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## **Analysing Dynamic De/Centralization in Federations: A Conceptual and Methodological Framework<sup>1</sup>**

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### **Abstract**

The paper speaks to the panel's topic by proposing a conceptual and methodological framework for analysing centralizing and decentralizing trends in federations. Although de/centralization trends are crucial for understanding how federal systems operate, no systematic and comparative investigation of the phenomenon over time has been conducted so far. Our paper seeks to address this gap by proposing a conceptual and methodological framework for doing so. In its first substantive section, the paper defines static de/centralization as the distribution of power between the general and the constituent orders of government of a federation at any given point in time, where power is understood as the ability of a constituent unit to take binding decisions on public policy unconstrained by the general government or other constituent units. Such autonomy is conceptualised as having two principal dimensions – policy and financial – each of which can be disaggregated into sub-dimensions. For our project, we have identified twenty policy areas and three financial areas for investigation. On the basis of this conceptualization, the paper proposes a measuring scheme able to capture static de/centralisation in each sub-dimension at a given time point. In its second part, the paper puts forward a conceptualization of de/centralization from a dynamic perspective, defined as changes in the distribution of powers between the general and the constituent orders of government over time. Two main forms of dynamic de/centralization are identified, the second of which can be further divided into five sub-categories. These are: (1) constitutional change; (2) non-constitutional change—consisting of framework legislation, fiscal instruments, court orders, centrally-instigated horizontal co-operation, and failure to act. We also identify two cognate phenomena of de/centralization – hetero/homogenization and relative growth – which can affect significantly the evolution of federations. The paper concludes by discussing how we have operationalized the framework.

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## **Introduction**

At its heart, federalism is a constitutional device to share power between two orders of government. The division of responsibilities and resources between the general government and constituent regional governments is thus crucial to the way federal systems operate. Such division, however, is never static. The original settlement, as embodied in the federation's founding constitution, is subject to multiple pressures for change over time. Comparisons of de/centralization across federations thus need to be complemented by cross-temporal analyses to beget a deeper understanding of the nature of federalism. In broad terms, change can take two forms: a shift of power 'upwards' to the general government or a shift of power 'downwards' to the constituent units. The first case constitutes *centralization*, as more power accrues to the centre; the opposite case is *decentralization*. The essence of a successful federal system is the maintenance of a balance between a sufficiently strong general government able to ensure the unity and coherence of the federation and sufficiently strong constituent units able to offer genuine political autonomy and diverse policies to their respective citizens. De/centralization trends matter because they alter such a balance and can profoundly affect the quality of governance. In turn, the quality of governance has an impact on a range of societal outcomes, such as economic performance, public service efficiency, and citizen satisfaction with democracy, which ultimately determine people's quality of life.

How and why do some federal polities become more centralized over time while others become more decentralized? Is de/centralization a uniform process or does it vary across policy fields and time periods? Despite their centrality for the study of federalism (Bryce 1888: 472-3; Wheare 1946: 252-3; Riker 1964: 124-36; Elazar 1987: 198-222; Bednar 2004; Hueglin and Fenna 2006: 150-1; Kincaid 2006; Beramendi 2007: 758-9; Watts 2008: 171-8; Erk and Koning 2010), the above questions have not been answered satisfactorily. No longitudinal, systematic comparative study measuring de/centralization has been carried out. As noted by Ronald L. Watts (2008: 176): "Much of this research has yet to be undertaken by comparative scholars". Our project seeks to fill this gap.

