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Economic Stimulus in Europe – Accelerating Progress towards Sustainable Development?

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Background Paper

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European Sustainable Development Network



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1 Executive Summary: A Perfect Moment in Time?

Stimulus packages present an opportunity for sustainable development, but the greater opportunity lies in the fact that the crisis provides momentum for changes of unsustainable structures. The unprecedented depth and magnitude of the economic crisis has put many structures into question that were considered untouchable before. For example, the nationalization of banks in some countries appeared absurd only months ago and significantly tighter regulation of financial markets was unthinkable before the fall of 2008. In consequence, it appears that today is a perfect moment in time to address the deeper and structural causes of the environmental and economic crisis. Importantly, there are a number of causes of the environmental crisis that coincide with the root causes of the present financial and economic crisis. Today, there is a **particularly strong case for addressing the twin challenges** that have contributed to both the environmental and the economic crisis. Examples of these twin challenges include:

- **Housing bubble and urban sprawl:** The housing bubble is one of the root causes of the present economic crisis. Subsidies for house ownership have contributed to this bubble. At the same time, it is evident that the ever increasing number of house owners has led to unprecedented urban sprawl, a major driver of unsustainable levels of energy and resource consumption.
- **Financial markets and sustainable development:** In their present set up, financial markets have favoured immediate and high profits over long-term and stable business operations. The pressure to generate short-term profits has lessened the relevance of long-term and sustainable performance of business, undermining business efforts to make investments that pay off in the long run, of which improved energy efficiency and efficient use of resources are just a part.
- **Internalising external costs:** The economic crisis is largely caused by the lack of clear and implemented liability rules. Financial markets are not governed by effective liability rules. A market system riddled with private firms that are “too big to fail” jeopardises the entire market economy by allowing these firms to enjoy private benefits but pass on massive external costs to taxpayers for their poor risk management, lack of foresight or plain bad luck. Similar to this lack of liability, environmental policies have been struggling for decades to implement the polluter pays principle in full.

Stimulus packages of selected EU Member States have earmarked billions of euros to green investments, marking some headway towards meeting investment targets for constructing sustainable economies. The packages contain a number of measures that contribute to achieving the EU Sustainable Development Strategy objective of climate

change and clean energy, but there are none that explicitly address the conservation of natural resources.

However, there are a **number of challenging issues which could undermine the green potential of the adopted stimulus packages**. Firstly, stimulus packages are not intended and designed to address underlying structural challenges of sustainable development but to stimulate short term demand. Secondly, experience has shown that spending billions of Euros is a great challenge in itself and it is not certain that funds of the stimulus packages earmarked for green investment will actually contribute to sustainable development. Thirdly, many stimulus packages contain measures that are in fact environmentally harmful.

Even though it makes sense to emphasise the opportunities that stem from the crisis, it should not be ignored that the **crisis simultaneously presents large risks to sustainable development**. In times of economic crisis it is more challenging to finance green investments and innovation. There is also the threat that stimulus funds could lock in non-sustainable technologies and structures. The crisis could delay and in fact has delayed environmental measures.

2 Introduction and Background

In the autumn of 2008, it became clear that the world had entered a **deep financial and economic crisis**. After years of economic growth, a severe recession has emerged, threatening a dramatic rise in unemployment levels and further economic disruptions through bankruptcies and withheld lending and investment. The IMF estimated in April 2009 that global activity will decline by 1.3% in 2009, a substantial downward revision from the January projections.¹ Many EU Member States are hit even harder than the global average, with expected contractions of up to 6% in Germany or even more in Ireland. Unemployment is projected to rise significantly and fiscal deficits are expected to widen sharply in both advanced and emerging economies.²

The largest economic crisis since the Great Depression also coincides with the **greatest environmental crisis** in human history: the threat of catastrophic climate change, the menace of a global water crisis and an unprecedented decline in biodiversity. If measures are not taken to prevent climate change, water shortage or biodiversity loss, the resulting effects would dramatically overshadow the current economic crisis. In the context of the environmental crisis, time is of the essence, leaving only little time to achieve the necessary turnaround. Global greenhouse gas emission, for example, must peak in 2015 and be reduced by 25-40% within the next 10 years. Loss of biodiversity is often irreversible.

In response to the economic crisis, governments around the world have passed **stimulus plans totalling approximately US\$3 trillion**.³ The dramatic increase in public funds being deployed in national stimulus plans provides a unique opportunity to dramatically increase investment levels in a greener and more sustainable economy. The IEA estimates that between now and 2050 a total of US\$45 trillion in clean-energy investments will be necessary.⁴ The World Economic Forum assumes that avoiding significant climate change will require investments in clean energy of US\$515 billion per year.⁵ The HSBC believes that adopted stimulus packages have earmarked US\$430 billion for key climate change themes, with China and the US in the lead.⁶ Assuming that this calculation is correct, the world would have made considerable headway towards meeting required investment targets, which, according to the HSBC, means that a “Green New Deal gets real.”⁷

¹ IMF World Economic Outlook, April 2009: <http://www.imf.org/external/pubs/ft/weo/2009/01/pdf/exesum.pdf>

² IMF World Economic Outlook, April 2009: <http://www.imf.org/external/pubs/ft/weo/2009/01/pdf/exesum.pdf>

³ UNEP: A Global Green New Deal. Final report, 2009

⁴ IEA: World Energy Outlook, 2008

⁵ World Economic Forum: Green Investing: Towards a Clean Energy Infrastructure, 2009

⁶ HSBC: A Climate for Recovery, February 2009

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Even though it makes sense to emphasise the opportunities that stem from the crisis, it should not be ignored that the **crisis simultaneously presents large risks** to the future sustainability of the economy in the form of misplaced or missing investment. The crisis also contains several threats to the future sustainability of the economy:

- **Difficulties financing green investments and innovation.** Private-sector investment is critical to the deployment of green technology. The difficult financing conditions and dramatic drop in fossil-fuel prices have greatly decreased the attractiveness of clean-energy investments relative to what they were just months ago. Several news reports have pointed to a rapid decline in investment levels in key green-energy sectors.
- **Stimulus funds could lock in non-sustainable technologies and structures.** The stimulus packages also contain some decidedly non-green aspects, with significant funding for further road construction as well as measures to stimulate increased auto sales without making fuel efficiency at least one basis for determining subsidy levels.
- **The crisis could delay environmental measures.** The crisis has the potential to delay progress on environmental policies. For example, in December 2008, the European Council made modifications to key environmental policies, delaying the auctioning of CO₂ certificates in the EU Emissions Trading Scheme, as well as delaying CO₂ limits on automobiles until 2015.

Against this backdrop, this paper first analyses the stimulus packages of six EU Member States – namely, Austria, Germany, France, Poland, Slovenia and the UK – with a focus on the potential of the packages to contribute to the implementation of the EU Sustainable Development Strategy (EU SDS) and the Lisbon Strategy. In Chapter 4, the paper discusses the extent to which the packages help implement the EU SDS and Lisbon strategies. And in Chapter 5, draws conclusions and presents recommendations. An annex provides an overview of the targets and implementation status of the EU SDS and the Lisbon Strategy. This paper was funded by the Austrian Federal Ministry of Agriculture, Forestry, Environment and Water Management. Ecologic Institute is grateful for this support. The views expressed in this report are those of the authors and do not necessarily reflect those of the donor.

