"Mature Fiscal Federal Systems: Aging with Grace or in Need of a Tune Up"

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Introduction

The theory of fiscal federalism developed by Oates (1972, 1999) has been the foundation for the evaluation of fiscal federal systems around the world (see, for example, Inman and Rubinfeld, 2020, and Forum of Federations, forthcoming). To simplify, the theory suggests that it is more efficient for fiscally empowered subnational governments to provide goods and services rather than the central government unless there are economies of scale in production or geographical spillovers in benefits (external benefits to other jurisdictions) associated with provision of the goods and services. This is because a decentralized system in which subnational governments are able to provide differentiated levels of goods and services to accommodate differences in preferences results in higher social welfare than a centralized system in which a uniform level of the publicly provided good is provided across the country. The theory justifies intergovernmental grants from the central government to subnational governments either as a correction to geographical spillovers or to address fiscal disparities across subnational jurisdictions.

In Calsamiglia, Garcia-Milà and McGuire (2013), we postulate that an important consideration is missing from the standard theory. Tobin (1970) introduces the concept of specific egalitarianism as the view that "certain specific scarce commodities should be distributed less unequally than the ability to pay for them." Building on Oates's framework and inspired by Tobin's notion of specific egalitarianism, we add a taste for solidarity: people in one region care about the level in other regions of publicly provided goods and services that determine life chances. To be specific, we argue that, because education, say, is viewed as fundamental to a person's opportunity to succeed, variance across regions in the provision of education leads to a loss in utility. Regions independently choosing their own levels of education will impose a loss or gain in utility for all – an externality – and the impact in utility for all will be a loss or gain depending on whether the regions' choices increase or decrease the variance in levels of education across regions.

The notion that individuals have a taste for solidarity is supported by survey evidence (see International Social Survey Programme, 2009) and the observation that governments around the world design policies consistent with the view that individuals in one region care about the levels of publicly provided goods in other regions. The implication of adding a taste for solidarity to the Oates framework is that choices made under a decentralized fiscal system are no

longer optimal. There becomes a role for a central government or other coordination authority to ensure that the variance across regions in the levels of the publicly provided good is not too great. We argue in Calsamiglia, Garcia-Milà and McGuire (2013) that a system in which the central authority guarantees a minimum level of the publicly provided good across all regions while allowing regions to tax themselves to spend above the guaranteed minimum level performs significantly better (measured in terms of efficiency loss) than several fiscal federal systems analyzed, including decentralization, centralization, matching grants from the central government to regional governments, and voluntary interregional transfers.

Two aspects of the guaranteed minimum system lead to its efficiency dominance. First, it allows for variation across regions, with local authorities retaining revenue-raising autonomy, thus improving upon centralization. Second, it directly addresses inequality across regions in the levels of the public good by providing a common floor for regional spending, thus internalizing the externality embedded in solidarity preferences and improving upon decentralization. These two aspects are essential to implementation of a guaranteed minimum system.

In the current study, we apply the insights of Calsamiglia, Garcia-Milà and McGuire (2013) to identify efficiency-enhancing reform proposals for each of four mature fiscal federal systems, the systems in Australia, Canada, Germany, and the United States. We analyze each of the systems with an eye toward the two dimensions that are simultaneously needed for a guaranteed minimum system to be implemented: revenue autonomy of regional governments, and a common floor across regions for publicly provided goods that are essential to determining life opportunities. The second aspect is novel and, combined with the first, yields insights that differ from those found in the standard literature on fiscal federalism.

Australia

… yet to come …

Canada

The Canadian federal system is comprised of the federal government, 13 regional governments – ten provinces and three territories – and approximately 3,900 municipalities. Fiscal responsibility is shared between the federal government and subnational governments, with the federal government raising approximately 45 percent of total revenues in the country and being responsible for just over 30 percent of direct spending (Garcia-Milà, McGuire, and

Oates, 2018). The system is highly decentralized with the ten provinces having significant revenue-raising authority and spending responsibility. They impose taxes on income (both personal and corporate) and on consumption, and they are responsible for spending on education, healthcare, and other social services. Canadian provinces raise a substantial amount of revenue via the broad authority granted to them by the Canadian Constitution (section 92.2); own-source revenues comprised more than 80 percent of provinces' total revenues in 2015.

