	
BE	8	0.25	0.11	0.12	0.02	+	+		BE
BG	5	> 0.14	0.14	n.a.	0				B
CZ	14	0.54	0.33	0.19	0.02	+	+		CZ
DK	3	0.40	0.40	0	0	+			D
DE	12	0.86	0.17	0.61	0.08	+	++	++	D
EE	3	>0.09	n.a.	0.09	0		++		EE
IE	7	>0.04	n.a.	0.02	0.02		+		IE
EL	1	0	n.a.	0	0				EL
ES	9	0.93	0.84	0.01	0.08	+	+	+	ES
FR	9	0.32	0.22	0.08	Off budget	+	+	+	FR
IT	7	> 0.06	n.a.	0.02	0.04				IT
CY	6	1.8	1.8	n.a.	0	+			C
LV	1	0.13	0	0	0.13				L
LT	8	n.a.	n.a.	<1.6	0		+		LT
LU	6	1.7	1.5	0.18	0	+	+		L
HU	5	n.a.	n.a.	< 0.1	0				H
MT	3	0.64	0.62	0.20	0	+	+		M
NL	14	0.49	0.26	0.13	0.10	+	+	+	N
AT	11	0.51	0.35	0.14	0.02	+	++		A
PL	11	1.2	1.10	0.06	0	+	+		PL
PT	5	0.34	0.18	0.16	0	+	++		PT
RO	3	n.a.	n.a.	0	0				R
SI	6	>1.2	0.88	n.a.	0.32	+		+	SI
SK	4	0.20	0.02	0.02	0.16		+		SK
FI	4	0.42	0.32	0.08	0.02	+	+		FI
SE	3	0.56	0.34	0.13	0.09	+	+	+	SE
UK	8	0.17	0.12	0.05	0	+	+		U
Tot.	**176**		**€32 bn (0.25% of**	**€20 bn (0.16% of**	**€4.9 bn (0.04%**	**85 meas.**	**57 meas.**	**34 meas.**	

Table 13: Stimulus of recovery measures to support investment in physical infrastructure, in € bn, by type of instrument

Instruments	Number of measures	Direct stimulus associated with the use of the instrument		Member States
		in 2009	In 2010	
Direct public investment	55	€20.38 bn (0.16% of GDP)	€9.00 bn (0.07% of GDP)	23 MS (except AT, EL, LV, SK)
Public and private investment	9	€0.15 bn (negligible)	€0.14 bn (negligible)	6 MS: BE, CY, EL, NL, PL, SK
Other financial instruments (subsidies, tax incentives, loans)	6[30]	€0.47 bn (0.004% of GDP)	€0.61 bn (0.005% of GDP)	4 MS: DE, LU, NL, PT
Regulatory measures to support investment	6	€0.08bn€ (negligible)	€0.00 bn (negligible)	5 MS: BE, CZ, LU, PL, RO
Planning	3	-	-	2 MS: CZ, PL
Off-budget expenditure	6	€0.44 bn (0.004% of GDP)	€0.59 bn (0.005% of GDP)	3 MS: AT, BG, SI
Total (see footnote 24)	**85**	**€21.53 bn (0.17% of GDP)**	**€10.34 bn (0.08% of GDP)**	**26 MS (except LV)**

Source: Commission services based on publicly available recovery packages and additional information provided by Member States.

By type of physical infrastructure, almost two-thirds of the measures (amounting to around €13.7 bn) aim at supporting investment in transport infrastructure (51 measures, including 43 dedicated exclusively to transport infrastructure). The largest group of them is related to the road and/or railway sectors, with some measures for investment in ports (PL, LT and CY), airports (CY, IE, LT and SI) and their access routes, and inland waterways (DE, LT, NL and PL). A few measures are dedicated to more innovative solutions, such as refining the strategies on logistics and transport technology (CZ), improving interconnections between various modes to increase the efficiency of the transport system (SE), constructing a microwave toll system (CZ), or modernising the air traffic control infrastructure (SI). Moreover, a few measures of varied relevance announce investment in urban public transport (BE, CY, CZ, DK and EL), but only one measure foresees explicitly investment in cycling paths (DK). Two measures by BE and DE foresee investment in noise screens.

Nearly 30% of the measures correspond to the building sector (24 measures, including 17 dedicated exclusively to buildings), amounting to almost €6.8 bn[31]. Most of them are focused on education or other social infrastructure (such as healthcare or sport facilities), and only a few measures concern the housing sector. Measures announcing investment in the building sector linked to energy efficiency improvements have been considered in Section 2.3 dedicated to measures supporting energy-efficient investment, whereas measures included in this section are *a priori* not linked to improvements in energy efficiency.

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30 In addition, the investment package for municipalities in DK is partly provided in the form of a loan facility.

31 This figure does not include the Fund for Local Public Investment from ES, amounting to €8bn, which comprises investment in social facilities as well as other communal infrastructure.

Some Member States support investment in other types of infrastructure, like urban development (ES, MT, NL and PT), environmental infrastructure such as water infrastructure (ESFR, FI and MT), flood defences (NL and UK), or irrigation systems (CY), telecommunications (PL, LU and FI) rural development and tourism (RO), or energy infrastructure (HU)[32].

3.2.2.2. Assessment of measures on physical infrastructure

Timeliness of measures on physical infrastructure

All measures are intended to be implemented in 2009 or 2010 at the latest. However, the implementation of infrastructure projects often lags behind schedule due to different reasons, including a lack of project preparation and planning, a lack of coordination, as well as regulatory constraints. Anecdotal evidence suggests that some of the announced measures could suffer delays in their implementation. In addition, major projects under the cohesion policy are behind schedule in almost all of the new Member States[33].

Investment in maintenance of existing infrastructure is more likely to be implemented in a timely way. About 40% of the measures include both maintenance work and new construction. In addition, more than one third of the measures are dedicated exclusively to maintenance works, including nearly all measures related to the building sector, which concern the renovation of existing buildings. Anecdotal evidence shows that some big projects on maintenance are being carried out on time, such as railway works on the Hungarian TEN-T network.

Similarly, measures which were already planned before the crisis are also more likely to be timely, since their design could be more advanced. On the other hand, new actions can be designed specifically to address the current challenges (for example, financial instruments providing advantageous conditions for private investors in DE or PT, as well as measures targeted towards sectors or groups particularly hit by the crisis, see below). One third of the measures are derived from the 2008 National Reform Programmes (NRP) and can therefore be considered as *business as usual*. A further 30% of the measures consist in frontloading of programmed projects, which are also more likely to be ready for implementation, such as the measures announced by the UK on transport, building and environment (€2 bn). But another third of the measures are new actions, including some of relevance, such as the Spanish fund for local investment (€ 8bn), the German transport packages (€ 4bn), or the measures announced by SE (€1 bn) and FI (€0.7 bn).

To conclude, if the measures are implemented during 2009 and/or 2010 as foreseen, investment in physical infrastructure could contribute to sustaining aggregate demand in the short term. The timeliness of the measures is supported by the high share of maintenance works on existing infrastructure, and by the fact that many measures were planned before the crisis. On the other hand, a few measures consist in adopting investment-related strategies (CZ and PL), whose impact in the short term will be very limited. Moreover, the implementation of some programmes goes beyond 2010 (e.g. AT, BE, CZ, DK, IE, PL and SE), with possibly limited impacts in the short term. Concerning timeliness, the main challenge is to avoid delays in the implementation of the measures. This could be supported by accompanying measures aimed at accelerating the implementation. For example, some Member Sates are proposing measures aimed at simplifying procedures (BE and LU), facilitating PPPs (BE, CZ and RO), or speeding up the absorption of structural funds (BG, HU and PL). In addition, some measures are accompanied by measures aimed at minimising the administrative burden created, such as simplification of public procurement rules (among others, DE, FR, HU, NL, PL and SK). These measures can be potentially very positive in ensuring a timely implementation of the investment projects.

Were measures appropriately targeted?

Some of the measures are targeted towards certain groups or sectors especially hit by the crisis[34]. For example, a few Member States have announced public investment or subsidies to support social housing (for example, LU and RO), or

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32 The contribution of public investment in water treatment supply, sanitation, or flood defences to the environment can be limited if these measures are not sufficiently targeted towards well defined priorities. A thorough assessment of these measures is conducted by DG ENV.

33 Only EE, HU and MT do not consider this as a potential obstacle to absorption. The weakness of national administrative capacities is an important problem in PL, BG, RO and SK. In LV, final beneficiaries in the public sector are being halted by budgetary uncertainties related to the change of government. Some major projects in HU face major cost overruns and thus delays, due to the depreciation of the HUF. Slow public procurement is an important constraint in BG. There are Member States that plan to use the option to start and finance their major projects before they get approved by the Commission (LT, HU and EE). All the Member States rely on the JASPERS technical assistance facility, but cooperation could be strengthened in particular in PL.

34 This criteria has not been applied to the measures related to other types of infrastructure.

investment in urban poverty areas (NL). Moreover, a few measures are also targeted towards specific groups (for example, the recovery package of DE includes a measure in favour of investment in structurally weak communes, and LU intends to support SMEs).

In principle, we can consider that all measures aimed at supporting investment in physical infrastructure are targeted towards the construction sector. Hence, these measures are particularly relevant in countries where the construction sector is one of the most hit by the crisis[35]. Whereas ES and UK (and EE to a lesser extent) have announced important efforts to support infrastructure investment, BG is going to reduce capital expenditure[36]. However, it should be noted that the resources which are unemployed due to the crisis cannot necessarily be used to carry out the announced measures. For example, workers who were employed in the housing sector before the crisis might not have the adequate skills to carry out certain infrastructure projects; resources can be concentrated in certain regions/areas, whereas investment is planned in others. The analysis of these issues would require very detailed information on the projects and is out of the scope of this chapter.

The appropriateness of the measures can be assessed on the basis of some rough indicators. Some of the Member States with less developed transport networks are focusing their efforts on transport infrastructure (for example, CY, CZ, EL, LT, PL, SI and SK). Approximately one third of the measures can be considered as targeted towards the needs of each Member State because they were included in the 2008 NRP. About a third of the measures refer to very concrete projects, which can be an indicator of the maturity of the projects − however, this does not ensure that the projects are coherent with a broader strategy[37]. In some cases the measures foresee the implementation of projects which are part of broader strategies, such as transport plans or other strategies (DK, HU, NL and PL), or the continuation of existing programmes (DE and PT). Moreover, in the framework of the Lisbon Strategy nine Member States are recommended to improve infrastructure (AT, BG, CY, ES, HU, IE, IT, PL and RO)[38]. But only two Member States foresee measures in line with other policy orientations in the Lisbon process (upgrading of transport infrastructure in PL and improving infrastructure in RO).

Although the information available does not allow a detailed analysis of the design of the projects, there seems to be scope for improving the appropriateness of the recovery packages by increasing the consistency between the measures and investment needs.

EU value-added and compatibility with long-term objectives

Concerning transport, traditionally Member States have invested in projects defined in national networks, contributing to persistent discontinuities in international traffic flows (border effects), thus hampering integration. Individual governments have little incentive to invest in cross-border sections because their effects go beyond their boundaries. Moreover, cross-border projects are often hindered by the lack of coordination between the parties involved. These problems are especially relevant when the projects have asymmetric effects (the distribution of expected benefits differs from the distribution of required investments). With a view to improving the functioning of the internal market and the accessibility of regions, the Trans-European Transport Network (TEN-T) policy has defined a comprehensive network and a list of thirty priority projects. By investing in sections of this network or in priority projects, national measures could contribute to creating spill-over effects in other countries. A number of transport measures are likely to correspond to sections which are part of the TEN-T network, but evidence on this is available only for a few measures, such as CZ (highway project), ES (priority projects 3 and 19), HU (railway and highway projects), LT (railway infrastructure), MT (road and ports), and PL (road projects). In addition, IE and UK foresee the joint funding of a transport project, and a few small Member States announced measures with a clear focus on international traffic (LU, SI and CY). Enhanced coordination between Member States could lead to an increase in cross-border initiatives with positive spill-over effects.

Although the compatibility of the recovery packages with long-term objectives would require information at project level, the information available suggests that the efforts to invest in areas contributing to long-term objectives are

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35 This is in particular the case in ES and IE, but also in other Member States such as BG, EE or UK.

36 In addition to the two measures included in its 2008 National Reform Programme, IE has announced a number of measures on the building sector which are analysed in the *Note for the attention of the Economic Policy Committee. A closer first look at measures supporting European Industry and SMEs* ECFIN/REP/52199 (May 2009).

37 For example, the fund by ES for local investment concentrates on small-scale projects proposed by local authorities, not necessarily related to any broader strategy.

38 Improving infrastructure is a *key priority* for AT, BG, CY, ES, HU, IE, IT, PL and one of the *other policy orientations* for RO. PL is specifically recommended to upgrade transport infrastructure.

limited. Particular attention should be given to the side effects produced by the traffic in terms of externalities. About half of the transport-related measures foresee the construction or maintenance of roads, the dominant transport mode (road transport accounts for almost three quarters of transport)[39]. Some measures have a potentially positive impact in terms of reduction of externalities. For example, DK has partly frontloaded an ambitious plan with an emphasis on public transport with the goal of reducing CO_2 emissions (the plan includes works in roads, trams, railways (signals), bicycle trails, etc), but its impact in the short term might be limited as the strategy lasts until 2020. A few measures of varied relevance reported by BE, CY, CZ and EL include investment in public transport. The programme on innovation and investment announced by DE and the programme announced by the Flemish region foresee, among others, measures to mitigate noise. A few measures are likely to have a positive impact on modal shift, through investment in ports, inland waterways, and their access routes (CY, DE, LT, NL and PL). Only a few measures to foster more innovative solutions for the transport sector, such as refining the strategies on logistics and transport technology (CZ), improving interconnections between various modes to increase the efficiency of the transport system (SE), constructing a microwave toll system (CZ), and modernising the air traffic control infrastructure (SI).

The relatively high number of measures supporting investment in the building sector not linked to improvements in energy efficiency can be interpreted as a missed opportunity (see also section dedicated to energy efficiency).

Finally, in a number of Member States the construction sector showed signs of overcapacity already before the crisis, and the private sector will not be able to absorb the resources it employed. Investment measures can alleviate the impact of the crisis in the short term, but there is a risk that such measures could hinder the restructuring of the sector. In these cases, we consider that Member States should pay particular attention to adopting accompanying measures to support the transition of the construction sector, in particular training measures aimed at adapting the skills of unemployed workers towards more long-term oriented sectors such as the improvement of energy efficiency in buildings (see Section 2.3).

3.2.2.3. Conclusions and insights on physical infrastructure

The assessment of the previous sections suggests that, whereas the measures supporting physical infrastructure included in the recovery packages are broadly in line with the approach of the EERP, there is scope for improvement.

Avoiding implementation delays is crucial to ensure short-term effectiveness

The majority of the measures are designed to have an impact in 2009 and 2010. Timeliness is supported by the focus on measures already in the planning pipeline, and by the fact that a large share of projects involves the maintenance of existing infrastructure rather than new investments. In some cases Member States have announced accompanying measures aimed at accelerating the implementation of infrastructure projects, such as simplification of public procurement rules. However, delays in the implementation of physical infrastructure projects are common, and anecdotal evidence suggests that some of the measures announced are already suffering delays.

Accelerating the transfer of Structural and Cohesion funds to Member States is essential. Progress in improving absorption capacity appears to be mixed across Member States. While the main recipients of cohesion policy support have taken steps to exploit the potential of EU funds, there is slow progress in the implementation of major infrastructure projects. Moreover, the investment plans of some Member States (e.g. RO) seem too ambitious.

Additional steps to facilitate the implementation of projects − such as simplification of administrative procedures and tackling potential pre-financing constraints − could be instrumental in ensuring short-term effectiveness.

There is scope to improve the consistency with long-term objectives

Investment is focused on the transport sector, building and urban development. Investment in other sectors such as ICT is rather exceptional, in spite of the relevance given to them in the EERP. However, the consistency with the transport policy objectives stated in the mid-term review of the Transport White Paper[40] could be improved:

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[39] It should be noted that the overall impact of such measures is not straightforward. On the one hand, the extra traffic generated by the increase in infrastructure may generate additional environmental costs. On the other hand, on some links, the reduction of congestion might compensate for the increase in other externalities.

[40] European Commission (2006), *Mid-term review of the European Commission's 2001 Transport White Paper: Keep Europe moving - Sustainable mobility for our continent*, COM(2006) 314 final

Protecting the environment is one of these objectives and a key pillar of the Greening transport package[41] and of the Green paper on urban mobility[42]. About one quarter of the total EU GHG emissions are produced by the transport sector and contrary to other sectors, transport GHG emissions are increasing over time[43]. Additional efforts to reverse this trend are needed to comply with the EU climate change and energy commitments. However, only a few transport measures are linked specifically to sustainability objectives. For example, the Danish infrastructure investment plan has a clear emphasis on public transport and is part of a long-term strategy aimed at reducing transport externalities. Other measures of varied relevance also involve investment in public transport (BE, CY, CZ and EL) and the construction of noise screens (BE and DE). CZ plans the construction of a microwave toll system in line with the efforts towards the internalisation of external costs.

Efforts are being concentrated on traditional transport infrastructure, with only a few examples of measures dedicated to implement new technologies, in line with the objective of improving innovation stated in the mid-term review[44], such as refining the strategies on logistics and transport technology (CZ), improving interconnections between various modes to increase the efficiency of the transport system (SE), constructing a microwave toll system (CZ), and modernising the air traffic control infrastructure (SI).

