South African Federalism: An Economic Analysis of Revenue-Sharing Arrangements

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SOUTH AFRICAN FISCAL FEDERALISM: AN ECONOMIC ANALYSIS OF REVENUE-SHARING ARRANGEMENTS

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In common with many other countries, constitutional architects in South Africa have always been loath to spell out in any detail the specific assignment of duties and responsibilities between the three different tiers of government. No doubt the primary reason for this constitutional reticence resides in the historical circumstances under which the formulation of the four South African constitutions took place. For example, the constitution which brought into being the Union of South Africa in 1910 was negotiated in the aftermath of the second Anglo-Boer war in an atmosphere of hostility, with representatives of the former Boer republics seeking a high degree of autonomy for regional governments, in contrast to the preferences of delegates of the two British colonies for a strong central government. Similarly, the constitutional changes in 1961 launching the Republic of South Africa occurred after an acrimonious debate and a very close referendum, and consequently involved only minimal amendments removing the Crown and replacing it with a State President as head of state. In common with the 1961 constitutional amendments, the 1985 tricameral constitution representing only whites, "coloureds", and Indian South Africans, was ratified by Parliament in September 1983 and endorsed by the white electorate in a national referendum held in November 1983, did little to spell out in any detail the roles of the three levels of government in South Africa. However, the 1986 Provincial Government Act 69 abolished provincial legislatures on 1 July 1986 and replaced them with new executive authorities appointed by the State President and headed by an administrator. Although a number of new powers and responsibilities were given to provincial administrations during the course of 1987 and 1988, especially in the area of health services, provincial budgets still had to be ratified by the national Parliament.

More recently, the adoption of the new (interim) constitution, known as the Constitution of the Republic of South Africa Act, was negotiated against a background of years of isolation of the former apartheid state and civil rebellion and repression. The dominant African National Congress/South African Communist Party alliance advocated strong central government structures whilst other parties, especially the National Party and the Inkhata Freedom Party, sought a greater degree of regional autonomy. It is easy to appreciate that consensus amongst deeply divided participants can be much more readily achieved over

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general and abstract concepts rather than highly specific constitutional details. Whilst the problems that ill-defined constitutional frameworks can bequeath to future generations should never be underestimated, the relatively non-violent demise of apartheid in South Africa remains one of the political wonders of the late twentieth century, and much of the credit for this miracle should surely go to those involved in the long and tortuous constitutional negotiations.

Important questions concerning the roles of the various levels of government in South Africa are not addressed in the 1993 Constitution of the Republic of South Africa Act No. 200 as amended by Act No. 2 of 1994 and Act No. 3 of 1994. In one of the very few analyses of the fiscal implications of the new constitution, van der Spuy Heyns (1995, p.163) has described the matter thus:

> The vagueness of the constitutional assignment of duties and responsibilities in many functional areas is thus more than apparent. In practice the actual devolution of functions will also depend on criteria of practicability, especially the administrative capacity of regional and local administrations to handle their respective constitutionally assigned functions and powers. However, two things stand out: first, all levels of government will clearly participate in the provision of public services and, second, public social services will occupy a pivotal (but overlapping) position in respect of the role of the government in the areas of allocation and redistribution.

Moreover, notwithstanding the provisions which seek to provide some degree of regional autonomy for the nine new provinces, whose constitutionally assigned provincial responsibilities for service provision include education, health, housing and welfare (under schedule 6 of the Act), it is clear that the central government will nevertheless possess overriding power. van der Spuy Heyns (1995, p.164) has argued that "...whilst the effect of all levels of government on the real incomes of individuals through the provision and financing of public services will be pervasive, the central government possesses an over-riding responsibility for equity on a nationwide basis, through its ability both to set the national tone and to impose norms and standards for public services."

Although a substantial amount of research has already emerged on various aspects of policymaking by the new South African Government of National Unity, most work has focussed on the Reconstruction and Development Program and the urgent problems of poverty alleviation and unemployment (see, for instance, Central Economic Advisory Service (1993), Fallon and de Silva (1994), Nolan (1995) and Turok (1995)). By way of contrast, surprisingly little effort has been directed at the problems associated with fiscal federalism under the new constitution and the potential the new arrangements have for resolving social and economic problems. The policy implications of these new institutional mechanisms for South African fiscal federalism form the subject matter of the present paper.

The paper itself is divided into three main areas. The first section outlines the nature of fiscal federalism in the new South Africa and the role of the Financial and Fiscal Commission (FFC). The second section seeks to classify these institutional arrangements in terms of the typology developed by Bahl and Linn (1994; 1992) and attempts to interpret their policy implications using the policy matrix created by Bahl and Linn (1994; 1992). The paper ends with some brief concluding comments in section three.

NEW FISCAL FEDERAL ARRANGEMENTS

The (interim) Constitution of the Republic of South Africa Act No. 200 establishes a unitary state in South Africa with three tiers of government; namely, national, provincial and local governments.[1] Various expenditure functions and revenue-raising powers have been assigned to these three levels of government. However, as we have noted, this assignment of powers and responsibilities is neither precise nor exclusive. To complicate matters further these new fiscal arrangements must co-exist with structures inherited from the previous state.[2] As the FFC (1996a, p.3) has observed:

> "The three tiers of government are superimposed on an existing tax (and public expenditure) regime, which is characterised by severe vertical and horizontal fiscal imbalances. In other words, while national government raises the vast bulk of aggregate revenues, its expenditure responsibilities are much lower. There is thus a mismatch between revenues raised and expenditure responsibilities."

Drawing on constitutional principles XVI to XXV, the interim constitution assigns various responsibilities and expenditure functions to the single national, nine provincial, and thousands of local governments. Despite the vagueness of this assignment, it is nevertheless possible to discern in broad outline the nature of decision-making responsibilities associated with each of the three tiers of government. Whilst all relevant decisions should take into account "national unity, provincial autonomy and cultural diversity" and should be made "... at which level this can be done most effectively" (FFC, 1995, p.5), the assignation of function follows traditional patterns. Thus, national government deals with economic policymaking, national defense and "essential national standards". Section 6 of the Interim Constitution specifies that education, health, policing and other regional services are delivered by the provinces, whilst Section 175 outlines the functions of local governments which lie largely in the provision of local public goods and services. However, the imprecision with which expenditure functions and powers have been assigned means that much potential for overlapping functions exists.

