

OECD Regional Development Working Papers 2011/05

Multi-level Governance of Public Investment: Lessons from the Crisis

Dorothée Allain-Dupré

https://dx.doi.org/10.1787/5kg87n3bp6jb-en

OECD

OECD REGIONAL DEVELOPMENT WORKING PAPERS

This series is designed to make available to a wider readership selected studies on regional development issues prepared for use within the OECD. Authorship is usually collective, but principal authors are named.

The papers are generally available only in their original language English or French with a summary in the other if available.

The opinions expressed in these papers are the sole responsibility of the author(s) and do not necessarily reflect those of the OECD or the governments of its member countries.

Comment on the series is welcome, and should be sent to either gov.contact@oecd.org or the Public Governance and Territorial Development Directorate, 2, rue André Pascal, 75775 PARIS CEDEX 16, France.

OECD Regional Development Working Papers are published on
www.oecd.org/gov/regional/workingpapers

Applications for permission to reproduce or translate all or part of this material should be made to: OECD Publishing, rights@oecd.org or by fax 33 1 45 24 99 30.

© OECD 2011

ABSTRACT

Over 2008-11, most OECD countries switched from highly expansive fiscal policies to the tightest in decades. During the crisis and subsequent recession in 2008-09, many OECD and G20 countries implemented stimulus packages, which in some cases amounted to 4% or more of GDP. On the expenditure side, the fiscal programmes typically focused on public investment. Given their large traditional role in public investment in OECD countries, sub-national governments (SNGs) have played an important role in implementing investment recovery strategies. For future investment strategies it is important to learn about obstacles encountered *across levels of government* and the instruments that facilitated implementation. The crisis has made more obvious the multi-level governance challenges – in particular fiscal, policy, capacity or administrative challenges – that are inherent to decentralised political systems. Co-ordination across levels of government has proven critical for targeting investment priorities, ensuring coherence in fiscal policy and facilitating the implementation of national strategies during the crisis. As stimulus packages are phased out, many countries are planning some combination of spending cuts and tax increases in 2011-12. To avoid simply shifting the problem from the centre to the regions, co-ordinated efforts from all levels of government are required to accommodate appropriate budget cuts for fiscal consolidation and better prioritise investment in what unlocks each region's potential to restore growth. Both the stimulus and the process of fiscal consolidation highlight the need to foster and improve policy co-ordination, transparency and information sharing across levels of government.

JEL classification: H5, H6, H7, R1, R5

Key words: Public investment, crisis, multi-level governance, sub-national governments, fiscal consolidation, growth, regional development

Full version of the report

This Working Paper relies primarily the OECD report: "*Making the most of public investment in a tight fiscal environment: multi-level governance lessons from the crisis*", which draws heavily on the eight case studies developed for the project (Australia, Canada, France, Germany, Korea, Spain, Sweden, and the United States). The OECD report was first discussed in the *Territorial Development Policy Committee* of the OECD in December 2010 and updated by countries in early 2011.

The full version of the report, that contains the detailed country chapters, is available as an OECD publication.

To order the publication, please check the OECD web site: *www.oecd.gov/regionaldevelopment* or the following link: *www.oecd-ilibrary.org*.

TABLE OF CONTENTS

Introduction 7
1.1. Sub-national governments: key implementers of public investment during the crisis 7
1.2. Managing public investment across levels of government: key challenges 15
1.3. Overcoming obstacles to implementation: the need for co-ordination 26
1.4. Making the most of public investment in times of austerity 40
BIBLIOGRAPHY 60

Tables

Table 1. Measures adopted by central governments to support sub-national public investment 13
Table 2. Targeted policy areas/territories for investment funding during the crisis 16
Table 3. Total investment funding allocated across levels of government 19
Table 4. Mutual dependence across levels of government: multi-level governance challenges/gaps in OECD countries 21
Table 5. Challenges of excessive centralisation or decentralisation in implementing national investment strategies 27
Table 6. Reduced central government financial support to sub-national governments (2011-12) 43

Figures

Figure 1. Gross fixed capital formation 8
Figure 2. Gross fixed capital formation (OECD average) 9
Figure 3. SNGs as a share of total public investment, 2008 9
Figure 4. SNGs' capital expenditure as a percentage of GDP (2009) 10
Figure 6. Fiscal consolidation strategies in OECD countries: major programme measures – frequency 41
Figure 7. State budget shortfalls in the United States (March 2011), million USD 42
Figure A.1. Sub-national governments' capital expenditure per capita, 2008 56
Figure B.1 Capital expenditure in regions (TL2) as percentage of GDP (latest available year) 57
Figure C.1. Electricity, gas and water 58
Figure C.2. Transport, storage and communication 58

Boxes

Box 1. How do regions grow? 11
Box 2. Stimulus plans in OECD countries in 2008-09 11

Box 3. Green measures in investment stimulus packages....12
Box 4. Main obstacles and co-ordination challenges or gaps in the implementation of investment strategies across levels of government (September 2010)....22
Box 5. Performance monitoring for investment projects financed by the Department of Transportation (DOT) in the United States under the ARRA programme....26
Box 6. Co-ordination across levels of government during the crisis: answers to the OECD questionnaire to European state territorial representatives....28
Box 7. How to limit costs and maximise benefits of co-ordination?....29
Box 8. The role of the COAG in Australia in the governance of the crisis....30
Box 9. Cohesion policy in the European Union Recovery Plan....32
Box 10. Anti-crisis tools: acceleration of national investment strategies in Canada and Brazil, with well-defined MLG arrangements....33
Box 11. The increased use of PPPs during the crisis....36
Box 12. The use of Public Private Partnerships (PPPs) at sub-national government level: the need for prudency....36
Box 13. New budgeting practices for monitoring the use of funds under Australia's recovery plan....38
Box 14. Government websites with detailed territorial information on the use of funds....39
Box 15. Fiscal consolidation strategies at the national government level in OECD countries....41
Box 16. Examples of multi-level governance reforms adopted in OECD countries in the wake of the crisis....48
Box 17. Overview of current investment strategies in selected OECD and G20 countries (in 2010)....49

Introduction[1]

OECD countries and regions currently face a narrow path to long-term growth, given uncertainty in the global finance system, instability in sovereign debt markets, pressure on public sector budgets, and persistently high levels of unemployment. In September 2010, 50 million people were still unemployed in OECD countries. The right policy mix and trade-offs are difficult to find, and there are no easy solutions. The current economic situation is evolving rapidly and calls for agility in policy action. The priority of many OECD countries is to restore fiscal sustainability and trust. The average debt level in OECD countries is expected to peak at 100% in 2010, with some countries moving well beyond this figure.

At the same time, it is crucial to secure long-term growth through appropriate investment, in particular for innovation and green growth. Sufficient "fiscal space" for key public expenditure programmes that support economic development, including public investment, is essential, even when government budgets are tight (OECD, 2010). Given that sub-national governments (SNGs) in OECD countries make more than two-thirds of all capital investment, investing for growth depends crucially on actions at the regional and local levels. This shows the need for proper co-ordination across levels of government.

Over 2008-11, most OECD countries switched from highly expansive fiscal policies, sometimes with a renewed focus on public investment, to the tightest in decades. Countries and regions therefore have to make the most of public investment. Many OECD and G20 countries implemented strategies to invest in infrastructure as part of their 2008-09 stimulus packages. Although the strategies were designed at the national level, sub-national governments played a key implementing role. For future investment strategies it is important to learn about obstacles encountered across levels of government and the instruments that facilitated implementation during this turbulent period.

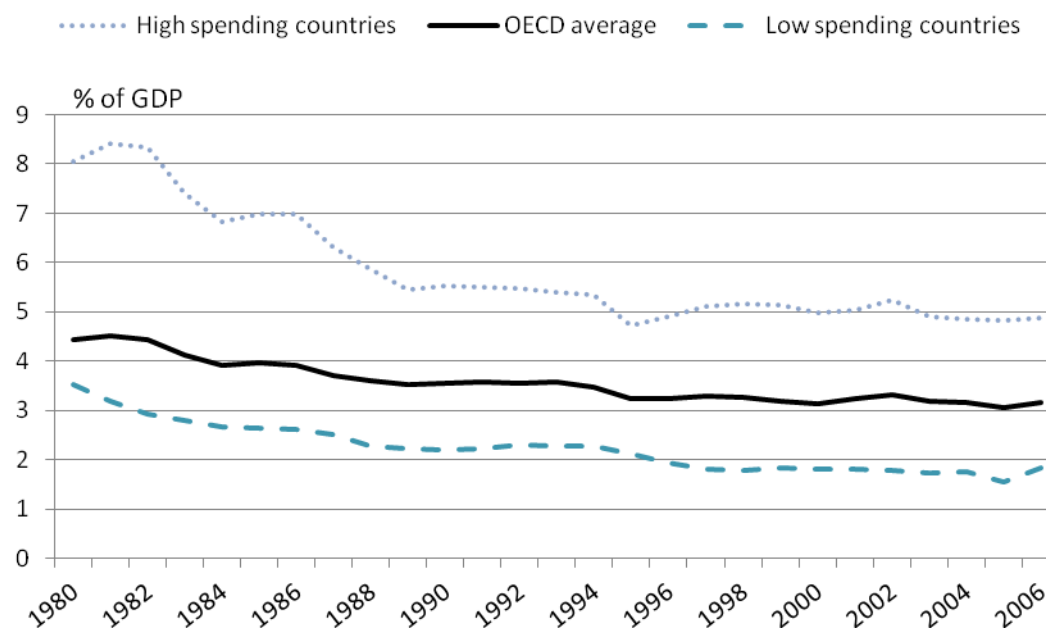
This paper first explores the renewed role of public investment during the crisis and the key role played by SNGs. It then looks at the degree to which investment strategies were implemented and the various challenges faced. The governance instruments mobilised or set up to overcome these difficulties are then discussed. A final section draws lessons in a longer-term perspective, focusing on the current context of fiscal consolidation and identifying guidelines for the governance of public investment.

1.1. Sub-national governments: key implementers of public investment during the crisis

1.1.1. Relative decline of public investment in OECD countries in the past decades

Since the early 1980s, public investment had slightly declined as a share of GDP in OECD countries (Figure 1). The decline was more pronounced in countries such as Japan, Austria and Switzerland. Generally, the rate of gross fixed capital formation (GFCF) in the energy and water supply sectors has declined continuously since the 1970s, falling on average from around 1.5% of overall GDP to below 1% of GDP (Sutherland *et al*., 2009). Over the past two decades, the investment rate has been falling in energy, water and transport in most OECD countries. More recently, investment in the telecommunication sector has been growing rapidly in all OECD countries (ibid, 2009). These trends reflect a decrease in infrastructure investment, as most OECD countries already have well-developed infrastructure and now focus on maintenance. They also reflect a change in investment from infrastructure to intangibles[2].

Figure 1. Gross fixed capital formation



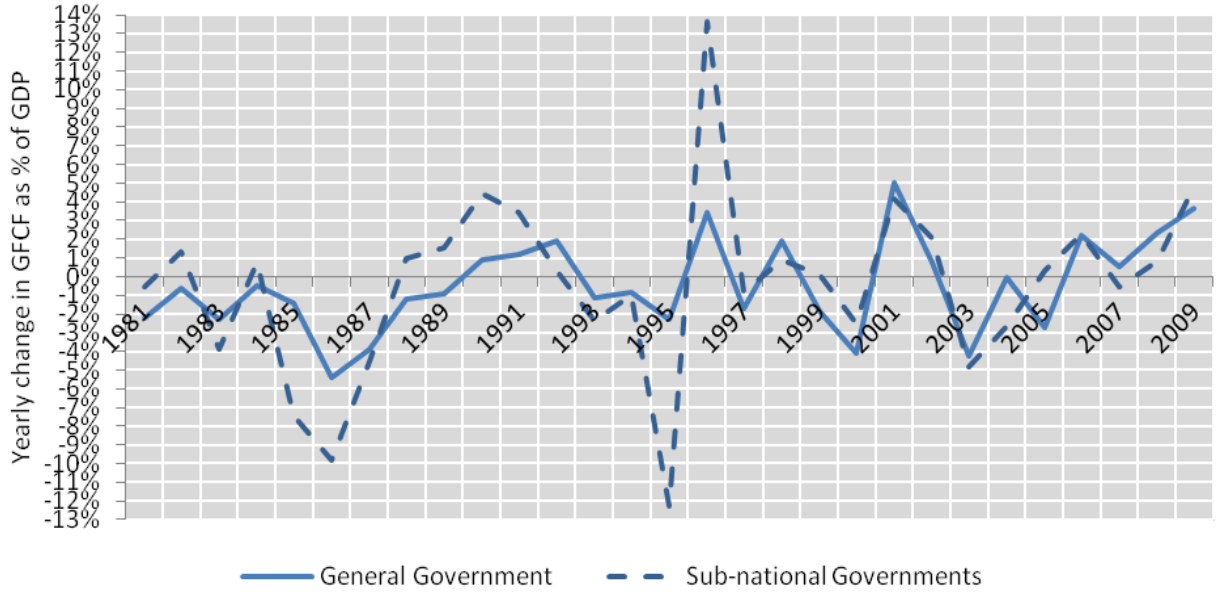
Note 1: The series for high and low public spending are the means of public gross fixed capital formation as a share for GDP for five countries, which on average over the period had the highest or lowest public investment rates. The high-spending countries are Japan, Korea, Mexico, New Zealand and Turkey. The low spending countries are Australia, Belgium, Denmark, Germany and the United Kingdom.

Note 2: It is difficult to compare the rate of public-sector investment across countries, given differences in the scope of governments.

Source: OECD National Accounts in Sutherland, D. *et al.* (2009), "Infrastructure Investment: Links to Growth and the Role of Public Policies", *OECD Economics Department Working Papers*, No. 686, OECD Publishing.

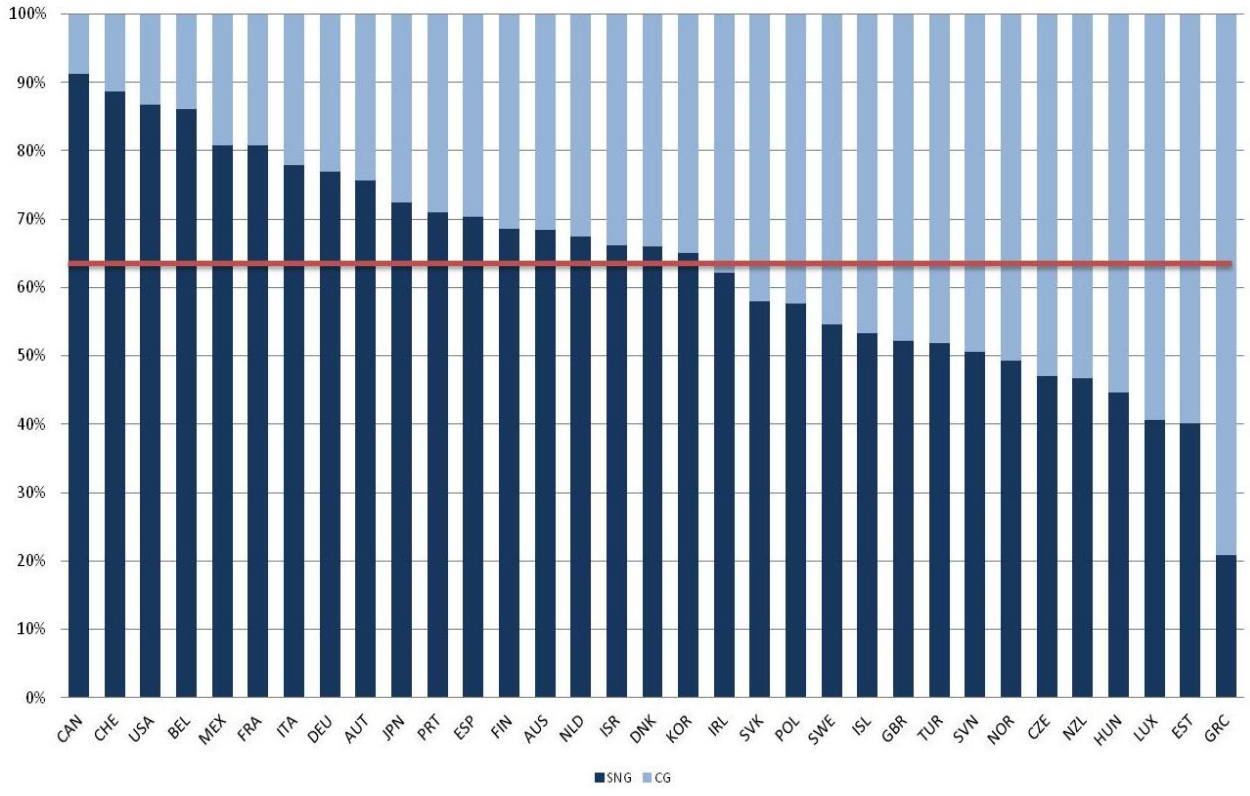
Compared with national government investment trends, the decline of capital expenditure[3] at sub-national level has been more limited. However, public investment[4] was more volatile in sub-national governments than in the general government, at least until the mid-1990s (Figure 2). SNGs play a critical role in public investment in OECD countries, as they are responsible on average for 66% of OECD gross fixed capital formation spending[5] (Figure 3) and around half of total capital expenditure.[6] This represents for the year 2009 2.4% of OECD GDP on average, which is higher than the OECD average for research and development (R&D) expenditures (2.3%) and is equivalent to total public and private OECD expenditures for primary and lower secondary education. Spain, Korea, Poland and Ireland have the highest share of sub-national capital spending on GDP and Greece and Denmark the lowest. The amount of public investment per person also varies greatly among regions in the same country.[7] There are also significant variations among regions in the sectoral breakdown of sub-national capital expenditure (Annexes A and B provide more details for a limited sample of countries).

Figure 2. Gross fixed capital formation (OECD average)



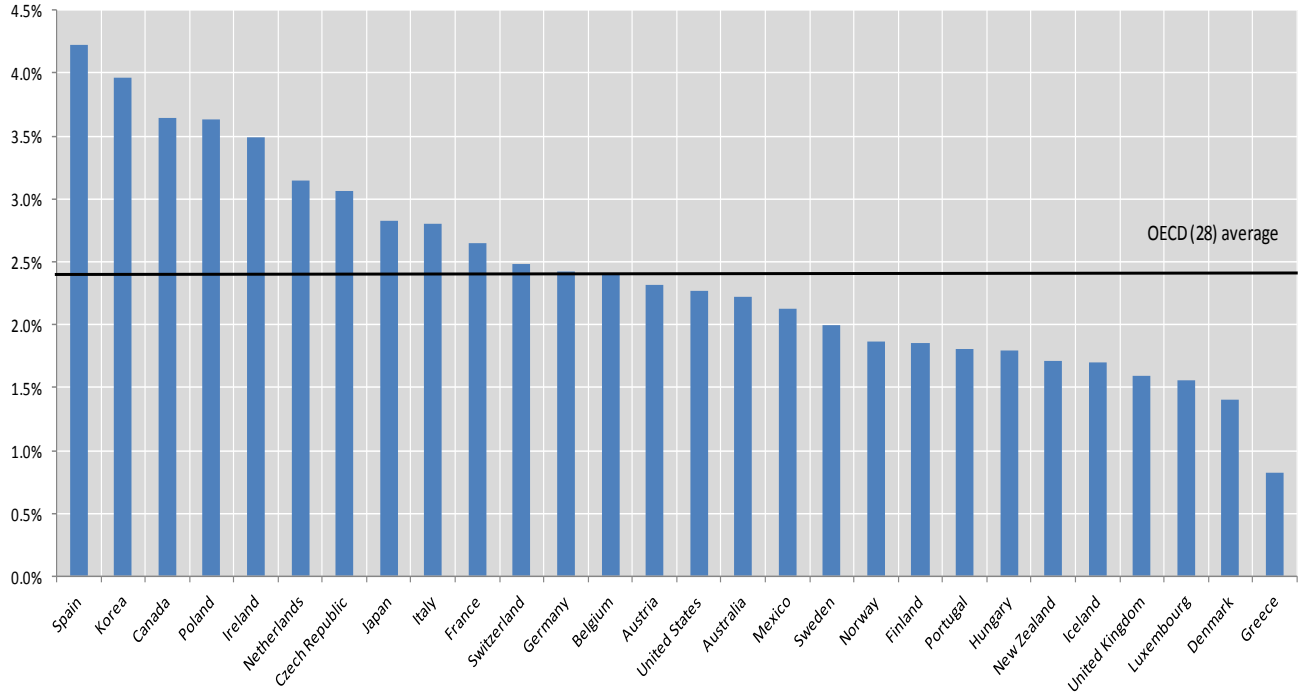
Source: OECD National Accounts, 2009.

Figure 3. SNGs as a share of total public investment, 2008



Source: OECD National Accounts, 2008.

Figure 4. SNGs' capital expenditure as a percentage of GDP (2009)



Note: 2007 data for Japan; 2008 data for Australia, Korea, Mexico and New Zealand.

Source: OECD National Accounts, 2009.