The major grants from the federal government to the provinces take two forms: two grants support specific services, and a third grant equalizes resources across provinces. The Canada Health Transfer (CHT) is the largest of the grants and funds healthcare, ensuring "universality, comprehensiveness, portability, accessibility and public administration" as delineated in the Canada Health Act of 1984. The Canada Social Transfer (CST) is a block grant that provides support for all Canadians for post-secondary education, services for children, and social programs. The federal government distributes both grants on an equal per capita basis, so that in each province the federal government provides the same amount of funding support per person. The provinces are free to spend more than the amount of the CHT and CST on the associated services and programs and in fact, they do. For example, health spending at the provincial level is substantially higher than the size of the CHT grant in each province.

The Equalization grant is a federal grant that addresses fiscal disparities among the provinces. Provinces with below average fiscal capacity receive grants to ensure that they "have sufficient revenues to provide reasonably comparable levels of public services at reasonably comparable levels of taxation" (Subsection 36(2) of the Constitution Act, 1982). There are no constraints on how the provinces can spend these grant monies. In FY 2018-2019, six provinces, including Quebec and Ontario, the most populous provinces, qualified for equalization payments.[1]

The two pillars of a guaranteed minimum system – meaningful revenue-raising authority at the regional level and a common floor across regions for publicly provided goods that determine life changes – are apparently in place in Canada. Provinces have access to major tax sources, and they employ them to fund a large percentage of spending at the provincial level. At the same time, the federal government provides two grants to provinces, one for healthcare and one for social services, each designed to provide an equal per capita amount to each province for

[1] As of FY 2019-2020, Ontario no longer qualifies for equalization payments.

spending on the designated services and programs. The grants fund a minimal level of spending on healthcare and social services across the provinces.

In future research we plan to examine in more detail the design of the CHT and CST grants and the spending levels across provinces in the two areas supported by the CHT and CST grants. Without deeper knowledge, we cannot venture to suggest efficiency-enhancing reforms.

Germany

The fiscal federal system of Germany is composed of sixteen Länder, of which three are city-states, while the local government level is composed of 402 counties and over 11,000 municipalities. The system is quite decentralized in that there is significant spending responsibility at the subnational level of government. However, subnational governments have quite limited revenue-raising authority thereby belying the notion of Germany as having a highly fiscally decentralized system.

The three main taxes in Germany – income, corporate and VAT – account for approximately 70% of total tax revenues in the country. Of these, the income and corporate taxes are shared taxes, whereby the revenues raised in a region from a commonly defined tax are split between the central government and the regional government. The shares of income and corporate taxes between the levels of government are established by the Basic Law (Grundgesetz, the German constitution), and therefore remain stable over time. The Länder share of the income and corporate taxes collected in each Land remain where they are collected. The federal government designs and proposes the tax bases and tax rates for these taxes, which then need the approval of the Bundestag, the high chamber, and the consent of the Bundesrat, the lower chamber, representing the Länder. Because individually a Land has no autonomy to decide characteristics of these two taxes, we consider that the taxes do not constitute independent revenue-raising authority.

Intergovernmental grants comprise a significant share of the revenues of the Länder. One of the largest grants is the allocation of VAT revenues among the Länder. For the period 1970 to 2019 slightly less than half of countrywide VAT revenues were captured at the Land level (with the remainder staying with the federal government and a small percentage with the local governments) and these Land-level VAT revenues were distributed in two parts. First, around 75 percent of the revenues were distributed across Länder on a per capita basis. The remaining

approximately 25 percent of VAT revenues assigned to the Länder were allocated in a redistributive manner inversely proportional to the fiscal capacity of the Länder, thereby reducing the gap with respect to the mean across Länder in total revenues per capita. Another grant administered by the Länder is the Länder financial equalization system, whose purpose is to further decrease the differences in total revenues per capita. In 2016, Bavaria, Baden-Wurttemberg, and Hesse transferred resources to the other thirteen Länder.[2] A third layer of equalization occurs through general supplementary grants from the federal government. These grants transfer resources to Länder with per capita revenues below average fiscal capacity. After this sequence of distributions and transfers, in 2019, among the 13 Länder that are not city-states, the Land with the lowest total revenues per capita had 98.6 percent of the average (Mecklenburg-Vorpommern) and the Land with the highest total revenues per capita had 106.5 percent of the average (Bavaria). In the end, each non-city-state Land ends up with total revenues per capita within a tight band around the average.[3] Finally, the federal government also provides grants for special needs, including a grant to the Länder from the former East Germany to help the east Länder catch up with the west Länder, and a grant to the ten smaller Länder to cover disproportionally high administrative costs.

