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POLICY PAPER

Equalisation Transfers and Local Fiscal Capacity: A New Methodology for Ireland

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Abstract: Fiscal equalisation is a key element of a country's intergovernmental arrangements where functions and funding are decentralised to subnational government. Although Ireland's horizontal fiscal imbalances are partly reduced by grants from an equalisation fund, the current model of equalisation payments is not fit for purpose. In this paper, we design a new fiscal equalisation system for Ireland's 31 local authorities based on a Representative Revenue System model and estimates of fiscal capacity. Using the main local revenue sources, we estimate fiscal capacity for 2017, and calculate formula-derived equalisation transfers for the financially weaker local councils. Compared to the actual transfers funded from the local property tax, our results provide for a larger equalisation fund financed by the central government, a greater degree of equalisation, but with individual council winners and losers. Careful consideration needs to be given to the funding options available to the net losers, including higher taxes locally levied on commercial and/or residential properties, or where deemed necessary, a temporary transition payment from the central government.

I INTRODUCTION AND BACKGROUND

Fiscal equalisation is an important part of the intergovernmental fiscal arrangements for any country with two or more tiers of government. Ireland is no exception. Although Ireland is a highly centralised country with limited functions

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and powers decentralised to local government, horizontal fiscal imbalances exist, and persist. Ireland has a system of equalisation transfers but we believe that the current regime is not fit for purpose. In particular, fiscal capacity or expenditure needs measures are not included in the present equalisation model. This paper proposes a new approach in estimating equalisation transfers for Ireland's local authorities, based on a more quantifiable, transparent and consistent methodology (Allers and Ishemoi, 2010; OECD, 2013).

For a comprehensive definition of equalisation transfers, we use Martinez-Vazquez and Boex (2006: 2) version, where an equalisation transfer is considered to be (i) an unconditional, general purpose transfer, (ii) where the total amount of the grant is typically, although not necessarily, determined by some funding rule, (iii) where the divisible pool of resources is distributed among eligible units based on a formula that considers the expenditure needs and/or the ability of subnational governments to raise resources, and (iv) where its intended purpose is to equalise fiscal conditions among subnational governments.

Equalisation transfers allow countries to reap the benefits of a decentralised system of public service delivery while, at the same time, enable subnational governments with limited fiscal resources to provide comparable public goods and services. For reasons of increased efficiency (in terms of resource allocation) and equity (with respect to citizens residing in different jurisdictions), equalisation transfers are recognised as playing a key role in a country's fiscal arrangements. As an example, Article 9.5 on the financial resources of local authorities of the European Chapter of Local Self-Government states:

> *The protection of financially weaker local authorities calls for the institution of financial equalisation procedures or equivalent measures which are designed to correct the effects of the unequal distribution of potential sources of finance and of the financial burden they must support (Council of Europe, 1985).*

Acknowledging differences in fiscal disparities due to variations in the economic base of regions or localities, the objective of equalisation is to equalise fiscal resources of local authorities, with the ultimate aim to reduce interjurisdictional inequalities in expenditures on public services. To this end, we use the concept of fiscal capacity, regarded as the "…most sophisticated technique for assessing interjurisdictional differences, and designing an equalisation transfer system" (Yilmaz, 2009: 2). We begin by defining and measuring the concept of fiscal capacity. For this paper, local fiscal or revenue-raising capacity is defined as the potential ability of a local government to raise own-source revenues. It is the revenue that hypothetically could be raised, using some benchmark or threshold e.g. national average (Taylor *et al.,* 2002; Bernard, 2012). There are two broad approaches to measuring fiscal capacity. One is a macro approach that uses a single aggregate indicator. The other is a micro approach that uses a more disaggregated methodology. Although not an insignificant challenge, various proxies for measuring fiscal capacity have been identified. These are actual own revenues (current or lagged), income per capita, Total Taxable Resources, Gross Regional Product, or a Representative Revenue System (RRS) with the latter used at one time or another in countries such as Canada, Australia, Japan, Finland, Italy and Poland (Martinez-Vazquez and Boex, 2006).

The RRS was first developed in the US by the (now defunct) Advisory Commission on Intergovernmental Relations (ACIR) and is supposed to reflect the revenue or tax practices commonly adopted by subnational governments in a country. In using a representative or typical tax system of local government, it consists of national average rates applied to commonly used revenue bases i.e. applying average effective rates as weights to a standard set of bases (ACIR, 1986). As Yilmaz (2009: 4) observes, "As such, it abstracts from the actual tax policy of individual subnational governments, yet it is representative of those taxing practices in the aggregate/average". The steps to be followed in the RRS framework are (1) determination of revenue coverage; (2) classification of revenue sources; (3) definition of standard tax bases; (4) determination of average tax rates; and (5) estimation of fiscal capacity (Boadway and Shah, 2007). We follow these steps later, and apply it to Ireland's local government fiscal data for 2017.[1]

The advantage of using potential rather than actual revenue is that an assessment of fiscal capacity is independent of the tax rates levied, the enforcement effort or taxpayer compliance. In addition, from an incentive perspective, it is superior to actual revenues as the use of the latter may incentivise local governments to collect less tax in anticipation of more transfers or grant funding.

As with the design of any model of equalisation transfers, there are two decisions that need to be determined, first, the size of the distributable pool and, second, its allocation (Ebel and Péteri, 2007). In our model, both the size and the distribution of the pool are formula-based. The total amount and the allocations to local authorities are not arbitrary or subject to negotiation, making for a system of equalisation payments that is objective, predictable and feasible.

