ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

OECD

For a stronger, cleaner, fairer world economy

Strategies for aligning stimulus measures with long term growth

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Introduction

1. As understanding of the scale of the impact of the financial crisis on economic growth and jobs has increased, authorities around the world have taken unprecedented measures to stimulate aggregate demand. Central banks have cut their interest rates sharply; policy rates are now close to zero in many OECD countries and accommodative measures have also been taken in many emerging markets. At the same time, governments are providing significant budgetary support to aggregate demand through a combination of public spending increases and tax cuts. While primarily intended to boost aggregate demand in the short run, the design of these fiscal packages can influence growth in the long term through changing underlying structural conditions as well as the structure of incentives, both being faced by households and business investors. In this sense, stimulus packages offer an important opportunity to pursue policies that further than boosting demand in the short term, also support supply in the long run. The challenge is to design fiscal packages so that they facilitate a redeployment of resources towards activities that offer longer-term economic and social and environmental benefits, including low carbon growth.

2. The OECD analysis offers an important input to understanding the measures introduced in response to the crisis, based on comparable data. This work feeds into the international debate on how to maximise the benefits of stimulus packages and minimise the downside risks. The policy recommendations from this work are summarised in Box 1.

Box 1. OECD policy recommendations on the strategies for aligning stimulus measures with long term growth

Guiding principles for designing and implementing stimulus packages

The need for additional discretionary fiscal stimulus varies across countries because automatic stabilizers operate more powerfully in some economies. In this differentiated context, the biggest constraint on introducing additional fiscal stimulus is the reaction of financial markets to greater government borrowing needs.

Crisis measures should not be allowed to reduce competition.

Coordinated action can create positive spillover effects as it results in a larger overall output effect than if any country acted alone.

Looking further ahead, many of the emergency measures taken today could pose a threat to long-term growth and sustainability if not properly unwound. For this reason, measures should be designed and implemented as temporary and in the least distortive manner, with a clear and credible plan and timeline for phasing out as recovery takes hold. It is critical to consider these so-called "exit strategies" now, together with emergency measures, in order to prevent new risks down the road.

The credibility of the medium term fiscal framework needs to be strengthened through the announcement upfront of a clear commitment to long term fiscal sustainability.

Credible fiscal consolidation plans may require tax reforms, including the broadening of tax bases and better tax compliance to ensure sustainable revenues.

As economies emerge from recession, it is likely to be necessary to raise additional revenues. Unless permanent cuts in expenditure are implemented, it will not be sufficient to restore them to pre-crisis levels.

Countries need to ensure that taxes that are properly due are assessed and collected. Globalisation and the integration of financial markets have made it easier for taxpayers to engage in offshore tax evasion. This poses a threat to tax revenues and undermines the fairness of tax systems. The OECD has developed standards of transparency and exchange of information that have been accepted as the international norm. The implementation of these standards by all countries will allow both developed and developing countries to not only protect the revenue base at a time when public finances are under pressure but also ensure citizens that the costs of dealing with the crisis are fairly shared.

Guidelines for long term growth policies

Tax measures

Growth-oriented tax reforms would generally involve shifting revenue from corporate and personal income taxation or social security contributions onto consumption and property taxes, including housing taxation.

At the same time, any tax policy proposal needs to take account of its effects on income distribution, and it is particularly important to consider the poor during an economic recession, as they tend to be badly affected by the crisis.

Tax cuts that are targeted at workers with modest incomes can improve living standards, both by directly increasing their disposable income and by giving them a greater incentive to work.

Labour, social and education measures

Subsidy schemes to expand labour demand should be temporary and well targeted. Introduction of early retirement options should be avoided.

Countries with weak unemployment benefit systems may wish to consider extending the coverage and, possibly, the maximum duration of their benefit schemes during the downturn.

Expanding effective active labour market programmes would be important to maintain the activation stance. But it may be difficult to match the rise in job seekers with greater resources for public employment services, not least because it takes time to recruit and train good case managers. Under the circumstances, there may be opportunities for effective co-operation between public and private employment agencies to provide a range of contracted-out activation services.

Support for education and training that enables the transition to new jobs and emerging opportunities should also remain prominent in the policy agenda, as well as policies to help youth in their transition from school to work.

Concerns in terms of the integration of immigrants should be fully integrated into the labour market components of stimulus packages.

Infrastructure investment

Focus on projects which are “shovel ready”, notably those aimed at stated policy goals and advanced enough in planning to be implemented quickly and effectively. A period of crisis does not lend itself to complex investment projects which typically require careful and lengthy planning. To the extent possible, priority should be given to modern projects with a greater potential to raise the efficiency of energy and resource use, and which support long-term environmental sustainability.

Target expenses to idle resources, notably vulnerable groups such as low skilled youth, women and older workers, who are at greater risk of falling into unemployment trap (see above).

Use existing programmes and agencies to distribute the spending but make sure that they are equipped for the task. Regional agencies can be used as a vehicle to reach actors that cannot be reached by national agencies and programmes.

Governments can play an important role in stimulating the development of nationwide high speed broadband networks, including through public-private partnerships. Investment in this area must be accompanied by regulatory frameworks which support open access and competition in the market. High speed broadband networks can underpin new economic activities, have widespread economic productivity benefits and facilitate many social goals.

Combine investments in physical infrastructure with the provision of soft infrastructure, such as skills and other innovation-related assets, to maximise the impact in terms of long term productivity growth.

Green recovery

The economic slowdown should not be used as an excuse to weaken efforts to achieve long-term, low-carbon economic growth. It is important to ensure that economic stimulus packages do not lock-in inefficient or polluting energy technologies, or dirty modes of production and consumption, but instead promote clean alternatives. Priorities for investments might include energy efficiency in buildings, increased public transport and increased fuel efficiency, as well as upgraded and expanded water treatment, supply and sanitation systems.

The crisis offers opportunities to introduce win-win policies that remove expensive and environmentally-harmful policies, while also benefitting the environment and the economy as a whole – removing subsidies to fossil fuel-based energy production and consumption, cutting trade barriers to climate-friendly goods, addressing market failures and assessing policies to support renewables.

R&D and Innovation

Any additional horizontal supports to business innovation should be designed with a focus on measures that are counter-cyclical. If transitory, greater reliance on grants may be justified because they can be counter-cyclical, as opposed to tax incentives, which tend to be pro-cyclical. Nevertheless, overall consideration should be given to choosing policy interventions with least deadweight loss and risk of distortion.

Financing for well-designed public-private partnerships for research and innovation can help ensuring fruitful interactions across segments of the innovation system.

Governments will also have to focus on risk sharing policies with the private sector, particularly with regard to new technologies.

SMEs and entrepreneurship

A straightforward way to ease the current constraints of notably small businesses is to allow tax payments to be deferred and paid back over a period of time.

Building on the immediate stabilising effects of public capital injection and tax reliefs, governments could take steps to encourage private-sector capital injections. One option to consider could be creating risk-sharing schemes that would reduce the risk associated with investment by SMEs and especially innovative potentially high growth start-ups.

The creation of new business opportunities and the reallocation of resources from declining activities towards emerging ones should support a sustainable recovery. Government plans should not hamper this reallocation process and facilitate structural change.

3. The assessment begins with an analysis of the guiding principles for designing and implementing immediate revenue and spending stimulus measures. This is followed by a discussion of measures that can be expected to have longer run effects on aggregate supply. Nearly all countries are indeed taking actions that could yield a "double dividend", boosting demand in the short term, as well as supply in the long

term. The focus is on a selection of such measures, including ones targeting labour market and social policies, infrastructures, innovation and the environment. For all these areas, the measures introduced are considered, together with an assessment of the policy requirements for having positive adjustment effects on aggregate supply. While some of the measures discussed refer more specifically to the OECD countries, information is also provided for other countries.

Guiding principles for designing and implementing stimulus packages

4. Discretionary fiscal stimulus is playing an important role in OECD countries' and many non-OECD countries' (notably China) policy response to boost demand in the wake of the financial crisis. This reflects the severity of the downturn, both in terms of depth and duration, combined with the limits of monetary policy, both because the room for additional interest rate cuts is becoming increasingly slim in many OECD countries and especially because monetary transmission channels may be impaired.

5. The use of fiscal policy can target a number of macroeconomic objectives. They include:

- Moderating the size of the economic downturn, by injecting cash into the economy and thereby cushioning adverse employment effects;
- Preventing the downturn from gathering momentum and thereby avoiding "tail risks". In this case, a key factor is the timeliness of the stimulus, so that it is injected into the economy as quickly as possible and for a short duration; and
- Supporting economic recovery while at the same time favouring structural policies that could potentially enhance long-term growth.

Table 1. The size and the timing of fiscal packages

	2008-2010 net effect on fiscal balance[1]			Distribution over the period 2008-2010			*Memorandum item:* Measures affecting the timing of payments[2]
	Spending	Tax revenue	Total	2008	2009	2010	
	Per cent of 2008 GDP			Per cent of total net effect			Per cent of 2008 GDP
Australia	-3.3	-1.3	-4.6	15	54	31	
Austria	-0.3	-0.8	-1.1	0	84	16	
Belgium	-0.6	-1.0	-1.6	0	60	40	-0.1
Canada	-1.7	-2.4	-4.1	12	41	47	
Czech Republic	-0.5	-2.5	-3.0	0	66	34	..
Denmark	-1.9	-0.7	-2.5	0	33	67	..
Finland	-0.5	-2.7	-3.1	0	47	53	
France	-0.4	-0.2	-0.6	0	75	25	-0.5
Germany	-1.4	-1.6	-3.0	0	46	54	
Greece	..	..	..	..	..	..	
Hungary	4.4	0.0	4.4	0	58	42	
Iceland	..	..	9.4	0	33	67	
Ireland	0.9	3.5	4.4	15	44	41	0.3
Italy	-0.3	0.3	0.0	0	15	85	
Japan	-1.5	-0.5	-2.0	4	73	24	
Korea	-1.7	-3.2	-4.9	23	49	28	
Luxembourg	-1.9	-1.7	-3.6	0	76	24	0.0
Mexico [3]	-2.1	0.8	-1.3	0	100	..	
Netherlands	-0.1	-1.4	-1.5	0	51	49	..
New Zealand	0.0	-4.3	-4.3	5	46	49	
Norway [3]	-0.7	-0.1	-0.8	0	100	..	
Poland	-0.6	-0.4	-1.0	0	77	23	
Portugal	..	..	-0.8	0	100	0	
Slovak Republic	-0.5	-0.6	-1.1	0	42	58	-0.8
Spain	-1.9	-1.6	-3.5	31	46	23	-1.0
Sweden	-0.9	-1.8	-2.8	0	52	48	..
Switzerland	-0.3	-0.2	-0.5	0	68	32	
Turkey	..	..	..	..	..	..	
United Kingdom	0.0	-1.5	-1.4	15	93	-8	
United States [4]	-2.4	-3.2	-5.6	21	37	42	
Major seven	-1.6	-2.0	-3.6	17	43	40	
OECD averages							
All (unweighted) [5]	-0.7	-1.2	-2.0	10	53	37	
All (weighted) [5]	-1.5	-1.9	-3.4	17	45	39	
Positive stimulus only (unweighted) [6]	-1.1	-1.6	-2.7	9	53	38	
Positive stimulus only (weighted) [6]	-1.7	-2.0	-3.7	17	45	39	

Note: cut-off date for information is 24 March 2009.

