Economic Voting and Multi-level Governance: An Individual-level Analysis

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Introduction

A central tenet of democratic theory is that the exercise of governance be both legitimate and accountable. Elections constitute the fundamental means through which these ends are met. Critical to this process is the ability of the citizen to correctly assign responsibility for government action. Institutional arrangements are central to defining the pathways of accountability. In institutional contexts with only one level of government, assigning responsibility is relatively straightforward. However, in situations of multiple and overlapping levels of government, the process of correctly assigning responsibility and ultimately holding governments accountable for their actions is much more difficult. In comparative contexts, there has been and continues to be a long-term trend towards the decentralization of political authority to sub-national levels of government. Despite this widespread current, little is known about the effects these processes have on democratic accountability. As trends of decentralization continue in advanced western democracies, understanding how multiple levels of decentralized authority affect democratic accountability becomes critical.

The dispersion of political authority downward to sub-national institutions has been lauded for a variety of reasons. Historically, the drafting of multi-level constitutions has been widely seen as an effective means of coping with domestic diversity along ethnic, linguistic or regional lines (Hechter, 2000; Horowitz, 2000; Lijphart, 1999; McGarry and O'Leary, 1993). More recently, advocates of multi-level institutions contend that more effective and efficient governance will result through the wise and intelligent dispersion of political authority (Smith, 1985; Weingast, 1995; Majone, 1998; Downs, 1999; Hooghe and Marks, 2001). One significant omission in the literature on

multi-level governance centres on the potentially deleterious effects for democratic accountability that multiple loci of political authority may present.

In systems of extensive multi-level governance, where political authority is increasingly held by sub-national institutions of government, it may become more difficult for citizens to correctly assign responsibility and hold central governments accountable for political outcomes. Drawing on the theoretical and methodological insights of the economic voting literature, this paper considers the effects of multi-level governance on economic voting and, ultimately, democratic accountability.

Economic Voting, Clarity of Responsibility and Multi-level Governance

In its earliest elaborations, the economic voting model posited that governments are punished (rewarded) for bad (good) economic conditions at election time (Kramer, 1971). The act of punishing (rewarding) governments based on economic conditions can be considered a generalized indicator of holding government accountable for actions while in office (Norpoth, 1996). The literature on economic voting has moved well beyond initial formulations of a simple reward and punishment calculus.[1] One of the most important developments in the field concerns the clarity of responsibility in different political contexts.

Powell and Whitten (1993) published a path-breaking article showing that clarity of responsibility within the national governing institutions significantly alters economic effects on electoral support for incumbent parties. An index representing the concept of clarity of responsibility is composed of factors including the number of parties in government, the presence of a bicameral opposition, presence of a strong committee

[1] For a thorough review of the field see Lewis-Beck and Stegmaier, 2000.

system, minority governments and party cohesion (Powell and Whitten, 1993).[2] In brief, where clarity within the national government was strongest, economic factors had the greatest impact upon voting for the incumbent government. Where clarity was weakest, economic conditions had much less effect on electoral support for the government. The initial findings have since been thoroughly confirmed and updated (Whitten and Palmer, 1999; Anderson, 2000; Nadeau, Niemi and Yoshinaka, 2002). Together, these findings suggest that the extent of clarity of responsibility within the national government has prominent effects on the extent to which citizens hold their national governments accountable.

A surprising omission in this literature has been consideration of the effects of multi-level governance and political decentralization on economic voting.[3] [4] To what extent does the decentralization of political authority undermine the ability of citizens to hold national governments accountable for economic outcomes? Whereas previous research has considered the effect of horizontal clarity, this paper shifts the analytical focus to the vertical dimension.[5] While horizontal clarity of responsibility is understood as assessing the degree of clarity within a national government, vertical clarity of responsibility reorients focus to consider the extent to which multiple levels of government and/or significant decentralization to sub-national levels of government also clouds responsibility attributions. To restate the research question, then, whereas past research shows that horizontal clarity weakens economic voting, does clarity

[2] See Appendix 4 for clarity of responsibility coding by country.
[3] There are many studies on the United States that consider economic voting at different levels of government with both state and national economic conditions (for an overview see Orth, 2001). Other studies include Catalonia (Diaz and Riba, 2002) and Argentina (Remmer and Gelineau, 2001). Despite this, there is no systemic cross-national study that considers the effect of multi-level governance and decentralization on economic voting.
[4] The relationship between multi-level governance and decentralization is elaborated below.
[5] The author thanks Stuart Soroka for introduction to this conceptual terminology.

conceptualized vertically also have similar effects? There are a number of reasons to think that it should.

In general, the presence or introduction of another level of government can undermine and/or weaken the lines of accountability for economic conditions that the electorate attributes to the governing party (ies) in the national legislature. In the first instance, inherent in the definition of multi-level institutions is the empirical reality that more than one level of government exists and acts in ways that can affect economic conditions. By extension, it is likely that economic conditions, in general, are a function of more than one level of government's action.

Secondly, in the mind of the voting public, clear accountability to the national legislature for economic conditions can be undermined through the introduction of information costs associated with multi-level governance (Cutler, 2001; Cutler, 2004). This may be the case where citizens are unclear as to the actual division of powers between multiple levels of government (Bryzinski et al, 1999a). Challenges are introduced for citizens to constantly track records of government and to effectively and accurately make judgements on government performance and economic outcomes (Tuschhoff, 1999). As Downs argues, multiple levels of government entail multiple elections that may increase the likelihood of voter fatigue (1999). For these reasons, the effort required of the voting citizen to gain the knowledge and information necessary to make accurate responsibility judgement is likely to undermine the effects of economic evaluations.

Finally, under conditions of multi-level governance, the actions of governments themselves can undermine clear accountability linkages for economic conditions. In

particular, multi-level institutions can encourage governments to engage in blame shifting and credit-taking for economic conditions (Bryzinski et al, 1999b; Downs, 1999; Tuschhoff, 1999). In essence, due to the actions of government themselves with respect to economic conditions, accurate lines accountability can be camouflaged.