Concerning the objective of facilitating mobility of people and businesses throughout the Union, included in the mid-term review and a key pillar of the TEN-T policy, there is evidence that some Member States plan to invest in links which are part of the TEN-T networks. Enhanced coordination between Member States could lead to an increase in cross-border initiatives with positive spill-over effects.

Moreover, nearly 30% of the physical infrastructure measures (amounting to more than €12 bn) are targeted towards the building sector without being linked to energy efficiency improvements. This concerns some relevant measures, in particular in ES, FR and UK. Member States could have improved the consistency of these measures with the overall objective of transition towards a low-carbon economy by ensuring that investments in the building sector are specifically linked to energy efficiency improvements.

Investment measures can contribute to alleviating the impact of the crisis on unemployment, in particular in the construction sector. A key issue is to ensure that the employment created by the additional public stimulus is reabsorbed by the private sector once the crisis is over. However, there is a broad consensus that the residential sector of some Member States was oversized even before the crisis started and needs to be restructured. In these Member States it is particularly relevant to facilitate the transition of workers previously employed in the residential sector towards more long-term oriented sectors and areas. For example, this could be achieved through training programmes providing the required skills to carry out investment in energy efficiency improvements in the housing sector.

Finally, the majority of the measures consist of public direct support, while the use of financial instruments to create incentives for private investment is limited. This can be justified since private investors have to deal with serious difficulties to access finance, but this increases the pressure on public finances. As announced in the EERP, the Commission intends to publish a Communication to clarify the legal framework for partnerships between the public and private sector, to assess the potential of PPPs in the current economic environment, and to identify the obstacles and ways to facilitate the full use of their potential.

3.2.3. Energy efficiency

3.2.3.1. Description of policy measures

<u>*Correspondence with investment needs in the sector*</u>

41 European Commission (2008), *Communication: Greening Transport*, COM(2008) 433 final.

42 European Commission (2007), *Green Paper: Towards a new culture for urban mobility*, COM(2007) 551 final.

43 European Commission (2009), *EU energy and transport in figures Statistical Pocketbook 2009* (2009).

44 Efforts to develop Information and Communication Technologies (ICT) applications in Europe include the ITS (Intelligent Transport Systems) Action Plan for road, SESAR (Single European Sky Air Traffic Management Research) for aviation, RIS (River Information Services) for inland waterways, ERTMS (European Rail Traffic Management System) and TAF-TSI (Telematics Applications for Freight) in rail, SafeSeaNet, VTMIS (Vessel Traffic Monitoring and Information Systems), AIS (Automatic Identification System) and LRIT (Long-Range Identification and Tracking) for shipping.

The annual assessment of the Lisbon Strategy Structural Reforms[45] has confirmed that the implementation of the Climate and Energy package requires sustained efforts by a large majority of Member States.

Delivering 20% improvement in the EU's energy efficiency will lead to short-term growth and productivity benefits, while contributing to the achievement of the EU's climate and energy objectives at least total cost. Final energy consumers – households, businesses and public authorities – cannot realise replacements, retrofits, and new investments that are cost-effective at the market prices internalising the climate and energy constraints, unless information barriers are lowered and adequate financial instruments are provided.

Against this background, virtually all Member States have included measures aimed at supporting energy-efficiency investments in their recovery packages[46]:

Measures to support energy-efficiency investment focus on reducing the energy consumption of buildings. Most measures directly aim to correct the important inefficiencies (inadequate patterns of split incentives, information asymmetries between suppliers, financial intermediaries and consumers, etc.), which are prevalent in this sector. In addition, the measures to develop renewable energies and make energy distribution networks more flexible will also contribute to better matching energy demand and supply, and thereby increasing the energy efficiency of the overall EU energy system.

Type of instruments

National recovery measures in this area rely on the following instruments: small-scale grants to households for retrofitting housing, and public investment programmes, often putting the emphasis on public buildings. Some Member States also combine their intervention with investment tax breaks to accelerate the renewal of energy-using equipment (especially for SMEs) or introduce tax cuts for construction suppliers. A few measures target energy service companies with a view to promoting market-based solutions and developing a dynamic internal market for energy services. A few measures are relying on innovative financial instruments (like small loans for energy saving equipment or participation in risk capital funds to sustain private investments in eco-innovation for buildings)[47]. Annex 3.1 presents in detail the typology of measures in this field.

It is worthwhile to note that around a third of the measures focus on lifting the barriers preventing vulnerable groups to benefit from energy efficiency improvements. Priority is given to these groups by awarding subsidies only to low-income beneficiaries or by supporting investment by public and private owners of social housing[48]. As progress towards climate change objectives will necessarily have an impact on energy prices paid by households, it is key to lift the barriers for consumers to take up cheap and cost-effective energy efficiency improvements (e.g. changing boilers, or doing basic insulation works). From this perspective, measures focusing on helping vulnerable households to save energy are well-designed to fill the immediate financial gaps and to reinforce social cohesion.

The fiscal stimulus resulting from the measures to support energy-efficiency investment amounts to around €20 bn or 0.16% of EU GDP over 2009-10 (see Table 14). This may seem modest in absolute terms compared to the level of public investment in physical infrastructure. However, this represents considerably stepped-up support for the sector. In 2008, the EIB activity in favour of energy-saving projects stands around €670 mn/year, €2.2 bn/year for renewable energy production and €2.9bn for Trans-European Energy Network projects (of which €1.4bn for gas transport infrastructure). The EU Member States have allocated within their cohesion policy operational programmes €700 mn/year for interventions supporting their national energy-saving objectives[49] and some Member States, like EE or LT, are pro-actively using structural funds for energy efficiency in buildings, to cushion the effects of the crisis on private

45 European Commission (2009), *Recommendation for a Council Recommendation on the 2009 up-date of the broad guidelines for the economic policies of the Member States and the Community and on the implementation of Member States' employment policies,* COM(2009) 34/2

46 Some measures targeted to support income levels or sectors' activity levels also create incentives for investments improving energy use performances. They are not analysed in this chapter.

47 For example, NL has put in place "Green Fund schemes", where the size of the loan at conditions more favourable than market rates is associated with the improvement of the environmental performance of agricultural production activities or reduced energy use in housing. This type of public support had a strong leverage in 2005 (for a cost of €125 mn for public finances, €4 bn private investment were realised).

48 Before the crisis, more than 5% of households in the EU had major difficulties in adequately heating their dwellings or paying their energy utility bills. And in some Member States, the transformation of energy markets, especially in PL, MT, LT, HU and CZ could also lead households to reconsider their energy-related expenditures. In contrast, in AT, FI, NL, FR and ES, recent improvements in the functioning of the energy market, by reinforcing the role of regulators, has contributed to alleviating the risk for the low-income group to experience fuel poverty.

49 For the 2007-2013 period, €4.2 bn of the cohesion policy support have been allocated to energy efficiency for the housing sector in BG, CY, CZ, EE, EL, HU, LV, LT, MT, PL, PT, RO, SK and SI.

investment[50]. Moreover, the revision of the energy performance of buildings directive has revealed that there is a latent potential for realising €8 bn/year investment over a 10 year period in cost-effective energy saving improvements of buildings[51].

Significance of the support

Since the EIB announced, as part of the EERP, a substantial increase in its lending in 2009 and 2010 for low-carbon and energy-saving infrastructure projects, it has been experiencing high subscription rates of projects. 24 projects to construct or operate renewable energy or high energy-efficient power plants benefitted from EIB loans amounting to €2.9 bn in 2008-2009, of which €1.5 bn were approved since the tightening of credit conditions has occurred[52]. As one of the few financial intermediaries to currently increase its level of activity in areas with some technological or market risk involved, the EIB is experiencing strong demand for credit in this sector. Moreover, in addition to the direct fiscal impact in the form of new budgetary expenditures, national recovery packages also include off-budget measures, which could leverage investments in energy efficiency. For example, AT, DE, and FI have reinforced guarantees and agreements with national public financial institutions to provide more loans and other financial risk covering instruments. Overall, the size of the stimulus addressed to investors can be conservatively estimated at around 0.2% of EU GDP, which can have a tangible effect on overall investment.

Table 14: Budgetary impact of recovery measures to support energy-efficiency investment, in € bn, by type of instrument

Measures for energy efficiency investment	**Member States**	Measures most likely to:		
		maximise positive effects for short-term recovery and for long-term growth	deliver some effects for short-term recovery compatible with long term objectives	create positive impacts if integrated within a wider policy response
57 investment support measures (and related with at least 12 sector or income support measures)	24 MS: AT, BE, BG, CY, CZ, DE, DK, EE, ES, FI, FR, HU, IE, IT, LT, LU, MT, NL, PL, PT, SE, SI, SK, UK	22	15	20
Fiscal impact in 2009	**€12.6 bn** **(0.10% of GDP)**	€8.4 bn (0.07% of GDP)	€3.1 bn (0.03% of GDP)	€1.1 bn (0.01% of GDP)
Fiscal impact in 2010	**€8.3 bn** **(0.06% of GDP)**	€5.2 bn (0.04% of GDP)	€2.5 bn (0.02% of GDP)	€0.5 bn (negl.)

Source: Commission services based on publicly available recovery packages and information provided by Member States

50 For instance, LT earmarked for 2009-2010 €230 mn for renovation of public buildings, and €290 mn for modernization of private apartment blocks. This policy in the pipeline before the crisis has relevant effects for the recovery which are analysed here.

51 As a matter of comparison, under the Housing Modernisation Programme in DE, €42 bn investment were contracted through preferential loans between 1990 and 2000.

52 Estimates based on Commission services' calculations and analysis by JRC-IPTS

3.2.3.2. Assessment of measures on energy efficiency

Timeliness of measures to support investment in energy efficiency

The national recovery measures to support investments in energy efficiency are timely. Indeed, the financial resources released by public authorities will be available in 2009 and 2010[53]. Moreover, it is appropriate to have planned a larger fiscal impulse financed directly from national public budgets in 2009, as public resources in 2010 could be complemented by funding made available at EU level, when the new flexibility introduced in the cohesion funds regulation comes into force[54]. CZ and MT have built complementary subsidy programmes around their pre-existing cohesion funds and defined national energy efficiency action plans to support energy efficiency, especially in buildings. LT has also made a key move by timely updating its National Energy Efficiency Action Plan. This has enabled it to approve rapidly the re-allocation of €9 mn of its operational programme to take advantage of the maximum 4% European Regional Development Fund ceiling for energy efficiency measures in residential housing. In both EE and LT, this pro-active use of structural funds for energy efficiency in buildings is especially timely, in light of the contracted national fiscal space and deep fall in private investment. SI and LV could consider this flexibility for optimising the use of structural funds, as they have already identified sustainable energy infrastructures as a key priority.

The bulk of the financial support awarded from public budgets to sustainable energy investments in buildings (€18.5 bn over 2009-2010) is unlikely to crowd out private investment. Indeed, this part of the total fiscal impulse is well targeted to facilitate small-scale energy-efficiency improvements known to be profitable, if operating costs are counted together with purchasing costs. These recovery measures also take into account the recent fall in energy input prices. This weakened price signal further entrenches the information problem, and induces buildings' end-users to neglect further the energy operating cost parameter to optimise their investment decisions. For example, UK, IE and CZ, among others, have appropriately scaled up existing schemes to help the lowest income groups to insulate their houses in order to lower their energy bills. Similarly, FI's initiative allowing a change in depreciation rules for businesses replacing economically inefficient building equipment will contribute to stimulating energy-related investments.

Finally, the extension of existing schemes with proven efficiency, like the UK's "Warm Front programme" and the Irish "Warmer Home Scheme", are likely to deliver timely effects to help income-constrained households not to cancel renovation projects designed to lower their energy bills. Indeed, as the reputation and technical capacity of these programmes are established, a larger public support can be absorbed, minimising search costs both for construction operators undertaking the work and their clients. For Member States relying on more recently established schemes to award support to small-sized projects (like IT, FR and ES), simple application procedures, avoiding confusing mixes of diverse programmes and information campaigns providing meaningful advice would help to minimise transaction costs and ultimately deliver expected benefits on a larger scale.

Targeting of measures, with impact transferred to the value chain

The reduction in construction activity in 2009 is affecting a nascent industry, the eco-innovation sector, which could potentially become a lead market in 2010-2020. The suppliers of energy-efficiency and low-carbon solutions are predominantly innovative SMEs[55], mostly based in the EU and with diversified linkages with specialised capital goods and services providers (from machinery equipment and materials to IT systems). The focus of recovery measures on energy-efficiency issues will help minimise insolvencies of these companies particularly vulnerable to the economic and financial crisis. These measures are therefore essential to avoid losing this emerging industrial capacity. First, they will enable to reap returns on initial sunk costs that were incurred in the past years, e.g. to establish commercial bonds cutting across the building, manufacturing and energy sectors. Second, when the economy starts recovering, global demand for high-energy efficient technologies and services will be dynamic and highly competitive[56]. Therefore, direct

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53 For example, the thermal renovation of public buildings in AT will be operational rapidly, as this recovery intervention flows from a well-grounded national energy efficiency action plan and as local suppliers have the expertise to respond rapidly to "energy-related" calls for tender.

54 Legislative changes to accelerate the transfer of EU cohesion fund support during the crisis were first proposed by the Commission in December 2008 and adopted by the Council and the European Parliament in April 2009. Therefore, they are expected to have an impact mostly in end 2009 and 2010.

55 Around 2.7 million enterprises operate in the construction sector, which is characterized by a dominance of small and medium sized enterprises (nearly 80%), many of them being micro enterprises (nearly 30%). In the eco-innovation construction sub-sector, SMEs are also predominant.

56 A number of OECD countries are reinforcing their industrial capacity and knowledge base in low-carbon and energy-efficiency technologies, as part of their recovery plans. For instance, the US has scaled up the weatherization programmes supporting housing improvements in favour of the lowest-income groups, also recognising that this programme had helped spawn an energy efficiency industry. See OECD (2009) *Policy responses to the economic crisis to restore long-term growth: results of the OECD questionnaire* and OECD (2009) *Green Growth: beyond the crisis – Draft issues papers for OECD ministerial council meeting* (April 2009)

investment programmes in energy-efficient public buildings contribute to fostering EU technological leadership and competitiveness.

However, a few national measures tend to rely on a closed list of renewable energy technologies to award direct support (e.g. €145 mn subsidy scheme for small wind turbines in PT). Also, UK, CY and MT have extended the duration or the scale of specific renewable energy financial incentives, despite the relative high budgetary costs of such measures compared to other measures supporting low-carbon conversion of the infrastructure. In times of tight budgetary constraints, direct support awarded without "cherry picking" sustainable energy use options offer greater guarantees to maximise the positive impact of public intervention. For example, DE's decision to increase the KfW credit activity in energy efficiency will enable to select the best-in-class projects, based on the strong experience of this financial institution in low-carbon projects and its application of sound cost-benefit criteria to establish the viability of projects getting support[57].

Compatibility with long-term objectives

Support an open and competitive business environment

Almost half of the budgetary resources allocated for energy-efficiency purposes will be spent through large-scale public support programmes. For Member States having implemented a recovery package dedicated to support the ailing construction sector, the elements clearly respecting the State Aid guidelines for environmental protection are likely to correspond to a most cost-effective use of public finances. For instance, this is the case for the Spanish subsidy scheme for better insulation of residential buildings within the Renove Vivienda package. Overall, the effectiveness of this type of measures will be further enhanced by the simultaneous implementation of regulatory measures facilitating public procurement[58].

Similarly, PT's investment programme to accelerate the deployment of "smart energy meters" or DK's reinforced obligations imposed on energy services providers will pave the way to expand the currently underdeveloped internal market for energy services[59]. The implementation of the EU regulatory framework is nonetheless still incomplete in many Member States. The accelerated revision of the legal framework, as decided by PL, EE and BG, is an essential yet only first step to provide the regulatory certainty essential to sustain investors' confidence. Indeed, as the available capital has currently shrunk, lower levels of risks are required by financial markets to provide debt and equity-based resources. As low-carbon or high energy-efficiency projects already include high technological and market risks inherent to their innovative nature, measures clarifying the legal framework over the long term help keep transaction costs on these deals at their minimum, as does FR's overarching commitment to achieve 38% energy saving in buildings by 2020.

Support employment objectives

In order to deliver their maximum potential, all measures dedicated to support investment in energy efficiency require a tighter integration with ALMP. On the one hand, small-scale subsidies to realise mainstream energy-efficiency improvements may help reduce unemployment among low-skilled workers in the construction sector (ES and IE measures are welcome in this respect). On the other hand, tighter co-ordination of these schemes with measures supporting employment is essential to make a more cost-effective use of public resources[60]. Indeed, small-scale, short-lived subsidy schemes for energy efficiency improvements, like "green zero interest loans" in FR, stimulate a highly fragmented demand, difficult to address at low transaction costs, which could limit the overall efficiency of this incentive. IE has conceived a measure consisting in tying small subsidies with the obligation to conduct an "energy audit" to identify the most economically relevant energy savings. This approach creates a more structured demand for construction operators with certified skills and can have a higher leverage on private investment than other kinds of small grant schemes.

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57 KfW approved €1.8 bn loans in 2005 under the CO_2 Reduction Programme and the CO_2 Building Rehabilitation Programme, combined with information and capacity building.

58 For example, SE is continuing to develop its "green public procurement" framework to accompany local authorities investment in energy-efficient and low-carbon buildings.

59 Energy service providers can create commercial loans for households to realise energy saving improvements paid back with a premium on the energy consumption bills. This service is provided to niche customers only for now.

