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*Coordination of Infrastructure Investment Across Levels of Government**

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Abstract

The share of public investment spending at sub-national level has been slowly but steadily increasing over the past two decades across OECD countries. Degrees and forms of decentralization in infrastructure vary widely across countries, but all governments share a common objective, that is to mobilize authorities along shared infrastructure policy objectives. This involves managing a complex web of vertical (across levels of government) and horizontal (across sectors and across the same levels of government) interdependencies, which require substantial coordination among actors to ensure policy alignment and quality investments. Asymmetric information, multiple principal-agent relationships and significant differences in capacities across levels of government in financing and implementing infrastructure investments have posed important political economic obstacles to improving the efficiency and effectiveness of public investment outcomes. This paper will look at persisting coordination challenges more closely by using the results of a recent OECD questionnaire and case studies. It will identify remedies OECD and some selected non-OECD countries have found that work to address coordination issues. This paper will demonstrate that ultimately systematic collection and sharing of information is the key to making coordination work.

*This paper is based on a forthcoming OECD report: OECD (2013a): "Investing Together: Working Effectively across Levels of Government", OECD Publishing (forthcoming). A set of good practices, some of which discussed in this paper, will form part of OECD Principles that will be issued on the *"Multi-Level Governance of Public Investment"* (OECD, 2013: 2014 Regional Outlook. *Forthcoming*.)

1. Motivation

Decentralization trends in OECD countries have generally led to increased investment spending at subnational government level. A number of indicators show an average increasing trend over the last 10-15 years, such as the share of total public investment spending[1] at the subnational level[2] that has been rising very slowly but steadily since 1995. Central government transfers to subnational governments have similarly steadily increased since 1995, by an average of 0.7% (Blöchliger and Vammalle, 2009). 60% of total public spending on education, 40% on health, 30% on economic affairs and 20% on social protection is spent at the subnational level across OECD countries (OECD, 2011; Charbit, 2011). These averages hide not only considerable variations with generally bigger shares for subnational governments in federal countries, but can also not provide a full picture of changes in actual autonomy of governments at subnational levels. Generally speaking though, the crisis has led to the share of public investment to decline significantly in some federal countries (e.g. Austria and Switzerland), while increasing in some unitary ones (e.g. Greece and Norway) (Figure 1).

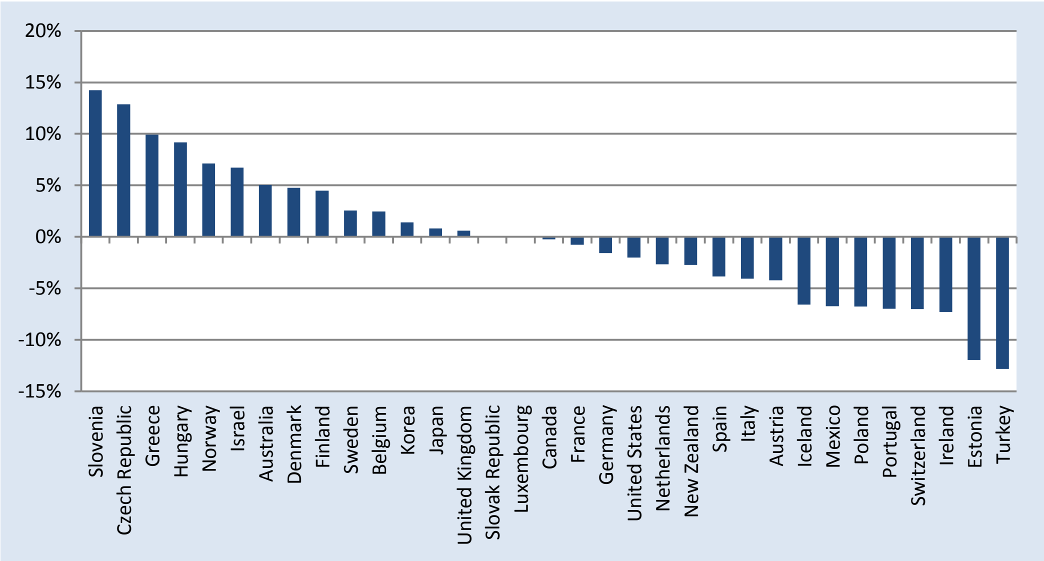

Figure 1 Changes in the share of subnational governments in total public investment in OECD countries (2007-2011)

Source: OECD National Accounts 2012.

Yet, independent of the institutional context, infrastructure investment entails intensive engagement across levels of government. Hardly any subnational infrastructure investment is carried out isolated at one level of government. Partial funding often flows from national or supra-national authorities into projects managed by subnational governments. Lower tiers of authority often help shape infrastructure priorities, and contribute to the financing.

As a result, complex situations have been formed that require coordination across levels of government. Not only do the vertical interactions for infrastructure decisions, financing, and implementation have to be managed carefully to ensure all levels of government aim at convergent objectives and play by compatible rules. The management of infrastructure investment frequently also requires horizontal interaction, with other subnational jurisdictions, as projects may require a certain scale efficiency and may have positive (or

[1] Public investment is generally understood as the public expenditure that serves to accumulate physical capital (such as roads, government buildings etc.) and human capital (capital expenditures linked to education, innovation, and research and development). Exact definitions vary greatly by country.

[2] Subnational here and in the remainder of this paper refers to both the intermediate and the local tiers of government.

sometimes negative) external spillovers which require joint design, financing or implementation. Where policy makers seek to realize potential complementarities across sectors, it will also involve a second form of horizontal engagement – collaboration among actors and institutions responsible for different sectoral policies at different government levels.

Various drivers explain the complexity and the gaps that have arisen in intergovernmental coordination. Policy making authority, especially also for infrastructure investments, has been progressively more distributed across levels of government, both downwards to subnational governments and upwards to supra-national authorities, in the case of European countries. Moreover the private sector's role has grown as a result of deregulation of past state-owned monopolies, and the move to joint projects with the private sector characterizes many public investment choices at the local level. Past OECD work on multi-level governance points to gaps and potential risks associated with weak coordination mechanisms and weak capacity at subnational level that will be addressed later in this paper (Charbit 2011, Allain-Dupré, 2011, Mizell and Allain-Dupré, 2013).

Improving infrastructure governance, especially the coordination mechanisms across levels of government and line ministries, has become a key to increasing investment efficiency and effectiveness. In the aftermath of the financial crisis that caused a scissors effect on public finances, i.e. the combined impact of lower tax revenues and increased demand for social services (Vammalle and Hulbert, 2013), the initial policy response of many OECD countries was to invest in large-scale stimulus packages, leading to a significant increase in public infrastructure projects at the subnational level. Following this most OECD governments have moved to consolidation measures, negatively affecting not only overall public investment spending, but also private investment spending (Figure 2), and threatening the deterioration of existing capital through lack of funding for operations and maintenance. Direct investment in the EU was reduced by 6.6%, and even more in countries already hit hard by the crisis, such as in Spain where total public investment fell by 30% (Dexia, 2012). This has created the imperative to in the first phase disburse and manage investments rapidly under given administrative constraints and in the second phase to achieve "more with less", thereby increasing the efficiency and effectiveness of the available infrastructure resources for the creation of new structures, but also for the maintenance of existing ones.