3 Overview and Analysis of Stimulus Packages in Selected EU Member States

In light of the EU-SDS and the Lisbon Strategy, this section presents an overview of selected stimulus packages and analyses their “green potential”. Although the targets of the EU SDS and the Lisbon Strategy guide the analysis, the focus of the following section is on the green potential of stimulus packages, i.e. the potential of the selected packages to implement the targets of environmental policies.

3.1 Austria

The economic crisis has had noticeable effects on the **Austrian economy**, yet the downturn has been less pronounced than in other European countries. For 2009, it is expected that GDP may contract by 2 to 3%. Within Austria, the export industry has been most severely affected by collapsing demand abroad, especially from Germany. Thus, the export volume in January 2009 was 25% below that of January 2008; imports decreased by almost 18% in the same period.

To counter the effects of the economic downturn, a first **stimulus package** with a volume of about €1 billion was adopted at the end of October 2008. A second package, worth about €2 billion, followed at the end of December 2008. As a third measure, a reform of the income tax originally scheduled for 2010 was brought forward to 2009. Likewise, it was decided in March 2009 to employ accelerated depreciation as a temporary relief measure to stimulate investments. Taken together, these measures amount to some €3 billion in 2009 and 2010, equivalent to about 1.1% of Austrian GDP. The measures contained in the two stimulus packages apply in 2009 and 2010.

Table 1: Overview of the Austrian Stimulus Package

	Package I	Package II
Tax breaks for individuals and firms		Income tax reform brought forward to 2009 (€2.5 billion in 2009) accelerated depreciation allowance (€600 million in 2010-11)
Other relief measures for individuals and firms	low-interest investment loans for SMEs increased from €400 million to €600 million €50 million of micro-credits for small companies	€150 million regional employment programmes €220 million expansion of short-time work scheme (Kurzarbeit). €70 million for an additional, mandatory and free-of-charge year of kindergarten
Investment subsidies	€100 million subsidy for thermal retrofitting of	€875 million of investments in public buildings

(excluding transport)	private residential and commercial buildings	and infrastructure moved forward to 2009-10, including university buildings and thermal retrofitting of public buildings
Investments in transport		€900 million investments in rail and road infrastructure brought forward to 2009-12 € 45 million car scrapping scheme

Source: Estimates compiled by Ecologic Institute.

The most important measures in terms of their financial volume are the **fiscal measures**. The reform of the personal income tax will reduce the tax burden by about €2.5 billion annually, which is expected to benefit consumer spending. This change was originally scheduled for 2010, but was brought forward to 2009 in response to the economic crisis and faltering consumer spending. Furthermore, an accelerated depreciation allowance has been introduced as a temporary relief and stimulus measure, in order to encourage private sector investment. It is expected that this measure will lead to a revenue shortfall of €250 million in 2010 and €350 million in 2011.

Another main focus of Austria's two stimulus packages is to provide **support to small and medium sized companies** that are facing difficulties in obtaining loans as a result of the crisis. This is achieved through loan guarantees, direct loans, initiatives to promote export competitiveness, etc. For instance, the available volume of low-interest investment loans for SMEs has been increased from €400 million to €600 million. In addition, micro-credits of up to €30,000 have been introduced for small companies.

In order to boost employment in the construction sector, a **frontloading of planned investments** is foreseen for infrastructure and public buildings:

- €900 million of already scheduled investments in rail and road infrastructure are being brought forward in response to the crisis. The majority of this is earmarked for rail infrastructure improvements, including upgrades for 56 train stations. These measures were originally scheduled for later years as part of a wider, €22.5 billion spending programme.
- As part of the second stimulus package, €875 million of investments in public buildings and infrastructure will be moved forward to 2009 (€355 million) and 2010 (€520 million). This includes €150 million each year for the thermal retrofitting of public buildings (schools, universities, courthouses, etc.) and some €120 million for the refurbishment or the new construction of university buildings, including the construction of a new campus for the Vienna University of Economics and Business.

In addition, a subsidy of €100 million is introduced for the **thermal retrofitting of private residential and commercial buildings**. Depending on the achieved energy savings, the subsidy may cover up to 40% of investment costs for commercial buildings, or up to 20% for

residential buildings. It is expected that this support scheme will mobilise a total investment volume of about €650 million.

Regarding the **labour market**, €150 million are budgeted for regional employment programmes and €220 million are slotted for the expansion of a scheme that subsidises short-time work for limited periods of time (*Kurzarbeit*). In terms of investments in research and education, €70 million are budgeted for an additional, mandatory and free-of-charge year of kindergarten (pre-school). In addition, as mentioned above, substantial investments are planned for new university buildings and thermal retrofitting of school and university buildings.

To encourage consumer spending, a **car scrapping scheme** worth €45 million has been introduced, subsidising the purchase of up to 30,000 new cars with €1.500 each, if an old car (older than 13 years) is scrapped in return. There are no specific environmental conditions attached to the subsidy payment; however, it is expected that new cars will generally be less polluting and more fuel-efficient than the old cars they replace. Half of the €45 million earmarked for the scheme will come from the federal budget and half will come from car importers and vendors.

Overall, the Austrian stimulus packages are certainly compatible with, and in some instances supportive of, the objectives set by the Lisbon Strategy and the EU SDS. Most measures contribute to at least one of the eight priority areas identified in the Austrian National Reform Programme (e.g. research, development and innovation; promotion of SMEs; efficient resource management and climate protection; etc.). As one should expect from a stimulus package, positive impacts are expected throughout for employment and competitiveness, especially for SMEs.

The **record is more mixed when it comes to the objectives identified in the EU SDS**. While there are a number of measures that contribute to the climate change and clean energy objective, there are none that explicitly address the conservation of natural resources. Depending on how and where they are carried out, infrastructure investments may have a negative impact on this target (e.g. land consumption). Likewise, there is no obvious connection to the target of reducing global poverty. Notably, the only measure with a clear and unambiguously negative environmental impact is the car scrapping scheme: since there is no environmental conditionality, it will neither contribute to sustainable transport, nor to more sustainable consumption patterns.

3.2 Germany

After overcoming initial hesitations, Germany passed **two stimulus packages** in the winter of 2008/2009. Both were financed entirely through new debt. The first packet consisted of measures expected to range between €32 and €40 billion in value over the course of 2009

and 2010. Expenditures in the second stimulus plan equal €50 billion over the same time period. Both packages include tax breaks, publicly funded investment and direct aid to some economic sectors. As a response to the crisis, other measures worth hundreds of billions were also passed, primarily aimed at stabilising financial institutions to enable a resumption of credit lending.

The first stimulus package contains green measures worth about €3.8 billion (possibly about 9 – 12% overall, depending on expectations regarding the total value). It is not possible to estimate the proportion of the second package going to green measures because the federal funds given to states and local governments have not yet been allocated to specific programs. Table 1 provides a breakdown of the expenditure.

