

FIXING TERRITORIAL FORMULA FINANCING

Prepared for:

**The Expert Panel
on
Equalization and Territorial Formula Financing**

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TABLE OF CONTENTS

	Page
1. INTRODUCTION	5
1.1 Overview of Key Issues	5
1.2 Some Other ‘Contextual’ Considerations	6
1.3 Outline of the Paper	7
2. ARCHITECTURE AND KEY PRINCIPLES AND CHARACTERISTICS	9
2.1 Structure of a Generic Equalization Formula	9
2.2 Scope of Expenditure Need and Revenue Means	9
2.3 Some Key Principles and Desirable Characteristics	12
2.3.1 Fiscal Equity or Comparability: A Broad-based Perspective	12
2.3.2 Stability	13
2.3.3 Predictability	14
2.3.4 Risk-Sharing	15
2.3.5 Neutrality	16
2.3.6 Objectivity	17
2.3.7 Transparency	17
2.3.8 Accountability	17
2.3.9 Effective Mechanisms for Dispute Resolution	18
3. EXPENDITURE NEED	19
3.1 An Overview of Territorial Disparities	19
3.2 The GEBs: A Brief History	19
3.3 Measuring Expenditure Need	22
3.4 Implicit Measures of Territorial Expenditure Need	22
3.5 Approaches to the Measurement of Expenditure Need	26
3.5.1 Domestic and International Experience	27
3.5.2 Expenditure Need Concepts and Methods	27
3.5.3 Methods for Maintaining Expenditure Need over Time	28
3.6 Conclusions	29
4. REVENUE CAPACITY	31
4.1 Evolution and the Current Situation	31
4.2 A Proposal for Measuring Revenue Capacity: “Multi-Macro”	32
4.3 Fees and Charges	33
4.4 Property Taxes	34

TABLE OF CONTENTS (CONT'D)

	Page	
4.5	Resource Revenues	35
4.6	The Economic Development Incentive	36
4.7	Conclusions	37
5.	THE EXTERNAL DIMENSIONS OF TFF AND FISCAL EQUITY FOR TERRITORIAL RESIDENTS	38
5.1	Specific-Purpose Transfers to Provincial or Local Governments	38
5.2	Specific-Purpose Transfers to Aboriginal Groups in the Provinces	39
5.3	Federal Government Direct Transfers to Persons	40
5.4	The Federal Personal Income Tax and the Northern Deduction	40
5.5	Eliminating the PLE Linkage	42
5.6	Conclusions	44
6.	MANAGEMENT OF FEDERAL-TERRITORIAL FISCAL RELATIONS	45
6.1	Some Approaches in Practice	45
6.2	Implication for Federal-Territorial Fiscal Relations	52
6.3	Possible Roles for an Independent Federal-Territorial Fiscal Commission	52
6.3.1	Policy Role	53
6.3.2	Research and Analysis	54
6.3.3	Conducting Consultations	55
6.3.4	Administration of Funding	55
6.3.5	Reporting and Record-Keeping	56
6.3.6	Dispute Resolution	56
6.4	Governance Issues	56
6.5	Conclusions: Possible Directions for Change	57
7.	A FIXED ENVELOPE	58
7.1	Introduction	58
7.2	The Many Problems Associated with a Fixed Envelope	58
7.2.1.	Fiscal Equity	58
7.2.2	Stability	59
7.2.3	Inconsistency with Basic Criteria	60
7.2.4	Views of the Provincial and Territorial Governments	60
7.2.5	Sustainability	60
7.3	Recommendation	61

8.	CONCLUSIONS AND RECOMMENDATIONS	62
	TABLE OF CONTENTS (CONT'D)	
		Page
ANNEX A	Factors Affecting Expenditure Needs in the Territories	67
ANNEX B	Estimates of Imputed Relative Territorial Expenditure Need and Demand	77
ANNEX C	Expenditure Need Concepts and Methods	79
ANNEX D	Description of the Use of the Representative Tax System to Measure Territorial Government Own-Source Revenue Capacity	82
ANNEX E	The Economic Development Incentive (EDI)	84