Even though Länder collect a large amount of taxes, and retain a significant part of them, their fiscal autonomy is limited. Given that most of the tax sources and their tax rates are determined by the federal government and ratified by the Bundesrat, a given Länder has limited impact on designing its own tax scheme beyond the influence it may have in convincing other Länder to propose a desired tax scheme and get it approved by the Bundestag and the Bundesrat. Even in the unlikely circumstance that the majority of Länder and the federal government are convinced and vote for a new proposal, it will still be true that the tax scheme will be common to all Länder. Thus, the model as it is designed does not allow differences across Länder in any of the major taxes, such as income, corporate and VAT.

Intergovernmental fiscal transfers in Germany are strongly egalitarian, significantly leveling out differences in available resources that could result from applying a common tax scheme to Länder with different economic strength. The transfers lower the variance across

[2] The horizontal equalization system, based on transfers across Länder, has been replaced, starting in 2020, by a vertical equalization system managed by the federal government.
[3] The formula treats the three city-states – Berlin, Bremen and Hamburg – in a preferential manner.

regions in the provision of goods and services publicly provided by the Länder, and thus reduce the externality cost that would arise in an outcome with large differences in the provision across regions. The system ensures enough resources to all regions to provide a common minimal level. The question is whether the German system goes too far in its equalization scheme, incurring inefficiencies by not allowing the Länder to adjust the provision of publicly provided goods and services to meet the preferences of their constituents.

Evaluating the German fiscal federal system from the perspective of solidarity preferences and the guaranteed minimum system, we find that Länder have very restricted revenue-raising autonomy, limiting their ability to adapt their tax scheme and available resources to the preferences of their constituents. One of the pillars of the guaranteed minimum system, revenue-raising authority, is thus weak or lacking in the German system. On the other hand, their equalization model ensures quite similar resources to all Länder, guaranteeing a common minimal level in the provision of services such as education that are under the responsibility of the regional governments. The question is whether the level of support goes beyond the minimum level that, in accordance with German citizens' solidarity preferences, would be most efficient. Concerns expressed from the richer Länder on the equity model may indicate that the common minimal level is too high, and that the system would improve in efficiency by reducing the level.

An efficiency-enhancing reform of the German system would include actions along two dimensions. First, allow Länder individually to set their own tax scheme for some important tax sources, which would result in more revenue-raising authority. Second, reform the equalizing scheme so that the revenues over which the Lander have independent authority are not considered. Finally, the system of transfers among the Länder and from the federal government to the Länder would benefit from more transparency and simplicity.

United States

The fiscal federal system in the United States is composed of the federal government, 50 state governments and thousands of local governments, both general purpose (cities and counties) and specific purpose (school districts, library districts, etc.). The system is quite decentralized in that subnational levels of government – both state governments and local governments – have significant revenue-raising authority and spending responsibility. The states

have played a large role in the fiscal federal system since the beginning of the federation. Indeed, at the dawn of the country in the late 18th Century, the states were the predominant player (Dilger, 2018). It was not until early in the 20th Century when the country adopted a federal income tax and the central government responded to the Great Depression with an array of federal programs that the central government began to overtake the state and local sector in terms of size. Today, both the share of total (federal+state+local) revenues raised by the federal government and the share of total spending undertaken by the federal government is over 50 percent (Garcia-Milà, McGuire, and Oates, 2018).