Table 2: Germany’s stimulus packages – breakdown of estimated expenditures

	Package I	Package II
Tax breaks for individuals and firms	€21 billion (including €600 million in tax breaks on car tax and biodiesel taxes)	€10.5 billion
Other relief measures for individuals and firms	€7.6 billion	€1.5 billion, including €1.5 billion to auto buyers who retire an old car upon new-car purchase (<i>Abwrackprämie</i>) – note that the car scrapping scheme has been increased to a total of €5 billion.
Investment subsidies (not including transport)	<ul style="list-style-type: none"> • Additional €3.0 billion for CO₂-reduction measures in buildings (<i>Gebäudesanierungsprogramm</i>) • €200 million for energy-efficient buildings (<i>Energieeffizientes Bauen</i>) 	€13.3 billion to German states and communities (<i>Zukunftsinvestitionen der Kommunen und Länder</i>); main investments are in educational infrastructure, whereby energy efficiency and renewables are important components)
Investments in transport	Total: €2 billion <ul style="list-style-type: none"> • Roads: €950 million • Rail: €620 million • Water ways: €430 million 	Total: €2 billion <ul style="list-style-type: none"> • Roads: €850 million • Rail: €700 million • Waterways: €350 million • Research on innovative propulsion: €500 million • Multimodal: €100 million

Source: Estimates compiled by Ecologic Institute.

From a qualitative perspective, Germany’s stimulus packages address a number of EU SDS and Lisbon targets. The packages contain **several positive elements that promote a sustainable economy and limit resource consumption**. An increase of €3 billion for the KfW Building Refurbishment Program makes a notable enhancement to a successful program, bringing the total volume to €15 billion. The German federal government assumes

that the investments supported by the scheme are easily refinanced through reduced energy costs. In addition, retrofitting secures up to 25,000 jobs in the manufacturing and construction sector. Further advancement of research in the area of innovative motor vehicle incentives is also important. In addition to these environmentally positive measures, however, there are also a **number of environmentally problematic measures and missed opportunities:**

- **Car scrapping scheme:** The car scrapping scheme is a great success in boosting short term demand in car sales, but does not provide incentives for developing environmentally friendly vehicles; eligibility is not tied to rigorous environmental criteria, and there is no long term means for encouraging the purchase of particularly environmentally-friendly cars. It is effectively possible for the premium to support the purchase of a new car that is less environmentally friendly than the scrapped car. The car scrapping scheme is not only a missed opportunity to improve the environmental sustainability of the German auto fleet, but the government also fails to provide long term support to the auto industry for the development of more environmentally-friendly vehicles.
- **Transportation infrastructure:** Under the first economic stimulus package, nearly as much money has flowed into road construction as for rail and water transport combined. Half of the money for road transportation (€456 million) has been given out for new projects while only €220 million has been allocated for maintenance projects. This includes expenditures for parking spaces primarily for trucks. The second economic stimulus package also allots more money to new projects than maintenance measures. Against a background of the complex discussion over the traffic-inducing effects of new streets, these funding priorities are problematic. It also counteracts the goal of reducing land consumption to 30 hectares per day by 2020 and increasing nature protection.
- **Nature and resource protection:** The European Commission estimates the cost of implementing the Natura 2000 network at €6.1 billion over a time period of 10 years, a sum that exceeds the allocated amount. If federal financing of nature protection – a shared responsibility with the individual federate states – were insufficient, the economic stimulus could be used to at least partially fill in the gaps. However, the package does not make any money available for nature protection and would not help contribute to 2010 biodiversity goals. The package also fails to earmark any money for water protection or waste treatment.

3.3 France

The French government has so far passed **one stimulus package** worth €26 billion, which President Sarkozy presented to the public on 4 December 2008.⁸ The package contains short-term measures to improve liquidity of companies, including early repayment of tax credits and prepayments (€10.5 billion). The bigger share of the package provides for additional public investment by government, state enterprises and municipalities. A total sum of €15.5 billion will be spent over the course of 2009 and 2010.

The **public spending targets several areas**, including investments in the fields of defence and security (€2 billion), social housing and urban development (€1.2 billion) and research (€731 million). Furthermore, €4 billion will be handed out to the public companies EDF (€2.5 billion), La Poste (€600 million), RATP (€450 million), GDF (€200 million) and the French railway SNCF (€300 million) for the renewal and expansion of the infrastructure operated by the state-owned enterprises.

From an environmental point of view, the **stimulus package contains both positive and negative elements**. The investment in sustainable infrastructure in the context of the long-term Grenelle plan, the promotion of renewable energies by EDF, and the extensive investment in new rail and subsidies for building refurbishment can all clearly count as "green" investment (see overview in table below). On the negative side, France directly subsidises the automobile industry independent of its environmental performance and supports the purchase of new vehicles with a lump sum payment of €1000. Unlike in Germany, the grant is conditional on the car emitting less than 160g of CO₂ per kilometre, but this value merely represents the current average consumption of new cars. Therefore, the push for progressive low-carbon technology resulting from the incentive scheme is poised to be fairly limited. Overall, around 8% of the French stimulus programme can be considered "green investment", whereas 3.5% of current spending will strengthen climate-damaging structures. In calculating the "green" component of the French stimulus programme, HSBC likewise determined a share of 8%, while the Financial Times France calculated that the share of environmentally friendly investment was as high as 20%.⁹ This shows the difficulty in evaluating the stimulus programmes. For example, the € 2 billion in support for municipalities is not earmarked. Consequently, its effect on the environment cannot be assessed at the moment. Likewise, it is unclear what EDF is planning to do with its remaining €2.2 billion not earmarked for renewable energy investment.

⁸ Ministère de l'Économie, de l'industrie et de l'emploi. Plan de relance de l'économie en 2009. Conseil des Ministres du 19 décembre – Plan de Relance, im Internet abrufbar: <http://www.minefe.gouv.fr/actus/08/0812.php>

⁹ Cf.: HSBC (2009). The green rebound. Clean Energy to become an important component of global recovery plans. 19 Januar 2009; Harvey, Fiona, "Stimulus plans threaten green gains," *Financial Times*, 3 March 2009.

Table: The French stimulus programme

Measures (italics indicates environmental relevance)	Expenditure 2009/10 (€million)
Improvement of companies' liquidity	10.500
Public investment programme	4.000
<i>environmentally-friendly infrastructure (rail, rivers, dams, agriculture)</i>	500
<i>investment in roads</i>	400
Support for business and employment	2.600
<i>investment fund for car industry</i>	300
<i>bonus for purchase of new car (€1000)</i>	220
<i>programme „Etat exemplaire“ (inter alia grants for energy efficiency measures in buildings)</i>	200
Investment in public housing and solidarity measures	1.900
<i>investment for energy efficiency measures in buildings</i>	200
Clearing of defence industry debts	500
Investment of public companies (EDF, GDF, SNCF, RATP, Post)	4.000
<i>EDF investment in renewable energies</i>	300
<i>SNCF investment in rail infrastructure</i>	350
<i>RATP investment in mass transit</i>	450
Co-financing of municipal investment programmes	2.500
Total	26.000
Proportion of „green“ investment: 7,7%	2.000
Proportion of investment in roads and car industry: 3,5%	920

Source: Presidential Speech and documentation by the French Ministry for Economics

When assessing the French stimulus package with regard to the **key priority areas of the EU SDS**, the outcome is mixed. The programme partly addresses climate change concerns by stimulating energy efficiency and less-polluting vehicles, and it also encompasses efforts to increase social inclusion. However, nature conservation and the protection of natural resources – two pressing issues from an environmental standpoint but less salient in public debate than climate change – receive no funding from the stimulus spending. Public health and research funding is equally absent from the programme.