For these reasons, this paper tests the central proposition that the nature of vertical clarity (operationalized by the extent of decentralization) is also likely to attenuate the extent to which citizens hold their national governments accountable for economic conditions.

Indicators of Multi-level Governance and Decentralization

While the processes and institutional results of multi-level governance are most commonly associated with the European Union, the concept is one that travels beyond the confines of the EU. Understood as the process and institutionalization of the dispersion of political authority away from the central state government to both supra-national institutions as well as sub-national levels of government, multi-level governance is an ongoing process that continues to shape how governments operate today (Hooghe and Marks, 2003). Explanations for the widespread and ongoing shifts in political power are found in economic and political globalization as well as prominent technological advances and theories of business organization (Watts, 1999). These factors all serve to create conditions under which the traditional nation-state has become both too small and too large to be the most effective body of public decision-making.

Indicative of the concept's widespread theoretical appeal, Hooghe and Marks identify five "islands" of research on multi-level governance within the discipline of

political science (2003). One of those islands is empirical and theoretical work on federalism. This literature considers the optimal allocation of authority across multiple tiers of government (Oates, 1999) and how governments interact (Benz, 2000; Elazar, 1987; Simeon and Cameron, 2000). Other advances from the federalism tradition include efforts to shed light on international regimes (Inman and Rubinfeld, 1992; Sbragia, 1993; Scharpf, 1988) as well as to conceptualize and measure the extent of regional and local decentralization as apart of multi-level governance (Garman, Haggard and Willis, 2001; Rodden, 2004; Watts 1999).

The theoretical framework of this paper conceives of both the dynamic nature and existing institutionalization of multi-level governance as resulting in varying degrees of domestic political decentralization (as well as power shifts to supra-national institutions). By extension, the concept of multi-level governance is operationalized by developing different indicators of decentralization.

The literature on political decentralization is an eclectic mix of different approaches and methods designed to capture the extent of decentralization (see, for examples, Lijphart, 1999; Lane and Ersson, 1999; Woldendorp et al., 2000; Rodden, 2004). Inevitably, there are a variety of different measures that could be used to capture decentralization. This paper develops and tests seven different measures of decentralization: federal constitution; presence of elections to regional levels of government; extent of territorial autonomy; four types of fiscal decentralization. For simplicity of discussion, indicators of multi-level governance/decentralization are separated into institutional (federalism, regional elections and territorial autonomy) and fiscal measures.

The existence of a federal constitution is an obvious example of multi-level governance. Federalism can be defined as a political system "in which neither the federal nor the constituent units of government are constitutionally subordinate to the other (i.e. each has sovereign powers derived from the constitution rather than another level of government), each is empowered to deal directly with its citizens in the exercise of its legislative, executive and taxing powers and each is directly elected by its citizens" (Watts, 1999, 7). To the extent that the presence of a federal constitution undermines vertical clarity economic voting should be weaker in federal states.

The second measure of decentralization is the presence of regional elections. While this measure may be conceptually related to federalism (i.e. having a directly elected sub-national government is apart of the definition of federalism), not all countries that have regional elections are federal states (e.g. France). It is proposed that the existence of regional elections attenuates the extent of vertical clarity and thereby weakens economic voting. This is plausible not only for the reasons already outlined but also because the presence of an elected regional government provides that order of government greater democratic legitimacy to act regardless of how limited the jurisdiction may be.

A third measure of decentralization considers the territorial organization of a polity in terms of other units of governance than the central government. Following the coding of territorial autonomy by Woldendorp et al. (2000), countries are scored on the basis of the presence of non-central tiers of government and the rights constitutionally given to these sub-national orders of government. Similar to the distinction between federal systems and regional elections, this is a measure of the nature of constitutional

rights provided to sub-national governments (both regional and local) that is not necessarily captured by the federal-unitary distinction. Cases are given a value of '2' where specific rights are constitutionally entrenched, a value of '1' where sub-national units have some independent rights and a value of '0' for all other cases.

Finally, the extent of decentralization can be determined using a variety of fiscal measures. Perhaps the most common method of determining decentralization through fiscal measures is to draw on Government Finance Statistics published by the International Monetary Fund (IMF) and/or the Organization for Economic Cooperation and Development (OECD). Many previous studies have either explicitly used these sources or incorporated them for verification of existing indices (Lijphart, 1999; Lane and Ersson, 1999; Woldendorp et al., 2000; Rodden, 2004). One variation has been to consider the percentage of total government expenditures that occur at the sub-national level. This fiscal measure is not used because it provides no information about source of fiscal resources that compose the expenditure amount. By extension, a different measure will be used to provide a better indication of the fiscal power of sub-national units. This measure consists of calculating the percent of total tax revenue (from all levels of government) that is collected by sub-national governments (either regional or local). Arguably, the revenue measure provides a useful indication of the extent of fiscal decentralization.

While these indicators have been regularly used to indicate the extent of fiscal decentralization, this method of assessing fiscal decentralization fails to consider differences in sub-national government's fiscal autonomy. Because central governments can and often do limit the fiscal autonomy of sub-national governments through

providing conditional grants or creating programs that sub-national governments pay for, larger sub-national shares of tax revenue or expenditure may not actually indicate greater fiscal independence of those sub-units (OECD, 1999). Consequently, sub-national governments may not have control over those revenues/expenditures that are reported as theirs. A recent volume published by the OECD provides information not only on the amount of tax revenues collected by different orders of sub-national governments (which was previously available) but also considers the degree of discretion that sub-national governments have over these tax revenues. Specifically, this study reveals the relative tax autonomy of sub-national units by considering the ability to determine the tax base and set the taxation rates. Implications for considering degrees of decentralization are significant. For example, sub-national units of government in Germany collect about 29% of the total tax revenue collected in Germany (OECD, 1999). Of that 29%, sub-national governments have the ability to set the rate of taxation for roughly 3.5% and to determine the tax base for well under 1%. Considered in the overall picture of German taxation, sub-national governments have the ability to set the rate of taxation for under 1% of total tax revenues and the tax base and rate for less than 0.02% of all tax revenues.