1. Includes only discretionary fiscal measures in response to the financial crisis. Estimates provided here do not include the potential impact on fiscal balances of recapitalisation, guarantees or other financial operations. It also excludes the impact of a change in the timing of payment of tax liabilities and/or government procurement.
2. Several countries have changed the timing of payment of government procurement and/or tax liabilities. When applying the accrual principle, such measures should not be reflected in the national account data. Still, they affect fiscal balances measures on a cash basis and may have an impact on the economy. They have not been included in the size of fiscal packages.
3. Data not available for 2010.
4. Figures for the United States refer to the federal government. Available information indicates that a few states, including California, have passed restrictive fiscal measures which are not included here.
5. Average of above countries excluding Greece, Iceland, Mexico, Norway, Portugal and Turkey.
6. Average of above countries excluding Greece, Hungary, Iceland, Ireland, Italy, Mexico, Norway, Portugal and Turkey.

Source: OECD.

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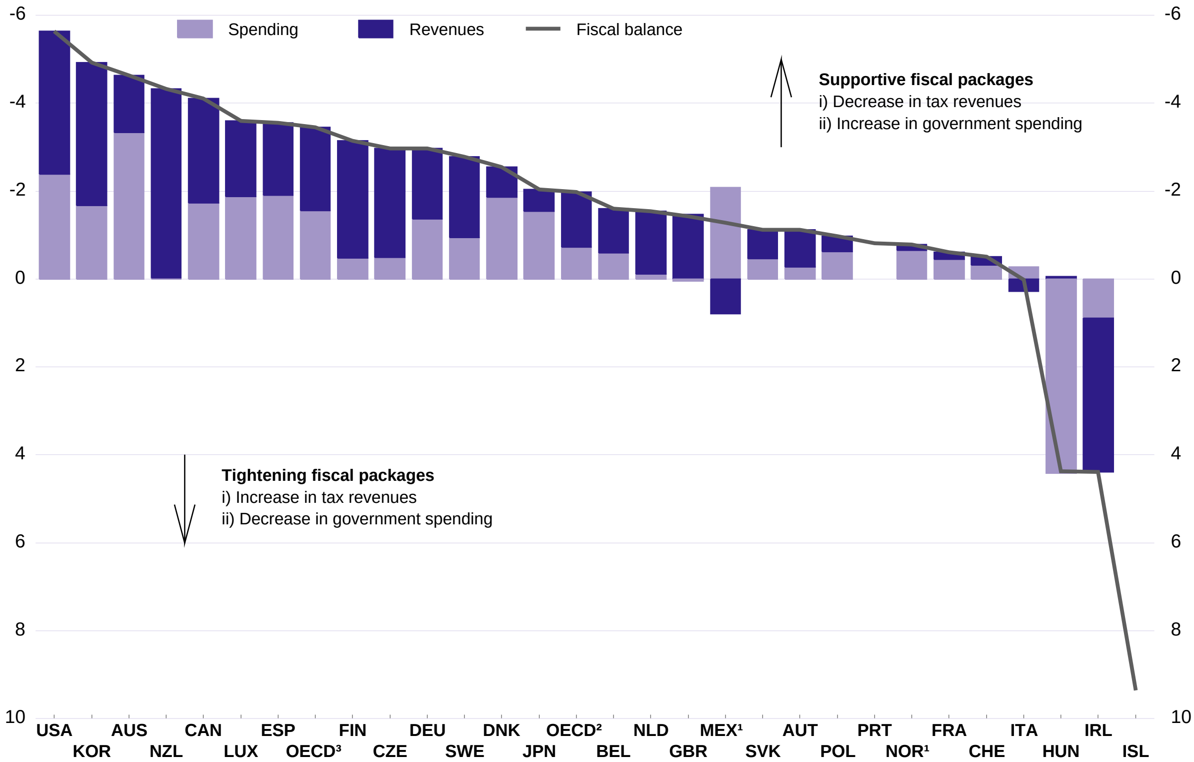
6. Virtually all OECD countries have introduced discretionary measures in response to the crisis, though the crisis-driven stimulus packages represent only one among other influences boosting budget deficits. In most countries, these other factors, which include so-called automatic stabilisers and discretionary easing unrelated to the crisis, account for the largest part of the run-up in debt over the period 2008-10. These measures do not include such items as government guarantees and bank deposits which are accounted off-budget. OECD calculations suggest that these fiscal packages amount on average to around 3 ½ % of 2008 GDP, as measured by cumulated deviations of fiscal balances over the period 2008-10, compared with a "no action" scenario (Figure 1).

Figure 1. The size and composition of fiscal packages

Cumulative impact of fiscal packages over the period 2008-2010 on fiscal balances as % of 2008 GDP



Note: See notes to Table 3.1.

1. Only 2008-2009 data are available for Mexico and Norway.
2. Simple average of above countries except Greece, Iceland, Mexico, Norway, Portugal and Turkey.
3. Weighted average of the above countries excluding Greece, Iceland, Mexico, Norway, Portugal and Turkey.

Source: OECD.

7. There is considerable cross-country variation in the scale of crisis measures introduced. For the average OECD country carrying out a positive stimulus package, their cumulated budget impact over the period 2008-10 amounts to more than 2½ per cent of GDP, with the United States having the largest fiscal package at about 5½ per cent of 2008 GDP. In all cases, programmes involve immediate tax adjustments, combined with wide ranging spending programmes (Table 2), with a clear priority usually being given to tax cuts, rather than boosting spending. On the spending side, virtually all OECD countries have launched and/or brought forward public investment programmes. Most active countries in this domain - Australia, Canada, Poland and Mexico - are expected to increase public investment by more than 1% of GDP (Figure 2).

Table 2. Composition of fiscal plans

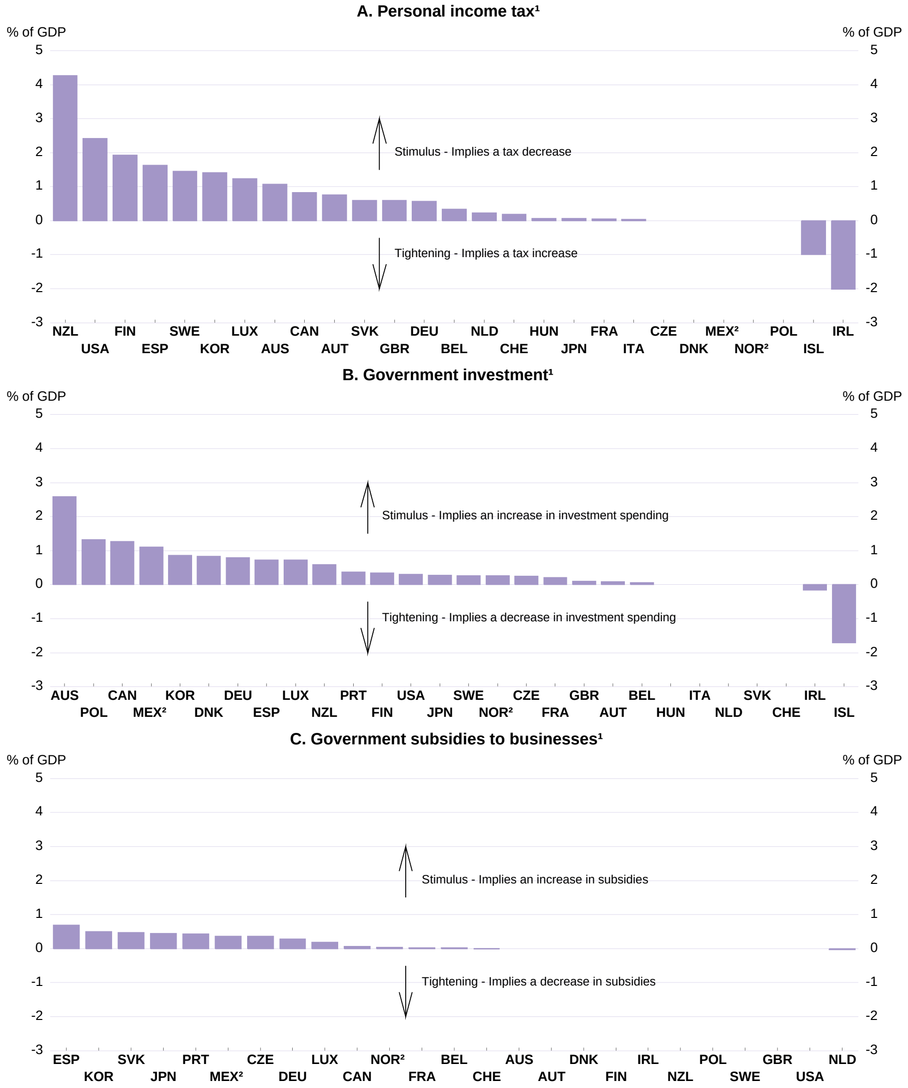
Total over 2008-2010 period as % of GDP in 2008