3.4 Poland

Over the last decade, Poland has experienced sustained GDP growth (4% on average in the 1997 – 2007 period) and falling unemployment. This trend was reinforced by Poland's accession to the EU on 1 May 2004 and the ensuing access to EU structural funds. Partly as a consequence of EU accession, Polish GDP grew by more than 6.7% in 2006 and 6.2% in 2007. Poland's budget deficit has been comparatively low (3.2% in 2008), which is in line with Poland's aspirations to join the Eurozone by 2012. Even in the face of a cooling economic climate, the budget has remained relatively stable, with a projected deficit of 3.0 – 3.5% in 2009.

Until now, **Poland does not appear too gravely affected by the financial and economic crisis**. In 2008, the Polish Economy still grew by 3.7%, about one percentage point less than the originally anticipated growth forecast of 4.8%. For 2009, it is expected that GDP growth may drop to 2%. While this is a considerable weakening of GDP growth, it is a far cry from the massive contraction that other EU Member States are experiencing. And while Polish exports contracted markedly in the fourth quarter of 2008, this effect is partly offset by the currently weak zloty, which makes Polish exports more competitive. Thus, the drop of the zloty – which lost some 30% of its value to the euro since the start of the financial crisis – is expected to improve the profitability of Polish exports considerably as foreign demand eventually stabilises.

In response to the financial and economic crisis, Poland announced the “**Stability and Development Plan**” (SDP) on 30 November 2008. The SDP comprises a stimulus package worth 91.3 billion zlotys (€20.9 billion). However, it is anticipated that only few elements of this package will lead to additional spending, either because the measures take the form of state guarantees (which only lead to actual spending if the guarantee is invoked), or because the measures consist in a frontloading of investments that were projected anyway (e.g. infrastructure investments related to the Euro 2012). The measures are scheduled to come into effect primarily in 2009, with some funds also foreseen in 2010.

- The main thrust of the Stability and Development Plan is to ensure **liquidity of the financial sector**. Some 45% of the SDP’s volume is consequently devoted to bank guarantees in order to support the financial sector.
- Another main focus is to **stimulate investments**. To this end, some 16.8 billion zloty (€3.8 billion) are foreseen in order to advance investments co-financed from EU funds (Structural Funds and Cohesion Funds). This partly reflects earlier problems in mobilising EU investments: in the past, EU transfers through the structural fund remained far below projected levels, as the implementation of EU-funded projects lagged behind schedule. In addition, 1.5 billion zloty (€340 million) are earmarked for supporting renewable energy investments.
- Interestingly, the SDP lists not only spending measures, but also two instances of **tax increases**: in total 1.1 billion zlotys are expected from a rise in excise taxes on alcohol and a special tax on cars with engines above 2,000 cm³.

However, in most instances, the actual measures through which the SDP will be implemented are not determined yet. A first draft listing possible measures was submitted for public consultation on 23 January, resulting in an updated draft that was published on 13 March. This document contains 37 “measures for stability and development” that are in various stages of implementation. Not all of these measures are in fact genuinely new policy measures; in many instances, the implementation of policies already in the pipeline was merely brought forward as part of the SDP.

Regarding the integration of the stimulus measures with the **Lisbon Strategy**, the first measure listed in the compendium of measures is the “effective implementation of the measures specified in the National Reform Programme”, i.e. the national implementation of the Lisbon Strategy. In this sense, a direct link is established between the two. In terms of substance, the measures discussed as part of the SDP are likely to contribute to the competitiveness and job creation aspects of the Lisbon Strategy – as should be expected from a stimulus package. The record on environment and climate change, and on other dimensions of the **EU SDS**, is less obvious. While there are several green elements among the listed measures (such as support for investments in renewable energy or the special tax on vehicles with a large engine), other parts of the package – e.g. frontloading investment in road infrastructure – are less environmentally benign.

In general, an **assessment of the Polish stimulus package is complicated** by the fact that it is more of a re-packaging of existing policies than a package of genuinely new measures. Unlike the stimulus packages in other countries, the sustainability of public finances remains a central concern of the Polish government. Thus, the fear that additional spending would jeopardise Poland’s aspirations to join the Euro acts as a limit to a more assertive spending policy.

3.5 United Kingdom

The UK economy was hit hard by the economic crisis very early on. In response, the government committed enormous sums to prevent further meltdown of the financial sector. According to an estimate published by the Guardian in February 2009, public expenditures for loan guarantees to support the weakened banks amounted to £1.3 trillion in total, not including the capital invested for nationalising Northern Rock and supporting RBS and Lloyds.¹⁰ In comparison, the **first stimulus package of £20 billion** agreed in November 2008 appears relatively modest. The programme mainly contains tax cuts (worth £15.4 billion) and public investment (amounting to £3 billion to be spent in 2009 and 2010). The core of the package is a temporary reduction of the VAT rate from 17.5 to 15% by the end of 2010, which will cost £12.4 billion and is aimed at enhancing consumer spending. Out of the £3 billion investment programme, one sixth (£535 million) can be considered “green” investment, providing funds for energy efficiency improvements in buildings, rail infrastructure and climate adaptation measures. The green component contrasts with a £400 million investment in motorways likely to generate detrimental effects for greenhouse gas emissions and the local environment (see also overview in table below). In addition, the package provided further support for motorists by mitigating a planned increase of the

¹⁰ Guardian 17 February 2009: Freeing up the lending flow, available online at: <http://www.guardian.co.uk/politics/2009/feb/17/economic-rescue-plan>.

Vehicle Excise Duty. From April 2010, a new banding of car types reflecting CO₂ emissions will be introduced as planned, but the maximum increase of the annual tax will be limited to 30 instead of 90 pounds. Mainly aimed at supporting families and small business in the crisis, the stimulus package also contains a set of social measures, including investment in social housing, schools and tax reliefs for families with children.