In terms of contribution to the empirical literature on fiscal equalisation and revenue-raising capacity, this paper differs from an earlier needs and resources equalisation model (see Turley *et al*., 2015) in that the setting has changed (e.g. introduction of a local property tax, which, in turn, funds equalisation payments). This model is also different in that, for reasons of data availability but also

[1] Ireland's local government sector consists of three city councils, two city and county councils and 26 county councils. Town and borough councils were abolished in the local government reforms of 2014. There are countrywide municipal districts but as they have no tax-raising powers and very few functions we omit them from the study. Our unit of analysis is the 31 local authorities. For those interested in more detail on the Irish local government system, including structures, functions, funding and reforms, see the excellent Callanan (2018). The 31 local councils with some key fiscal and non-fiscal data are listed in Appendix 1.

feasibility and transparency, we focus exclusively on the revenue capacity side of horizontal fiscal imbalances but, in doing so, we construct a more comprehensive model, to include all tax and non-tax own-source revenues of local government in Ireland. It is different to the present system of fiscal equalisation in Ireland in that in our model, equalisation transfers originate from central government (a type of paternal vertical equalisation), rather than the current fraternal horizontal equalisation where payments are funded from local authorities with larger revenue bases (often resulting in criticism from 'richer' local councils of the present system).[2] Another difference is that payments are derived using a formula based on estimates of fiscal capacity unlike the current model which is based on levels achieved in 2014 which, in turn, were largely based on historical baseline supports.[3]

Matching local preferences with local public goods and services is at the heart of the economic rationale for decentralisation (Oates, 1972). By (partially) equalising revenue-raising capacity only, we retain a strong element of local autonomy and discretion, with regard to the mix of services and expenditure priorities. Reflecting variations in local needs, preferences and circumstances, it is "…differences in the levels of expenditures relative to tax rates that are of primary concern for equalisation" (Boadway, 2001).[4] General reasons for omitting a spending needs assessment are that expenditure equalisation tends to be very data intensive, complex, difficult to measure and often subject to lobbying by pressure groups and special interests. In support of these claims, Shah (2014) writes "Expenditure need equalisation through representative expenditure system equalisation programs lead to super complexity, acrimony and controversy and may even lead to inequity". In the Irish context, a reason for the exclusive focus on the equalisation of fiscal capacity is that differences in expenditure needs across the 31 local authorities are likely to be less than the differences in revenue capacity given the small size and relatively homogeneous socio-economic profile of the country and its population i.e. variations in the cost of providing public services arising from demographic, climatological and topographical factors in Ireland are

[2] A concern is that this dissatisfaction with the current system may undermine the local property tax (LPT) which (in pre-COVID-19 times) was already dwindling as a percentage of total tax revenue. Given the importance of the LPT (for example, in widening the tax base, in taxing property and wealth, and in funding local government), this would be a retrograde step for public policy in Ireland.

[3] Almost 30 years ago in *Fiscal Studies,* Ridge (1992) outlined a spending needs and taxable resources equalisation model for Ireland using local authority data on income, spending and non-fiscal characteristics. We believe that changes to local government finance in Ireland since then warrant further research in this area and a new equalisation model. One advantage of Ireland's system of intergovernmental fiscal relations is its simplicity as compared to some other countries, including, for example, Austria, which has an "…incredibly complex system…" of intergovernmental finance but also high compensation effects which result in strong fiscal disincentives for local governments (Schneider 2002).

[4] After all, fiscal decentralisation and fiscal equalisation are complementary policies. In recognising "…the fact that equalisation is a natural complement to decentralisation…", Boadway (2004) argues that "Equalisation can be seen as a necessary counterpart to decentralisation, offsetting its tendency to create disparities among regions in the ability to provide goods and services".

limited. This is supported by international evidence, with, for example, the finding based on data collected by the OECD Fiscal Network that "Overall, disparities are much narrower in service costs than in tax-raising capacity, hence the widespread preference for equalising the latter" (OECD, 2013; Callanan, 2018).

The rest of this paper is organised as follows. We begin with a brief literature review on the RRS framework. We then outline local government funding sources in Ireland, including the current equalisation system. Our model, data and findings follow in Section IV. We end with some conclusions.

II LITERATURE REVIEW

In 1962, the ACIR developed the Representative Tax System (RTS) as an alternative measure of fiscal capacity (ACIR, 1986). The RTS was extended by the ACIR in 1985 to include non-tax revenues, and so became a RRS (Kincaid, 1989). All the revenue sources of local governments, including non-tax revenues such as charges and fines, as well as profits earned by firms owned by local governments, should be included (Martinez-Vazquez and Boex, 1997). If non-tax revenues were significant, then excluding them would understate a region's fiscal capacity (Gordon *et al*., 2016).

The ACIR describe the RTS/RRS as "…an index based on average behaviour in the aggregate" (ACIR, 1986: 20). It measures the fiscal capacity of each subnational government, whether or not they choose to tax each potential revenue source, and regardless of the tax rate they apply to each revenue source. As well as measuring fiscal capacity, the RTS/RRS produces an index of tax effort, which is defined as actual tax revenues divided by estimated tax capacity, multiplied by one hundred. Tax effort measures by how much a region chooses to tax a potential revenue source, relative to the national average. Comparing tax effort across subnational governments is better than comparing headline tax rates, as these do not account for variation in revenue bases across regions (ACIR, 1986). Kincaid (1989) describes two other uses for a RTS/RRS: (1) local government management, local residents, as well as central government may find it useful when making comparisons across local governments, and (2) it may be useful in regional policymaking.