		Tax measures					Spending measures					
	Net effect	Total	Indivi-duals	Busi-nesses	Consump-tion	Social contri-butions	Total	Final consump-tion	Invest-ment	Transfers to households	Transfers to businesses	Transfers to sub-national government
Australia	-4.6	-1.3	-1.1	-0.2	0.0	0.0	3.3	0.0	2.6	0.8	0.0	0.0
Austria	-1.1	-0.8	-0.8	-0.1	0.0	0.0	0.3	0.0	0.1	0.1	0.0	0.1
Belgium	-1.6	-1.0	-0.3	-0.6	-0.1	0.0	0.6	0.0	0.1	0.5	0.0	0.0
Canada	-4.1	-2.4	-0.8	-0.3	-1.1	-0.1	1.7	0.1	1.3	0.3	0.1	..
Czech Republic	-3.0	-2.5	0.0	-0.4	-0.1	-2.0	0.5	-0.1	0.2	0.0	0.4	0.0
Denmark	-2.5	-0.7	0.0	0.0	0.0	0.0	1.9	0.9	0.8	0.1	0.0	0.0
Finland	-3.1	-2.7	-1.9	0.0	-0.3	-0.4	0.5	0.0	0.3	0.1	0.0	0.0
France	-0.6	-0.2	-0.1	-0.1	0.0	0.0	0.4	0.0	0.2	0.1	0.0	0.0
Germany	-3.0	-1.6	-0.6	-0.3	0.0	-0.7	1.4	0.0	0.8	0.2	0.3	0.0
Greece[1]	..	..	..	..	..	..	..	0.0	0.1	0.4	0.1	0.0
Hungary	4.4	0.0	-0.1	-1.5	1.6	0.0	-4.4	..	0.0	..	..	0.0
Iceland	9.4	..	1.0	..	..	..	..	-1.8	-1.7	-1.7	..	..
Ireland	4.4	3.5	2.0	-0.2	0.5	1.2	-0.9	-0.7	-0.2	-0.1	0.0	0.0
Italy	0.0	0.3	0.0	0.0	0.1	0.0	0.3	0.3	0.0	0.2	0.1	0.0
Japan	-2.0	-0.5	-0.1	-0.1	-0.1	-0.2	1.5	-0.2	0.3	0.5	0.4	0.3
Korea	-4.9	-3.2	-1.4	-1.2	-0.2	0.0	1.7	0.0	0.9	0.1	0.5	0.2
Luxembourg	-3.6	-1.7	-1.2	-0.5	0.0	0.0	1.9	0.0	0.7	1.0	0.2	0.0
Mexico[1]	-1.3	0.8	0.0	0.0	-0.4	0.0	2.0	0.0	1.1	0.3	0.4	0.0
Netherlands	-1.5	-1.4	-0.2	-0.4	0.0	-0.8	0.1	0.0	0.0	0.1	0.0	0.0
New Zealand	-4.3	-4.3	-4.3	0.0	0.0	0.0	0.0	0.1	0.6	-0.6	0.0	0.0
Norway[1]	-0.8	-0.1	0.0	-0.1	0.0	0.0	0.7	0.0	0.3	0.0	0.0	0.3
Poland	-1.0	-0.4	0.0	-0.1	-0.2	0.0	0.6	0.0	1.3	0.1	0.0	0.0
Portugal	-0.8	..	..	..	..	..	..	0.0	0.4	0.0	0.4	0.0
Slovak Republic	-1.1	-0.6	-0.6	-0.1	0.0	0.0	0.5	0.0	0.0	0.0	0.5	0.0
Spain	-3.5	-1.6	-1.6	0.0	0.0	0.0	1.9	0.3	0.7	0.2	0.7	0.0
Sweden	-2.8	-1.8	-1.5	-0.2	0.0	-0.2	0.9	0.7	0.3	0.1	0.0	0.0
Switzerland	-0.5	-0.2	-0.2	0.0	0.0	0.0	0.3	0.3	0.0	0.0	0.0	0.0
Turkey	..	..	..	..	..	..	..	..	..	..	..	..
United Kingdom	-1.4	-1.5	-0.6	-0.1	-0.7	0.0	0.0	0.0	0.1	0.1	0.0	0.0
United States	-5.6	-3.2	-2.4	-0.8	0.0	0.0	2.4	0.7	0.3	0.5	0.0	0.9

Note: See Table 1. Total columns are not the sum of columns shown because some components either have not been clearly specified or are not classified in this breakdown.

Source: OECD.

Figure 2. Selected fiscal measures at a glance



1. See notes to Table 1
2. Data are not available for 2010.

Source: OECD.

8. For the average OECD country, fiscal multipliers suggest that the level of support from discretionary stimulus to GDP both in 2009 and 2010 will be of the order of ½ per cent. Only for the United States and Australia will the estimated multiplier effect clearly exceed 1% of GDP in both 2009 and 2010. These effects do not include cross-border spillovers.

The scope for further stimulus depends on the degree of government indebtedness

9. Whether a more ambitious fiscal stimulus than currently planned is appropriate depends on country-specific circumstances. Evidence shows that adverse reactions in financial markets are likely in response to higher government debt and

that such reactions may depend on the initial budget situation. For countries which are identified[1] as having a weak initial fiscal position -- including Japan, Italy, Greece, Hungary, Iceland and Ireland -- the room for fiscal expansion is limited. Other countries differ in terms of the costs and benefits of further stimulus. For some, further action to cushion the projected downturn seems warranted. Countries with most scope for fiscal manoeuvre appear to be Germany, Canada, Australia, Netherlands, Switzerland, Korea and some Nordic countries. For others, action would only be warranted in case activity looks to turn out even weaker than projected.

10. The design of additional fiscal packages in terms of individual components will be crucial in maximising their effectiveness. The largest short-run impact on aggregate demand is likely to come from government spending measures, but where tax cuts are implemented they are most effective if targeted at households that are likely to be liquidity-constrained. Complementary criteria for selecting individual measures are those which are both most likely to raise aggregate demand in the short run as well as aggregate supply in the long run, including: increased public spending on infrastructure; increased spending on active labour market policy, including on compulsory training courses; and reduction of personal income taxes, notably on low-income earners.

11. Fiscal stimulus is likely to be more cost effective if accompanied by credible commitments to scale it back or even reverse it as the recovery gains traction. This underlines the importance of strengthening medium-term fiscal frameworks for ensuring fiscal sustainability (see below). Designing stimulus measures that are explicitly temporary or easily reversed, strengthening fiscal frameworks, and acting now to address long-term fiscal sustainability concerns related to pensions and health spending would all be helpful in establishing such credibility.

Taking into account coordination and spillovers

12. Fiscal stimulus will have international spillovers both through trade and interest rate channels. Smaller countries perceive only part of the global benefit provided by their action; larger countries perceive only part of the costs involved. This suggests a role for international co-ordination, while taking into account each country's scope for fiscal action. In practice this may be difficult to achieve and swiftness of action should be given the priority.

Crisis measures should not be allowed to reduce competition

13. The current crisis poses both risks and opportunities for competition. The risk is that as the crisis unfolds, both international barriers and domestic barriers to competition will increase. If new barriers are erected, economic productivity will fall and the decline in output will deepen, as it did during the Great Depression due to legalised restrictions on competition. At the same time, the crisis presents an opportunity to reduce unnecessary government restrictions on competition and raise long-term growth rates. Governments should therefore resist pressures to loosen

1 See the OECD Economic Outlook, Interim Report chapter on fiscal policy for more details.

competition rules, and instead remove unnecessary constraints to help unleash the positive forces of competition.

The importance of remaining forward looking: setting the basis for future consolidation

14. Ongoing government action in this time of crisis is rightly focussed on cutting revenues and increasing spending in order to stop the downturn and initiate the recovery. Yet, looking further ahead, many of the emergency measures taken today could pose a threat to long-term growth and sustainability if not properly unwound – for example, prolonged government presence in the financial sector, or the risk of excessive debt accumulation. For this reason, measures should be designed and implemented as temporary and in the least distortive manner, with a clear and credible plan and timeline for phasing out as recovery takes hold. It is critical to consider these so-called "exit strategies" now, together with emergency measures, in order to prevent new risks down the road.

The role of fiscal credibility

15. On concrete policy actions, one path to explore includes strengthening the credibility of the medium term fiscal framework through the announcement upfront of a clear commitment to long term fiscal sustainability. In this respect, it is encouraging that some OECD countries that have adopted discretionary fiscal stimulus measures have also made announcements relating to sustainability over medium horizon. Among the major countries, some recent examples include the following:

- In the United States, there has been a commitment at the highest level to cut the federal deficit in half by the end of 2012, although it has yet to be framed in any formal fiscal rule.
- In Japan, with the aim of stabilising and decreasing the debt ratio by the mid-2010s, the Government has explicitly committed to implement comprehensive tax reform, including a hike in the consumption tax rate, in three years, contingent on economic recovery actually taking place.
- In Germany, along with the second stimulus package, there were announcements of a debt repayment plan for some part of the additional debt incurred and the intention to introduce a new fiscal rule, anchored in the constitution, that sets the limit of a structural budget deficit to a maximum of 0.35% for the central government from 2016 onwards and would require balanced budgets for the *Länder* by 2020.

Tax revenues after the crisis

16. As economies emerge from recession, it may for some countries be necessary to raise additional revenues. Indeed, restoring sound public finances in a way that does not hamper the recovery will be a major challenge. It will require reforms to ensure sustainable revenues such as by broadening tax bases and strengthening tax compliance. In this context, governments may wish to take the opportunity to change the structure of the tax system to promote long run economic growth. Thus, the focus

after the crisis could be a shift towards taxes that have been shown to be least harmful to growth while at the same time creating tax systems which are fairer and simpler to comply with. Work done at the OECD suggests that these may include recurrent taxes on immovable property, general consumption taxes and "green" taxes.

Minimising revenue leakages

17. In addition to considering how taxes should change after the crisis countries need to ensure that taxes that are properly due are collected. Globalisation and the integration of financial markets have made it easier for taxpayers to engage in offshore tax evasion. This poses a threat to tax revenues and undermines the fairness of tax systems. The challenge of combating offshore tax evasion is not new, but it has grown more complex and more serious given the increased scope for illicit use of the international financial system in a globalised world. Countries may consider that they now need to take firm action to stop this loss of revenue as well as undertaking efforts to improve transparency and international co-operation.

18. The OECD has developed standards of transparency and exchange of information that have been accepted as the international norm. The implementation of these standards by all countries will allow both developed and developing countries to protect their revenue base, improve the transparency of the tax system and minimize tax-induced distortions in financial markets. The standards developed by the OECD in this area have been endorsed by the G 7/8, G20, the UN Tax Committee, the EU and other international groupings. In this regard, the recent announcements by major financial centres, both OECD and non-OECD, endorsing the OECD standard of exchange of information for tax purposes and the steps they are taking to implement the standard are to be welcomed.

19. Additional measures may be considered to improve the assessment and collection of taxes due. Such measures may include improving voluntary compliance through communication and targeted initiatives including the use of voluntary disclosure initiatives, better risk assessment and better tax payer service. Furthermore, some countries consider that withholding tax at source on certain types of income coupled with a reimbursement system to obtain treaty benefits is a useful mechanism to discourage non-compliance with the taxes due on cross-border payment flows (e.g. EU Savings Directive and agreements between the EU and non-EU member States providing for equivalent measures to the EU Savings Directive).