In January 2009, the UK Treasury announced that it would establish a **car scrapping scheme** in addition to the existing stimulus package. The scheme resembles its counterparts in Germany and France: Consumers get a grant of £2000 if they replace their old car aged ten years or older with a new vehicle. The subsidy is planned to expire in March 2010 unless the £600 million fund -- half of which is financed by the car industry -- runs out beforehand. In contrast to the French version, the UK car scrapping scheme has no regulations governing the required fuel efficiency or type of vehicle that will qualify for the subsidy. As a consequence, there is no incentive at all for the purchase of low-carbon vehicles. On the other hand, the UK scheme has a much smaller volume than the German scheme and is partly financed by a simultaneous increase in fuel duty of 2 pence per litre, which can be seen as a means to factor in external costs of road traffic and to reduce car usage.¹¹

Finally, the UK government announced a third, much larger **low-carbon investment programme** as part of its 2009 Budget. It provides over £1.4 billion of support to low-carbon investors. According to the Treasury, the package, together with the expenditures announced in November 2008, is expected to enable an additional £10.4 billion of low-carbon sector and energy investment over three years.¹² While the first stimulus package focused on energy efficiency, the recently announced measures include both energy efficiency grants and financial support for renewable energy, mainly for offshore wind and small-scale technologies owned by households and small businesses (microgeneration). Additional funding for clean energy technology will be provided through a new Low Carbon Investment Fund. However, no details have been unveiled yet on how the government intends to spend the Fund's £405 million.¹³

Overall, the UK stimulus measures address most of the key areas identified in the EU SDS and the Lisbon Strategy, including social inclusion, public health and innovation. Although the picture is mixed with respect to sustainable transport, where most of the funds go to motorists and no money has been reserved for public transport, the effort in the area of renewable energy promotion is clearly substantial – at least on paper. It now remains to be seen if the multitude of programmes can be implemented so as to effectively alter the way energy is produced and consumed. Finally, as in Germany and France, one key area of the

¹¹ Guardian 22 April 2009: Budget 2009: car industry welcomes scrappage scheme, available online at: <http://www.guardian.co.uk/uk/2009/apr/22/budget-scrappage-scheme-welcomed>.

¹² HM Treasury (2009). Building Britain's future. Press notice 1 published on 22 April 2009, available online at: http://www.hm-treasury.gov.uk/bud_bud09_press01.htm.

¹³ Linklaters (2009). Carbon matters. Green New Deal? Prospects for low-carbon economy in the UK.

SDS – nature conservation and management of natural resources – has been completely neglected in the stimulus programmes.

Table: UK Stimulus Programmes

Priority areas of EU SDS and Lisbon Strategy	UK stimulus packages Nov. 2008 and Jan. 2009 (£)	UK Budget 2009, announced April 2009 (£)
Climate Change and Clean Energy including renewable energy including energy efficiency	20m adaptation measures 60m Decent Home Programme 150m Warm Front Programme	90m support to CCS 525m additional support for offshore wind through ROCs 405m Low-Carbon Inv. Fund 70m for microgeneration 375m energy efficiency support
Sustainable Transport	300m rail infrastructure 5m British Waterways negative: 300m car scrapping scheme and 400m road investment	increase in fuel duty changes in company tax regime to incentivise low-carbon cars
Sustainable Production and Consumption		405m Low-Carbon Inv. Fund increase in landfill tax
Public Health	100m hospitals	
Nature Conservation and Natural Resources		n/a
Social Inclusion	60m Decent Home Programme 150m Warm Front Programme 775m social housing	
Global Poverty and Sustainability		n/a
Knowledge and Innovation	800m schools and universities	405m Low-Carbon Inv. Fund 90m support to CCS
Total “green” investment	535 m	1.465 bn

Source: UK Treasury 2008, 2009. Note that spending items that belong to more than one priority area have been included twice.

3.6 Slovenia

Banks in Slovenia have so far weathered the global financial and economic crisis relatively well, but recessions in its main trading partners have translated to decelerating export and investment demand. For an economy reliant on exports, this situation has led to a rising unemployment rate, falling equity markets, and weakening domestic consumption. According to a March 2009 IMF mission, Slovenia’s output is expected to decline by at least 1% and inflation in Slovenia is projected to remain higher than average inflation in the Euro area.¹⁴

The **first stimulus package** aimed at mitigating the consequences of the financial and economic crisis in Slovenia were adopted in December 2008. The estimated size of the fiscal

¹⁴ Slovenia: 2009 Article IV Consultation – Concluding Statement of the Mission, March 11, 2009. Available at: <http://www.imf.org/external/np/ms/2009/031109.htm>

stimulus package was 2.1% of GDP, and its objective was to limit the negative impact of lower external demand on existing productive capacity and jobs. The budgetary measures of this first policy package served to slow down the impact of the crisis on enterprises, to enhance enterprise financial liquidity and safeguard existing jobs, and to increase expenditure in research and education to improve growth potential of the economy and its resiliency.¹⁵

In February 2009, a **second stimulus package** was adopted to upgrade the first with concrete measures. Its chief aim is to boost the lending activities of banks to improve liquidity and enhance lending to enterprises. Some funds are also meant for development-oriented measures. Along with the package, the government also adopted “savings measures.” The policy measures of the second package are to:

- Improve the finances and liquidity of enterprises
- Increase the working capital of endangered industrial sectors
- Improve the labour market, life-long learning and social security
- Support infrastructure, energy and environment
- Maximise and increase the efficiency of the use of cohesion funds¹⁶

Among these are a **few green measures** with the potential to contribute to the implementation of the EU SDS. Measures to increase working capital of endangered industrial sectors provide for supporting strategic projects in the field of clean and technologically advanced industry – such as the car industry – by way of favourable loans for further investment in research and development, especially in the areas of environment and efficient use of energy, safety, and comfort. Measures to support infrastructure, energy and environment provide for a programme for the energy rehabilitation of buildings in public ownership. This programme, with an estimated value of €20 million, which will be financed from the resources of the Cohesion Fund, aims to encourage sustainable use of energy, contribute to commitments arising from the energy-climate package, reduce material costs of energy, promote public investments, and revive construction works.¹⁷

The **government is currently discussing a third package** of measures, including necessary medium- and long-term structural reforms “supporting sustainable development,” such as refocusing of budget expenditure towards a goal oriented budget, modernisation of the pension system, changes in the social expenditure system, and modernisation of the health system.¹⁸ Contained in this third package are also a few policy measures shaded

¹⁵ Government of the Republic of Slovenia, “The first budgetary stimulus measures.” Available at: http://www.vlada.si/en/projects/aktivno_proti_financni_in_gospodarski_krizi/ukrepi_namenjeni_gospodarstvu/

¹⁶ Government of the Republic of Slovenia, “The second stimulus package.” Available at: http://www.vlada.si/en/projects/aktivno_proti_financni_in_gospodarski_krizi/measures_aimed_at_the_public_sector/

¹⁷ Ibid.

¹⁸ Government Office for Growth, „The crisis group of ministers meets in the light of new proposals for measures,” March 31, 2009. Available at: Government of the Republic of Slovenia, “The second stimulus package.” Available at:

slightly green. Interestingly, the third package could include a gradual introduction of a “green tax reform” and an increase in the percentage of co-financing for certain measures within the rural development programme 2007-2013.

Overall, measures in the first two stimulus packages are primarily aimed at the financial and business sectors, but the third package will focus more on social issues. Overall, however, green measures make up a very small portion of Slovenia’s economic recovery plans, which do not appear to be targeted to the SDS key priority challenges. The stimulus packages do show a marked emphasis on increasing research and development, safeguarding jobs, and supporting the labour market, however – measures which align with the Lisbon Strategy’s focus on investment in R&D and innovation and a high employment rate.