Revenue-sharing arrangements are spelt out in somewhat more detail in the interim constitution. This may have been deemed necessary because of the highly centralised system of revenue collection which strongly favoured the previous national government. In any event, the interim constitution specifies in Section 155 that each province is entitled to an "equitable share" of the income collected by the national government, as distinct from tax revenues gathered in the nation as a whole. This equitable share involves three main components (FFC, 1995, p.1):

> "[P]ercentages of nationally collected individual income taxes, value added tax or other sales tax, and the fuel levy;
> transfer duties on property situated within a province; and
> other conditional or unconditional allocations out of national revenue."

Provincial administrations in South Africa have never enjoyed stable independent sources of tax revenue. Section 156 of the interim constitution enables provincial legislatures to raise revenues through duties, levies, user charges and taxes, with the specific exceptions of income taxes, value-added taxes, and sales taxes, and subject to national parliamentary approval. More, provincial administrations have been granted exclusive powers to impose all forms of gaming taxes within their jurisdictions. By way of contrast, local government in South Africa has always had access to a stable tax base and this tradition has been continued in Section 178 of the interim constitution. South African local governments can thus continue to rely on property rates and various user charges. Moreover, regional service council levies also represent a useful source of revenue. In addition, under Section 178 (3) of the interim constitution, local government in each provincial jurisdiction is entitled to "an equitable allocation" of provincial revenues.

The imprecision of the interim constitution on the exact functions of the three levels of government in South Africa and its emphasis on unspecified equity in revenue-sharing arrangements, necessarily means that difficulties would arise in the actual implementation of the new fiscal federal institutional arrangements. Presumably, pragmatic considerations along these lines must have applied to the framers of the constitution since they created the FFC in Section 199. The FFC (1995, p.1) sees its role as follows:

> "The FFC is given a special role within the intergovernmental fiscal framework. This role is to be an independent and impartial statutory institution, accountable to the legislatures, with the objective of contributing towards the creation and maintenance of an effective, equitable and sustainable system of intergovernmental fiscal relations, rendering advice to legislatures regarding any financial and fiscal matter which has a bearing on intergovernmental fiscal relations."

CRITERIA FOR REVENUE-SHARING

In common with the functions and powers of the different tiers of government, the interim constitution (Section 199) does provide some guidance to the FFC in the form of a list of normative criteria which it should apply to revenue-sharing arrangements. The FFC itself spells these out in its 1995 *Framework Document for Intergovernmental Fiscal Relations in South Africa* (FFC, 1995, p.11) as follows:

> "In addition, other conditional and unconditional allocations out of national revenue shall be made to provinces. The latter allocations should be made with due regard to the national interest and payments in respect of the national debt. They must take into account the different fiscal capacities, fiscal performances, efficiency of utilisation of revenue, needs and economic disparities within and between provinces. Furthermore, the developmental needs, administrative responsibilities and other legitimate interests of the provinces and the national government, must also be considered."

However, the interim constitution simultaneously leaves the FFC with a considerable degree of latitude in at least two respects. Firstly, it allows the FFC to "... identify additional objective criteria which could be used in determining equitable financial allocations" (FFC, 1995, p.11). And secondly, the FFC must recommend percentages for the division of national tax receipts between the three tiers of government. However, these recommendations are subject to ratification by the national Parliament.

In Part B of the 1995 *Framework Document* the FFC outlines the "norms usually applied to systems of intergovernmental relations" (FFC, 1995, p.4). These are elevenfold. They include "effective resource use", "accountability", "national building and fiscal autonomy", "transparency", "certainty of revenue", "equity" (defined in terms of fiscal capacity, fiscal effort, fiscal need, and fiscal performance), "development" (which refers to "the multi-dimensional approach that improves the quality of life for all" (FFC, 1995, p.8)), "administration" (especially administrative ease and efficiency), "macro economic management", "loan financing" (by which is chiefly meant "the system of intergovernmental grants should not impede provinces' reasonable access to other sources of finance" (FFC, 1995, p.9)), and finally "transition" which implies "stability in the delivery of essential services must be maintained during the transition from the old order to the new" (FFC, 1995, p.9). In addition to developing and applying criteria for revenue-sharing between the central government and the nine different provincial administrations, the FFC is also constitutionally obliged to deal with the funding of local governments in South Africa. It perceives its role as follows (FFC, 1995, p.11):

> "Section 178 of the Interim Constitution states that a local government is entitled to an equitable allocation of funds by the provincial government. The FFC should make recommendations regarding criteria for these allocations, taking into account the distinctions between metropolitan, urban and rural local government categories."

THE PROCESSES OF REVENUE-SHARING

The actual application of the various criteria for determining revenue sharing, drawn from both the interim constitution and developed by the FFC, involves several processes. Firstly, the problem of specifying an "equitable share" of national tax receipts for division amongst the provinces has various dimensions. The FFC must determine the aggregate percentage for distribution between the central government and the provinces and the proportions of this aggregate for allotment amongst the provinces, termed "revenue sharing" by the FFC. Secondly, transfer duties collected by the central government must be apportioned amongst the provincial administrations on the basis of origin of the revenue - a procedure known as "shared transfer duties". And additional funds of conditional and unconditional status must be distributed to the provinces under Section 155 (4) of the Constitution. Secondly, the FFC must determine the allocation of funds from provincial administrations to local governments. But the distribution of funds under processes one and two above in a constitutionally acceptable manner requires two separate investigations to generate the necessary information.

Firstly, the FFC is obliged to determine "minimum standards" for service provision in South Africa. Although the FFC appears uncertain of whether these standards should be determined on the basis of an assessment of needs by "function committees" or on the basis of "national averages", given the legacy of apartheid in terms of the unequal provision of services both racially and geographically it is clearly essential to determine these standards for education, health, housing, etc. Moreover, disparities in service provision are also likely to co-exist with disparities in the potential for provincial and local governments to raise revenue. Whilst most of their income is likely to derive from central government revenue-sharing, significant opportunities remain for raising their own incomes. Equity considerations in the interim constitution make it imperative that the FFC take these factors into account.