60 ES has recently decided to use ESF support on a "green" training programme to accompany its recovery measures dedicated to the construction sector. Other accompanying measures can be envisaged with a limited budgetary cost like: simplifying administrative procedures to certify experts able to establish energy audits, making available inventories of trained professionals that can successfully construct and maintain energy efficient buildings (architects, auditors, builders, equipment installers), etc.

Tighter co-ordination with long-term structural reform programmes is also necessary to accelerate the long-term development of skills and reinforce the qualified labour supply in the building sector, currently unevenly and insufficiently available across Member States[61]. As the new demand for high energy-efficiency housing solutions or for renewable energy production creates job prospects for highly skilled professionals in construction, the measures setting up large-scale direct investment programmes in "low-carbon housing" will have a positive impact by maintaining the job attractiveness of the construction sector.

Support climate and energy objectives

Measures taken by Member States to address financial markets' weaknesses or to encourage R&D and innovation play a key role in supporting the investment activity underpinning climate and energy policies. Moreover, it is appropriate that no Member States seem to have put a halt to build up the legal framework governing energy and carbon markets. In particular, BE, EE, ES, FR, PT, PL, and PT are making some progress in improving the functioning of their energy sectors. Further efforts to fully develop the energy internal market are necessary, as investors might be driven to other OECD countries where the recovery measures give longer term certainty and create a wider market for highly-efficient energy production systems[62].

From a long-term perspective, all the measures considered here represent a timely contribution to lift bottlenecks to adapt buildings to climate change and energy challenges[63]. Indeed, buildings account now for over 40% of the EU final energy consumption (and a greater share of the energy consumption in DE, DK, ES, IT, MT and LV) and less than 1% of the building stock is usually replaced by new assets every year, while energy production and distribution infrastructures last for 20 to 30 years.

Support to innovation

The public investment programmes, e.g. in FR, DE, LU and AT, put the emphasis on demonstrating at market-scale "zero carbon" or high energy-efficient buildings, especially through works on large public buildings[64]. As these programmes come with a significant budgetary effort and as the rate of learning is especially steep in the emerging sustainable energy sector, such seed programmes have the potential to reduce drastically the production costs of best available technologies. These programmes will also influence future private decisions to renovate or build new buildings by taking on board the most energy-efficient solutions, while assessing the actual costs of their integration into buildings. The comprehensive DE package of measures combining targeted support both to construction suppliers and end-users is bound to have strong knowledge spill-over effects of this kind. Moreover, such measures by the size of their impulse will ultimately foster the development of the eco-innovation sector[65] at EU level. In this regard, the direct investment programme coordinated with measures supporting R&D&I in low carbon technologies (e.g. FR and AT) further open the possibility to diffuse sustainable construction productivity improvements more rapidly to the whole construction sector and improve its longer-term growth prospects.

3.2.3.3. Conclusions and insights on energy efficiency

Most measures designed to have a short-term impact do not run against long-term objectives

A large number of Member States have responded to the crisis by integrating medium- and long-term climate and energy constraints as a key guiding principle of their support to investment. Particularly, some Member States have widened the range of economic incentives and stepped up the associated budgetary commitments to increase the market take-up of energy efficiency investment. In particular, measures taken by AT, DE, DK, LU, CZ, IE, LT, NL, PT, SE,

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61 High skilled professionals represent over 10% of the construction workforce in AT, BE, DE, DK, ES, FR, IE, NL, PL, and UK.

62 In view of the significance of US and China support to deploy more energy efficient energy production systems (based on renewable energy generation and improved energy distribution grid), investors and businesses may be tempted to redeploy their activity out of the EU.

63 Specific isolated measures, like BE's lump-sum subsidy for all households for their electricity bills, are not contributing to the needed improvement in the quality of public finances, are not likely to bring positive short-term effects on consumption nor long-term climate change benefits, and lack co-ordination with energy cheques for low-income households. BG electricity bill subsidy and SE tax deduction to renovate properties and make them more energy efficient are targeted to low-income households, and thereby have stronger effects on consumption.

64 IE has currently suspended its grant scheme supporting demonstration of low carbon housing, due to fiscal consolidation imperatives.

65 In AT, DE, DK, NL, and SE, there is a mature demand for energy saving products and services; demand is growing in UK and FR following from a regulatory push and some technological leadership is building up in CZ, ES, FI, and SK. However, insufficient energy market integration prevails at EU level and allows for limited economies of scale in developing these technologies and business opportunities.

and UK are likely to mitigate the effects of the economic crisis by filling immediate financial gaps of the households and businesses most hit by the crisis, without unduly burdening public finances.

It seems that markets are able to absorb the temporary stimulus of an aggregated order of magnitude of around €10 bn/year and to accelerate investment in energy efficiency. Such investment will consolidate the demand for products and services in which the EU has already developed a first-mover advantage.

Nonetheless, further analysis is required to confirm the comprehensiveness of the policy intervention so far and its adequacy in light of future developments in private investment and the pressing need for budgetary consolidation. In some Member States, it might be interesting to look further into the potential of market-based instruments. For example, it could be possible to create further incentives to sustain private investment with "micro-credit" for energy-saving improvements facilitated by energy companies. Facilitating the development of risk capital funds for large-scale demonstration of "low-carbon and energy-efficient" innovations could also help maintain the attractiveness of the EU for FDI flows in this sector.

Short-term effectiveness and positive impacts on growth potential would be enhanced by closer coordination with employment policy guidelines

Policy packages combining a fiscal stimulus with existing or new measures to develop "green jobs" opportunities and to improve regulation − in the energy sector, and also to facilitate public procurement or access to credit − are likely to be amongst the most effective interventions. Despite their relatively limited fiscal size, UK and ES measures could encourage the low-carbon transition of the housing sector, if they were co-ordinated with policies developing skills. Some elements of the packages by BE, BG and HU could have a limited potential for delivering tangible short-term economic benefits for households or businesses. These measures would also benefit from further taking into account long-term objectives when allocating scarce public resources. Well-designed implementation rules may maximise the value for money of the important effort undertaken by all Member States, particularly in the case of some new measures announced by BE, FR, ES, NL, EE, MT, PL, SI and SK.

Spill-over effects throughout the EU could be enhanced by greater coordination at EU level

The internal market for construction products and for energy services has to be consolidated, so that "energy-efficiency" innovations brought by direct public investment programmes in some Member States deliver benefits throughout the EU, including in Member States with limited fiscal space. Investments in energy efficiency, like the broad-front initiative designed by DE, have the potential to stimulate job- and innovation-rich sustainable construction and renewable energy markets, with positive spill-over effects throughout the EU and benefits for competitiveness.

The EU climate change and energy agenda for 2020 will require unprecedented investment sustained from now up to 2020 and beyond. The 2nd Strategic Energy Review[66] has identified priorities for investments, which can provide greater energy security and thereby reduce exposure to commodity price shocks. It is therefore crucial to facilitate at EU level the co-ordinated implementation of support to these investments essential to build a low-carbon and energy-efficient economy. In particular, further action both by the Commission and the Member States is required to accelerate the use of Community funds committed by the EERP to leverage the investment needed to address climate change and economic challenges.

3.2.4. R&D

3.2.4.1. Description of policy measures

R&D can play an essential role in helping the European economy to recover by increasing productivity growth and by improving Europe's competitiveness position.[67] Moreover, in the short run, R&D investments could also have an impact on aggregate demand through employment, consumption of goods and services as well as through investment in property, plant and equipment. Hence, there is a role for R&D policies at the current juncture.

Overall, there could be two challenges at present. The first is to sustain –or to increase, as planned by many Member States- the levels of public and private R&D investment. This is understandable, as in previous downturns, several

[66] European Commission (2008), *Second Strategic Energy Review: an EU energy security and solidarity action plan*, COM (2008) 781

[67] Note that productivity growth is also needed to counter the negative effects of ageing populations and of current public debt piling on growth.

European countries reduced their R&D intensity. Moreover, existing evidence shows that private R&D investments are pro-cyclical,[68] and hence, R&D spending levels usually drop to a socially ineffective level during crises. The second could be to compensate for the high current levels of market risk – i.e., the fact that in a downturn firms may be reluctant to invest due to poor demand prospects, even if financing is available. This points to the importance of policies aimed at strengthening firm's incentives to invest.[69]

So far, R&D recovery measures overwhelmingly aim at addressing the financing problem. Indeed, a transitory greater reliance on direct grants as well as tax incentives seems to be justified. Specifically, 18 Member States (AT, BE, BG, CZ, DE, ES, FI, FR, IE, IT, LT, LV, NL, RO, SE, SI, SK and UK) announced measures, falling into the following three categories:

– by <u>sectors of performance</u>, FI, SI, SK, AT, DE, BG aim at supporting/increasing R&D in the business sector. Of those, AT and DE target SMEs and BG business start-ups. Some other countries (AT, CZ, FR, SI, SK and UK) target universities.[70]

– by <u>type of instrument</u>, the majority of new measures consist of *subsidies* and *direct funding*, though in some other cases there are *loans* (DE, AT) and *fiscal incentives* to foster private R&D (DE, ES, NL and IE), to attract R&D researchers (IT) and for patent registration (LV). *Depreciation rules* are also used as an R&D policy by DE and FR.

– by <u>fields of science</u>, SI and CZ target technology centres, ES, health, energy and international excellence projects; and AT, FR, DE, SE and ES, the automotive sector.[71]

Of course, R&D is a policy with a medium- to long-term horizon, so at the current juncture, it is also important to continue implementing the medium-term agendas spelled out in the National Reform Programmes. NRP measures fall into three broad categories: *budgetary*,[72] *regulatory*[73] and *planning*[74] measures. Interestingly, generic increases in R&D allocations are envisaged by both technologically (FI, AT, LU, DE, FR, SE) and not-so-technologically advanced countries (CY, CZ, ES). However, planning and regulatory measures are more frequent within the group of "moderate innovators"[75] (i.e., EE, SI, CZ, EL, ES) and "catching-up" countries (e.g. LV, LT, HU and PL). To the extent that these measures aim at developing R&D infrastructure in these two groups of countries[76], they are welcome, as they pave the way for improved behaviour in the future. However, time is still needed for these institutional changes to bear fruit.

Overall, the Commission services estimate the fiscal impact of new R&D[77] measures at more than €500 mn in 2009 (see Table 15). This amount is smaller than the fiscal impact of other investment modalities, such as investment in

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68 van Pottelsberghe, B. *Europe's R&D: Missing the wrong targets?* Brueghel Policy Brief n°2008/03 (February 2008). And Capron, H. & van Pottelsberghe de la Potterie, B., *Public Support to Business R&D: A Survey and Some New Quantitative Evidence* in OECD *Policy Evaluation in Innovation and Technology - Towards Best Practices* (1997)

69 Additional R&D resources may not be successful in increasing private R&D&I at the current juncture, as in times of crisis firms tend to under-invest due to poor market prospects. To counter this problem, Member states could design incentive-based policies (i.e. policies rewarding ex post firms that come up with innovations or new research results in specified fields). These policies are timely, given the high degree of market risk. Prize researching as a measure to trigger innovation has been recommended also in a report to the US President last year: http:/www.ostp.gov/galleries/PCAST/pas_reasearch_partnership_report_book.pdf

70 In CZ, FR and UK, projects refer to the renovation or construction of universities.

71 The remaining countries do not specify the sectors of research.

72 Budgetary measures consist of meeting R&D spending targets (AT, FI, SI, ES) or generic increases in budget appropriations to finance R&D (LU, SK, CY, CZ), without further specifying sectors. Others MS allocate budgetary resources to fund specific types of R&D projects – namely direct funding to applied (BG, EE, LV, NL) and business research (EE, IT) – as well as to foster industry-science linkages – such as in EL and SI. Note that this list of examples is non exhaustive.

73 Regulatory measures are relatively scarcer and consist, among others, of labour market regulations to ease the recruitment of R&D personnel (EE), the creation of new schemes to stimulate innovation activity (BG, LT), as well as the creation and development of centres of competence and of cooperation networks (EL). Note that this list of examples is non exhaustive.

74 Planning measures consist of strategic documents/regulations spelling out the overall R&D strategy of a country (CZ, DK) or the R&D strategy in specific sectors (EE, PL). Note that this list of examples is non exhaustive.

75 See the 2008 European Innovation Scoreboard, which classifies countries into four groups: (i) innovation leaders; (ii) innovation followers; (iii) moderate innovators and (iv) catching-up countries.

76 E.g., via the creation of R&D innovation poles and spin-offs (EL), of science studies and business centres/valleys (LT), the implementation of mechanisms to ease the transfer of knowledge between research bodies and firms (ES) along with the adoption of the science, technology and innovation strategy -STI- (HU).

77 This amount includes measures that have been announced as a result of the crisis.

physical infrastructure. It also amounts to around 1.5% of the total sum of Member States' (public and private) R&D budgets in 2007. However, it is still a significant figure which will help the R&D sector to meet its financing needs[78].

3.2.4.2. Assessment of R&D measures

Information on R&D measures varies greatly across Member States. This shows the need to supplement the information and to be cautious regarding conclusions and identification of good practices. In what follows, a horizontal assessment of the timeliness, objectives, consistency with long-term policy goals and EU-value added of R&D measures is done.

Table 15: Budgetary and off-budgetary impact of recovery measures to support R&D activity, in € mn, by type of instrument

	Budget expend 2009	**Budget revenue 2009**	**Budget expend 2010**	**Budget revenue 2010**	**Off-budget expenditure 2009**	**Off-budget expenditure 2010**
Total	**3,014**	**-521,6**	**732,2**	**-603,2**	**7,286**	**450**
Subsidies and direct funding	**2,514**		**732**		**336**	**250**
Member States	FI, AT, SI, SK, DE, CZ, BG, SE, ES, AT, NL, IT, BE,		FI, AT, SK, DE, NL, BE		FI	FI
Tax credits		**-286.6**		**-233**		
Member States		SK, ES, NL, IE		SK, NL, IE, LV		
Depreciation rules		**-235**		**-370**		
Member States		DE		DE		
Loans	**500**				**6,950**	**200**
Member States	DE				AT, FR	AT

Note: This does not include the UK plans to improve facilities at Higher Education Institutions.

Source: Commission services based on publicly available recovery plans and additional information provided by Member States.

Timeliness of R&D and innovation measures

The effectiveness of R&D programmes can best be assessed in retrospect. This requires a medium- to long-term perspective. However, it is possible to assess R&D measures in the short term by looking at their (i) timeliness, i.e. whether the measures are scheduled for 2009 and 2010 and (ii) fund availability (which is relevant for budgetary and some regulatory measures).

- As regards timeliness, virtually all measures assessed (budgetary / regulatory / planning) are scheduled for 2009 and/or 2010. The majority of them are part of multiyear programmes, some of which started before 2009. New measures are designed to have an impact this year and next[79].

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78 Note than in some cases, as in ES or IT, there is no information about the budgetary impact of the planned tax credits to foster private R&D and the employment of researchers, respectively.

79 Note that tax credits and depreciation rules already rely on existing instruments. This reinforces the timeliness of the measure.

- Fund availability is relevant for budgetary measures, as well as for some regulatory measures that rely on budgetary resources. So far, the majority of Member States intend to respect the R&D budgets for 2009 and 2010; some of them are even planning to *increase* these budgets (as stated in their NRPs or in the various stimulus measures), which is welcome.

However, the economic crisis and the ensuing squeeze in financial resources is putting pressure on planned R&D investments. For example, 2009 and 2010 R&D budgets are *de facto* getting smaller in RO and LV following balance of payments crises. BG has also reduced budget appropriations allocated to R&D in 2009, whereas LT is likely to follow suit. The budgetary execution of measures could eventually reveal a gap between planned objectives and invested quantities in some other countries. Regarding the private sector, the 2009 Innobarometer[80] shows that 22% of companies surveyed reported that they had to cut back on innovation-related spending in 2009 (compared to 9% over 2006-2008). Only 9% said that they increased their innovation budget, compared to 35% over the period 2006-2008. Hence, this marks a deterioration compared to developments in the past two years.

All in all, the planned increases in R&D spending in "innovation leaders" such as FI, DE, and DK are more likely to have higher short-term stimulating effects than increases within the group of "moderate innovators" (e.g. CZ, SI, ES) and "catching-up" countries (e.g. SK). The reason lies in the greater absorption capacity of R&D funds as well as in better framework conditions in the former group of countries compared to the latter. Again, this calls for the continued implementation of medium-term agendas, as the strengthening of R&D systems takes time.

Targeted sectors and fields of research

The EERP encouraged Member States to do research on green technologies. Plans to invest on green technologies can be found in several − not many − NRPs: EE, ES, FR, IT, LV, DE and UK. FR and DE also plan to do research on green technologies in the automotive sector, as part of their recovery strategies. This should be welcome, as it is in line with climate change objectives.

Furthermore, a significant share of R&D measures − in NRPs and above all in the recovery packages − is targeted at businesses / SMEs. Measures targeting businesses could also have an impact on short-term aggregate demand via their effects on employment, consumption and capital expenditure, as stated previously. Firms' support takes the form of *loans* (DE and AT), R&D *tax credits (*DE, ES, IE and NL), *depreciation rules* (FR and DE, in this case, for SMEs) and *direct subsidies* (AT, DE and FI), which *a priori*, are a step in the right direction. However, some countries (ES) extend tax credits schemes which have not been fully successful at increasing R&D in the past. Moreover, direct funding is also likely to have higher stimulating effects on aggregate demand compared to tax credits and depreciation rules.

Consistency with medium- to long-term priorities

In principle, all R&D investment is consistent with long-term policy goals of improving competitiveness and knowledge-base. They are also consistent with the Country Specific Recommendations (CSR) and Points to Watch (PTW) issued in the context of the Lisbon annual review process. Indeed, 16 out of 27 countries got either a CSR or a PTW on R&D.[81] Unsurprisingly, the bulk of CSRs and PTWs concerns "moderate innovators" and "catching-up" countries[82].