LIST OF TABLES

TABLE 1	Comparison of TFF GEB Escalators: Unconstrained vs. Actual, 1990-91 to 2003-04	21
TABLE 2	Estimates of Imputed Relative Territorial Expenditure Need and Demand, 2003-04	23
TABLE 3	Estimates of Territorial Adjusted GEBs Compared to Standard Provincial-Local Revenues, 2003-04	24

1. INTRODUCTION

1.1 Overview of Key Issues

As the Panel reviews Territorial Formula Financing (TFF), it will be useful to have in mind the past evolution of the program and some of the concerns that have been accumulating over time. Perhaps the greatest of these concerns relates to adequacy and equity of funding levels, primarily as a result of a series of reductions to the Gross Expenditure Base and Escalator. Since 1996-97 the GEB for the two territories has been almost 17% below the level that it would have been without these restraint measures. Alternatively stated, the GEBs would have been about 20% higher over this period. Relative to their needs, and by comparison with restraints to Equalization-receiving provinces, the aggregate amounts of reduced funding that the territorial governments have experienced over this period have been difficult and frustrating for them.

Moreover, because the GEB escalator was directly linked to the rate of growth of provincial-local government expenditures, which in turn reflected federal government reductions in transfers to the provincial governments both prior to and in the 1995 federal Budget, the above reductions to territorial funding levels were above and beyond the impacts of the reductions in federal government transfers to the provincial governments on their expenditure levels over that time period. These restraints, accompanied by the also-significant cuts to federal support for social housing, meant that the territories had to absorb shocks that were disproportionately severe, representing a proportionately much larger “hit” to their total budgets and indeed their economies, compared to the relative impact of federal transfer cuts to the provinces.

It was under these circumstances, as well, that the initial TFF level of funding for the government of Nunavut, an embryonic territory suffering huge social and economic disparities, was established. While funds were made available for the construction of required new governmental apparatus for Nunavut, there were no adjustments made to funding for programs themselves. Thus, the program expenditure levels existing in 1996-97, already heavily restrained from previous cuts, were used as a basis to divide the GNWT’s GEB between the two territories. As will be argued later in this paper, whatever relevance the original GEBs may have had in reflecting the real expenditure needs of the territories in the 1980s, the events of the 1990s drove the numbers way off track, and present a strong argument for a significant rethinking and rebasing, if fundamental objectives are to be reinstated.

As well, there have been other areas of contention between the territorial and the federal governments, related to some of the more specific design aspects of the formula and its interpretation and application. These relate, for example, to such matters as the measurement of revenue capacity, the so-called, economic development incentive (EDI), and the application of Post-Censal population data to the determination of the Population Adjusted Gross Expenditure (PAGE) Escalator. Matters of this nature, related to the *internal* design and functioning of the Formula, will be referred to in this paper as the “Internal Dimensions” of TFF.

The concerns that have gradually emerged in recent years also go beyond these matters. TFF, as well as being a dominant component of government revenues for all three territories, is intimately interlinked with fiscal arrangements between the federal government and the provinces, with other transfer arrangements with the territorial governments, and with fiscal arrangements with or for Aboriginal peoples. We will refer to this category of issues as the “External Dimensions” of TFF. The fact that the Terms of Reference for the Panel do not allude to these External Dimensions of TFF is an oversight, since the interrelationships produce important consequences for both the design of the programs and for the achievement of fiscal equity for territorial residents. We attempt to make it clear in this paper that some critical Internal TFF issues cannot be adequately addressed without consideration of some of the External dimensions, and thus urge the Panel to take them into account.

Thus, this paper will focus on both dimensions of TFF - the Internal Dimensions, related to the structure of TFF, as well as the External Dimensions related to the relationships between TFF and other fiscal arrangements that are integrally related to the proper functioning of the formula and fiscal equity for territorial residents over time. Both Internal and External Dimensions are also important to consider in addressing future management issues.

1.2 Some Other “Contextual” Considerations

When one works intimately with TFF and related territorial fiscal matters in-depth, one tends to become very humble because of the complexities involved. One learns several things. First and foremost, “the devil is in the details”. One could formulate fine ideas, only to have them crumble when subjected to appropriate analysis and assessed in terms of implementation, administration and achievement of objectives.