State governments have significant revenue-raising authority, imposing a wide array of taxes including income and sales taxes as well as user charges and fees. The independent revenue-raising authority is illustrated both by the share of total general revenues raised through own sources at the state and local level (73 percent in 2015) and by the large variability across the states in the reliance on two major sources of state tax revenue. For both the individual income tax and the general sales tax, the share of total general revenues contributed by each tax ranges from zero to around 30 percent.

States also receive meaningful support from the federal government in the form of intergovernmental transfers. Federal grants to state governments represented on average 27 percent of all revenues available to state governments in 2015. These grants come in several forms. The largest grant, representing nearly 16 percent of state revenues, is a grant in support of state Medicaid expenditures.[4] The Medicaid program provides healthcare insurance for low-income families and disabled persons. Funded jointly by the federal government and the states, the program is administered at the state level. The federal grant is a matching-grant program, providing a minimum matching rate of 50 percent (states with a matching rate of 50 percent receive a dollar of federal grant money for each dollar of state spending). The matching rate is higher for states with lower average per capita income (in FY 2018, for example, Mississippi had the highest match at 75.65 percent).

Other important grants from the federal government to state governments include grants for transportation, education, and income security. In FY 2018, total estimated federal grants to

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[4] Source: U.S. Office of Management and Budget, *Budget of the United States Government, Fiscal Year 2019: Historical Tables*, Table 12.3, Total Outlays for Grants to State and Local Governments, at https://www.govinfo.gov/content/pkg/BUDGET-2019-TAB/pdf/BUDGET-2019-TAB.pdf

state and local governments were $728 billion, including well more than half of the total for health (largely Medicaid), 15 percent of the total for income security (largely cash assistance), nine percent for education and related services, nine percent for transportation (highways and public transit), and the remainder for a variety of other purposes.[5] (See Dilger, 2018.)

Notably, there is no federal grant to state governments whose purpose is to ensure a minimum amount of spending per capita on any publicly provided good or service. The matching grant for Medicaid provides a higher federal match for poorer states, but it does not guarantee or require that the states spend a minimal amount per capita. The federal government specifies that certain types of healthcare must be provided under the program, but the states have wide latitude in designing how they deliver healthcare under Medicaid and therefore in how much they spend. [t: I need to check this description with one of my colleagues who studies healthcare.]

One area of spending over which solidarity preferences are likely to be strong is K-12 education. Murray, Evans, and Schwab (1998) examine diversity across school districts in the U.S. in average K-12 spending per pupil. A surprising finding is that 2/3 of the diversity is due to differences in average spending between states rather than differences in average spending across school districts within states. In other words, if each state were to eliminate differences in average per pupil spending across its school districts, we would eliminate only 1/3 of the variance. There is no federal policy, be it a transfer or a required level of spending, aimed at addressing the variance in K-12 spending per pupil across the states.[6]

Evaluating the U.S. fiscal federal system from the perspective of solidarity preferences and the guaranteed minimum system, we see that subnational levels of government have significant revenue-raising authority, one of the pillars of the guaranteed minimum system. However, the federal government does not provide for a common minimal level of spending across the country in education, healthcare, or any other good or service provided by subnational levels of government. An efficiency-enhancing reform would be for the federal government to ensure – through per capita grants and minimum spending requirements – that each state spend at

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[5] In addition to direct grants-in-aid, the federal government provides indirect aid through the deduction for state and local taxes (SALT) on the federal individual income tax. In December 2017, the federal government passed a law that capped the SALT deduction at $10,000.

[6] In 2019, the average K-12 spending per pupil in the United States was $13,187 and the range was from $7,985 in Idaho to $25,139 in New York.

least a specified common minimum level on those goods and services deemed essential for determining life chances.

Conclusion

We apply the insights of Calsamiglia, Garcia-Milà, and McGuire (2013) to evaluate the fiscal federal systems in Australia, Canada, Germany, and the United States. The novel insight is that countries can achieve higher social welfare by incorporating a common (countrywide) minimal level of spending across regions on goods and services that determine life changes. A fiscal federal system that combines a common minimal level of spending with subnational revenue-raising authority – what the authors call a guaranteed minimum system – dominates other commonly employed systems. When we evaluate the countries' systems against the two pillars of a guaranteed minimum system, we find that we can suggest reforms to the fiscal federal systems that would result in higher social welfare.

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