## **A brief review of the literature**

In his seminal study *Federal Government*, the book that inaugurated the modern comparative study of federalism, K.C. Wheare (1946: 252-3) noted federations' tendency to become more centralized over time. William Livingston's *Federalism and Constitutional Change* (1956) studied federalism from a dynamic perspective but did not develop a theory of how federations change over time. The first analytical attempt to theorize and explain

de/centralization was William H. Riker's *Federalism – Origins, Operation, Significance* (1964). In it, Riker developed a theoretical and methodological framework for studying the question and applied it to a detailed examination of the evolution of the US case. He also briefly reviewed a number of other cases in the light of his framework. Although he did not engage in a systematic comparison, he can be seen as the initiator of the comparative historical study of federalism. The question of de/centralization featured prominently in two major subsequent studies of federalism: Daniel J. Elazar's *Exploring Federalism* (1987) and Ronald L. Watts's *Comparing Federal Systems* (2008). Elazar noted the contrast between the centralization of power that had occurred in the United States and the decentralization experienced by Canada but did not explore the question further. Watts put forward a more developed conceptual framework, notably distinguishing three different dimensions of de/centralization: legislative, administrative, and financial. A recent review of the literature by Pablo Beramendi for the *Oxford Handbook of Comparative Politics* (2007) concludes that our knowledge of dynamic de/centralization is still limited. Jan Erk's and Edward Koning's (2010) study 'New Structuralism and Institutional Change: Federalism between Centralization and Decentralization' offers a systematic analysis and concludes that monolingual federations tend to centralize whereas multilingual federations tend to decentralize. However, their study does not explore in depth the factors and the mechanisms that determine de/centralization over time, and it only considers the period since the 1970s. One can also find a number of studies of dynamic de/centralization in a single federation. The following are among the most prominent: John Kincaid's (1999) 'From Dual to Coercive Federalism in American Intergovernmental Relations'; Hartmut Klatt's (1999) 'Centralizing Trends in Western German Federalism, 1949-1989'; and Alan Fenna's (2012) 'Centralising Dynamics in Australian Federalism'. The existing literature has thus made considerable progress in conceptualizing and theorizing de/centralization trends in federal systems and in empirically exploring the experience of individual cases. What is missing is a systematic comparative study able to map de/centralization trends and to test competing explanations for their occurrence.

### **Conceptualizing and measuring static de/centralization**

We define static de/centralization as the distribution of power between the institutions of the general government and the institutions of the constituent units of a federation at any given point in time. Power is understood here as the ability of a constituent unit to take binding decisions on public policy unconstrained by the general government or other constituent

units.<sup>8</sup> Building on Riker (1964), Elazar (1987), U.S. ACIR (1981), and Watts (2008), among others, we conceptualize such autonomy as having two principal dimensions: *policy* autonomy and *financial* autonomy. The first dimension relates to the constituent units' ability to shape public policy. The second one relates to their ability to obtain financial resources through their own tax and borrowing powers, and to allocate such resources as they please. It is fruitful to disaggregate these two main dimensions into sub-dimensions so as to better capture their complex nature and the variation across different components. Because of such complexity and the non-commensurability of the two dimensions, we avoid aggregating them into a single index of de/centralization, proposing instead to conceptualize de/centralization as multi-dimensional.

Policy autonomy can be divided into *legislative* autonomy and *administrative* autonomy across multiple policy areas. Legislative autonomy relates to the constituent units' control of primary legislative powers. This is understood as both the formal constitutional allocation and constituent units' *de facto* ability to exercise legislative powers. The latter aspect is important because the constitutional allocation can often be in the form of shared, or 'concurrent', powers, and the general government's 'framework legislation' can leave little margin for manoeuvre to the constituent units' ability to legislate. Administrative autonomy concerns the degree to which the constituent units implement the law of the general government as well as their own legislation. In systems of so-called co-operative federalism, the constituent governments carry out the bulk of implementation. This grants them a degree of discretion — hence of autonomy — that they can use to shape the final outcome of a policy, including, in some cases, the issuance of secondary legislation. Although this form of autonomy is arguably less consequential than legislative autonomy — which is the defining feature of federal systems — it can still be significant. Building on Riker (1964: 49-84), we divide the scope of public policy into the following 20 main areas: (1) agriculture; (2) culture and language; (3) defence; (4) economic activity; (5) education — primary and secondary; (6) education — tertiary; (7) electoral regulation; (8) employment relations; (9) environment; (10) external affairs; (11) financial services; (12) health care; (13) immigration; (14) law — criminal; (15) law — non-criminal; (16) media content; (17) natural resources; (18) policing; (19) social welfare; and (20) transport.