Secondly, many of the issues are complex, and one must acknowledge that there may not be a uniquely correct answer to some problems. Alternative approaches and outcomes may have validity, and in choosing among them one should refer regularly to the principles underling the program, particularly to the key principle of fiscal equity or comparable treatment.

Thirdly, the inherent complexities of fiscal arrangements mean that solutions may not be simple. Particularly with regard to the equity objective, it should be kept in mind, as the late Doug Clark often pointed out, “Simple is not fair and fair is not simple”. In our view, this is not a trivial point and deserves underlining, given the penchant of many commentators to eschew complexity and seek simplification, often (seemingly) for their own easier understanding of something for which they have no expertise.

However, in most areas of modern life we accept or even embrace sophistication and complexity, often associated with advancements in our living conditions. The internal workings of our cell-phones, computers, heating and cooling systems, and automobiles have all become too complex for “average” people (non-experts) to understand in detail. We are satisfied with the basic ideas,

and the results. A former Finance Canada colleague James Lynn, who studied Equalization for the Royal Commission on Taxation in the early 1960s, put it this way: “People don’t care about what goes on in that big can on the pole in the back lane. They understand that electricity helps make things work, and want the lights to go on when they hit the switch on their wall.” In another vein, we may want everyone to have a basic understanding of our tax system, but who would argue that the tax laws, regulations and rulings should only be two pages long, so that everyone can understand the internal workings?

At the risk of belabouring the point, we urge the Panel to be wary of a “Luddite Trap,” whereby people who don’t understand fiscal systems and transfer concepts, design or practice simply retreat to a recipe of simplification for its own sake. Most “instant experts” would not advance such an argument in their own field of expertise. In the case of Equalization and TFF, simplification can certainly be considered, but probably at the cost of refinements that people end up wanting. Trade-offs are inevitable: Simple is seldom Fair; and Fair is seldom Simple.

A related matter is the frequently-espoused idea that our governments should collect and spend their own revenues with as little overlap as possible, so that increased transparency and accountability can be accomplished. This variation of the “simpler, easier to understand” pitch has superficial appeal, but does anyone still believe that governments can (or should) be thereby disentangled, transfers reduced to a minimum and inevitable interrelationships (and broader societal goals) ignored? Interdependencies and overlapping responsibilities, recognized and managed in a sophisticated manner surely conforms better to modern realities. Hopefully government leaders can rise to the challenge of explaining the need for and nature of fiscal interactions and designs, along with their more sophisticated accountability requirements.

1.3 Outline of the Paper

Given the scope of issues outlined above, this paper is organized as follows.

Section 2 examines the architecture of equalization-type formulas and the structure of TFF from that perspective. The scope embraced by the measures of Expenditure Need and Revenue Capacity are key aspects of the formula structure and will have significant implications for the External Dimensions of the formula. With the background on architecture, it is possible to discuss the implications of some of the key principles and desirable characteristics of a funding arrangement for addressing the design of TFF and its functioning over time in a more substantive manner.

Sections 3 and 4 focus primarily on the Internal Dimensions of TFF, with reference to External issues where appropriate. Section 3 examines issues and options related to the measurement of Expenditure Need, including scope, international and domestic experience, approaches to measurement, and adjustments over time. Section 4 discusses issues related to the measurement of Revenue Capacity and presents a number of proposals for reform.

Section 5 is devoted to a discussion of the issues that underlie the External Dimensions of the Formula and how the formula can be designed to take these aspects into account.

Sections 6 and 7 focus on management and governance of TFF. Section 6 examines a range of possible mandates for an independent body for various aspects of TFF. Section 7 argues that, for a number of critical reasons, a fixed envelope for TFF (as well as for Equalization) is detrimental to achieving the basic purpose and proper functioning of these fundamental fiscal arrangements with the three territories.

Section 8 provides a recap of our conclusions and recommendations.

2. ARCHITECTURE AND KEY PRINCIPLES AND CHARACTERISTICS

In this section, the authors provide a comparative and historical perspective on the structure of TFF and a discussion of some key principles and desirable characteristics in light of this structure.