Guidelines for long term growth policies

20. Although the current economic situation is difficult, it actually offers an opportunity to influence the medium and long-term potential of the economy. Adjustments to tax structures and spending components will affect the incentives of individuals to work and businesses to invest in a positive or negative way depending on the specific measures. For this reason, just as important as supporting demand, countries must seek to improve conditions on the supply side of the economy in areas with a potential to boost aggregate growth and labour incomes. The broad challenge confronting all countries is to ensure that current measures lock in structural improvements in various policy areas. It is also to adopt a whole of government

approach to improving economic performance, that takes into account the interactions and complementarities between different policies and so increases the overall efficiency of resource allocation. Within this broad framework, a number of selected policy considerations deserve attention:

- One critical policy area is **tax policy**. Taxes affect the decision of individuals to save and work; the decision of firms to produce, create jobs, invest and innovate; as well as the choice of savings channels and assets by investors.
- An immediate policy challenge is for demand policies to cushion the negative effects of the economic downturn on workers and low-income households. Over the medium term, however, employment performance will not only be assessed with regard to the maintenance of job levels, but on the basis of their responsiveness to the next upturn and the capacity of the labour market to accommodate it. **Labour, social and education policies** are looked in depth, particularly with an eye to raising the effectiveness of the labour market.
- Another important challenge, in light of the structure and composition of fiscal packages in many countries, is to have an effective policy framework in place to ensure cost-effectiveness of **investment policies**, many of which involve important elements of public support. Some of the key foundations for long-term growth are discussed, notably in the matter of infrastructure development, sustaining environmental protection and improving the environment for both innovation and firm creation.

In this broad context, it will be important to monitor economic developments with timely and accurate statistics in order to better assess policies. Indeed, the ongoing crisis also raises a number of questions in terms of the capacity of the statistical system to monitor in a timely and accurate manner economic conditions. Some of these issues are discussed in Box 2.

Box 2. Which statistics are needed to support policies aimed at dealing with the crisis?

The OECD, alongside other national and international organisations, has taken a number of steps to identify new data needs and to improve the statistical infrastructures to support economic and social policies, namely:

- ***Financial and other economic statistics***. The crisis has underscored a number of limits in available financial and economic statistics. Prominent among them are the importance of timely and accurate balance sheets data, which could allow identifying mismatches in terms of maturity, currency and structure of assets and liabilities; and the adequacy of the available breakdown in terms of financial instruments (e.g. the System of National Accounts does not distinguish structured financial products within the broad categories of corporate bonds and commercial paper), sectoral aggregation (which had the effect of "hiding" the higher leverage of some parts of the financial system) and counterpart information (to understand sectoral links of claims and liabilities). The recently established Inter Agency Group on Economic and Financial Statistics (of which the OECD is one member) identified a number of gaps, such as data availability for some segments of the financial sector where reporting is not well-established; balance sheet data for non-financial corporations and households; house prices and their impact on household net worth; and the measurement of ultimate risk and credit-transfer instruments. The Group is elaborating a work plan and detailing the contribution of various participating agencies to fill these gaps.

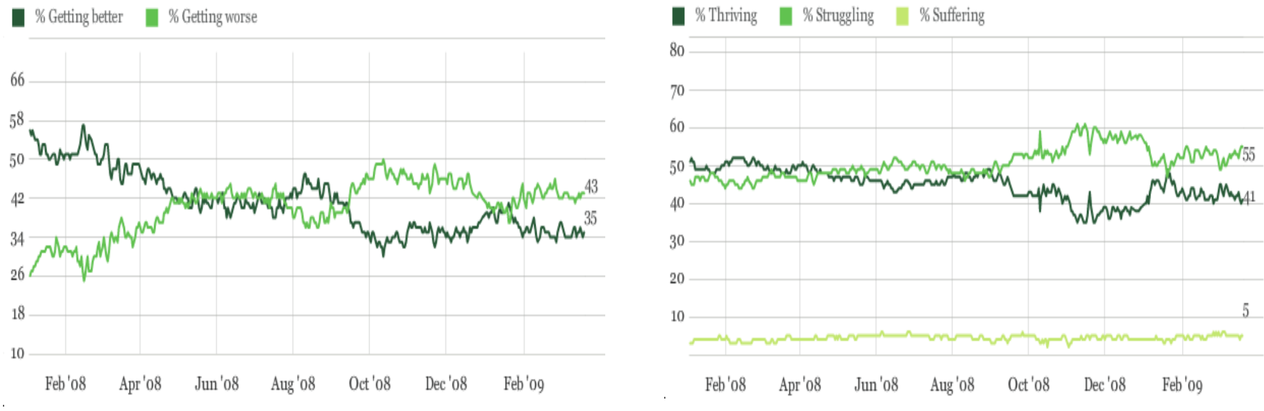
- ***Social statistics***. As the crisis unfolds, public attention has shifted from its financial dimension to economic implications and now to social consequences. These social consequences operate through both labour markets (e.g. higher unemployment or lower participation, working hours and earnings) and losses in asset holdings (including pensions), housing repossessions and payment arrears. Experts participating to a recent OECD meeting on how best to monitor the social effects of the crisis underscored the limits in the indicators available in OECD countries to monitor short-term developments in household conditions, but also the wide range of sources that could be mobilised to that end. These include both data already available through existing sources (such as labour force and consumer sentiment surveys, or administrative data) and data that could be generated through greater investment in specific fields (such as including specific questions on income, assets and material deprivation in existing surveys, i.e. the labour force survey) or by relying on innovative approaches to monitor subjective well-being (see, for example, the daily data on household conditions available for the United States, Figure 1).

Figure. Daily tracking of social conditions in the United States

Three-day rolling average

Share of respondents saying that they standard of living is getting better versus those saying it is getting worse

Share of respondents classifying their life (on a ladder from 0 to 10) both now and five years from now



Source: Gallup Daily Polls (23/2/09).

Beyond the measurement challenges that are specific to each field, the crisis also raises some cross-cutting issues. Three, in particular, may be singled out:

- First, is the importance of collecting data informing on both ***average conditions*** of various sectors and of the ***diversity*** among units: it is clear, for example, that while households as a whole increased their leverage in several OECD countries, some households faced the risk that even moderate declines in house prices could leave them with negative net worth, a condition that amplified the possibility of sharp declines in housing prices and default in mortgage-related assets.

- Second, can the balance between ***timeliness*** *and* ***accuracy*** of existing data be improved through the release of early estimates and proxy measures for a range of variables of interest (e.g. poverty)?

- Third, is the importance of ***better using the data available to tell the story underlying these statistics,*** a task that would require high-frequency reporting of statistical data in various fields (e.g. the monthly reports monitoring short-term changes in social conditions currently used at the EU level)?

Finally, as the OECD collects and compile unique sets of indicators on various phenomena (trade, globalisation, productivity, labour, etc.) that are being strongly affected by the crisis, the Secretariat is: i) accelerating the release of relevant short-term and structural indicators applying, wherever possible, a rolling update of its databases, to help governments and analysts to access the most up-to-date data to better evaluate relevant trends and changes; ii) developing new communication tools (dynamic charts, maps, etc.) to allow users to better analyse economic and social phenomena over time and across countries; iii) pursuing its work to develop a new paradigm for better measuring the progress of our societies, through the forthcoming OECD World Forum on "Charting Progress, Building Visions, Improving Life" (to be held in Busan, Korea, on 27-30 October 2009) and the development of a handbook on how to measure subjective well-being. The OECD Statistics Directorate, in co-operation with other parts of the Secretariat, is currently preparing an overall action plan to provide more relevant information on the crises to policy makers and analysts. The plan, to be discussed with representatives of national statistical offices at the next meeting of the OECD Committee on Statistics in June 2009, will provide special emphasis on the development of both structural and short-term statistics on the economic and social conditions of ***households***.

21. Table 3 presents some of the details of stimulus packages for OECD member countries, OECD accession countries and OECD enhanced engagement countries. The following sections summarise the results of key OECD works in all these areas from the perspective of the overall reform effort and objectives, and highlights the interdependence between reforms in such areas.

Table 3. Selected components of stimulus packages

Country	Measures
Austria	Support to small and medium sized companies (loan guarantees, direct loans, promoting export competitiveness, etc.), investment incentives through tax measures, infrastructure (thermal renovation of public buildings, schools), regional employment programme, additional R&D spending, free of charge "kindergarten" year.
Belgium	Measures to help firms (in particular small ones) to maintain their operations (alleviate financial burden of companies, facilitating payments), safeguarding purchasing power of households, speeding up of public infrastructure projects and encouraging housing investment. Green technology and energy-cost cutting measures.
Brazil	Housing for poor families, credits for firms, support to automobile sector, tax cuts, transfers to households
Canada	**Support and training to citizens affected by crisis, support for most affected sectors and communities (e.g. targeted funding for the auto, forestry, farming, manufacturing, newspapers), tax relief, investment in roads, bridges and public transport, clean water as well as in knowledge and health infrastructure (including schools, post-secondary institutions, research equipment, digitization of health records and broadband and green energy infrastructure), investment in social housing and support for home renovation.**
Chile	Infrastructure, subsidies and tax rebates, lending to middle income families and SMEs, help to poor families and other consumption support, employment and training, support package to copper industry
China	Low-income housing, rural infrastructure, water, electricity, transportation, the environment, technological innovation and rebuilding from several disasters. Also, support package to auto, steel industries.
Czech Republic	Lowering of taxes and social insurance contribution and direct assistance to the households, increase in public expenditures, and improving the functionality of the sickness insurance system. A more comprehensive package is currently debated.
Denmark	Increase in government final demand. Enlargement of the in-work tax credit for below-average incomes and reductions in the marginal tax rates for above-average incomes,
Estonia	Tax and spending measures announced in mid-February.
European Union	Employment support initiative (including for low skilled, apprenticeships, training, reduction of social charges, etc.), enhance access to financing for business, reduce administrative burdens and promote entrepreneurship, Infrastructure projects (trans-European transport projects), increase of