A final measure of decentralization considers the ability of sub-national government to borrow. An index of borrowing autonomy is established drawing on a framework developed by the Inter-American Development Bank (1997). The borrowing autonomy index is constructed according to four criteria: the ability of sub-national governments to borrow at all, the nature of central government authorization for sub-national borrowing, the nature and extent of constraints on borrowing and, finally,

limitations on the use of borrowed money.[6] Information regarding sub-national borrowing practices is taken from Ter-Minassian and Craig (1997).[7]

Data and Methods

This paper assesses the central proposition using individual-level data contained in module 1 of the Comparative Study of Electoral Systems (CSES). The CSES data is the result of a cross-national collaboration in which election studies in 33 countries asked an identical bank of questions. This data set is well suited for this study for a variety of reasons. In the first instance, the countries included exhibit a broad range of decentralization (both institutional and fiscal). Secondly, the dataset includes questions regarding vote choice (under the conditions of an actual election), socio-demographics as well as party identification. Finally, the CSES data set includes responses to economic condition questions. Among these, a socio-tropic retrospective economic evaluation question was asked.[8]

The 16 countries included in the analysis are those included in the CSES module 1 and are advanced industrial democracies. The countries (with election year) are: Australia (1996), Belgium (1999), Canada (1997), Denmark (1998), Germany (1998), Iceland (1999), Japan (1996), Netherlands (1998), New Zealand (1996), Norway (1997),

[6] See Appendix for detailed information on the construction of the borrowing autonomy index.
[7] For greater comparability, correlations were run for the various indicators of decentralization and multi-level governance (see results in Appendix 3). These results indicate a range of relationships amongst the variables.
[8] Previous work on economic voting shows that socio-tropic retrospective evaluation has a greater impact on incumbent vote choice than either prospective or egocentric variations (Lewis-Beck and Paldam, 1999). For greater clarity, socio-tropic refers to a respondent's society or country as a whole rather than an individual or household situation. Where 'retrospective' refers to evaluation of the past, usually the previous 12 months, 'prospective' gauges the respondent's perceptions on what is likely to happen in the near or long-term future.

Portugal (2002), Spain (2000), Sweden (1998), Switzerland (1999), United Kingdom (1997), and the United States (1996).

All analyses are conducted using logistic regression because the dependent variable of vote choice is dichotomous ('voted for any incumbent party'=1 or 'did not vote for incumbent'=0).[9] All models are run using a demographic weight controlling for country specific selection bias and counting each country equally in the overall analysis. Because all respondents from each country have the same values for aggregate level variables (e.g. federal state or not), it is likely that the error terms violate an assumption of regression analysis that they are independent. As a result, standard errors may be underestimated. To avoid this problem, the standard errors for each model are adjusted by clustering on each country (Rogers, 1993).

The models include socio-demographic controls for age, gender, university education, union membership, income and employment status.[10] Political controls for incumbent party identification and party identification with a party other than an incumbent are included. Coding party identification in this manner leaves as the reference category respondents who have no party identification. All models include direct effects of socio-tropic retrospective views on economic change.

Finally, all models include country dummies for those countries included in the analysis (Sweden serves as the reference case). Country dummies are included in the models for a variety of reasons. In the first instance, the political context within a country at election time may be strongly shaped by domestic (or international) political, economic or other factors that either increase or decrease the general levels of support for

[9] For greater clarity, incumbent vote includes a vote decision for any party that is apart of the government going into an election.
[10] Coding details for all socio-demographic, political and economic variables are outlined in Appendix 1.

the incumbent. In addition, political, economic or other factors may inordinately influence the effects of other variables known to affect vote choice. The inclusion of country dummies allows for a generalized control of such country-specific stochastic variation. As reported in results tables, country dummy coefficients (and odds ratios) have no substantive interpretation and only influence the value of the constant term.

Additionally, all models include an interaction term for horizontal clarity of responsibility. The interaction term is composed of the economic change variable and the nature of horizontal clarity within the national government. As Powell and Whitten originally developed this concept, the clarity of responsibility measure codes all cases on the basis of five factors that are theorized to affect clarity (as discussed above). Each country is coded 1 (for the presence of the factor) or 0 (the absence of the factor). To create an index of clarity, these values are added together and then subtracted from 5 (the highest possible score). The result is a 'clarity of responsibility' index in which a value of 0 denotes the least clear political context and a value of 5 indicates high clarity.[11] These clarity measures were further dummied into high clarity (=1) (cases with a value of 4 or 5) and low clarity (=0) (countries with a value of 3 or less). An interaction term was created through multiplying the dummied clarity of responsibility variable by the economic evaluation variable. The creation of an interaction term allows for consideration of the effect of economic evaluations within political contexts of varying horizontal clarity. Presumably, following earlier findings, economic voting is greater as horizontal clarity increases.

The independent variables of most theoretical interest are formed through the interaction of the socio-tropic retrospective responses to economic change and the

[11] See Appendix 4 for clarity of responsibility results by country.

various criteria of political and fiscal decentralization. For institutional indicators (federalism, regional elections and territorial autonomy), interaction terms are created with dummy variables. For each of the fiscal autonomy measures, interaction terms are also created with dummy variables.

Based on the distribution of revenue values, cases with sub-national revenues comprising less than 25% of all tax revenues were coded as low fiscal decentralization (=0) and all cases in which greater than 25% of all tax revenues were collected by sub-national governments were coded as high fiscal decentralization (=1). In the case of ability to determine the rate of taxation, there was a clear difference between 9 countries that had values of less than 6% of total tax revenues (coded as 'low decentralization'=0) and the remaining 6 countries that were all over 17% of total tax revenue (coded as 'high decentralization'=1).[12] For the ability to set both the rate and base of taxation, cases were coded into high autonomy (=1) where sub-national governments have the ability to set both the rate and base of taxation for more than 10% of total tax revenues and low autonomy (=0) for all other cases. Finally, in the case of borrowing autonomy, scores of 1 or less were coded as low autonomy (=0) and above 1 as exhibiting high borrowing autonomy (=1).[13] Models 2 through 8 introduce each interaction term in isolation. In the same manner as the horizontal clarity interaction term, it is expected that economic effects will be less as decentralization increases.