Secondly, the FFC must determine which social and other factors should determine the size of intergovernmental grants and what weights to accord different factors. In its *Framework Document* the FFC canvasses three approaches to dealing with this questions. Firstly, grants could be made on the basis of population for each of the nine provinces, with per capita funding equalised between provinces. But inaccurate census data (the 1991 census was boycotted by the African National Congress), rapid urbanisation between censes, and cross-border population flows make this method unsuitable. Secondly, the FFC could fund existing utilisation patterns, but this would "...tend to perpetuate the current skewed position of facilities by channelling funds to those institutions already in existence rather than to areas where new facilities should be developed" (FFC, 1995, p.16). Thirdly, standardised revenues, standardised expenditures, and standardised budget outcomes along the lines of the Australian model could be used. And fourthly, the FFC could employ formula funding models. The formulae used must accomplish two main objectives (FFC, 1996b, p.1):

> "The first is to ensure that each tier of government has an equitable share of resources to meet its expenditure mandate, taking into account such factors as the servicing of social debt, provisions for improvement in conditions of service of public servants, social pensions,

contingency reserves for events such as drought or flood relief and nationally mandated norms and standards (the vertical division). The second objective is to divide the available provincial pool of resources amongst the nine provinces (the horizontal division)."

The FFC has selected the fourth method of determining revenue-sharing in South Africa. Two reasons are given for this decision (FFC, 1996b, p.1):

> "The first is its relative objectivity compared to other funding mechanisms or processes that are open to both political manipulation and manipulation by civil servants and other policy makers. Secondly, and most importantly, a funding formula which is set for multi-year periods (of say 3 years) ensures 'certainty of revenue' for governments. Such predicability in revenue flows is vital to any development planning that national and sub-national governments may wish to undertake."

THE MECHANICS OF REVENUE-SHARING

As we have seen, the FFC is obliged to determine the FFC is obliged to determine the proportion of national tax revenue which goes to the central government and the provincial administrations (the so-called "vertical division") and the division of revenue between the nine provinces (the so-called "horizontal division"). We shall examine each of these exercises in turn.

Vertical division

As a consequence of severe vertical fiscal imbalance between the three tiers of government in South Africa, the national government (which collects the bulk of public revenue) is obliged to make grants to provincial and local governments (which expend most revenue). The national tax revenue share (G_t) is thus divided between the national government (G) and the provincial governments (P). We can thus write:

$$G_t = \frac{T}{Y} \qquad \text{... (1)}$$

where T is total public revenue collected by the national government and Y is total national income. Since T must equal the sum of G and P (less revenue raised by provincial administrations and local governments), we can also express G_t as follows:

$$G_t = \frac{P}{T} + \frac{G}{T} \qquad \text{... (2)}$$

In its recommendations for the vertical division of revenue for the fiscal year 1997/98, the FFC assumes a national economic growth rate of 3 per cent per annum, a budget deficit decreasing to about 4.5 per cent in 2000, G_t capped at 25 per cent of national income, and a shift of 0.5 per cent in favour of $\frac{P}{T}$. Table 1 illustrates the outcome of this process in percentage terms, projected to the year 2002/03:

Table 1: Percentage Vertical Division of Nationally Collected Revenues

TIER	1996/97 BUDGET (BASE YR)	1997/98	1998/99	1990/00	2000/01	2001/02	2002/03 TARGET
Provincial (%)	51.85	51.68	51.50	51.31	51.12	50.55	49.96
National (%)	48.15	48.32	48.50	48.69	48.88	49.45	50.04
Total Revenue	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Source: FFC (1996b, p.5, Table 1A).
Note: These estimates exclude the Transitionally Assigned Surcharge (TAS), which refers to revenue collected by the provinces themselves.

Table 2 below translates the data in Table 1 into 1996 Rand values.

Table 2: Vertical Division of Nationally Collected Revenues in 1996 R millions (excl. TAS)

TIER	1996/97 BUDGET (BASE YR)	1997/98	1998/99	1990/00	2000/01	2001/02	2002/03 TARGET
Provincial	75,299	76,216	77,120	78,010	78,883	78,563	78,153
National	69,919	71,269	72,636	74,022	75,426	76,847	78,285
Total Revenue	145,218	147,485	149,756	152,032	154,309	155,410	156,438

Source: FFC (1996b, p.5, Table 1B).

Note: These estimates exclude the TAS.

Although G_t has been set by the Department of Finance at a given proportion of national income, and thus represents a constraint on intergovernmental grants, the FFC has proposed a shift in the composition of G_t. This proposal centres on the notion of "tax room" and is articulated by the FFC (1996b, p.2) as follows:

> "This requires that an amount of revenue (e.g. equivalent to a number of percentage points on the personal income tax (PIT base) which was initially a transfer to the provinces, be given to the provinces as provincial own revenue. In other words, tax room is created at the national level to be taken up by the provinces. Tax room is introduced to ensure that an additional own revenue source is made available to the provinces (e.g. surcharge on the PIT base 5) without this leading to an increase in the aggregate tax burden."

The FFC has phased this tax room into its estimates by one percentage point of personal income tax (PIT) by the fiscal year 2002/03. Assuming provinces do indeed make full use of this additional source of revenue, then Table 3 below summarises the outcome of this process in percentage terms.

Table 3: Percentage Vertical Division of Nationally Collected Revenues Plus Provincial Revenues from Surcharge on PIT Base.

TIER	1996/97 BUDGET (BASE YR)	1997/98	1998/99	1990/00	2000/01	2001/02	2002/03 TARGET
Provincial (%)	51.85	52.35	52.85	53.35	53.85	54.35	54.85
National (%)	48.15	47.65	47.15	46.65	46.15	45.65	45.15
Total Revenue	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Source: FFC (1996b, p.6, Table 1c)

Note: (i) TAS increases at one percentage point of PIT from 1 per cent in 1996/97 to 7 per cent in 2002/03.

(ii) There is an annual shift of 0.5 per cent of nationally collected revenues and surcharges towards the provinces.

(iii) Improvement in conditions of service reside at the national level and must still be adjusted to provincial totals.