Linking investment and growth: the role of regions

Although the impact of public investment on growth is difficult to measure,[8] there is some evidence from annual and multi-year growth regressions that infrastructure investment has positive effects that go beyond the expected impact from an increase in capital stock, and that public investment in both physical and intangible investment (such as R&D and education) can have a positive impact on long-term growth (OECD, 2009a; Padoan, 2009).

Recent analyses point out that infrastructure investment alone has little impact on regional growth unless it is associated with human capital and innovation (OECD, 2009q, Box 1). Regional actors are often the best placed to identify local needs and exploit synergies across investment priorities. Given the heterogeneity of economic activities at the regional and local level, investment policies that are space-blind are likely to be ill-designed (Garcilazo and Oliveira Martins, 2010). Growth effects are likely to appear only when positive externalities exist in the region; otherwise the economic returns from investment may be negative. If a region is to benefit from a new road, school or any other type of public investment, certain conditions in terms of complementary local infrastructure or services need to be fulfilled. Differentiated investment strategies are required to tailor investment to local needs and the competitive advantages of regions (OECD, 2009e).

Sub-national governments can help to better target investment to local needs and to exploit complementarities across investment priorities. However, local capacity to design an appropriate investment mix must be sufficiently developed, the policy and institutional framework for investment must be robust and transparent so as to prevent potential capture or corruption, and the scale of investment must be appropriate. These conditions will be further discussed in the following sections, notably by drawing on lessons learned from the management of the crisis.

Box 1. How do regions grow?

Infrastructure investment can be useless (or counter-productive) unless undertaken in conjunction with human capital and innovation policies. Evidence from econometric regressions suggests that:

- Human capital – mainly tertiary educational attainment – is the most robust factor and takes about three years to have an impact.
- Infrastructure has an impact as long as other factors are also in place such as human capital and innovation.
- Innovation has an impact on growth, but is a longer term process, taking from five to ten years.
- Agglomerations in services (measured by a region's specialisation index times size in financial intermediation) has a positive impact on growth.

Source: OECD (2009), *How Regions Grow*, OECD Publishing, Paris.

1.1.2. A renewed role for public investment during the crisis

The relative decline in public investment in OECD countries over the past decades was reversed in some countries with the stimulus packages launched in 2008-09. In addition to many other government measures to avoid economic collapse such as major bailouts of banks and overall support to the financial sector, tax cuts and expansive monetary policies, the crisis sparked a renewed role for public investment in some countries (Box 2). Public investment programmes amounted to 11.1% of public spending in 2008[9] and 9.3% of total public spending in 2009; this is equivalent to 4% of OECD GDP in 2009[10] (compared to 3.3% in 2006). The most proactive countries when it comes to public investment measures were Australia, Canada, Germany, Mexico, Korea, Poland, Spain and the United States. Denmark and France also have had a clear focus on public investment for their recovery strategies.

Box 2. Stimulus plans in OECD countries in 2008-09

The crisis has had enormous economic, financial and social repercussions throughout the OECD, but also deep implications for public governance, increasing its legitimacy. The crisis has represented a "turning point" (Krugman, 2009) for the role of governments in the economy. Governments have in many countries helped to maintain citizens' confidence in the economy by playing the role of insurers and spenders of last resort, supporting the banking system and mobilising traditional instruments of direct intervention such as regulations, nationalisations (mainly banks) and public investment.

The global dimension of the 2008-09 crisis – in its impact and in governments' responses – is remarkable. Almost all countries in the OECD and in the G20 implemented fiscal stimulus measures for 2008-10. As a share of GDP, the size of the economic stimulus packages in OECD countries ranges between 0.1% of 2008 GDP to over 5%, with an average of 2.5% (OECD, 2009). Australia, Canada, Korea, New Zealand and the United States introduced fiscal packages amounting to 4% or more of 2008 GDP. Those of the United States at about 5.5% of 2008 GDP and of Korea were the largest. Countries with the largest absolute spending are the United States, Germany, Japan, Canada, Spain, Australia and Korea.

On the expenditure side, the fiscal programmes typically focused on infrastructure development and active labour market measures. On the revenue side, a reduction of the national tax burden, primarily personal income taxes, was planned.

Every form of stimulus has its drawbacks. As a general rule it is better to rely on complementary forms of stimulus rather than a single instrument such as a tax decrease or public investment. Most countries have adopted a balanced approach to stimulus packages.

Fiscal measures depend on the overall economic and fiscal status of the country. Countries such as Hungary, Iceland and Ireland drastically tightened their fiscal stance in 2009 (OECD, 2009).

Source: Padoan, Pier Carlo (2009), "Fiscal Policy in the Crisis: Impact, Sustainability, and Long-Term Implications", *ADBI Working Papers Series*, No 178, December 2009; OECD (2009), *Economic Policy Reforms: Going for Growth*, OECD Publishing, Paris; OECD (2009), *OECD Economic Outlook*, Vol. 2009/2, No. 86, OECD Publishing, Paris.

National governments have designed their investment strategies in a situation of urgency and have focused mostly on infrastructure. The targeted infrastructure investments were largely concerned with roads, railroads (including freight networks), public transport, airports, childcare facilities, schools and universities, hospitals, energy networks and security, and a modern information and communication technology (ICT) infrastructure (OECD, 2009h). However, many countries have also sought a balance with "soft" investment, in particular in the following areas: *i)* support for science, R&D and innovation; *ii)* investment in human capital and education/training (including schools, teachers); *iii)* green technologies and innovations to foster energy-efficiency and sustainable economic growth; and *iv)* support for innovation and entrepreneurship (OECD, 2009h).

Box 3. Green measures in investment stimulus packages

Although most countries included green measures, the share of "green" elements in the stimulus packages varies significantly. Public investment in Korea was driven in part by the "Green New Deal Policy" announced in January 2009, which included major infrastructure projects such as the Four Major Rivers Restoration Project and railroad construction that boosted short-term public employment. 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" programmes. In Australia, AUD 3 239 million were announced for energy-efficiency measures for homes. The package included assistance for the installation of insulation in homes and a solar hot water rebate programme. In the United States, the *American Recovery and Reinvestment Act* (ARRA) contains a focus on the renewable energy sector through wind and solar energy. ARRA requires states to direct part of their stimulus funding to green investment, such as water and domestic renewable energy industry, R&D, water quality improvement projects, storm water infrastructure**,** and other innovative treatment technologies (Hanak, 2009). In Canada, green measures account for approximately 8% of the stimulus plan, with a particular focus on sustainable energy.

Source: OECD country notes.

The crucial role of sub-national governments in the recovery

Although investment strategies were mostly designed at the national level, sub-national governments have played a key role in implementing investment measures. In addition, national governments adopted specific measures to support sub-national public investment, to prevent pro-cyclical measures and to ensure coherence in the overall government response to the crisis (Bloechliger *et al*., 2010).

The support from national governments to sub-national governments was particularly needed, as SNGs were severely hit by the crisis. While the impact of the crisis on sub-national finances varied across countries, most SNGs struggled with a "scissors effect" of decreasing tax revenues and rising expenditure (Bloechliger *et al*., 2010). Tax revenues fell sharply as a consequence of declining economic activity. In some cases, this was compounded by additional tax cuts foreseen in national recovery packages. In countries in which sub-national governments primarily rely on a pro-cyclical tax base, such as corporate or personal income taxes, the decline in revenues was particularly drastic. At the same time, the crisis led to higher spending on unemployment, social protection and social welfare more generally. In many OECD countries sub-national governments are responsible for welfare services and social transfers.

The situation of sub-national governments is important because they may take measures to balance their budgets that work against national counter-cyclical efforts, and their financial difficulties may affect public service delivery and lead to a decrease in public investment. In order to counteract these effects and support sub-national public investment, central governments adopted two types of measures:

- Many stimulus plans contain large grants/contributions for sub-national governments, mainly for financing capital expenditure, although there has also been some support for current expenditure. Grants earmarked for capital investment represent 56% of national stimulus spending in Australia, 27% in France, 26% in Germany, and more than 70% in Spain and Korea (Table 1).

- National governments have also sought to encourage sub-national investments and accelerate anticipated infrastructure spending. In 2009, the French central government advanced the reimbursement of VAT to SNGs that committed to maintain their capital expenditure above the 2004-07 average. In Canada, the federal government streamlined and accelerated approvals under the Building Canada Fund as well as the Provincial/Territorial Base Fund, both of which are components of the Building Canada plan that had been launched in 2007.

Table 1. Measures adopted by central governments to support sub-national public investment

	Share of investment spending that transits through SNGs as a % of total national investment stimulus	Grants to SNGs	Other types of measures to support local investment
Australia	**56%**	Investment programmes funded by the Nation Building Plan were largely implemented by Australian states and territories through their agencies as well as through commercial contracts put in place by them.	
Canada	**30%**	Through the federal stimulus plan sub-national governments are expected to contribute at least CAD 14.0 billion in stimulus in addition to the federal contributions of CAD 48.1 billion. They are to contribute, at a minimum, an additional CAD 7.3 billion to support infrastructure investments (federal funds are only supposed to cover part of the cost of infrastructure projects). Sub-national governments will also provide CAD 2.2 billion to the federal investments in educational and knowledge infrastructure.	Acceleration of investment funds for local governments
France	**27%**		In addition to additional national investment funding, local governments have been able to accelerate planned investment through a one-year advance of VAT reimbursements for an expected total of EUR 3.6 billion in VAT refund payments.
Germany	**26%**	The sub national investment scheme accounts for around **26 percent** of the funds provided by the stimulus package	
Korea	**75.2%**	Around 75.2% of the investment package is targeted at sub-national governments (KRW 7.6 trillion out of KRW 10.1 trillion)	

	Share of investment spending that transits through SNGs as a % of total national investment stimulus	Grants to SNGs	Other types of measures to support local investment
Spain	**73%**	The EUR 8 billion state fund for local investments accounts for the lion's share of the Spanish stimulus measures and focuses on infrastructure investments	
United States	**One-third of total ARRA funding administered by states**	Of the USD 787 billion recovery package, USD 275 billion was allocated for contracts, grants and loans aimed at supporting public investment measures, which amount to 35% of the recovery package. Out of the USD 787 billion of the stimulus plan, USD 286 billion is administered by states and municipalities	Non-replacement rule for infrastructure investment

Source: Results of the OECD questionnaire 2010 and updated from OECD (2010b), "Fiscal Policy Across Levels of Government in Times of Crisis", COM/CTPA/ECO/GOV/WP(2010)12.

A global crisis, but regional management of its impacts

The crisis has helped to make more obvious the need for a regional approach to recovery and reinvestment strategies. The impact of the crisis has not been uniform across regions. The severe contraction experienced in the OECD area during 2008-09 has had substantial, lasting but highly variable effects on labour-market outcomes (OECD, 2010i). The variation in unemployment rates across regions in the OECD in 2009 exceeded the variation across countries and the variation in the *rise* in unemployment rates during 2008-09 was likewise greater across regions than countries (OECD, 2010i and 2011b forth).

The rise in unemployment has been larger in more vulnerable regions and/or those specialised in vulnerable sectors, in particular in manufacturing regions (*e.g.* the automotive sector). A 2010 survey in France revealed that 63% of employment losses during the crisis were located in the industrial sector, largely concentrated in Franche-Comté, Champagne-Ardenne, Picardie and Auvergne (INSEE, May 2010). In the United States, job losses have been most severe in areas that had experienced a big boom in housing, those that largely depend on manufacturing and those that already had the highest unemployment rates before the crisis (New York Times, 2010). The evidence suggests that the risk of job losses is much higher for regions with poor human capital, a higher concentration of employment in traditional sectors agriculture and construction, and low productivity in manufacturing (OECD, 2010i and 2011b forth).

Although all types of regions – rural, intermediate and urban – have been affected in different manners depending on their industry mix, the shock in most countries seems to have been concentrated in and around urban areas (OECD, 2010i and 2011b forth). For example, the impact was larger in urban regions in Canada and the United States. However, in Sweden and Spain, while urban regions suffered the largest absolute impact in terms of job losses, the relative impact appears much larger in intermediate and rural regions close to cities (Sweden) and in intermediate remote regions (Spain). Overall, the shock in many countries seems to have been concentrated in major urban centres or their hinterlands (OECD, 2010i and 2011b forth). In the United States and Spain, the more vulnerable regions (those with the highest initial unemployment rates) saw unemployment rise the most during the crisis; this was less the case in Canada and Sweden (OECD, 2010h).

1.2. Managing public investment across levels of government: key challenges

This section explores the extent to which national investment strategies launched during the crisis were carried out and the difficulty of combining *timely* and *well-targeted* investment. It highlights the challenges encountered during implementation and the obstacles that may limit the impact of that investment on long-term growth.

1.2.1. The difficulty of implementing both timely and well-targeted investments

Urgency as the leading criterion in the selection of projects

Investment recovery strategies launched during the crisis have had to tread a difficult path: they have to be, like other stimulus measures, timely, temporary and targeted. They have to be implemented quickly, correspond to strategic priorities and be transparent and subject to rigorous scrutiny. These dimensions are difficult to reconcile. In addition, public investment plans launched during the crisis suffered an inherent tension between the short term and the long term. The economic and political context called for short-term measures, with the highest impact on employment, but these may not necessarily be the most appropriate for the long term.

Trade-off between short- and long-term objectives

Short term		Long term
Accelerated procedures *Political constraints: easier to focus on all territories rather than to target specific ones* *Focus on sectors with higher direct impact on job creation (*e.g. *public works)*		*Focus on transparency and accountability* *Citizen involvement* *Targeted measures/territories* *Investment that catalyses sustainable growth*

Most investment strategies sought to accelerate "shovel-ready" infrastructure projects, *i.e.* projects whose planning was well advanced and ready to be launched. A crisis does not lend itself to designing complex investment projects which typically require careful and lengthy strategic planning, cost-benefit analysis and environmental reviews. Countries and sub-national governments had to rely on already defined strategies and on projects already in the pipeline. The tension between short-term and long-term impact was largely arbitrated in favour of measures with the highest impact on jobs in the short term. This had an effect on the type of projects selected.

There is no optimal solution. For example, to create jobs, it might be more effective to focus on maintenance work, which is labour-intensive, rather than to build new facilities or public transport, which are relatively less labour-intensive in the first stages, as they involve higher non-labour costs for materials and land acquisition. However, new facilities may have a higher impact on long-term growth. What is crucial is to set objectives clearly from the beginning and to try to distinguish between investment measures that support job creation in the short term and those with a longer-term impact.

Sectoral rather than place-based approaches to investment

Given the macroeconomic nature of investment packages, governments have focused on sectoral priorities, rather than place-based ones (Table 2). To facilitate the quick adoption of recovery plans and limit political resistance, there has been little discrimination among territories in terms of allocation of funds. Overall, the focus was on spreading resources across the entire territory rather than targeting for territorial impact. In many cases, grants were allocated on a basis of GDP per capita and population, sometimes completed by other criteria such as the unemployment rate. The focus has tended to be more on

equity than on maximising growth. For example, metropolitan areas or clusters were not specifically targeted in national priorities in the countries covered by the study (except in Sweden and Korea). In the United States, the allocation of funding across states was balanced so that different interests and types of states (metropolitan areas, rural states) received significant funding.

The role of local governments has been to make the most of the investment funding and, when possible, to exploit complementarities across the different vertically designed and segmented programmes. Although explicit targeting to specific places has remained limited, ***implicit targeting*** – linked to local capacities to design and implement investment programmes – has played a role, as will be explained below.

Table 2. Targeted policy areas/territories for investment funding during the crisis

	Targeted sectors/policy areas	Targeted territories
Australia	Spending on both "shovel ready" projects and longer-term nation-building projects in key priority areas of education, social housing, hospitals and health, and transport, including: • School infrastructure: AUD 16.2 billion • Social housing: AUD 5.6 billion • Metro rail: AUD 4.6 billion • Higher education and research • infrastructure: $3.7 billion • Clean energy: $4.5 billion • Hospitals and health infrastructure: AUD 3.2billion	All territories targeted. Allocation based effectively on population per state. No matching requirement from states, but requirements to maintain levels of investment.
Canada	Total investment: CAD 18.257 billion Core infrastructure spending (CAD 15.7 billion federally) -- includes support for home ownership and the housing sector of about CAD 3.76 billion as well as investments in social housing of CAD 4.07 billion. Other priorities are investments in highways, road and bridge infrastructure, green infrastructure (water and wastewater infrastructure), public transit infrastructure and recreational infrastructure Investments in educational and knowledge infrastructure (CAD 2 billion federally) investments in federal labs (CAD 0.2 billion federally)	All territories targeted, no specific focus Matching requirement from provinces for most major infrastructure and social housing funds.
France	Infrastructure (roads, rail, bridges, ports, higher education, student housing, military equipments, patrimony Short-term focus of the Recovery Plan For the long-term: France launched in 2010 a plan to finance "Investments for the Future" amounting to EUR 35 billion to finance 5 strategies priorities: higher education, industry, SMEs, sustainable development, broadband networks.	For the *plan de relance*, all territories are targeted with no distinction (except specific additional funds for *Outre mer*). Municipalities are the key recipients of investment funding. For the "Investments for the Future" plan, the selection of projects will be done on a competitive basis.

Table 2. Targeted policy areas/territories for investment funding during the crisis (*cont.*)

	Targeted sectors/policy areas	Targeted territories
Germany	The first stimulus package allocates EUR 2 billion for infrastructure investments The second stimulus package foresees a total of EUR 17.3 billion for investments in educational facilities, hospitals and infrastructure. (particular focus on energy-efficient renovation, thereby contributing to long-term environmental sustainability).	All *Länder* are targeted by the sub-national investment scheme of EUR 10 billion (plus EUR 3.3billion co-financing by *Länder*). The distribution formula is a combination of several factors, including size of population of the *Länder*. The *Länder* governments are required to invest a minimum of 70% of these funds in the municipal infrastructure.
Korea	Reinforcement of existing investments (front loading of fast train construction, urban train construction) and shovel-ready investments (construction of roads, redevelopment of rivers) Transport networks Energy infrastructure Other projects in the areas of agriculture, education, public services, environment protection, housing, health and defence	Funding focused in priority on metropolitan regions and cross-border regions. Municipalities are key implementers.
Spain	32%: investment in the renovation and improvement of public spaces 29%: investment in basic infrastructure 17%: cultural, educational and sporting facilities and buildings The remaining funding was used for social, healthcare and funeral facilities, the promotion of road safety, the conservation of historic heritage, etc. Investment in research and development amount to EUR 500 million.	Municipalities the key target. Fund allocation based on number of residents.
Sweden	Investment accounts for around 5% of the stimulus measure and includes funding for R&D in the automobile sector (SEK 23 billion) and funding for infrastructure investments (roads and railway, SEK 1 billion) and vocational education	Specific clusters were targeted, especially the vehicle industry in Västra Götaland region and Blekinge County.
United States	Spending is in priority earmarked for traditional areas of federal capital investment such as transport (in particular construction and repair of roads and bridges) and water resources. ARRA has also a new focus on green investment, in particular in the areas of renewable energy and energy efficiency.	The allocation of funding across states has been balanced so that all types of states (both those with much of their population in metropolitan areas and those with large rural populations) receive significant funding, to balance the different interests. ARRA selected some programmes that favoured urban states such as Medicaid support and the public transit programme; some that favoured rural states such as highway aid; and others that favour high-poverty areas. ARRA aims to give priority to projects that are located in economically distressed areas, as defined by the *Public Works and Economic Development Act* of 1965.

Most funding had been allocated by the fall 2010

Most investment strategies adopted a time frame for the use of funds, with a specific deadline for allocation. Except for Sweden (which had relatively little investment funding in its overall stimulus package), all other countries set specific deadlines for the use of funds. France, Korea and Spain had the tightest deadlines, as most funds had to be spent by the end of 2009. In Korea funds that were not spent during 2009 were withdrawn at the end of the year. In Spain, projects needed to start between 11 January and 12 April 2009 and end within the first quarter of 2010. In Canada, most temporary stimulus measures are expected to end as planned by 31 March 2011. The government extended the deadline by one full construction season to 31 October 2011 for remaining projects under four of the main infrastructure programmes. The extension will be cost-neutral to the government. In Australia and the United States, the time frame varies according to projects, and runs beyond 2010 for some. In the United States, funds for infrastructure projects for states and municipalities had to be committed within one year (by 30 September 2010) and the legislation includes programme-specific use-it-or-lose-it clauses that require states to commit available funding within a specified time frame to prevent re-appropriation to other states.

Because of specific sunset clauses, investment funding has been implemented quickly in most OECD countries (Table 3). By the end of 2010, most countries have already *allocated* more than 90% of the funds, in part through local governments (Australia, Canada, France, Korea, Spain). In Korea, local governments have spent 5.8 percentage points more of their budget than the initial target (KRW 96.3 trillion *vs.* a target of KRW 91 trillion) in the first half of 2010.

Spending has been slower, and there are significant variations across policy areas. In the United States, 100% of the USD 275 billion in investment funding had been allocated in November 2010 of which 53% had been paid out. At the state level, the General Accountability Office reported in May 2010 that in 2009 the federal government had spent aid to states for education and health the fastest, while spending in other areas, such as infrastructure and research, was largely still to come. Expenditures for health and education represented 88% of total outlays to states and localities in 2009. Outlays for transport, income security, energy and the environment, and community development were all substantially less (GAO, 2010b). However, it is projected that investment spending, in particular for transport and environmental priorities, will represent two-thirds of state and local ARRA funding after 2011.