We measure legislative and administrative autonomy in each of the above policy areas on the basis of the following five-point scale, where 1 is the lowest degree of autonomy and 5 is

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<sup>8</sup> This does not deny that in co-operative federalism systems such as Germany, 'shared rule' at the general government level gives the constituent units collective co-decision powers over public policy enacted at that level.

the highest: 1 = exclusively general government; 2 = predominantly general government; 3 = equally general government and constituent units; 4 = predominantly constituent units; and 5 = exclusively constituent units. Table 1 in the Appendix summarises our conceptualization of policy autonomy. This measurement system is, of course, susceptible to some subjectivity, but the five-point gradation combined with measurements to be taken at ten-year intervals in 20 specific policy areas should minimize the problem.

Financial autonomy can be divided into four sub-dimensions. The first is the degree to which the constituent units have direct control of their own resources, which can be defined as the proportion of own resources to the net budget. This is often referred to in the literature on fiscal federalism as the Vertical Fiscal Imbalance (VFI)<sup>9</sup> hence, it could also be labelled the VFI Index. The greater the proportion of own resources, the more financially autonomous a constituent unit is. We measure VFI on the basis of the following five-point scale: 1 = 0-35, 2 = 36-45; 3 = 46-55; 4 = 56-65; 5 = 66-100. The second sub-dimension relates to the degree of conditionality attached to the financial transfers constituent units receive from the general government. Conditionality, in turn, has two facets. The first is the ratio between general revenue sharing funds and block grants to conditional grants. As the former leave much more discretion to the constituent units than the latter in deciding how to allocate expenditures, the higher the ratio, the more autonomous a constituent unit is. We measure the ratio on the same five-point scale, where: 1 = 1-35; 2 = 36-45; 3 = 46-55; 4 = 56-65; 5 = 66-100.<sup>10</sup>

The second facet concerns the scope and stringency of the conditions attached to the general government's conditional grants. Wide-ranging or highly stringent conditions naturally constrain more than limited or loose ones. Hence, the more limited their scope and/or the lower their stringency, the more autonomous a constituent unit is in allocating the funds it receives. We measure this on the basis of the following qualitative five-point scale: 1 = very high; 2 = high; 3 = medium; 4 = low; 5 = very low, where very high means the most stringent conditions. The third, and last, sub-dimension of financial autonomy relates to the freedom constituent units have in raising revenue through borrowing.<sup>11</sup> As such freedom increases, so does their financial autonomy. We employ the following qualitative five-point scale to measure this, where: 1 = very low; 2 = low; 3 = medium; 4 = high; 5 = very high. Table 2 in the Appendix summarises our conceptualization of financial autonomy.

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<sup>9</sup> See, for instance, Broadway and Tremblay (2005).

<sup>10</sup> To avoid the ratio being undefined, we set the minimum value of conditional grants to one rather than zero.

<sup>11</sup> For ease of tractability, we refer to formal freedom here but we do recognise that formal constraints can sometimes be circumvented.

## Conceptualizing dynamic de/centralization

In light of the above, we can conceptualize dynamic de/centralization at its most generic level as a change in at least one sub-dimension of policy or financial autonomy significant enough to be captured by our measuring scheme. Changes shifting the measure from a higher to a lower value signal a reduction in the autonomy of the constituent units and thus constitute instances of *centralization*. Conversely, changes entailing a shift from a lower to a higher value indicate an increase in the autonomy of the constituent units and should therefore be treated as instances of *decentralization*. Such changes, though, take different forms, and it is necessary to distinguish them in order to be able to conceptualize dynamic de/centralization effectively. We have developed a typology based on two main categories, the latter of which can be divided into five sub-categories.