(iv) The base year figures are derived from budgeted expenditures presented to Parliament on 13 March 1996.

Table 4 below translates the data in Table 3 into 1996 Rand values.

Table 4: Vertical Division of Nationally Collected Revenues Plus Provincial Revenues from a Surcharge on PIT Base in 1996 R millions.

TIER	1996/97 BUDGET (BASE YR)	1997/98	1998/99	1990/00	2000/01	2001/02	2002/03 TARGET
Provincial	75,299	78,306	81,425	84,661	88,019	91,501	95,913
National	69,919	71,269	72,636	74,022	75,426	76,847	78,285
Total Revenue	145,218	149,575	154,062	158,684	163,444	168,347	173,398

Source: FFC (1996b, p.6, Table 1d).

Horizontal division

Once vertical division has been decided upon, and the revenue quantum for the provinces determined, the FFC must establish the dispersion of funds amongst individual provinces. This is done by means of the so-called Provincial Grants Formula (PGF). The PGF has five elements: a Minimum Standards Grant (S), a Spillover Grant (m), a Fiscal Capacity Equalisation Grant (T), an Institutional Grant (I) and a Basic Grant (B). The PGF can be expressed as follows:

$$P = S + m + T + I + B \qquad \text{... (3)}$$

We shall now examine each of the five components of equation (3) in turn:

(i) Minimum National Standards Grant (S)

Section 126 of the interim constitution specifies that citizens of all provinces possess a constitutional right to "nationally established service standards" for both primary and secondary education and health care. In order to achieve this outcome the FFC has recommended a Minimum National Standards Grant or S Grant to each province. The total aggregate value of S Grants for all provinces is calculated as follows:

$$S = (ij).\ popj \qquad \ldots (4)$$

where S is the aggregate grant to all provinces for delivery of some service i, i is the type of service, j is the eligible subset of residents, and popj represents the proportion of a province's residents in group j. Since S provides the total revenue to be distributed to the nine provinces, we still need to calculate the proportion of S accruing to any given province. In essence, value of Sp, or the amount of the aggregate S funding received by a given province, will be determined by the eligibility of its residents for i, and accordingly will depend on the demographic and socioeconomic characteristics of an individual province. Moreover, the FFC has recommended that minimum standards be based on service outcomes and not on service inputs, at least in the longer term.

All Sps will have both recurrent expenditure and capital expenditure categories. Three types of capital expenditure have been identified by the FFC: "routine" capital expenditure to meet estimated future demands for services; capital expenditure necessary to "upgrade" existing facilities; and capital expenditure required for "backlogs". This latter component of capital expenditure "...should not be addressed in the formula but rather should be regarded as a national development priority and be funded out of additional conditional grants from the national government" (FFC, 1996b, p.7). In order to illustrate how Sp are calculated, we can consider the formula developed by the FFC (1996b, p.8) for calculating Sp for education. The formula has three dimensions: a demographic dimension, a "policy" dimension, and a cost dimension. The FFC (1996b, p.8) has set out the relevant parameters for the formula as shown in Table 5 below:

Table 5: Components of Minimum National Standards for School Education

DEMOGRAPHIC COMPONENT	POLICY COMPONENT	COST COMPONENT
Children aged 5 - 17	Teacher : pupil ratios Primary 1:40 Secondary 1:35 Weighted average 1.38	Teachers required x [average salary + non-teacher costs (= 41% of salary)]

Source: FFC (1996b, Table 2, p.8).

Table 6 below shows the outcome of using these values to calculate Sp for primary and secondary education for the fiscal year 1997/98:

Table 6: Minimum National Standards Grant for Education 1997/98

PROVINCES	QUALIFYING POPULATION*	GRANT PER QUALIFYING PERSON (R)	NATIONAL STANDARDS AMOUNT (R000)
	(2)	(3)	(4)
Western Cape	1,037,803	2,256	2,341,480
Eastern Cape	2,389,904	2,256	5,392,076
Northern Cape	212,770	2,256	480,050
KwaZulu-Natal	3,030,372	2,256	6,837,094
Free State	813,871	2,256	1,836,247
North West	1,133,275	2,256	2,556,883
Gauteng	2,084,306	2,256	4,621,368
Mpumalanga	892,882	2,256	2,014,511
Northern Province	2,080,587	2,256	4,694,198
South Africa	13,639,769	2,256	30,773,907

Source: FFC (1996b, Table 3, p.9).

Note: (i) *Qualifying persons are children aged 5 to 17, 1997/98 (estimate).

Column 2 contains a number of school-going residents of each province, column 3 contains the estimated per capita cost of providing a minimum standard of primary and secondary education, and column 4 shows the total Sp education grant for each province. It is perhaps worth noting the implicit assumption that cost differentials between provinces do not exist.

(ii) Spillover Grant for Health (m)

In addition to Sp's for health accruing to each of the provinces, the FFC has proposed an additional "spillover grant" m for "academic health training" and "unique" health services. The pragmatic justification for the existence of m has been outlined as follows (FFC, 1996b, p.12):

> "Given the slow growth of the health budget in real terms and the national commitment to improving access to primary health care, it is generally acknowledged that the academic hospitals in Gauteng, Free State, KwaZulu-Natal, Western Cape and Eastern Cape are experiencing a serious financial crisis."

However, three traditional public finance arguments are also advanced in favour of m. Firstly, it is argued that medical schools at South African hospitals provide both tertiary education, through medical training, which is a national function, and medical services, through patient treatment, which is a provincial function. Secondly, some of the services provided by medical schools are unique at the national level, like the heart transplantation unit at Groote Schuur hospital in Cape Town. And thirdly, medical schools provide "supra-provincial", but not nationally unique services, across provincial boundaries. The FFC (1996b, p.12) accordingly makes the following recommendation:

> "Given the national and provincial commitment to primary health care, it is proposed that spending on academic complexes should remain constant in real terms for a period. The estimated *per capita* national increase in costs due to training, teaching and research in academic hospitals for the approximately 7857 enrolled medical students is about R110 000 *per annum.*"

(iii) Fiscal Capacity Equalisation Grant (T)

Under the interim constitution provinces are entitled to levy various specific taxes and charges, but cannot add surcharges to company income tax, value added tax (VAT) and customs duties. However, given substantial differences in the tax bases of different provinces, large differences exist between the revenue-raising capacities of various provincial administrations. T grants have been designed to augment "... provincial revenues where fiscal or taxing capacity is below the national average (thus promoting fiscal equalisation). In this regard, the grant aims to fill the revenue gap between what the province would have raised, if it had had the national taxing capacity, and what it actually raises from its own taxing capacity at the normative rate chosen for this purpose" (FFC, 1996b, p.13).