2.1 Structure of a Generic Equalization Formula

Equalization-type formulas generally take the following form:

Fiscal Gap = Measure of Expenditure Need minus Measure of Revenue Means

Within this basic framework, there is wide variation internationally as to how expenditure need and revenue means are measured. The measured fiscal gap may be fully or less than fully filled by equalization fiscal transfer, with variations, also, in the method used for the allocation of available funds among eligible jurisdictions. In Canada, both Fiscal Equalization (FE) and the TFF are variations of the generic structure, sharing common fiscal equity goals in support of a common range and quality of public services across the country.

2.2 Scope of Expenditure Need and Revenue Means

One key aspect of equalization-type formulae is the “Composition” or the “Degree of Inclusion” of the measures of Expenditure Need and Revenue Capacity. For simplicity, the term “Scope” will be used for this concept.

As will be expanded upon further in this paper, the scope chosen for an equalization formula has profound implications for both the design and management of the formula over time. In particular, a coordinated balance must be maintained over time between the measures of expenditure need and revenue capacity within the formula, and between these measures within the formula and other transfer arrangements outside the formula, in order for the funding arrangement to achieve the comparability objective.

There is wide variation internationally as to the scope chosen for equalization funding arrangements. At one extreme is the “Overarching” equalization funding arrangement in Australia where Expenditure Need includes all, or virtually all, expenditure responsibilities of the states and territories. Correspondingly, the measure of Revenue Means includes all own source revenues as well as all, or virtually all, other transfers from the Commonwealth government to the states and territories. Thus, any “inequities” in other transfer arrangements that are included within the measure of revenue means are ultimately offset or negated under the equalization arrangement.

At the other extreme is the Canadian Equalization program where only own-source revenues of provincial and local governments are equalized. All other transfer arrangements are external to

this equalization program. Thus, provincial variations in the design of other transfer arrangements to achieve specific objectives need not be considered in the design of the Canadian equalization program.

The Canadian program might thus be characterized as a “purely” horizontal equalization program whereas more inclusive designs that include other transfer arrangements from the donor to recipient governments include elements of vertical balance as well. One readily distinguishing feature of a purely horizontal equalization program is that not all jurisdictions will receive a transfer, whereas under equalization arrangements at a higher level – i.e., that include vertical balance components – transfers will generally be made to all jurisdictions.

From this perspective, TFF is designed with a broader scope than equalization but is not as broad as to be fully overarching - there are fiscal transfers from the federal government that remain outside TFF and are not taken into account in determining the level of TFF entitlements.

In TFF, the measure of Expenditure Need is referred to as the “Gross Expenditure Base” (GEB) and the measure of Revenue Means is referred to as “Eligible Revenues” (ER).

As suggested by the term “Gross” Expenditure Base, the GEB was designed to be quite broad. For example, it included post-secondary and health expenditures supported by the federal government under Established Programs Financing and social assistance and social services expenditures under the Canada Assistance Plan. Accordingly, cash transfers under these programs are included in Eligible Revenues. (The tax transfer components of EPF are included in territorial own-source personal and corporate income tax revenues). Again, this is in distinct contrast to the structure of fiscal arrangements with the provincial governments where transfers for PSE, health and social services were (and are) outside of, and independent of, Equalization.

Recognizing that the territorial governments did not have responsibility for the full range of programs and services of the provinces, the GEB was intended to be augmented over time as additional programs were devolved from the federal to the territorial governments. And the GEBs have been so adjusted as programs were transferred to the territorial governments. Eligible revenues were also augmented for some program-specific revenues, such as fees and charges that became the responsibility of the territorial government under these program transfers. In some cases, the GEBs were also increased to include time-limited programs as well.

There is one area, however, where TFF is less broad than equalization, namely local government revenues. Beginning in 1982, own-source revenues subject to equalization were expanded to include virtually all local government revenues. By contrast, when TFF was introduced in 1985-86, the GEB included only what was in the territorial government budgets. Thus, transfers from the territorial governments to their local governments were included in the GEB but expenditures from local government own-source revenues were not and, correspondingly, these own-source revenues were not included in Eligible Revenues. This situation has not changed.

When transfers for health to the provinces and territories were expanded in the late 1990's and thereafter (following the reductions in the 1995 federal Budget), it was not obvious to what extent these additional transfers were or were not already included in the GEB. Agreement was reached on excluding some of these transfers from the GEB and they are outside of the formula.¹

The question of where along this spectrum it is best to situate TFF, at the overarching level, at the own-source revenue level or somewhere in between, is not easy to answer although the extreme options can be fairly easily eliminated as viable options.