The first form of dynamic de/centralization takes place through *constitutional change*. As the distribution of competences between the general and the constituent orders of government is typically enshrined in the federal constitution, particularly so as regards primary law-making powers, a constitutional amendment shifting the allocation of such competences from one order to the other represents the clearest and most straightforward form of de/centralization. This form can affect both policy and financial autonomy, though it is probably more likely to affect the former on the ground that financing mechanisms are rarely enshrined in the constitution. Depending on its direction, we label it YC1 for centralization or YD1 for decentralization.

Often, though, de/centralization takes place in the absence of amendments to the federal constitution, through channels that we label *non-constitutional mechanisms of change*, our second category. Five distinct forms can be identified within this category. The first is the use of *framework legislation* by the general government, particularly in policy fields that are constitutionally shared between the latter and the constituent governments. The extent to which the general government makes use of framework legislation and the constraints the latter places on the constituent governments' ability to exercise their own law-making competences can significantly affect the distribution of powers between the two orders of government. Greater use of detailed framework legislation, which largely pre-empts the legislative autonomy of the constituent units and may also reduce their administrative autonomy, leads to higher centralization in the system. We label it YC2A. Conversely, a reduction in the use of such legislation and/or a shift to 'lighter' forms of it would give greater autonomy to the constituent governments and make the system more decentralized. We label it YD2A. This form of change primarily affects policy autonomy.

The second non-constitutional mechanism of change we have identified is the use of *fiscal instruments* such as conditional grants. As constituent units in all federations rely to a greater or lesser extent on transfers from the general government to meet their spending obligations, a change in the composition of such transfers from general revenue sharing or block grants to conditional grants or vice versa can lead to significant effects on the system. By imposing conditions on how the funds are to be used, conditional grants reduce the autonomy of the constituent units compared to block grants or general revenue sharing; hence, an increase in the use of them over time constitutes dynamic centralization. We refer to it as YC2B. A shift in the opposite direction, away from conditional grants towards block grants and general revenue sharing, represents a decentralization step, which we label YD2B. By definition, this mechanism affects financial autonomy rather than policy autonomy.

The third such mechanism is *court orders*. In federations in which the judicial branch plays an important role in regulating the distribution of power between the general and the constituent orders of government and resolving disputes between them, court orders can have major implications for such a distribution. An order by a federal court significantly restricting the policy and/or the financial autonomy of the constituent units represents an instance of centralization, which we label YC2C. Conversely, a court order expanding the constituent units' autonomy is a form of decentralization, which we label YD2C. In principle this mechanism can affect either policy or financial autonomy.

The fourth non-constitutional mechanism of change operates via *horizontal joint action*.<sup>12</sup> This refers to joint action among the constituent units through, for instance, co-ordination of legislation, common provision of services or sharing of facilities. In some cases, such horizontal joint action is instigated by the general government and may include an element of compulsion. A shift from the autonomous control of a given policy area — or specific functions within it — by each constituent unit to a situation of horizontal joint action induced by the general government reduces the autonomy of each unit as it becomes dependent on the preferences of the other units to reach an agreement. It can thus be conceptualized as a form of centralization, which we label YC2D. A shift from a situation in which a given policy area is under the control of the general government to a situation in which it is collectively controlled by the constituent units through horizontal joint action, by contrast, increases the

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<sup>12</sup> Following its widespread use in the literature, we employ the term 'horizontal' to refer to mechanisms operating from one or more constituent unit/s to the others rather than from the latter to the general government and vice versa, which we refer to as 'vertical'. The latter term should not be taken to imply that the general government is always 'senior' to the constituent governments, as in most situations the two orders of government are independent and co-ordinated rather than hierarchically linked.

autonomy of each unit – as its agreement becomes necessary for joint action to take place – and can thus be considered a form of decentralization. We label it YD2D. This primarily affects policy autonomy.