[12] Australia was omitted from the analysis in Models 6 and 7 because reliable data could not be ascertained for these variables of decentralization.
[13] Iceland was omitted from analyses using this measure because reliable information regarding sub-national government borrowing autonomy could not be attained.

The models take the following form:

Model 1 (with Horizontal Clarity)

Incumbent Vote = *a* + socio-demographics + political controls + country + economic change + horizontal clarity*economic change + *e*

Models 2-8 (adding Decentralization)

Incumbent Vote = *a* + socio-demographics + political controls + country + economic change + horizontal clarity*economic change + decentralization*economic change + *e*

Where the dependent variable of Incumbent Vote includes vote choice for any of the governing parties, *a* is the constant term and *e* is the error term.[14]

Results

Model 1 in Table 1 shows that (in findings that are broadly consistent across all eight models) while higher education reduces the likelihood of supporting an incumbent party, higher income and being employed not surprisingly increase support for governing parties. Further, the party identification variables exert relatively equal but opposite effects on incumbent vote choice: identification with a (non-) governing party (decreases) increases the likelihood of voting for the incumbent. Finally, the direct effects of positive economic evaluations increase support for the incumbent party(ies), which is, of course, expected and forms the foundation for the rest of the empirical analysis.

[14] In theory, when including interaction terms the direct effects of the component variables should also be present in the model. This is not done for two reasons. In the first instance, there is no theoretical reason to think that the degree of decentralization should have any impact on the likelihood of voting for any political party competing in a national election. Second, when models are run inclusive of direct institutional effects collinearity is introduced into the equations resulting in multiple country dummy variables being dropped from the analysis and/or dropping of the institutional variable itself. This is to be expected because in any one model state-level variables are likely to be the same across cases. In any event, when including direct institutional effects, the substantive effects of the variables of greatest theoretical interest remain the same as those without direct effects.

Model 1 in Table 1, as revealed by the horizontal clarity-economic change interaction term, shows that higher clarity of the political context increases the effects of economic evaluations on incumbent vote choice. This is consistent with findings of Powell and Whitten (1993) and others (Whitten and Palmer, 1999; Anderson, 2000; Nadeau et al, 2003). Where responsibility for economic outcomes is most clear, the economic change effects (as a proxy for government accountability) are greater than in those cases where clarity is less clear.

(Table 1 about here)

Models 2 through 4 in Table 1 show the independent effects of institutional decentralization when controlling for the prior effects of clarity within the central government. With the inclusion of the measures of institutional decentralization, the horizontal clarity measure remains statistically significant. In addition, the magnitude of the horizontal clarity coefficient remains relatively stable across models 2 thru 4.

In contrast to the consistent effects of horizontal clarity, the measures of institutional decentralization perform much less well. In none of the models do the institutional decentralization interactions achieve statistical significance. While it cannot be concluded that the independent impact of any of these variables is significantly different from zero, some observations can be made. The coefficient for each of the three institutional measures, while small, is negative- which is in the expected direction. This implies that there may be some effect of these institutions that weakens the effects of economic evaluations in voting for the incumbent national government. Further, of the three institutional measures, not only does territorial autonomy exhibit the largest coefficient, it also weakens the effects (both the coefficient size and statistical

significance) of horizontal clarity. This implies that increasing autonomy, operationalized as the extent of rights entrenched in the constitution, of sub-national levels of government (either regional or local) may weaken economic effects more than either the existence of federal institutions or regional elections.

Table 2 presents results for logistic regressions that include measures of fiscal decentralization. As observed in Table 1, regardless of the specific measure of fiscal decentralization introduced, the interaction term of horizontal clarity and economic change shows consistent and expected effects: the greater the clarity, the greater the effect of perceptions of economic change on incumbent vote choice. In contrast to Table 1, however, all but one of the measures of fiscal decentralization also have strong effects.

(Table 2 about here)

Results from Model 5 indicate that economic voting decreases as sub-national units receive greater shares of tax revenue as a % of the total tax revenue of all governments in that country. Stated differently as sub-central governments generate more of their income from their own source tax revenues the effects of economic change on incumbent vote choice at the national level decreases by 21% (based on the odds ratio). Therefore, based on the commonly used fiscal measure of sub-national share of total tax revenue, as sub-national governments become more fiscally autonomous economic effects for national government vote choice become correspondingly less.

As drawn for the OECD study of tax autonomy of state and local governments, Models 6 and 7 consider effects of the ability to set rates of taxation (Model 6) and both the base and rates of taxation (Model 7). Defined by the extent of tax revenue over which regional and local government's have ability to set the rate of taxation, economic effects

in the most decentralized countries are not significantly different from countries that are fiscally centralized. Nonetheless, the direction of the coefficient is consistent with expectations.

Notwithstanding this prior non-finding, the extent of sub-national government ability to set both the base and rate of taxation exerts an even greater impact on the effect of economic evaluations on incumbent vote choice. Indeed, Model 7 shows that the interaction term of economic change and ability to set the base and rate of taxation is both highly significant and larger than the ability to set the rate of taxation only. Using this measure of decentralization, economic voting in the most decentralized cases is reduced by 23%.

Finally, Model 8 presents the results of the last indicator of fiscal decentralization- the ability of sub-national governments to borrow. As in all previous models, the horizontal clarity of responsibility interaction term still exerts a positive, and expected, impact on economic effects: where clarity is higher, economic effects are higher. In this last model, results show that the borrowing autonomy of sub-national governments has a statistically significant effect on economic effects. In short, in those cases where sub-national units are most free to borrow money, the effects of economic perceptions on central government incumbent vote choice are reduced by 29%. Taken together and individually, the results are powerful indicators regarding the effect of fiscal decentralization on economic voting.