In addition, T grants are envisaged as encouraging provincial financial accountability, where accountability is seen as implicit in the linkage between revenue-raising and expenditure. The rationale for this argument for T grants has been put this (FFC, 1996b, p.13):

> "... [B]eing required to raise own revenue increases provincial accountability. Provinces are encouraged to do so by being able to retain the revenue raised by whatever taxes they impose. Substantial fiscal accountability is not achieved, if fiscal accountability is understood in absolute terms - i.e. the nexus of the entire revenue raised by a province and its expenditure responsibility. This is because only a small proportion of total provincial expenditure is accounted for by revenue raised at a provincial level. The Fiscal Capacity Equalisation Grant introduces the idea of accountability at the margin. *This means that the relevant concern is that each province must be accountable for any additional spending which that province has planned and responsible for any additional revenue raised.*" (Original emphasis).

In order to pursue this objective further, the FFC has, as we have seen earlier, argued that "tax room" be created by allowing the provinces to place surcharges on PIT, phased in at a rate of one per cent per year, with a concomitant reduction in the national PIT rate, so the overall PIT tax burden is maintained. On administrative grounds, provincial PIT surcharges will be centrally collected by the national South African Revenue Service.

The creation of tax room and PIT surcharges provide a mechanism for T grants to generate some horizontal equalisation between richer and poorer provinces. On the basis of simulation exercises the FFC (1996b) has proposed that "... the objectives of the intergovernmental system will best be served if full equalisation to the national average occurs for a tax base equal to 50% (half) of the tax room created by the national government". Table 7 below provides FFC estimates under these circumstances:

Table 7: Estimated Value of T Grant by Province

PROVINCES	DIFFERENCES PER CAPITA (R)	TOTAL (R000)
[1]	[2]	[3]
Western Cape	(14.50)	(57,796)
Eastern Cape	12.66	94,357
Northern Cape	(2.86)	(2,304)
KwaZulu-Natal	5.71	54,019
Free State	2.78	8,605
North West	9.79	38,233
Gauteng	(26.55)	(227,788)
Mpumalanga	0.16	490
Northern Province	16.31	92,183
All Provinces	-	-

Source: FFC (1996b, Table 12, p.17).

The second column in Table 7 illustrates the per capita adjustment necessary to equalise all provinces' per capita tax base at PIT surcharge rate equal to one half of one PIT percentage point. Column 3 is simply column 2 multiplied by each provincial population estimate and provides the total value of T grants accruing to each province. Two points are worth bearing in mind regarding the information in Table 7. Firstly, T grants are based on notional values for each province and are granted independently of actual PIT surcharges levied by the provinces. And secondly, funds distributed by way of T grants are drawn from the same pool as those for B grants. Accordingly, the greater the value of T grants, the lower the absolute value of B grants.

The FFC (1996b, p.18) claims two advantages for its proposed grant system: "(i) by allowing provinces to impose surcharges it provides fiscal accountability and autonomy, and; (ii) through tax base equalisation, provinces are compensated for horizontal fiscal disparities."

(iv) Institutional Grant (I)

The nine provinces comprising South Africa differ in many respects, including geographic area and population density. The Northern Province in particular has a small population occupying nearly a third of the total area of South Africa. This means *inter alia* that it cannot deliver services at the minimum national standard on per capita grants equal to those received by other provinces. After considering various methods of dealing with this problem, the FFC (1996b) decided that a "constitutional" grant or "bottom-slice" grant just sufficient to run a "basic administration" be given to all provinces from funds taken from the provincial revenue pool P. These I grants are provided as annual lump-sum payments to all provinces to avoid subverting the incentives in the revenue-sharing system that reward rational resource use. The FFC (1996b, p.20) estimates the cost of a "basic" provincial administration at R32 million, or some R286 million in total for 1996/97. Over the longer term, it recommends that the South African government "... will have to consider the political significance of having one province with such a relatively small population and the merits of treating it differently" (FFC, 1996b, p.21).

(v) **Basic Grant (B)**

The interim constitution grants the nine South African provinces a significant degree of political autonomy. The B grant is envisaged as providing an attendant degree of fiscal autonomy for provincial administrations. The FFC (1996b, p.22) put the argument thus:

> "...[E]ach provincial government should decide what its particular policies and priorities are, which institutions need to be developed to suit its circumstances, and which set of services will satisfy its citizens' needs most effectively...
>
> ...[T]he Basic Grant is designed to enable each province to develop as real political entities in the full sense as envisaged by the Interim Constitution, through taking its own decisions and accepting responsibility for them."

However, in terms of both Section 155 (4) and Section 199(2) of the interim constitution, the FFC is obliged to consider the "needs and economic disparities" between provinces in the determination of revenue-sharing arrangements. Accordingly, the FFC has decided to allow B grants to perform some of this equity function. The aggregate B grant is calculated as a residual once S, m, T and I have been determined. Moreover, the B grant has two dimensions. Firstly, represents that portion of a provincial B grant earmarked for distribution to local governments within its jurisdiction.[3] Secondly, Bp represents that quantum of a B grant destined for "general provincial use". The amount of each province's B grant is calculated on the basis of the "weighted population" in each provincial jurisdiction. The reasoning employed and the procedures used are as follows (FFL, 1996b, p.22):

> "In the absence of reliable income and expenditure data, a proxy for poverty is required. After considering the available options, the FFC recommends that the number of people living in rural areas be used for this purpose and that a weight of 25% be attached to this factor. This in effect means that in each province a rural person would count as '1.25 persons' in the basic grant formula, (or in other words, for every R1 spent on an urban person, the government spends R1,25 on a rural person). The weighting of 25% is essentially a value judgement made by the FFC in the absence of reliable data."