Country	Measures
	climate change and energy security investments, Improve energy efficiency in buildings, Promote the rapid take-up of "green products" and develop clean technologies for cars and construction, Increase investment in R&D , Innovation and Education, High-speed Internet.
Finland	Infrastructure (transport construction), energy and mining sectors, education and research, training, broadband connections and others as part of the Innovation strategy.
France	Mainly investment in public enterprises (postal, energy sector and train), investments in strategic areas (sustainable development and clean technologies, higher education and research – e.g. quicker research tax credit reimbursements, digital economy defense industry), investment for regional and local authorities (in partnership investment in hospitals, child care facilities and other social institutions). Also support to employment, housing, the financing of firms (in particular SMEs), health, and some measure for the environment (bonus for purchase of clean car). Focus on the automobile sector.
Germany	Measures to help businesses and households retain employment and overcome crisis (secure funding, reduction of non-wage labour costs, income tax cut and other means to ease burden on households), training and upgrading grants (raising levels of education), one-off bonus for every child, government guarantees to borrow money), infrastructure (particularly education-related constructions), fostering innovation and R&D, green technologies, broadband, special support to automobile industry.
Hungary	Tax cuts; easing the conditions for getting (micro) credit; simplifying construction regulation, accelerating construction projects of national importance; refinancing sources for commercials banks; simplifying the application system of the National Development Plan; reducing administrative burden, stepping up the operation of the state-owned Credit guarantee Co. and providing various forms of additional financing (including microfinance, venture capital and interest subsidies) to the SMEs; R&D and Innovation for competitive enterprises.
Indonesia	Infrastructure (mainly roads), education spending, support to affected industries
India	Infrastructure projects (mostly in rural areas), cut of value-added tax, social security schemes, help businesses, real estate, aid labour-intensive export sectors such as textiles and handicrafts
Israel	Original plans: Infrastructure (desalination plants, railways), tax reduction, credit lines for business (especially SMEs), funds to hire workers & retraining, R&D, export credit
Italy	Supporting the low-income households (tax cuts for poorer families and pensioners), reducing tax burden for SMEs and stimulating investments on infrastructures and research (including broadband). Focus on greening the automobile sector with measures aimed at supporting consumption through incentives in favour of making scrap iron out of cars, methane systems and purchase of ecological cars.
Japan	Support for household consumption, tax reductions on mortgages, benefits for dependent persons, cutting of health costs, creation of new public sector jobs in nursing, child and elderly nursing care, and for the environment, reduction of automobile taxes for eco-friendly cars, raising the self-sufficiency ratio of food, funds on a priority basis to research in advanced technologies and related research.
Korea	Individual and business tax cut. Focus on sustaining green technology, high-tech convergence, and value-added services to build new engines of growth (including sustainable energy, technologies to reduce greenhouse gas emissions and the merging of broadcasting and telecommunications as well as healthcare and tourism).
Luxembourg	**Tax cuts on salaries and pensions; aid to SMEs; financial support to part-time workers; acceleration of public infrastructure projects (educational, cultural, research institutions, transport, among others)**
Mexico	Support for employment and workers (in particular poor families, low income housing, help to replace old appliances for more energy-efficient ones), support for firms (in particular SMEs), and rebuilding the nation's infrastructure (including the development of the country-side). Consumption tax cut but increase in other taxes.
Netherlands	Help with regard to housing market, export credit insurance, medium-sized companies and hospitals.
Norway	Tax relief and measures for employment, welfare and the environment. Emphasis on municipalities (schools, nursing homes, churches), construction (in particular transport and buildings with energy-efficiency in mind) and ICTs (communication infrastructure, digitising of government services, electronic signature, etc.). Also, focus on green measures and Employment, readjustment and skills.
Poland	Facilitating credit guarantees and payment to SMEs; stimulating investment in telecommunication

Country	Measures
	infrastructure, renewable energy, research; facilitating investment financed from the EU funds; and supporting financial institutions.
Portugal	Public investment in education, energy (especially energy transmission infrastructure and alternative energy), new-generation technologies (new generation broadband networks), fund for industrial restructuring, help to exporting firms and SMEs, strengthening of employment (reduction of social charges, credit line to SMEs), measures to alleviate burden on household, social protection (unemployment), education (modernisation of schools).
Russia	Tax cuts, providing credit to the economy
Slovak Republic	Infrastructure (roads, high speed broadband, new atomic reactors), transfer financial sources from the basic research to the applied research and innovation, reallocation of funds to SMEs and venture capital, increase energy efficiency
Slovenia	Infrastructure spending, tax relief for the poorest and help for companies that plan to invest
South Africa	Infrastructure, housing
Spain	Tax cuts, liquidity to credit-strapped companies (especially SMEs) and households (families, in particular), spending on public works and other stimulus measures to raise employment rates. Special help to the automobile sector and modernising basic industries such as transportation, energy, telecommunications, services, but also the public civil service.
Switzerland	**Railway and road infrastructure, increasing energy-efficiency of buildings, tourism industry, export promotion, measures in favour of applied research.**
Turkey	**Measures to ease SME access to credit, to ensure liquidity and functioning of credit markets; tax relief for vulnerable sectors, firms and households; measures to support employment of youth and women; extension of incentive regime for industrial and services sectors, with new regime to be launched soon**
United Kingdom	Aside from bank and financial-related help: cut in value-added tax rate, credit line and loan guarantees (in particular for SMEs), measures to combat unemployment (e.g. paying companies to hire and train the unemployed), acceleration of capital investment projects (likely to include some research infrastructure) and for accelerated roll-out of broadband.
United States	Direct relief to working and middle class families (tax credit, expansion of unemployment insurance, state fiscal reliefs, etc.), large infrastructure investment (roads, public transit, high speed rail, smart electricity grid and broadband), increase funding for key scientific and engineering agencies, modernize classrooms, labs and libraries; fostering renewable energy production and investments in the renewables sector, protecting health care coverage of citizens and modernising the health sector (including its computerisation and digital health records).

Source: Provisional results based on (OECD, 2009) "Policy Responses to the Economic Crisis to Restore Long-Term Growth: Results of the OECD Questionnaire", DSTI/IND/STP/ICCP(2009)1/ADD. **The table will continue to be updated in light of new developments and information from countries on measures taken.**

The role of tax policies

Tax measures to cushion the recession and speed recovery

22. Countries are responding to the current economic crisis in different ways. Many are cutting taxes in an attempt to stimulate demand and speed recovery, in part because traditional monetary policy does not appear to be sufficient. There are, of course, some countries, to which this option may not be affordable due to high levels of public debt or low levels of tax revenue, while others may choose to stimulate the economy through increased public expenditures. If tax cuts are chosen, however, it is important to maximise their benefits and avoid harm to longer term growth.

23. This is a challenge because the short-term focus is on demand stimulus while long-term economic growth requires policies that expand supply. So a pro-growth tax policy during the crisis requires tax changes that stimulate both short-term demand and long-term supply. At the same time, it is essential that the tax changes protect the

living standards of the most vulnerable sections of the community. Of course, the precise mix of tax changes that would be appropriate varies across countries, depending on their particular economic and political circumstances, as well as existing tax levels and structures.

24. Corporate income taxes can be adjusted temporarily to boost investments, but it will only work if carefully designed. General cuts in the corporate tax rates are unlikely to quickly increase investment during a recession. Businesses make investment decisions in response to a wide range of factors, including market potential and the cost and availability of credit. When businesses are making little or no profit, a lower corporate income tax rate will not improve their liquidity. By contrast, temporary investment tax credits, or in some cases accelerated depreciation allowances, may be effective, especially if they can be carried back to provide an immediate refund of taxes previously paid and carried forward to reduce taxes when the business regains profitability.

25. A straightforward way to ease the current constraints of notably small businesses is to allow tax payments to be deferred and paid back over a period of time. With sales and business income falling with unexpected speed and credit markets still stressed, even sound businesses lack liquidity. In this context, deferring tax payments can help avoid that businesses are forced to lay off staff to reduce costs urgently. Such measures have the potential to be taken quickly, either by changing payment schedules, or by allowing tax administrations more room to negotiate deferral with individual businesses. Safeguards against abuse by unsound businesses are needed, with tailored responses which are most likely to give targeted value-for-money support.

26. A reduction in personal income taxes and social contributions for low-income households can be an effective way to increase demand in the short run, and promote long-term growth. Cuts in the top personal income tax rate are unlikely to stimulate demand much as high income individuals may save much of any tax cut, especially if it is expected to be temporary. Low-income households are likely to spend more of any tax reduction, as they typically have less flexible access to credit. Importantly, in countries where the taxes on low-income workers are relatively high, such a tax break would also stimulate labour supply, thus supporting long run growth. In some countries it will be possible to quickly implement such tax reductions by changing the parameters of the tax system, while in other countries it may require more preparations, delaying stimulus.

27. For consumption taxes, the issue is less clear cut. While not part of a long-run pro-growth tax agenda, it is sometimes argued that cutting consumption taxes is the best way of quickly boosting consumption expenditures. Such cuts would benefit all parts of the community. Thereby, consumption tax cuts will reach those who do not pay direct taxes and are outside of the income tax net, but on the other hand, they will also accrue to households that are not credit-constrained. A consumption tax cut has the advantage of being quick to deliver, though there is a risk that the cut might not be fully passed on in lower prices for consumers. A pre-announced future increase in consumption taxes – including the reversal of a temporary cut – might induce

consumers to bring consumption forward by purchasing durable goods earlier than they had planned. Some governments might contemplate a temporary reduction in VAT (or sales tax). In such cases, it is best to cut the main rate rather than lowering the rate for particular products, which would distort the allocation of resources in the economy and increase both compliance and administrative costs. Moreover, experience shows that it is very difficult to remove tax preferences once they have been introduced: most OECD countries have found it politically easier to increase the main rate of VAT than to broaden its base by removing selective lower rates or exemptions.

28. The need to carefully consider the aims and design of selective tax preferences is particularly strong in the case of housing for the following reasons. First, in many countries, the inflated house prices before the crisis have contributed to the seriousness of the current economic situation. Part of this house price inflation is probably due to the preferential tax treatment of owner-occupied housing compared with other capital and consumption. Second, experience tells that it will be very difficult to remove tax preferences for housing. Third, recurrent taxation of immovable property is thought to be the least harmful tax for economic growth. In fact, well-designed taxes on immovable property can even increase long run growth by reallocating capital away from tax-subsidised housing towards un-subsidised business activities that are more productive. Meanwhile, reductions in taxes on housing transactions could ease the strains on depressed housing markets without adverse long-run effects.

29. In summary, a reduction in personal income taxes and social security contributions on low-income households can be a very effective way of increasing demand and promoting long-term growth, particularly if the cut can increase monthly incomes immediately, rather than waiting for a tax assessment at the end of the year. However, any assessment needs to take a variety of factors into consideration to determine the cost-effectiveness of such a policy, including how it impacts on the overall fiscal position of the economy.

Taking care of society's most vulnerable members

30. Any tax policy proposal needs to take account of its effects on income distribution, and it is particularly important to consider the poor during an economic recession, as they tend to be badly affected. It is the poor who can gain most from avoiding recession as unemployment usually increases most for those with low wage jobs.

31. Tax cuts that are targeted at those with modest incomes can improve living standards, both by directly increasing their disposable income and by giving them a greater incentive to work. In this context, the suggestion to cut personal income tax and social security contributions for low-income families becomes even more attractive. It will stimulate demand for credit-constrained low income families, reduce poverty and raise employment, especially once labour demand starts to pick up. However, it would have no beneficial impact for the very poor without taxable income. Here, cash benefits or benefits in kind for necessities (e.g. meal tickets, rechargeable

cards for the purchase of food products) could act more directly on poverty and will indeed stimulate demand.

The role of labour, social and education policies

32. Most stimulus packages include labour market and social policy measures to cushion the negative effects of the economic downturn on workers and low-income households. However, a preliminary review of these stimulus packages in the G7 countries suggests that additional funds for labour market programmes are rather limited, accounting for about 8-10% of total expenditures in the United States and France, and around 5% in Germany and the United Kingdom .[2] In some cases this may be a missed opportunity.