Table 3. Total investment funding allocated across levels of government

	Investment funding allocated by September 2010	Sunset clause
Australia	Over 99 per cent of available stimulus funding tracked by the Office of Coordinator General had been allocated to approved projects by September 2010. The majority of investment funding is expected to be spent by 2011.	If sub-national governments are unable to spend the whole fiscal package allocated to them in the time frame required, the Australian government can re-allocate the funds. The time frame varies according to the type of project.
Canada	98% of 2010-11 funding committed	Most stimulus measures will end by March 2011. The government has extended the deadline to 31 October 2011 to allow completion of remaining projects under the main infrastructure programmes at no additional cost to the government.
France	93.7% of stimulus package either paid out or allocated Two-thirds of public investment funding allocated in 2009	75% of funds had to be spent in 2009.
Germany	94.3% of the EUR 10 billion of federal investment grants were allocated by mid-August 2010	Investment had to start by end of 2010, unused federal funds expire end of 2011.
Korea	100 % Local governments spent 5.8 percentage points more of their budget than the initial target (KRW 96.3 trillion *vs.* target of KRW 91 trillion) in the first half of 2010	If funds were not spent during 2009, they were withdrawn by the end of the year.
Spain	Almost all of the funding, 99.9% or EUR 7.9 billion was spent within the anticipated period.	Projects needed to start between 11 January 2009 and 12 April 2009 and end within the first quarter of 2010.
Sweden	Between 25% and 50% of infrastructure investment spent, most funding expected after 2011 (no specific sunset clause in the use of funding)	There is no specific sunset clause in the use of additional national investment funding in Sweden. The investment measures were mainly small, largely maintenance measures. This meant that the measures chosen did not require lengthy preparation and could be implemented with short notice.
United States	In October 2010, **71%** of the ARRA funding has been paid out according to the government official website. As of October 22, 2010: • **55%** of the category "*contracts, grants and loans*" – which mostly finance public investment – has been paid out (USD 152.1 billion) and almost 80% has been allocated (USD 219 billion) • **84.5%** of *tax cuts* (USD 243.4 billion) have been awarded • **73%** of *entitlements* (USD 165.7 billion) have been paid out. Out of the USD 286 billion administered to states and localities, USD 114.8 billion, or 41% had been paid out by the federal government on 7 May 2010 (GAO)	For investment projects, most funds for states and municipalities had to be obligated within one year (by 30 September 2010). The Recovery Act gives priority to projects that can be completed in 3 years (beginning in FY 2009 and ending in FY 2011). The legislation includes programme-specific use-it-or-lose-it clauses that require states to obligate available funding within a specified time frame to prevent re-appropriation to other states.

Source: OECD country notes on multi-level governance and the crisis, September 2010.

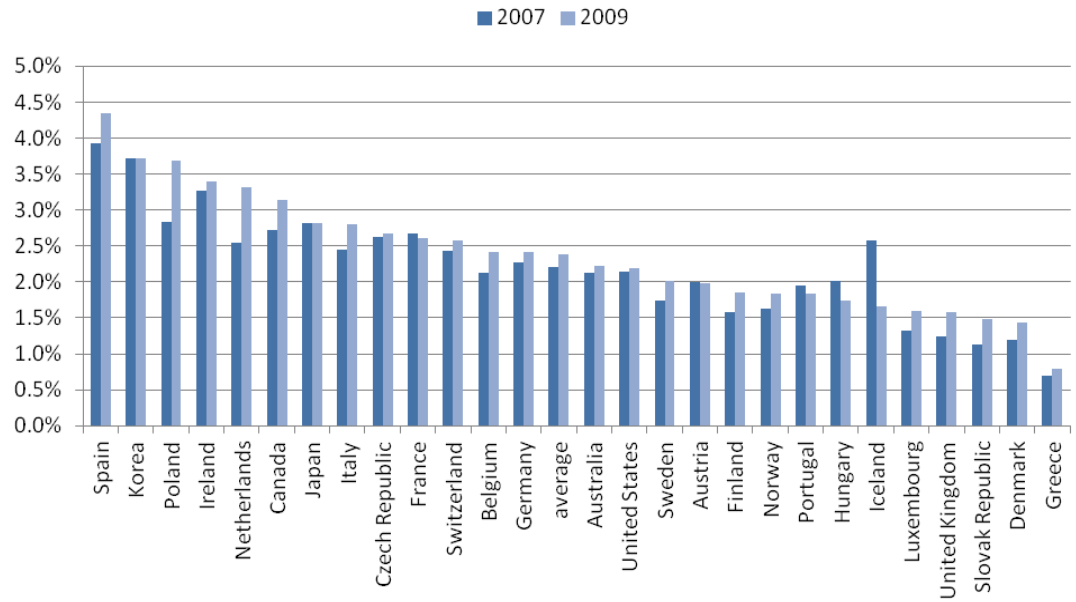
The impact on growth and employment has yet to be fully assessed

The impact of stimulus packages is extremely difficult to assess given the many factors involved. In particular, it is extremely difficult to fully disentangle the impact of investment measures from other recovery measures. Analysis conducted by the OECD in 2009 highlights that, other things being equal, spending multipliers are larger than tax multipliers, in both the short term and the long term, and multipliers are larger in the second year after the impact, for both tax relief measures and purchases of goods and services (OECD, 2009a; Padoan, 2009).

Although it is too early to assess fully the impact of investment funding, there is evidence that the strong national support to public investment in 2009 helped to shore up the economy and prevent a massive fall of investment. In particular, national measures prevented a massive drop in investment at the sub-national level. In Canada, Italy, Norway, Poland, Spain, there was a significant increase in sub-national investment in 2009 (Figure 5). In France, Germany and the United States, national support essentially prevented a decline in investment that might otherwise have been significant. Investment schemes have had a positive impact on municipal infrastructure/construction. In Germany, municipal construction increased by 13.5% in the third quarter of 2009. In Hungary, tenders for construction work for EU-funded projects were up by 57% in Q1 2009, compared to Q1 2008 (Council of Europe, 2010).

Overall, there is a consensus that stimulus packages have protected the economy from a complete collapse and have helped to support and create jobs. Estimates from prominent economic forecasters indicate that GDP growth in the United States in the second quarter of 2009 would have been 2 to 3 percentage points worse without the economic stimulus (OECD, 2010d).

Figure 5. **Sub-national government capital expenditures as percentage of GDP, 2009 compared to 2007**



Source: OECD National Accounts (2010).

1.2.2. Implementation challenges across levels of government

The crisis has made more obvious, and has crystallised, the multi-level governance (MLG) challenges that are inherent to decentralised political systems[11]. The OECD has distinguished seven important gaps in the multi-level governance of public policy: fiscal, capacity, policy, information, administration, objective setting, and accountability (see Table 4). All countries have encountered certain MLG gaps in the implementation of their investment strategies for the recovery. For example, the fiscal gap has been more important in the United States than in other countries. The administrative gap tends to be higher in countries with municipal fragmentation, such as France or Spain. There are also significant variations within countries on the degree of the different gaps. For example, metropolitan areas are likely to have fewer challenges in terms of local capacities than other areas.

Table 4. Mutual dependence across levels of government: multi-level governance challenges/gaps in OECD countries

Administrative gap	"Mismatch" between functional areas and administrative boundaries **=> *Need instruments for achieving "effective scale" (co-ordination tools, mergers)***
Information gap	Asymmetries of information (quantity, quality, type) between different stakeholders, either voluntary or not **=> *Need instruments for revealing and sharing information***
Policy gap	Sectoral fragmentation across ministries and agencies **=> *Need mechanisms to create multidimensional/systemic approaches and to exercise political leadership***
Capacity gap	Insufficient scientific, technical, infrastructural capacity of local actors **=> *Need instruments to build local capacity***
Funding gap	Unstable or insufficient revenues undermining effective implementation of responsibilities at sub-national level **=> *Need shared financing mechanisms***
Objective gap	Different rationalities creating obstacles for adopting convergent targets **=> *Need for instruments to align objectives***
Accountability gap	Difficulty in ensuring transparency of practices across different constituencies **=> *Need institutional-quality, integrity and citizen-involvement instruments***

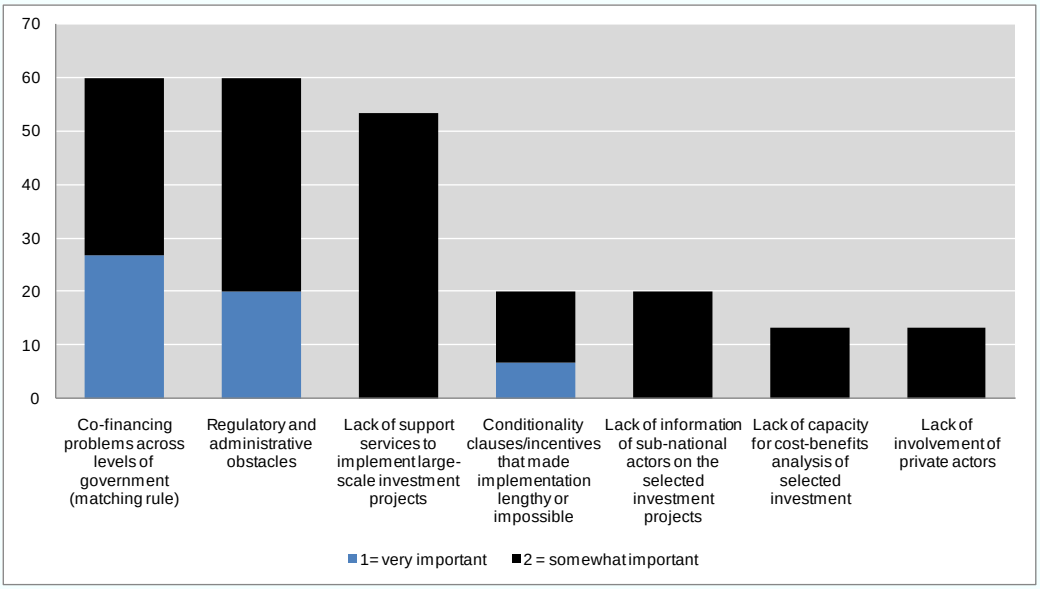
Source: OECD (2009), *Policy Brief: Mind the Gaps*, OECD Publishing, Paris, and Charbit, C. (2011, forthcoming), "Governance of Public Policies in Decentralised Contexts: The Multi-level Approach", *OECD Regional Development Working Papers*, OECD.

Although challenges vary across countries and regions, four challenges have been widespread: *i)* the *fiscal challenge*, and the difficulty of co-financing investment; *ii)* the *capacity challenge*, linked to inadequate resources, staffing or processes for rapid, efficient and transparent implementation of investment funding; *iii)* the *policy challenge*, and the difficulty of exploiting synergies across different sectors and policy fields; and *iv)* the *administrative challenge*, and the fragmentation of investment projects at the local level (see Box 4).

Box 4. Main obstacles and co-ordination challenges or gaps in the implementation of investment strategies across levels of government (September 2010)

Answers to a survey conducted by the OECD in September 2010 among European state territorial representatives (AERTE) indicate that the most important challenges for the implementation of investment strategies have been: *i)* co-financing problems; *ii)* administrative and regulatory obstacles across levels of government; *iii)* lack of support services to implement large-scale investment projects (figure below).

Main obstacles and co-ordination challenges or gaps in the implementation of investment strategies across levels of government (% of responses)



Source: OECD questionnaire, answers from State Territorial Representatives representing 15 European countries, September 2010.

Fiscal challenge: lack of coherence across levels of government

During the crisis, some sub-national governments adopted pro-cyclical policies in order to reduce expenditures, notably SNGs with balanced budget requirements. In the United States, 49 out of 50 states have balanced budget rules enshrined in their constitutions so that any reduction in revenues must be compensated by an equivalent reduction in spending. SNGs were therefore forced to react pro-cyclically by cutting spending and raising taxes, although such policies could undermine the counter-cyclical fiscal policy of the national government (Bloechliger *et al*., 2010).

National governments recognised this risk and responded with measures such as disbursing additional grants and lifting borrowing constraints. In the case of the United States, ARRA helped to offset some of the planned spending reductions and counterproductive tax increases at state and local level. Funds disbursed through ARRA are estimated to have covered around 40% of the states' budget gaps (OECD, 2010b).

Another area in which national and SNG policies could conflict were earmarked grants provided by the central government to spur sub-national investment. The aim of these grants was to induce sub-national investment in soft and hard infrastructure that would otherwise not have been undertaken, so as to provide

the needed boost to the economy. However, these measures provided incentives for sub-national governments to reduce their own investment spending in the expectation that the central government would step in. To ensure that central government funding would not crowd out sub-national investment funding, many recovery packages included complementary measures such as conditionality clauses and monitoring mechanisms. The Australian stimulus package, for example, included a mechanism for assessing whether Australian states and territories maintained pre-stimulus expenditure levels during the period of increased federal government expenditure. If a state or territory‘s expenditure did not meet a pre-defined benchmark, the federal government reserved the right to require the state to return the shortfall in expenditure to the federal government.

Co-funding arrangements, also known as matching funding, are another a tool for ensuring that sub-national governments do not reduce their own investment spending in periods of high central government expenditure. In this case, sub-national governments must commit their own money in order to benefit from central government funding. Matching funding was an important element of investment strategies in Canada, Germany, Switzerland and the United States. In fact, Canada and Germany applied both conditionality clauses and co-funding arrangements. In the case of Canada for example, provinces and territories provided matching funding amounting to at least CAD 14.03 Billion in addition to the federal stimulus plan of CAD 46.35 billion. Federal funding for infrastructure investments never exceeded 50 % of project costs and most municipal projects were cost-shared at 33 % of the total eligible cost. Provincial, territorial and municipal authorities needed to provide the remaining funding.

While matching funding is very useful as a means of mobilising additional funding, it presumes that sub-national governments have sufficient financial capacity. This is why matching funding is typically more common in countries in which sub-national governments have important autonomous revenue sources. However, during the economic and financial crisis, even sub-national governments in Germany found it difficult to provide matching funding. Governments of structurally weak regions especially struggled to gather sufficient funding. Under such circumstances, matching funding calls for complementary measures, so as not to disadvantage structurally weak regions and create territorial imbalances.

Policy challenge: The drawback of using urgency as a selection criterion

During the recession, micro-scale short-term infrastructure projects readily met the criteria for acceptance. The emphasis on speed in getting funds committed, although understandable, has probably overshadowed their economic impact. The sectoral investment plans represent a “missed opportunity” to integrate short-term recovery objectives within broader long-term cross-sectoral development strategies, taking into account specific territorial strengths and assets across countries.

In addition, not all countries and regions were able to mobilise “shovel-ready” projects corresponding to the level of stimulus spending available. This reveals a lack of strategic planning, probably connected to the decrease in infrastructure investment in many OECD countries over the past decades. For example, Ken Henry, Secretary to the Treasury, Australia, mentioned in March 2010 that “attempts to bring infrastructure online as part of fiscal stimulus packages were hampered by difficulties in finding ready-to-deliver, nationally significant infrastructure investment proposals. As it happens, such projects were not simply lying on the shelf ready to be picked-up and implemented by policy makers” (Henry, 2010). In the United States, because transport planners do not generally undertake detailed environmental reviews for infrastructure investment before funding is available, there were few unfunded shovel-ready projects.

Even when shovel-ready strategies were available, it was not always possible to mobilise them owing to the requirements for use of funding, notably the non-replacement rule in several countries. In the United States, for example, stimulus funds could not be used to replace funds already allocated to specific

infrastructure projects. The combination of speed and the non-replacement requirement were particularly constraining in the transport sector. As a result, some 63% of highway funding (USD 16.2 billion) was spent on improving and widening pavement (DOT, 2010).

Nationally launched strategies mainly took a vertical and segmented approach to investment. Priorities were therefore established in existing sectors and programmes. Although this gives some advantages for rapid implementation, it provides few incentives to enhance co-ordination. And while complementarities among investment priorities are usually better found at the regional/local level, regional actors had little time to try to identify possible complementarities and synergies, unless existing regional development strategies could be mobilised.

The crisis also revealed overly complex administrative rules and regulatory obstacles. For example, the lengthy procedures for public procurement sometimes did not fit the timeline for the use of investment funds. At the local level, procedures related to land-use planning and local permit and approval processes can significantly delay or even interrupt investment projects. Projects were often selected on the basis of their degree of complexity and readiness, and small-scale projects, easier to manage and implement, were generally favoured.

Administrative challenge: lack of appropriate scale for investment

Cross-jurisdictional co-operation is essential to target effectively the appropriate scale for investment, to overcome administrative boundaries and to better correspond to the functional area. Mechanisms to increase municipal co-operation for public investment are increasingly developed in order to exploit of economies of scale better and reduce jurisdictional overlaps in investment priorities for public goods with high externalities, such as public transport, water, environmental goods or higher education.[12] The problem of the scale of investment has been increasingly recognised in the past few years. In the water sector, for example, 45% of OECD countries surveyed on water governance mentioned that the "lack of relevant scale for investment in the water sector" was a key issue (OECD, 2011d, forthcoming).

In unitary countries, municipalities, rather than higher tiers of government, have been the main implementers of investment stimulus funding. A few national governments (*e.g.* France, Korea, Spain or Sweden) encouraged municipalities to co-operate on the implementation of investment measures, but most did not give priority to this. Moreover, municipalities had little time to mobilise inter-municipal co-operation, as projects that involve different stakeholders are by nature longer to design and implement. The lack of co-operation on investment priorities at the local level is more problematic in countries with high levels of administrative fragmentation and affects the type of investments that are prioritised, which tend to be smaller-scale projects, with a lower return on investment.

- **France** for example, has 36 000 municipalities. Although instruments for co-operation among municipalities exist, they have been little mobilised in the aftermath of the crisis. For example, very few *inter-communalités* subscribed to the national measure to support local investment through reimbursement of VAT one year in advance.[13] Most projects have been for renovation of public works and carried out at the municipal scale.

- In **Spain**, although the state fund for local investment allowed for joint applications, most municipalities did not avail themselves of this possibility. Only six out of 1 022 municipality associations applied for project funding, and the six projects proposed were negligible compared to the total of 30 699. Neither the regional nor the provincial level[14] was actively involved in the investment planning stage.

Capacity challenges exacerbated

In situations that call for urgent responses, the capacity gap (in competencies, know-how, organisational resources) is exacerbated at both the national government level (where insufficient local knowledge constrains its capacity to select relevant investment projects) and at the local level (where weaknesses in terms of strategy and implementation result in inadequate design, implementation and monitoring of projects). Given the stringent requirements for the use of funding and the rigorous reporting requirements, sub-national governments with efficient administrations which were able to take immediate action were likely to be the most successful in securing investment funding. Smaller municipalities and distressed areas therefore risked missing out on investment funding opportunities, unless they were clearly integrated into a regional strategy. In the United States, for example, in a survey carried out in 2009 in Michigan[15] in more than 1 300 municipalities, 89% of small municipalities reported not having received funding, whereas two-thirds of large municipalities had received funding.

Capacity challenges were intensified by the pro-cyclical fiscal policies of some sub-national governments, which led to staff reductions.[16] Capacity gaps are often greater among secondary recipients in charge of implementation. In the United States, projects funded through "sub-allocated funds" (a compulsory requirement) could be awarded and administered through local transport agencies, which are often city or county agencies.[17] These agencies experienced difficulties in complying with the federal processes, requirements and time frame. According to Arizona Department of Transportation officials, some local agencies lacked the staff and experience to meet various federal requirements, such as obtaining right-of-way and environmental clearances.

Information challenge: top-down and bottom-up

Asymmetries of information have hindered the implementation of recovery strategies. In general, small municipalities had more difficulty gaining access to information.[18] This also reflects municipalities' lack of an integrated strategy at the local level. For example, the Michigan survey mentioned above indicates that nearly half of Michigan officials reported feeling uninformed about opportunities available to their communities. Among officials who did not apply for stimulus package grants, many indicated lack of information as a primary reason (Michigan Public Policy Survey, May 2010).

The information gap is not only bottom-up but also top-down, because of a lack of information and data on local needs. For example, economically distressed areas targeted by ARRA were defined by the Public Works and Economic Development Act of 1965, and may not necessarily have identified the areas most affected by the 2008 crisis.

The crisis has also helped to show that prioritisation of investment does not seem to rely on strong evidence, in terms of return on investment and cost-benefit analysis. There has been little evaluation of the long-term impact of investment plans. The US General Accountability Office and the French *Cour des Comptes* have recently warned that more analysis is needed on whether the investments produce long-term benefits. In the United States, performance monitoring of projects financed by the Department of Transportation is based on inputs (such as number of kilometres of roads or level of expenditures) and does not cover outcomes or long-term objectives (Box 5). In Korea, the *ex ante* evaluation of the investment project was relaxed; this compromised the opportunity to target projects with the highest long-term impact.