CSRs and PTWs draw attention to several issues. In particular, implementation lags are hindering measures to foster industry-science linkages in EL (innovation poles), IT (FIRST programme) and HU (STI strategy). Other countries, such as CZ, ES and EE have substantially increased R&D resources, yet the availability of more funding should be translated into increased innovative services and products. Moreover, the bulk of "moderate innovators" and "catching-up" countries have to strengthen the links between public and private research. Furthermore, raising private R&D remains a challenge in many countries, mainly, the new Member States plus ES, PT and EL. Finally, in most cases, there is a need to monitor the results of the R&D policy (i.e. to evaluate the performance and impact of the R&D system, institutions and investments).

The assessment of recovery measures shows that some countries are more successful in aligning their short term actions with their medium- and long-term needs: for example, DE with detailed measures aimed at SMEs, SI with measures

80 European Commission (2009) *Innobarometer 2009*

81 The 2007 Annual Progress Report is considered in this section.

82 There are three exceptions: BE, NL and UK get a PTW despite not being moderate innovators nor catching-up countries.

aimed at fostering private R&D as well as strengthening the links between university research and firms, IT, increasing public resources to R&D and rationalizing existing schemes, BE with fiscal incentives aimed at attracting researchers, as well as FI, NL and IE, by reinforcing effective R&D instruments[83] so as to stimulate private R&D.

EU-value added

R&D investments have positive spill-over effects, at least in the medium to long run. R&D projects can help to develop new products and technologies, which can increase productivity growth and address competitive concerns. In practice, whether R&D investments deliver the expected outcome or not is uncertain, so *a priori* it is difficult to identify positive spill-over effects from the list of measures.

The existence of potential spill-overs calls for the coordination of national R&D programmes and policies, so as to (i) to avoid the duplication of programmes –thereby maximizing the impact of increases in national R&D spending and (ii) to allow for the free circulation of knowledge, funds and researchers.

However, the assessment shows that few NRP measures – and almost no R&D recovery measures[84] − envisage explicitly international cooperation. This points to the need for the Commission and Member States to continue working on the realisation of European Research Area[85] initiatives, such as the Joint Programming of Research (JPR)[86].

Finally, there could be spill-overs coming from other R&D-supporting policies, within and between countries. In this respect, it is useful to examine whether reforms are taking place simultaneously in areas such as education. Education measures considered in the assessment fall mainly into two categories: (i) Active Labour Market Policy measures (as in SE and FI) or (ii) measures to upgrade physical infrastructure of education (as in DE, MT and UK, among others). Some others strengthen higher education in countries (e.g. LT, LV, EE, ES and CZ) that are further away from the technological frontier, which again, are *a priori* welcome. In any case, this calls for continued surveillance of education measures in Member States such as ES, PT and MT, *inter alia*, within the Lisbon process.

3.2.4.3. Conclusions and insights on R&D

R&D measures account for a small share of measures, approximately 4% of all measures assessed by the Commission services. Broadly speaking, one should not expect a high contribution of R&D recovery measures to stimulate demand in the short run. The size of R&D stimulus measures is small relative to other investment measures and also in terms of GDP. Also, the magnitude of the stimulus varies across countries.

However, R&D can increase productivity growth and competitiveness, thereby helping the European economy to recover. After all, higher productivity growth is needed given the growth constraints imposed by ageing populations and the current rise in debt and public deficits. Hence, it is important to continue the implementation of R&D agendas. This calls for sustaining or increasing R&D spending, at a time when countries are running out of fiscal room for manoeuvre and when financial institutions are more risk-averse. Therefore, at this stage, policy should seek to ensure available financial resources to stimulate R&D. It is also of particular importance to address the negative impact of the crisis on investments by high-tech SMEs and intermediate-sized fast growing enterprises[87].

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83 E.g. the R&D tax credit.

84 The ES €490 million fund for R&D envisages international cooperation.

85 See commission (2007), *The European Research Area Green Paper* COM(2007) 161. This paper sets out the following key features of the ERA: (i) an adequate flow of competent researchers; (ii) world-class research infrastructures; (iii) excellent research institutions; (iv) effective knowledge-sharing; (v) well-coordinated research programmes; and (vi) a wide opening of the ERA to the world.

86 JRC which aims at engaging Member States in the definition, development and implementation of common strategic research agendas, the regulation of European Research Infrastructures (ESFRI) to create more pan-European research infrastructures, the European partnership for researchers to increase career perspectives and mobility of researchers, the knowledge transfer initiative to facilitate, amongst others, private-public collaboration, and the Strategic Forum for International Cooperation (SFIC) with third countries to facilitate cooperation with third countries.

87 Additional R&D resources may not be successful in increasing private R&D&I at the current juncture, as in times of crisis firms tend to under-invest due to poor market prospects. To counter this problem, Member States could design incentive-based policies (i.e. policies rewarding ex post firms that come up with innovations or new research results in specified fields). These policies are timely, given the high degree of market risk. Prize researching as a measure to trigger innovation has been recommended also in a report to the US President last year:

http://www.ostp.gov/galleries/PCAST/past_research_partnership_report_book.pdf

Overall, good practices are found in a) countries supporting green R&D (e.g. DE, FR – applied to the automotive sector– and ES); b) countries reinforcing existing successful instruments to boost private R&D (e.g. IE, NL, FI, AT, DE)[88] c) countries aligning their short-term actions to their medium-term needs (SI, IT and ES) and finally, d) countries addressing the issue of human capital in R&D (e.g. BE and NL)[89]

Another finding is that the crisis could increase the gap between "innovation leaders" and "moderate innovators" and "catching-up" countries. It is interesting to note that many innovation leaders (DE, SE and FI) and five out of six innovation followers (AT, BE, FR, IE and NL) are implementing *additional* R&D measures. In contrast, four moderate innovators and three catching-up countries have announced no measures.[90] Moreover, a recent Eurobarometer flash poll of companies across Europe showed that the number of companies cutting back on innovative investments in response to the economic downturn is much higher in catching-up countries, particularly in Latvia and Lithuania.[91]

Therefore, in order to avoid a further widening of the R&D gap, it is important that financially challenged "moderate innovators" and "catching-up" countries continue implementing the planning and regulatory measures envisaged in their NRPs. At the same time, they should continue reinforcing framework conditions, i.e., continue implementing structural reforms to strengthen their R&D systems in areas such as (i) competition (BG, EE, CY and PT), (ii) skills and education (BG, EL, ES, IT, CY, LV, LT, HU, PL and PT), (iii) labour markets (BG, CZ, EE, EL, LV, LT, HU, ES, PL and RO), (iv) intellectual property rights (CZ and LV), (v) entrepreneurship and SMEs (BG, CZ and EL) and (vi) access to finance (CZ), many of which do not rely extensively on available public resources[92].

Moreover, "moderate innovators" and "catching-up" countries can continue bridging their R&D gap via imported technology.[93] In addition, much more could be done to attract the best talent via the reduction of administrative burdens and the opening-up of national research systems to foreign researchers. Indeed, this is a *critical* element of R&D policy, with the crisis giving a unique opportunity for any Member State opening up its research system to attract the best talent[94]. Furthermore, many "moderate innovator" and "catching-up" countries count on structural fund support[95]. They could also benefit from recent changes in structural funds' regulations in terms of faster access to EU resources and increased flexibility in redefining structural priorities. However, information available so far shows that no Member State is planning to use the increased flexibility to increase the share of R&D resources.

Finally, few Member States plan to do R&D on green technologies as part of their recovery and medium-term agendas[96]. In this field, there could be scope for further action at the Member State / EU level.

Indeed, no single European programme currently exists for fostering low-carbon technologies with the exception of fusion-related research. The impact of R&D programmes and policies could be greater if Member states act in a coordinated way. Yet, pan-European cooperation is limited and synergies between Member States in the development of new energy technologies remain under-utilized. However, recent initiatives such as the two EERP public-private

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88 Care should be taken not to simply copy measures that have been successful in other countries, as success relies on the existence of proper framework conditions.

89 A major boost to R&D investments could come through the opening up of national research systems to foreign researchers.

90 In other words, Member states that are further away from meeting their R&D targets (EL, HU, MT, PL, PT, among others) are not planning to implement stimulus measures.

91 *Eurobarometer* Flash Poll n°267

92 This information is taken from the 2008 list of Country Specific Recommendations and Points to Watch.

93 Indeed, according to the *Innobarometer* 2009, over 2006-2008 acquisition of machinery, equipment or software was the most widespread form of innovative investment (76% of firms surveyed). In practice, imports of technology equipment will be strongly influenced by financing conditions and business confidence, among other variables).

94 The reason is that the global shortage of R&D investment makes it easier for any one country willing to spend on R&D to hire the best talent. Hence, tax payer's money would get the best value for money.

95 Over the period 2007-2013, all 27 Member states benefit from EU structural fund support. However, in the new member states -and in some of the old member states, such as PT and EL- structural funds count for a substantial share of total R&D spending. In some cases, such as in BG, EE, LV, LT, PL and in SK, it could even exceed 50%. All in all, many new member states already co-finance a maximum of 15%, which is the lowest percentage applicable.

96 According to DG RTD, 99% of the aggregated national R&D budgets on Strategic Energy Technology (SET-P) priority technologies originate from 10 MS (FR, DE, IT, UK, DK, ES, NL, SE, FI, AT) with the first three accounting for 68%. At the same time, R&D investments in SET-P technologies from companies located in DE, FR, UK, DK, ES and SE were found to account for almost 95% of the total corporate R&D investments.

partnerships have started to tackle this problem.[97] The case for coordination is acknowledged by Member States and the Commission, but much remains to be done.[98]

3.3. Overall findings

3.3.1. Support to investment rightfully forms a significant part of recovery efforts

Investment, especially private investment, has been hit severely in the current downturn. The Commission's Spring 2009 forecast points to a two-digit decline in investment growth this year, as businesses and consumers are forced to scale down their investment plans in the face of tighter credit conditions, collapsing confidence, less favourable market conditions and considerable uncertainty surrounding future developments. Upholding sound investment levels in times of crisis can contribute to the overall recovery. This is also required to lift bottlenecks to long-term growth, thus enabling a faster recovery when conditions improve. Therefore, measures to support investment activity are coherent both with short and long-term needs.

In line with the EERP, measures to support investment have featured prominently in Member States' recovery plans. The overall size of public investment measures in stimuli packages has been roughly estimated at around €57 bn (0.45% of EU GDP) over the current and next year (respectively €32 bn for physical infrastructure, €20 bn for energy efficiency and €4.9 bn for R&D). The importance of public investment in recovery efforts varies considerably across Member States, with the largest increases in spending as a percentage point of GDP observed in CY, LU, LT, SI, PL, ES, DE, MT, SE, CZ, AT and NL. A number of catching-up countries (BG, EE, EL, LV, LT) were not in a position to use fiscal stimulus as the main means to support investment, as these Member States face a lack of fiscal space and large external imbalances.

3.3.2. Adequacy of efforts compared to needs is an open question

A number of measures, closely in line with the EERP guidelines, are not only likely to be effective in terms of supporting economic activity in the short term, but will at the same time facilitate progress towards longer-term goals. However, it is unclear whether the response to the crisis is sufficiently boosting investment and R&D to reach the Lisbon Strategy objectives on climate change and innovation, while preparing for budgetary consolidation.

While the national recovery plans include some measures to facilitate the transition towards a low-carbon economy, there is scope for stepping up actions to facilitate "green" investment. Some Member States (like DE, AT, CZ and LT) put a clear emphasis on energy efficiency through their short-term recovery actions. A number of individual measures are expected to contribute to creating environmental benefits, even if only within a specific market segment. Nonetheless, the limited environmental outreach of some major recovery packages deserves further attention (e.g. ES support to the construction sector is relatively disconnected from the need to adapt to climate and energy constraints, whereas ES high energy dependency putting a drag on growth potential calls for stronger emphasis on such co-ordination; FR small-scaled and relatively untargeted measures for energy savings may only have scattered effects). Indeed, positive effects on aggregate productivity from facilitating the transition to a low-carbon economy are within reach and enhanced policy coordination at EU level is needed to reap them. For instance, to maximise the benefits of increased budgetary expenditures on infrastructure and to deliver lasting benefits, there is scope to bring forward regulatory and administrative improvements (e.g. strengthening the EU internal energy market, facilitating access to credit and easing risk coverage for "low-carbon" innovation, etc.).

Moreover, preliminary analysis suggests that the measures to support investment in transport infrastructure will only play a limited role in tackling the challenges faced by the transport system. Limiting or even reducing greenhouse gas emissions while offering a high degree of mobility and addressing the increasing problems of congestion will require substantial efforts in the coming decades in different policy areas, including investment in infrastructure and new technologies. While many Member States are investing in transport infrastructure, efforts dedicated to make the transport sector more supportive towards the environment seem to be limited. Moreover, only a few Member States are dedicating efforts to innovative solutions in physical infrastructure, even though some R&D measures include investments in new vehicle technologies.

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97 The EERP announced two major partnerships between the public and the private sectors in research: (i) a European green cars initiative and (ii) European energy-efficient buildings initiative. Work is under way to define the roadmap for the implementation of both partnerships.

98 CREST (2008) *Report on the 2008 mutual learning exercise on the basis of the 2008-2010 National Reform Programmes*

Another finding is that the crisis may widen the R&D gap between" innovation leaders" and "moderate innovators" and "catching-up" countries.[99] It is interesting to note that many innovation leaders (DE, SE and FI) and five out of six innovation followers (AT, BE, FR, IE and NL) are implementing additional R&D measures. In contrast, four moderate innovators and three catching-up countries – some of them facing major financial challenges − have announced no measures. Hence, in order to avoid a further widening of the R&D gap, it is important that countries that are lagging behind continue strengthening R&D framework conditions in areas such as (i) competition, (ii) skills and education, including the opening up of national research systems; (iii) labour markets, (iv) intellectual property rights, (v) entrepreneurship and SMEs, many of which do not rely extensively on the use of public resources. Furthermore, many "moderate innovator" and "catching-up" countries count on structural fund support. They could also benefit from recent changes in structural funds' regulations in terms of faster access to EU resources and increased flexibility in redefining structural priorities. However, information available so far shows that no Member State is planning to use the increased flexibility to increase the share of R&D resources. Lastly, it is also of particular importance to address the negative impact of the crisis on investments by high-tech SMEs and intermediate-sized fast-growing enterprises.

3.3.3. Implementation is key to make the most out of the policy response

Recovery measures to support investment may have desirable effects in the short run provided implementation challenges are adequately addressed. Exceptional public investment can also generate potentially large employment benefits compared with other stimulus measures, especially if it helps redeploy labour previously engaged in the hard-hit construction sector. Nonetheless, implementation delays could put at risk the effectiveness of measures in the short term, and this is in particular a matter of concern for measures supporting investment in physical infrastructure where project implementation often lags behind schedule. Further use of accompanying measures aimed at accelerating investment, including simplification of procedures, providing technical support or improving coordination between different levels of government would contribute to limiting implementation delays.

Moreover, it is essential to improve job placement and re-training in the construction sector both to accelerate the absorption of public investment and to amplify the positive spill-over effects in the long-run. In this respect, a possible example of best practice are schemes in DE to increase training of workers capable of working on clean energies, whereas these accompanying measures to facilitate labour market transition and strengthening of skills in the construction sector would be appropriate in most countries.

Accelerating the transfer of structural and cohesion funds to Member States is also a key aspect. The Member States that are the main beneficiaries of cohesion policy are increasingly relying on EU transfers to realise their public investment projects. The modalities of support are adjusted to the challenges raised by the crisis, both by some changes in the sectoral composition of support and by changes in financing mechanisms that accommodate difficulties in access to credit and private pre-financing. However, progress in improving absorption capacity appears so far to be mixed across Member States. The main recipients of cohesion policy support have taken steps to exploit the potential of EU funds in order to maintain or boost public investment during the economic crisis. Some Member States are planning a substantial frontloading of EU assistance (EE and LT), especially by implementing investment programmes for energy efficiency in buildings. For these programmes in particular, exchange of best practices and technical assistance offered by the EIB and the Commission could help minimise implementation lags. At the same time, there is slow progress in the implementation of major infrastructure projects in BG, LV, RO, SK and more particularly PL. In LV, the overall implementation targets for 2009 and 2010 are endangered by a slow increase in absorption, and in IT, there are still too limited efforts to improve the efficiency of planning and project delivery compared to the reliance on infrastructure to stimulate growth. Also, RO's public investment plans seem too ambitious at this stage.

3.3.4. Snapshot on key specific measures

The analysis undertaken in this chapter is preliminary[100]; it nonetheless identifies some tentative examples of measures which may be of interest to other Member States. Table 6 presents the number of measures most likely to support economic activity in the short term, and accelerate progress towards longer terms goals, i.e. ensuring the functioning of the single market and/or actively contributing to meeting climate change goals, and measures with marked cross-border effects and where greater cooperation at EU level is warranted.

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99 This terminology is taken from the European Innovation Scoreboard.

100 A fuller picture of the material impacts of measures undertaken by Member States to support investment during the crisis will result from the analysis currently ongoing in other Commission services, in particular DG EMPL, ENV and RTD.