There are several intractable problems with the overarching level. It does not make sense to include open-ended cost-shared transfers within TFF because the purpose of such transfers would be to augment territorial government expenditures. However, in an overarching formula, the federal government transfer would be offset under the TFF grant, so there would be no fiscal incentive for the territorial government to increase its expenditures. A similar situation could result under closed-ended matching grants. If the federal government contribution was offset under TFF, then there would really be no incremental matching funds.

Moreover, equalization-type programs involve general purpose transfers intended to fund a broad range of on-going programs and services. They cannot really be used effectively to include specific-purpose transfers designed to address catch-up issues, such as for economic development or infrastructure. The amounts for such funding would likely vary significantly over time and/or vary significantly among jurisdictions and so it would be difficult to establish a comparable expenditure standard over time or across jurisdictions. Also, it would be somewhat contradictory to track and “monitor” specific-purpose funding elements within a general purpose transfer.

At the other extreme, choosing a scope that corresponds with territorial revenue capacity, as is the case with Equalization, would be rather pointless. It would provide resources to territorial government based on average revenue raising capacity in the territories, which is far short of that required to provide public services that are reasonably comparable to those available to residents in the provinces.

Two options for TFF's scope that might be considered are the following:

- (1) Base the GEBs on the standard that is utilized for the provinces under equalization with relative need adjustments for each territory.² Under this model, other federal government transfers to the territorial government such as the CHT and CST would be outside of TFF, as they have been outside of equalization for the provinces. Thus, TFF would be structured as a horizontal equalization program consistent with that for the provinces.

¹ This issue was made even more complex by the use of the Provincial-Local Government escalator for the GEB, as will be discussed further on in this paper.

² In that model, there would be little rationale to maintain separate envelopes for the provinces and territories, if a fixed-envelope model would be in place. The deficiencies of a fixed envelope model for TFF (and Equalization) will be discussed in Section 7.

- (2) A continuation of the intended historical model for TFF, that would be highly inclusive, but not fully over-arching. It would involve establishing a new level for the GEBs that reflected expenditure needs that fully included the new funding levels of the CHT and CST, as was the case initially, and that would be expanded to fully include local government needs in order to correspond with the circumstances for the provinces.

2.3 Some Key Principles and Desirable Characteristics

BOX 1 provides a fulsome set of principles and desirable characteristics that have been formulated by the authors in previous works, for fiscal arrangements between governments.³

For the purpose of this paper, only a selected set will be discussed below.

2.3.1 Fiscal Equity or Comparability: A Broad-based Perspective

Fiscal equity refers to the “equal treatment of equals” by all governments, not just provincial or territorial governments. Thus, while TFF (or equalization) should play a key major role in helping provincial and territorial governments to achieve this principle, they cannot be relied upon to play a complete role. The extent to which they can play this role depends upon the scope of these programs, as discussed in the previous section. Since a fully over-arching equalization program is likely not possible, where there are significant differences in development levels (including infrastructure) among jurisdictions more fulsome fiscal equity will depend on catch-up programs for lagging jurisdictions.

Where the program’s scope is based on purely horizontal equity, then other transfers outside the equalization-type programs must meet the fiscal equity criterion in their own right. For example, if TFF were to be based at the level of provincial own-source revenues, as outlined under option (1) above, then these other transfers must be adjusted for expenditure need in the territories to achieve fiscal equity. For example, CHT and CHST funding levels for the territories should not be based on the same equal per capita level as established for the provinces.

The important point of this discussion is the critical relationship between the scope of TFF, the external dimensions of TFF, and fiscal equity. Where the scope of TFF is broad and other transfers are included – and thus the external dimension is relatively small – fiscal equity can be addressed to a greater extent within TFF by adequately adjusting the GEB for expenditure need at that level, which includes adjustments for expenditure need for the transfers included in TFF. As the scope of TFF declines and other federal transfers are excluded from TFF so that the external dimension becomes relatively larger, TFF becomes less able to achieve fiscal equity for territorial residents on its own. The other transfers outside TFF must be adjusted for expenditure need in their own right in order to achieve fiscal equity for territorial residents.