Taylor *et al*. (2002) state that a RTS can be a dynamic system. For example, the Canadian Fiscal Equalisation model uses a RTS that is reviewed regularly as local government taxation practices change. They note that the benchmark fiscal capacity does not have to be the average of all local government fiscal capacities. The Canadian system excludes outliers – provinces with very high or very low fiscal capacity.

Much of the literature finds that a RRS is superior to other methods of measuring fiscal capacity, such as Total Taxable Resources, regional GDP, per capita income or actual tax revenues (Boadway, 2004; Martinez-Vazquez and Boex, 2006; Gordon *et al*., 2016). Kincaid (1989) suggests two advantages of a RRS. First, as the tax bases are standardised across regions, the RRS avoids distortions caused by variable localised tax practices, for example applying different waivers or exemptions to local property taxes. Second, even if a region chooses not to apply any taxes to some of the standard revenue sources, that revenue source is included in the measure of fiscal capacity. Boadway (2004) describes some of the desirable properties of a RRS. First, the use of national weighted average tax rates in the RRS formula means much less incentive for local governments to manipulate their tax rates in order to receive more transfers. Second, the system

> …satisfies fiscal equity in the sense that all regions would have the potential to choose fiscal policies that satisfied nationwide horizontal equity if they so choose, without compelling them to do so. (Boadway, 2004: 236)

A RRS means that "…efficiency and equity considerations coincide, unlike in the usual economic policy situation where they must be traded off" (Boadway, 2004: 236).

Using a RTS/RRS to measure fiscal capacity is not a complete and perfect fiscal equalisation programme. First, if all subnational governments use the same revenue sources, the RTS method provides a reasonable approach to measure fiscal capacity. However, this is not always the case, especially in highly decentralised federations (Boadway, 2004). The number and scale of revenue bases may vary across regions. Second, a RTS is only useful if local governments have some discretion or control over their own tax rates. If a region is not legally allowed to use a particular tax, or else faces a legal restriction on choosing the tax rate, its reduced revenue-raising powers will not be directly reflected in the RTS (Chernick, 1998). In this case, fiscal capacity is best measured by actual revenues collected (Schneider, 2002). Third, the RTS ignores behavioural responses to higher tax rates. For example, if a region with a low tax rate was forced to apply the higher national average tax rate, then the tax base in that region might fall by more than average. Fourth, the RTS ignores varying income distributions across regions, which may affect the choice of taxes, or tax yields. Fifth, a RTS/RRS framework ignores differences in expenditure needs and differences in the costs of providing public services across regions. After discussing some of these weaknesses, Chernick (1998) finds that the more different the subnational governments are, the less useful is the RTS as a measure of fiscal capacity.

Although using a RRS mitigates the possibility of perverse incentives in the design of a fiscal equalisation scheme, compared to using actual revenues, some disincentives remain. Kincaid (1989) lists several criticisms of RTS/RRS, one of which is feedback effects, i.e. the interaction between tax rates and tax bases. Schneider (2002) discusses two possible interactions. First, if a local government increases its tax effort, its fiscal capacity and any equalisation transfer grant will not change, so this is a positive incentive. Second, efforts to broaden a local tax base will lead to higher fiscal capacity and a reduced equalisation grant. Schneider (2002: 109) calls this perverse incentive a compensation effect, as extra tax revenues are compensated by smaller grants. A well-designed fiscal equalisation scheme should attempt to minimise this problem, although Schneider (2002: 110) finds that this compensation effect disincentive is widespread and often strong. This disincentive is known as base tax-back by Boadway (2004) and Boadway and Shah (2007), who show that it can reach 100 per cent. If a local government levies the national average tax rate on a tax base, any increase in that base will lead to an equal and offsetting drop in equalisation payments. Another disincentive is rate tax-back, where the subnational government has an incentive to change its tax rates to receive more equalisation payments. This will only happen where the provincial tax rate has a large effect on the national weighted average tax rate, which can occur if a particular tax base is concentrated in one region. An example of this is Canada, where tax bases on natural resources are heavily concentrated in one province.

Overall, the consensus is that although a RTS/RRS is data-intensive, it is the most accurate, thorough and comprehensive method of measuring fiscal capacity (Boex and Martinez-Vazquez, 2007). Before applying this framework to the Irish local government system, we briefly outline the local authority funding sources in Ireland, and the current system of equalisation payments.

III LOCAL GOVERNMENT FUNDING IN IRELAND

3.1 Revenue Sources

Traditionally, local government sources of income to fund recurring expenditures are user fees and charges, local taxes and central government grants. As elsewhere, Ireland's local government system relies on own-source revenues and central government transfers (both specific purpose and general purpose). Own-source revenues comprise local taxes and user fees and charges. There are two types of local taxes in Ireland, i.e. commercial rates and the LPT. Similar in ways to business rates in the UK, commercial rates are a business tax on occupiers of commercial and industrial properties, where the rateable valuation is carried out nationally by the central Valuation Office, but rates are determined locally. The LPT is a type of council tax, as it is a tax on owners of residential properties, with periodic self-assessed valuations, a basic tax rate decided by the central government, but with local rate-setting powers at the margin (called the 'local adjustment factor', where local councils can increase or decrease the basic rate by +/- 15 per cent annually). As for user fees and charges, current examples include local authority housing rents, charges to the Irish Water utility for water and wastewater services, car parking charges, fees for planning applications, charges for use of recreational amenities, etc. Table 1 lists the sources of revenue income and their respective shares, for 2017.

Table 1: Local Government Revenue Sources, 2017

Revenue source	*% share*
Commercial rates	34
Charges on goods and services	30
LPT	6
Equalisation grants	3
Specific purpose grants	27

Source: Department of Housing, Local Government and Heritage; Turley and McNena, 2019.