To sum up, in the area of physical infrastructure, although recovery measures are broadly in line with the approach of the EERP, there seems to be room to improve the scope and design of measures. Investment in transport infrastructure is focused on traditional infrastructure, with very few measures opting for innovative solutions, such as refining the strategies on logistics and transport technology (CZ), improving interconnections between various modes to increase the efficiency of the transport system (SE), constructing a microwave toll system (CZ), or modernisation of air traffic control infrastructure (SI). The focus on traditional transport infrastructure might be appropriate for those Member States where less developed transport networks impair competitiveness, as is the case in many new Member States (e.g. PL), but other Member States could have used the opportunity of recovery intervention to achieve more efficient transport networks. In addition, only a limited number of measures are likely to contribute to a transport system more supportive towards the environment. DK is an example of good practice where the investment is part of a broader strategy with a clear focus on public transport schemes aiming at contributing to meeting climate change goals. Other measures of varied relevance could potentially be of interest for other Member States, such as measures involving investment in urban public transport (BE, CY, CZ, and EL) and measures including construction of noise screens (BE and DE). Moreover, a significant number of measures provide support to the building sector without being linked to energy efficiency improvements. This suggests that Member States have missed an opportunity to improve the environmental impact of their stimulus packages by ensuring that public support to investment projects in this sector contributes to energy efficiency improvements.

There are interesting examples of specific measures supporting energy efficiency investment which are mitigating the impact of the downturn while contributing to achieving EU long-term goals. They include: a) grants to small scale energy efficiency renovations (e.g. UK and IE subsidies and advice for low-income households to take up cheap and cost-effective energy saving solutions; CZ, DK, LU, NL grants for individual investments in energy-saving renovations to support consumer confidence within budgetary limits), b) public investment (e.g. LT, CZ, direct support to modernise social housing especially using structural funds co-financing; DE, FR, AT public procurement programmes for low-carbon or high energy-efficient public buildings and PT seed public investment in "smart grids" to lead businesses to these emerging markets), c) tax incentives (e.g. SE on extra tax breaks for housing renovation services supports employment; FI and IE extended tax breaks to encourage energy saving by businesses accelerates the renewal and the penetration of productive equipment) and other financial incentives (e.g. UK, CY, MT, PT create longer-term certainty and more favourable market conditions for renewable energy integration into the grid), d) off-budget measures (e.g. AT, DE, FI guarantees and agreements with national public financial institutions to provide more loans and participate in risk capital funds encouraging "low carbon" innovations) and e) non-budgetary measures (e.g. PL, BG strengthening of the legal and strategic energy framework).

Examples of R&D measures that could be of interest to other Member States include a) research supporting green objectives (DE, FR – applied to the automotive sector – and ES), b) reinforcing existing successful instruments to boost private R&D (e.g. IE, NL, FI, AT and DE), c) aligning short- term actions with medium- term needs (SI, IT and ES), and finally, d) addressing the issue of human capital in R&D (e.g. BE and NL). Regarding green objectives and coordination of R&D policies and programmes, there could be scope for further action at the Member State / EU level. Indeed, pan-European cooperation is limited and synergies between Member States in the development of new energy technologies remain under-utilized, although recent initiatives, such as the EERP partnership 'European green cars initiative' have started to tackle this problem. This highlights the importance of the work in this area.

ANNEX 3.1:

TYPOLOGY OF MEASURES FOR ENERGY EFFICIENCY

Table 16: Measures to support energy efficiency investment, details

Instruments	N° of measures using the instrument	Fiscal impact associated with the use of the instrument		Countries	Measures most likely to:		
		in 2009	in 2010		maximise positive effects for short-term recovery and for long-term growth	deliver some effects for short-term recovery compatible with long term objectives	create positive impacts if integrated within a wider policy response
Strengthening the **legal and strategic framework** to foster sustainable energy use	9	€0.9 bn (0.01% GDP)	0	9 MSs: AT,BG,DK,EE,ES,FR,LT,PL,SI	3	1	5
Subsidies to households for small -scale energy efficiency improvements	16	€1.3 bn (0.01% GDP)	€0.8 bn (0.01% GDP)	13 MSs: AT,BE,BG,CZ,DE,ES,FR,IE,IT ,LU,MT,NL,UK	6	6	4
Rules accelerating depreciation of capital for encouraging to energy efficiency upgrade	3	€0.03 bn (negligible)	€0.03 bn (negligible)	3 MSs: FI,IE,NL	2	0	1
Direct public investment or public procurement programmes to demonstrate high energy efficient or low carbon buildings	17	€5 bn (0,04% GDP)	€2.8 bn (0.04% GDP)	13 MSs: AT,CY,CZ,DE,EE,HU,IE,IT,LT ,PT,SK,UK,DE	6	6	5
Support for renewable energy integration into infrastructures	8	€0.8 bn (0,01% GDP)	€0.3 bn (negligible)	8 MSs: BE,CY,HU,IT,NL,PL,PT,UK	1	2	5
Special loans, guarantees, or financial instruments for development and deployment of low carbon energy efficient innovations	4	€4.5 bn€ (0,04% GDP)	€4.4 bn (0.04% GDP)	4 MSs: AT,DE,FI,SE	4	0	0
Total	**57**	**€13 bn** (0.10% GDP)	**€8.3 bn** (0.07% GDP)	**24 MSs**	**22**	**15**	**20**

Source: Commission services based on publicly available recovery packages and information provided by Member States

ANNEX 3.2:

MEASURES WITH FINANCING FROM STRUCTURAL AND COHESION FUNDS

A number of national recovery measures receive co-financing from the Structural and Cohesion Funds. Especially in the new Member States, this support has a macroeconomic significance, as it supports aggregate demand while other contributions are collapsing. Public budgets can rely on this support to maintain financing of growth-enhancing investments while public revenues stagnate or decrease and financing of public debt is becoming increasingly costly.

Accompanying the EERP, the Commission Communication "Cohesion policy: investing in the real economy" presented modifications to the cohesion policy regulations and also outlined other possibilities for Member States to use EU support in their recovery efforts. It is worthwhile to survey the follow-up of these suggestions by the new Member States, the main recipients of EU support, as this information is also relevant for the implementation of their national recovery measures in the present assessment.

Member State plans to re-programme Operational Programmes are only tentative and informal at this stage, but where such plans exist, they are mostly directed at increasing general purpose business support, either repayable (EE and LV) or grants (HU and LV), and to step up support to investments in energy efficiency in buildings (LT, LV, and CZ). Funds are planned to be taken from public service infrastructure (LT, HU, and LV), transport infrastructure (HU), support to R&D (HU, LT and LV). In the transport sector, CZ considers reducing technical assistance support to boost TEN investments, while BG plans a slight adjustment inside its transport programme. Programme modifications also concern the reduction of national co-financing to the regulatory minimum of 15% (LT), which certainly reduces the number and size of planned projects. However, the majority of new Member State programmes were already planned by relying on 15% national co-financing, and it is only SI that explicitly considers a temporary reduction of national co-financing below 15%.

The Commission supplied Member States with increased advance payments for 2009 to ease the launching and pre-financing of projects. These advances are used in the intended way by most of the new Member States (HU, SK, MT and EE). Advance payments could be used more pro-actively by PL, CZ and SI. Most Member States also rely on EIB loans to facilitate pre-financing. SK, EE and HU opened up the possibility to pre-finance projects by private sector beneficiaries, including state aids. In spite of the additional advances and the EIB loans, LV faces difficulties both to pre-finance and co-finance projects, which is an important concern for the attainment of the Latvian absorption goals for 2009, as laid down in the Memorandum of Understanding of its Balance of Payment loan from the EU.

4. ASSESSING PROGRESS WITH THE EUROPEAN ECONOMIC RECOVERY PLAN (EERP)-: A CLOSER FIRST LOOK AT MEASURES SUPPORTING EUROPEAN INDUSTRY AND SMEs[101]

4.1. Introduction

Measures aimed at supporting industrial sectors, businesses and companies make up a large part of Member State's efforts to respond to the crisis in the context of the EERP. They represent almost a quarter of the measures so far proposed by Member States and take up a large share of the financial resources made available by Member States and at the EU level. These measures aim at cushioning the decline in domestic and external demand and at easing credit conditions, which have tightened considerably. Their rationale lies in countering identifiable market failures and containing the disproportionate adjustment set in motion by the crisis in a number of sectors which could lead to wasteful labour shedding and the destruction of otherwise viable and sound companies, a loss of knowledge and skills, and a reduction of productive capacity far beyond what would be expected during a normal cyclical slowdown.

This chapter aims at offering an overview of the measures in support of industrial sectors, businesses and companies in Member States' recovery programmes and the measures adopted at the EU-level. It provides a first preliminary assessment of the measures against the guiding principles set out in the Commission's 4 March Communication as well as the European Union's long-term objectives, notably those pursued under the Lisbon strategy.

4.2. The Impact of the Crisis on European Business

4.2.1. A reduction of the economic activity in EU27

Since the third quarter of 2008, the European economy has been in recession. Output in manufacturing and construction has been especially hard-hit. Both sectors have started to be impacted by the crisis since mid 2008. In manufacturing, sectors producing intermediate and equipment goods have been worst hit as a result of the fall in business confidence. By comparison, the evolution of services has been more stable. However, services could be affected in a second stage, in particular those depending on industrial activities (e.g. transport, logistics) or on household demand (e.g. tourism, telecommunication). March 2009 Eurostat data[102] show seasonally adjusted industrial production down by about 20% on the previous year (compared to -16.5% in Jan. and -12.3% Dec. 2008). Intermediate goods registered a sharper contraction of 27.0% (-20.5% year-on-year in Dec. 2008), capital goods declined by 23.5% (-11.6%), durable consumer goods fell by 23.2% (-13.9%) and, non-durable consumer goods decreased by 7.2% (-2.1%). The downturn is widespread across countries, with some Member States subject to a more pronounced slowdown reflecting their exposure to the external shocks and other country-specific factors.

The business climate for EU manufacturing has deteriorated steeply since September 2008 and has continued to fall until March 2009, albeit at a slower rate[103]. Overall economic sentiment has also fallen rapidly. From September 2008 to April 2009 the Economic Sentiment Indicator dropped by 2.3 points for industry, 2.5 points for construction, whilst the indicator for services declined the least (by 1.7 points). Consumer sentiment dropped by 2.2 points. However, both the Business Climate Index and the Economic Sentiment Indicator picked up in April 2009 for the first time although remaining at a very low level. The trend was confirmed in May 2009 although at a slower pace. The ECFIN Business Survey also indicates a sharp decline of capacity utilisation during the last quarter of 2008 and the first quarter of 2009. The latest quarterly manufacturing survey, carried out in May 2009, indicates a further fall in capacity utilisation, reaching the lowest level since 1990 with 71%.

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[101] This section has been written by Emmanuelle Maincent, Markus Schulte, and Dominique Simonis. It is based on a note prepared for the European Policy Group "Assessing Progress with the European Economic Recovery Plan – A Closer First Look at Measures Supporting European Industry and SMEs (REP 52199). It is also part of a wider assessment exercise of recovery measures that includes thematic assessments on measures to support the labour market (ECFIN/51628 of 6 April and an update on recovery measures ECFIN/REP/52201) and public investment (ECFIN/REP/52197).

[102] Eurostat. Euroindicators, 13 May 2009.

[103] ECFIN Business and Consumer survey results, 29 April 2009.

4.2.2. A severe contraction of credit and loans

The financial crisis translated into a severe contraction of credit and loans to companies and households (see figure 5). The main drivers were the negative economic outlook, but also the impact of banks' ability to obtain financing in the market. At the same time, the slump in business and consumer confidence contributed to decreasing the demand for credit and loans. According to the ECB[104], the net percentage of banks reporting a tightening of credit standards for loans to enterprises in the euro area increased significantly in the third quarter of 2008 (by 22 percentage points from the previous quarter to 65%). The tightening of credit slowed in the last quarter of 2008, with the share of banks reporting tighter conditions rising by only one additional percentage point and began to stabilise at the beginning of 2009.

While large enterprises were more affected by the net tightening of credit standards, the situation worsened for SMEs during the last quarter of 2008, so that the net tightening of credit standards was comparable for both large enterprises and SMEs.

The main driving factor behind the changes in credit standards, for both large enterprises and SMEs, are expectations regarding general economic activity and the industry- or firm-specific outlook. At the same time, banks' cost of funds and balance sheet constraints played a somewhat more important role in the net tightening for large firms than for SMEs as the current slowdown in syndicated lending and a subdued credit risk transfer market have increased the cost of allocating capital to larger loans.

4.3. Rationale for action

4.3.1. The rationale for business support measures during the crisis

The EERP has recognised the need for public intervention to support of businesses during the crisis for several reasons. To begin with, beyond the measures to restore the normal functioning of credit markets, which remain distressed, additional government intervention can help ease the specific financing constraints facing companies. Also government may have a role in providing or supporting specific credit services (e.g. export credit insurance) which markets are temporarily unable to provide, at least at economically viable conditions and prices.

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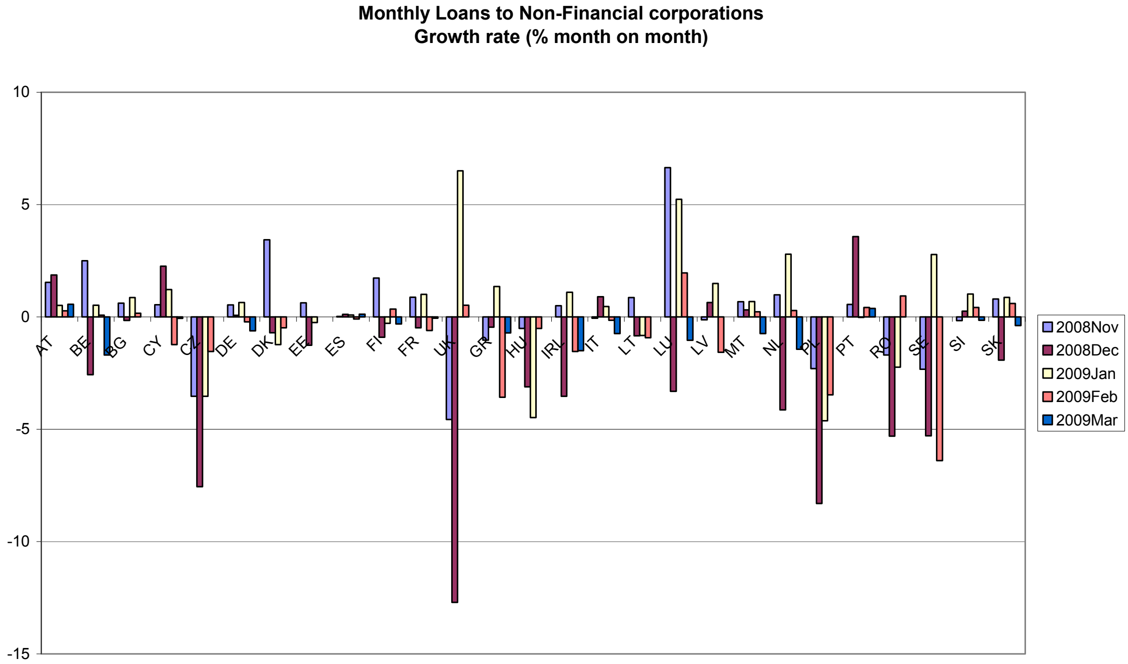
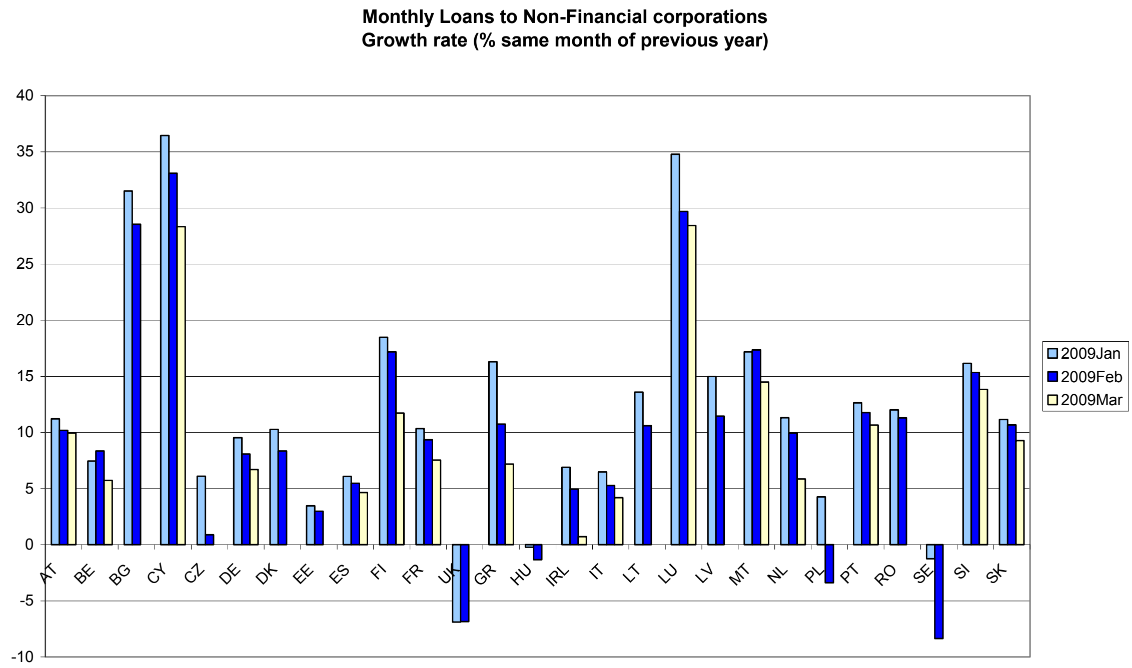
[104] The Euro Area Bank Lending Survey. January 2009; April 2009. ECB.