The last non-constitutional mechanism of change occurs when the constituent units fail to act in a policy or financial area constitutionally shared with the general government, opening the way for the latter to enact its own legislation or regulation in that area. On the principle that general government law prevails over law enacted by the constituent units, failure to act on the part of the latter leads to such an area becoming *de facto* controlled by the general government, even if constitutionally it remains shared between the two orders of government. We name this mechanism *failure to act*. Failure to act typically takes the form just described; hence, it is a form of centralization dynamic, which we refer to as YC2E. Theoretically, though, it could also take the form of failure to act by the general government leading to the ‘appropriation’ of a particular policy or financial area by the constituent units. We label such occurrences as YD2E. This last mechanism is also more likely to affect policy autonomy. Table 3 in the Appendix summarises our conceptualization of dynamic de/centralization.

One question that presents itself in relation to the measuring of dynamic de/centralization is that of the potential asymmetric nature of the process. In some cases, de/centralization affects all the constituent units of a federation but in others it may affect only a few — or even only a single one — of them. When mapping de/centralization dynamics, we thus need to take into account the territorial extent of them. We deal with this issue by specifying the proportion of the constituent units as well as the proportion of the overall population of the federation affected by the dynamic.

### **Conceptualizing cognate dynamic phenomena**

Beyond the forms described above, other dynamic phenomena frequently observed in federations share some similarities with dynamic de/centralization and are often produced by the same forces but cannot satisfactorily be conceptualized as forms of de/centralization because no shifts of power between the general and the constituent orders of government take place. We refer to them as *cognate phenomena of dynamic de/centralization*. Two main such phenomena can be identified, the first of which can be disaggregated into three distinct sub-forms. The first phenomenon consists of changes in the degree of policy hetero/homogeneity across the constituent units of a federation brought about by *horizontal dynamics*. An increase in policy homogeneity – or a decrease in policy heterogeneity –

reduces the degree to which public policy is tailored to the preferences of the citizens of each constituent unit. It is thus a trend akin to dynamic centralization but cannot be conceptualized as such as there is no accretion of power to the general government. Conversely, an increase in policy heterogeneity – or decrease in policy homogeneity – has similarities with dynamic decentralization but cannot be fully subsumed into it as no ‘downward’ transfers of power between the general government and the constituent units takes place. We have identified three different horizontal dynamics affecting policy hetero/homogeneity.

The first one is *voluntary co-operation*. This occurs when two or more — sometimes all — constituent units voluntarily decide to co-operate with each other in a given area of public policy through instruments such as harmonization of legislation or regulation, common provision of services, or sharing of facilities. A shift from individual control of a policy area by each individual unit to collective action via voluntary co-operation leads to greater policy homogeneity, while a shift from co-operation to individual control tends to lead to greater policy heterogeneity. Such shifts often occur asymmetrically, that is the shift from individual control to co-operation or vice versa only concerns a sub-set of the constituent units of a federation, hence the importance of specifying the ‘territorial’ extent of them.

A second dynamic is policy *diffusion* or *divergence*. Borrowing from the public policy literature (e.g. Shipan and Volden 2008), we conceptualize policy diffusion in federations as the process whereby a policy innovation by one constituent unit is subsequently adopted by the other units through a so-called ‘demonstration effect’. By definition, policy diffusion leads to greater policy homogeneity across the federation. The opposite case is one that can be termed policy divergence, occurring when one or more constituent units break away from a situation of relative policy uniformity by enacting policy innovations that are not subsequently widely adopted by the other units. This latter case thus constitutes a shift from higher to lower policy homogeneity.