3.2 Equalisation Transfers

A needs and resources model was developed in 2000 with the aim to bring about equalisation between local authorities over time so that each would have sufficient resources to provide a reasonable level of services to their residents. Often shrouded in secrecy but based on annual returns from local authorities, the model was used until 2007. Local authorities provided detailed annual returns for the model and this action over time was both time consuming and cumbersome. From 2008 on, general purpose grant allocations were determined, for the most part, on the basis of historic baseline supports with necessary year-on-year adjustments determined by the overall amount of funding available (Callanan, 2018; Houses of the Oireachtas, 2019).[5]

2015 saw the introduction of LPT allocations being paid to local authorities. The introduction of the LPT, where local councils have tax-raising powers, meant a need for a well-defined equalisation system to offset the greater revenues accruing to local authorities with the greatest taxable capacities i.e. large, urban councils with the greater and more valuable number of residential properties. Eighty per cent of the estimated LPT yield for local authorities is retained in the local authority

[5] Much of this is taken from the Minister of Housing, Planning and Local Government's response to a parliamentary question on local authority funding (Houses of the Oireachtas, 2019). Using an alternative source, according to a Congress of Local and Regional Authorities of the Council of Europe (CLRAE) note from 2013 on financial equalisation "…the system of distribution of grants to local governments from the Local Government Fund is not transparent and the rules have been set without consultation with local authorities. The equalisation formula existed for a short period only, because it included about 800 parameters and was not operable in reality. From 2008 onwards, equalisation has been done on the basis of an administrative assessment of needs and resources. The Government have informed the rapporteurs that while equalisation does not operate through a simple formula or model, it does involve a process using real current data. Developed on the basis of a 'needs and resources' study of local government financing, it takes into account the individual circumstances of local authorities in determining annual funding allocations…." (CLRAE, 2013).

area and the remaining 20 per cent is pooled into an equalisation fund for distribution to local authorities with smaller revenue bases. More specifically, the central government decided that the equalisation fund is allocated on the basis that no local authority would receive less income from LPT than they received from the general purpose grant in 2014. Later the Pension Related Deductions (PRD) amount was added to the baseline.[6]

If councils have a shortfall between the LPT retained locally and the LPT baseline (defined by the Department as the minimum amount of funding available to each local authority), they receive a top-up amount equal to this shortfall in the form of an equalisation grant. In 2017, the shortfall totalled €140 million, funded from the LPT pooled amount (€96.7 million) and the remainder from the central Exchequer. The equalisation grants to individual local authorities are reported in Table 3. Do these payments bear any relationship to local authority's ability to raise own-source revenues? The next section, which outlines the revenue-raising capacity and our RRS model, allows us to test this hypothesis.

IV MODEL, DATA AND RESULTS

Expressed mathematically, the formula for the equalisation payment E to local authority i is calculated as follows, all expressed on a per capita basis[7]

$$E^i = S - FC^i \tag{1}$$

where S is the national or common standard, defined as the average capacity level, and FC^i is the fiscal capacity in local authority i, and where

$$FC^i = \Sigma_{j=1}^{n} r_j B_j^i \tag{2}$$

[6] PRD were introduced by the central government after the financial and economic crisis of 2008. Income from contributions relating to PRD is deducted by the local authorities and is required to be remitted to the Department of Housing, Local Government and Heritage. At the time of the introduction of PRD, to avoid the circular flow of funds to and from the Exchequer, the general purpose grant paid to local authorities was reduced accordingly. As a result of this reduction, up to the end of 2016 local authorities retained the amounts collected, as part of their income and it was separately disclosed in the income and expenditure account of local authorities' annual financial statements. From 2017 the PRD amount was included in the LPT baseline (in addition to the 2014 general purpose grant).

[7] Equally, the formula could be based on lagged measures and years, or on a moving average. Either way, in response to criticisms of the fiscal capacity/RRS model in generating equalisation transfers, Boadway (2001: 15), writes "What is so difficult about applying a national average tax rate to a provincial base and comparing the proceeds with what one obtains from applying a national average tax rate to some standard base…?" Although written in the Canadian federal-provincial context, it applies more generally.

where r_j is the national average rate (defined as total revenue/national revenue base) for revenue source j applicable to, in the Irish case, commercial rates, the LPT and user fees and charges, and B_j^i is the base for revenue source j in local authority i. The bases for our three revenue categories are the Net Effective Valuation (NEV), residential property valuations and household income (see Table 2). If $r.B < S$, then $E > 0$ and the local authority receives an equalisation payment equal to $S - FC$. If $r.B > S$, then $E = 0$ with no equalisation payment (Boex and Martinez-Vazquez, 2007; Feehan, 2014).

Table 2: RRS: Revenue Sources, Bases and Rates for Ireland

Source	*Base*	*Rate*
Commercial rates	Net Effective Valuation (NEV)	Annual Rate on Valuation (ARV)
LPT	Residential property valuations	Adjusted LPT rate
User fees and charges	Household income	Fees and charges income / household income

In our scheme, equalisation transfers are calculated using local fiscal capacity estimates derived from a RRS model. The model generates estimates of revenue capacity for each of three main revenue sources, namely commercial rates, LPT and user fees and charges. The tax base for commercial rates is the Net Effective Valuation as reported in the local authority budgets. We use proxies for the other two bases.[8] For the LPT, with the central rate at 0.18 per cent and as the Revenue Commissioners report the estimated LPT yield we can calculate a proxy for the tax base i.e. yield/rate. For charges and fees, as adopted elsewhere we use estimated household income in each of the 31 local authorities as a proxy for the revenue base (Yilmaz *et al*., 2006; Gordon *et al*., 2016). Using data from the Central Statistics Office (CSO) on mean household income and the number of private households, we calculate total household income i.e. average income x number of households. The data sources are reported in Appendix 2.