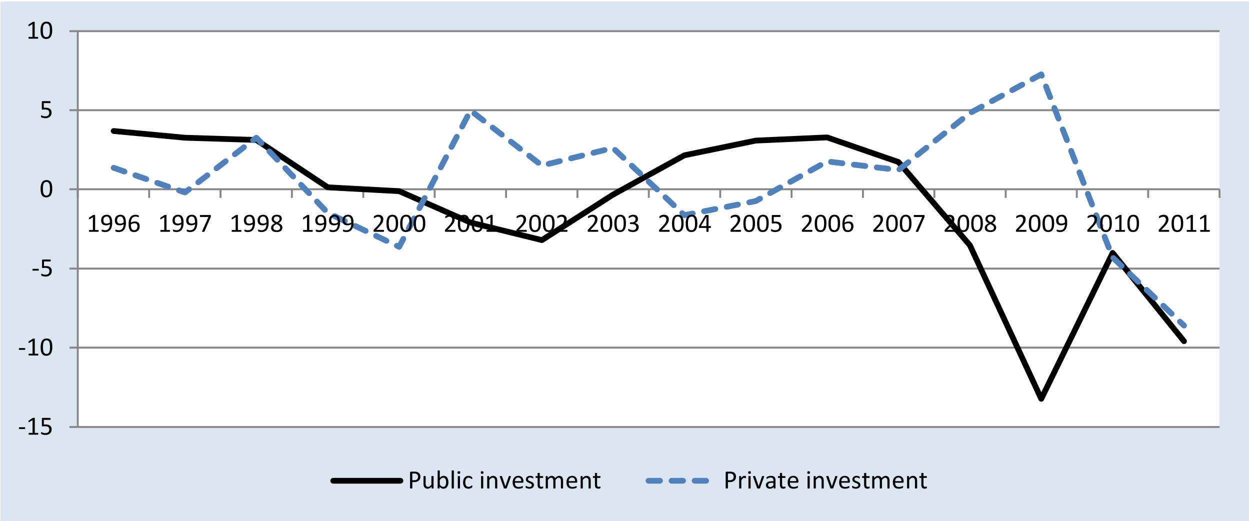

Figure 2 Annual changes (in %) of public and private investment in OECD countries

Source: Vammalle, C. and C. Hulbert (2013), "Sub-National Finances and Fiscal Consolidation: Walking on Thin Ice", *OECD Regional Development Working Papers*, No. 2013/02, OECD Publishing, doi: *10.1787/5k49m8cqkcf3-en*, based on OECD National Accounts (2012)..

2. Discussion: identification of coordination gaps and existing solutions

Even though degrees and forms of decentralization vary widely, all governments have a common need, that is to mobilize authorities with different degrees of autonomy along shared infrastructure policy objectives. As outlined in the introduction to this paper, no level of government works isolated when it comes to infrastructure programming or project implementation. From objective setting to decision-making on tehg round and even operations and maintenance, different government tiers need to interact vertically as well as horizontally, especially as responsibilities have been increasingly distributed across all tiers of government. To make the most of infrastructure investments, governments need to coordinate accordingly to avoid a fragmented approach to investment spending, leading to inefficiency (more could be achieved with the same level of resources), but also allocative ineffectiveness, failing to maximize citizens' preferences.

Political economy constraints often lie at the heart of coordination failures. First and above all information asymmetries may exist concerning infrastructure policy objectives of the center at subnational levels, but also the other way around. Secondly disincentives may exist on lower levels of government to engage horizontally. This could be because resources from the center are allocated in a way that each jurisdiction seeks to obtain the highest share. Third the objective of achieving scale efficiency may be dwarfed by subnational governments seeking political rents from the electorate of their jurisdiction only. Fourth, in a complex structure of multiple principal-agent relationships between the center and the subnational entities, accountability may often be blurred, which renders coordination challenging (e.g. as is the case when citizens do not know who is responsible for which task). Finally, from a center's perspective there may be several disincentives to make coordination work. The center may be reluctant to give away full control over resources and infrastructure policy planning, or may prefer giving it to subnational governments of their party affiliation, which can act as an impeding factor. In addition, the center may have an incentive to work with the most capable subnational governments only as coordination is easier to organize, but leaves other subnational governments subject to distorted incentives for intergovernmental coordination. To make effective coordination happen requires developing adequate incentives, politically and financially, to both share information and collaborate across levels of government for public infrastructure provision.

Experiences with mechanisms that facilitate a shared policy agenda and a coordinated approach to infrastructure investment reveal challenges across OECD countries. Past OECD work and a recently conducted OECD survey show that OECD countries have used a wide range of mechanisms to align incentives and policy agendas, sharing of information and increasing accountability across levels of government. However their functionality is seen by most actors as not very effective.

Gaps in intergovernmental coordination can exist on a programmatic and on a project level. From a programming perspective, gaps in intergovernmental coordination can arise in aligning policy objectives across different tiers of the government, or in establishing joint financing mechanisms and budgeting attached to that. However it can also arise in failing to ensure the right scale for infrastructure investments that often reaches beyond established administrative boundaries. This could result in gaps in horizontal coordination that should facilitate cross-jurisdictional collaboration (Table 1). In addition to potential gaps arising during the programming period, infrastructure coordination is of course also required for actual investment projects' implementation (Table 2). Here coordination gaps can arise practically during each step of the project management cycle from ex-ante appraisal to ex-post evaluation, but also in the regulatory framework governing this process.

Table 1 Coordination gaps in intergovernmental relations on a *programmatic* level

Coordination gap	Description => potential remedy	
Overall Planning and Investment Strategies	Exists when different rationales among national and subnational policy makers create obstacles for adopting convergent targets. Can lead to policy coherence problems and contradictory objectives across investment strategies. => Need for instruments to align objectives; need to align both appraisal as well as selection criteria for public investment programs.	**Information** Asymmetries of information (quantity, quality, type) to guide decision makers about the economic, environmental, social and financial implications of investment; limited central knowledge of local assets and needs; limited local knowledge of central government programmes; limited data; unclear or over local perception of investment gap and service delivery problem to be addressed => Need for instruments for revealing and sharing information; need to address "optimism bias" of public investment
Multi-Sector relevant planning and policies	Results when line ministries do not align their policies (i) in a cross-sectoral fashion, or (ii) vertically, when they need to be territorially implemented => Need for mechanisms to create multi-dimensional/systemic approaches and to make these engagements credible through national political leadership and commitment.	
Funding	Unstable, no multi-annual or insufficient funding, or misaligned conditionalities attached to transfers undermining effective execution of responsibilities at subnational level or for shared competencies => Need effective incentives for partnership approach when establishing cross-governmental financing mechanisms, including conditionalities; determining the balance of co-finance with autonomous finance; allowing a forward looking perspective through multi-annual budgeting.	
Administrative and Public Services	Occurs when the administrative boundaries for infrastructure decisions do not correspond to the socio-economic geographic area sharing the infrastructure and its externalities => Need for instruments to encourage collaboration between jurisdictions and assignment of responsibilities for reaching "effective size" (coordination tools among subnational units, reassignment of responsibilities at a higher level of government, potential mergers of administrations, etc.)	
Capacity	Arises when there is limited human, knowledge or institutional resources available to carry out tasks => Need for instruments to build local capacity (top-down; or peer-to-peer); earmarking co-financing as a way to induce capacity while avoiding micro management, performance assessment	

Source: adapted from Charbit and Michalun (2009); Charbit (2011).

Table 2 Coordination gaps in intergovernmental relations on a *project* level

Coordination gap	Description => potential remedy
Regulation: public-private	Reflects difficulties in clear selection and appraisal criteria to involve private sector in a determined investment project, in different stages of the project cycle => develop a "unified framework" for evaluation of public and private involvement; assess risk and possibility to cope with financial risk and contingent liabilities; introduce "independent review" to weed out poor projects early in the project cycle.
Responsibilities over the project cycle	Reflects difficulties in ensuring separate or sufficient accountability over specific steps in the project cycle (Pre-appraisal, appraisal, procurement, monitoring of implementation; operation of facility, ex-post evaluation, among others), which can lead to transparency integrity challenges for policy makers involved in the management of investment => Need for institutional quality instruments; Need for instruments to strengthen the integrity framework at the local level (focus on public procurement); Need for continuity in sub national public administration; Need for instruments to enhance citizens' involvement
Capacity	Arises when there is limited human, knowledge or institutional resources available to carry out tasks => Need for instruments to build local capacity (top-down; or peer-to-peer); earmarking co-financing as a way to induce capacity while avoiding micro management, performance assessment

Source: adapted from Charbit and Michalun (2009); Charbit (2011).

This paper will focus mainly on intergovernmental coordination with regard to infrastructure programming. While coordination mechanisms for actual project implementation (Table 2) are equally relevant, other contributions in this volume focus on these aspects. The dividing line is not always perfect, as several of the coordination instruments used in practice have multiple functionalities, serving programming and project implementation periods, and are applied in diverse intergovernmental frameworks in different political contexts. It also bears noting that the recent emphasis of the development community on results and outcomes, which is adopted with quickening pace in the subnational and intergovernmental area, blurs many of the traditional divisions for tools related to planning, funding and budgeting and underline the powerful role of evaluation information in the design of investment policies.