Box 5. Performance monitoring for investment projects financed by the Department of Transportation (DOT) in the United States under the ARRA programme

The DOT developed a series of performance plans, released in May 2009, to measure the impact of ARRA transport programmes; these plans generally did not contain an extensive discussion of the specific goals and measures for assessing project impact. While the plan for the highway programme contained a section on anticipated results, three of its five measures were the percentage of funds obligated and expended and the number of projects under construction. The fourth measure was the percentage of vehicle miles travelled on pavement on the National Highway System rated in good condition. The fifth goal was the number of miles of roadway improved. Most surface transport programmes lack links to the performance of the transport system or of the grantees, and programmes in some areas do not use the best tools and approaches – such as rigorous economic analysis – to ensure effective investment decisions. In addition, the quality of data collection varies across states, and some states currently measure, collect and track extensive performance metrics, based on their individual priorities and definitions. According to DOT officials, the department lacks the authority to require states to provide information that is not provided for by law.

Source: General Accountability Office (2010).

This is not due only to the urgency of the crisis situation, since an attempt to collect public investment data at the regional level in the OECD since 2009 has found that few countries track these data and know precisely what is going on in each region (2009b). Also, few countries are known to publish regional breakdowns of public expenditure data nationally, and in many cases this information is difficult to compare with National Accounts and across countries[19] (2009b). Overall, the crisis has revealed a number of issues in terms of the capacity of the statistical system to monitor public investment, and more broadly to monitor economic conditions in a timely and accurate manner.

Accountability challenge

The management of the crisis has led to accountability challenges, since the shortened decision-making process and the huge amounts of public spending created risks for transparency and integrity. Risks of capture and corruption are particularly high in such contexts, for example in local governments with insufficient capacity to monitor investment. The allocation of investment funding gave rise to considerable lobbying, and, to minimise the risks of corruption, in a context of high demand for public action, governments set up new instruments to monitor the use of funding. In that sense, the crisis provided an opportunity to develop new governance approaches across levels of government. These are explored below.

1.3. Overcoming obstacles to implementation: the need for co-ordination

The crisis has shown the strong need for co-ordination[20] across levels of government in order to implement recovery strategies and overcome obstacles. There is no single toolkit of instruments to address each multi-level governance challenge, as the challenges are interdependent. Rather, governance instruments such as inter-governmental committees, contracts or financial mechanisms can address several challenges at once. This section examines whether the crisis has revealed the legitimacy of some governance arrangements and the need to create new ones to: *i)* bridge the policy and administrative gaps; *ii)* manage the fiscal challenge and enhance public-private co-operation; and *iii)* ensure accountability and transparency in the monitoring of large investment flows.

1.3.1 Strong need for co-ordination

Since the relationship among levels of government is characterised by mutual dependence, countries need to develop co-ordination arrangements to reduce a series of potential gaps or contradictions between policy objectives, fiscal arrangements and regulations across levels of government, which can undermine national strategies for growth. To the extent that policies of one jurisdiction have spillovers (i.e. negative or positive externalities) for other jurisdictions, co-ordination is necessary to avoid socially perverse outcomes (Hooghe and Marks, 2003[21]). The previous section highlights the possible costs that can arise from "non-coordination" across levels of government and actors. Rather than revealing that a unitary system would work better or worse than a federal system, the crisis has shown that co-ordination is critical to target investment strategies effectively. Either excessive centralisation or decentralisation in the design and implementation of investment strategies may lead to inappropriate results (Table 5).

Table 5. Challenges of excessive centralisation or decentralisation in implementing national investment strategies

Risks of excessive centralisation	Risks of excessive decentralisation
• Asymmetries of information • Investment not targeted to local needs • Vertical approach to investment, insufficient complementarities across sectors • Passive local governments, which do not complement national policies by their own efforts	• Lack of coherence among national and sub-national strategies • Insufficient vertical co-ordination across levels of government • Pro-cyclical policy at sub-national level in a crisis may hinder the national strategy • Lack of horizontal co-ordination across jurisdictions, risk of duplication in investment decision/waste

Answers from European state territorial representatives to an OECD questionnaire conducted in September 2010 highlight this "co-ordination imperative" (Box 7). More than 60% of respondents reported that the level of co-ordination across levels of government for the implementation of public investment strategies has increased, compared to "normal" times. Most respondents also found that the crisis had made more room for dialogue across levels of government as regards the design and implementation of investment strategies (Box 6). Effective co-ordination in a crisis also requires proactive leaders who push boundaries and build relationships across organisations.

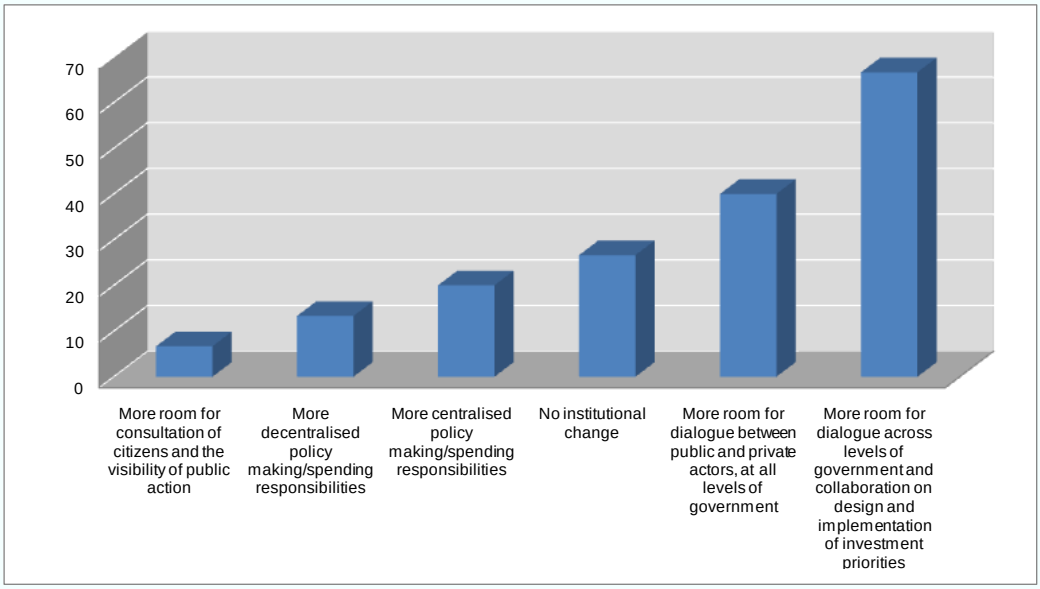
Box 6. Co-ordination across levels of government during the crisis: answers to the OECD questionnaire to European state territorial representatives

During the recession, how would you assess the level of co-ordination across levels of government for the implementation of public investment strategies?

	Number of countries
High level of co-operation	8
Limited co-operation	4
Co-operation no different from "normal" times	3

Source: OECD questionnaire to state territorial representatives in 15 European countries, September 2010.

To what extent have the crisis and its impact on multi-level governance arrangements led to institutional changes in your country? (% of responses, several responses possible)



Source: OECD questionnaire to State Territorial Representatives in 15 European countries, September 2010.

How to limit the costs of co-ordination?

A key question is how to make the most of multiple actors and levels of government in policy making related to public investment, without creating too complex or costly procedures? Indeed, co-ordination itself has costs, which tend to rise exponentially as the number of jurisdictions rises (Scharpf 1997). The costs of co-ordination include both direct and indirect costs, financial and nonfinancial costs. Direct financial costs are attributable for example to transaction costs, staffing costs, monitoring costs, and monetary incentives where they exist. Indirect costs include opportunity costs, administrative burden, and unintended negative consequences. The opportunity cost of co-ordination is the foregone benefit associated with an alternative use of the resources it consumes. These costs are less quantifiable and more difficult to identify than direct financial costs. Different mechanisms and background conditions can help limit costs and maximize benefits of co-ordination (Box 7).

Box 7. How to limit costs and maximise benefits of co-ordination?

These framework conditions do not define an *optimal* level of co-ordination, but an "*enabling*" framework[22]:

- **The objectives and targets of co-ordination need to be clarified and defined *ex ante* for the different parties**. The design of an efficient co-ordination among levels of government should therefore be based on an in-depth understanding of the situation and of the goals of the co-ordination;
- **Co-ordination mechanisms need to be accompanied by incentives, to facilitate their acceptation and implementation** (such as co-funding mechanisms, performance indicators, capacity building, contracts, etc.)
- **Clear leadership at different levels of government and high level political engagement in co-ordination procedures are essential to enhance credibility and enforcement of co-ordination mechanisms.**
- **Co-ordination mechanisms should be designed in a way** that allows flexibility and adaptation to context evolution, while preserving the sustainability of practices. In particular, they should go beyond electoral cycles to allow a long-term perspective.
- **The design of new co-ordination mechanisms should be carefully assessed through cost-benefit analysis**. Too many co-ordination instruments can be counter-productive. Experimentations and pilot initiatives may be useful to test new approaches.
- Finally, maybe the most important framework condition: **co-ordination across levels of government and SNGs clearly requires a high degree of transparency and trust across actors**; as well as well-developed information sharing mechanisms with citizens, private actors, NGOs, local actors, etc.

Source: OECD, 2007a; OECD, 2009r.

The development of credible co-ordination mechanisms across levels of governments and SNGs takes time; is a learning process and may appear in a first stage inefficient. However, when properly designed in a clear accountability framework, medium-long term benefits of co-ordination should outweigh its costs. OECD member and non-member countries are increasingly developing and using a wide variety of mechanisms to help bridge these gaps and improve the coherence of multi-level policy making. As will be explained below, the crisis has shown that these mechanisms have been particularly helpful for designing well-informed investment strategies, better targeting them and ensuring policy and fiscal coherence across levels of government. Since it is difficult to build them from scratch in crisis time, countries with well developed co-ordination mechanisms have had an advantage in the management of the recovery.

1.3.2 Bridging the policy gap: mobilising existing tools and developing new ones

Mobilising existing multi-level governance institutions

In most countries the national government made a strategic choice about policy design, and then undertook an extensive effort to co-ordinate implementation across ministries and levels of government. Countries with well-developed co-ordination arrangements, such as inter-governmental committees or state territorial representatives, have had a comparative advantage in the management of the crisis, as it takes time to build co-operation arrangements and trust. For example, the responsiveness of the Australian government during the crisis was helped by the presence of a well-developed multi-level governance body, the Council of Australian Governments (COAG), which provided a forum for decision making and prioritisation of investment (Box 8). Within the COAG framework, the Ministerial Council for Federal Financial Relations proved to be particularly useful. On top of existing structures, a newly created oversight group chaired by the co-ordinator-general as well as the network of national co-ordinators at the department level and co-ordinator-generals at the state and territory level provided a very timely and valuable governance framework for managing the implementation of stimulus measures.

Box 8. The role of the COAG in Australia in the governance of the crisis

The Council of Australian Governments (COAG) is the main forum for the development and implementation of inter-jurisdictional policy. It is composed of the Australian prime minister as chair, state premiers, territory chief ministers and the president of the Australian Local Government Association.

The COAG was established in May 1992, but since 2007, the implementation of its reform agenda has been boosted by new Commonwealth leadership and new working arrangements, including the use of working groups of senior state officials chaired by a Commonwealth minister, to identify areas for reform and develop implementation plans.

During the crisis, the COAG created a number of new governance institutions to optimise the delivery of the stimulus package and ensure co-ordinated management. These new institutions included an oversight group within the Department of the Prime Minister and Cabinet. The oversight group, chaired by a co-ordinator-general, is responsible for developing project plans and monitoring mechanisms together with line agencies state level authorities. Its tasks also include preparing reports on the progress of implementation for the COAG. The oversight group was complemented by the establishment of national co-ordinators nominated by relevant line agencies and by co-ordinator-generals nominated by each state and territory.[1] Members of the oversight group, line agency co-ordinators and state and territory co-ordinators met every fortnight by teleconference to discuss the progress of the plan, share ideas and experiences, and identify and resolve critical issues. Co-ordinators at the line agency level met every week.

1. *Commonwealth Coordinator-General's Progress report*, 3 February 2009 – 30 June 2009, p. 12.

Source: OECD country note on Australia; OECD (2010b), "Fiscal Policy Across Levels of Government in Times of Crisis", COM/CTPA/ECO/GOV/WP(2010)12.

State territorial representatives, *i.e.* representatives of the national government in territories,[23] often saw their role increase during the crisis, including in the area of public investment. In France, regional and departmental prefects monitored response to the crisis in regions and reported to the central government on the sectors affected and the support measures needed. Monitoring efforts have been intensified in the ten regions most affected by the crisis (Bretagne, Champagne Ardenne, Franche-Comté, Haute-Normandie, Lorraine, Midi-Pyrennées, Nord-Pas-de-Calais, Picardie, Poitou-Charente, Rhône-Alpes). In each of these regions a 'reindustrialisation commissioner' has been appointed to work alongside the regional prefect in co-ordinating the various policy instruments available (EPRP, 2010). Prefects have also been involved in support to local authorities and supervision of investment measures, in particular the agreements for reimbursement of VAT (CFTVA). The inter-ministerial co-ordinating role of regional prefects has also increased. Prefect have also been directly involved in economic actions to support enterprises, in particular through banking mediation. In Switzerland, prefects have also played an important role for implementation, as have state and territory co-ordinators–general in Australia.

Creating new MLG institutions

The crisis also revealed the need for increased *horizontal* co-ordination at the central government level, as national investment priorities, such as "green growth" priorities, cross ministry lines. Countries such as France have set up new ministries in charge of the recovery strategy. Others, such as Sweden, have set up inter-ministerial committees in charge of monitoring the recovery plan, with an inter-ministerial group of state secretaries to co-ordinate policy responses. In Slovenia, a co-ordination group of the Slovenian government, led by the Minister of Development and European Affairs, was established to co-ordinate measures associated with the crisis.

To bridge the *vertical* co-ordination gap between levels of government that has appeared in a more obvious way during the crisis, several countries have created new institutions. The US government has created new structures, such as the Office of Public Engagement and Intergovernmental Affairs,[24] an integral part of the executive branch, which aims to increase consultation and co-operation with state and local leaders. Sweden has set up regional co-ordinators to facilitate and strengthen the co-ordination of

local, regional and national actors, policies and resources. The function of regional co-ordinators is carried out by the county governor and the political leader of the county council. Together they are in charge of reporting regularly to the government on economic developments in the county and identifying areas that require government support. While the functions of county governors and county council leaders were in place before, their collaboration on communicating investment needs to the central government is new.

Mobilising existing investment strategies

The tension between the short and long term in investment plans can be mitigated if they rely on pre-existing, well-defined strategies, which are flexible enough to be adjusted in response to a crisis. Priorities may have to be adjusted if a crisis reveals imbalances in certain sectors, but the ability to rely on an existing framework allows for a significant gain of time. The financial crisis highlighted the fact that, in many cases, countries and regions lacked appropriate strategies for prioritising investment, either because no strategies were in place or because many projects were ready to be launched, but there was no clear sense of their relative urgency. In such cases, regional policy and related governance instruments were valuable for prioritising investment.

Regional development strategies were mobilised during the crisis as a way to implement national packages. Reliance on these strategies provides the advantage of targeted priorities, in a balanced policy mix, generally identified with a large range of stakeholders in a cross-sectoral and multi-year perspective.

Regional development strategies have notably been mobilised in the European Union, as part of the EU cohesion policy.[25] Given that all EU countries are requested to have investment plans for 2007-13 for the use of EU cohesion funding, some European countries relied on existing regional development strategies to prioritise the public investment contained in the stimulus packages and to accelerate the use of EU funds.[26] On its side, the European Commission encouraged member countries to maintain high levels of public investment during the crisis and accelerated the disbursement of funds for already agreed projects, by advancing payments for the 2007-13 programmes. The Commission has focused its support on three priorities: more flexibility in the use of funding, giving regions a head start and focusing on smart investment (Box 9). Many managing authorities have taken advantage of the opportunity to extend the closure date of the 2000-06 period and of the increased EU advance payment for the 2007-13 period.

Established regional partnerships and long-term strategies were also crucial for speeding up decision making for the allocation of investment. In Sweden for instance, existing regional development programmes and regional growth programmes proved to be highly useful for prioritising investment. They can target priorities to reflect local needs and balance short-term and long-term concerns in a multi-sectoral perspective. Sweden, which was able to draw some lessons from the crisis of the 1990s, highlighted the need to maintain flexibility, in order to adjust to new challenges arising from crisis.

Contractual tools involving different levels of government have also proven useful in channelling national stimulus funding. In Canada, the funding amounts under the Building Canada Fund - Major Infrastructure Component and the Communities Component are set out in the federal-provincial-territorial Framework Agreements. In France, existing state and regional investment plans for 2007-13 (CPER) were mobilised to accelerate certain projects, in particular for universities and high-speed rail. Although these investments did not necessarily start in early 2009, they constitute plans for firms and help to clarify medium-term prospects. The contractual approach provides several advantages, as the investment mix is designed through a cross-sectoral approach and the responsibilities of the national and the local governments are clearly defined[27].

However, compared to the total investment funding available, regional policy tools have been relatively little used during the recession. In unitary countries, the key actors at the local level have been municipalities rather than higher tiers of government. Even in Spain, the regional level was not involved in the management of the recovery. Political obstacles are part of the explanation, but the traditional reliance

on sectoral approaches to investment policy, within macroeconomic national packages, have also prevailed during the crisis.

Box 9. Cohesion policy in the European Union Recovery Plan

In October 2008, the Commission proposed a series of measures to speed up the implementation of European cohesion policy programmes for 2007-13 to ensure that all cohesion policy resources are fully mobilised to support member state and regional recovery efforts. These measures are based on recommendations to member states and on specific legislative measures designed to accelerate investment and simplify the implementation of European cohesion policy programmes.

1) Flexibility

Modifying cohesion policy programmes: The existing cohesion policy programmes already have a strong strategic focus on jobs, business, infrastructure and energy, and research and innovation. These will continue to be priority areas of investment for cohesion policy programmes. Because of the ongoing economic crisis, the Commission is working with the member states to see if these programmes require any changes to meet the new challenges faced by Europe's regions and to simplify delivery of programmes and speed up their implementation.

Closing the 2000-06 programmes: The Commission has extended the final date of eligibility for the 2000-06 operational programmes to ensure maximum use of all cohesion policy resources for the period. Greater flexibility has also been introduced in the calculation of the final EU contribution. The Commission has also proposed several measures to simplify the financial management of the cohesion policy programmes in order to reduce the administrative burden. These measures include introducing lump sum or flat-rate payments for reimbursement and further facilitating contracting with the European Investment Bank (EIB) and the European Investment Fund (EIF) so that contracts can be awarded directly to the EIB or EIF.

Maintaining public investment: The Commission has encouraged member states to maintain high levels of public investment to ensure that cohesion policy resources are fully mobilised to support recovery efforts. More flexibility has been introduced to encourage this type of investment, for example by allowing some measures to be financed at 100% through the EU funds in 2009.

2) Giving regions a head start

Increased cash flow: The Commission suggested increasing advance payments to the 2007-13 programmes. Additional advance payments released in April 2009 provided an immediate cash injection of EUR 4.5 billion for investment, within the financial envelope agreed for each member state for 2007-13. These funds have brought the total of advance payments to nearly EUR 23.3 billion since 2007.

Help with major projects: To help member states advance the development of major projects, the Commission proposed to increase the resources available to JASPERS (Joint Assistance in Supporting Projects in European Regions) by 25% to help member states prepare major projects from 2009 and to accelerate intermediate payments for major projects to help in the preparation phases.

3) Smart investment

The Commission has worked together with member states to modify, if necessary, the existing cohesion policy programmes to put greater emphasis on smart investment, such as: investing in energy efficiency, clean technologies, environmental services, infrastructure and interconnections, broadband networks, forecasting and matching skills with future labour market needs or opening up new finance for research-intensive and innovative SMEs.

More energy-efficiency investments: The Commission has negotiated with member states to include more energy-efficiency improvements and renewable energy schemes in housing in all member states.

Promote entrepreneurship and enhance co-operation with the European Investment Bank (EIB) and European Investment Funds (EIF)

Source: http://ec.europa.eu/regional_policy/funds/recovery/.

To a certain extent, countries such as Canada and Brazil, which had launched large-scale national investment strategies before the crisis, have had a comparative advantage, as they were able to accelerate investments already planned and to mobilise co-ordination instruments already in place across levels of government (Box 10).

Box 10. Anti-crisis tools: acceleration of national investment strategies in Canada and Brazil, with well-defined MLG arrangements

- **Canada had launched the Building Canada plan in 2007**, as the financial crisis had not yet leaped into view, for a seven-year period (2007-14). The plan consists of a federal investment of CAD 33 billion, and provided specific co-ordination tools with provinces and municipalities, in particular cost-sharing agreements. It focuses on key infrastructure priorities, such as water and wastewater, the national highway system, public transportation and green energy. This plan, under which there is a toolbox of initiatives, was taking effect just at the moment it was most needed, when the U.S. entered recession in early 2008. As part of its stimulus efforts to fight the crisis, in addition to launching a new set of programs, Canada also took steps to accelerate existing funding under the Building Canada plan, in order to further increase the amount of infrastructure investment during the 2009 and 2010 construction seasons. Having the strategic planning for investment in place under the Building Canada plan has facilitated the management of investment stimulus in an urgency context (cf. country note on Canada).