The third dynamic we have identified is *spillover*. Spillover occurs when one constituent unit –typically one that is much larger than the others<sup>13</sup> – enacts legislation or regulation in a given area of public policy in which externality effects are particularly strong. Because of the size of the unit taking such action and the importance of its market to economic actors, its action generates pressure on the other constituent units to bring their own laws and regulations in line with those adopted by the large unit, thus bringing about a reduction in the

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<sup>13</sup> It could also be a small group of large units.

degree of policy heterogeneity across the system. As spillover is by definition a mechanism pushing some constituent units to follow others, it would be difficult to see it as leading to an increase in policy heterogeneity.

The second phenomenon is what we call *relative growth*. By relative growth we mean the increase in the 'size' of one of the two orders of government, without formal transfers of competences or decrease/increase in the autonomy of the constituent units, so that the balance between them within the system changes over time. If the general government grows proportionally more than the constituent governments, the effect is akin to centralization as the general government becomes more important although its power vis-à-vis the constituent units remains unaltered. In the opposite case, that is if the constituent order of government grows proportionally more than the general government, the effect is akin to decentralization as the constituent units become more important, but, once again, cannot be properly conceptualized as such. Table 4 in the Appendix summarises our conceptualization of these cognate phenomena of dynamic de/centralization.

In addition to the conceptual differences from dynamic de/centralization mentioned above, both such phenomena present significant measurement challenges that cannot be addressed with the measuring framework we have outlined above. As regards the former, it is necessary to measure the extent of hetero/homogeneity across each policy areas from a static perspective in order subsequently to be able to capture changes in the measure over time. Likewise, mapping relative growth requires a static measure of the 'size' of each order of government at any given point in time. While the share of public spending is a frequently employed measure, it is not without its limitations. For instance public spending does not fully capture the 'importance' of government action in the regulatory field, where regulation can have deep and widespread impact on economic and social life without requiring significant financial resources for its enactment. Measuring both the degree of policy hetero/homogeneity and the relative 'size' of each order of government are different exercises from measuring constituent units' policy or financial autonomy, hence we do not intend to engage in either in this phase of our project. We think it is fruitful, however, to conceptualize these phenomena and to clarify what they share with, and how they differ from, dynamic de/centralization.

### **Operationalization**

We operationalize the conceptual framework outlined above in four steps. In the first step, we have selected six cases of long-established and continuously democratic federations that lend themselves to a comparative longitudinal analysis of de/centralization: Australia (1901-),

Canada (1867-), Germany (1949-), India (1950-), Switzerland (1848-), and the United States (1789-). The second step consists in collecting data on static de/centralization across the various categories and sub-categories at 10-year intervals since the inception of the federation. The score assigned is a synthetic assessment of the prevailing distribution over the course of the decade. Each data point is thus structured by three elements: the federation under examination; the time point; and the sub-dimension of de/centralization of interest. Each data point is accompanied by a 'confidence rating' to indicate the confidence we have in the measurement. This is intended to take into account that information on certain dimensions and at certain points in time may be of limited availability and/or poor quality. As already mentioned, we do not intend to aggregate the different scores into a uni-dimensional measure of de/centralization so as to avoid problems of commensurability across sub-dimensions and of independence versus inter-dependence between them. The data collected, which will be made publicly available in an online dataset, will make possible further research into the evolution of federal systems, such as investigations of the impact de/centralization trends have on the quality of governance.

The fine-grained nature of the data collected allows us to map three different patterns of change: 'micro-changes', incremental changes, and 'critical junctures'. Micro-changes can be defined as changes of small magnitude, large enough to be captured by our coding scheme but that do not coalesce into a trend leading to significant long-term change. Incremental changes, by contrast, do amount to significant trends but occur in a gradual fashion over long periods of time without sharp discontinuities. Lastly, following the literature on historical institutionalism (e.g., Pierson 2004; Capoccia and Keleman 2007), we understand critical junctures as relatively short periods of time characterized by high discontinuities leading to significant long-term change.