The objective of this paper is to explore the range of vertical and horizontal coordination mechanisms applied to intergovernmental coordination for public investment across OECD and selected non-OECD countries. The goal of this assessment is to discuss their achievements as well as persisting challenges. To this end, it attempts to relate existing mechanisms to the areas of potential gaps identified in Table 1, namely policy misalignments, failures to coordinate cross-sectorally, gaps in joint financing mechanisms, failure to achieve efficient scale, and gaps especially in subnational capacity. Two common complementary devices for improving horizontal and vertical interactions among different levels of government for infrastructure provision will be looked at, namely conditionality and contracts. This will be followed by a discussion of the political economy risks if actors choose to opt out of coordination. The final section will provide some conclusions about how coordination mechanisms need to be developed and tailored to specific contexts.

Evidence presented in the following part of the paper is based on three main sources. The first one encompasses a national level OECD questionnaire[3] exploring the existing mechanisms and challenges as well as best practices with regard to coordination and subnational capacity of public investment in general, and infrastructure in particular. This is complemented by results from in-depth qualitative information from seven subnational/regional case studies carried out across OECD countries, and selected choosing a balance between EU and non-EU member countries, as well as economically strong and less strong regions across those countries[4]. Finally, other country examples will be selected from past OECD work that includes mostly OECD countries, but also some selected non-members (such as Brazil or Peru).

2.1 Vertical coordination mechanisms

Vertical alignment of infrastructure policy

Central and subnational governments are interdependent actors, who need to establish mechanisms for coordinating their shared tasks of overall and sectoral planning, funding, and administering infrastructure provision. Aligning policy and implementation across levels of government requires coordination during a number of steps, not just co-financing. It requires actors to align their policy objectives, which in turn requires exchanging information about regional realities and their respective policy preferences. If governments fail to coordinate this may result in a highly fragmented approach to infrastructure policy, potentially reinforcing inequalities and failing to make the most of available resources.

Central level actors acknowledge that they know very little about subnational needs and policy preferences, while their subnational counterparts would like to be better informed about central level policy priorities. The results presented in Figures 3 and 4 point to a significant information gap between the central and subnational levels of government in terms of policy agendas. Regional case studies provide a more differentiated interpretation of these results: in countries where subnational governments need to secure central government financial or implementation support for the investment project they would like to carry out (such as in Sweden or in Germany for financial support), for example, subnational authorities seem well aware of the need to keep informed about central policy makers' agendas. In other countries, such as Peru, an absence of a mutual understanding of policy preferences between central and subnational levels has led to infrastructure planning and priority setting to be conducted on a bottom-up basis, without considering national top-down criteria in, for example, budgeting and regional development planning

[3] The questionnaire was carried out as part of a wider project on systematically assessing coordination and subnational capacity challenges across OECD countries. See project website: http://www.oecd.org/regional/effectivenessofpublicinvestmentatsubnationallevelintimesoffiscalconstraints.htm

[4] Case studies were carried out in Basilicata (Italy), Brandenburg (Germany), British Columbia (Canada), Galicia (Spain), Skane (Sweden), Victoria (Australia), Wielkopolskie (Poland). Reports of each of the case studies can be found at: http://www.oecd.org/regional/effectivenessofpublicinvestmentatsubnationallevelintimesoffiscalconstraints.htm

procedures. This has resulted in significant fragmentation of policy and program practices across subnational levels (Guerra-Garcia and Frank, forthcoming)

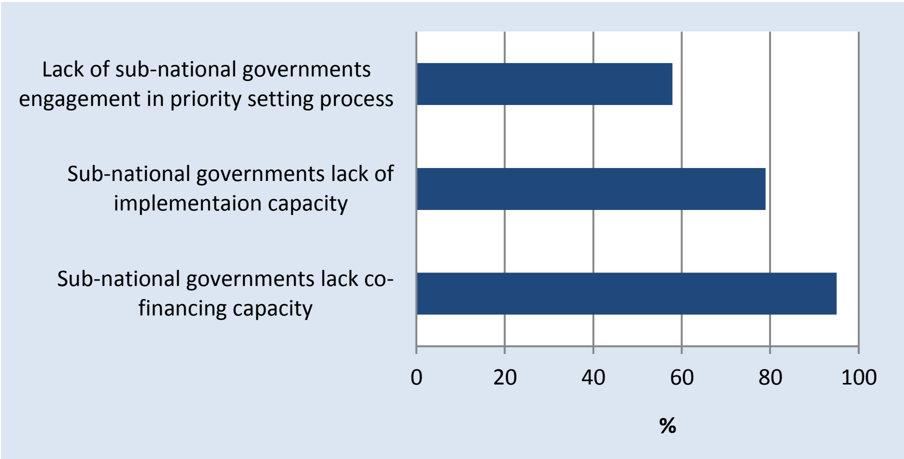

Figure 3 Vertical coordination challenges of public investment, as seen from the center

Source: OECD national questionnaire, 2012.

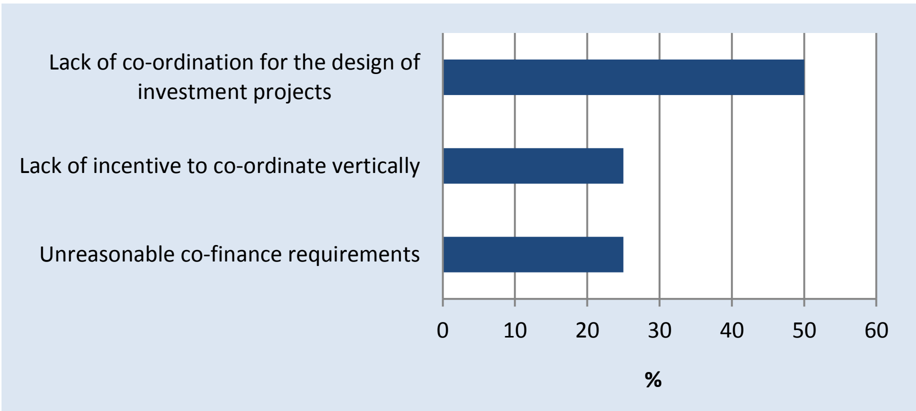

Figure 4 Vertical coordination challenges, as seen from the subnational level

Source: OECD regional questionnaire, 2012

To respond to those reciprocal needs, OECD countries have created different platforms that facilitate communication and the alignment of interests around common investment policy objectives. National bodies in charge of subnational coordination and fora in which subnational representatives gather are the most frequent types of platforms. Most federal countries have created such platforms to exchange information on policy objectives between the different levels of government. In Germany or Spain, for example there are so called “conferences”, or in the German case also the “Joint Tasks”, in specific sectors, like science or regional development, in which different levels of government regularly gather to determine policy priorities. Even though the German *Länder* still rely on approval and implementation of specific infrastructure projects by the central government, through the existing platforms, they can better prepare and align their preferences with the central government ones.

In a number of federal OECD countries platforms that facilitate the federal-state dialogue have long been established. In Canada the provinces, through their own platform, deliberate among themselves to determine investment priorities, while federal arms of the government are located in the provinces (e.g. the

Regional Federal Councils or the Regional Development Agencies) to ensure the central government's priorities are represented, and to communicate the provinces' priorities to the federal authorities. The federal-state dialogue in Australia is organized through the Council of Australian Governments. In Italy, political dialogue is ensured through the State-Regions Conference, a permanent negotiation body. Another example are the vertical coordination bodies established in many Latin American countries to organize water policies across levels of government (see Box 1).