4 Stimulus Packages: Contribution to Implementing the EU-SDS and Lisbon Strategy?

In principle, the stimulus packages provide a unique opportunity to further – at least in parts – the implementation of the EU SDS and the Lisbon Strategy. Concerning the latter, many measures of the stimulus packages contribute to at least one of the priority areas identified in the National Reform Programme (e.g. research, development and innovation; promotion of SMEs; etc.). Positive impacts are also expected throughout for employment and competitiveness, especially for SMEs. This should be welcomed, but it also hardly comes as a surprise: after all, the stimulus packages' main objective is to support an ailing economy and prevent employment losses.

However, the Lisbon objective of sustainability of public finances is receiving a dramatic blow: tax revenue, which is already in decline due to the economic slowdown, will be reduced further by the foreseen tax breaks. At the same time, stimulus packages have drastically increased government spending. There are only a few exceptions, in which the measures supported by the stimulus packages may end up saving public funds after an initial amortization period. This holds e.g. for investments into the energy efficiency of public buildings, which typically pay off through reduced expenditure on heating fuels in a matter of years. A similar argument can be made for other types of investments (e.g. research and education), although the return on investment is typically less certain and takes a longer time to materialise. The **following table provides an indicative and incomplete overview** of possible implications of some stimulus measures on the implementation of the Lisbon Strategy. A comprehensive analysis of the potential contribution of the stimulus packages is beyond the scope of this paper.

Lisbon priorities	Fiscal measures	SME support	Infrastructure inv.	Public buildings	Subsidies for energy conservation	Regional employment	Research and Education	Cash-for-clunkers
Sustainability of public finances	--	-	-	o	-	-	O	-
Labour market and employment policies	o	+	+	+	+	++	+	+
R&D and innovation	o	o	o	o	o	o	+	o
Infrastructure	o	o	++	o	o	o	O	o
Competitiveness and SME promotion	o	++	o	+	+	o	+	+
Life-long learning	o	o	o	o	o	o	+	o
Sustainable and fair social security systems	o	o	o	o	o	+	O	o

Similarly, there is a mixed record when it comes to overlaps, synergies and conflicts between the stimulus packages and the EU SDS. However, in comparison to the Lisbon Strategy, there are fewer overlaps, and the interrelation is often of a more indirect nature. For instance, there is no obvious and direct interrelation between any of the stimulus measures and the EU SDS target of reducing global poverty. Also, while the analysed packages contain a number of measures that contribute to achieving the **EU SDS** objective of climate change and clean energy, there are none that explicitly address the conservation of natural resources. The following table provides an indicative and incomplete overview of possible implications of some stimulus measures on the implementation of the EU SDS.

EU SDS priorities	Fiscal measures	SME support	Infrastructure inv.	Public buildings	Subsidies for energy conservation	Regional employment	Research and Education	Cash-for-clunkers
Climate change and clean energy	o	o	+	+	++	o	o	o
Sustainable transport	o	o	+	o	o	o	o	-
Sustainable consumption & production	o	o	o	o	+	o	o	-
Conservation and management of natural resources	o	o	(-)*	(-)*	o	o	o	o
Public health	o	o	o	(+)**	o	o	o	o
Social inclusion, demography and migration	+	o	o	o	o	+	+	o
Global poverty and sustainable development challenges	o	o	o	o	o	o	o	o
* depending on where construction takes place, building materials used etc.								
** depending on whether funds are allocated to the construction / refurbishment e.g. of hospital buildings								

However, it is important to note that the **main aim of stimulus packages is to prevent or mitigate a short-term contraction of economic activity**. Such packages take prevailing production structures as a given and stimulate economic activity where there is slack or underutilised capacity in the existing production structures. As they aim to produce immediate results – usually within weeks or months – they typically target “shovel-ready” projects, i.e. measures where work can commence immediately. Accordingly, stimulus packages are typically not intended to change the existing production structures; this is achieved through structural policies. Obviously, there is a grey area between short-term stimulus and long-term structural policy. Thus, a policy package with a medium-term planning horizon of three to five years need not be confined to the existing production patterns only, but can also support changes in these patterns.

Despite these potential contributions of stimulus packages to sustainable development, it must be noted, however, that there are a **number of uncertainties** which considerably weaken the analysis of the green potential of stimulus packages:

- **What is a green investment:** There is no standard definition of what *green* investment is, and there are great uncertainties about which final outlays will fall into the green category. It would be overly simplistic to define any investment in railway infrastructure, for example, as green, while defining any investment in roads as non-green. It also appears insufficient to assume that any green investment would produce similar benefits for sustainable development. Recognising these methodological challenges, a recent study introduces standardised effectiveness factors.¹⁹ These effectiveness factors include short-term and long-term criteria, such as reduction potential, marginal abatement costs or lock-in effects. Applying these criteria, this study assumes an effectiveness factor of 1.2 for renewable energies, and 1,0 for energy efficiency. Although this methodology marks important methodical progress compared to previous studies, it acknowledges that a full evaluation of stimulus packages requires additional in-depth analysis.
- **What is the overall size of stimulus packages:** It also poses a major challenge to calculate the overall size of the various packages, causing further difficulties in estimating the green shares of packages. First, as a general rule, an ex-ante assessment of the packages can only be based on the budget that has been earmarked for a specific measure or programme. Whether or not these funds are actually fully used, or whether the anticipated amounts were overly optimistic, can only be determined in retrospect. Second, depending on the scope of the packages, money for bank bail outs and guarantees often forms part of the stimulus packages. If the guaranteed risks materialise and the guarantees are invoked, these measures would constitute the packages' lion's share and dwarf any other elements.

Regardless of these methodological problems, there are additional and even more **challenging issues which could considerably undermine the green potential** of the adopted stimulus packages.

- **By definition, stimulus packages are not intended and designed to address underlying structural issues:** Sustainable development and the implementation of the EU SDS as well as the Lisbon strategy depends largely on finding solutions to deeply rooted structural issues. Importantly, some of the deeper and structural causes of the environmental crisis coincide with the root causes of the present financial and economic crisis. None of these underlining issues can be addressed in full by stimulus packages: the main aim of stimulus packages is to prevent or mitigate a short-term contraction of economic activity.