Subsidy schemes to expand labour demand should be temporary and well targeted

33. In order to encourage employers facing a significant decline of demand and credit constraints, a number of countries are reducing non-wage labour costs arising from social security contributions (e.g. Germany, France, Finland, Hungary, Portugal and Sweden). In some cases, the reductions are intended as permanent (Finland); elsewhere they are temporary (e.g. Portugal where employers are exempt from social security contributions for 24 months when hiring a long term unemployed person). Some countries target these reductions at SMEs (e.g. Portugal), whereas France has a temporary measure to reduce social security contributions of businesses with fewer than 10 employees for any new workers they hire during 2009. Sweden also targets youth employment with a reduction to social security contributions for workers under age 26.

34. Some OECD countries are also considering the introduction, or the expansion, of schemes that subsidise short-time work for limited periods of time (e.g. Austria, Denmark, France, Germany, Hungary, Italy and Spain). These schemes generally apply in case of a temporary reduction in the working hours of employees, as a result of a temporary drop in demand and business activity; in these circumstances, a portion of the worker's loss of earnings is compensated by a state subsidy. Countries are also increasing financial support or reducing tax burdens on companies that hire new workers (*e.g.*, France, Hungary, Portugal and Slovak Republic), especially targeting vulnerable groups, such as young people and first-time job seekers, older workers, low skilled people and the long-term unemployed. Some support packages (*e.g.*, Austria and Portugal) are providing funds to encourage start-ups or self employment.

35. These subsidies run the risk of protecting non-viable firms, thus reducing the ability of the economy to reallocate resources to more productive uses. There is also the risk of "deadweight losses", with governments subsidising workers whose

2 In order to have a comprehensive overview of different measures, the OECD Secretariat – jointly with the European Commission – sent in January a questionnaire to all OECD and EU Member countries asking to provide detailed information on the programmes in place or planned. The OECD will make the country responses to the questionnaire available shortly. The discussion on labour market and social policy issues in this section largely draws from a background paper prepared by the OECD Secretariat on the occasion of the Meeting of G8 Employment and Labour Ministers held in Rome on 29-30 March 2009.

employers would have retained them or hired them even in the absence of any subsidy. However, these general problems have to be weighed against the intensity of the current crisis, which may justify an upfront intervention, while at-risk workers are still employed, rather than waiting for them to lose their jobs. Indeed, it appears that a number of jobs are at risk in many OECD countries because firms – in particular small and medium-sized ones – are facing a combination of severe contractions in demand and a serious credit crunch. Because such a combination increases the risks of socially inefficient layoffs, it justifies a prompt recourse to public subsidies to maintain certain jobs.[3] This being said, two considerations are important to minimise the negative side-effects of these schemes: they should be temporary and well-targeted to firms affected by a temporary decrease in demand, and to those workers who may find it particularly difficult to regain employment once made redundant.

Avoiding reduction in labour supply to ease unemployment pressure

36. In the crisis of the 1970s, many OECD countries introduced early retirement options. Though intended to reduce unemployment by freeing up jobs for young people, subsequent experience showed that they had no such effect. Firms availed of public subsidies to lay off older workers, but hired very few young workers to replace them. Even though this policy proved to be a failure it took a very long time to unwind these schemes. It will be important to resist political pressures to take similar measures now, as labour market conditions worsen.

Temporary income support to the unemployed

37. The coverage and maximum duration of unemployment benefits vary considerably across OECD countries. Given the economic contraction, countries with weak unemployment benefit systems may wish to consider extending the coverage and, possibly, the maximum duration of their benefit schemes during the downturn. Indeed, some countries are expanding the eligibility to full or earnings-related benefits to those with a short employment history (US, Portugal, Finland, and France). There are also measures to increase security of at-risk groups, for example through extending the scope of unemployment insurance in favour of young people ending a fixed-term labour contract (France). Such extensions need to go hand-in-hand with a strong activation focus if they are not to lessen work incentives for the groups in question.

Activation strategies should remain prominent in the policy agenda…

38. One of the main labour policy reforms in the OECD over the past decade has been the implementation of activation/mutual obligation strategies, which combine effective re-employment services with strong job-search incentives, enforced by the threat of moderate benefit sanctions. Expanding the arsenal of effective active labour

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3 An alternative (or complementary) policy could be to improve the access of SMEs to short-term credit. Finland has recently introduced a counter-cyclical loan programme for SMEs and provided it with a budget of €300 million annually during 2009-2011, which is intended in part to prevent viable jobs from being destroyed. Similarly, Sweden is allowing employers to postpone until 2010 paying some portion of employers' and employees' social security contributions, as well as of employers' withholding for employees' income taxes, subject to paying 8% interest.

market programmes would be important to maintain the activation stance in a recession when job vacancies are declining. But it may be difficult to match the rise in job seekers with greater resources for public employment services, not least because it takes time to recruit and train good case managers. In these circumstances, there may be opportunities for effective co-operation between public and private employment agencies to provide a range of contracted-out activation services. Also, it may be necessary to offer a backstop option of direct job creation in the public sector for the most hard-to-place benefit recipients, but participation should be temporary and the programme curtailed once the recovery gets underway. The main challenge is to adapt the model of continuous activation, while maintaining the overall principle of mutual obligations.

39. In a number of countries, resources available for active labour market policies have been increased, for example to offer specific training grants (e.g. Austria) and increasing capacity through hiring more staff for the Public Employment Services (Germany, United Kingdom) to deal with the increased use of its services, and through increasing vocational training places (e.g. Finland). In Denmark, the scope of activation measures is widened by making participation in ALMP obligatory after three rather than six months of unemployed for all unemployed under 30 years, under the principle of mutual obligations. Other countries are targeting measures towards particular groups: Ireland is targeting construction workers, through a training fund to provide a timely response to identified training and re-training needs for low-skilled and redundant craft workers from the construction sector. Other actions focus on sickness and disability benefit claimants, aiming to help them stay in contact with the labour market, for example through flexible time participation in ALMP measures (Denmark), or through wage subsidies to private sector employees who take on disabled workers for more than 20 hours per week.

…as well as education and training policies

40. The crisis also presents an opportunity to raise investment in people, including through offering improved training in order to facilitate the acquisition of new skills. Support for education and training that enables the transition to new jobs and emerging opportunities is recognised as important in many stimulus plans. Some countries even choose to put this at the heart of their recovery plans (e.g. the United Kingdom, Germany). Next to investments in the child-care facilities, schools, and university infrastructures (see section on Investing in Infrastructure), countries are mostly focussing on encouraging firms to retain and train their staff and to recruit new employees. Such measures are often closely related to helping SMEs or fostering entrepreneurship.

41. Improving education facilities is key in many recovery plans. Amongst others, Australia, Austria, Canada, Germany and Norway propose to renovate and build new schools and universities (e.g. Austria about EUR 200 million, Norway about NOK 470 million and Canada about CAD 1 billion in both 2009 and 2010). Australia has put up AUD 14.7 billion long-term investment to improve infrastructure in its primary and secondary schools. The United States stimulus package proposes new funding for local school districts, a new School Modernization and Repair Program, an Education

Technology program, to improve higher education (student aid, improving teacher quality) and expand fellowships for science. In countries such as Germany there is an ongoing debate how money should be divided between investments in school buildings and teachers. Hungary has launched new training programmes for teachers with a resource frame of EUR 70 million. Spain is creating new school places for children under three years.

42. Some European countries take the crisis as a starting point for reinvigorating plans to reform their higher education institutions- e.g. Spain, with the University Strategy 2015, or Portugal. The EU is proposing a European employment support initiative, including a reinforcement of schemes for the low-skilled, more counselling, intensive (re-)training and up-skilling of workers, apprenticeships, subsidised employment as well as grants for self-employment, and business start-up. The "New Skills for New Jobs" initiative aims to ensure a better match between skills and labour market needs. In the United Kingdom, the automotive package includes specific support for training. Austria is supporting companies in creating new jobs with EUR 80 million, for 2009 and 2010, and supporting qualifying measures and human capital with EUR 70 million. Over the same period, Germany will put EUR 2bn in training (in particular for those on part-time work, or vulnerable groups) and in improving the staffing of the employment agency. Some support to individuals' investment in education could also be considered. In particular, the backing of student loans might be necessary to prevent a decrease in investment in education. Specific measures in support of student loans have already been introduced by the Federal Reserve Board of the United States. Starting from 2009 Korea will introduce a comprehensive education fee support system in order to enable the integrated provision of tuition, meal fees, after school program tickets and communication expenses for students from low-income households.

Helping youth in their transition from school to work

43. Even in good times, the youth unemployment rate is two to three times that of adults in many countries. Some youth – often with low skills and from ethnic minorities – become disconnected from the labour market. The key priority in the short-term should be to minimise the increase in the number of youth trapped in unemployment or become disconnected from the labour market. Early evidence from this downturn confirms the significant vulnerability of youth, and in particular the low-skilled and inexperienced ones. The key priority in the short-term should be to minimise the increase in the number of this hardcore group of youth, who are at risk of losing effective contact with the labour market and permanently compromising their employment prospects and earnings capacity. For example, subsidies for apprenticeship contracts for unskilled youth, and promotion of second-chance schools could help reduce risk that they will enter the labour market without qualifications.

Managing labour migration issues during the crisis

44. Evidence from past experience, but also from the countries that have been hit first by the current economic crisis, shows that migrants are more vulnerable to economic shocks, with important repercussions for remittances to home countries. Concerns in terms of the integration of immigrants, particularly recent immigrants and

displaced migrant workers from declining industries, should therefore be fully integrated into the labour-market components of stimulus packages, and existing integration programmes should not be scaled back. Management of labour migration should be sufficiently responsive to short-term labour market conditions, without denying the more structural needs for both high-skilled and low-skilled foreign workers in a context of ageing populations and workforces in many OECD countries.

Ensuring cost-effective investment policies: selected key drivers of sustainable long term growth

Infrastructure investments[4]

45. Most OECD and non-OECD economic stimulus packages contain a focus on improving the national infrastructure (mostly through public works). The targeted infrastructure includes roads, railroads, public transport, airports, water and sanitation, child-care facilities, schools and universities, hospitals, energy networks and security, and broadband communication infrastructure. Some of these projects are to be run as infrastructure in partnership with provinces and municipalities.

Specific measures

46. The United States will be devoting USD 30 billion for highway construction; USD 31 billion to modernize federal and other public infrastructure with investments that lead to long term energy cost savings; USD 19 billion for clean water, flood control, and environmental restoration and other measures, as well, as for example, USD 32 billion in electric power upgrades. Japan is giving a subsidy to municipalities of JPY 4 billion to repair and quakeproof public facilities. The EU has proposed to modernise its infrastructure with a focus on trans-European energy interconnections and broadband projects, mostly through the frontloading of existing budgets. Germany has announced EUR 18 billion for infrastructure, mostly educational infrastructure (child-care facilities, schools, and universities), hospitals, transport, and information technologies. Canada has allocated close to CAD 12 billion in new infrastructure stimulus funding, including investments in roads, bridges, green infrastructure, broadband and post-secondary institutions.