³ If the Panel were interested, the authors could provide a text expanding on these principles and desirable characteristics.

The importance of these relationships cannot be overemphasized. We believe that they have not been fully and clearly understood by some or all of the parties and have led to much unfruitful controversies among the federal and territorial governments. Specific aspects of this external dimension and fiscal equity and the possible implications for TFF will be more fully discussed in Section 5.

BOX 1
**PRINCIPLES AND DESIRABLE CHARACTERISTICS
 FOR FISCAL ARRANGEMENTS**

1. Fiscal Equity or Comparability
2. Economic Efficiency
3. Greater Independence and Self-Reliance
4. Neutrality
5. Objectivity
6. Robustness/Sustainability/Affordability
7. Sensitivity/Responsiveness
8. Stability
9. Predictability
10. Currency
11. Risk-Sharing
12. Administrative Efficiency, including: appropriately simple procedures and methods; clarity and precision; and, orderly administration
13. Transparency
14. Clear Responsibility and Accountability
15. Effective Mechanisms for Dispute Resolution
16. Effective Mechanisms for Review
17. Effective Mechanisms for Continuity

2.3.2 Stability

There is often some confusion between stability and predictability. Stability – and its counterpart, variability – refers to changes over time.

There are both narrow and broad aspects of stability. The narrow aspect relates to the stability of the funding arrangement within a given formula. In this regard, the question of stability has generally focused on the stability *of the transfer itself*. The authors believe that this focus is misplaced. Transfers under TFF (and equalization) are designed to supplement the own source revenue capacity of a government to enable it to provide a reasonably comparable level of services. Thus, the focus of stability should be on the aggregate of the own-source revenue capacity and the equalizing transfer in relation to the recipient government's expenditure needs.

This connects the stability concept to the goals of the program – in particular, the continuous provision of adequate public services. In fact, a stable *transfer* may detract from the objective of fiscal equity if it does not respond to, and offset, instabilities in own-source revenue capacity.⁴

The fact that the TFF formula has been fundamentally determined and often changed by the federal government has had the result that stability of the arrangement has been significantly compromised in order to meet the changing fiscal priorities of the federal government. Arguably, short-term federal fiscal management has trumped program integrity and achievement of principal TFF goals. As a principle, stability as a desirable characteristic should first and foremost be assessed in terms of the fundamental purposes of the program. The territories are far less able to handle instability or to insure themselves against it (and for whom the program is so important), than is the much larger senior (federal) government, for whom this program is a relatively minor item.

2.3.3 Predictability

Predictability also has a narrow and broad perspective. In the narrow view, predictability refers to the degree of certainty with which entitlements for a given year can be forecast within a given funding formula. Where entitlements are based on data that are finalized only with some time lag beyond the fiscal year in respect of which entitlements are established, there will likely be variations between prior and final estimates of entitlements. Such errors in estimation give rise to concerns about predictability.

Such errors in predictability can also give rise to instability in cash flows to recipient governments but, in the view of the authors, these errors should be considered as problems of predictability rather than problems of instability. Predictability can be enhanced by basing entitlements on data from earlier years that will be available with a greater degree of accuracy during the year in which entitlements relate. This can be done by using data based on moving averages of prior and the current year. Moving averages can also provide great stability, as well as greater predictability, as variations in revenue capacity or expenditure need will be “smoothed” over time.

In their joint presentation to the Expert Panel, the territorial governments indicated that stability and predictability of the TFF transfers were not of major concern to them.

The broader perspective of predictability refers to the degree to which changes to the funding formula can be foreseen. Changes resulting in significantly reduced funding levels that are made unilaterally by the federal government, with little notice and little time for adjustment, are not predictable by the territorial governments.

4 Transfers used to examine the issue of stability should utilize “entitlements” and not “payments”, which confuses the issue of stability with that of predictability, as discussed in the next section. for reasons described below.

2.3.4 Risk-Sharing

Risk-sharing is a very important perspective from which to assess and design equalization-type transfers, as they inherently involve risk-sharing between the donor and a recipient government. Consider the basic structure outlined in Section 2.1 above. If the measure of expenditure need in the formula is set at 100% of need, then, the donor government bears all the risks with regard to the level and changes in expenditure need and the recipient government bears no risk. For example, in the case of the closure of large mines, with expenditure needs properly measured and fully included in the formula, the donor government would bear all the increased costs.