To aid in the interpretation of the findings, linear combinations can be developed that show the magnitude of economic effects under different conditions of horizontal and vertical clarity. Following the argument, it is expected that economic voting will be

greatest in the most horizontally and vertically clear cases. By extension, economic voting should be weakest in the least horizontally and vertically clear cases. Finally, relative to these extremes, the level of economic voting should be moderate when one of the two dimensions of clarity is attenuated and the other is not.

(Table 3 about here)

As results in Table 3 reveal, economic voting is greatest is those cases where responsibility for economic can be most clearly attributed. For all three measures considered, the economic voting odds ratio indicates that a positive view of the economy more than doubles the likelihood of an incumbent vote. By contrast, in cases of low clarity on both horizontal and vertical dimensions, economic voting is either greatly reduced or virtually non-existent. Using the revenue measure to define vertical clarity, the amount of economic voting is reduced by 30% as compared to the reduction in economic voting under conditions of just low horizontal clarity. In addition, using both the rate/base autonomy and the borrowing autonomy measures, the economic voting odds ratios are very near 1 (indicating no economic voting) and are not statistically significant at $p<.1$.

Finally, these linear combinations provide an ability to consider the relative strength of horizontal versus vertical clarity in reducing economic voting. In brief, results indicate that horizontal clarity reduces economic voting more than vertical clarity measures. For example, using the revenue measure from Model 5, economic effects in cases of low vertical clarity combined with high horizontal clarity results increase the likelihood of voting for the incumbent by 67%. By contrast, switching the conditions of clarity results in only a 44% increase in the likelihood of supporting the incumbent

government. As results for the other measures of vertical decentralization are similar, it can be concluded that while vertical clarity reduces economic voting, horizontal clarity has a greater effect.

As subtly suggested by institutional measures and much more powerfully demonstrated by a variety of fiscal indicators, the extent of decentralization through the processes of multi-level governance significantly weakens the impact of economic perceptions on incumbent vote choice.

Discussion and Conclusion:

The central proposition of this paper is that multi-level governance undermines lines of accountability to central governments. This proposition was tested using the theoretical and methodological insights of the economic voting literature and a range of plausible indicators of multi-level governance and decentralization. In short, results indicate that economic effects in elections to national parliaments are weakened by the introduction of multi-level governance and the extent of decentralization.

The implications of these findings are significant. Since Whitten and Powell's (1993) path-breaking research regarding the effects of political context and clarity of responsibility on economic voting, research in the political context vein has continued to pursue and 'fine-tune' these initial findings (for example Whitten and Palmer, 1999; Anderson, 2000; Nadeau, Niemi and Yoshinaka, 2002; Yoshizawa, 2003). Results presented in this paper indicate that an important component of political context and clarity of responsibility, namely the vertical dimension of institutional and fiscal decentralization, has been overlooked. Indeed, when taking into account the extent of

decentralization within domestic contexts (either institutional or fiscal), economic effects are prominently weakened in the more or most decentralized cases. Further, when considering the linear combination of economic variables from various models, vertical decentralization weakens economic voting. In addition, where clarity is lowest on both the horizontal and vertical dimension the levels of economic voting virtually disappear. Taken together, these results suggest that the current literature on economic voting in advanced democracies has consistently missed an important piece of the puzzle that aids in explaining cross-national variation in the effect of economic perception on vote choice. As a result, future research on economic voting must take these findings into account.

Secondly, the results reveal which indicators of decentralization have effects on economic voting. While all indicators produce effects in the expected (negative or weakening) direction, as seen in Table 1, none of the 'blunt' indicators of institutional decentralization or multi-level governance exert a statistically significant impact on the effects of economic perception. By contrast, all but one of the fiscal measures achieves a reasonable level of significance. These observations are indicative of the nature of decentralization that seems to have the greatest effect on economic voting. The mere presence of multi-level or federal institutions is seemingly not enough to minimize the effects of economic perception on vote choice. Rather, it is the somewhat more subtle and nuanced conditions created by degrees of decentralization that is a more accurate measure of the blurring effects of decentralization on economic voting. This finding may not be overly surprising given that one can speak of highly centralized federations as well as highly decentralized unitary states. It is the indicators of fiscal capacity that provide a

better cross-national comparison. These findings should serve as a guide to future research on the effects of decentralization on economic voting.

A final implication of the findings concerns democratic accountability as considered in the context of multi-level governance and decentralization. As one means to study democratic accountability, economic perceptions and the effect they have on the likelihood of voting for the incumbent provide an excellent and well-used method. Results of the analyses strongly suggest that as decentralization increases, the ability of citizens to hold the central government accountable for economic (and political) outcomes decreases.

It may be suggested that this is to be expected because under increasingly decentralized conditions central governments have less authority and less independent ability to govern. It follows from this that central governments should be held less accountable in these conditions. However, it remains an empirical question as to whether citizens correspondingly attribute greater responsibility for economic conditions to the most powerful sub-national governments. Initial research into economic voting for sub-national governments indicates that this may not be the case (Remmer and Gelineau, 2003). Indeed, this dilemma constitutes a question for future research: does the aggregate level of clarity (both vertical and horizontal) in a country affect the global ability of citizens to apportion blame and credit to any level of government?

In addition, as discussed, there are important implications because it is fiscal and not institutional measures of decentralization that contribute to weakened economic effects. This is significant when assessed in light of discussion regarding institutional reforms designed to enhance clarity of governmental responsibility and roles. In a highly

decentralized federal state like Canada, research into improving lines of accountability and openness in government decision-making and inter-governmental relations is extensive. This being the case, it may be, as suggested by the results, that it is not federal institutions or regional elections per se that weaken democratic accountability but rather the more subtle and nuanced (and less easily reformed) extent of decentralization. If this implication is correct, the problem of democratic accountability and multi-level governance lies not in multiple institutions of governments but rather in dealing with clarifying roles in decentralized states.