47. Most of these infrastructure investments have a resource efficiency and sustainability objective. For instance, the construction of more energy-efficient buildings is fostered, along with retro-fitting and updating of public buildings and schools. In many plans, the construction of roads and public transport is expected to lead to reduced traffic congestion and gas consumption.

48. Educational infrastructure can also be an important element of public investment to support demand. For example, many countries are facing considerable challenges regarding school buildings. There is an opportunity to renovate the school infrastructure using ecologically-friendly criteria. Investment in ICT (in schools and families) can also support education and training. Renovating school infrastructure

4 The information in this section are drawn from “Policy responses to the economic crisis: Preliminary results of a questionnaire”, OECD, forthcoming.

also offers opportunities for developing more innovative and effective learning environments.

49. The effectiveness of infrastructure spending is particularly hard to gauge. One advantage often cited in favour of infrastructure policies is that public investment has a high growth multiplier effect, both with regard to the short-term and the long-term. High speed communications networks can help improve the efficiency of a wide range of sectors in the economy while enabling traditional infrastructure investments (e.g. buildings, roads, electricity transmission) to be "smart" and thereby more energy efficient and flexible. On the other hand, some infrastructure investment typically entails long implementation lags. Moreover, overprovision of infrastructure poses sometimes a risk, while having a good regulatory environment is also important including to ensure that infrastructure investment are consistent with, or at least do not run counter to, other policy objectives such as development of a low-carbon economy.

Policy recommendations

50. All in all, the magnitude of the current downturn is likely to have reduced these concerns somewhat, both because it appears that political decision-making can be more rapid during a period of crisis and because the downturn is expected to last a number of years. The following recommendations should be taken into account:

- Include suitable projects that will increase the efficiency of resource and energy use, and contribute to the long-term environmental sustainability of the economy. It is important to undertake appropriate environmental impact assessments of measures included in the economic stimulus packages.
- Focus on projects which are "shovel ready", notably those aimed at stated policy goals and advanced enough in planning to be implemented quickly and effectively. Priority should be given to modern projects with a greater potential to raise long-term, green growth. A period of crisis does not lend itself to complex investment projects which typically require careful and lengthy planning.
- Target expenses to idle resources, notably vulnerable groups such as low skilled youth, women and older workers, who are at greater risk of falling into unemployment trap (see below). This will help to minimise exclusion, avoid crowding out and combat the depreciation of skills that often comes with unemployment.
- To the extent possible, use existing programmes and agencies to distribute the spending but make sure that they are equipped for the task. Regional agencies can be used as a vehicle to reach actors that cannot be reached by national agencies and programmes.
- Available evidence suggests that an integrated policy approach, combining different types of investments, both in hard and soft infrastructure, such as skills and other innovation-related assets has a better chance of enhancing the

impact of investments, fostering innovation and generating sustainable productivity gains.[5]

51. In addition, infrastructure policy can be used as a vehicle to tackle the 'systemic needs' of the innovation framework.

- Notably, high speed broadband networks can underpin new economic activities, have widespread economic productivity benefits and support many social goals. They are also needed as complementary investment to other infrastructure such as roads and the electricity grid. Investment in this area should be accompanied by regulatory frameworks which support open access and competition.

- One means to improve the quality of service and achieve greater choice in the market place is to ensure that networks built or augmented using any public funding are available via "open access" rules, with network providers offering access or capacity to all market participants at cost-based, non-discriminatory terms.

Ensuring a green recovery

52. As indicated above, many of the investments in infrastructure in the stimulus packages are directed towards increasing public investments in energy efficiency of buildings, public transport, renewable energy networks, more efficient water treatment supply and sanitation, as well as infrastructure to prevent flooding, and other environmental risks and degradation. These can contribute to increased environmental quality, and seize the opportunity of the crisis to spur public infrastructure investment to contribute a low-carbon economy. Other green elements are also included in the packages including, in particular, support for research, science and pilot projects, as well as tax incentives given to households to improve their energy efficiency. However, the share of "green" elements in the stimulus packages varies significantly between countries.

Specific measures

53. A considerable part of the Korean stimulus package is focused on green technologies ('Green new deal') and related new "growth engines". With the new programme, the government hopes to create nearly one million jobs over the next four years, mainly in environmentally focused construction projects and other "green" programs. Japan pledged to create one million new jobs through green infrastructure initiatives. The promotion of energy-saving and new energy technologies (e.g. next-generation solar power) as well as tax measures that encourage green investment or the purchase of green products (e.g. cars) rank high in these plans. Australia is including insulation for 2.7 million homes in its second economic stimulus package.

5. The meeting of the Territorial Development Committee Policy at Ministerial level which took place on 31 March 2009 highlighted the need for an integrated and coordinated approach to public investment in infrastructure, especially in the context of the crisis. The chairs summary is available at www.oecd.org/regional/min2009.

54. The EU stimulus plan includes calls on member states to improve the energy efficiency of the housing stock and public buildings and promote the rapid take up of "green" products. A fund for energy, climate change and infrastructure projects is planned. Innovative financing models shall be elaborated. Performance requirements for products and measures to promote other green products shall be a priority. EU public-private partnerships for green technologies aim to contribute developing the incentives for investment in green growth paths. Norway's package includes new and increased allocation for environmental purposes by NOK 1.6 billion. This comprises measures and increased funding for more effective energy utilisation, the development of carbon capture technologies, charging stations for electric vehicle. Norway has also announced investment in thermal renovation of public buildings and support for the same case to private households (worth EUR 250 million in 2009 and 2010). Sweden is proposing loan guarantees that are directly linked to supporting more environmentally-friendly production systems. Poland is developing financial mechanisms to support investments in renewable energy sources despite the increased risk, i.e. by mid 2010 a related fund will include approxately PLN 1bn.

55. The Canadian government announced CAD 1 billion in spending over five years for green infrastructure initiatives, such as projects with a focus on the creation of sustainable energy. Canada will provide CAD 300 million over two years to the eco-ENERGY Retrofit program to support additional home retrofits. The US package plans to reduce the dependence on oil, doubling renewable energy production, renovating public buildings and a transformation of the US energy transmission, distribution, and production system ("smart grid"). Modest-home incomes shall receive aid to weatherize their homes. In Mexico, the recovery measures include financing to help poor families buy more energy-efficient electrical appliances.

56. Many OECD governments consider support of their automobile industry a priority (e.g. Canada, France, Germany, Italy, Japan, Portugal, Spain, United Kingdom and United States) but, further to remaining temporary, this aid should be tied to the condition of the development of more environmentally friendly, lower emission vehicles. Similarly, investments or measures to support energy or transport systems, such as in road transport or fossil-fuel based energy production or consumption, should be carefully examined for consistency with environmental objectives.

Policy recommendations

57. The economic slowdown should not be used as an excuse to weaken efforts to achieve long-term, low-carbon and environmentally sustainable economic growth. Delaying action could be costly. For example, recent OECD work on climate change shows that ambitious policy action to address climate change makes economic sense. Furthermore, it is likely that the initial actions taken to implement a post-2012 international climate agreement will be relatively low cost, with the costs increasing

over time as more ambitious actions are needed and most likely only once the economy is on the mend.[6]

58. Investments in energy production, buildings and transport infrastructure stay with us for decades. It is thus important to ensure that:

- economic stimulus packages do not lock-in inefficient or polluting energy technologies or dirty modes of production and consumption;
- infrastructure investments help to bring forward the construction of clean alternatives, such as public transport systems, renewable energy production or distribution systems, Carbon Capture and Storage (CCS) facilities.
- investments help to upgrade existing systems, in order to increase the efficiency of resource and energy use, for example upgrading or replacing old water supply and sanitation systems and pipes, and increasing the energy efficiency of buildings and transport.

59. The crisis also offers opportunities to reform or remove expensive and environmentally-harmful policies, benefitting both the environment and also the economy. Some of the immediate win-win policies include:

- removing subsidies to fossil fuel-based energy production and consumption (particularly prevalent in some emerging economies and developing countries).
- cutting trade barriers to climate-friendly goods (e.g. on low-energy light bulbs).
- addressing market failures that prevent improvement of energy efficiency of buildings (e.g. through building codes and household electric appliance standards).
- assessing carefully policies to support renewables, to ensure they are cost-effective. OECD analysis suggests that some current support policies for biofuels production cost as much as USD 1000 per tonne of CO_2 reduced – a very high cost for achieving these emission reductions.[7]

60. Putting a price on carbon emissions and other negative environmental externalities provides a critical incentive for the development and diffusion of greener technologies. Investors need a clear and credible price signal now to make the appropriate investment decisions for a greener future. At the same time, implementing environmental taxes, can be an important source of new revenues or an opportunity to reduce other taxes, such as on employment, as government move towards greater

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6 See, for example: OECD (2009), "Climate Change: What do we do?" for analysis of the costs of climate change policies and the consequences of inaction, and OECD (2008) *Costs of Inaction on Key Environmental Challenges,* on the economic and social costs of delaying action across a range of environmental challenges.

7 See: OECD(2008), *Biofuel Support Policies: An Economic Assessment.*

fiscal sustainability in the future.[8] As governments evaluate their policies to address climate change in the lead-up to the December 2009 Climate Change Conference in Copenhagen, they should consider carefully market-based approaches -- such as carbon taxes and emission trading systems with auctioned permits -- that can both provide a clear signal to reduce greenhouse gas emissions, incentivise green innovation, and help to raise revenues. Governments will also have to share the risk of new technologies with the private sector. Public R&D policies are particularly important now, when the private sector may have more difficulty making such investments.

61. Partnerships between the private sector and governments will be critical in moving towards a low carbon economy. This will include public-private collaboration on large-scale R&D projects, and investment in the necessary infrastructure to power a low-carbon economy and to adapt to the climate change that is already locked in. In the energy sector, public R&D has been falling since the early 1980s. This is one area where public spending could be increased.[9]

- International co-operation should be strengthened to address global problems, such as climate change, and can also help mitigate competitiveness concerns by levelling the playing field.

- Any policies aimed at compensating business for the loss of international competitiveness should seek to maintain an incentive at the margin for the polluters/sectors involved to reduce the environmental impact of their activities.

- To improve the diffusion of available eco-innovations and promote global economic growth, barriers to trade in climate-friendly technologies, goods and services should be removed.

- Coherent information, guidance and standards can help companies better understand their environmental performance and the technological solutions available to improve it. This could also stimulate innovation in industries that produce these technologies.