The outcome of this procedure appears in Table 8 below.

Table 8. Provincial Basic Grant Allocations for 1997/98

PROVINCES	WEIGHTED POPULATION	BASIC GRANT PER WEIGHTED RESIDENT (R)	BASIC GRANT TOTAL (R000)
[1]	[2]	[3]	[4]
Western Cape	4,129,135	668.61	2,760,777,443
Eastern Cape	8,663,042	668.61	5,792,188,941
Northern Cape	860,571	668.61	575,385,421
KwaZulu-Natal	10,941,941	668.61	7,315,881,126
Free State	3,457,872	668.61	2,311,964,454
North West	4,614,229	668.61	3,085,115,410
Gauteng	8,700,592	668.61	5,817,295,374
Mpumalanga	3,528,096	668.61	2,358,917,202
Northern Province	6,939,696	668.61	4,639,943,965
Total	51,835,174	668.61	34,657,469,337

Since the residual determining B is known, once weighted populations have been calculated for each province and a national weighted total population arrived at, the "basic grant per weighted resident R" in column 3 can be computed, and provincial allocations determined.

CHARACTERISTICS OF NEW FISCAL ARRANGEMENTS

As we have seen, South African fiscal federalism under the new constitution is characterised by a high degree of vertical fiscal imbalance, with revenue accruing largely to the national government and expenditure functions concentrated at the provincial and local government levels. To deal with the problem, the South African authorities have chosen a formula-based system of categorical and unconditional intergovernmental grants to disperse an essentially *ad hoc* determined national pool of funds amongst provincial administrations.[4]

Bahl and Linn (1992; 1994) have constructed a useful taxonomy of intergovernmental grants in federal systems of government for developing countries which can assist us in classifying South African fiscal federalism. The Bahl and Linn (1992; 1994) typology characterises grant distribution systems along two main dimensions; namely, "the method of determining the size of the divisible pool and the method of determining the distribution among state and local governments" (Bahl and Linn, 1994, p.6). The identified three major methodologies for determining the quantum of national funds for division amongst subnational governments, which they term the "divisible pool" and which the FFC calls the "vertical division". These are "a specified share of national government tax revenues, an ad hoc decision (such as an annual appropriation voted by a parliament), or reimbursement of approved expenditures." (Bahl and Linn, 1994, pp.6-7). Four basic approaches to computing the share of the divisible pool are employed for making the "horizontal division" amongst subnational governments:

"Once the amount of the pool is determined, allocations among local governments are typically made in four ways; by returning shares to the jurisdictions from which the taxes were collected (i.e., using a derivation principle); by formula; ad hoc; or by reimbursing costs." (Bahl and Linn, 1994, p.7).

The result of this classification procedure is provided in the twelve-fold typology in Table 9 below:

Table 9: Alternative Forms of Intergovernmental Grant Programs

	Method of determining the total divisible pool		
Method of allocating the divisible pool among eligible units	Specified share of national or state government tax	Ad hoc decision	Reimbursement of approved expenditures
Origin of collection of the tax	A	-	-
Formula	B	F	-
Total or partial reimbursement of costs	C	G	K
Ad hoc	D	H	-

Source: Bahl and Linn (1992, Table 13-2, p.432; 1994, Table 1, p.7)

The new South African system of intergovernmental grants does not fit altogether neatly into the Bahl and Linn taxonomy. For instance, while the PGF method of allocating a national divisible pool on an *ad hoc* basis may fall squarely into type F in Table 9, "shared transfer duties" are collected by the national government but distributed to the provinces on the basis of the origin of the revenue along the lines of type A. Similarly, although national minimum standards for education and health are prescribed to provincial administrations and local governments by the national government, and inequalities inherited from apartheid necessitate capital expenditure for "backlogs", the requisite funds are not provided under the S Grant component of the PGF. Instead these monies will come from "conditional grants" from the national government and approximate type H grants. Furthermore, although the divisible pool appears to be determined along *ad hoc* lines in the sense that it has to be ratified annually by the national Parliament, we have seen that P is drawn from G_t, which has been indicatively set at 25 per cent of national income to 2002/03. This gives it some of the attributes of type B. Notwithstanding these complications, it seems clear that the great bulk of intergovernmental grants can be classified as type F.

Establishing the nature of the new South African intergovernmental grants system within the Bahl and Linn taxonomy provokes various questions. Firstly, we have seen that national government revenue-sharing arrangements with provincial administrations most closely approximate type F grants but also have elements of type B grants with respect to determining the size of the divisible pool. This ambivalence can be explained as follows (Bahl and Linn, 1994, p.440):

> "The choice between the shared tax and ad hoc methods depends on how much control the central (or state) government wants to retain over the division of fiscal resources between central and lower levels of government, and on how much faith the center has in the ability of localities to absorb increased revenues efficiently."

Various factors account for this ambivalence. Firstly, the constitution itself strives to create a unified new South Africa and at the same time guarantee some autonomy to provincial administrations, a tension which seems to be reflected in revenue-sharing arrangements. Secondly, given the composition of both the political leadership and bureaucratic structures of several of the provincial administrations, often made up of disparate elements of the old provinces and apartheid homelands of varying degrees of bureaucratic experience and sophistication, it is perhaps not surprising that the national government would harbour reservations about their abilities to expend public funds expeditiously and prudently. Indeed, in 1996 the national government felt obliged to dismiss the provincial governments of both the East Cape and Orange Free State provinces on grounds of corruption and incompetence.

Secondly, the South African PGF has many features in common with efforts elsewhere in developing countries for distributing the divisible pool amongst subnational governments using a formula. As Bahl and Linn (1994, p.12) observe:

> "In almost every country, the formula developed is constrained by the availability of data about state or local needs and conditions. These constraints are sometimes so severe that the issue becomes less 'what we would like to do' than 'what we can do.'"

As we have seen census data on population, income and other socioeconomic indicators cannot be relied upon in South Africa. In some instances South Africa policymakers attempt to circumvent data deficiencies through the use of proxy variables; for example, the number of people living in rural areas is employed as a proxy for poverty to calculate the B grant. However, in other cases, the FFC employs demographic data despite its deficiencies, with the computation of the S grant a good illustration with its reliance on both j and popj.