- **Brazil was in a similar** situation although it was less affected by the crisis than Canada and most OECD countries. Brazil had launched in 2007 an infrastructure development programme, the growth acceleration programme (PAC) to address bottlenecks and facilitate growth. It had BRL 638 billion (USD 349 billion) to be invested within three years in key infrastructure areas such as transport (road, trains, rivers), energy, ports and urban infrastructure (sanitation, housing). It required enhanced co-ordination across the federal government and states/municipalities. Although there were implementation challenges, with only 63% spent at the target completion date of March 2010, the overall impact has been viewed as positive and a countercyclical factor in cushioning Brazil's economy from the full effects of the world financial crisis. During the crisis, the government mobilised PAC to anticipate transfers to municipalities and provided special credit lines for long-term investment by states. The fact that procedures were already in place helped to act in the crisis situation, and PAC is considered to have served as a key anti-crisis tool.

Source: Country note on Canada and *www.braziltradenet.gov.br*.

Some good practices for horizontal co-ordination across local governments

In a few cases, investment funding for the recovery has helped to foster co-ordination among municipalities. For example, in Alabama in the United States, elected officials from Birmingham, Bessemer, Hoover, Lipscomb, Graysville and Fultondale formed the Alabama Green Initiative (AGI) in an effort to get a portion of the grant money available for green development in the stimulus bill. In Massachusetts, a new framework for co-operation across municipalities was developed. In greater Washington, DC, six municipalities elected to submit a joint application for ARRA funding to "pursue one multi-jurisdictional strategy for dealing with foreclosed and abandoned properties, including bulk acquisition, resale, and rentals; financial assistance to homebuyers; and transformation of some parcels to permanent supportive housing" (Muro *et al*., 2009; Brookings Institution). In Germany, implementation of the sub-national investment package was entirely decentralised, and there were some good practices of inter-municipal co-operation, for example in Nordrhein-Westfalen, where an agreement was reached across municipalities for the allocation of funds. In Australia, the government encouraged local governments to contribute funds or secure partnership funds for projects, in particular through the mobilisation of the Australian government's Local Government Reform Fund.[28]

Using specific instruments for certain regions

The management of the crisis also highlighted the need to develop specific governance instruments for severely affected regions. For example, Slovenia adopted a law to support a north-east region, Pomurje, which was strongly affected by the crisis and the closure of a textile company. The act lays down additional development support measures for promoting the development of the Pomurje region during 2010–15 and the means of financing them. In Germany, the federal government earmarked loans to structurally weak local authorities in 2009-10. The need to bridge the fiscal gap has been one of the main challenges of the crisis, as explained in the following section.

1.3.3 Bridging the financial gap and facilitating public-private co-operation

In addition to discretionary grants, many OECD countries streamlined and simplified procedures for approving and disbursing funds. This helped to speed up the trickle-down effect of grants by providing immediate liquidity to the private sector. Some central governments also facilitated sub-national borrowing by providing subsidised loans or explicit guarantees. Others eased sub-national budget constraints by waiving balanced budget rules. The Austrian government, for instance, revised its Internal Stability Pact, allowing for higher sub-national deficits. Similarly, the Italian government made temporary changes to its Internal Stability Pact to allow sub-national governments to increase their investment expenditure.[29]

Avoiding the crowding-out effect

As previously mentioned, earmarked grants for capital investment often give sub-national governments an incentive to reduce their own investment spending. Many recovery packages therefore included complementary measures, such as conditionality clauses and monitoring arrangements, to avoid the crowding out of sub-national funding of investment in a period of high central government spending.

Recovery packages in Australia, Canada, France, Germany, Spain and the United States included some sort of conditionality clause attached to earmarked grants. The exact specification of conditionality clauses varied but all ensured that central government funding was directed at sub-national investments that otherwise would not have been undertaken. In Germany and Spain, conditionality clauses exempted from financial support all sub-national investment projects for which funding had already been secured in the 2009 budget. In Australia and France, conditionality clauses required sub-national governments to maintain pre-stimulus investment spending levels. While conditionality clauses were meant to ensure that investments undertaken were truly additional to those already envisaged, they also needed to be flexible enough to allow sub-national governments to bring forward ready-to-deliver projects.

In addition, conditionality clauses require comprehensive monitoring arrangements. Sometimes the documentation required sub-national governments to prove the incremental nature of investments was so wide-ranging and laborious that it delayed the implementation of recovery strategies. Streamlined and transparent documentation and monitoring arrangements were crucial in avoiding unnecessary administrative burden.

Matching funding: helping financially weak regions

While co-funding arrangements proved to be very useful in mobilising additional investment, they also ran the risk of disadvantaging financially weak regions. This was especially the case when investment projects eligible for central government funding were selected according to the ability of sub-national governments to provide matching funding. To avoid a bias against financially weak sub-national governments, OECD countries developed a number of compensating mechanisms.

In Canada for example, an existing Gas Tax Fund program provides predictable and long-term funding of CAD 2 billion annually, for environmentally sustainable municipal infrastructure projects. Canadian municipalities can freely put this money towards construction, or pool, bank and borrow against this funding, providing significant additional financial flexibility. If they wish, municipalities can use their amounts under the Gas Tax Fund to finance part of their matching funding under certain stimulus programs, as long as they respect the overall maximum (e.g., 50 per cent) on the percentage of project funding that came from federal sources. In Germany, some of the *Länder* disbursed parts of the funds for municipal infrastructure according to population and area size whereas other parts were distributed according to a special mechanism privileging financially weak municipalities. *Bundesländer* such as Nordrhein-Westfalen set up special funds to help municipalities finance their matching funding contribution.

Managing urgency: reducing administrative obstacles

To facilitate co-operation across levels of governments with private actors, countries simplified administrative procedures for approving and disbursing funds to speed up the implementation of projects. Many OECD countries accelerated their public procurement procedures. France eased rules for public procurement and urban land use which were considered too constraining in the context of recovery. In Korea, public procurement procedures were simplified and the procurement period was shortened from 79-90 days to 20-38 days. Evaluation of the traffic and environmental impact of projects was also sped up. The European Commission agreed on the use of accelerated procurement procedures for all major public projects throughout 2009 and 2010.

Some OECD countries also mobilised e-government tools to increase co-ordination between levels of government. In Spain, for example, municipalities used an online procedure to apply for funding from the state fund for local investment. It seems to have been very successful in reducing bureaucratic burden and facilitating rapid absorption of funding.

Countries also introduced some flexibility in the multi-level regulatory framework, in particular for housing construction and spatial planning. For example, in the Netherlands, the Crisis and Recovery Act, the stimulus package accepted by parliament in 2010 to tackle the economic crisis, simplifies laws and regulations that currently impede the progress of certain projects for housing construction, industrial estates and infrastructure. Some of these simplification measures concern specific projects that form part of the stimulus package in the Crisis and Recovery Act; they will expire in 2014. Other simplification measures (*e.g.* with respect to Natura 2000 areas) will continue beyond 2014.[30]

Facilitating public private co-operation

In a number of countries, anti-crisis measures included facilitation of public private partnerships[31] (PPPs), as a way to finance public investment projects. These measures are particularly important for sub-national governments (notably municipalities), which are responsible for the provision of infrastructure, the type of projects for which PPPs are mostly used.[32] The crisis had an immediate negative impact on the volume of PPP projects (OECD, 2010). As credit markets dried up, it was next to impossible to finance debt capital, and projects that had not already been finalised largely came to a standstill. In response, a number of countries attempted to unclog the PPP pipeline by making financing available in various forms. In particular, the United Kingdom, France, Korea and Portugal considered the PPP market as important for stimulating the economy in response to the crisis (Box 11) and they made PPPs more appealing to the private sector by guaranteeing debt and/or supplying capital. PPP are complex instruments which require a number of capacities to be present in government, and should be used with caution (Box 12).

Box 11. The increased use of PPPs during the crisis

Australia

The government is working to create a "seamless national economy" by promoting national markets and harmonising regulation. Through COAG, it has produced national guidelines on public-private partnerships.

Korea

Since public-private partnerships (PPPs) were first introduced in Korea by the *Promotion of Private Capital into Social Overhead Capital Investment Act* in 1994 and the *Act on Private Participation in Infrastructure* (PPI Act) in 1998 after the 1997 financial crisis, they have been used in projects managed both by the central and local governments. Major projects conducted through a PPP include the Seoul Beltway Northern Section, the Incheon International Express Highway, and the Busan New Port Phase 1. With the recent decrease in private demand and the sharp increase in the public sector, a first round of measures to revitalise PPPs was taken in February 2009 to ease the credit crunch (the introduction of the Korean Development Bank's Special Loan Programme and the Infrastructure Credit Guarantee Fund), followed by a second round in August 2009 (strengthened tax incentives and the development of a new risk-sharing scheme in October).

Canada

The Canadian government has encouraged public-private co-operation in implementing infrastructure investments. The benefits of partnering with private or non-profit actors include increased access to capital and expertise and the distribution of investment risk among several partners. Typically, federal funds only cover 25% of the cost of projects undertaken by the private sector and 33% of the cost of those undertaken by non-profit partners. The Canadian government had already started to set a track record of good public-private co-operation in the context of the "Building Canada" plan. In particular, it set up a CAD 1.25 billion Public-Private Partnerships Fund and a federal office (a Crown corporation called PPP Canada) aimed at facilitating co-operation.

France

The crisis led to new financial mechanisms, in particular public-private partnerships. France chose to set up a guarantee scheme to facilitate the use of PPPs, notably for local governments.

Source: OECD country notes, *Multi-Level Governance and the Crisis*, 2010.

Box 12. The use of Public Private Partnerships (PPPs) at sub-national government level: the need for prudency

When engaging into PPPs, public actors need to assess carefully their advantages compared to traditional procurement. The underlying rationale for choosing PPP over traditional procurement or private-sector provision is improved value for money. In addition, PPP are long term commitments that encourage a longer term view on capital spending, may support private sector recovery and build local capacities. However, the growing number of PPPs in recent years and their contractual structures may entail fiscal risks for governments that can be exacerbated in a crisis context. The challenges of using PPPs may be higher at sub-national government levels, given the potential lack of skills in the public sector to set up and manage PPPs. To limit government's exposure to risk, while preserving the private partner's efficiency incentives, intervention measures should be consistent with the wider fiscal policy stance, be contingent on specific circumstances, and be adequately costed and budgeted (Burger *et al*., 2010). The introduction of PPPs for sub-national governments should be prudent, and PPP activity should be controlled through rules on PPP stocks and flows. Overall, PPPs have to be treated with caution, as they entail more risks for government than traditional projects.

Source: OECD (2008), *Public-Private Partnerships: In Pursuit of Risk Sharing and Value for Money*, OECD Publishing, Paris, and OECD (2011), "From Lessons to Principles for the Use of Public Private Partnerships", GOV/PGC/SBO(2011)3.

Mobilising new financial instruments

Governments created a number of new financial instruments during the recession to stimulate investment, leverage private investment and diversify sources of funding for local governments.

- **Specific investment funds.** Some countries created state-owned investment funds. For example, France created a "*fonds stratégique d'investissement*" (FSI) in November 2008 to support enterprises looking for capital funding. By the end of 2009, the fund had been allocated EUR 20 billion by the state and the *Caisse des Dépôts et Consignations*, in part through their participation in strategic companies. The purpose of the fund is to support SMEs that have difficulty obtaining financing and to securitise the capital investment of strategic companies. The fund acts in conjunction with private partners to support long-term investment projects and companies that generate revenue.
- **New European Union investments funds**. For example, the European Investment Bank (EIB) launched Marguerite 2020 to finance investments in new greenfield infrastructure projects in the areas of transport (Ten-T), energy (TEN-E) and renewables. The fund is financed by the EIB and various national banks.
- **Investment funds set up by regions.** In France, the Pays de la Loire region adopted a EUR 629 million investment plan at the end of 2009 and raised a loan of EUR 80 million. The funds mobilised increased the pace of regional investment and allowed the establishment of a regional loan for industrial redeployment to provide backing for the most competitive firms.
- **Loans for sub-national governments.** Loans have been increasingly used to finance investment (Council of Europe, 2010). As the crisis originated in the financial sector, loans are not readily available on the market. Regional banks such as Kommunalkredit (Austria), Kommunalkreditt (Norway), or Dexia (France-Belgium) were also hit hard by the crisis. Nonetheless, local government borrowing has increased in many countries. In particular, the new EU member states actively used this method of financing, partly to raise funds for co-financing and pre-financing projects funded by the EU. These countries already had proper regulations on municipal borrowing (Council of Europe, 2010).
- **Reliance on bonds.** The forms of local government borrowing have been transformed as well.[33] The former bank loans have been gradually supplemented by a new wave of bond issues. Large cities in the Czech Republic, Hungary and Poland issue bonds more actively (Council of Europe, 2010). In the United States, *Build America Bonds* are a taxable municipal bond created under the American Recovery and Reinvestment Act of 2009 and carry special tax credits and federal subsidies for either the bond holder or the bond issuer. Many issuers have taken advantage of the Build America Bond provision to secure financing at lower cost than issuance of traditional tax-exempt bonds. The Build America Bond provision is open to governmental agencies issuing capital expenditure bonds before 1 January 2011. The increased reliance on bonds at the municipal and state level is not without risks, in a context of high volatility of financial markets turbulence (see section 1.4).

1.3.4. Bridging information gaps and enhancing accountability

To limit risks of capture and respond to demand for transparency in the use of funding, new governance approaches were developed to better monitor the use of exceptional funding. E-government tools have been used in an unprecedented manner and have played a major role in ensuring the transparency of crisis-response measures, conveying relevant information and support to citizens and businesses, and encouraging feedback from citizens on alternatives for addressing the effects of the economic downturn (UNPAN, United Nations e-government survey, 2010[34]). Given the traditional

difficulty of tracking investment funding at the local level, this constitutes a significant shift towards better practices. To what extent these efforts will be sustained after the crisis remains an issue.

Bridging information gaps

Most countries have set up strict monitoring frameworks across levels of government. Performance measures and indicators go well beyond the need to monitor the use of funds, as they help to bridge the information, capacity and objective gaps. They are in themselves tools for capacity building (OECD, 2009r). To develop effective monitoring arrangements that would also take into account the concerns and dispositions of sub-national governments, some OECD countries resorted to existing multi-level governance institutions. In Australia the Council of Australian Governments (COAG) provided the framework for streamlined and simplified monitoring arrangements. Its Ministerial Council for Federal Financial Relations agreed on specific expenditure and output benchmarks for the Australian states. Every quarter, states needed to report to the Heads of Treasuries on the activity undertaken against these benchmarks. Heads of Treasuries then collated the information and provided it to the Ministerial Council for Federal Financial Relations, which made a final assessment (Box 13). In the more general realm of overseeing the implementation of funds, Korea set up a special reward mechanism. The Korean Ministry of Public Administration and Security (MOPAS), which carried out mid-term comparative evaluations of local fiscal performance between January and March 2010, rewarded the best-performing local government with a special shared tax KRW 10 billion.

Box 13. New budgeting practices for monitoring the use of funds under Australia's recovery plan

As part of the Australian National Partnership Agreement on the Nation Building and Jobs Plan, the Ministerial Council for Federal Financial Relations of the COAG established expenditure and output benchmarks for each of the sectors to receive additional Commonwealth funding. Benchmarks took into account previously budgeted state expenditure as well as additional Commonwealth expenditure. Every quarter, states needed to report to the Heads of Treasuries on the activity undertaken against these benchmarks. Heads of Treasuries then collated the information and provided it to the Ministerial Council for Federal Financial Relations, which made a final assessment. If a State's expenditure did not meet the benchmark, the Commonwealth reserved the right to make the assessment public and demand a return of resources to be reallocated to other states or used for Commonwealth purposes (OECD, 2010b).

The expenditure benchmarks allow assessment of whether the states have at least maintained their existing and planned level of expenditure during the period of increased Commonwealth expenditure.

Monitoring the use of funds has gone well beyond traditional governmental or parliamentary control, as a central objective in most countries was to provide citizens and private firms with as much transparency as possible. Governments in France, Spain and the United States organised weekly or monthly press conferences to present progress made in implementation. Some countries have issued regular reports on the implementation of their economic stimulus plan. Canada for example has, as of February 2011, issued seven reports to track progress in implementation and describe challenges met.[35] In Australia, the Council of Australian Governments established an oversight group chaired by a co-ordinator-general. Its responsibilities include reporting to the COAG on the progress of implementing the Nation Building and Jobs Plan.[36]

In addition, most countries and regions have created websites that enable citizens to track stimulus packages and other public funds committed to addressing the crisis (UNPAN, United Nations e-government survey, 2010). In 2010 the United Nations tracked information on stimulus packages and other public funds committed to addressing the financial and economic crisis on 115 government websites.[37] It found that 83% of the crisis-response websites studied used ICT to increase transparency. In addition, 40% included territorial information on the use of funding. In Australia, Canada, France and the United States, detailed information on the territorial use of funds is available on government websites (Box 14).

Box 14. Government websites with detailed territorial information on the use of funds

Best practices include the US ARRA website, which allows tracking recovery funding per state and programme. The *data.gov* website created in 2009 by the US government provides datasets generated by the government in an accessible, developer-friendly format. It is one of the most substantial steps taken so far to provide such a platform for third parties (UNPAN, 2010).

In Australia, the government released a web portal that provides key information on the economic stimulus package and showcases developments in the implementation process. An interactive mapping tool called *My Community* allows citizens to track approved projects across the country. It also enables interactivity as citizens can ask questions. It provides links to sub-national websites of similar scope. The US Recovery Act and the Australian Economic Stimulus Plan websites allow users to track funds by entering their postal codes. On France's stimulus website users can click on a map and find information on the allocation of recovery funds in the area selected and the total costs of individual projects taking place in the region.

The use of e-government tools to monitor funding has also significantly increased at the sub-national level (UNPAN, 2010). For instance, in the United States, all states currently run stimulus websites, which provide detailed information on the allocation per county and municipality. Maryland's website is considered the best for monitoring stimulus funds.[38] German *Länder* have also developed websites to monitor the use of funding, as have Canadian provinces and Australian states, as well as many French regions.[39] Although the general purpose of these government websites is to enhance public scrutiny, some sub-national governments have also used them to foster participation on economic crisis issues. In the UNPAN survey, 27% explored the prospects of ICT for promoting some kind of citizen feedback or participation. For example, in the district of Heathcote in Australia, citizens were invited to give their views through the Internet on the allocation of stimulus funds.

Bridging the capacity gap

Some instruments created in the wake of the crisis have helped to build local capacity for the longer term. In Greece, a special non-profit organisation was set up to assist small municipalities that lacked the necessary skills for preparing projects for EU structural funds (Council of Europe, 2010). The purpose was to help prepare four-year action plans for municipalities with a population of less than 10,000. E-government tools also have the potential to enhance capacity building in sub-national governments. A US federal government website helps recipients of recovery funds to meet quarterly reporting requirements by providing them with the means to submit project updates online.[40] The strong guidance put in place by the government has helped states and municipalities allocate funding within the set timeframe (GAO, 2010).

Conclusion

The crisis has had enormous economic, financial and social repercussions throughout the OECD, but also deep implications for increasing the legitimacy of public governance. During the crisis, co-ordination across levels of government has proven critical for targeting investment priorities, ensuring coherence in fiscal policy and facilitating the implementation of national strategies. Countries with well-developed co-ordination mechanisms across levels of government and policy areas were better able to manage stimulus packages and prioritise public investment to differentiated regional challenges, with a view to both short- and long-term recovery challenges. The crisis also provided an opportunity for public management reforms which can have lasting positive effects, such as better monitoring of investment performance, greater government responsiveness, and better co-ordination of agencies and levels of government. To what extent these efforts will be sustained and what MLG challenges will be raised in the current fiscal consolidation context, are addressed in the following section.

1.4. Making the most of public investment in times of austerity

In a short span of time (2009-11), most OECD countries have rapidly moved from highly expansive fiscal policies to the tightest in decades. Just as co-ordination across levels of government was important to implement recovery measures, multi-level governance mechanisms are critical to managing consolidation. What is important in periods of expanding expenditure is even more relevant in times of budget cuts, which are more difficult to achieve because of resistance. A successful deficit reduction plan requires strong involvement of sub-national governments, to achieve both fiscal discipline at the local level, as well as the design of appropriate growth strategies with differentiated strategies across regions. This section explores: *i)* the switch from stimulus to consolidation and the challenges that it raises for multi-level governance and sub-national governments; *ii)* the opportunity that this context may also create for MLG and place-based policies; *iii)* the need to identify a series of guidelines for making the most of public investment.