Figure 5: Tighter credit conditions





Secondly, beyond the aggregate support provided by macroeconomic instruments, there may be a case for temporary government support that is targeted at sectors where demand has been disproportionately affected during the crisis, i.e. far beyond what could be expected in the context of 'normal' downturns and causing important dislocations (see box 1). Temporary public support could help prevent unnecessary and wasteful labour shedding, and the destruction of otherwise viable and sound companies. These measures will help contain the negative effects of the crisis on potential output by preventing a permanent loss of knowledge and skills and a reduction of productive capacity far beyond what would be expected during a normal cyclical slowdown.

Finally, there may be instances, where government support on the supply is warranted for sectors and business where there are technological or other spillovers benefits to the economy

Box 1: How to assess sectors disproportionately affected by the crisis?

All sectors are characterised by cycles, which may be more or less intense across industries. The rationale for sectoral support actions at the current juncture is not to smooth a "normal" business cycle, but rather to support sectors which are disproportionately affected by the current crisis such that many otherwise viable businesses would be destroyed.

Disproportionate effects might be due to the incapacity of markets to deal with the prevailing exceptional economic conditions, such as the contraction of household demand; the slump in confidence, and the terms and price of financing available to companies. Under these circumstances, activity in certain sectors is much more heavily affected than would be the case under a more normal business cycle. This could force numerous efficient companies to exit the market. Without any form of public intervention, this could undermine the long-term output potential and adjustment capacity of the economy at large.

Another dimension is worth taking into account: the national/EU dimension. Depending on Member States' specialisation patterns, some may be disproportionately affected. Highly specialised small economies and large industrial countries have been particularly hit by the economic crisis. However, most of the current downturn is common to the entire EU, which means that sectoral effects predominate over national factors - which play a relatively minor role in characterising the necessary adjustment. Such a situation provides an argument for EU level coordination.

*In the EU27, the economic downturn has affected **manufacturing** the most, especially manufacturing sectors producing intermediate and capital goods such as **motor vehicles**, **machinery, metals** and **chemicals**. Those sectors account for 4.3% of jobs and 5.9% of value added in Europe. Moreover, given their role as supplier of the rest of the economy, the short term contraction of these sectors in terms of output and capacity utilisation could have negative repercussions on downstream and upstream sectors.*

*By contrast, non financial service sectors have generally reacted less sharply to the economic crisis, although sectors such as **motor vehicle trade**, telecommunications, **logistics** and **hotel/restaurant** do show signs of disproportionate adjustment.*

The automotive industry is one sector where the fall in production has been particularly acute since the end of 2008, and much more pronounced than at any point during its long-term business cycle. This reaction appears to be a common feature across Member States, which highlights the importance of the fiscal stimulus provided to this sector. Moreover, the automotive sector accounts directly or indirectly for a large share in total value added and total employment of Member States. It is also one of the sectors which imports intermediate inputs from across the EU and non-EU countries. The value chain in the sector clearly has a European dimension involving considerable spillovers across national borders.

4.3.2. Some guiding principles for business support during the crisis

– **Effectiveness and efficiency**

The assessment of effectiveness and efficiency of the measures for the short-term crisis response relates mainly to the analysis of the "three Ts"—timely, targeted, temporary. Only measures that can be expected to have an effect during 2009 and/or 2010 are considered as timely in this context. The temporariness of a measure is important where it is a precondition for creating or enhancing the incentive that induces a demand reaction or to unlock financing for a business transaction. Temporariness is however also relevant for measures' having a beneficial short-term impact but trade offs vis-à-vis long-term objectives. The assessment as to whether a measures is well targeted is closely related to the judgment on whether a measure facilitates or hinders structural change, since poor targeting of support, in particular direct state aid, will almost certainly produce economically undesirable results. Measures can generally be considered well targeted when they focus clearly on a specific market failure that concerns with some precision the targeted sector/company/group of companies, such as information asymmetries or the overshooting of the demand contraction owed to the crisis. The presence of overshooting might be due to the incapacity of markets to deal with exceptional economic conditions such as the contraction of demand households; the lack of confidence and/or the terms and price of financing available to companies. Sectors are overreacting more than what would be normal under the usual business cycle which might lead efficient companies to exit the market. Without any form of public intervention, overshooting sectors might undermine the long term capacity of adjustment of the economy at large.

– **Compatibility with long term objectives**

The beneficial short-term effects of countering the impact of the crisis are the main objective of the measures undertaken under the EERP. It is important that this effect can develop to help limit wasteful labour shedding and the destruction of know-how and capital. Such support may be necessary for considerable time. Most current measures supporting business are intended to realise their effect during 2009 and 2010. However, the relation of short-term support measures to single market principles and long-term policy objectives under the Lisbon strategy will have to be monitored closely with regard to unwanted "side effects", as these will have an important bearing on whether the EU will actually come out of the crisis with limited damage to its potential output and growth. The compatibility with existing long-term objectives under the Lisbon Strategy, as captured in country-specific recommendations and points to watch is relevant in terms of the potential growth of the EU and the way in which it can resume economic growth once the downturn ends. Given that the crisis will likely have a strong negative impact on the level of potential output[105], the need for productivity-enhancing framework conditions and an enabling business environment will be even more important after the crisis than before.

Wherever measures with a beneficial short-term effect risks counteracting medium- and long-term objectives, the need for temporariness and reversibility of the measure in question gains added importance. Where temporariness is not ensured in such a case, the measure may overall very likely be counterproductive. Such short-term vs. long-term trade offs must be given a strong weight in the overall assessment of any measure and should be clearly pointed out in the comment column of the assessment module.

Only those support measures effective in the short-term which are also in line with single market principles and the EU's structural reform agenda, can really be regarded as good practices. Where the trade-offs between short and long term are significant, in particular, where a negative impact on potential output may be expected, there is a need for a timely reversal of the measure in question. In some cases, time consistency may not be ensured at all and the trade-off may be such, that long-term damage outweighs short-term gain. In such cases, the envisaged short-term measures would have to be regarded as bad practices that should not at all be pursued.

– **Spillovers**

The need for co-ordination at the EU level arises in particular wherever there are significant spillovers from actions at national level. The risk of negative spillovers applies to all measures that are deemed to undermine in some way the level playing field of the single market (see section b). In every case, where a risk to the single market is identified, the benefits of EU-level co-ordination should be examined. That need is of course also related to the size of the expected spillover. Accordingly, the coordination should include sharing information on measures taken as well as joint assessments of the impact of these measures.

4.4. Policy Response to the Crisis

4.4.1. Overall responses

Measures aimed at supporting businesses and companies make up the largest part of Member State's efforts to respond to the crisis in the context of the EERP in terms of the number of actions pursued (29% of total measures). They also represent a considerable share (about 16%) of the overall discretionary stimulus provided for 2009/10. Among these measures supporting businesses, those measures which aim at easing financial constraints account for 79% of the total. In addition a significant amount of guarantees and/or loans with subsidised interest rates are provided to relieve companies on a temporary basis, which could potentially represent an additional burden for the state budget. In comparison, the proportion of fiscal measures stimulating demand is lower (10% in 2009). These sectoral measures are targeted to the worst hit sectors, in particular the automotive sector.

Given the impact of the crisis on companies and industries outlined in section 4.2.2 above, it is crucial for European businesses that this support be effective in cushioning the impact of the crisis. At the same time, while public intervention can help cushion the adverse impacts of the crisis, it could have unwanted side effects on incentives and market integration and competition both contemporaneously as well as in the medium and long term. Actions pursued in a purely national context may also be insufficiently effective and could undermine the single market in the absence of a sufficient degree of EU-level co-ordination, wherever spill-over effects are at work. It is hence imperative to

[105] Pisani-Ferry & van Pottelsberghe: "Handle with Care! Post-Crisis Growth in the EU". Breugel Policy Brief 2009/2.

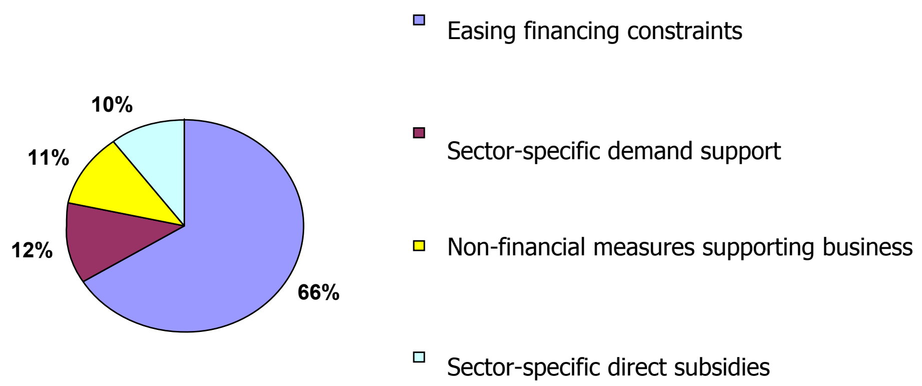
scrutinise the measures carefully with a view to ensuring their effectiveness and adequacy in the short term, their time-consistency, and the need for close co-ordination that may have to be of an *ex ante* nature to be effective.

Among the measures classified as supporting industrial sectors, business and companies, two thirds aim at **easing financing constraints for business** (see figure 6). These comprise the extension both in terms of volumes and conditions of credit guarantees, including export credit, particularly for SMEs and the increase in the capital of public development banks to bring this about; easing conditions for access to and repayment of loans; temporary tax reductions and exemptions; and changes in depreciation rules favouring SMEs.

Sectoral measures (both demand support measures and direct subsidies) account for almost one quarter of total number, but are concentrated in a number of Member States with industries that are particularly hard-hit by the crisis. ***Sector-specific demand support*** is provided through temporary tax breaks, permanent changes, and other financial incentives for purchases of sector-specific products in support of environmental and innovation policy objectives; easing regulatory requirements and financing conditions for homeowners and first-time buyers; sectoral liberalisation measures; and the handout of coupons for the consumption of certain goods and services. ***Sector-specific supply measures (including direct subsidies)*** provide direct financial support, such as tax reductions and direct state aid payments as well as measures aiming at complementing the deterioration of financial conditions (guarantees and loans with subsidised interest rates) .

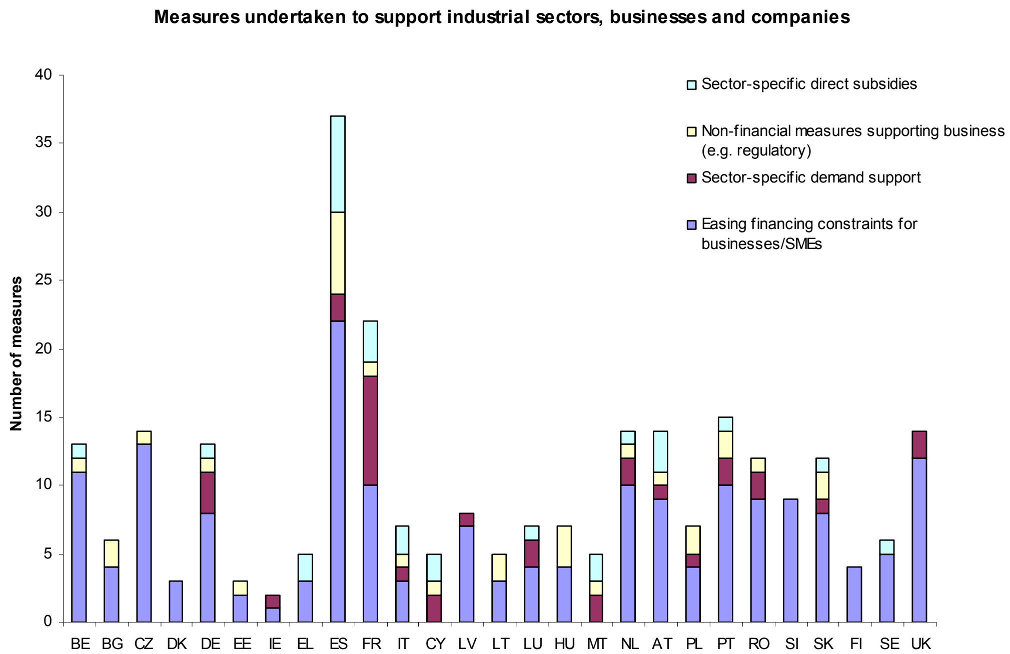
Non-financial business support (e.g. regulatory reforms) relate mainly to the reduction in administrative burdens for businesses, in particular SMEs, but also to the provision of advice services to business in export activities and trade fair participation.

Figure 6: Types of Business support measures as share of total



Source: Commission services

Figure 7: Business support measures across Member States



Source: Commission services

All Member States have taken action in at least one of the five types of measures set out above. Member States are most active in terms of measures to ease financing constraints for businesses/SMEs, where almost all of them (except Malta and Cyprus) have proposed some action. The largest number of such measures (see figure 7) are being taken by Spain, the Czech Republic, the United Kingdom, Austria, Belgium, France and the Netherlands which have each adopted 10 or more measures in this area. These measures also have a significant budgetary impact. A total of 15 Member States are active in terms of demand sectoral measures and 12 Member States are active in terms of supply sectoral measures, some of them (AT, ES, FR, GE, IT, PT, UK) having adopted measures in both areas. Finally a total of 16 Member States have adopted measures in the area of non-financial measures.

4.4.2. Measures easing financing constraints

The measures pursued to ease businesses' financing constraints represent a strong response to a key problem that arose early during the crisis and has not yet subsided. Almost all Member States have moved to counteract the drying up of credit for businesses in various ways. Their measures in this area are for the most part horizontal in nature and seem to be rather effective in the short term and without major risks. At EU level, the temporary state aid framework has made it easier for Member States to act in this way. Measures taken include the extension both in terms of volumes and conditions of credit guarantees, including export credit, particularly for SMEs and the increase in the capital of public development banks to bring this about; easing conditions for access to and repayment of loans; temporary tax reductions and exemptions; and changes in depreciation rules favouring SMEs. A large amount of support has no direct fiscal impact as it represents small amount of aids, loans and guarantees. These measures falling under the Temporary Framework represent an estimated budget of 20 bn euros.

Measures in this area do for the most part fulfil the conditions of being timely, targeted, and temporary, supporting their effectiveness during the downturn. Permanent measures in the area of corporate taxation (DE, FR, SI, LU) had in good part been planned already before the crisis, but may contribute to relieving the financial constraints felt by businesses The issue of their effectiveness in providing sufficient incentives for commercial banks to extend additional credit is of particular importance. For example, a low interest rate loan may not be sufficient to bring about any lending at all in the current economic environment if the commercial bank takes the full or even the partial default risk associated with the loan. In this respect, the provision of credit guarantees may be an effective financing instrument.

Data on the increase in the provision of credit to business owing to the measures pursued in this area are not yet available. The actions undertaken by Member States promise for the most part to be effective and, given their horizontal nature, do not *per se* entail negative effects for the single market, in particular as they are also clearly temporary in nature.

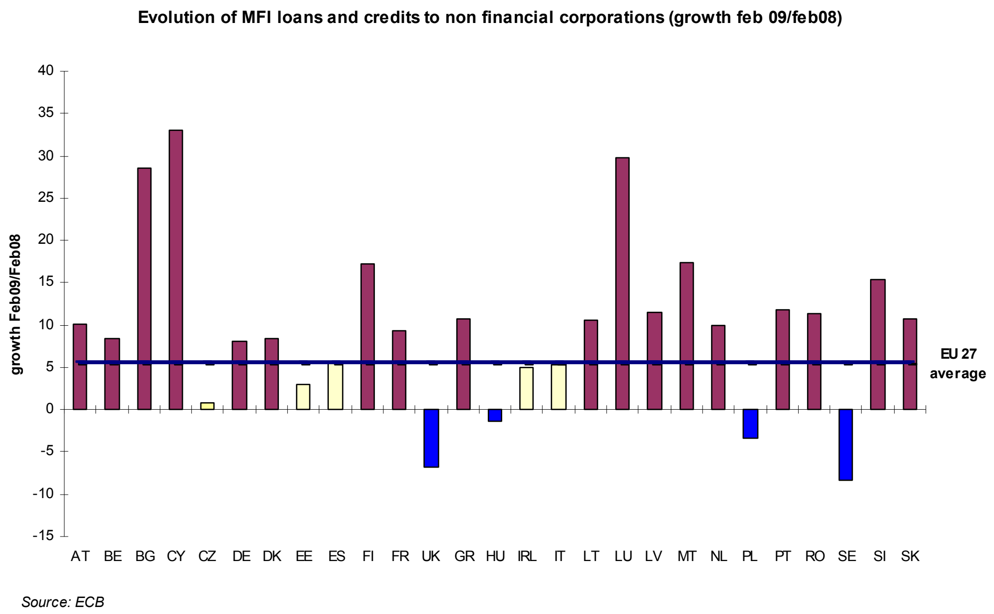
- **Increases in guarantees, subsidised loans and additional funding** have been provided in many Member States (FR, BE; LU, DE, BG, UK, HU, SI, IT, PL, FI, SK, AT, EL, RO, SE CZ). Some of these measures have been undertaken or announced in the context of the Temporary State Aid Framework which aims at giving Member States more flexibility to support the real economy. In particular, schemes to provide limited amounts of state aid (DE, UK, PT, FR, BE, LV, AT, NL, IE), risk capital (DE, AT, FR), state guarantees (DE, FR, HU, LU, LV) and loans with subsidises interest (HU, FR, UK, DE) have already been adopted[106]. Others are being examined by the Commission.