Box 1 Vertical coordination in Latin America's River Basin Organizations

River basin organizations (RBOs) exist in a number of Latin American countries, including Argentina (River Basin Committees), Brazil (where the first RBO was created in 1970), Costa Rica (where RBO's are regulated by the 2000 Law on Water Resources), Nicaragua (Regional Organizations for River Basins), and others in Panama, Mexico and Peru. In most cases, the principal actors in RBO's are central government ministries and public agencies and/or local and regional authorities. Sometimes, river basin authorities are also accountable to citizens and NGOs. In the sample of countries surveyed in the OECD study, basin authorities are financed both by autonomous budgets (e.g. collection of water revenues) and grants from the central government, and in some cases, sub-national governments also contribute to river basin authorities' funding (e.g. Argentina, Brazil, Mexico). RBO's missions, constituencies and financing modes vary across LAC countries. All river basin authorities have functions related to planning, data collection, harmonization of water polices and monitoring. However, their role in the allocation of water uses, prevention of pollution, co-ordination, financing and regulation is not systematic, and none of the LAC countries' river basin organizations (contrary to OECD ones) have regulatory powers. The maturity of river basin organizations also varies across LAC countries, especially in coordinating competing uses, which requires equitable approaches to resolving conflicts in the political and legal arenas. Argentina and Brazil are pioneers in setting up river basin agencies, while other LAC countries, such as Peru, have only recently adopted such arrangements areas.

Source: OECD, 2012a.

Some of the more centralized countries have more informal platforms for consultation. In Norway, for example, the Ministry of Local Government and Regional Development gathers with all regional administrations and other relevant regional stakeholders to inform them about central policies for regional development and to discuss issues important to the regions. In Sweden, subnational administrations take central information platforms as opportunities to lobby for infrastructure investments at the center that will ultimately decide upon, finance and implement them.

<u>Cross-sectoral coordination</u>

The effectiveness of intergovernmental policy coordination also depends on the extent to which infrastructure policy is coordinated and aligned across line ministries. Policy complementarities matter to mutually reinforce the impact of different sectoral actions on an infrastructure policy outcome in specific places. Despite this, even highly decentralized federal systems have been shown to work in a deeply sectorally entrenched way (OECD, 2011b). Entrenched sectoral approaches at the national level hamper the necessary coordination of infrastructure implementation at the subnational level. Central levels of governments need to commit resources to align policies and their implementation at the subnational level.

In many places, subnational governments have worked to make up for gaps in sectoral coordination at the central level. In Poland, for example, information on infrastructure investment decisions and their locations rests within various sectors and does not get communicated consistently to subnational governments which are aiming to execute their spatial planning role. Subnational actors need to engage in an effort to find and collect the information necessary, thereby collaborating with each of the sectoral ministries separately to draw up spatial plans at the subnational level. This process generates transaction costs and makes it harder to realize potential synergies among a wide range of infrastructure policies, such as transport, the environment and housing for example. In Spain bilateral agreements are made between regions and the center (convenios de collaboración) that cover much of their cooperation. The convenios (see also section 2.3 on contracts) tend to be sectoral and are distributed across the central ministries. To overcome potential entrenchments, the region of Galicia has developed a multi-annual strategic plan that brings together several regional-level sectoral plans, including those for road infrastructures, transport, water and innovation, with the aim of avoiding conflicting objectives and improving outcomes. In Germany, *Land* Brandenburg has engaged in an effort to bundle the different sources of funding (such as from the Joint Task, EU funds, etc.) that make up the roughly 10% of its budget over which it has real spending discretion, as opposed to other resources that are pre-committed to centrally decided spending targets. This bundling of resources ensures maximum coherence between different policies at the state level. In addition, it has inter-ministerial working groups involving *Land* ministries. One challenge the *Land* faces at the moment is that the funding instruments of the Joint Task and the EU have different programming periods. This is contrasted by the central level approach to coordinating between the center and the *Länder* that remains very sectorally driven, with few cross-sectoral coordination mechanisms that are as firmly institutionalized as the vertical ones.

In the absence of national cross-sectoral coordination, however, regional efforts to realize policy complementarities can be undermined. Region Skåne in Sweden has both sectoral (e.g. transport, innovation) and cross-sectoral regional development strategies. They are the outcome of an important effort to define a regional development policy. However, it has had only limited impact, as the region lacks the resources to finance it and the plan is not tied to resource commitments from local or central sectoral budgets. As long as the regional strategy is not linked to a concrete implementation plan supported by financial commitments, it is unlikely to leverage the expected policy complementarities.

2.2 Horizontal coordination mechanisms

There are two main drivers that necessitate horizontal coordination across subnational jurisdictions. First, positive (and negative) spillover effects of infrastructure projects may challenge the traditional management of public investment within administrative boundaries, creating incentives for other jurisdictions to free-ride on infrastructure provided by others. This may eventually lead to an under-provision of infrastructure. Secondly, it may not always be effective to implement infrastructure projects along jurisdictional borders. Limited in size, jurisdictions could largely benefit from investing together with other jurisdictions in terms of economies of scale. A more function- instead of administrative boundary-oriented approach to decentralized infrastructure provision may also be useful to allow for local synergies in infrastructure policy making (OECD 2013b; Frey and Eichenberger 1996 and 1999).

Signifcant engagement can be observed across countries to encourage horizontal coordination

The great majority of OECD countries have mechanisms in place to encourage coordination across subnational governments. Two-thirds of the countries responding to the OECD questionnaire report having mechanisms in place to encourage subnational coordination across jurisdictions, both at local and intermediate levels of government. Federal or quasi-federal countries all report to have such mechanisms in place. A recent survey in the water sector revealed that a majority of Latin American countries has also put in place horizontal coordination mechanisms, including Argentina, Costa Rica, Dominican Republic, Honduras, Nicaragua, and Panama (OECD, 2012a). In certain countries a collaborative culture has to be created, especially in those where forced mergers have not nourished such a culture at the onset. Strengthening such collaboration where it has historically been weak involves certain risks, as there may be a lack of or limited inter-institutional trust on the subnational level, stemming from a planning tradition oriented towards the center, such as is the case for Poland.

Coordinatioon across medium tiers of government

The mechanisms employed to foster inter-jurisdictional coordination vary widely. They can range from the legal requirement to collaborate across states, such as enshrined in Mexico's planning law, to the creation of special purpose cross-border platforms like the Pacific Northwest Economic Region (incorporating both Canadian provinces and US states). In countries like Italy and Switzerland, collaboration between regions is financially incentivized. In Switzerland, one-third of subnational funding from the central government is reserved for inter-cantonal investment projects. In addition, some 800 inter-cantonal agreements have been created that focus on collaboration in specific fields, such as fishing, healthcare services, inter-cantonal roads and police networks. The fiscal decentralization reform of 2008 further reinforced these agreements, allowing the central government to forbid cantons from opting out of specific agreements.

Coordination across local government tiers

Local horizontal coordination has been encouraged through "soft" mechanisms, like policy-exchange fora, as well as "harder" financial incentives. A number of countries (e.g., Canada, Sweden) have established fora to facilitate policy dialogue among municipalities. More formal mechanisms include the provision of financial preferences at the national level for joint subnational public investment proposals; Estonia, Spain and Norway all use such measures. In Portugal, grants are provided under the National Strategic Reference Framework for the 2007-2013 European Union programming period to establish and implement territorial development plans among collaborating municipalities. In some countries, there have been efforts to reduce the need for such special arrangements by "scaling up" municipalities or regions, in an effort to strengthen their capacities and/or reduce fragmentation and administration costs. Denmark, for example, reduced the number of municipalities from 271 to 98 and the number of regions from 16 to 5 in a reform that took effect in 2007. Most other countries have preferred to encourage voluntary mergers, albeit with limited impact in most cases (e.g., Finland and others). Sweden has been trying to encourage a bottom up consolidation of its 22 counties, but the outcome of this effort remains unclear (OECD, 2010). France is the OECD country with the greatest fragmentation at municipal level, but it has made extensive use of agreement mechanisms to foster cooperation among its 36,000 municipalities (Box 2).