Using the RRS framework, we define revenue capacity as the potential revenue that accrues to local authorities if they apply a national or representative average effective rate to their respective revenue bases. For commercial rates, the national average rate is the rates income/NEV base ratio, or what is called the Annual Rate on Valuation (ARV). For the LPT, the national average tax rate is the mean of the adjusted LPT rates. For user fees and charges, the national average rate is the total

[8] On account of using proxies for the revenue bases we miss some subtleties of the different tax bases. For example, with respect to the LPT, deferrals are allowed in certain cases and there are a number of exemptions but probably the biggest concerns are currently the exclusion of new residential properties from the LPT tax net and the failure to revalue properties for the purposes of the LPT.

fees and charges income divided by total national household income, for the 31 local authorities.

By applying these representative rates that reflect average levels of fiscal effort to the respective revenue bases, we can construct an estimate of the local authority revenue-raising or fiscal capacity, for each revenue source. The total of these revenue capacity estimates is the fiscal capacity of the local authority or, expressed in euro terms, the amount of revenue that each local council would raise if it applied a nationally uniform set of rates to a standardised or common set of revenue bases. Given our three revenue sources,

$$FC^i = \text{ARV.NEV}^i + \text{LPT rate.PROPERTY}^i + r\text{.INCOME}^i \tag{3}$$

where PROPERTY is equal to residential property valuations and INCOME is equal to household income.

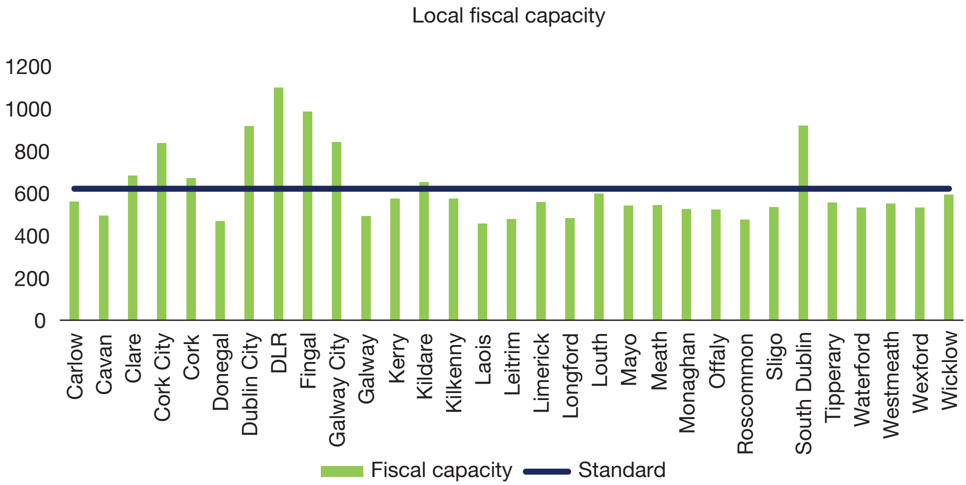
We then calculate the revenue-raising capacity per capita by dividing the fiscal capacity in euros by the local authority population as in the latest census (CSO, 2016). As expected there is a wide variation in the fiscal capacity of local authorities, ranging from lows of €457 and €470 per capita for Laois and Donegal County Councils (in the Midland and North-West of the country where economic activity is relatively low) respectively, to highs of €987 and €1,099 per capita for Fingal and Dún Laoghaire-Rathdown (DLR) County Councils (both in Dublin where, as the country's capital, the economic base is the highest) respectively (see Figure 1). The full list is also reported in Table 5, where we calculate pre- and post-equalisation.[9]

Fiscal capacity per capita is then compared to a standard, defined for the purposes of this paper as the simple national average of the revenue capacities for the 31 local councils, so that the local councils with below-average revenue capacities are raised to the average fiscal capacity, estimated at €621 per capita.[10] What this means is local councils that have a revenue capacity per capita below the standard receive a grant (equal to the shortfall or gap between the fiscal capacity estimate and the standard), and that councils with a revenue capacity at or above the standard do not receive a payment. The total grant is calculated by multiplying the deficiency or gap (expressed in euro terms) by the total population for each local authority. For the 31 local authorities, the formula-derived total grant is €210 million as against the actual equalisation payments of €140 million for 2017.

[9] In contrast to estimates of potential revenue per person, actual revenue per person for the 31 local authorities is reported in Appendix 1.

[10] The standard can be defined differently. For example, it can be the average of the fiscal capacities for all the local councils but excluding Dublin City Council because of its unique size. A threshold parameter β between zero and one could be used if we wanted to target local councils that have a fiscal capacity less than a certain percentage of average fiscal capacity. Alternatively, the standard can be set at the local authority with the highest fiscal capacity (see Turley et al., 2015). As the latter has significant budgetary implications we do not use this definition, with a preference for the national average because of its simplicity and affordability.

Figure 1: Fiscal Capacity Estimates (€ per capita)



Source: Authors' analysis.

Table 3 reports both the actual and the simulated equalisation transfers, for 2017.