- **Corporate taxation** is another field where Member States have made changes in order to improve the fiscal environment for businesses. In some Member States, these measures correspond to reforms with the aim to reduce taxes permanently (FR, DE, LU, SI, SK). In other cases, the measure is temporary and aims at providing relief to businesses by cutting taxes or by providing exemptions (RO, NL, UK, LV, PT, DK, PL, PT, EL, SE, ES).

- Changing the **rules governing capital depreciation** has also been undertaken in some Member States (SK, DE, NL, AT, FR, CZ, FI). These measures are expected to benefit companies if they are implemented timely so as to produce the expected effect in 2009 and 2010.

- Other measures have been adopted in order to maintain liquidities for companies, in particular measures such as **VAT acceleration payments** (NL, ES, FR, PL, CZ) or **speeding up government bills** (PT, NL, BE).

Figure 8: Evolution of MFI loans and credits to non-financial corporations



Source: ECB

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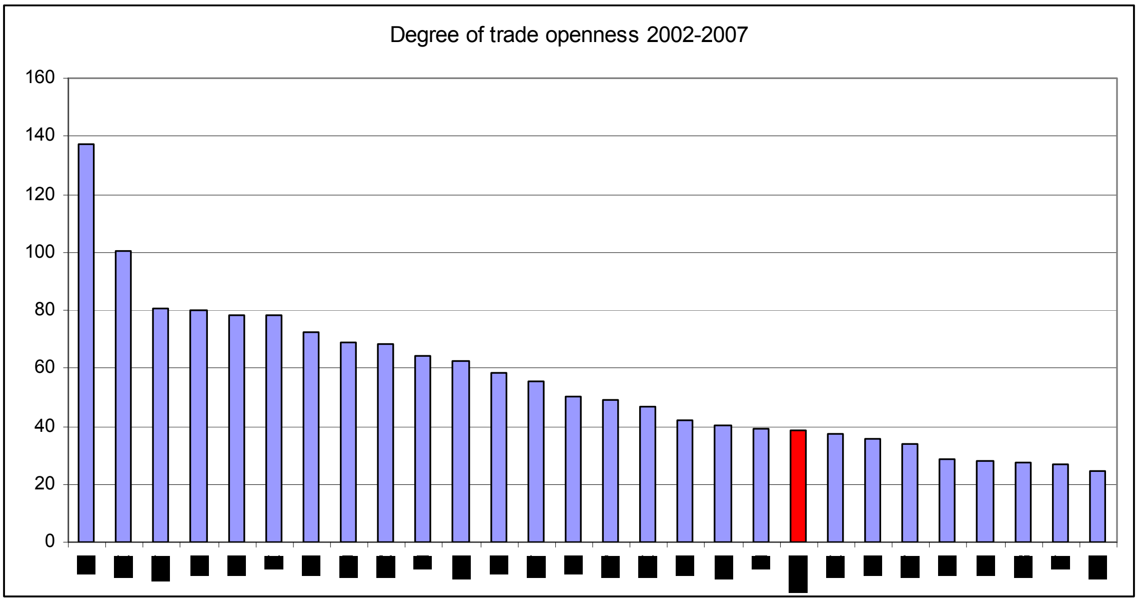
[106] See DG COMP website.

Member States have also moved to ensure that financial sector problems do not undermine financing and insurance for foreign trade[107]. Some Member States (BG, CZ, FI, EE) have decided to increase, on a temporary basis, the countercyclical activities of their official Export Credit Agencies (ECAs) through additional capacity for insurance/guarantee. In addition a number of specific national schemes have been announced or are in preparation in several Member States (LU, DK, NL, PT, FI, BE, DE, SP, LT) especially for short-term transactions, where the withdrawal of private insurance coverage has been particularly severe. Unsurprisingly, such measures are more frequently envisaged in countries having a rather higher degree of trade openness and which suffer most from the sharp downturn in world trade (see figure 9).

Figure 9: Degree of trade openness in EU Member States, 2002-07



The Commission is currently assessing export credit insurance schemes, which have been recently notified under the Temporary Framework for State Aid Rules adopted in December 2008.[108] A first favourable decision on a case notified by Luxembourg of a top-up scheme for short term export credit insurance via the intermediary of its public export credit agency has been adopted on 20 April 2009. The schemes, which aim at providing exporters with additional credit limits on top of the credit limits provided by private insurers in case a reduction of credit limits granted to exporters by the private insurers is a consequence of the financial crisis (market failure). Such schemes could also foresee to extend their scope to operations, which would have been accepted in normal times by private insurers but are rejected under the present economic circumstances.

The fact that, according to a recent analysis of COFACE, the French export credit insurance company, the financial strength of companies has been continuing to decline in most EU countries goes to show that action will still be needed

[107] The biggest contribution to the return to normal trade finance conditions should come from the restoration of confidence in the financial sector at large. However, in the absence of sufficient progress to restore the normal functioning of the credit channel, more targeted measures are being implemented to mitigate the decline in trade finance provided by the private sector. Multilateral financing elements such as the creation of a temporary global short-term liquidity facility by the World Bank, and increased efforts by regional development banks have been announced or envisaged. In Europe, the European Bank for Reconstruction and Development (EBRD) has approved an increase in the size (from €800mn to €1.5bn) and period of operation of its Trade Facilitation Programme and the European Investment Bank (EIB) is exploring the available scope for using its facilities for SMEs for trade finance purposes.

[108] The Temporary Framework provides enhanced flexibility for the operation of the official trade finance support schemes of Member States by simplifying and speeding up the procedure for Member States when invoking the escape clause under the existing legal framework governing short-term export credit insurance and allowing for public intervention when a risk is temporarily considered as non-marketable.

for some time also given that COFACE has recently downgraded the business environment in 17 Member States, namely in BE, BG, DE, DK, EE, ES, FR, EL, HU, IE, IT, LT, LV, PT, RO, SI, UK[109].

4.4.3. Sectoral demand and supply-side support

Member States' measures to support specific sectors have focused in the main on automotive, construction and tourism sectors. These sectors are among those hardest hit by the fallout from the financial and economic crisis. In view of this, the sectoral focus is justified, particularly given that these sectors represent a large part of the European economy and display strong interlinkages with other important sectors along the value chain. Figure 11 below provides indications on the relationship between the size of sectoral downturns in automotive, construction, and tourism sectors and sectoral measures taken across Member States.

4.4.3.1. Sector-specific demand support

Measures taken by Member States to support demand in sectors particularly hard-hit by the crisis (automotive, construction, tourism) appear to be rather effective in terms of their short-term impact. As they do not target specific companies, they have a lower inherent distortionary potential than sector-specific supply-side support. They have focused in large part on the automotive industry, where 12 Member States have introduced car scrapping schemes or will do so. Other sectors where demand support measures have been taken are construction and, to a lesser extent, tourism. The preliminary analysis shows that the demand support has stimulated sales in the sectors concerned:, i.e.

- ***Tourism:*** In some countries where tourism plays an important role, actions have been taken to maintain demand (SK, EL) through handing out vouchers to consumers.

- ***Construction***: In some Member States, facilities are provided to homeowners or to households willing to buy a new house (FR, IE, UK, BE). Such programmes may have already been in place, but the crisis may have accelerated their implementation.

- ***Automotive:*** Twelve Member States (FR, PT, IT, ES, LU, DE, AT, RO, SK, CY, NL, UK) have so far implemented (or will soon implement) recycling and recovery schemes ("scrapping schemes") to support demand. These measures are temporary and make support conditional to the purchase of new or nearly new vehicles that should be less polluting. In some Member States, measures to accelerate fleet renewal to promote cleaner vehicles were already in place before the crisis (e.g. the Spanish VIVE plan started in 2008). In Poland, discussions are ongoing on a possible scheme driven by ecological criteria.

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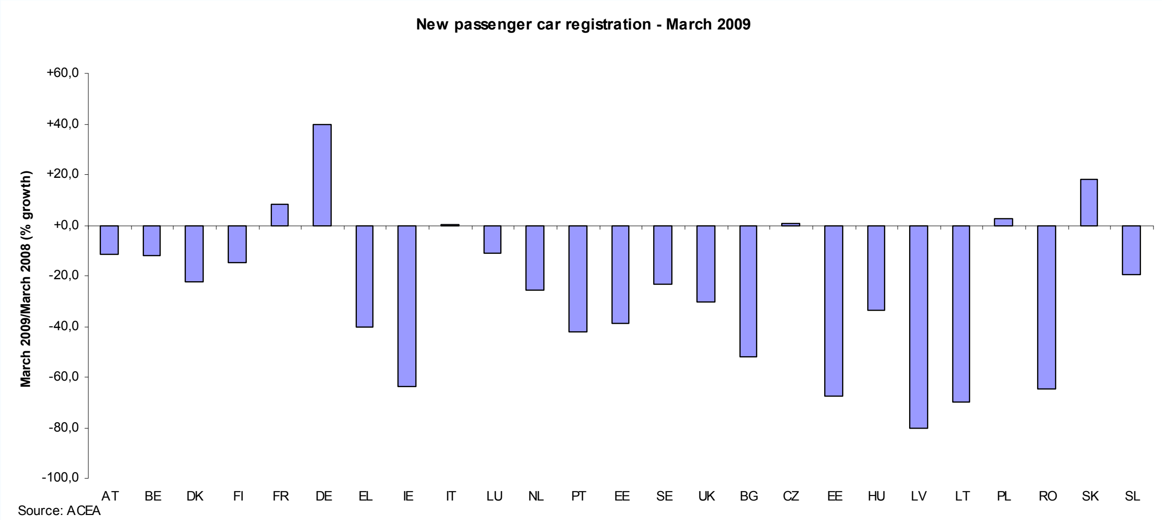
[109] Communiqué COFACE. 8 April 2009

Box 2: A preliminary assessment of the car scrapping schemes

Short term positive effects

Twelve Member States (FR, PT, IT, ES, LU, DE, AT, RO, SK, CY, NL, UK) have implemented (or will implement soon) recycling and recovery schemes ("scrapping schemes") to support demand. These measures are temporary. Most of the scrapping schemes have contributed to generating additional car sales in the beginning of 2009. The measures seem to have influenced short-term demand. New car registration increased in Germany, France, and Slovakia by a significant amount (+39% in Germany in March 2009). From preliminary monthly data of February 2009, new orders in the automotive sector have started to be positive in BG, DE, LV, PL, SE.



- Promoting the greening of the car fleet

Support schemes have to be well designed and to make the incentive measures conditional to the purchase of less polluting vehicles in order to contribute to a renewal of the car fleet, and accelerate the reduction of CO2 car emissions. Without such requirements, there is a risk that the scrapping schemes, there is potential could lead to a shift towards cheaper petrol cars with potential negative effects on CO2 emissions. This has to be assessed on a case-by-case basis.

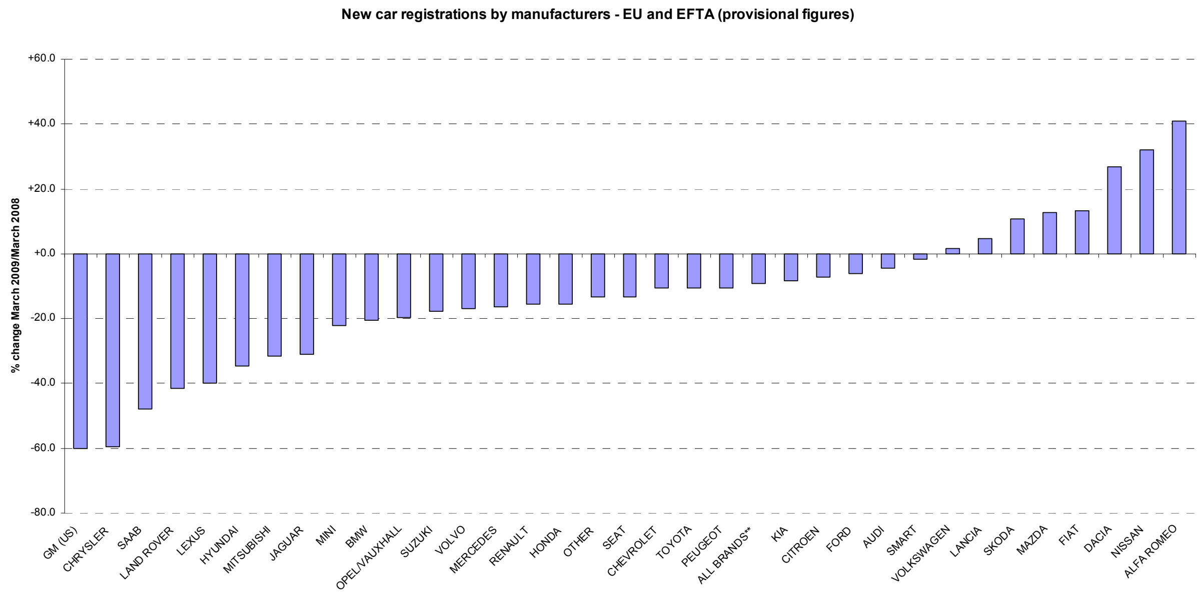
On the supply side, the demand support schemes seem to have favoured the purchase of smaller and cheaper cars, benefitting particularly brands produced in new Member States of Central and Eastern Europe but also to Asian manufacturers. Moreover, there is no evidence that the schemes have favoured domestic producers. As the new Member States have been particularly hit by the crisis, such spillovers could boost the manufacturing sector in these economies.

Notwithstanding these preliminary insights, there is a need for careful monitoring in the coming months. For example, incentives to buy new cars could produce distortions in spending patterns, e.g. substitution effect of used cars or other durable and non durable goods/services (communication, leisure and health which account for the main increase of consumption over the past decade). Such effects could affect the net effect of these measures and potentially contribute to maintaining too high capacities of production. It should be borne in mind that the scrapping schemes encourage car buyers to pre-empt their purchases, and thus may influence the future demand for new cars.

4.4.3.2. Sector-specific supply-side support

The main objective of supply side measures is to facilitate companies' access to finance and to sustain employment. This support is implemented through loans and guarantees. The majority of these measures is monitored and assessed under the Commission's Temporary Framework for State aid which is of horizontal nature. In this context, Member States may use the horizontal schemes to target specific sectors. Careful monitoring of the measures adopted under the framework will be necessary based on Member States' reporting to the Commission by 31 October 2009.

Figure 10: New car registrations



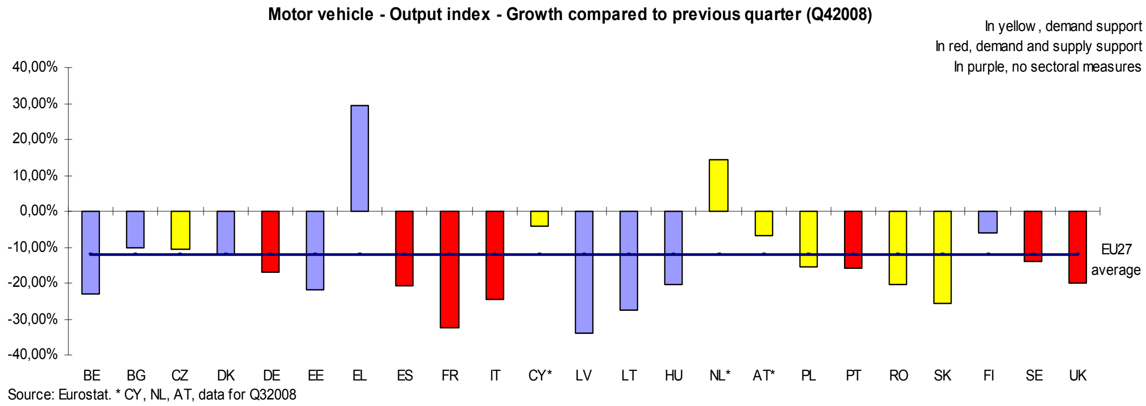
Source:from ACEA data

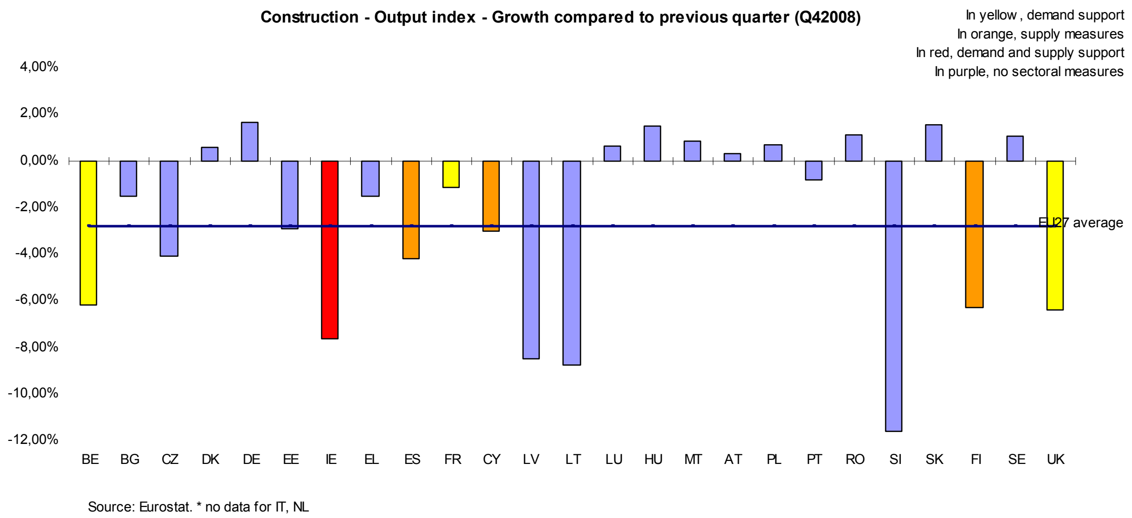
Member States' actions in support of businesses and sectors is set to have a significant impact in the short run and are in line with the principles set out in the EERP and the guidance provided at EU level. This is important as most measures have an inherent potential to distort competition or hinder the process of economic restructuring within the EU, if they remain in place any longer than needed. More specifically, sectoral supply measures, if badly designed, have the potential to lead to adverse effects such as freezing market shares and protecting incumbents, in particular in sectors where large companies account for a significant share of the market. Since the end of 2008, the Commission has been reviewing notified state aid measures to the automotive sector. In the latest edition of the State Aid Scoreboard[110], the Commission stressed that its "position has been clear and strong as regards certain attempts to implement protectionist measures in the car industry".