Box 2 Using incentives to promote municipal cooperation: the case of France

France has more than 36 000 communes (the basic unit of local governance),. Nevertheless, France has long resisted municipal mergers. Though many are too small to be fully efficient, municipalities are considered as an essential component of the French democracy. For more than three decades, the central government has been encouraging cooperation among municipalities, both to allow small rural communes to surpass minimal thresholds necessary to provide public services, and to allow urban areas, which are often fragmented into several municipalities, to be managed coherently. There are approximately 19 000 inter-communal structures aimed specifically at facilitating horizontal cooperation, and almost all municipalities are involved in them. There are three main types of supra-communal structures: communities of communes (groupings of small rural communes), "agglomeration" communities (groups of 50 000 inhabitants subject to a single business tax), and the urban communities (groupings of 500 000 inhabitants or more). Each grouping of communes constitutes a "public establishment for inter-communal cooperation" (EPCI). The EPCIs assume limited, specialized, and exclusive powers transferred to them by member communes. Unlike the communes themselves, the EPCI is not governed by elected officials, but by delegates of municipal councils. Although the EPCI are created by the communes directly, there are two notable roles for the central government. First, EPCIs must be approved by the state in order to exist legally. Second, to encourage municipalities to form an EPCI, the central government provides an "inter-communality grant" to those communes that accept a single business tax. This is to preclude competition on tax rates among participating municipalities. EPCIs draw on budgetary contributions from member communes (for the syndicates) and/or their own tax revenues (for the EPCIs).This inter-municipal level has become the key actor for big infrastructure investment or environment-related investments (such as for water infrastructure). Reforms are currently discussed for making this inter-municipal approach more effective and for developping new governance schemes for metropolitan areas.

Source: Charbit and Vammalle (2010); OECD (2006).

Demographic change has been an important driver for efforts to encourage scale efficiency at local level, particularly in low-density regions where population ageing and out-migration are making it increasingly difficult to sustain service provision. After a wave of top-down enforced municipal mergers to down-size local administrations following unification, Germany has had to respond to demographic change in the last years by trying to streamline public service provision at the local level. Demographic change has left some municipalities shrinking, with the per capita costs of infrastructure investment and service provision increasing. Therefore some *Länder*, such as Brandenburg, implemented a directive[5] on the financial support for voluntary municipal mergers, with the aim of increasing the efficiency and quality of service provision at the municipal level. In 2012, EUR 10 million have been allocated to support municipal mergers, whereby EUR 50,000 are offered for municipalities where some administrative functions are merged, and up to EUR 500,000 for entire mergers of municipalities' administrations. Among the first ones to take up this initiative one finds cities and their adjacent municipalities.

Another incentive for horizontal collaboration may lie in strengthening subnational governments in their dealings with the central government. For example, Region Skåne in Sweden has had an incentive to co-operate with its much smaller neighbors across the larger South Sweden Region in pursuit of shared priorities. Their joint weight shapes the negotiations at national level. One such sector where this plays a role is transport infrastructure and specifically projects that increase the connectivity between southern Sweden and its capital. The extension of the railway lines to Stockholm is one recent example.

In Canada a culture of inter-jurisdictional collaboration has given rise to many forms of encouraging joint infrastructure management. In a more top-down fashion, British Columbia (BC) can create inter-municipal institutions, oblige municipalities to adhere to them, and review their mandates when it deems this necessary. BC has created a number of institutions in an effort to facilitate coordination between municipalities and reach efficient scale for service provision and public investment (regional districts, Trans Link, British Columbia Rail Company, etc), as well as authorities that run specific public services for the municipalities. Once created, they are administered independently of the province, directed by a board that represents the relevant interests given their mandate (municipalities, regional districts, civil society, etc). They are funded by specific taxes and fees and are not allowed to run budget deficits, but they may borrow for capital investment. By providing services to a pool of municipalities, they allow for economies of scale and lower prices. The Municipal Finance Authority (MFA) is one such example, financing most of regional districts' and municipalities long-term debt, and encompassing all local governments in British Columbia except the City of Vancouver. Regarding public transportation, the province decided in 1999 to create Trans Link, an independent regional authority to which it gave the mandate of designing, building, financing and managing the public transit system in the regional district of Vancouver.

Persistent challenges though exist

Horizontal collaboration nevertheless faces significant challenges. In Mexico, for example, states have autonomy in their designated fields of competence, which makes it difficult to coordinate agendas, priorities and fiscal resources with other states. A number of governments point to a perceived lack of capacity for horizontal collaboration at subnational level (e.g., Sweden). In other cases, competition between subnational tiers of government for central level funding often undermines collaboration incentives (*e.g.*, Germany and Switzerland). Supranational institutions (such as the EU) have not yet adapted all their structural/cohesion fund rules that would allow regions using obtained funds for cross-jurisdictional projects.

[5] See website link for the directive's content: http://www.mi.brandenburg.de/cms/detail.php/bb1.c.253080.de

Inter-jurisdictional competition and regulatory impediments also complicate efforts to foster horizontal collaboration at local level in many places. In Estonia, for example, municipalities compete to obtain funding from higher levels of government. A lack of strategic planning capabilities at the local level may impede inter-municipal collaboration as well (*e.g.*, Slovenia or Canada). Regulatory impediments may also arise. National legislation may raise the costs associated with organizing joint undertakings among municipalities (OECD, 2011c; 2012b).

Differences in size, wealth and priorities can make it difficult for neighboring municipalities to reconcile investment decisions together, particularly where very large agglomerations are engaged with much smaller municipalities. Cooperation can also be difficult where there are significant differences in income levels between adjacent jurisdictions. Yet competitive pressures arise even in a partnership of equals. For example, in low-density places like Slovenia (OECD, 2011c) or south-eastern Sweden, municipalities can readily see the scale economies to be realized by collaborating in fields like education and health care, but each may fear that its own long-term viability depends in part on ensuring that the key facilities (and related employment) are located within its jurisdiction.

2.3 Encompassing instruments to structure vertical or horizontal coordination: the case of conditionalities and intergovernmental contracts

Conditionality and intergovernmental contracts[6] *are encompassing, crosscutting mechanisms for coordination.* They can help actors across levels of government to address a number of existing coordination challenges simultaneously and can employ different coordination devices together. Conditionality can be used to address the lack of horizontal collaboration, for example, by making it a requirement in earmarked transfers for infrastructure investment. Mutually designed and agreed upon contracts across levels of government can improve the basis of information on common policy priorities, make objectives clear and transparent, as well as commit all levels to generate and use information on infrastructure performance outcomes. The two instruments can, of course, be employed as complements rather than substitutes: conditionality can be part of a contract design, and in fact, very often is. Contracts simply take the discussion a step further, creating credible partnership arrangements between levels of government that allow for mutual accountability as well as alignment of responsibilities and resources to generate a well-coordinated approach and joint commitment to infrastructure policy. A very powerful dimension of the contractual approach may lie in the fact that it includes information about the enforcement mechanism that guarantees the credibility of both parties' commitments (OECD 2007).

[6] A contract is a set of mutual promises by which the parties commit themselves either to take actions or to follow the prescription of a decision mechanism that has been mutually agreed upon. In the latter case, the contract is an agreement by which decision-making rights are transferred among parties. In the case of contracts among levels of government, contracts allow the reorganisation of the rights and duties of governments other than by changes to the constitution (OECD 2007).

Box 3 From program to project contracting - transactional versus relational contracts

The typology of contracts identified in earlier OECD work lends itself to distinguishing contracts according to their proram or project nature (as identified in Table 1 above). "Transactional" contracting involves an *ex-ante* determination of the complete set of binding and enforceable rights and duties of the parties. This includes the coordination arrangements. The key challenge concerns the incentives needed to encourage the parties to make good on their obligations. The resulting contracts are contingent, complete (in theory, at least), often complemented by an incentive mechanism and ultimately enforced by third parties, such as the judiciary. By contrast, "relational" contracting involves parties committing to co-operate *ex-post* (after the signing of the agreement) and supervision of compliance with the agreement tends to be project-based, bilateral, relying on a cooperative spirit. In other words, their primary purpose is not to fix the parties into a complete set of binding and enforceable commitments but rather to serve as mechanism for collective decision-making which generates trust and facilitates cooperation, information-sharing and capacity building. In practice, most contracts are characterized by both transactional and relational elements and fall somewhere on a continuum from being pure transactional to pure relational contracts.

Source: OECD (2007).

A partnership approach to conditionality is likely to reinforce its effectiveness

Nearly all OECD countries use some type of conditionality attached to central government transfers to ensure infrastructure provision across levels of government. 17 of the 22 OECD countries responding to the questionnaire report that inter-governmental transfers come with certain conditionalities defined by the central government and, in EU countries, they are often subject to requirements defined by the supra-national level – the European Commission. The most frequent conditions attached to central funding include matching (co-financing) and reporting requirements, as well as predetermined timeframes for spending investment funds. In most of the respondent countries, earmarking, environmental assessments and additionality requirements are also frequently applied (Figure 5).