Table 3: Equalisation Transfers 2017 (Estimated, Actual, Winners and Losers, € gross)

Local authorities	*Equalisation transfers, estimated*	*Equalisation transfers, actual*	*Losers*	*Winners*
Carlow County Council	3,482,872	2,983,703		499,169
Cavan County Council	9,693,423	5,958,846		3,734,577
Clare County Council	–	–		
Cork City Council	–	3,137,749	3,137,749	
Cork County Council	–	–		
Donegal County Council	24,050,721	16,441,788		7,608,933
Dublin City Council	–	–		
DLR County Council	–	–		
Fingal County Council	–	–		
Galway City Council	–	–		
Galway County Council	23,161,229	2,874,481		20,286,748
Kerry County Council	6,941,260	2,529,280		4,411,980
Kildare County Council	–	–		
Kilkenny County Council	4,682,524	4,739,033	56,509	
Laois County Council	13,933,122	4,636,275		9,296,847
Leitrim County Council	4,544,873	7,261,453	2,716,580	
Limerick City & County Council	12,438,259	5,019,999		7,418,260

Table 3: Equalisation Transfers 2017 (Estimated, Actual, Winners and Losers, € gross) (Contd.)

Local authorities	*Equalisation transfers, estimated*	*Equalisation transfers, actual*	*Losers*	*Winners*
Longford County Council	5,640,617	7,223,625	1,583,008	
Louth County Council	2,860,573	2,318,717		541,856
Mayo County Council	10,488,606	11,502,232	1,013,626	
Meath County Council	15,244,301	–		15,244,301
Monaghan County Council	5,939,585	8,207,919	2,268,334	
Offaly County Council	7,611,000	3,739,164		3,871,836
Roscommon County Council	9,363,093	7,038,986		2,324,107
Sligo County Council	5,647,032	7,007,459	1,360,427	
South Dublin County Council	–	–		
Tipperary County Council	10,464,362	16,507,323	6,042,961	
Waterford City & County Council	10,302,666	11,265,829	963,163	
Westmeath County Council	6,142,255	6,102,923		39,332
Wexford County Council	13,309,470	3,822,530		9,486,940
Wicklow County Council	3,923,807	–		3,923,807
Total	**209,865,650**	**140,319,314**		

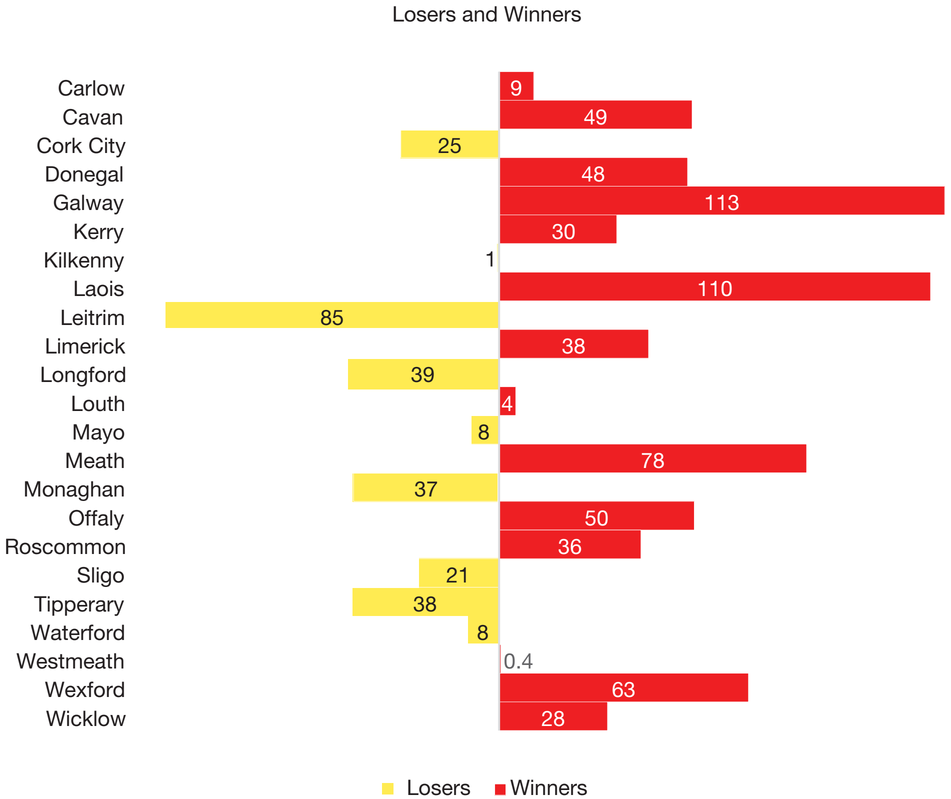
Source: Department of Housing, Local Government and Heritage; authors' calculations.

Given the highly political nature of fiscal equalisation, any new redistributive scheme will inevitably result in winners and losers. This model is no different. Addressing this thorny political economy issue, Columns 4 and 5 in Table 3 (expressed in euros) and Figure 2 (expressed in euros per capita) show the list of local councils that lose or gain from the new regime. Of course, in pure financial terms the central government is the big 'loser' as this vertical equalisation arrangement results in a transfer of funds from central to local government.

To maintain the required balanced budget that supports subnational fiscal discipline, councils that lose out from this new equalisation model could be compensated by means of a transition payment from the Department, or where fiscal space allows, impose a higher ARV on commercial properties or levy higher LPT rates on residential properties. In addition, it must be remembered that all local councils under this model will retain 100 per cent of their LPT receipts, as the LPT will no longer fund the equalisation payments. Whatever local councils lose out from a smaller equalisation payment, this will be offset by the retention of the full 100 per cent LPT amount. For example, in the case of Mayo County Council, the loss of just over €1 million is more than offset by the €2.1 million LPT amount that in the past was pooled but now will be retained by Mayo County Council.

Given this, only a small number of councils will lose out in net (of the 20 per cent LPT) terms. These are Tipperary, Monaghan, Sligo, Longford and Leitrim

Figure 2: Winners and Losers (€ per capita)



Source: Authors' analysis.