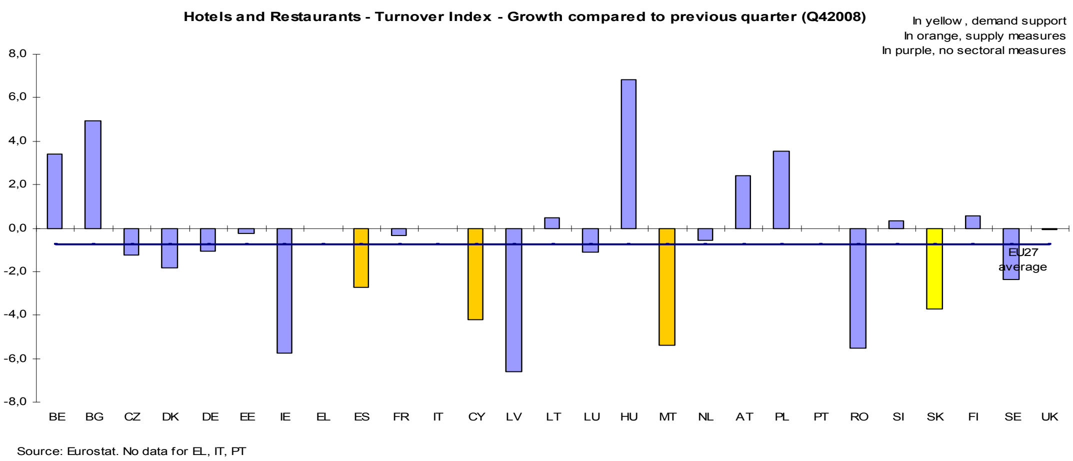
While the most affected sectors are broadly the same in all Member States, there is considerable variation across Member States in terms of support actually provided – both in terms of sectoral composition and regarding the mix between supply and demand side measures. Therefore, whilst the schemes are consistent with internal market and state aid rules, they could nevertheless have an important impact on the internal market. Moreover, given the different incentive structures, the effectiveness of the scheme for industries that are essentially operating across the whole of the internal market (i.e. are European) could be somewhat limited. Should schemes need to be maintained beyond the year end then there clearly is a case for more co-ordination at the European level. The intensity of the need for close EU-level co-ordination corresponds to the strength of the spillover effects that can be expected but also the expected length of the crisis Member States have positively responded to the invitation to better coordinate at EU level.

[110] State aid Scoreboard. Spring 2009/ Special edition on state aid intervention in the current financial and economic crisis. COM(2009)164. Extract: "Since France announced its planned aid to the automotive sector which originally raised concerns concerning State aid and Internal Market rules, the Commission has stated without ambiguity that any aid granted under such requirements could not be regarded as compatible. Intensive contacts between the Commission and the French authorities have been fruitful and France committed to avoid any condition contrary to Internal Market rules".

Figure 11: Output evolutions in automotive, hotel restaurants and construction







Source: Eurostat short term indicators.

At this stage:

- The **automotive sect**or is being supported in France ("Pacte Automobile" proposed in February 2009), Italy and Spain (Competitiveness automobile plan proposed in March 2009). In addition, companies receive support through different schemes: greening of products (DE, ES, FR, UK), subsidised loans (FR), loans and guarantees (SE). While horizontal in nature, a few sectors are effectively the main beneficiaries of individual schemes. For example, the environmental challenges to which the car sector is exposed, makes it the main beneficiary of the greening schemes.

- **Tourism** is another sector receiving supply-side support in some Member States (ES, CY, MT, PT, EL). Companies receive tax exemptions or VAT decrease to boost the sector.

- **Construction** also benefits from sectoral measures. In some Member States, programmes targeting the purchase of house (social housing, construction buildings) have been implemented/accelerated (ES, IE, FI, CY).

4.4.4. Non-financial business support

Non-financial business support, such as the broader Better Regulation agenda, including the reduction of administrative burdens and regulatory reform are a crucial part of an existing long-term agenda that needs to be pursued with as much urgency as the short-term measures, given the likely negative impact of the crisis on potential output. Where such measures are already at an advanced stage, they can contribute to accelerating the adjustment process of the eventual recovery through an improved business environment, especially in countries where the ease to doing business has been lower before (see Figure 12 below). Significant improvements in the business environment can be expected from a rapid and thorough implementation of the services directive and reforms in services going beyond the directive.

Most of the measures undertaken in this area relate to the reduction in administrative burdens for businesses (BG, MT, HU, IT, LT, NL). Others aim at stimulating entrepreneurship and SME activities improving the conditions for starting up new businesses (BE, ES, PL). Hungary aims to reduce the administrative burden by 25% until 2012. Other measures related to regulatory reform in specific sectors (FR, ES) or policy areas (competition law in BG, bankruptcy law in CZ). In 2008, prior to the crisis, structural reforms were implemented in the French services sector, especially in retail, where various constraints on opening new shops were lifted. These reforms are expected to start producing positive effects in 2009 and create an annual 50.000 jobs until 2014. In Spain, the implementation of the service directive will be accelerated. The reform of professional services should also create positive effects. Finally, the improvement of the administrative implementation of structural funds has been put on the agenda in HU, SK and RO, which might improve their effectiveness.

4.4.5. EU-level contributions under the EERP

As indicated in the Commission's Communication of 4 March 2009[111], the stimulus packages of Member States called for in the EERP are complemented by actions at the EU level. A further € 30 billion or 0.3% of GDP has been made available from EU sources including a number of new public private partnerships. The Commission has proposed a targeted investment to the tune of € 5 billion to address the challenge of energy security and to bring high-speed internet to rural communities, as well as through additional advance payments under cohesion policy amounting to € 11 billion, of which € 7 billion for new Member States.

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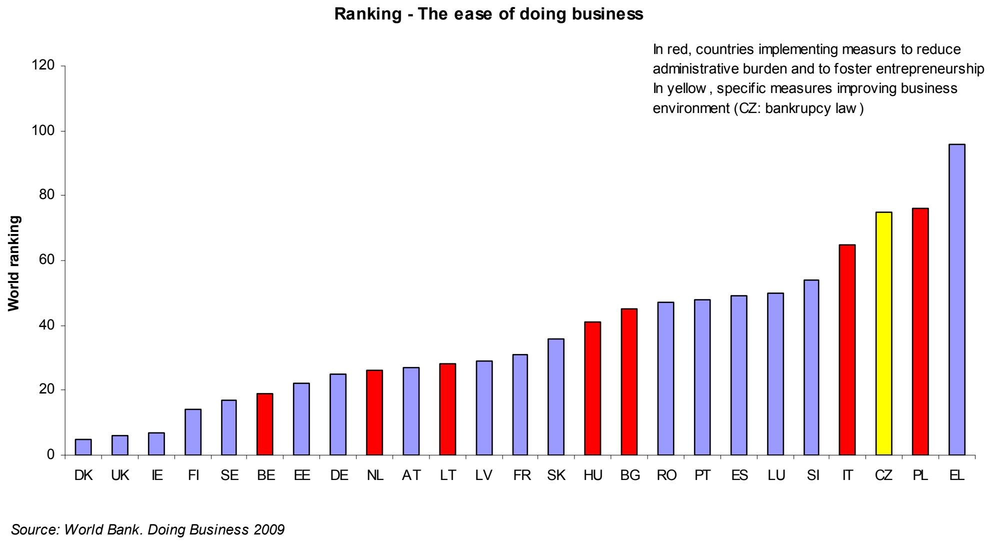
[111] COM (2009) 114, 4 March 2009.

Figure 12: Doing Business in Europe



Source: World Bank Doing Business

Moreover, the EIB has mobilised its resources to provide a timely response to the financial and economic crisis taking the form of additional annual lending of € 15 billion per year in 2009 and 2010. Its action relies on the following financing instruments: a) SMEs, mid-caps and mezzanine financing, b) energy, climate change and infrastructure, including the European Clean Transport Facility (ECTF), c) financing of convergence regions (focused on new Member States), d) Marguerite equity fund and, e) EIF mezzanine mandate. These activities will take the form of loans, equity, guarantees and risk-sharing financing, all at market conditions. The EIB support to SMEs is part of the mobilised additional resources endorsed by the Ecofin council in September 2008, boosting its SME lending possibilities by € 30 billion between 2008 and 2011. The results of these actions can be already observed both in terms of new commitments but also of accelerated disbursements in particular towards SMEs and key sectors in the European economy. In particular, a total of 12 operations have been approved in the automotive sector, from January to April 2009, for a global amount of € 4.025 billion of which € 2.744 billion under the ECTF. The measures will also help mobilise complementary private resources to support additional investments.

Some EU actions also target more specifically the New EU Member States in Central and Eastern Europe. On the basis of the Joint IFI Action Plan In Support of Banking Systems and Lending to the Real Economy in Central and Eastern Europe[112] the EBRD will finance up to € 6 billion over 2009-2010 as part of its sharply increased business plan for the financial sector across region of operations. The EBRD's financing will take the form of equity investment and capital supporting instruments to ensure that its clients are adequately capitalised to meet the challenges ahead, targeted medium and long term debt finance to support lending to the real economy, particularly to the SME sector, and the doubling of limits available under its Trade Facilitation Program to support trade flows in the region. In addition the EIB has € 5.7 billion in SME lending facilities available for drawing by Central, Eastern, and Southern European banks, and further tranches totalling a similar amount are expected during the 2009-2010 period (€ 11 billion in all) as part of the EIB volume increase under the EERP adopted by the December 2008 European Council. A first further

[112] Joint IFI Action Plan In Support of Banking Systems and Lending to the Real Economy in Central and Eastern Europe, Communiqué by the EBRD, EIB, EIF, World Bank, IFC and MIGA, 27 February 2009.

tranche of € 2.8 billion should be approved by end-April 2009. The distribution of these SME facilities, currently totalling € 8.5 billion, is as follows: € 4.4 billion for New EU member states; € 1.9 billion for pre-Accession Western Balkan states; and € 2.2 billion for pre-Accession Turkey. The EIF, the EIB Group's venture capital and SME guarantee arm, is also aiming to increase its activity in this region over the next two years.

4.5. Conclusions

4.5.1. A timely response to the crisis

The overall response to the crisis in terms of measures supporting businesses and sectors is strong, and can be expected to provide significant support in the short term. Such an intervention is justified by the severe credit tightening in the context of the financial crisis and a the sharp contraction in global demand and trade due to the wider lack of confidence among businesses and consumers. Member States have taken a large number of measures to support businesses and committed about 16 percent of the overall discretionary fiscal stimulus. These measures include three main types of action, namely measures to ease financing constraints on businesses, sector specific support (both on the demand and supply side) and non-financial support measures.

Member States have placed the main focus on measures to ease financing constraints which account for two thirds of measures taken to support businesses and the majority of the fiscal stimulus (79% in 2009 and 89% in 2010 as a first approximation). Those measures are assessed to be effective and to have relatively few unwanted side effects in terms of trade offs with single market and long-term objectives. This is in good part a function of the fact that many of the measures pursued in this area are extending or topping up existing instruments. They tend to alleviate the negative effects of the deterioration of lending conditions and provide relief to businesses and SMEs in particular.

Most Member States have put in place horizontal frameworks that allow policy support to be given to sectors that are most affected by the crisis (e.g. cars, tourism, construction). These sectors receiving support in the EERP context account for a large share in the EU27 economy in terms of value added (9.8%) and jobs (12.9%)) A significant amount of sectoral support measures goes to the automotive sector in Member States where this sector accounts for a high share in the economy both directly and indirectly. Two third of these measures aim at easing financial constraints for car makers (loans and guarantees) or supporting them to green their products. Demand measures aim at boosting car sales while renewing the fleet to cleaner vehicles. Tourism is another supported sector in the Member States where the sector plays a key economic role.

Non-financial business support measures, given their structural nature and predominantly long-term effects, will in all likelihood not make a significant contribution to the short-term response. However, in view of the expected impact of the crisis on potential output, such productivity-enhancing structural reforms are crucial for enhancing EU competitiveness and ensuring a sustainable economic recovery.

4.5.2. Potential lessons on recovery measures supporting businesses

Member States' actions in support of businesses and sectors are set to have a significant impact in the short run and are in line with the principles set out in the EERP and the guidance provided at EU level. This is important as most measures, including measures supporting specific sectors (especially in countries with large industrial sectors), can potentially distort competition or hinder the process of economic restructuring within the EU, and thus should be temporary.

While the most affected sectors are broadly the same in all Member States, there is considerable variation across Member States in terms of support actually provided – both in terms of sectoral composition and regarding the mix between supply and demand side measures. Therefore, whilst the schemes are consistent with internal market and state aid rules, they could nevertheless have an important impact on the internal market. Moreover, given the different incentive structures, the effectiveness of the scheme for industries that are essentially operating across the whole of the internal market (i.e. are European) could be somewhat limited. Should schemes need to be maintained beyond the year end then there clearly is a case for more co-ordination at the European level. The intensity of the need for close EU-level co-ordination corresponds to the strength of the spillover effects that can be expected but also the expected length of the crisis Member States have positively responded to the invitation to better coordinate at EU level.

Most measures focus on improving access to finance (at least € 20 billion) and whilst it is too early to assess their effectiveness, their design seems largely appropriate. The remainder of the support measures cover demand side measures (at least € 30 billion), but there is also considerable supply side support (at least € 25 billion). Whilst the latter may be justified to avoid that otherwise viable companies go under or because they directly address certain externalities (e.g. greening of car technology), further analysis of this relatively large contribution is warranted in light of its inherently strong impact on the internal market.

4.5.3. Back to "picking winners"?

One risk related to sectoral support measures is effectively "freezing" market shares or at least impeding structural change by protecting incumbents from adapting and adjusting. Past episodes of economic crisis in industry in Europe in the 1970-80s have resulted in a coordinated policy at EU level to restructure and reorganise the industrial sectors in difficulty (e.g. coal, steel industry, textile, automotive). However, in the case of steel and coal, the institutional setting provided a framework at EU level to implement an industrial policy aiming at keeping ailing firms alive, which is no longer the case in the present context. However, these experiences also highlighted that such a direct intervention can produce adverse effects if an exit strategy is not clearly defined. In particular, support measures to sectors may hinder the need for restructuring and support to incumbents can create obstacles or reduce incentives for new firms to entry the market,

The recent crisis has shown the limited relevance of purely domestic action in the EU in the context of a globalised economy, characterised by strong interactions of foreign and domestic markets and the presence of companies in several countries across Europe and the world. Besides being contrary to single market rules, direct government support to local ailing firms by the EU going beyond the temporary state aid framework is both counterproductive as it could trigger a backlash by competitors, and of limited effectiveness as it is not possible to ensure that government support benefits the national economy alone.

The nature of the recent crisis and its financial origin also requested a different kind of support than the one from which industry benefitted in the past. Contrary to the 1970s and 1980s, sectoral support is provided mainly through loans and guarantees aiming at facilitating access to finance or at improving adaptation to environmental challenges. Moreover, demand measures do not target particular companies, but promote demand for both foreign and domestic products. Furthermore, Member States have adopted measures to ease trade credit as a way of enhancing cross-border trade rather then protectionist action.

Further monitoring of national recovery measures is therefore needed in order to avoid any such public interventions from impinging on the single market. Heterogeneous government support across Member States and potential duplication of sectoral support across Member States for a single company pose particular risks. Hence, a reinforced EU cooperation may be needed to avoid the fragmentation of the single market and to provide a European perspective for the restructuring of the worst-hit sectors.

4.5.4. Maintaining global cooperation in order to cope with world overcapacities

Sectoral support has been implemented in other large countries such as the US and China[113]. The bankruptcies of General Motors, Chrysler and Ford will involve massive public intervention while the US government will take this opportunity to green car production. In China, demand side measures (tax exemptions) coincide with public support to consolidate sectors. The resurgence of national industrial policies might lead to a risk of global protectionism and the maintenance of global overcapacities[114].

At this stage, outright and actionable protectionist measures have by and large been avoided. However, at the current juncture, European businesses do face the additional risk of a global increase in the recent resurgence of protectionist tendencies which are reflected in various types of measures, that are often below the threshold of being actionable but with the potential of triggering an avalanche of "tit for tat" responses[115]. Ensuring that measures supporting businesses and sectors through the crisis do not contribute to such developments will be crucial. Preventing that remains an additional important task for monitoring and co-ordination going forward. Close global cooperation should therefore be maintained with the main country producers in order to avoid beggar-my-neighbour industrial policies. The definition of a credible exit strategy should envisage the potential need for a coordinated reduction in capacity in sectors where the crisis has further stressed the necessity of in-depth restructuring. International organisations such as the WTO could ensure a certain playing level field while avoiding a race to subsidised break-out technologies.

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[113] See WTO report (March 2009) and Messerlin (May 2009).

[114] In the EU, capacity utilisation has shrunk during the first quarter of 2009 and for some sectors has reached their lowest point since 2000.

[115] Deutsche Bank Research, 4 June 2009 "*Back to the bad old days? The return of protectionism.*"

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