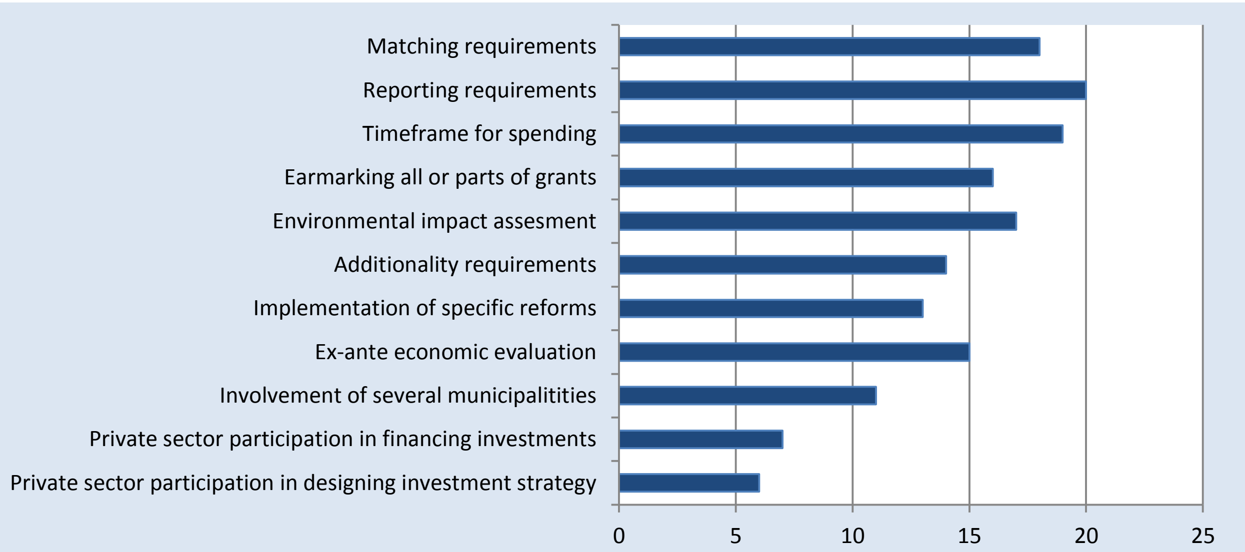

Figure 5 Types of conditionalities attached to public investment funds

Source: OECD national questionnaire, 2012

Conditionality can be an effective tool to align objectives across levels of government and strengthen mutual accountability, but in OECD countries a partnership approach is key to make them an effective instrument of coordination. Several countries report having found conditionality, including the timeframe of spending, earmarking and matching requirements, as well as ex-ante assessments, effective tools for framing policies and strategic planning across levels of government. They find that conditionality has contributed to a better understanding of local conditions at the central level (e.g. Slovak Republic, Estonia, and Italy). In Estonia and Canada, conditionality has helped to enhance systematic assessments of likely and actual impacts of investments, thereby reducing the incidence of "bad" investments. In Norway and Italy, conditionality has successfully encouraged the concentration of resources, thereby making it easier to promote and anticipate crucial infrastructure investments. Even though only just over half of the respondent countries report that conditionality poses an additional administrative burden, it is not perceived as being very effective in increasing the quality of investment projects. This may point to the fact that conditionality is still largely applied as a control instrument, rather than an outcome-oriented tool that decreases inefficiencies that may arise in lengthy and unorganized coordination. Also, ill-defined, exhaustive top-down developed conditionality can render itself ineffective because there may not be sufficient ownership at the subnational levels to implement its prescriptions. Generally speaking, the effects of reputation attached to results seem to be more powerful tools than sanctions with regard to positively influencing subnational entities.

Intergovernmental contracts encourage processes and outcomes

Contracts are a more ambitious mechanism that allow for a tailor-made approach to arranging responsibilities across governments. They are distinguished by the fact that they are formal devices to enable governments across levels to arrange joint action or to delegate action, as independent entities, and to clarify the complexity of processes and responsibilities for subnational infrastructure investment. This can be useful not only because of the inherent inter-dependencies among levels of government involved in the design and execution of infrastructure projects, but also because the assignment of responsibilities among levels of government can be "imperfect". There may be overlaps leading to shared responsibilities, or policy domains not specifically assigned to any level of government, which all give rise to the need for cooperation and clarification of roles arises. Contractual arrangements present the advantage of avoiding a one-size-fits-all approach and leaving scope for adapting policies to specific subnational infrastructure policies. They thereby help to address asymmetries of information and potential differences in capacity.

Contracts can be useful in unitary or federal contexts. In unitary states, contracts are often used in the framework of decentralization policies, to empower subnational levels of government or delegate the implementation of public investment tasks. In that context, they tend to be long-term agreements. These can be quite effective for managing policy processes that unfolded in stages over an extended period, particularly where they are innovative or experimental in nature and thus imply a need for periodic feedback and adjustment. In a federal state, contracts are more complementary, specifying cooperation on tasks that are not defined by existing constitutions or legal frameworks. This can often be the case for new or intermittent measures, such as innovation policies or the implementation of stimulus packages (as seen during the economic crisis). Such contracts tend to have a narrow focus and be of a short-term duration (OECD, 2007).

Contracts are frequently used as a coordination instrument between levels of government for governing investment policy in OECD countries. Figure 6 shows that intergovernmental contracts are one of the most frequent tools used to govern the interaction of different levels of government. They are used in federal as well as unitary systems (e.g. Canada, Italy, Spain, France, and Portugal). Contracts are quite powerful instruments for cross-governmental coordination: they are frequently concluded by high-level political actors, and they often include both dedicated budgets to ensure implementation and clearly defined mechanisms to resolve any conflicts that arise (Box 4 and 5).

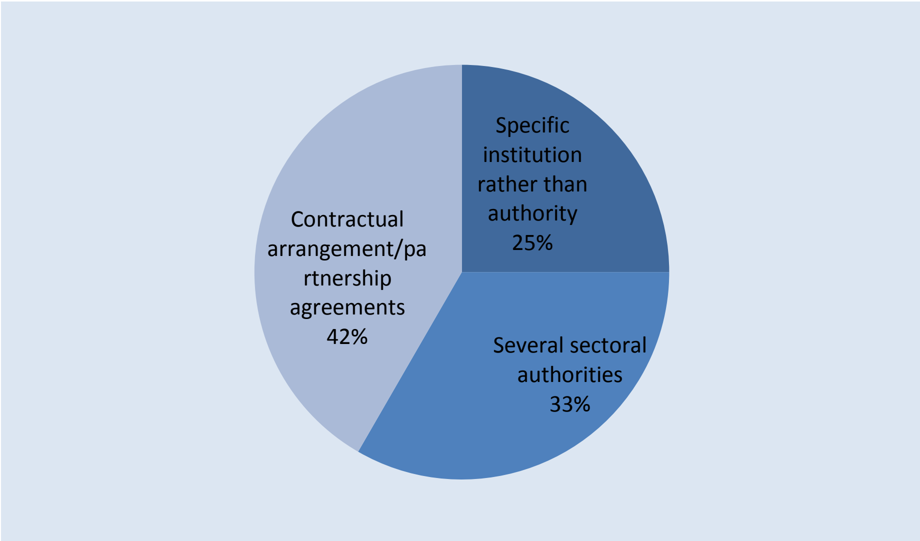

Figure 6 Mechanisms used for cross-governmental coordination

Source: OECD national questionnaire, 2012

Box 4 Intergovernmental Contracts in Poland

The initial regional contracts in Poland served as a learning device preparing the regional authorities for the management of the EU Structural Funds in a multi-level setting The contracts created a stable and multi-annual framework for cross-level coordination, allowing regional authorities to complete long-term investment plans. Nonetheless, it has been argued that the contracts remained stuck in what was previously a centralized framework, rather than putting the regions at the center of regional development policy-making. Instead of introducing a coordinated, place-based approach, the contracts served as a tool for the local implementation of national programs, the need for which arose because fiscal decentralization did not match the regions' assigned responsibilities. This reinforced their financial dependence on the central government. The center's approach to managing EU Structural Funds further undermined the regions' role, making the regional contracts simply an instrument part of the EU funded programs instead of regional policy planning and coordination instruments. The National Regional Development Strategy for 2010-2020, which replaces the existing contracts, aims at introducing a more integrated and place-based approach to create synergies between all regional policy instruments having a territorial dimension across levels of government, especially by specifying the sources of funding for the strategy's envisioned interventions.