R&D and innovation

62. The evidence available suggests that the downturn has already begun to undercut innovation in the private sector. This is in part because investment in innovation is essentially pro-cyclical, as it is mainly financed from cash flows. Indeed, venture capital spending and patent filings are sharply down. The lower price of oil

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8 The *OECD Framework for Effective and Efficient Environmental Policies* (2008) points to these and other opportunities for improving the integration of economic and environmental policy objectives.

9 A recent report *Environmental Policy, Technological Innovation and Patents* provides empirical evidence of how government policies best incentivise environmentally-friendly innovation in a number of areas, including renewable energy technologies. Further case studies in 2009 analyse the innovation impacts of environmental policy instruments being applied to address, *e.g.* water scarcities, air pollution and climate change.

and raw materials may also reduce the immediate pressure to fund innovation in green technologies.

Specific measures

63. In order to counter these pressures, investments in R&D and innovation are a priority in many economic stimulus packages. In principle, these measures consist of formulating and adhering to R&D spending targets (including increases in R&D funding, or measures for specific research areas, and investments in R&D infrastructure), stimulating private R&D investments (including through R&D tax credits, public procurement), measures for SMEs, and, e.g. measures for R&D employment and skills and innovation. It also includes non-regulatory measures to spur certain innovations, e.g. in the area of life sciences or green technologies but also institutional issues such as public-private collaboration and knowledge transfer, and international coordination. One relevant example is the launch in 2009 of the EU's public-private partnerships for a total of EUR 3.2 billion for research on European green cars, energy-efficient buildings and factories of the future, all of which entail green technologies.

64. In addition, the EU has urged its member states to increase planned investments in education and R&D (consistent with national R&D targets) and consider ways to increase private sector R&D investments, for example, by providing fiscal incentives, grants and/or subsidies. The EU is also encouraging a reduction of the fees for patent applications and maintenance of up to 75%. Finland has announced that it will hold to its target to extend R&D expenditures up to 4 % of GDP, Norway has proposed that more than NOK 1.8 billion will be allocated in direct grants for R&D and innovation, and Sweden has allocated SEK 5 billion increased funding for university R&D and SEK 3 billion for public R&D institutions. Germany has pledged to put EUR 900 million at disposal for R&D in medium-sized enterprises in 2009 and 2010. EUR 500 million are planned to foster the development of hybrid and other clean car technologies. Hungary is focusing on maintaining R&D employment, to prevent brain-drain and interim unemployment of skilled R&D personnel (including support for re-employment by innovative SMEs) at a cost of about EUR 6 million.

65. Spain also targets to strengthen public investment on R&D (e.g. through tax credits, promoting investment in R&D in association with public procurement). The measures also have an emphasis on human resources and their advanced training, a focus on improving the transfer of research results (in particular with the business sector) and a focus on spurring institutional developments, e.g. establishing R&D consortia among scientific institutions, including the launch of new laboratories and international cooperation. France and Portugal are providing incentives through R&D tax credits as is Belgium.

66. Japan has pledged to allocate funds to research in advanced and innovative technologies such as stem cells and regenerated cells. Establishing a regulatory reform capable of contributing to business creation in the life sciences sector is part of this plan. Korea has formulated 17 new national growth engines and support to associated

research: six projects in green technology industries[10]; six in state-of-the-art fusion industries, such as IT fusion systems, robot applications, and biomedicines; and five in high valued-added industries, including healthcare, education services and the tourism industry. It also announced a "Green New Deal" which will involve "R&D Projects for Green Technologies" (see section on Green technologies)[11].

67. Canada is planning CAD 750 million for updating the research infrastructure and an additional $250 million over two years to address deferred maintenance at federal laboratories. The United States is planning to increase employment of scientists and making R&D investments. Significant stimulus packages are announced with an increase in funding for key science agencies such as the National Science Foundation (USD 3 billion, including for fundamental science and engineering to meet environmental challenges), the National Institutes of Health Biomedical Research (USD 2 billion), improving university research facilities for biomedical research and granting research grants to the Department of Energy.

Policy recommendations

68. Recovery packages should include policy measures that will explicitly mitigate the negative impact of the financial crisis on the level and orientation of innovation activities. As discussed above, infrastructure policy can also be managed with a view to generate positive spill over effects on innovation activities. Furthermore, the crisis magnifies some widely acknowledged market failures in innovation funding, thus offering an opportunity to eliminate gaps in this particular area. In addition, the crisis has revealed the importance to reduce the existing high dependence of R&D funding on cyclical conditions.

- Address the barriers that limit the emergence and growth of new innovative firms as these are the most directly affected by the crisis, notably in helping them gain access to capital. Design new measures to support business innovation so that they are counter-cyclical, e.g. in using competitive grants instead of tax incentives, and ensure they have the least deadweight loss and do not distort market forces.

- Consider the use of public-private partnerships to enhance the resilience of investments in R&D over the business cycle. One way to achieve this could be through adjusting the balance between public and private sources of funding over the cycle. Mechanisms of cooperation can also be used with a view to facilitate the access to government funds by new and small players, thereby reducing the risks of capture by 'strong players'.

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[10] Including new renewable energies, low-carbon energies, LED (light-emitting diode) applications, and green transportation systems

[11] The government will inject more than 6.3 trillion won to implement the R&D projects over the next four years, while increasing the ratio of investment in basic research into original technologies from 17 percent (150 billion won) in 2007 to 35 percent (700 billion won) by 2012.

- Use open and competitive public procurement to support R&D, especially where this contributes to solving social challenges, e.g., mobility, energy, or health.

- Consider how new regulations of financial markets in response of the crisis will influence the incentives for risk-taking behaviour, a key driver of innovation. This includes regulations related to venture capital markets and to the securitisation of innovation-related assets (e.g. intellectual property).

SMEs and entrepreneurship[12]

69. Many stimulus packages include policy measures targeting small and medium-sized enterprises (SMEs). Results from an OECD questionnaire indicate that SMEs have been hit very hard by the initial credit crunch, with banks having tightened their credit terms, raised interest rates and demanded higher quality collateral or increased security. There are indications that, by favouring the strongest clients, banks are contributing to a polarisation of credit among SMEs. Korea, for example, reports that lending to blue-chip SMEs has increased, whereas lending to SMEs with poor credit ratings has deteriorated. Some countries also reported significant delays in loan processing.

70. In such a difficult context, SMEs have become very cautious and are cancelling or delaying new investment. The situation has been amplified by worsening demand conditions. SMEs are cutting current spending including through lowering wages and wherever possible, deferring payments. Problems are particularly pronounced in the export sector, and for SMEs involved in specific segments of the value chain – for example in the automobile sector. In 2008, insolvencies in Europe increased by 11 per cent.

Specific measures

71. Most OECD governments have already resorted to public capital injections to deal with bank liquidity problems, which should in principle also result in some relief for SMEs. In addition, several governments have adopted more targeted measures for the SMEs. In Austria, Finland, France, Germany, Hungary, Italy, Japan and Spain, for example, banks have received additional public funding to help small businesses and entrepreneurs. In most of these countries, SMEs also benefit from targeted loan guarantee programmes. In addition, Canada and Spain have increased the capital for their SME agencies, while Finland and Hungary have direct measures to increase government funding of venture capital.

72. Some countries, such as Australia, Austria, Denmark, France, Germany, New Zealand, Spain, Sweden and the United Kingdom have tax measures intended to

[12] In order to form a complete picture of SME and entrepreneurship financing measures under implementation, the CFE Secretariat sent a questionnaire in January to all Member countries, observers and emerging economies inviting information on the programmes in place or planned. So far 27 countries and the European Commission have responded to the questionnaire. The information gathered will be analysed in the Issues Paper for the upcoming Round Table on the Impact of the Global Crisis on SME and Entrepreneurship Financing, which will be held in Turin, Italy on 26-27 March 2009.

alleviate cash flow problems. These include tax reductions (VAT, corporate taxes) or delayed payment; accelerated depreciation; faster VAT refunds (monthly vs. annually); and tax incentives/grants for R&D.

73. Other countries have employment plans that allow SMEs to limit lay-offs. Australia and New Zealand have reinforced their business development services using the internet to provide some guidance to SMEs how to deal with the crisis. France has created a "Credit Mediator", who is working with regional representatives of the Central Bank, to assist SMEs in their dealings with their banks. So far, 69 per cent of the SMEs seeking the help of the credit mediator do so in order to access short term finance. 94 per cent of those seeking help are micro-enterprises. Further to targeted measures, most OECD countries propose a simplification and speeding up of administrative procedures, regarding public procurement and tendering rules. They have also ordered all government agencies to pay suppliers, including SMEs, promptly.

Policy recommendations

74. It is important for SME assistance to be fully and rapidly implemented. Given that the impacts of public expenditure programmes will take time to trickle down, governments could ensure that some of their procurement programmes are tailored to reach SMEs and devote special attention to SMEs' procurement opportunities and favourable payment conditions.

75. Governments could consider special measures to maintain the cash flow of SMEs through such measures as deferred payments, accelerated depreciation, tax reductions, etc. Governments could also consider measures to make sure that trade finance is available to SMEs.

76. Governments could also envisage measures to shelter SMEs from a possible worsening of payment delays, such as when they are victims of hoarding behaviour on the part of their clients and suppliers. Ways to make bank and credit institutions responsive to these problems could be considered. In addition, factoring programmes can be used as a financial tool to contribute to SMEs' liquidity in case of payment delays.

77. Building on the immediate stabilising effects of public capital injection and tax reliefs, governments could take steps to encourage private-sector capital injections. One option to consider could be creating risk-sharing schemes that would reduce the risk associated with investment by SMEs and especially innovative potentially high growth start-ups. They could also consider measures that would improve exit opportunities for private equity and venture capital investors. Governments could also consider complementing venture capital initiatives with some public funding.

78. The creation of new business opportunities and the reallocation of resources from declining activities towards emerging ones should support a sustainable recovery. Government plans should not hamper this reallocation process and facilitate structural change. In this regard, several policy avenues can be considered to encourage entrepreneurship:

- Reducing the administrative cost of creating a new company; reducing the barriers to growth of small companies, for example by providing access to public procurement (like the US Small Business Act); or developing micro-credit for the myriads of "necessity-driven" entrepreneurs (*e.g.* through certain forms of loan guarantees to banks).

- Supporting the development of managerial skills, in particular with regard to intellectual assets.

- Addressing the social effects of industrial renewal, *e.g.* through activating social policies, support for training, including education to entrepreneurship, and the development of networks to exchange information and knowledge.

- Combating risk aversion by reducing the cost of failure: bankruptcy laws can be made less punitive to entrepreneurs in certain countries; more favourable conditions for the survival and restructuring of ailing businesses (instead of quasi-automatic bankruptcy) should be considered.

- Preserving market competition and avoiding protectionist measures that undermine efficiency and innovation.