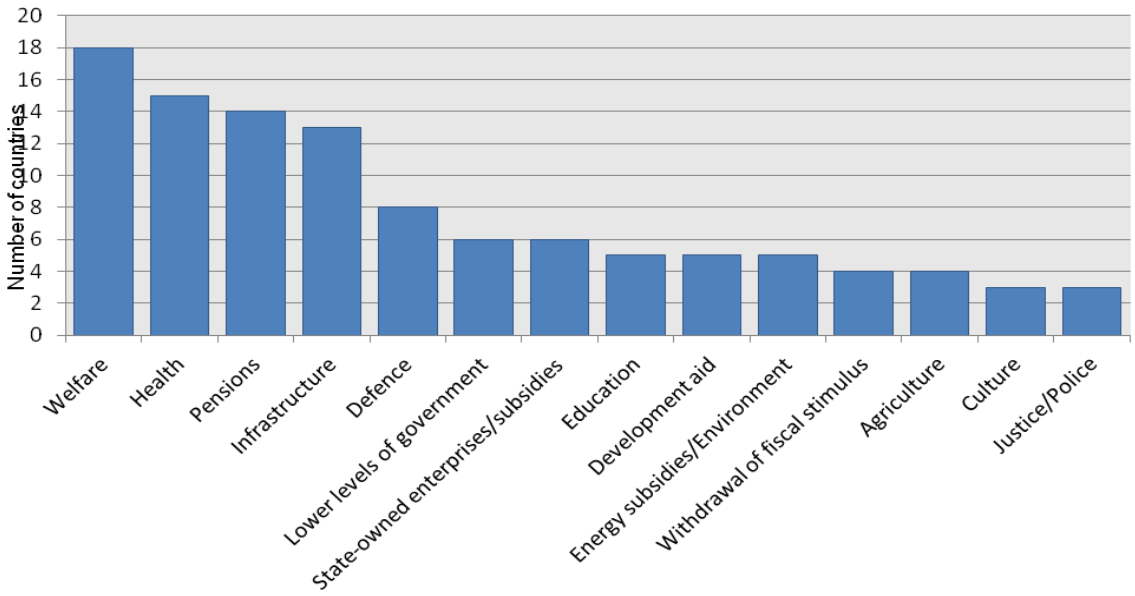
Multi-level governance challenges in fiscal austerity

From stimulus to consolidation: public investment, a priority in budget cuts

The crisis has left a strong and lasting imprint on OECD member countries' public finances. On average, OECD budget deficits are projected to rise to over 8% of GDP in 2010. The average debt level in OECD countries is expected to peak at 100% in 2010 (about 30 percentage points higher than before the crisis). As stimulus packages are phased out, many countries are planning some combination of tax increases and spending cuts in 2011 and beyond (Box 15).

A recent OECD analysis of 29 member countries' consolidation plans finds that in 2011-14, most governments will focus on expenditure cuts rather than revenue enhancement. Between 2011 and 2014, expenditure cuts will contribute more than two-thirds of the planned consolidation efforts, with revenue increases making up the remaining third (Box 17). The largest expenditure reductions come from reducing programme expenditures, in particular programmes on welfare, health, infrastructure and pensions (OECD, 2011a, see chart 6). Cutting public investment is a priority for budget cuts in many countries, with 13 of the 29 responding countries scaling back public investments in their consolidation plans (OECD, 2011a). In Portugal and Spain, stopping or postponing infrastructure projects by downscaling investment expenditures is one of the most important contributions on the expenditure side (OECD, ibid).

Figure 6. Fiscal consolidation strategies in OECD countries: major programme measures – frequency



Note: Out of a total of 29 countries.

Source: OECD Fiscal Consolidation Survey, 2010.

Box 15. Fiscal consolidation strategies at the national government level in OECD countries

Many advanced economies are planning some combination of tax increases and spending cuts in 2011 and subsequent years as their stimulus packages expire and budget consolidation begins. Collectively, these may amount to a tightening of some 1.25% of GDP (IMF, 2010). This could be the biggest simultaneous fiscal squeeze since modern records began. Interestingly, this is roughly the percentage of global GDP that was injected into G20 economies as part of stimulus packages: 1.4% of the combined GDP of G20 countries and 1.1% of global GDP (Brookings Institution, 2009).

Fiscal challenges vary substantially across countries and regions; some face strong market pressures to reduce debt burdens while others have more room for manoeuvre. Countries in which financial markets have lost confidence have no choice and must undertake fiscal consolidation immediately.

While almost all OECD member countries have deficit targets over the medium term, about half have announced consolidation plans that include measures over the 2010-13 period. For countries with a consolidation plan, the size of the plan varies significantly depending on the country's fiscal position and the current status and time frame of the consolidation plan. Unsurprisingly, countries with the largest economic imbalances and the most rapid deterioration in public finances require larger fiscal consolidation. For example Greece and Ireland have introduced very large fiscal consolidation plans measured at around 22% and 17% of GDP, respectively. Portugal, Spain and the United Kingdom have also announced large fiscal consolidation programmes that equal 6-7% of GDP (OECD, 2011a).

There is a significant variation in the composition of consolidation measures. A number of countries have based consolidation mostly on expenditure-based measures. Fiscal consolidation is weighted on average two-thirds towards spending cuts and one-third towards increasing revenues (OECD, 2011a).

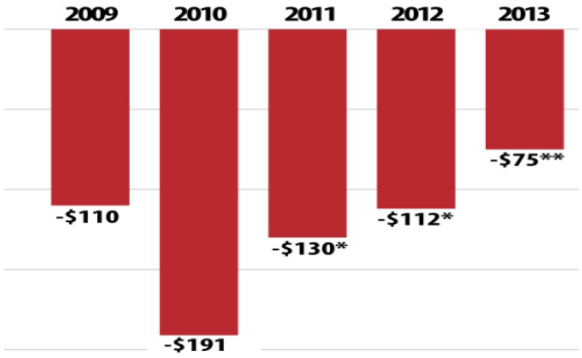
Source: OECD (2010), *Going for Growth*, OECD Publishing, Paris and OECD (2010), "OECD Fiscal Consolidation Survey 2010", OECD, Paris; and The Economist, October 7, 2010.

The crisis: a prolonged impact on sub-national governments

The crisis will have a prolonged impact on fiscal relations across levels of government. As SNGs' revenues are often based on the previous year's activity (*e.g.* shared taxes, equalisation transfers, etc.), most SNGs are expecting the situation to worsen in 2010 and 2011, and even later. In addition, people who lost their jobs first benefit from unemployment insurance, which is a central government responsibility, before moving to social welfare programmes, which often rely on SNGs (Bloechliger *et al.*, 2010). Thus, the rise in SNGs' expenditures will take some time to materialise.

In many OECD countries, the financial situation of sub-national governments has already worsened significantly (OECD, 2010). In Germany, the gross public debt of the *Länder* increased by 8.5% in 2009 to EUR 526 billion. In the United States, states foresee fiscal year 2011 to be the most difficult in modern times, with few improvements expected for 2012. According to the US Centre on Budget and Policy Priorities, 44 states are projecting budget shortfalls totalling $112 billion for fiscal year 2012 (McNichol, Oliff and Johnson in CBPP, 2011). In early 2011, states' current fiscal conditions remain weak even as the economy appears to be moving in the direction of recovery (CBPP, 2011). Some investors have begun to turn their attention towards the risk of default by state and local governments in the US (*Financial Times*, March 2011).

Figure 7. State budget shortfalls in the United States (March 2011), million USD



Source: CBPP survey, March 2011, in McNichol, Oliff and Johnson (2011), *States Continue to Feel Recession Impact*, March 2011, US Centre on Budget Policy and Priorities, *www.cbpp.org/files/9-8-08sfp.pdf*.

Local public investment, after being stimulated in 2008-09, is now a target for cuts in many regions and the main adjustment variable of the sub-national budget. Until early 2010, capital expenditure remained relatively high, as many SCGs adopted anti-cyclical measures, often supported by central governments. As stimulus packages are phased out, many OECD governments are reducing their support to sub-national governments (see Table 6). Besides, the cuts in national infrastructure programmes mentioned above have an impact on SNGs, given the role they play in the implementation of such programmes. In some places, sub-national *current* spending is also strongly threatened. The most drastic examples of sub-national capital spending cuts are in the United States (Gaillard and Vammalle, 2010). However, without the ARRA stimulus, such cuts would have been even sharper.

Table 6. Reduced central government financial support to sub-national governments (2011-12)

Country	Main measures adopted at the sub-national level
France	The main transfer to SNGs, the *dotation globale de fonctionnement*, to be frozen at the 2010 level until 2013.
Germany	The German government adopted a new fiscal rule in March 2009 that will limit the cyclically adjusted budget deficit of the federal government to a maximum of 0.35% of GDP and require balanced cyclically adjusted budgets for the *Länder*. It will become binding for the central government in 2016 and for the *Länder* in 2020. A longer transitional period has been agreed for the *Länder* since some are experiencing serious consolidation problems. No borrowing limits have been specified for municipalities and social security funds. To comply with the new fiscal rule, the German government has to reduce the structural deficit at the federal level by about 0.3% of GDP each year until 2016.
Greece	The government is planning a freeze pay for all public sector workers, at all levels of government.
Italy	Italy adopted a EUR 25 billion austerity package for 2011-12, with a cut in EUR 8.5 billion in regions' budgets over the next two years
Korea	Significant spending reductions are planned for the environment (5.3%), general public administration (4.1%) and education (3.6%)
Mexico	The federal revenue sharing (FRS), the main federal revenue available for sub-national entities, decreased by more than 14% in 2009.
Portugal	EUR 100 million reduction in transfer payments from central to local government.
Spain	EUR 1.2 billion cut in local and regional governments EUR 6 billion cut in public-sector investment
United Kingdom	The United Kingdom adopted a severe austerity plan, with GBP 780 million (EUR 680 million) cuts in the Department for Communities and Local Government, and a GBP1.2 billion (EUR 1.05 billion) reduction in local authority grants
United States	Many state governments are likely to pull back on transfers to municipalities.

Source: GOV/TDPC/RD(2010)8.

…and differentiated impact across regions on the longer term

Not only will the crisis have a lasting impact on sub-national finances, but this long-term impact will vary significantly across regions. While the cyclical component of unemployment may abate during the economic recovery, structural unemployment will continue to be concentrated in certain geographical areas. Indeed, in many countries, the rise in joblessness was highly concentrated in specific regions as highlighted in section 1. On the whole, differences in employment growth have been greater within countries than across countries (OECD, 2010X). Outmigration of more mobile labour – usually high-skilled – will tend to reduce the quality of the labour pool in such places, making depressed regions or cities progressively less competitive (OECD, 2011, forth.). Long-term challenges linked to population ageing will worsen the problem. The long-term impact of the crisis will therefore persist in regions with structural problems and this will intensify the fiscal challenges these regions will have to address.

Long-term recovery and fiscal consolidation strategies will require national and regional policies *tailored to local needs rather than one-size-fits-all policies*. To avoid simply shifting the problem from the centre to the regions, co-ordinated efforts from all levels of government are required to accommodate appropriate budget cuts for fiscal consolidation and better prioritise investment in what unlocks each region's potential to restore growth. Multi-level governance instruments and place-based approaches help to target policy responses to local needs.

Key multi-level governance challenges for fiscal consolidation

The long-term impact of fiscal consolidation plans will vary significantly across regions. As structural unemployment will continue to be concentrated in certain geographical areas, the demand for social services will intensify the fiscal challenges faced by sub-national governments. To avoid simply shifting the problem from the centre to the regions, co-ordinated efforts from all levels of government are required. Sustaining long-term recovery and fiscal consolidation strategies require policies tailored to local needs rather than one-size-fits-all policies.

In this respect, the risks associated with inadequate policy settings are rather serious:

- A *cascading effect*, where each level of government transmits the reduction in their budgets to lower levels of government. This could introduce lags in adjustment processes and disrupt public service delivery. In turn, a largely de-synchronised squeeze on local spending could affect national recovery, as highlighted in Chapter 1.

- The development of *a one-size–fits-all* fiscal consolidation strategy for all territories, although fiscal and economic challenges vary considerably across regions.

- *Across-the-board cuts* in capital expenditures at the sub-national level without distinguishing in the degree of priority of programmes.

- *A focus on short-term* priorities at the local level, despite the fact that strategic priorities, such as education, innovation, green growth, require a regional/local approach.

Given the scale of deficits and the pressure of financial markets, the multi-level governance gaps identified above may be amplified by short-term pressures. It is estimated that 70% of total consolidation efforts will take place in 2011-12 (OECD, 2011b). Not only the fiscal gap, but the also the policy, information and objective gaps run significant risks of worsening, if appropriate co-ordination efforts are not mobilised at all levels of government. The risks are in fact similar to those identified during the management of recovery strategies: prioritising speed rather than a strategic vision, and underestimating implementation challenges in the absence of *ex ante* co-ordination among the different levels of government and other agents involved.

Since budget cuts are by nature more difficult to implement than budget increases, the governance arrangements for fiscal consolidation are intrinsically more difficult and the risk of freeriding strategies is bigger. For example, some regions or SNGs may decide to wait for the others to adjust first. Free riders would incur a lower consolidation cost, but, if widespread, this behaviour may entail a failure of the overall consolidation strategy. This is a classic example of the "war of attrition" model proposed by Alesina and Drazen (1991). Appropriate co-ordination mechanisms could help to reduce these bad incentives and opportunities for free riding, as well as to accelerate adjustment.

The need for speed in budget cuts may entail the risk that MLG co-ordination instruments to be perceived as increasing transaction costs. Although in some cases the clarification of competencies may be needed, MLG institutions have proved their effectiveness in fostering transparency, dialogue across levels of government, and strategic planning during the management of the recovery process. As building these co-ordination platforms takes time, it would be a loss to diminish their role or mobilise them to manage fiscal consolidation.

Regional development policies may be at risk as well. It is clear that some countries are freezing or cutting "explicit" regional development spending, especially in European countries (Table 2.4). Bachtler and Wishlade (2010) report that budgets for regional policy in 2011 had been cut in eight out of 15 European countries surveyed. In five of the remaining eight, the 2011 budget for regional policy remains roughly stable and in only two countries (the Netherlands and Norway) has the budget for regional policy increased. The largest cuts for 2011 appear to be in the United Kingdom, where regional government offices have been axed and the Department for Communities and Local Government was required to save GBP 780 million as part of the GBP 6.2 billion spending cuts for the current year.[41] The effectiveness of EU Cohesion Policy has been questioned (see also Section 2.3 on policy conditionality), with some EU members pushing for big cuts in the next programming period 2014-20.

Table 2.4. Changes in regional policy budgets 2010-11

	Changes in budgets regional policy 2010 - 2011	Overall trends
Austria	Budget for regional policy division has remained unchanged But considerable local finances pressure	=
Denmark	A premise in the political process leading to local government reform was that the budget for regional development should remain the same. In 2008 the target was reached and the economic crisis has not affected either applications or project implementation negatively	=
Finland	No major change in the regional policy budget, but funding related to Structural Funds has increased, as 20% of funding has been brought forward from the future programme years in response to the recession. The municipal co-funding share has been reduced from 20% to 15% at the programme level to reflect the worsening financial situation	=
France	In response to the budget crisis, the State budget for 2011 is expected to be reduced by 10%. All administrations have to face cuts, except the Ministry of Justice and the Ministry of Research and Education. In the case of DATAR, the National Fund for Territorial Development is at risk of reduction.	↓
Germany	In July 2010, the federal government announced spending cuts for Regional Joint Task budget (GRW) programme, to come into force in 2011 (from EUR 624 million in 2010 to 601 in 2011).	↓
Greece	Reduction of the 2010 budget for regional policy, as part of the broader fiscal consolidation programme. n+3 rule introduced for EU funding	↓
Ireland	As there is no explicit regional policy in Ireland, specific comments on the funding of regional economic development policy must be limited in scope. Nevertheless, the reduction of regionally-targeted funding is identifiable as a long-term trend, mainly linked to reductions in regional aid coverage and Structural Funds allocations. Most recently, due to the economic downturn, major funding reviews of policy initiatives have led to substantial cuts in expenditure.	↓
Italy	Important changes were made to the financial allocation of the regional strand of regional policy compared to what had originally been foreseen in the 2007-13 NSD. This fund has experienced a series of cuts and redeployment of resources toward the anti-crisis measures put in place by the government	↓
Netherlands	Support for regional programmes has grown massively since 2004. Funding for regional programmes will increase in 2011 compare to 2010.	↑

	Changes in budgets regional policy 2010 - 2011	Overall trends
Norway	Regional development policy budgets have been increasing since 2005. Between 2005 and 2010, measures for regional development grew from NOK 1 012 million to NOK 1 489 million, and the narrow regional policy budget rose from NOK 1 366 to NOK 2 005 million (up 47%).	↑
Poland	EU cohesion funds main funding (EUR 67 billion for 2007-13). The principles underpinning regional development allocations are being reviewed in the current reform process. The assumption is that by the end of 2013, the amounts of funds spent by the EU budget, the national budget and other public entities will be no less than 3% of the national GDP. (annual average of PLZ 34 billion; i.e. EUR 8.2 billion)	=/↑
Portugal	EU cohesion funds main funding. EUR 21.5 billion for 2007-13. 45% of ERDF funding allocated by the end of 2009. n+3 rule introduced for EU-funding	=/↓
Spain	Expenditure under the Inter-Territorial Compensation Fund has increased significantly over time, rising from around EUR 800 million in 2000 to a peak of 1.35 million in 2009. With the effect of the crisis, the budget was frozen in 2009 and significantly cut in 2010.	↓
Sweden	No major changes to regional policy budgets in recent years (SEK 3.2 billion in 2009; SEK 3.4 billion in 2010, due to an increase in investments in R&D)	=
United Kingdom	Substantial spending cuts in all departments, including for regional policy. Department for Communities and Local Government was asked to save 780 million in 2011.	↓

Source: University of Strathclyde EPRC (dir. Bachtler John) (2011), Regional Policy Developments in Europe: Country Reviews 2009-10, EoRPA Paper 10/2.

The fact that borrowing is becoming increasingly difficult for some SNGs (see Chapter 1) amplifies the problem. Some European countries already face the challenge of insufficient matching funds to co-finance EU projects (minimum 15%). Since these national funds would ordinarily serve to unlock EU regional funds, it is likely that in some countries the impact on regional policy spending of cuts to national expenditure may be exacerbated.

Reconsidering regional policy approaches and multi-level governance, levers to promote aggregate growth

Although the situation contains clear risks for regional development and co-ordination across levels of government, it can also create opportunities for better governance of public investment, as policy-makers are forced to prioritise investment needs, and to make the most of existing resources.

Renewed focus on place based policies and MLG

In a tight fiscal environment, where the budget and monetary policies cannot be mobilised anymore, regional development approaches and multi-level governance instruments to support them are amongst the remaining levers to promote aggregate growth (OECD, 2011). Such a policy approach consists mainly in exploiting *policy complementarities*, which refer to the mutually reinforcing impact of different actions on a given policy outcome[42]. In itself, it does not add a cost, except the new co-ordination mechanisms that need to be put in place to manage these complementarities.

The current context has renewed in some countries the debate and interest on regional and place-based policies. While some are reducing their regional focus in an austerity context, others have expressed renewed interest in integrated territorial policy approaches as a result of the crisis and recovery challenges. Australia is moving towards greater focus on place-based policies and has created a new ministry in charge of regional policy. In the United States, policies geared towards generating and supporting economic

clusters have received increased attention. The US administration outlined in July 2009 clear principles for a more integrated regional policy and called for a streamlining of redundant federal programmes.

If some countries are getting rid of MLG instruments, others on the contrary are seeking to develop further these institutional mechanisms to manage fiscal consolidation. Co-financing mechanisms, with conditions on the use of funding, are relevant incentives for effectiveness. The European Commission for example is currently discussing new *conditionalities* to be attached to the future 2014-2020 budget for cohesion policy. Some countries are relying on the contractual approach to manage fiscal consolidation. Both for recovery and consolidation, contracts can be instruments that help clarify objectives, funding and enforcement mechanisms and accountability on both sides (OECD, 2007a). For example, in its 2011 Budget Bill, France is considering specific contracts for departments with important financial difficulties, in order to set common objectives between state and regional authorities.

The impact of the crisis on MLG reforms has been mixed

Beyond the short-term pressures, some countries are reconsidering territorial and fiscal reforms, to enhance efficiency of sub-national actors and better involve them in the consolidation efforts. The crisis has had diverging effects on reforms across countries: in some countries, the crisis has tended to freeze reforms, as the focus on urgency has delayed institutional reforms, which often require long negotiations to be adopted. This is for example the case in Finland, where the planed reform of the grants system was largely scaled down. Besides, such reforms can be expensive in the short term (need to compensate losers) and increase levels of uncertainty, which may thus not be acceptable in crisis periods (OECD, 2010c). In other countries, the crisis has on the contrary contributed to accelerate some reforms. For example in Italy, SNGs were very keen on raising their reliance on own taxes, as the transfers from CG are being cut due to the consolidation efforts. In any case, as countries face fiscal pressures, many countries today are moving back to their reform agenda as they turn to fiscal consolidation. The fiscal consolidation context is likely to trigger reforms that increase sub-central efficiency and tighten fiscal discipline (Bloechliger and Vammalle, 2011).