Source: Ferry, 2003; Regulski et al., 2012; OECD, 2008

Box 5 The Vancouver Agreement – bringing actors across levels together through successful contracts

The Vancouver Agreement is an example for successful collaboration and coordination between the Government of Canada (central level), the Government of British Columbia (intermediate tier) and the City of Vancouver (municipal level) to establish horizontal governance mechanisms to tackle economic, social and health policy challenges in the metropolitan area of Vancouver. The agreement was characterized by an open, flexible partnering arrangement, based on equality of all partners that do not know ex-ante the precise goals of their cooperation, but wish to engage in a long-term collaboration and coordination process (a "relational contract"). Credibility and enforcement of the contract commitments was fostered by various means. Negotiated annual updates to the schedule of initiatives and commitments were required. All governments were directed to work within their own jurisdictions and mandates, and accountable to their electorate. In addition, political and administrative supervision mechanisms were established that supported contract implementation monitoring.

In an evaluation carried out 10 years after the VA's establishment, participants were unanimously positive in their response, acknowledging that the prior existence of jurisdictional fragmentation was successfully addressed through the VA. The VA was found to have strengthened relationships, especially also with the local community and the private sector, achieved through a constant collaboration and coordination of resources to ensure effective and efficient investment. The generalizable conclusions from the VA experience seem to be twofold: first of all successful contracts need a clear description of the roles of each participating level of government. In addition, each participant needs to be accountable; therefore accountability mechanisms have to be equally designed at the contractual development stage.

Source: OECD, 2007; Western Economic Diversification Canada (2010)

Form existing intergovernmental contracts important lessons can be drawn out:

- First, contracts seem to be an effective instrument to introduce a coordinated approach to local, integrated development policies. They seem to succeed in bringing actors together to form a joint policy strategy.
- Secondly, however, the contracts remain largely unsuccessful in changing existing fragmented and compartmentalized structures, because the relevant competences that go along with the strategies often remain unchanged.
- Thirdly, while contractual arrangements can be employed as a capacity-building device, they run the risk of creating "parallel" structures to existing administrative processes, which increase the administrative burden at the local and higher levels to engage in these new structures.

Therefore, it is crucial to make sure contractual arrangements are as much as possible aligned with existing ways of "doing business", and go along with a training for all levels of government in knowing how to implement the agreed arrangements.

2.4 The need for information to make coordination work

Information lies at the core of making coordination work. Information is essential to the alignment of objectives and assessment of projects, as well as mutual accountability and transparency. Information collected through monitoring and evaluating public investment also lies at the heart of efforts to increase the efficiency and effectiveness of subnational infrastructure provision.

Monitoring has become a standard for ensuring the success of an investment project; all national and regional governments answering the project questionnaire report that monitoring is carried out in one form or another. In their responses to the survey, the great majority of countries reported that some form of performance monitoring of public investment projects is conducted at central government level (Figure 7).

This includes the use of performance indicators as well as the formulation of objectives defined in form of target values (OECD, 2009). Strikingly, the exceptions to this rule include both very decentralized federations, in which federal-level monitoring might transgress on the rights of the federal units, and highly centralized countries, in which the sums available to the regional level for regional development are typically very small (even if larger sums go to local governments, which are monitored).

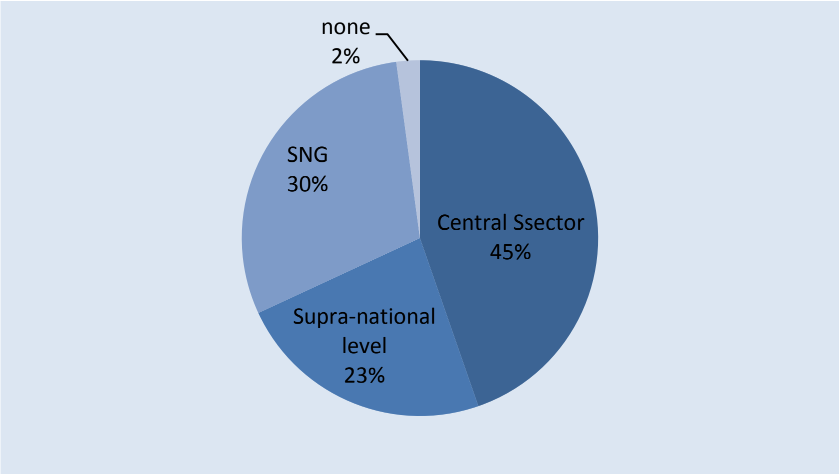

Figure 7 Level at which monitoring is performed

Source: OECD national questionnaire, 2012.

Robust ex-post evaluations are picking up gradually as over half of the regions surveyed report that they conduct ex-post evaluations. Generally speaking, monitoring and evaluation will only become effective coordination tools if the information generated facilitates learning, and makes actors become accountable to their citizens as well as their partners in government. This means that results of evaluations have to be used for shaping future policies and inscribed in long-term partnerships where evaluation results should inform consecutive program phases (encouraging engagement for results through "repeated games" settings).

2.5 –The political economy risks of actors "opting out"

Coordination is not a self-fulfilling goal—it is as rational to refuse to coordinate as it is to collaborate vertically and horizontally. Coordination instruments such as conditionalities or contracts cannot per se guarantee the implementation of agreed decisions. Political or economic incentives may persist for actors to not comply or opt out of coordinating with other levels of government or jurisdictions at the same level. This may lead to administrative inefficiency, redundancy of infrastructure provision, and misalignment of development policies across levels of government. As a result a central government may be confronted with a highly fragmented territory in practice where it will eventually face difficulties to implement country-wide policies.

A key political economy risk in intergovernmental coordination lies in the multiple principal-agent relationships that may lead to blurred accountability and disincentives to coordinate. If interpreted in a simplified way through principal-agent theory, subnational governments are subject to two principals – the central (or supra-national) governments and their electorate. On the one hand, it may bring higher political/electoral rewards for subnational governments to engage in infrastructure investments that serves their jurisdiction only than one in which such rewards are either fully or partly attributed to other subnational governments, even if the jurisdiction can share the utilization of the infrastructure. On the other hand, subnational governments are, to different extents, dependent on the central governments to provide them with grants and transfers as well as autonomy to implement their infrastructure priorities. If well designed, the central government can use this lever to increase incentives in a way that maximize infrastructure efficiency and effectiveness.

The "principal-agent" relationship between central and subnational governments may be further undermined by political party affiliation. On the one hand *c*entral level governments may, as has been shown in a number of political economy works, exercise preferential treatment in subnational jurisdictions that share the government's party affiliation. And the same may be true for subnational governments. They may be less inclined to work towards a common infrastructure policy, if they have a different party affiliation than the center. On the other hand, the party belonging may be of limited impact in comparison with local re-elections perspectives for shaping subnational policy makers' behavior.

When it comes to vertical coordination, as a rule, it would not be at all surprising that the level of government with fewer resources had a greater incentive to understand the priorities of the better-resourced tier. The risk, of course, is that the subnational levels' development priorities may be warped by the need to align with central agendas. A related risk lies in the possibility that central actors will focus on those subnational partners who are politically or administratively more adept at responding to signals about the center's priorities – i.e., those who know best how to "play the game". Therefore capacity building is needed across administrative places and localities to ensure equity and sustainability in vertical engagements of subnational tiers with their central governments.