Similarly, if 100% of revenues are included in the formula then the donor government again bears 100% of the risk. Where the recipient government has the unilateral power to set tax and revenue rates, it is generally considered to be appropriate for that government to either gain or lose revenues depending on where these rates are set. Consequently, own-source revenue means is generally measured by tax and revenue rates that can be little or not influenced at all by the donor government. (The term “revenue capacity” is normally used to refer to revenue means measured using some standardized set of revenue rates.) Thus, it is the recipient government that fully (or almost fully) bears the consequences of its revenue rate decisions.

One of the most controversial risk-sharing aspects of equalization-type formulas relates to the degree to which own-source revenue capacity (i.e. with standardized revenue rates applied to standardized own-source revenue bases) should be included in the funding formula. A “pure” gap filling formula would involve inclusion of 100% of own-source revenue capacity. That is, the donor government would bear the full risk associated with the level of and fluctuations in revenue capacity and the recipient government none.

Some would argue that this could potentially result in irresponsible fiscal behaviour on the part of recipient governments because, ultimately, they would bear no adverse fiscal consequences from bad fiscal and economic decisions. On the other hand, and this is particularly the case with non-renewable resources because of their time-limited income potential, recipient governments generally want the ability to retain some of the fiscal benefits arising from economic development, i.e., they want less than 100% of revenue capacity (or possibly, incremental changes in revenue capacity) to be taken into account in the equalization-type funding formula. As noted, this demand is usually strongest with regard to resource revenues, but it can apply, although generally to a lesser extent, to other sources of revenue.

A percentage less than 100% that is applied to increases or decreases in own-source revenue capacity amounts to risk-sharing between the donor and recipient government. This may be appropriate provided that the risk borne by the recipient, more vulnerable government is not excessive. And moreover, what is wrong with that where the donor government does not directly have access to any of the revenues from a particular source, e.g., in the case where natural resource revenues accrue fully to the recipient government? Why should the donor government assume the full risk associated with fluctuations in revenues from such sources?

The proviso of the donor government not bearing excessive amount of risk is critical, particularly in the case of potentially unstable and finite revenue flows, which are the key aspects generally characterizing non-renewable resource revenues. For example, suppose that 100% of such revenues were to be excluded from the funding formula, so that the recipient government retained all the revenues but also bore all the risk. This is a two-edged sword. When revenues are high and stable there is a good payoff. But, would the government be able to adjust its fiscal regime to large fluctuations in such revenues? What happens when the flows, on which it was dependent, becomes a trickle? Will there be sufficient time, and will there be sufficient development in other sectors, to compensate for this loss? This could be a very risky fiscal structure for relatively small and low-income jurisdictions.

2.3.5 Neutrality

Neutrality generally refers to the characteristic that neither the donor nor the recipient government should be able to directly influence the level of the grant under the formula by its action. This is usually more important with respect to the recipient government, as the formula is generally based on economic and fiscal statistics of its jurisdiction. One of the objectives of neutrality is to avoid what is referred to as “grant maximizing behaviour” on the part of the recipient government.

Thus, expenditure need is usually measured in a way that is not directly based on expenditure decisions of the recipient government. However, to the extent that averages are utilized, the inclusion of a recipient government’s actual expenditure level in the average means that its actions will have some influence on its measure of expenditure need; and, the greater the size of the jurisdiction in determining the average, the greater the extent of that influence.

On the revenue side, the use of standard, rather than a jurisdiction’s actual, revenue rates also follows the neutrality principle.⁵ Here, too, the use of averages will lead to less than full neutrality.

The use of objective and consistent measurement of tax bases is also supportive of the neutrality objective.

It can be argued that risk-sharing associated with revenue capacity is at odds with the neutrality objective, and so it may be to some extent, as a government can have some, but not full, influence on economic development. But, to the extent that there is a conflict, some measured degree of risk-sharing may be preferable to full neutrality in this case.

⁵

In the extreme, if a recipient government’s actual revenue rates were used to measure its revenue capacity, and revenue capacity were fully included in the funding formula, then the government would have an incentive to set the revenue rate to zero and have the fiscal gap fully filled by the transfer.