County Councils – all rural councils located in the Border or Midland region of the country where population numbers and economic activity are relatively low.[11] In the case of Tipperary and Monaghan County Councils, some of this loss could be offset by an increase in their ARV, as their ARVs are relatively low compared to the national average. For both Longford and Leitrim County Councils where the economic base is very low and the annual loss accruing from this new model is in the region of €1.2–2.3 million, a temporary transition payment from the Department may be required. Although the net loss to Sligo County Council is relatively small, at less than €0.5 million, it may have to be treated differently given its distressed financial position (Turley *et al*., 2020).

[11] Cork City Council is the only other local authority that loses out in 2017. However, its finances have changed since the 2019 boundary extension (vis-à-vis Cork County Council). With a bigger economic base, it is no longer in receipt of equalisation transfers.

Table 4: Differences between Equalisation Schemes

	Current System	*Proposed System*
Objective	Local authorities in shortfall (see below) receive equalisation funding so that their LPT allocation is equal to the baseline, defined by the Department as the minimum level of funding available to every local authority*	To (partially) equalise the differences in fiscal or revenue-raising capacities of local authorities
Determination of the distributable pool	The total shortfall, equal to the difference between LPT retained locally (80 per cent of LPT estimated yield) and the 2017 LPT baseline which, in turn, is equal to the 2014 general purpose grant allocation and the PRD retained by the local authority	The total shortfall between the standard, defined as the national average of the fiscal capacity estimates, and the individual fiscal capacity estimates for local authorities with below-average fiscal capacities
Distributable pool amount	€140 million (in 2017)	€210 million
Horizontal or vertical equalisation	Horizontal primarily (with, in 2017, €96.7 million from other local councils, and the remainder from central government)	Vertical, with all funding from central government
Allocation formula	Based on the difference between the LPT retained locally (0.8*LPT) and the LPT baseline, BL. Where the locally retained LPT is less than the baseline, a local authority receives an equalisation grant equal to this shortfall. If the locally retained LPT is greater than the baseline, a local authority is in surplus and receives no equalisation funding	Based on the difference between the fiscal capacity (FC) of a local authority and the standard, S. Where the fiscal capacity of a local authority is less than the standard, a local authority receives an equalisation grant equal to this shortfall. If the fiscal capacity of a local authority is equal to or greater than the standard, a local authority receives no equalisation grant
Equalisation grant	$E = BL - 0.8*\text{LPT}$	$E = S - FC$

Table 4: Differences between Equalisation Schemes (Contd.)

	Current System	*Proposed System*
Results	21 local authorities in receipt of equalisation grants in 2017, ranging from a low of €2.3 million for Louth County Council to a high of €16.5 million for Tipperary County Council	22 local authorities in receipt of equalisation grants, ranging from a low of €2.9 million for Louth County Council to a high of €24.1 million for Donegal County Council

Source: Authors' analysis.
Notes: *According to the Department, funds are "…redistributed to provide additional funding to certain local authorities that have lower property tax bases due to the variance in property values across the State".

Finally, we estimate the degree of equalisation using our new model as against the current regime (for the full list of differences between the current system and our proposed system, see Table 4). As in Turley and McNena (2019), we estimate before and after calculations. Table 5 reports in per capita terms the fiscal capacity pre-equalisation as against the fiscal capacity post-equalisation under two scenarios. Scenario 1 is the actual 2017 equalisation transfers. Scenario 2 is estimated equalisation payments under the new model. As is evident from the table, although fiscal disparities are reduced under both scenarios (compared to pre-equalisation, as to be expected), with a smaller fiscal capacity range and a lower CV the reduction in fiscal disparities is larger in the second scenario, under our new model. These findings further support the case for this new fiscal equalisation programme, based on a RRS model and estimates of fiscal capacity.

Table 5: Before and After Equalisation (€ per capita)

Local authorities	*Fiscal capacity before equalisation**	*1. Fiscal capacity after actual equalisation transfers*	*2. Fiscal capacity after estimated equalisation transfers*
Carlow County Council	560	612	621
Cavan County Council	494	572	621
Clare County Council	683	683	683
Cork City Council	837	862	837
Cork County Council	671	671	671
Donegal County Council	470	573	621

Table 5: Before and After Equalisation (€ per capita) (Contd.)

Local authorities	*Fiscal capacity before equalisation**	*1. Fiscal capacity after actual equalisation transfers*	*2. Fiscal capacity after estimated equalisation transfers*
Dublin City Council	917	917	917
DLR County Council	1,099	1,099	1,099
Fingal County Council	987	987	987
Galway City Council	841	841	841
Galway County Council	492	508	621
Kerry County Council	574	591	621
Kildare County Council	653	653	653
Kilkenny County Council	574	622	621
Laois County Council	457	511	621
Leitrim County Council	479	706	621
Limerick City & County Council	557	583	621
Longford County Council	483	660	621
Louth County Council	599	617	621
Mayo County Council	541	629	621
Meath County Council	543	543	621
Monaghan County Council	524	658	621
Offaly County Council	523	571	621
Roscommon County Council	476	585	621
Sligo County Council	535	642	621
South Dublin County Council	920	920	920
Tipperary County Council	556	659	621
Waterford City & County Council	532	629	621
Westmeath County Council	552	621	621
Wexford County Council	532	558	621
Wicklow County Council	593	593	621
Range [highest/lowest]	**2.4**	**2.2**	**1.8**
Coefficient of Variation (CV)	**27**	**21**	**19**

Source: Authors' calculations.