Central governments therefore need to set the right incentives to overcome political economy challenges. In the above we have seen that central governments have successfully encouraged collaboration across subnational levels of government, when financial incentives were provided. Vertical coordination has worked in federal as well as unitary countries, when lower levels of government could gain necessary information on central level priorities, based on which they framed their local level preferences. Conditionalities per se may also not be effectively enforced, unless they were developed in an inclusive, top-down manner. Contracts can, and should have, built-in enforcement mechanisms, such as performance indicators. In addition, the reputational and capacity building effects of such mechanisms may often be effective enforcement instruments, even more than pure sanction devices that are difficult to implement across levels of government and may incite narrow instead of "complete" engagement by implicated actors.

3. Lessons learned

Gaps in coordination have widely been recognized, however they still exist. This paper has shown that, to different extents, in the majority of OECD and the selected subset of non-OECD countries recognizing the potential costs to failures in coordination has led to the introduction of several instruments to facilitate intergovernmental coordination. However challenges are still widespread. Vertical coordination is hampered by asymmetric information. Gaps in information sharing, impeding the development of a shared policy vision, exist both from the center to the subnational levels of government and vice versa. Capacity issues, especially in terms of co-financing infrastructure investments, hamper subnational governments to carry out their assigned roles properly. Instead of encouraging horizontal coordination, central governments sometimes set incentives for subnational jurisdictions to compete with each other to obtain funding (such as in Germany). Multiple principal-agent relationships may undermine the incentives of lower levels of government to engage horizontally with other actors. Finally, encompassing instruments such as conditionality or intergovernmental contracts have proven their usefulness, but they have also shown to reinforce skewed incentives, if political economy risks (such as asymmetric information, externalities and accountability) are not considered in their design.

Challenges to intergovernmental infrastructure coordination in OECD countries also exist in different nuances in developing countries. In OECD countries, central governments may face bigger challenges in overcoming very strong identities formed by traditional administrative boundaries at the subnational level that may pose significant obstacles in making horizontal coordination work. In more developing country contexts, the risk of capture may loom larger, and the central government may develop a tendency to collaborate vertically more with the actors that are already comparatively stronger than others. A more in-depth investigation into a sub-set of developing countries in the future could greatly enrich the debate on global challenges with intergovernmental coordination.

The need for intergovernmental coordination has reinforced the importance of accountability. Actors engaged in horizontal or vertical collaboration with different levels of government may have to engage in an ever greater effort to ensure accountability towards their own electorate, while at the same time the higher governmental tier. Subnational governments may find themselves in often contradictory incentive mechanisms, where important trade-offs have to be made. Central governments have an important responsibility to ensure that subnational governments are subject to the right incentives, and can be accountable for their engagement in intergovernmental coordination of infrastructure policy.

No matter how well designed coordination mechanisms are, they remain ineffective if they are not enforceable. There are a number of instruments central governments can use to enforce intergovernmental coordination for infrastructure investments. Financial incentives have proven effective when it comes to encouraging horizontal collaboration. A center-focused decision making of infrastructure investments has made subnational actors adapt their policy options, aligning them more with the center. Conditionality and contracts can be effective instruments for defining potential punishments if actors do not comply to previously agreed upon collaboration. It can be observed, however, that the instruments are undermined if subnational actors are not integrated in the development and negotiation of the framing conditions.

To make coordination happen and to make it work effectively requires collecting and sharing information. The essence of making coordination work lies in the collection and availability of information; hence any coordination mechanism implemented has to be coupled to a strategy for information collection and sharing, including with civil society.

References

Allain-Dupré, D. (2011). "Multi-level Governance of Public Investment: Lessons from the Crisis", *OECD Regional Development Working Papers*, 2011/05, OECD Publishing, Paris. http://dx.doi.org/10.1787/5kg87n3bp6jb-en.

Blöchliger, H.J., and C. Vammalle (2009). "Intergovernmental Grants in OECD CountriesL Trends and some Policy Issues." In: Junghun kim, Jørgen lotz and niels Jørgen ma (2009): *General Grants versus earmarked Grants theory and Practice*. Korea Institute of Public Finance and the Danish

Blöchliger, H.J. and C. Vammalle (2012). *Reforming Fiscal Federalism and Local Government: Beyond the Zero-Sum Game*, OECD Fiscal Federalism Studies, OECD Publishing. doi: 10.1787/9789264119970-en

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 Publishing. doi: 10.1787/221253707200.

Charbit, C. (2011). "Governance of Public Policies in Decentralised Contexts: The Multi-level Approach", OECD Regional Development Working Papers, 2011/04, OECD Publishing, Paris. http:/dx.doi.org/10.1787/kg883pkxkhc-en.

Charbit, C. and C. Vammalle (2010), "Modernising Government", in *Making Reform Happen: Lessons for the Future*, OECD Publishing, Paris.

Dexia (2012). *Subnational public finance in the European Union*. Dexia-CeMR, 2012. Ministry of Interior and Health.

Ferry, M. (2003) "The EU and Recent Regional Reform in Poland", Europe-Asia Studies 55: 1097-1116.

Frey, B.S.,and R. Eichenberger, (1996). "FOCJ: Competitive governments for Europe," *International Review of Law and Economics,* Elsevier, vol. 16(3), pages 315-327, September.

Frey, B.S. and R. Eichenberger, (1999). *The New Democratic Federalism for Europe – Functional, Overlapping and Competing Jurisdictions.* Edward Elgar Publishing Limited, Cheltenham 1999

Guerra-Garcia, G. and J. Frank, (forthcoming). Public Investment in Peru. World Bank, "Investing to Invest", Forthcoming.

Mizell, L. and D. Allain-Dupré (2013), "Creating Conditions for Effective Public Investment:: Sub-National Capacities in a Multi-Level Governance Context", OECD Regional Development Working Papers, No. 2013/04, OECD Publishing. doi: 10.1787/5k49j2cjv5mq-en

OECD (2006). OECD *Territorial Reviews: France 2006*, OECD Publishing, Paris. doi: 10.1787/9789264022669-en.

OECD (2007), Linking Regions and Central Governments: Contracts for Regional Development, OECD Publishing. doi: 10.1787/9789264008755-en

OECD (2008). *OECD Territorial Reviews: Poland, 2008,* OECD Publishing, Paris. doi: *10.1787/9789264049529-en*.

OECD (2009). *Governing Regional Development Policy: The Use of Performance Indicators*, OECD Publishing, Paris. doi: *10.1787/9789264056299-en*.

OECD (2010). *OECD Territorial Reviews: Sweden 2010*, OECD Publishing, Paris. *10.1787/9789264081888-en*.

OECD (2011a). *Making the Most of Public Investment in a Tight Fiscal Environment: Multilevel Governance Lessons from the Crisis*, OECD Publishing, Paris. http://dx.doi.org/10.1787/9789264114470-en.

OECD (2011b). *OECD Regional Outlook 2011: Building Resilient Regions for Stronger Economies*, OECD Publishing, Paris. doi: *10.1787/9789264120983-en*.

OECD (2011c). *OECD Territorial Reviews: Slovenia 2011*, OECD Publishing, Paris. doi: *10.1787/9789264120587-en*.

OECD (2012a). *Water Governance in Latin America and the Caribbean: A Multi-level Approach*, OECD. Studies on Water, OECD Publishing. http://dx.doi.org/10.1787/9789264174542-en

OECD (2012b). *OECD Territorial Reviews: Småland-Blekinge (Sweden)*, OECD Publishing, Paris. doi: *10.1787/9789264169517-en.*

OECD (2013a). *Investing together:working effectively across levels of government*. OECD Publishing, Paris (Forthcoming)

OECD (2013b). *Rural-Urban Partnership: an integrated approach to economic development*. OECD Publishing, Paris (Forthcoming)

Regulski A, Zawistowski J. and A. Żurawski (2012). Kontrakty terytorialne jako instrument polityki rozwoju. Optymalizacja kontraktów terytorialnych w kontekście wdrażania Krajowej Strategii Rozwoju Regionalnego 2010-2020. Warsaw: Instytut Badań Strukturalnych.

Vammalle, C. and C. Hulbert (2013), "Sub-National Finances and Fiscal Consolidation: Walking on Thin Ice", *OECD Regional Development Working Papers*, No. 2013/02, OECD Publishing, doi: *10.1787/5k49m8cqkcf3-en*.

Western Economic Diversification Canada (2010). *Evaluation of the Vancouver Agreement*, Audit&Evaluation Branch, May 2010.