Table 1 Logistic Regression with Indicators of Institutional Decentralization

		Model 1		Model 2		Model 3		Model 4	
Economic Change And Interaction Terms	**Economic Change**	**.27 (.07)*** **	***1.31***	**.30 (.09)*** **	***1.35***	**.30 (.11)*** **	***1.35***	**.34 (.14)** **	***1.41***
	Clarity*Economic Chg.	**.38 (.15)** **	***1.46***	**.39 (.15)** **	***1.47***	**.38 (.15)** **	***1.46***	**.33 (.15)** **	***1.39***
	Federal*Economic Chg.	**-**		**-.06 (.13)**	***.94***	**-**		**-**	
	Regional Elections*Econ. Chg.	**-**		**-**		**-.05 (.14)**	***.95***	**-**	
	Territorial Autonomy*Econ. Chg.	**-**		**-**		**-**		**-.09 (.16)**	***.91***
Socio-Demographic And Political Variables	Age (in years)	.00 (.00)	*1.00*	.00 (.00)	*1.00*	.00 (.00)	*1.00*	.00 (.00)	*1.00*
	Female	.07 (.05)	*1.07*	.07 (.05)	*1.07*	.07 (.05)	*1.07*	.07 (.05)	*1.07*
	University Grad	-.28 (.06)***	*.76*	-.27 (.06)***	*.76*	-.27 (.06)***	*.76*	-.27 (.06)***	*.76*
	Member of Union	.02 (.12)	*1.02*	.02 (.12)	*1.02*	.02 (.12)	*1.02*	.02 (.12)	*1.02*
	Employed	.11 (.05)**	*1.12*	.12 (.05)**	*1.13*	.12 (.05)**	*1.12*	.12 (.05)**	*1.12*
	Income	.25 (.14)*	*1.29*	.26 (.14)*	*1.30*	.26 (.14)*	*1.29*	.26 (.14)*	*1.29*
	Governing Party ID	2.49 (.17)***	*12.07*	2.49 (.17)***	*12.08*	2.49 (.18)***	*12.07*	2.49 (.17)***	*12.07*
	Non-Governing Party ID	-2.50 (.20)***	*0.08*	-2.50 (.20)***	*.08*	-2.50 (.20)***	*.08*	-2.50 (.20)***	*.08*
Country Dummies	Australia	.05 (.06)	*1.05*	.05 (.06)	*1.05*	.05 (.06)	*1.06*	.05 (.06)	*1.05*
	Belgium	.47 (.04)***	*1.61*	.49 (.05)***	*1.63*	.49 (.05)***	*1.63*	.45 (.06)***	*1.57*
	Canada	.16 (.06)***	*1.17*	.18 (.07)***	*1.19*	.18 (.07)**	*1.19*	.18(.06)***	*1.20*
	Denmark	.09 (.06)	*1.09*	.10 (.06)	*1.10*	.10 (.06)	*1.10*	.09 (.06)	*1.10*
	Germany	.37 (.06)***	*1.45*	.38 (.06)***	*1.46*	.38 (.06)***	*1.46*	.37 (.06)***	*1.44*
	Iceland	.84 (.03)***	*2.33*	.85 (.03)***	*2.33*	.85 (.03)***	*2.34*	.84 (.03)***	*2.32*
	Japan	.18 (.05)***	*1.20*	.19 (.06)***	*1.21*	.19 (.06)***	*1.21*	.18 (.06)***	*1.19*
	Netherlands	1.37 (.06)***	*3.96*	1.37 (.06)***	*3.95*	1.39 (.07)***	*4.02*	1.33 (.10)***	*3.81*
	New Zealand	-.14 (.06)**	*.87*	-.14 (.06)**	*.87*	-.14 (.06)**	*.87*	-.15 (.07)**	*.86*
	Norway	-.03 (.03)	*.97*	-.03 (.03)	*.97*	-.03 (.03)	*.97*	-.03 (.03)	*.97*
	Portugal	.76 (.09)***	*2.13*	.78 (.11)***	*2.18*	.78 (.11)***	*2.18*	.76 (.09)***	*2.14*
	Spain	.98 (.09)***	*2.68*	1.00 (.09)***	*2.73*	1.00 (.09)***	*2.72*	.97 (.09)***	*2.64*
	Switzerland	2.22 (.08)***	*9.22*	2.24 (.10)***	*9.40*	2.24 (.09)***	*9.38*	2.22 (.08)***	*9.24*
	United Kingdom	1.39 (.20)***	*4.01*	1.39 (.19)***	*4.00*	1.39 (.20)***	*4.01*	1.37 (.19)***	*3.96*
	United States	.66 (.08)***	*1.93*	.67 (.08)***	*1.96*	.67 (.08)**	*1.96*	.66 (.08)**	*1.93*
	Cons	-1.19 (.14)***		-1.06 (.11)***		-1.20 (.14)***		-1.18 (.14)***	
		n=20,505 Pseudo R^2=0.39		n=20,505 Pseudo R^2= 0.39		n=20,505 Pseudo R^2= 0.39		n=20,505 Pseudo R^2=0.39	

Note: Cells contain coefficients from binary logistic regression, robust standard errors in parentheses and odds ratios in italics.
*** p<.01 ** p<.05 * p<.1