Thirdly, the motivation for using a formula-based method of allocating the divisible pool amongst provincial administrations in South Africa is shared with many other developing countries. As Bahl and Linn (1994, p. 12.) point out:

> "[T]he desire to balance regional inequities in the ability to finance public services or in the level of public services actually provided is the primary motivation for formula grants. Although the idea of giving more funds to poor jurisdictions is straightforward, the practice is disappointing."

Fourthly, South African policy designers share a pervasive problem in identifying suitable measures of need for particular public services in the different provincial jurisdictions. Thus, whilst the FFC uses teacher pupil ratios, average teacher salary, 41 per cent of average salary for "non-teacher" costs and number of children between 5 and seventeen years of age to determine the S grant, it readily concedes the arbitrary nature of these variables. Moreover, despite occasionally considering cost difficulties in service delivery for different provinces, the FFC often simply assumes equal delivery costs in all jurisdictions, with the "grant per qualifying person" of R2,256 in the S grant a case in point.

Finally, policy makers in south Africa have sought to embody at least some measure of tax effort into the PGF allocation formula through the introduction of T grants and the notion of "tax room". T grants not only act as a mechanism to accommodate some degree of horizontal equalisation, but also attempt to "... stimulate local resource mobilisation" (Bahl and Linn, 1992, p. 441) by providing provincial administrations with an additional means of raising tax revenue. However, like formula-based allocation systems elsewhere, the South African PGF does not accord much weight to tax effort by subnational governments.

EVALUATING THE NEW FISCAL ARRANGEMENTS

Given the characteristics of fiscal federalism in the new South Africa, the question now arises as to the normative properties of these arrangements. Put differently, what are the efficiency, equity, and other outcomes attendant upon the South African model of fiscal federalism. Although an extensive theoretical and empirical literature exists on the normative evaluation of national systems of intergovernmental grants in advanced market economies (Oates, 1972; Pommerehne, 1977; Mathews, 1980; Walsh, 1992; Dollery and Worthington, 1996), the same cannot be said for developing countries. Fortunately, Bahl and Linn (1992; pp. 454-469; 1994, pp. 16-18) have provided a matrix for evaluating the properties of alternative methods of determining intergovernmental grants in developing countries which can shed light on the new institutional arrangements in South Africa.

Bahl and Linn (1992) argue that an evaluation of the normative properties of a system of intergovernmental grants should incorporate at least five main factors; these are its allocative effects, its equalisation effects, it revenue-raising capacities, its planning attributes , and its effects on subnational government autonomy. However, the application of these criteria to real-world fiscal institutions in federal countries cannot identify the nature of an optimal system of intergovernmental grants. Bahl and Linn (1994; p. 16) justify their argument as follows:

> "No optimal grants structure exists. What is a good feature of a particular type of grant depends on whether one takes a local or a national government view, and on which objectives the government most wants to achieve. "

Accordingly, Bahl and Linn (1992: 1994) construct a matrix of the eight types of grants identified in Table 9 which summarises their advantages and disadvantages "... in terms of the relative preferences of central versus subnational governments" (Bahl and Linn, 1992, p. 466). This matrix is reproduced in Table 10 below:

Table 10: Properties of Eight Grant Types Identified in Table 9.

	Grant type							
Objective	*A*	*B*	*C*	*D*	*F*	*G*	*H*	*K*
Of central government								
Maintain control over provincial finances	L	L	-	-	P	P	P	P
Equalise services and fiscal capabilities among provinces	L	P	-	P	P	-	P	-
Stimulate expenditures for a particular function or overall tax effort	-	-	P	-	-	P	-	P
Increase provincial tax effort of *Subnational government*	-	-	P	P	-	P	-	P
Maintain control over provincial finances	P	P	-	-	L	L	L	L
Plan efficient budget	P	P	-	-	L	L	L	L
Increase adequacy of provincial revenue flow	P	P	P	-	L	L	L	P
Joint			-					
Minimise administrative costs	P	-	L	-	-	L	-	L

Source: Adapted from Bahl and Linn (1992, Table 13-6, p. 467; 1994, Table 2, p. 16)

Note: P represents most preferred, L represents least preferred, and - means the effect is uncertain.

Despite some ambiguity, we have seen that the overwhelming volume of funds involved in transfers from the Government of National Unity to South African provincial administrations can perhaps best be classified as type F grants. It is evident from Table 10 that these grants maximise the degree of control leveraged by central governments and minimise the degree of autonomy experienced by provincial administrations. In South Africa B grants may mitigate these tendencies, at least to some extent. Nevertheless, given the current level of bureaucratic expertise in subnational governments in South Africa, as evidenced already by the unfortunate experiences of the Eastern Cape and Orange Free State administrations, this can readily be justified in terms of national welfare, at least in the short run. From the perspective of horizontal fiscal balance, involving *inter alia* the equalisation of public service provision, the Bahl and Linn matrix classifies type F grants as the most preferable to national governments.

However, as we have seen in specific circumstances of South African fiscal federalism, several factors operate to negate the equalising impact of intergovernmental transfers, not least assumptions about the cost homogeneity of delivering public services in different regions of South Africa - tacitly recognised by the existence of I grants.

In general, the position is much less clear when the need to "stimulate expenditures for a particular function or overall tax effort". Bahl and Linn consider type C, G and K grants most suited to this purpose from the point of view of national governments. However, despite the preponderance of funding falling under type F grants in South Africa, the existence of the minimum national standards S grants, specifically directed at primary and secondary education and health care, as well as the spillover for health m grants, seem to achieve an expenditure aim since they are so particularly targetted on individual public services.

The impact of F type grants on subnational revenue adequacy is also ambiguous according to a Bahl and Linn. It is difficult *ex ante* to make any more specific arguments in the South African case at this early stage.

Although Bahl and Linn argue that type F grant systems are least preferred by subnational governments from the perspective of efficient budgetary planning, the South African case appears somewhat less clearcut. For instance, the FFC has taken specific steps to enhance the degree of revenue certainty experienced by provincial administrations by presenting three year grant projections for ratification by the national Parliament. However, at this stage no details of local government financing from provincial governments (using funds from PGF grants from the national government) exist . It thus seems reasonable to conclude that the position of provincial governments is probably better than that envisaged by Bahl and Linn, whereas local governments do not have this advantage.