Many OECD countries are also requiring sub-national governments to participate in consolidation efforts, either by reducing their funding or increasing the control over their budgets. In 2009 the German government adopted a new fiscal rule as part of a larger reform of the federal structure that will require the *Länder* to ensure balanced cyclically adjusted budgets (see Box 16). In Italy, the 2010 update of the Domestic Stability Pact sets the burden sharing of regions and local governments. Accounting practices have been defined and the harmonization of the budget rules between central and sub-national governments is in progress in order to enhance the transparency of public accounts and the accountability of sub-central governments. In Spain, the Autonomous Communities have agreed to present accounts quarterly instead of annually to increase budget transparency.

Territorial reforms, with the objectives to achieve economies of scale for public service delivery and investment, are also high on the agenda of certain countries, such as Greece, France, Finland or Korea (Box 16). Care is needed not to lose sight of the broad strategic picture when designing reforms affecting relations across levels of government. Reforms should not have a too narrow focus on fiscal consolidation, but need to focus on needs for long-term growth. Reforms such as enhanced inter-municipal co-ordination have the potential, when properly designed, to combine both objectives of improved public service delivery and governance of public investment. However, the way the reform is designed (involvement of stakeholders, compensations, communication, etc.) plays a key role in the successful implementation and outcome of the reform, thus deserves significant attention as such (Bloechliger and Vammalle, 2011 forthcoming).

Box 16. Examples of multi-level governance reforms adopted in OECD countries in the wake of the crisis

Territorial reforms

- **Greece** adopted a law in May 2010 that foresees the reduction of the current 910 municipalities and 104 communities to only 325 municipalities. The law also stipulates the creation of 13 elective regions to replace the current 54 Greek prefectures. In addition to municipal and regional restructuring, the law includes a reform of local and regional public administration aimed at enhancing transparency, productivity and efficiency. This includes the reduction of local government employees by 50% from 50,000 to 25,000. (Ministry of Finance of the Hellenic Republic, 2010).

- **Finland** has introduced a financial carrot for mergers of municipal governments. It is expected that at least until 2013, amalgamation will have a voluntary character. Although the financial crisis did not precipitate the reform, it influenced its implementation.

Fiscal reforms

- **Germany**. In 2009 the German government adopted a new fiscal rule as part of a larger reform of the federal structure that will require the *Länder* to ensure balanced cyclically adjusted budgets. The rule will become binding in 2020. In addition to the new fiscal rule, the German government created a stability council (*Stabilitätsrat*) composed of the Minister of Finance, the Minister of Economics and the finance ministers of all the *Länder*. To avoid future budgetary crises the stability council will regularly monitor the budgets of the federal and *Länder* governments. It is meant to function as an early warning system. If a budget risks falling into distress, the responsible government develops a consolidation plan with the stability council, and the council monitors the implementation of the consolidation plan on a semi-annual basis.

- **Italy**. The Government has moved ahead in implementing the fiscal federalism reform in line with the enabling act approved in May 2009. Such law has defined crucial aspects related, inter alia, to public-finance co-ordination between the central government and regional and local governments, the harmonization of public budgets, the determination of standard funding requirements and costs, the reform of regional and local government's own taxes and tax sharing system

Source: OECD (2011e) and OECD (2010j).

Learning from the crisis: guidelines for multi-level governance of public investment

In a context where the room of manoeuvre are highly constrained, it is even more important to make the most of public investment and to learn from what has worked or not worked in the management of stimulus packages. Investment decisions are usually highly complex, become path-dependent and shape regional and national economies for the future. The crisis has highlighted the challenges of investment decisions taken in situations of urgency. Requirements related to the use of investment funding have had a strong influence on the type of projects selected across levels of government.

As they work towards consolidation, if many countries have reduced planned levels of capital expenditures, a significant number have preserved some policy areas to support economic growth, in particular education, research and development, and infrastructure (Box 17 and OECD, 2011a). Successful deficit reduction needs not only to be "defensive" but also needs to have "offensive" elements (infrastructure, R&D) that may strengthen future economic development (OECD, 2010e). In addition, from a political economy of reform point of view, spending cuts tend to be better accepted when they are balanced by positive objectives such as long-term development and investment.

Box 17. Overview of current investment strategies in selected OECD and G20 countries (in 2010)

- **Australia.** In its 2009-10 budget, the Australian government invested around AUD 22 billion in long-term economic infrastructure projects, which are expected to support employment in the short term and boost economic growth and productivity in the longer term. In addition, the Australian government declared that it would mobilise three nation building funds, the Building Australia Fund (BAF), the Health and Hospital Fund (HHF) and the Education Investment Fund (EIF) to finance major economic infrastructure projects and capital investments in health and education. In July 2010, the Australian government announced a new Minerals Resource Rent Tax (MRRT) on iron ore and coal as well as an extended Petroleum Resource Rent Tax on all Australian onshore and offshore oil and gas projects. Some of the revenue from these sources will be used to fund further infrastructure projects.

- **Canada:** The majority of stimulus measures will end in the spring of 2011, although there are exceptions, including the four main infrastructure programs that were extended until October 31, 2011. Infrastructure programs that are part of the government's long-term infrastructure plan, Building Canada, will continue to provide funding to provinces and territories, as well as municipalities (which existed prior to the extraordinary stimulus effort) in the coming years. In addition, the Canadian government has committed to make permanent the Gas Tax Fund for municipalities (a component of Building Canada) at CAD 2B beyond the 2014 timeframe.

- **France** launched in December 2009 a strategy for "investments for the future" amounting to EUR 35 billion, to finance long-term growth priorities, in particular green energy, broadband and higher education. Calls for projects started in 2010 and projects are selected on the basis of competition.

- Although **Korea** plans to reduce spending in industry, SMEs and energy, where much of the fiscal stimulus had been concentrated, other areas, in particular R&D, will receive an additional 7.1% rise in spending, in line with Korea's 2008 mid-term plan to boost public R&D by 50% between 2008 and 2012. The investment will be concentrated in basic science, new growth engines and green technologies, *i.e.* key levers for long-term growth.

- **Spain.** The state fund for local investment was not designed to allow for forward-looking investments that would have helped to shift the Spanish economy away from its strong reliance on the construction sector. The Spanish government identified this gap and, recognising the need to advance the modernisation and sustainability of the economy, it launched a new Local Investment Fund in 2010. The available funding amounts to EUR 5 billion and will be directed at projects that promote long-term objectives, including environmental sustainability and vocational training. It expects to create around 280 000 jobs.

- Although the **United Kingdom** has a severe austerity plan for 2011, the government has maintained a few investment programmes, including the science budget, a new cross-London rail link and plans for a high-speed rail line from London to the North.

- **United States.** On 7 September 2010, President Obama announced a package of roughly EUR 180 billion in expanded business tax cuts and infrastructure spending. Congress would need to approve any such new package, but is not certain to do so. This package would include a USD 50 billion investment in America's transport infrastructure to spur the economy and create jobs. The plan builds upon the infrastructure investments that were made through the Recovery Act. The proposal calls for investments over six years to rebuild and modernise 150,000 miles (241 350 km) of roads, 4,000 miles (6,430 km) of railways and 150 miles (241 km) of runways. The plan also proposes to set up a government-run infrastructure bank to leverage federal money with state, local and private sector investments to finance projects and focus on the smartest investment.

- **EU countries**: The president of the European Commission unveiled plans on 7 September 2010 to raise new sources of finance to fund EU infrastructure projects, notably the establishment of EU "project bonds" issued in conjunction with the European Investment Bank (EIB). The bonds would be used to fund major infrastructure projects – such as the construction of new dams, bridges, railways and ports.

- **Brazil.** In March 2010, Brazil launched phase two of the Growth Acceleration Programme (PAC 2), with investments of USD 526 billion (BRL 958.9 billion) for the period from 2011 to 2014. PAC is a strategic investment programme that combines management initiatives and public works. In its first phase, launched in 2007, the programme called for investments of USD 349 billion (BRL 638 billion), of which 63.3% has been attributed. Like the first phase of the programme, PAC 2 focuses on investments in the areas of logistics, energy and social development organised under six major initiatives: Better Cities (urban infrastructure); Bringing Citizenship to the Community (safety and social inclusion); My House, My Life (housing); Water and Light for All (sanitation and access to electricity); Energy (renewable energy, oil and gas); and Transport (highways, railways, airports).

Source: OECD country notes, 2010, and *Financial Times*.

Since these strategies constitute among the few levers to enhance aggregate growth, countries and regions cannot afford to get their public investment wrong. Learning from the crisis, it is possible to identify a common set of good practices and guidelines for the design and implementation of public investment strategies across levels of government. These good practices may apply in a context of fiscal stimulus or consolidation, as in both contexts governments need to make the most out of public expenditure, to support growth and restore trust with citizens. These guidelines are interdependent and should *not* be considered in isolation:

1. **Combine investments in physical infrastructure with the provision of soft infrastructure**, such as skills and other innovation-related assets, to maximise impact in terms of long-term productivity growth. Infrastructure policy needs to be closely integrated with other sectoral policies such as human capital and innovation as part of a coherent development strategy. Investment funds are likely to work best as part of a multifaceted policy package that makes use of other policy instruments.
2. **Exploit the value added of *place-based* investment policies.** Investment should be prioritised to address the specific potential and impediments to growth in each region. In addition to national ministries/agencies, regional and local actors have a critical role to play to identify policy complementarities and trade-offs in investment priorities. Clarify the social or growth objectives of investment projects and for the latter, favour selection of projects through competitive procedures. Such calls for tenders should allow local actors to reveal their specific knowledge and development potential. This is particularly needed in times of tight budget constraints.
3. **Improve co-ordination mechanisms for the design and implementation of investment strategies across levels of government**. The management of the crisis has shown that co-ordination is critical for designing well-informed investment strategies, better targeting them and ensuring policy and fiscal coherence across levels of government. Since the relationship among levels of government is characterised by mutual dependence, countries need to develop co-ordination arrangements to reduce potential gaps or contradictions between policy objectives, fiscal arrangements and regulations across levels of government, which can undermine national strategies for growth. This may imply setting up mechanisms to enhance dialogue across levels of government or specific instruments such as contractual arrangements. Co-ordination takes time, involves a learning curve and has different types of costs (transaction, opportunity, monitoring costs), but when properly designed and implemented, long-term benefits of co-ordination should outweigh its costs.

4. **Build transparent management process to improve the selection and implementation of investment projects at all levels of government**. Prevent waste and corruption in investment projects from the selection process throughout the tendering until the contract management and payment. Maximise transparency at all stages of the procurement cycle, and establish clear accountability and control mechanisms. Given the complexity of investment decisions and their governance, oversight institutional mechanisms need to be well developed not only for the audit function but also for the relevance of investment choices. Accountability processes should encompass different stakeholder views (citizens, NGOs, technical experts, etc.) regarding the use of funding, without compromising reactivity in the investment decision.

5. **Enhance horizontal co-ordination across local jurisdictions** (in particular municipalities) to achieve greater critical mass at functional level and increase economies of scale in investment projects. Fragmented or poorly integrated investment may fail to capture the full benefits. This would avoid the proliferation of small-scale projects with low economic returns.

6. **Rely on cost-benefit analysis and strategic environmental analysis to help inform and prioritise investment decisions.** Cost-benefit analyses should state whether the decision is made on the basis of economic benefits or qualitative goals. Because infrastructure investment tends to involve large-scale, frequently irreversible projects, it is crucial to ensure that existing stocks are used efficiently before investing in new capacity. Operational costs of the maintenance of investment over the long-term, which are often under-estimated, should be fully assessed from an early stage in the decision-making process. Assessments of the long-term consequences of investment decisions need to be incorporated into budget systems at all levels of government.

7. **Diversify sources of financing for infrastructure investment,** by making more and better use of user fees and creating mechanisms for securing long-term financing for infrastructure. Carefully assess the benefits of public-private partnerships (PPPs), as compared to traditional procurement. Consider setting up joint investment pools across public agencies/ministries, to help prioritise investment and overcome any tendency by spending agencies/ministries to consider only a limited set of investment options. Care is however needed in the financing of such funds, as they risk becoming pro-cyclical.

8. **Conduct regular reviews of the regulation with potential impact on public investment decisions and strengthen regulatory coherence across different levels of government.** Contradictory regulations across government levels, as well as obsolete and excessive regulations, may impede public investment. Enhance coherence across sectors in regulation targeting cross-cutting outcomes such as green growth, innovation and risk management. Ensure independence of regulators; which helps establish a stable, credible and transparent framework for public investment.

9. **Focus on capacity building at all levels of government.** Investment projects may fail or engender significant waste or corruption in the absence of adequate or sufficient support services and credible leadership. Robust local public employment systems, with transparent recruitment and remuneration rules, are needed. Developing the ability to manage relations with banks and private actors is crucial for the implementation of public investment. Local capacities to design appropriate investment strategies must be sufficiently developed, in particular regions' capacity to diagnose their competitive advantages and challenges

10. **Bridge information gaps across levels of government.** More work is needed in most countries to better track investment at regional and local levels in terms of spending and overall impact. Pursue the efforts made during the crisis to enhance the use of e-government tools for performance monitoring of investment funding and the access of citizens, private firms and government services to shared databases.

In future work, developing more precise indicators for each guideline could help to monitor the governance challenges and progress of countries and regions when managing public investment across levels of government. Since the design and the implementation of public investment strategies determine much of their effectiveness, improving their governance can contribute to maximising their impact.

NOTES

1. This paper reflects the analysis and studies carried out within the OECD Regional Policy Division of the OECD Public Governance and Territorial Development Directorate (GOV). The author would like to express her gratitude to colleagues to have contributed to the paper, in particular Claire Charbit and Joaquim Oliveira Martins who supervised the work; as well as Hanna Kleider, Ashley Santner, Mauro Migotto, Camila Vammalle, William Tompson, and Aziza Akhmouch, Soo-Jin Kim, Monica Brezzi, and Karen Maguire of the OECD Secretariat.

2. Moreover, the latter can appear as current expenditures in government accounts (such as acquisition of software or training of human capital). Public-private partnerships (PPPs) are also not necessarily counted as public investment.

3. Capital expenditure is measured as the sum of the gross fixed capital formation (GFCF) and capital transfers payable to business or households.

4. Here measured as the annual change of the share of gross fixed capital formation in GDP.

5. Sub-national governments represent 32% of public spending and 22% of public revenues in the OECD (in 2008).

6. This share is as high as two-thirds in some federal and regionalised countries.

7. In the Australian Capital Territory its is around 3 700 US PPP dollars more than four times the country average. Similar ranges in capital expenditure per head are found in Canada, Italy and the United States (OECD, 2011, forthcoming).

8. The impact of physical infrastructure on output is difficult to pin down and the direction of causality hard to determine empirically. Many studies point out that the relation between infrastructure investment and economic growth, even if positive, can vary greatly according to the policy framework. In addition few countries publish estimates of the capital stock in infrastructure sectors (OECD, 2009a).

9. Measured as the sum of gross fixed capital formation (GFCF) and capital transfers.

10. Measured as the sum of gross fixed capital formation (GFCF) and capital transfers.

11. The relationship among levels of government that result from decentralisation is characterised by mutual dependence, since it is impossible to have a complete separation of policy responsibilities and outcomes. It is a complex relationship, simultaneously vertical, across different levels of government, horizontal, among the same level of government, and networked (OECD, 2009).

12. The issue of the "perfect size" of municipalities – one that allows for both optimal democratic representation/participation and management efficiency – is a long-standing economic debate.

13. Fifty-two per cent of the reimbursement of VAT went to municipalities, 30% to departments and 17% to regions (*Cour des Comptes*, 2010).

14. Spain is divided into 17 constitute autonomous communities which represent Spain's regional level. There are also 50 provinces which are part of the autonomous communities.

15. The MPPS is a biannual survey of each of Michigan's 1 856 units of general purpose local government. A total of 1 204 jurisdictions in spring 2009 and 1 303 in autumn 2009 returned valid surveys, *http://closup.umich.edu/publications/mpps/mpps-fiscal-stimulus.pdf.*

16. In the United States, officials at the Iowa Department of Education expressed concern that recent staff reductions at the state level and a steady loss of experienced business managers in many LEAs across the state could result in less oversight of funds (GAO, 2010).

17. Around USD 2.8 billion of the Recovery Act funds were under contract as of 3 May 2010 and were being administered by local transport agencies (city or county agencies).

18. There seems to be a correlation between city size and access to information: for example, the survey shows that 51% of municipalities with fewer than 1 500 inhabitants feel badly informed about ARRA opportunities, whereas 74% of municipalities of more than 30 000 inhabitants feel well informed.

19. The European Commission has asked member countries to provide information on regional expenditure. This information will start to be available by 2014.

20. Co-ordination is the act of co-ordinating, making different people, agents, institutions work together for a common objective, goal or purpose.

21. A common element across literatures on multi-level governance (Hooghe and Marks, Bache, Ian; Oates, Wallace E.; Scharpf, Fritz W.) is that the dispersion of governance across multiple jurisdictions is both more efficient than and normatively superior to central state monopoly (Hooghe and Marks, 2003). Because externalities arising from the provision of public goods vary immensely – from planet-wide in the case of global warming to local in the case of most city services – so should the scale of governance. The larger the externalities, the greater the potential harm, and the greater are the benefits of inter-jurisdictional co-operation (for example for environmental public goods, public transportation, etc.).

22. The analytical framework developed by New Institutional Economics and New Political Economy facilitates understanding regarding how to maximise benefits and minimise costs in various contexts. If this theory is applied to contracts for example, it is assumed that imperfectly rational agents that have in addition an incomplete vision of the future can make mistakes when designing mutual obligations, resulting *ex post* in or misalignment of the solutions decided on *ex ante* for the actual situations faced by the contracting parties. The issue for the central government is no longer to avoid losing control, but to share it. Parties are no longer organised in hierarchy, but co-operate on joint projects (OECD, 2007).

23. State territorial representatives are usually appointed, not elected.

24. The White House Office of Intergovernmental Affairs works closely with state, tribal and local officials to ensure effective government co-ordination, *www.whitehouse.gov/administration/eop/iga*.

25. The European cohesion policy provides EUR 347 billion for the 2007-13 period.

26. A survey conducted by the OECD in 2009 with European state territorial representatives (AERTE) showed that existing regional development strategies or contracts have been used to prioritise the public investment contained in the stimulus packages in 11 out of 20 European countries surveyed (OECD questionnaire to state territorial representatives, 2009).

27. See country note on France.

28. Although not specifically created for the recovery strategy, the Fund seeks to encourage collaboration between local councils in planning for and financing infrastructure needs.

29. Other measure taken by OECD governments included the reassignment of tax revenues to increase the share of taxes allocated to sub-national governments. The Finnish government for example temporarily increased the corporate tax apportionment to local authorities from 22% to 33% of total tax revenue.

30. The temporary measures in the Crisis and Recovery Act could be made permanent.

31. PPP are ways of delivering and funding public services using a capital asset where project risks are shared between the public and private sectors. A PPP is here defined as a long-term agreement between the government and a private partner where the service delivery objectives of the government are aligned with the profit objectives of the private partner (OECD, 2011).

32. Infrastructure accounts for 47% of all PPPs planned and funded in the world since 1985.

33. Overall, Germany is the second largest sub-national bond issuer in the world after US states and municipalities. Other major OECD sub-national bond issuers are Japan, Canada and Spain (in Gaillard and Vammalle, 2010).

34. *http://unpan1.un.org/intradoc/groups/public/documents/un-dpadm/unpan038845.pdf.*

35. These reports are all publicly available at *www.actionplan.gc.ca/eng/index.asp*.

36. Thus far two progress reports have been released and clearly indicate the amount of approved funding and the amount of funding paid out.

37. UNPAN, United Nations e-government survey, 2010.

38. Mattera, McIlvaine, Laicy, Lee and Cafcas (2009), in UNPAN, United Nations e-government survey, 2010.

39. A challenge highlighted in the UN survey is that the quality of data collected differs across regions and localities. In the United States, for example, the geographic information systems used by state and local governments are not the same and are frequently incompatible (UNPAN, 2010). In the context of the recovery, this showed the need to harmonise the basic level of information collected across sub-national governments.

40. *www.federalreporting.gov*.