Table 2 Logistic Regression with Indicators of Fiscal Decentralization

		Model5		Model7		Model8		Model9	
Economic Change and Interaction Terms	**Economic Change**	**.36 (.08)*** **	***1.44***	**.30 (.08)*** **	***1.34***	**.26 (.08)*** **	***1.30***	**.29 (.07)*** **	***1.34***
	Clarity*Econ. Chg	**.38 (.13)*** **	***1.47***	**.38 (.15)** **	***1.46***	**.44 (.16)*** **	***1.56***	**.46 (.11)*** **	***1.59***
	SNG Revenue*Econ. Chg	**-.24 (.10)** **	***.79***	**-**		**-**		**-**	
	Rate Auto.*Econ. Chg.	**-**		**- .15 (.13)**	***.86***	**-**		**-**	
	Base Auto.*Econ. Chg.	**-**		**-**		**-.26 (.12)** **	***.77***	**-**	
	Borrowing Auto.*Econ. Chg.	**-**		**-**		**-**		**-.34 (.09)*** **	***.71***
Socio-demographic and Political Variables	Age (in years)	.00 (.00)	*1.00*	.00 (.00)	*1.00*	.00 (.00)	*1.00*	.00 (.00)	*1.00*
	Female	.07 (.05)	*1.07*	.06 (.04)	*1.06*	.05 (.04)	*1.05*	.06 (.05)	*1.06*
	University grad	-.27 (.06)***	*.76*	-.31 (.06)***	*.74*	-.30 (.06)***	*.74*	-.30 (.06)***	*.74*
	Union member	.02 (.12)	*1.02*	-.08 (.10)	*.92*	-.09 (.10)	*.92*	-.03 (.11)	*.97*
	Employed	.12 (.05)**	*1.12*	.08 (.05)*	*1.09*	.08 (.05)*	*1.09*	.10 (.05)*	*1.10*
	Income	.25 (.14)*	*1.28*	.26 (.13)**	*1.30*	.27 (.13)**	*1.31*	.23 (.14)*	*1.26*
	Governing Party ID	2.49 (.17)***	*12.10*	2.40(.18)***	*11.08*	2.40 (.18)***	*11.10*	2.42 (.17)***	*11.19*
	Non-governing Party ID	-2.50 (.20)***	*.08*	-2.37 (.20)***	*.09*	-2.37 (.20)***	*.09*	-2.37 (.20)***	*.09*
Country Dummies	Australia	-.03 (.07)	*.97*	-		-		-.40 (.23)*	*.67*
	Belgium	.40 (.05)***	*1.49*	.07 (.24)	*1.08*	.10 (.25)	*1.11*	-.04 (.23)	*.96*
	Canada	.17 (.05)***	*1.18*	-.18 (.24)	*.84*	-.13 (.24)	*.88*	-.25 (.23)	*.78*
	Denmark	.08 (.06)	*1.08*	-.30 (.25)	*.74*	-.31 (.26)	*.73*	-.44 (.25)*	*.65*
	Germany	.32 (.07)***	*1.37*	-.05 (.25)	*.95*	-.02 (.26)	*.97*	-.15 (.24)	*.86*
	Iceland	.78 (.03)***	*2.17*	.53 (.21)**	*1.70*	.52 (.22)**	*1.70*	-	
	Japan	.15 (.06)**	*1.15*	-.20 (.23)	*.82*	-.18 (.24)	*.84*	-.31 (.23)	*.73*
	Netherlands	1.29 (.08)***	*3.62*	.95 (.25)***	*2.58*	.98 (.26)***	*2.67*	.85 (.24)***	*2.33*
	New Zealand	-.22 (.08)**	*.80*	-.55 (.24)**	*.58*	-.54 (.25)**	*.58*	-.68 (.25)***	*.51*
	Norway	-.12 (.05)*	*.88*	-.41 (.22)*	*.66*	-.37 (.24)	*.69*	-.53 (.22)**	*.59*
	Portugal	.76 (.10)***	*2.14*	.35 (.26)	*1.42*	.38 (.27)	*1.47*	.11 (.25)	*1.12*
	Spain	.90 (.09)***	*2.46*	.53 (.27)*	*1.70*	.53 (.27)*	*1.71*	.41 (.26)	*1.50*
	Switzerland	2.23 (.08)***	*9.37*	1.85 (.26)***	*6.34*	1.93 (.27)***	*6.91*	1.84 (.24)***	*6.30*
	United Kingdom	1.30 (.18)***	*3.69*	.86 (.35)**	*2.37*	.87 (.36)**	*2.38*	.72 (.34)**	*2.05*
	United States	.64 (.08)***	*1.89*	.27 (.25)	*1.31*	.31 (.26)	*1.37*	.21 (.24)	*1.23*
	Constant	-1.17 (.14)***		-.72 (.28)**		-.74 (.30)**		-.68 (.26)**	
		n=20,505 PseudoR^2=0.39		n=20,328 PseudoR^2=0.37		n=20,328 PseudoR^2=0.37		n=20,640 PseudoR^2=0.37	

Note: Cells contain coefficients from binary logistic regression, robust standard errors in parentheses and odds ratios in italics.
*** p<.01 ** p<.05 * p<.1

Table 3 Linear Combinations of Horizontal and Vertical Clarity of Responsibility

	High Horizontal Clarity	Low Horizontal Clarity
High Vertical Clarity	Expected= High Economic Voting With Revenue= 2.11 (.30)*** With Base and Rate Autonomy= 2.02 (.30)*** With Borrowing Autonomy= 2.13 (.26)***	Expected= Moderate Economic Voting With Revenue= 1.44 (.21)*** With Base and Rate Autonomy= 1.30 (.11)*** With Borrowing Autonomy= 1.34 (.10)***
Low Vertical Clarity	Expected=Moderate Economic Voting With Revenue= 1.67 (.19)*** With Base and Rate Autonomy= 1.55 (.17)*** With Borrowing Autonomy= 1.52 (.13)***	Expected= Low Economic Voting With Revenue= 1.14 (.07)** With Base and Rate Autonomy= 1.00 (.10) With Borrowing Autonomy= .95 (.06)

Note: Cells contain linear combinations from models 5 (Revenue), 7 (Base and Rate Autonomy) and 8 (Borrowing Autonomy). Values reported are odds ratios with standard errors in parentheses.

*** p<.01 ** p<.05 * p<.1

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Appendix 1: Coding Socio-demographic and Political Variables

Age: Continuous variable by age of respondent.