¹⁹ Höhne, Niklas: Economic / climate recovery scorecards, April 2009

- **Spending all the money – a true challenge:** It is true that sufficient funding is a key requirement for implementing the EU SDS as well as the Lisbon Strategy. The ecological transformation of today's economies depends to a large extent on investments. As outlined above, the funds that are mobilised through the stimulus packages are of the same order of magnitude as the investments necessary to achieve a fundamental transformation of the energy system and avoid dangerous climate change. However, even if necessary funds were available, experience has shown that spending billions of dollars or euros is a great challenge and it is far from certain that those funds in the stimulus packages earmarked for green investment will actually contribute to sustainable development. Spending money wisely requires adequate administrative capacities, which are not always in place. Time pressures considerably aggravate the challenge of using funds adequately – it is accepted that swift spending is key to stimulating economic activity. However, if large amounts of money are spent in a short time, it is evident that the funds will not always end up in the most efficient uses. It is also doubtful that lax new procurement provisions under the stimulus packages²⁰ will promote the sensible use of funds; there are concerns that the new procurement rules will open doors to nepotism or even corruption. Experience has also shown that the substantial additional demand created by the stimulus measures, if it exceeds long-run supply by an appreciable margin, will lead to considerable price increases. The construction business, in particular, could seize the opportunity to earn large windfall profits. In sum, there is legitimate anxiety that time and political pressures will lead to the problem of spending public money for the sake of spending it, with public administrations feeling more pressure to justify why funds have not been used rather than the pressure they feel to explain why funded projects were not effective.
- **Stimulus packages also fund projects harmful to sustainable development:** Many stimulus packages contain measures that will not move the economy towards sustainable production patterns, but rather consolidate existing, unsustainable structures. All the packages analysed here contain infrastructure investments, often dominated by road infrastructure development. Packages also support car production through scrapping bonuses or tax rebates, often without any environmental conditionality whatsoever. House owners receive considerable funds through government loans with low interest rates. In consequence, stimulus packages could contribute to wider single-home ownership and urban sprawl. Aggravating the situation, sums available for road infrastructure, car makers or house owners often dwarf expenditure for green investments. It is difficult to calculate how these contradicting expenditures will play out and how they impact the implementation of

²⁰ Germany, for example, has increased the threshold for public tenders from 50.000 to 100.000 EUR and requires only three tenders for investments of up to 1 million EUR.

the EU SDS or the Lisbon Strategy. *Prima facie*, it appears that investment in new roads, an inefficient car fleet, or widespread single-home ownership will undermine some of the key targets of the EU SDS.

5 Conclusions and Recommendations

The unprecedented sums available under the stimulus packages should not disguise the fact that these programmes are primarily designed to quickly boost consumption, to restore confidence and halt the erosion of economic activity. For the success of the packages, time is pivotal. In contrast, the implementation of the EU SDS and the Lisbon Strategy depends only in part on money; above all, sustainable development requires solutions for structural issues, such as incentives to slow down urban sprawl and to promote sustainable production and consumption patterns. As a consequence, the impact of the adopted stimulus packages on sustainable development is probably smaller than often expected. Against this backdrop, a number of conclusions and recommendations derive from this analysis.

5.1 Stimulus Packages: Potential for Sustainable Development

In the near term, the focus of the stimulus packages is appropriately placed on restoring economic activity, creating jobs and rechanneling economic growth in a sustainable direction. But private-sector investments in job training and new technologies will also be guided by expectations of what comes after the crisis. The success of near-term efforts is thus affected by signals from government regarding the longer-term framework that can be expected in the future. Thus, even now, it is important for national governments and intergovernmental organisations to show how green investments today will not be undermined by an evaporation of a supporting framework in the future.

- **Creating the low-carbon economy.** The carbon efficiency of the global economy must increase dramatically. Short-term stimulus packages should be structured to maintain investment levels, for example through conditioning funds on ambitious environmental criteria.
- **Increasing innovation and competitiveness.** Short-term stimulus measures alone will not provide adequate incentives to invest capital and hire and train employees. The private sector requires a strong, long-term price signal that carbon-based energy will be expensive enough to make renewable prices competitive. Government regulations and incentives should maintain and strengthen the carbon-price signal even in the context of the economic crisis. A country that does not do so risks

showing a lack of commitment that would delay a shift in private-sector actions harmful to that country's long-term competitiveness. There is also a significant danger that short- and medium-term stimulus measures – if poorly designed – could create a new regime of subsidies to polluting industries that undermines long-term economic competitiveness and risks undermining global trade through competing protectionist measures.

- **Creating the jobs of the future.** There is naturally a temptation to simply protect existing jobs and industries as they were prior to the crisis; after all, these are established constituencies with great political influence, whereas the clean technologies of the future, by their very nature, have yet to acquire this same weight. However, medium- and long-term recovery strategies should look toward the future and be targeted toward protecting and creating jobs in areas of expected long-term growth. This includes, among other things, so-called green jobs. The most significant job-creation opportunities within the green-jobs sectors are in clean energy and energy efficiency. This is already reflected in the fact that the bulk of countries' green-jobs strategies are focused in this area. It is important that the promise of green jobs not be oversold. Stimulus investments in green activities with low job-growth potential, while perhaps important from an environmental perspective, will not generate the employment levels possible through investments in other environmentally beneficial activities.
- **Eliminating perverse subsidies.** Another key recovery measure should be the reduction and elimination of subsidies to fossil-fuel consumption and other environmentally harmful activities. Medium- and long-term recovery measures should not add to the inefficient subsidy burden and should slowly dismantle existing subsidies, which will have the additional positive effect of reducing government deficits. Any new subsidies to green sectors should be temporary, well-constructed, and targeted to provide effective incentives for private decision-makers at lowest public cost.
- **Energy efficiency – key element of green stimulus:** Improving energy efficiency is particularly well suited to addressing the twin challenge of stimulating the economy in the short term, while addressing long term sustainable development objectives. Unlike major infrastructure investments, buildings, to name but one example, can be retrofitted in a rather short timeframe as relevant procurement rules are in general less stringent and long court procedures unlikely. In addition, the environmental dividend of improved energy efficiency in buildings is particularly high. As a consequence, the investments in building efficiency could be a key contribution of stimulus packages to sustainable development.

5.2 The Crisis as an Opportunity: Perfect Time to Change Unsustainable Structures?

Although stimulus packages will probably have only a limited impact on sustainable development, it seems right to consider the present economic crisis as an opportunity for sustainable development, perhaps an once-in-a-lifetime opportunity. To some extent, the adopted stimulus packages present such an opportunity, but the greater opportunity lies in the fact that the crisis provides momentum for changes of unsustainable structures that have not only harmed the environment, but have also exacerbated the present economic crisis. The unprecedented depth and magnitude of the economic crisis has put many structures into question that were considered untouchable before: the nationalisation of banks in the US and UK appeared absurd only months ago and significantly stricter regulation of financial markets was unthinkable before the financial collapse in late 2008. More generally, the government's prerogative to define sensible rules and boundaries for economic activity is now much less in question than before the crisis.