Note: * These are different to the estimates in Turley and McNena (2019) where the revenue coverage in calculating fiscal capacity was limited to commercial rates only, whereas in this paper we use a much broader coverage of revenue sources, to include the LPT and user fees and charges.

V CONCLUSIONS

Reform of local government finance in Ireland involves a number of elements, including a redesigned model of fiscal equalisation. This paper proposes a new equalisation transfers mechanism, based on a RRS model and estimates of local fiscal capacity. Unlike the present scheme of equalisation payments, the design of this system of equalisation grants is formula-based, but also meets other desirable criteria, such as objectivity, feasibility and adequacy.

For this model to be operational, the data requirements are relatively straightforward, and not overly burdensome. For the 31 local councils, the value of the revenue bases is required, as is the average national rate for same. As data on the tax and non-tax revenue bases are only available with a time lag, adjustments to the fiscal capacity calculations and the equalisation formula will be necessary. The fiscal data are publicly available from the Department of Housing, Local Government and Heritage, and published in the annual local authority adopted budgets or annual financial statements. Local authority population data are available from the CSO.

Given commitments in the Programme for Government, recent increases in property prices, the LPT baseline and claims (particularly from many local authorities, both management and councillors) of insufficient or inequitable equalisation payments, the government is currently considering property revaluations for LPT purposes and options for local government funding baselines.[12] Our proposal outlined in this paper is an alternative to these changes, where in our model the LPT is 100 per cent retained in the local authority area, equalisation payments are funded from central government and a RRS framework and estimates of fiscal capacity are used to derive formula-based equalisation transfers that result in a local government funding system that is more transparent, sustainable and equitable.

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[12] One such example of claims of inequitable payments from the equalisation fund relates to Galway County Council and its annual equalisation grant of less than €3 million, compared with equalisation payments in excess of €11 million and €16 million for neighbouring Mayo and Tipperary County Councils respectively, which have, arguably, similar socio-economic and demographic profiles. See Table 3 for the very different equalisation amounts allocated to these three councils in our model.

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APPENDIX 1:

Local Authority Data, 2017

Local authorities	*Population*	*Urban share*	*Population density, per km^2*	*Revenue, €*	*Revenue per person, €*	*Own share of revenue*
Carlow	56,932	0.49	64	51,455,295	904	0.70
Cavan	76,176	0.31	41	61,599,258	809	0.53
Clare	118,817	0.39	38	115,265,893	970	0.75
Cork City	125,657	1.00	3,256	157,495,684	1,253	0.87
Cork	417,211	0.52	57	314,056,300	753	0.75
Donegal	159,192	0.27	33	144,876,819	910	0.67
Dublin City	554,554	1.00	4,757	868,219,405	1,566	0.74
DLR	218,018	0.99	1,725	169,861,716	779	0.81
Fingal	296,020	0.93	647	221,098,292	747	0.82
Galway City	78,668	1.00	1,573	79,754,377	1,014	0.84
Galway	179,390	0.22	31	116,261,341	648	0.67
Kerry	147,707	0.35	32	132,515,573	897	0.75
Kildare	222,504	0.68	131	165,133,538	742	0.78
Kilkenny	99,232	0.39	48	79,297,520	799	0.66
Laois	84,697	0.48	49	60,602,656	716	0.60
Leitrim	32,044	0.11	21	35,550,360	1,109	0.47
Limerick	194,899	0.54	73	352,921,390	1,811	0.45
Longford	40,873	0.34	39	41,532,198	1,016	0.57
Louth	128,884	0.66	156	96,895,620	752	0.73
Mayo	130,507	0.29	24	131,118,355	1,005	0.59
Meath	195,044	0.59	84	113,182,943	580	0.78
Monaghan	61,386	0.29	48	56,644,220	923	0.51
Offaly	77,961	0.43	39	60,637,479	778	0.67
Roscommon	64,544	0.27	26	56,638,711	878	0.56
Sligo	65,535	0.40	37	63,456,833	968	0.50
South Dublin	278,767	0.98	1,250	230,497,136	827	0.76
Tipperary	159,553	0.42	35	143,214,845	898	0.61
Waterford	116,176	0.62	65	120,232,406	1,035	0.61
Westmeath	88,770	0.49	51	70,045,475	789	0.62
Wexford	149,722	0.39	64	109,327,826	730	0.74
Wicklow	142,425	0.65	71	95,231,572	669	0.77
All	**4,761,865**	**0.63**	**69**	**4,514,621,039**	**948**	**0.70**

Source: Adapted from Turley *et al*., 2020.
Note: Data are for 2017 except in the case of population which is based on the 2016 Census. Revenue for Limerick City & County Council is inflated because of Housing Assistance Payments (HAP) and its role as operator of the HAP shared service centre on behalf of all 31 local authorities. Own share of revenue is defined as commercial rates, charges & fees and the LPT (all combined and expressed as a percentage of revenue income), as against income in the form of grants, either specific purpose grants or the equalisation grant.

APPENDIX 2:

Data Sources

Data	*Source*
Local authority own-source revenue	Local Authority Budgets https://www.housing.gov.ie/
Equalisation transfers	Department of Housing, Local Government and Heritage https://www.housing.gov.ie/
NEV	Local Authority Budgets https://www.housing.gov.ie/
LPT	Department of Housing, Local Government and Heritage https://www.housing.gov.ie/ Local Authorities https://www.gov.ie/en/help/departments/#local-authorities Revenue https://www.revenue.ie/
Household data (number/mean income)	Central Statistics Office https://www.cso.ie/en/index.html Revenue https://www.revenue.ie/
Local authority population	Central Statistics Office https://www.cso.ie/en/index.html