Female: Respondent's gender (1=female)

University Graduate: Dummy variable. Highest level of education completed (1=graduated from university)

Union: Dummy variable. Respondent is member of a union (1=member)

Employ: Dummy variable. Respondent is employed (1=employed)

Income: Index of respondent's household income (coded by quintiles)

Government Party Identification: Dummy variable. Identifies with one of governing parties (=1)

Non-Government Party Identification: Dummy variable. Identifies with party other than governing party (=1)

Economic Change: "Would you say that over the past twelve months, the state of the economic in (country) has gotten better, stayed about the same or gotten worse?" (1=better, 0=stayed about the same, -1=worse)

Appendix 2: Index of Borrowing Autonomy Construction

The variable is constructed using a framework previously developed by the Inter-American Development Bank (1997). An index is created according to four criteria as applied to the most prominent level of sub-national government. The first is the ability to borrow at all. If sub-national governments cannot borrow, 2 points are given. The second component considers the authorization required for sub-national governments to borrow. If borrowing by sub-national government requires central government approval, 1 point is awarded. If no sub-national borrowing requires approval, zero points. If the authorization constraints only apply to certain kinds or borrowing or if approval is not always enforced, a score between zero and one is given according to the level of constraint. The third aspect looks at borrowing constraints. If there are numerical constraints on borrowing, such as maximum debt service/revenue ratios, 0.5 points are given, according to the extent of constraint. Finally, does the central government limit the use of debt? If debt may not be used for current expenditures, 0.5 points is awarded. The final value of this variable is determined by subtracting from 2 the additive value of the points awarded to each country. Thus, for example, Canada has a score of 2 (2-0=2) because there are no restrictions imposed by the central government on provincial borrowing. By contrast, Japan has a value of 0 (2-2=0) because there are a variety of restraints that the central government places on local government borrowing.

Appendix 3: Indices of Decentralization

Country	Federal	Regional Elections	Territorial Autonomy	% Sub-National Government Tax Revenue of All Governments (GFS and Rodden (2004))	% Rate Autonomy (OECD)	% Rate and Base Autonomy (OECD)	Borrowing Autonomy (Inter-American Development Bank) (2=highest)
Australia	Yes	Yes	1	0.33	-	-	1
Belgium	Yes	Yes	1	0.06	0.048	0.004	1
Canada	Yes	Yes	2	0.47	0.321	0.299	2
Denmark	No	No	2	0.32	0.174	0	0.5
Germany	Yes	Yes	2	0.13	0.009	0.0002	1
Iceland	No	No	2	0.20	0.184	0	-
Japan	No	Yes	2	0.36	0.053	0	0
Netherlands	No	No	0	0.09	0.010	0	1
New Zealand	No	No	0	0.10	0.049	0.049	0.25
Norway	No	No	2	0.22	0.004	0	0.5
Portugal	No	No	0	0.06	0.011	0.009	2
Spain	Yes	Yes	1	0.17	0.053	0.022	0.25
Sweden	No	Yes	2	0.32	0.183	0.006	1.75
Switzerland	Yes	Yes	2	0.45	0.179	0.113	1.5
United Kingdom	No	Yes	1	0.08	0.040	0	1
United States	No	Yes	2	0.39	0.177	0.177	2

Note: Regional election data is drawn from Hooghe and Marks (2001). Territorial Autonomy values are drawn from Woldendrop et al (2000). Revenue measures are average values for the 1990's and are drawn from Rodden (2004) and supplemented, where needed, with material drawn from the Government Finance Statistics Yearbook (IMF, various years). Rate and Base Autonomy measures are drawn from OECD publication (1999) and supplemented with material from Rodden (2004). Borrowing Autonomy index is based on criteria from Inter-American Development Bank (1997) and author's coding drawing on Ter-Minassian and Craig (1997).

Appendix 4: Pair-Wise Correlations of Institutional and Fiscal Indicators of Multi-level Governance and Decentralization

	Federal	Regional Elections	Territorial Autonomy	% Sub-National Government Tax Revenue of All Governments	% Rate Autonomy	% Base Autonomy	Borrowing Autonomy
Federal	1.00						
Regional Elections	0.80***	1.00					
Territorial Autonomy	0.18	0.10	1.00				
% Sub-National Government Tax Revenue of All Governments	0.29	0.31	0.70***	1.00			
% Rate Autonomy	0.26	0.08	0.56**	0.80**	1.00		
% Base Autonomy	0.57**	0.40	0.26	0.66***	0.73***	1.00	
Borrowing Autonomy	0.35	0.06	0.10	0.27	0.51*	0.56**	1.00

Appendix 5: Coding of Powell and Whitten's Index of Clarity of Responsibility

Country	Multi-Party Cabinet	Strong Committees	Bicameral Opposition	Minority Government	Weak Party Cohesion	Total (dummy value) 5=most clear
Australia	No (0)	No (0)	Yes (1)	No (0)	No (0)	5-1=4 (1)
Belgium	Yes	Yes	No	No	No	3 (0)
Canada	No	No	No	No	No	5 (1)
Denmark	Yes	Yes	No	Yes	No	2 (0)
Germany	Yes	Yes	Yes	No	No	2 (0)
Iceland	Yes	Yes	No	No	No	3 (0)
Japan	Yes	No	No	No	Yes	3 (0)
Netherlands	Yes	Yes	No	No	No	3 (0)
New Zealand	No	No	No	No	No	5 (1)
Norway	No	Yes	No	Yes	No	3 (0)
Portugal	No	Yes	No	No	No	4 (1)
Spain	Yes	No	No	Yes	No	3 (0)
Sweden	No	Yes	No	Yes	No	3 (0)
Switzerland	Yes	Yes	No	No	Yes	2 (0)
United Kingdom	No	No	No	No	No	5 (1)
United States	No	No	Yes	No	Yes	3 (0)

Note: Coding material for horizontal clarity of responsibility is drawn from data provided by Guy Whitten and Harvey Palmer. Where needed, the index is supplemented with material from Woldendorp et al (2000) and Strom (1984).