Finally, Bahl and Linn hold that minimising administrative costs is a policy objective that is shared by national, provincial and local governments. Moreover, they indicate that the status of F type grants is uncertain in this category. It is perhaps worth noting here that the operation of the FFC in South Africa is likely to play a pivotal role in determining the costs of administering the PGF allocation method. If the FFF's recommendations are regularly ratified by Parliament, remain relatively unpoliticised, and are not contested by subnational governments, then the resultant certainty stemming from ongoing three year projections should help reduce administrative costs.

A perusal of Table 10 shows that no single grant type meets all the objectives of both national and subnational governments. Bahl and Linn (1994, p. 18) are at pains to point out that tradeoffs are necessarily involved in the choice of a system of intergovernmental grants:

"This analysis illustrates the principle that one policy instrument (i.e., grants) cannot accomplish all objectives. For example, if the principal objective is to equalise fiscal capacity across jurisdictions, then goals of stimulating local government tax effort, minimising administrative costs and promoting local autonomy are not likely to be well served. The matrix in Table [10] only suggests the degree to which designing a grant system requires first deciding which objectives are essential and which can be sacrificed."

Although the 1995 *Framework Document* of the FFC explicitly recognises eleven desirable objectives which intergovernmental grant systems could meet, it is much less ambitious on the actual aims of the South African model of venue-sharing. At the most general level this model should generate "...an effective, equitable and sustainable system of intergovernmental fiscal relations ..." (FFC, 1996c, p. 1). Somewhat more specifically the objectives of the South African model have been spelt out by the FFC (1996c, p.i) as follows:

"The goals of the formula should be to achieve: effective and efficient resource allocations; fiscal equity in the provision of services and the raising of provincial taxes; and the development of fiscally sound and democratically responsive provincial governments."

If we accept that these three goals do indeed represent the objectives of the PGF formula system, then it is evident that one of the three goals has been fully met according to the Bahl and Linn policy matrix and a second goal has been partially met. Table 10 indicates that type F grants are suitable for achieving "fiscal equity in the provision of services", but not for "the raising of provincial taxes". Moreover, type F grants can generate "effective and efficient resource allocations' if we accept "maintain control over provincial finances" as a proxy for this objective. However, the aim of developing "... fiscally sound and democratically responsive provincial government" does not appear to be capable of full realisation through the PGF mechanism since type F grants do not enhance economic and political autonomy.

CONCLUDING REMARKS

Although an economic analysis of revenue-sharing arrangements must necessarily focus on the efficiency and equity characteristics of these arrangements, they are nevertheless only part of a larger constitutional picture. Fiscal federalism in South Africa is a creature of the amended 1993 constitution of the Republic of South Africa Act No. 200 and its parameters must be sought in this context. At first sight the new constitution seems to provide considerable autonomy to the nine provinces in terms of their financial relationships with the national government. For instance, the list of provincial competencies in Schedule 6 is long and comprehensive in comparison with most federated developing countries. Similarly, the powers and functions of provinces are entrenched in the sense that any future constitutions cannot reduce them. However, Vaubel (1995) has demonstrated that this ostensible autonomy is much weaker upon closer scrutiny. Thus, while the list of provincial competencies may be impressive, they are not exclusive competencies. Vaubel (1995, p. 18) argues as follows:

"All provincial competencies are at the disposal of the national Parliament. They are shared competencies. Table 6 contains only two other [developing or transforming] federal states' in which the provinces do not have significant exclusive competencies: Brazil and Russia. But, in these two countries, the provinces do at least possess the residual posers."

Furthermore, despite the fact that future constitutions cannot dilute the powers and functions of provincial administrations, "... since the provinces cannot raise revenue without the consent of the National Assembly, their constitutionally guaranteed autonomy is very small anyway." (Vaubel, 1995, p. 20). It would therefore seem clear that although the institutional and economic dimensions of revenue-sharing in South Africa appear to set the stage for a workable federation, the question of provincial autonomy is much less promising. He who pays the piper plays the tune.

FOOTNOTES

1. The interim constitution was modified in the light of various objections raised by the Constitutional Court and a final constitution was ratified by Parliament in December 1996 to come into effect in February 1997. Revisions contained in the final constitution in no way affect the provisions of the interim constitution regarding fiscal federalism in South Africa.

2. Some idea of the Byzantine administrative complexity the new Government of National Unity inherited from its predecessor is provided by the following extract from Appendix 2 to the FFC's recommendations for the 1997/98 fiscal year (FFC, 1996b, p.2-1):

   "There were three types of asymmetrical subnational governments: four provinces which were administrative extensions of the central government, four so-called independent states (TBVC-States) and six "self-governing territories" (SGTs). There was a Tri-cameral parliamentary system which catered for "own affairs", and coloured, Indian and white affairs. Many of these entities had their own functional departments, (e.g. 16 departments of education). Racial duplication and compartmentalisation were also part of the local government structures. In essence, the "second tier" subnational governments were devoid of own revenue bases, had no expenditure accountability, lacked transparency and were patently undemocratic. South Africa could be defined as an expenditure federation where accountability played a minimal role in the system. A political system was created which took little cognisance of economic reality or democratic principles."

3. BL has not been calculated for the fiscal year 1997/98, although the FFC will make these calculations in future. This means that the full value of the residual embodied in B grants over 1997/98 will be distributed in the form of Bp.

4. Whether the determination of the size of the divisible pool is essentially *ad hoc* or specified share of national tax income is not entirely clear. The following extracts from the FFC (1996b, p.2) serve to underline this uncertainty:

   "The estimate of revenue raised at a national level for a particular year must be set by the Department of Finance, after consideration of the performance of the economy, the business cycle, taxation policies and revenue projections. The Ministry of Finance, in conjunction with other role-players also makes the decision concerning the aggregate tax constraint. ...The Department of Finance, reflecting the National Government's position on the aggregate tax burden has indicated that a ratio of 25% is the target to be achieved in the near future, and should not be exceeded."

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