Against this backdrop, it appears that today is a perfect moment in time²¹ to address the deeper and structural causes of the environmental and economic crisis. Importantly, there are a number of causes of the environmental crisis that coincide with the root causes of the present financial and economic crisis. Today, there is a particularly strong case for addressing structural issues that have contributed to the environmental and the economic crisis. Although these issues warrant deeper analysis beyond the scope of this paper, there are a number of obvious examples for these twin challenges:

- **Housing Bubble and Urban Sprawl:** The housing bubble in the US, but also in some European countries, notably the UK and Spain, is one of the root causes of the present economic crisis. Subsidies for house ownership have contributed to this bubble: Government measures to expand house ownership, such as generous tax rebates on mortgage-interest payments or government guarantee programmes for real-estate loans, have been important drivers for widening home ownership. Low interest rates and cheap money—often desired, sometimes driven by politics—are a key reason for unsustainable levels of house ownership. These policies have contributed to unprecedented levels of private debt in some countries, have encouraged millions to bet everything on housing, and have thus fuelled the economic crisis. In addition, empirical evidence suggests that house ownership can lead to greater economic volatility since people tend to spend and borrow more when they feel rich, for example because of growing housing prices. Subsidies to home ownership have also weakened financial services, as subsidies have heartened more people to buy houses and – at the same time – have encouraged more lenders to

²¹ Spain's Minister of Economy and Finance Salgado believes that the crisis is a perfect moment for structural reform, <http://www.faz.net/s/Rub050436A85B3A4C64819D7E1B05B60928/Doc-E39B9D4D3E1644BA6863BF65B8C689233-ATpl-Ecommon-Scontent.html>

take greater risks. The IMF has assessed that recessions since the 1960s have been deeper and longer when associated with a house-price bust.²² And finally, it is evident that the ever-increasing number of house owners has led to unprecedented urban sprawl, along with all the associated environmental impacts: land consumption and destruction of habitats, increased traffic and the associated energy consumption, increased energy consumption for heating or cooling the new houses, and resource consumption for the construction itself.

Although there are clear linkages between the housing bubble, the economic crisis, and urban sprawl, politics appear unmoved, which is politically understandable in the short term but wrong in the long term. Stimulus packages provide large sums to stabilise the housing sector, potentially contributing to urban sprawl. The US, for example, proposed a US\$275 billion plan to support the housing market; France has pledged 0% interest for poor housing loans. In light of the depth of the present crisis, it is critical to reform housing subsidies, not only to protect the environment, but also to mitigate or even avoid similar crises in the future. As the case for structural reform has been stronger than ever before, the opportunity should be seized and reforms adopted.

- **Financial Market Reform and Sustainable Development:** The need to deliver short-term profits, transmitted through financial markets, has been a key driver of the crisis. Financial markets have favoured immediate and high profits over long-term and stable business operations. There is a direct analogy to sustainable development: the very idea of sustainable development is that certain short-term profit options need to be foregone, in order to ensure that long-term wealth and welfare is higher for all. However, the requirement of generating high profits in the short term has reduced the relevance of long-term and sustainable performance of business, undermining business efforts to make investments that pay off in the long run, such as improved energy efficiency or efficient use of resources.

Against this backdrop, the present negotiations on reforming financial markets at the G20 or national level provide a unique opportunity to design financial markets that better contribute to sustainable development. The environmental dividend of decelerated markets could be far greater than stimulus packages supposedly earmarked for green projects. Unfortunately, there has been little environmental input to improving financial markets. The G20 negotiations, for example, appear to be a closed shop to a few government officials and financial experts. On the surface, it is far from self-evident that a shift in focus from short-term profits to longer-term prospects will be part of any financial market reform. The main emphasis in the current negotiations is on eliminating the most blatant regulatory gaps (e.g.

²² IMF World Economic Outlook, April 2009, <http://www.imf.org/external/pubs/ft/weo/2009/01/pdf/c3.pdf>

accounting and transparency rules), but not necessarily addressing underlying structural problems.

- **Internalising External Costs – Twin Challenge for Addressing the Environmental and Economic Policies:** The economic crisis is largely caused by the lack of clear and implemented liability rules. Many market actors are not held fully accountable or even liable for losses that they have caused. Managers have taken great risks partly because they are not held personally responsible when they fail; in addition, the system had incorporated a number of perverse incentives for taking great risks (bonus payment for short term performance are among the best known examples of such incentives). In short, neither financial markets nor economy are fully liable for damages they might have caused. Similar to this lack of liability, environment policies have been struggling for decades to implement the polluter pays principle in full.

6 Annex: EU Sustainable Development Strategy and Lisbon Strategy

6.1 EU Sustainable Development Strategy

The European Council of June 2006 adopted the renewed Sustainable Development Strategy (SDS) for an enlarged EU, which builds on the Gothenburg strategy of 2001. The overall aim of the EU SDS is to achieve a continuous long-term improvement of quality of life through a number of objectives and measures. The strategy sets overall objectives and concrete actions for seven “key priority challenges”: (1) climate change and clean energy, (2) sustainable transport, (3) sustainable consumption & production, (4) conservation and management of natural resources, (5) public health, (6) social inclusion, demography and migration and (7) global poverty and sustainable development challenges. Some of these of these challenges are linked to quantified and time bound targets and specific action.

Implementation of the EU SDS

The Eurostat and the EEA have continuously produced quantified analysis of the strategy's implementation. A few key findings include:

- In contrast to the overall positive performance of the EU-27, the EU-15 was 5.3% above their reduction target under the Kyoto Protocol in 2006. Despite these increases in emissions since 2000, EU-27 emissions were 7.7 percentage points below their 1990 value in 2006.
- Recent growth in consumption of renewables is not sufficient to reach EU targets. Although growth has been faster since 2000, a share of 7.1% in 2006 is still substantially below the target line.
- Despite being partly successful in nature protection policies, the EU is still not on track to achieve the target of halting the loss of biodiversity by 2010.

6.2 The Lisbon Strategy

In 2000, the EU launched the 'Lisbon Strategy' to become "the world's most dynamic knowledge-based economy by 2010". Next to this overarching goal, the Lisbon Strategy contains a number of more specific targets, such as investment of 3% of Europe's GDP in research and development by 2010 and an employment rate (the proportion of Europe's working age population in employment) of 70% by the same date. After five years of sluggish progress, EU leaders re-launched the strategy in March 2005, placing greater emphasis on

growth and jobs. The 2006 Spring Meeting of the European Council identified four priority areas, i.e. (1) knowledge and innovation, (2) unlocking business potential, (3) increasing employment (4) energy policy. The implementation of the renewed Strategy is based on Broad Economic Policy Guidelines (BEPG) and implementing National Reform Programmes (NRP). The BEGPs are subdivided in 24 of more macro- and micro economic guidelines, which set out a number of specific targets. Implementing NRP vary considerably across member States, with some Member States introducing time bound and quantified targets, and other countries with less comprehensive NRP.²³

Implementation of the Lisbon Strategy

Most EU countries have not lived up to the challenge of keeping Europe competitive in the long-term.²⁴ Against the backdrop of a current employment rate of 65.5%, the strategy's target of 70% appears out of reach, particularly in times of economic crisis. Recent Eurostat data show that a large majority of Member States still consider investment in R&D and innovation as a key challenge. Public expenditure on education decreased from 5.2% to 5% of national GDP between 2005 and 2007. But figures vary widely across the EU, with Denmark spending around 8% and Romania investing less than 4%. Against this background, Felipe González, chairman of a reflection group on the future of Europe, recognised that the Lisbon Strategy is a "failed project".²⁵

²³ Gerald Berger, Post 2010: The Future of the EU SDS and its interface with the Lisbon Process, http://www.sd-network.eu/pdf/doc_workshops/2008%20brussels/WS_background_and_discussion_paper_FINAL.pdf

²⁴ <http://www.euractiv.com/en/innovation/commission-report-highlights-slow-progress-lisbon-strategy/article-178967>

²⁵ <http://www.euractiv.com/en/opinion/wise-men-chief-admits-eu-failure-growth-agenda/article-180604>

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