Where critical junctures can be identified, we plan to conduct process-tracing analysis of up to five of them in each federation with the aim of identifying the factors and the processes that led to their occurrence. Adopting a 'funnel of causality' model first proposed by Angus Campbell et al. (1960: 24-32), we intend to isolate both 'remote' structural factors and more proximate 'agency' ones, and understand the interaction between them. In the last step, we aggregate such factors, treated as causal conditions, and the critical junctures, treated as outcomes to be explained, code them as fuzzy sets and analyse them with fuzzy-set Qualitative Comparative Analysis (QCA) methods (Ragin 2008) to reach generalizations valid across the six cases.

## Conclusions

De/centralization dynamics are inevitable in all federal systems and have the potential to affect greatly the operation and the very nature of the system. Scholars have long noticed the tendency of many federations to become more centralized over time, and studies of individual cases have contributed significantly to our knowledge. Likewise, recent efforts aimed at reversing the trend in a number of federal countries have also attracted scholarly attention. However, no longitudinal comparative study of dynamic de/centralization has been conducted; hence, our understanding of the extent, forms, and determinants of the phenomenon is still limited. The conceptual and methodological framework outlined in this paper is intended to provide a basis on which such a study can be carried out. It conceptualises static de/centralization as being bi-dimensional — policy and financial — and dynamic de/centralization as taking both constitutional and non-constitutional forms, the latter of which ranging from the use of framework legislation to governments' failure to act, and proposes a coding scheme intended to be sufficiently fine-grained to capture the various manifestations of de/centralization. It also identifies two cognate phenomena, which share similarities with, but cannot satisfactorily be subsumed into, dynamic de/centralization. We hope the framework is able to provide an effective basis on which the empirical analysis of de/centralization dynamics can be based.

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## Appendix

**Table 1 – Policy autonomy by sub-dimension and area**

	<i>Legislative</i>	<i>Administrative</i>
1) Agriculture	1-5	1-5
2) Culture and language	“	“
3) Defence	“	“
4) Economic activity	“	“
5) Education – primary and secondary	“	“
6) Education – tertiary	“	“
7) Electoral regulation	“	“
8) Employment relations	“	“
9) Environment	“	“
10) External affairs	“	“
11) Financial services	“	“
12) Health care	“	“
13) Immigration	“	“
14) Law – criminal	“	“
15) Law – non-criminal	“	“
16) Media content	“	“
17) Natural resources	“	“
18) Policing	“	“
19) Social welfare	“	“
20) Transport	“	“

Note: 1=exclusively general government; 2=predominantly general government; 3=equally general government and constituent units; 4=predominantly constituent units; 5=exclusively constituent units.

**Table 2 – Financial autonomy by sub-dimension**

1 Proportion of own resources to net budget (VFI index)	1-5*
2 <i>Degree of transfer conditionality</i>	
2A General revenue & block grants / conditional grants ratio	1-5*
2B Scope and stringency of conditionality	1-5**
3 CUs' public sector borrowing autonomy	1-5**

Note: \*1=0-35; 2=36-45; 3=46-55; 4=56-65; 5=66-100; \*\*1=very high; 2=high; 3=medium; 4=low; 5=very low

**Table 3 – Forms of dynamic de/centralization**

	<i>Centralization</i>	<i>Decentralization</i>
1 Constitutional change	YC1	YD1
2 <i>Non-constitutional mechanisms of change</i>		
2A Framework legislation	YC2A	YD2A
2B Fiscal instruments	YC2B	YD2B
2C Court orders	YC2C	YD2C
2D Horizontal joint action	YC2D	YD2D
2E Failure to act	YC2E	YC2E

**Table 4 – Cognate phenomena of dynamic de/centralization**

1 <i>Change through horizontal dynamics</i>		
1A Voluntary co-operation	Homogeneity	Heterogeneity
1B Diffusion/divergence	"	"
1C Spillover	"	-
2 Relative growth	Higher growth by GG	Higher growth by CUs