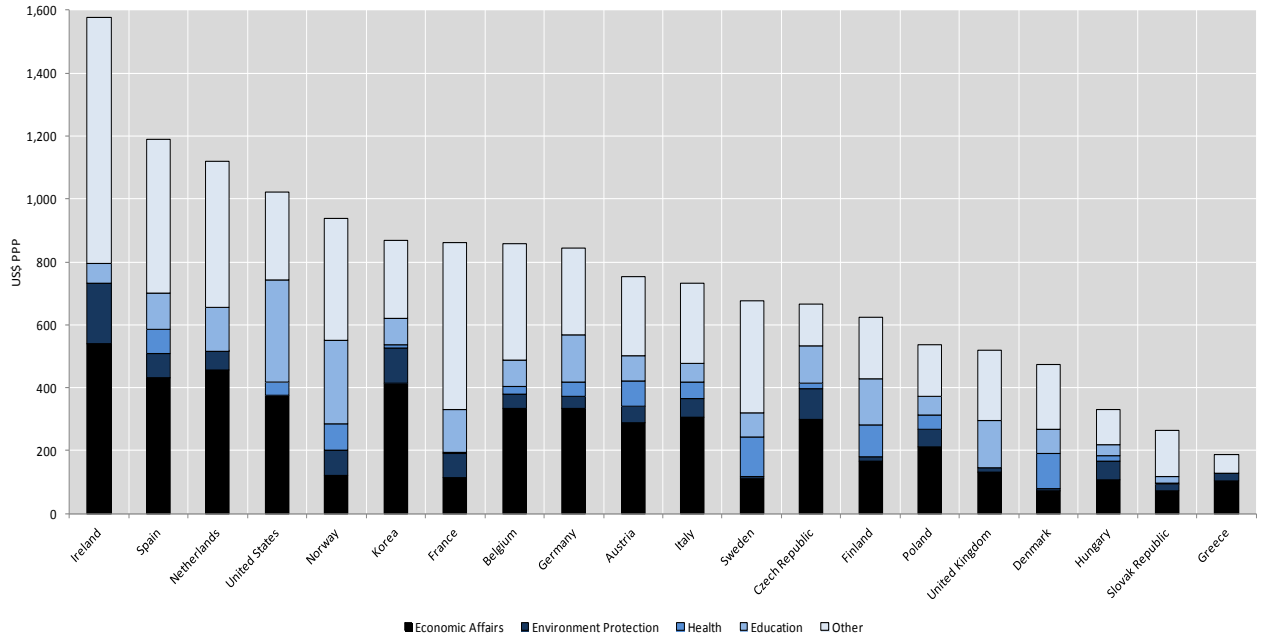
41. *http://www.bbc.co.uk/news/uk-politics-10924719.*

42. The concept of policy complementarities refers to the mutually reinforcing impact of different actions on a given policy outcome. If a region is to benefit from a new road, school or any other type of public investment, certain conditions in terms of complementary local infrastructure or services need to be fulfilled, as explained in Chapter 1 (OECD, 2008).

Annex A. Sectoral breakdown of sub-national investment

Sub-national government capital expenditure is mainly directed to economic affairs, education, environment and health. Together these four sectors represent more than 50% of the total capital expenditure carried out by sub-national governments. However, there are significant variations across regions on the sectoral breakdown of sub-national capital expenditure.

Figure A.1. Sub-national governments' capital expenditure per capita, 2008

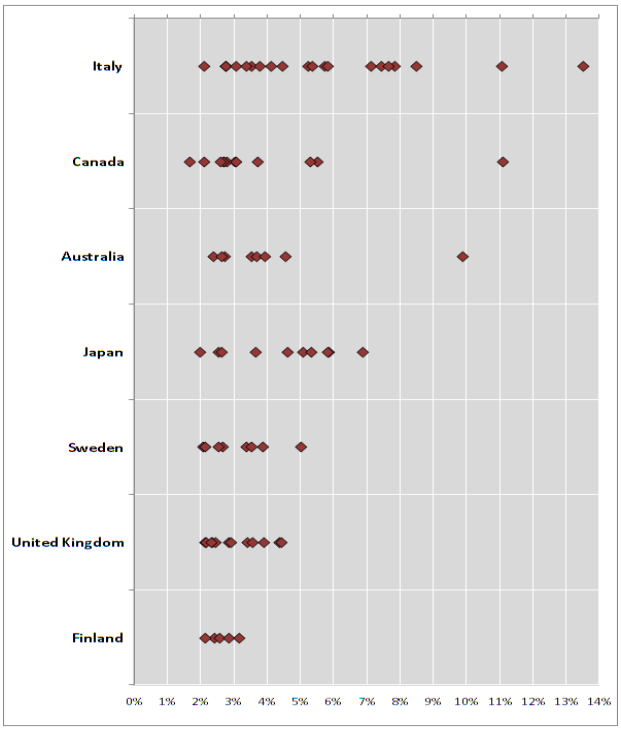


Source: OECD General Government Accounts, 2008.

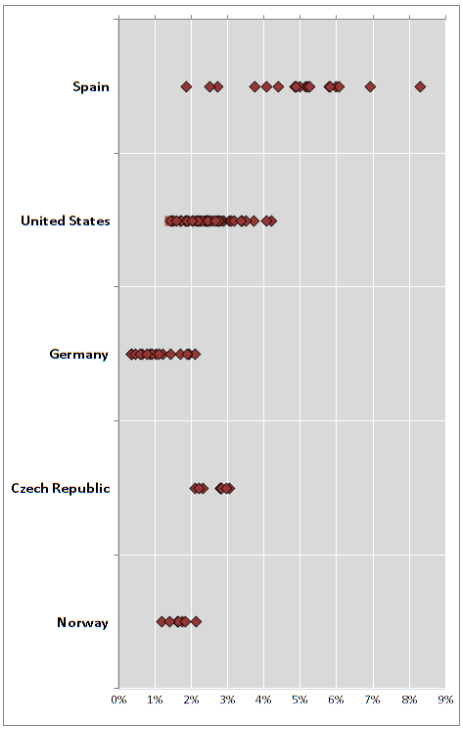
Annex B. Regional variations in sub-national capital expenditures

Figure B.1 Capital expenditure in regions (TL2) as percentage of GDP (latest available year)

Total Capital Expenditure*



Capital Expenditure by Sub-National Governments**



* Capital expenditure in regions by all level of governments. Capital expenditure in Australia, Canada, Finland, Japan and Sweden is measured by gross fixed capital formation

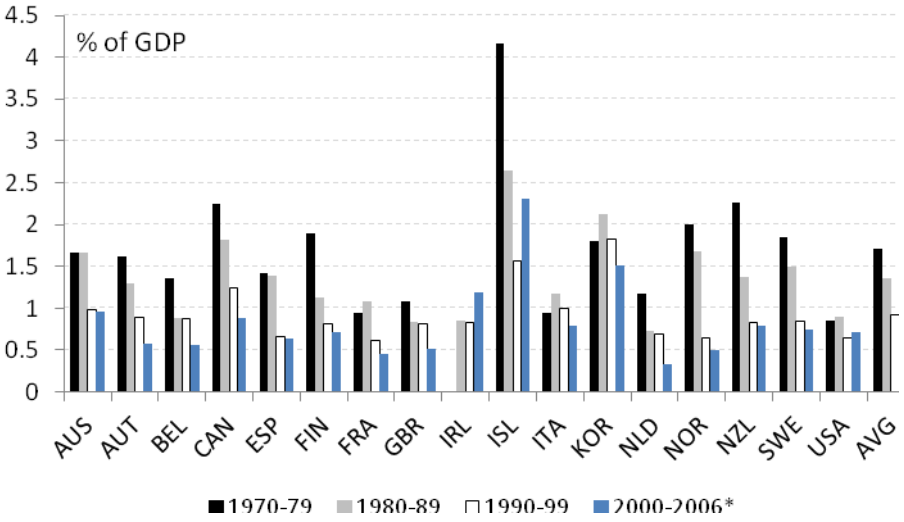
** Capital expenditure in regions carried out by sub-national governments. Capital expenditure in Germany and Norway is measured by gross fixed capital formation

Latest available years: 2005 for Japan; 2006 for Canada; 2007 for Czech Republic, Finland, Germany, Italy, Norway, Spain, Sweden and the United Kingdom; 2008 for the United States and 2009 for Australia.

Source: OECD Regional Database; *OECD Regions at a Glance 2011*, OECD Publishing, Paris.

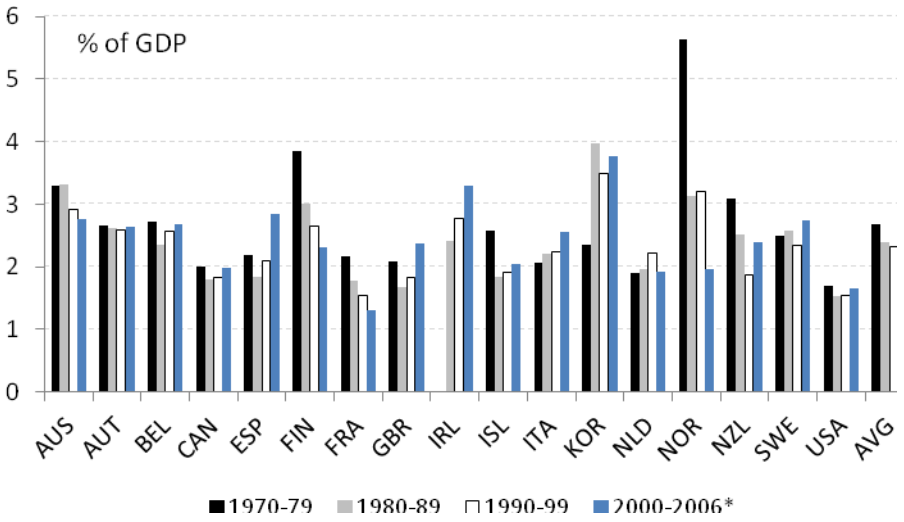
Annex C. Sectoral breakdown of investment: trends since the 1970s

Figure C.1. Electricity, gas and water



Source: STAN in Sutherland, D. *et al.* (2009), "Infrastructure Investment: Links to Growth and the Role of Public Policies", *OECD Economics Department Working Papers*, No. 686, OECD Publishing.

Figure C.2. Transport, storage and communication



Source: STAN in Sutherland, D. *et al.* (2009), "Infrastructure Investment: Links to Growth and the Role of Public Policies", *OECD Economics Department Working Papers*, No. 686, OECD Publishing.

Annex D. Features of crisis-response websites selected in the UN survey 2010

Countries	Objectives				Tools			Draws on existing site
	Public scrutiny of funds	Management	G2B	Social protection	Feedback	Geo-referencing	Social media	
Australia *www.economicstimulusplan.gov.au/* Breakdown of stimulus plan and tracking stimulus projects at local level. Enables interactivity (ask a question). Links to sub-national websites of similar scope.	x		x	x		x	x	
Canada *www.actionplan.gc.ca/* Outlines Canada's Economic Action Plan.	x		x	x		x	x	
France *www.relance.gouv.fr/* Details projects being carried out under stimulus package.	x		x	x		x		
Germany *www.fuer-alle-da.de/* Ministry of Finance. Details of financial crisis and bank bailouts. Page allows citizens to ask questions online and the answers are also displayed online.	x		x	x				
Korea *www.mosf.go.kr/recover_eng/* Section of Ministry of Strategy and Finance website. Sections on general policies, fiscal policies, employment, industries and green growth actions to overcome the crisis.	x							
Spain *www.plane.gob.es/* Plan "E" is the government website on economic stimulus and employment, in five languages to reflect the country's linguistic diversity. Pages provide information on courses of action, video interviews with public officials, and links to local-level project information.	x		x	x	x		x	
Sweden *http://regeringen.se/sb/d/11577/a/120213/* Overview of stimulus measures.	x							x
United States *www.recovery.gov/* The government's official website to 'track the money' with data related to United States Recovery Act spending. For citizens to track the development of the recovery for greater transparency and accountability.	x	x	x	x		x	x	x
www.usaspending.gov/ Details federal spending including that related to stimulus funds. Includes IT Dashboard to follow investments in the information technology sector. The dashboard is considered to be one of the most innovative tools to enhance public scrutiny of government spending.	x	x				x		

Source: Compiled from UNDP 2010 Report on e-government, *http://unpan1.un.org/intradoc/groups/public/documents/un-dpadm/unpan038845.pdf*.

BIBLIOGRAPHY

Burger, P., J. Tyson, I. Karpowicz and M. Delgado Coelho (2010), "The Effects of the Financial Crisis on Public-Private Partnerships", *www.imf.org/external/pubs/ft/wp/2009/wp09144.pdf*.

Bloechliger, Charbit, Pineiro and Vammalle (2010), "Sub-central Governments and the Economic Crisis: Impact and Policy Responses", *Economics Department Working Paper No. 752*.

Bloechliger and Vammalle (2011, forthcoming), *Reforming Fiscal Federalism and Local Government*, OECD, Paris.

Brookings Institution (2009), "Strategically Selecting Stimulus Transit Project: The Washington Metropolitan Area Transit Authority's Structured Prioritization Process: Implementing ARRA", Design Snapshot, Brookings Institution, Washington D.C.

Charbit, C. (2011, forthcoming), "Governance of Public Policies in Decentralised Contexts: The Multi-level Approach", *OECD Regional Development Working Papers*, OECD.

Charbit, C. and M. Michalun (2009), "Mind the Gaps: Managing Mutual Dependence in Relations among Levels of Government", *OECD Working Papers on Public Governance*, No. 14, OECD.

Council of Europe (2010), *The Impact of the Economic Downturn on Local Government in Europe: What is Happening and What Can be Done?*

EPRP European Policies Research Center (2010), *Regional Dimensions of the Financial Crisis.*

European Union (2009), "The Economic Crisis: European Regions and Cities", ESPON 2013 Programme, Press Release No 06/2009, ESPON, June.

Financial Times (March 2011), "US States of Emergency", *www.ft.com/indepth/us-states-of-emergency*.

Garcilazo, E. and J. Oliveira Martins (2010), "The Contributions of Regions to Aggregate Growth", paper presented at the Annual ERSA Conference, Stockholm August 2010 (forthcoming *OECD Regional Development Working Paper*).

Gaillard and Vammalle (2010), "The Impact of Fiscal Consolidation at Sub-national Level: Where do We Stand", GOV/TDPC/RD(2010)8.

GAO (2010a), "State and Local Governments' Fiscal Outlook March 2010 Update", GAO-10-358, Washington, D.C.

GAO (2010b), *States and Localities Uses of Funds and Actions Needed to Address Implementation Challenges and Bolster Accountability*.

Hanak (2009), "State Infrastructure Spending and the Federal Stimulus Package", *www.allbusiness.com/government/government-bodies-offices-us-federal-government/13413985-1.html.*

Henry, Ken, Secretary to the Treasury (2010), "To Build or not to Build: Infrastructure Challenges in the Years Ahead and the Role of Governments", March 2010.

Hooghe, L. and G. Marks (2003), "Unraveling the Central State, But How? Types of Multi-Level Governance", *Political Science Series*, Institute for Advanced Studies, Vienna.

Hubner, D. (2009), "The Crisis and Beyond: Can Cohesion Policy Enhance Citizens' Long-term Well-being?", European Policy Center, Brussels.

Inman, Robert (June 2010), "States in Fiscal Distress", *Working Paper 16086*, National Bureau of Economic Research.

International Labour Organisation (2009), *World of Work Report 2009: The Global Jobs Crisis and Beyond*.

International Labour Organisation (2009), "Employment and Labour Market Adjustments in G20 Countries during 2007-09 and Outlook for 2010: A Statistical Overview", 20-21 April 2010, Washington, D.C.

International Labour Organisation (2010), G20 Country Briefs.

International Monetary Fund (2009), *Structural Reforms and Economic Performance in Advanced and Developing Countries*.

Krugman P., "America Goes Dark", New York Times, 8 August 2010.

Marks, G, L. Hooghe and K. Blank (1996), "European Integration since the 1980s: State-Centric versus Multi-Level Governance", *Journal of Common Market Studies*, 34, 4, pp. 341-78.

McNichol, Oliff and Johnson (2011), "States Continue to Feel Recession Impact", March 2011, US Centre on Budget Policy and Priorities, *www.cbpp.org/files/9-8-08sfp.pdf*.

New York Times (2010), "Geography of a Recession", *www.nytimes.com/interactive/2009/03/03/us/20090303_LEONHARDT.html?src=tp*.

OECD (2006), *Policy Framework for Investment*, OECD Publishing, Paris.

OECD (2007a). *Linking Regions and Central Governments: Contracts for Regional Development*, OECD Publishing, Paris.

OECD (2007b), *Infrastructure to 2030: Volume 2: Mapping Policy for Electricity, Water and Transport*, OECD Publishing, Paris.

OECD (2008a), *Public-Private Partnerships: In Pursuit of Risk Sharing and Value for Money*, OECD Publishing, Paris.

OECD (2009a), *Economic Policy Reforms: Going for Growth*, OECD Publishing, Paris.

OECD (2009b), *Regional Prioritisation of Investment Strategies for Economic Recovery: What Information is Necessary?*, OECD Publishing, Paris.

OECD (2009c), *OECD Economic Outlook*, Vol. 2009/2, No. 86, OECD Publishing, Paris.

OECD (2009d), *OECD Policy Brief: Bridging the Gaps between Levels of Government*, OECD Publishing, Paris.

OECD (2009e), *Regions Matter: Economic Recovery, Innovation and Sustainable Growth*, OECD Publishing, Paris.

OECD (2009f), "Multi-level Regulatory Capacity in Australia", GOV/PGC/REG(2009)13, OECD, Paris.

OECD (2009g), *Recession, Recovery and Reinvestment: The Role of Local Economic Leadership in a Global Crisis*, OECD Publishing, Paris.

OECD (2009h), *Policy Responses to the Economic Crisis: Investing in Innovation for Long-Term Growth*, OECD Publishing, Paris.

OECD (2009i), "Policy Responses to the Economic Crisis: Stimulus Packages, Innovation and Long-term Growth", DSTI/IND/STP/ICCP(2009)1/ADD/FINAL.

OECD (2009j), *OECD Economic Outlook*, No. 85, OECD Publishing, Paris.

OECD (2009k), *OECD Economic Outlook*, No. 86, OECD Publishing, Paris.

OECD (2009m), *Strategies for Aligning Stimulus Measures with Long-term Growth*, OECD Publishing, Paris.

OECD (2009n), *Recession Recovery and Reinvestment: The Role of Local Economic Leadership in a Global Crisis*, OECD Publishing, Paris.

OECD (2009o), *Government at a Glance*, OECD Publishing, Paris.

OECD (2009p), *Strategic Response to the Financial and Economic Crisis: Contributions to the Global Effort*, OECD Publishing, Paris.

OECD (2009q), *How Regions Grow*, OECD Publishing, Paris.

OECD (2009r), *Governing Regional Development Policy: The Use of Performance Indicators*, OECD Publishing, Paris.

OECD (2010a), *Going for Growth*, OECD Publishing, Paris.

OECD (2010b), "Fiscal Policy Across Levels of Government in Times of Crisis", COM/CTPA/ECO/GOV/WP(2010)12.

OECD (2010c), "Reform Beyond the Crisis", in *Making Reform Happen*, OECD Publishing, Paris.

OECD (2010d), *OECD Economic Surveys: United States*, OECD Publishing, Paris.

OECD (2010e), *Restoring Fiscal Sustainability: Lessons for the Public Sector*, OECD Publishing, Paris.

OECD (2010f), "Preparing Fiscal Consolidation", OECD, Paris, *www.oecd.org/dataoecd/16/1/44829122.pdf*.

OCDE (2010g), *Etude Economique de la France*, OECD Publishing, Paris.

OECD (2010h), "The Austere Fiscal Environment and its Lasting Impact on Regions", GOV/TDPC (2010)16.

OECD (2010i), "Regional Labour Markets and the Crisis", Note by the Secretariat for the 24th meeting of the OECD Territorial Development Policy Committee, Paris.

OECD (2010j), Answers to the OECD questionnaire on the management of public investment in the crisis context, Working documents for the Secretariat

OECD (2011a), "OECD Fiscal Consolidation Survey 2010", OECD, Paris.

OECD (2011b, forthcoming), *Regional Outlook*, First Edition, Publishing, Paris.

OECD (2011c forthcoming), *OECD Regions at a Glance 2011*, OECD Publishing, Paris.

OECD (2011d, forthcoming), *Water Governance in OECD Countries: From Theory to Implementation*, OECD Publishing, Paris.

OECD (2011e, forthcoming), *Making the most of public investment in a tight fiscal environment: multi-level governance lessons from the crisis*, OECD Publishing, Paris.

Padoan, Pier Carlo (2009), "Fiscal Policy in the Crisis: Impact, Sustainability, and Long-Term Implications", *ADBI Working Papers Series*, No 178, December 2009.

Padoan, Pier Carlo (2010), "Fiscal Policy in the Crisis: Impact, Sustainability and Long-term Implications", Policy Research Institute, Ministry of Finance, Japan, Public Policy Review, Vol. No 6, September 2010, Brookings Institute 2009 *www.mof.go.jp/english/pp_review/ppr012/ppr012b.pdf*.

Scharpf, Fritz W. (1997), *Games Real Actors Play: Actor-Centered Institutionalism in Policy Research*, Westview Press, Boulder.

Stiglitz, J. (2009), *Le triomphe de la cupidité.*

Sutherland, D. *et al.* (2009), "Infrastructure Investment: Links to Growth and the Role of Public Policies", *OECD Economics Department Working Papers*, No. 686, OECD Publishing.

The Economist (2010), "A Better Way: The Rich World Should Worry about Growth-promoting Reforms More than Short-term Fiscal Austerity", 7 October.

United Cities and Local Governments (2009), *The Impact of the Crisis on Local Governments*, Barcelona, Spain.

UNPAN (2010), "United Nations E-government Survey", *http://unpan1.un.org/intradoc/groups/public/documents/un-dpadm/unpan038845.pdf*.

Yuill, McMaster and Mirwaldt (2010), *Regional Policy under Crisis Conditions*.