2.3.6 Objectivity

There are two aspects to objectivity. The first refers to objectivity in the data that are used in the funding formula. In this regard, despite minor disagreements on interpretation, objectivity of data in TFF has been quite high over the years. The major changes to the National accounts introduced by Statistics Canada in 1997 created significant conceptual challenges for objectivity of data.

The second aspect of objectivity relates to how the data are utilized in the funding formula. In this respect, the territorial governments have argued that there have been a number of instances where it appears that the federal government has taken actions designed to reduce TFF transfer levels, rather than being based on principle or precedent. This raises a concern over appropriate dispute resolution practices, in order that good relations and program integrity be maintained (see Section 2.3.9 below).]

2.3.7 Transparency

While transparency is generally considered a desirable characteristic, its pursuit can be over-emphasized to the detriment of an equalization-type program. This is because achieving an acceptable degree of fiscal equity and other objectives, such as risk-sharing, involve complications that are unlikely to be understood by most Canadians. On the other hand, as already mentioned, Canadians are quite content to use their computers, cell phones, and MP3 players without understanding how they work.

In this case, what should be sought in terms of transparency is that the results of the program make intuitive sense or can be explained in simple terms and that the rules, regulations, calculations, and results are set out and well-documented, for those who wish to take the time and trouble to investigate them. More effort may be needed to inform Canadians, and especially to provide detailed information to journalists and others, so as to minimize superficial understanding, posturing, etc., by commentators who may be well-meaning but poorly informed.

2.3.8 Accountability

The usual test for accountability is that the government making the expenditure can be held responsible for how the funds are expended. However, this type of test is neither desirable nor feasible for the donor government in the case of equalization-type programs. In that case, a proper test for accountability for the donor government is the extent to which the level of funding and the structure of the funding arrangement meets the established key principles and desirable characteristics. The recipient governments are responsible and accountable to their constituents for how these transfers, along with their own source revenues, are expended.

With regard to the level of funding, reliable and comparable measures of expenditure need and revenue capacity are required in order to assess the extent to which the principle of fiscal equity is being achieved by the funding arrangement. The calculations and results should be easily available for external scrutiny.

2.3.9 Effective Mechanisms for Dispute Resolution

From time to time disputes of various types inevitably arise regarding various aspects of a fiscal arrangement. TFF has been no different in that regard. Ideally, there should be an objective dispute resolution process to address matters that cannot be resolved by the parties on their own. There is a tremendous power imbalance between the federal government and the territorial governments under TFF and related fiscal issues. The federal government is the donor and the senior government, but it is not infallible. It is not clear that in a federation, where all governments have legitimate interests, that the federal government or the donor government should also play the role of judge and jury. The defense that it is “their” program, “their” money, and that Parliament is supreme is not a worthy excuse for unilateral behaviour, and it is not necessarily conducive to successful federalism in the spirit of Section 36 of the *Constitution Act, 1982*. Only in the most overriding, crisis-level circumstances should the federal government interfere with the program to the detriment of the territories, and even then with a firm eye to equity of treatment relative to other programs and jurisdictions. Given past frustrations over these issues, some more structured and neutral dispute resolution process should be considered.

3. EXPENDITURE NEED

This section presents a discussion of a number of aspects of expenditure need both in general and specifically related to the territories.

3.1 An Overview of Territorial Disparities

ANNEX A presents a brief overview of social and economic disparities for the territories that affect expenditure needs in the territories. They are based on a range of statistics, particularly from the 2001 Census of Population.

In summary, they show that social and economic needs are generally much greater in the territories, particularly in Nunavut, compared to the nation as a whole.

ANNEX A includes estimates of the general price level in the territories compared to the national average, based on the Isolated Post Price Indices computed by Statistics Canada on behalf of the Treasury Board Secretariat and Public Service Employment Unions. The index is less than ideal, as a measure of comparative living costs in the territories - for example, it does not include housing costs - but it is the most comprehensive spatial price index available for the territories.

The territorial composite price indexes relative to the national average, which are rather out of date (based on 1997-98 data), are:

Yukon	140.3
NWT	130.0
Nunavut	164.0

Higher price levels for goods and services are a pervasive factor in addressing fiscal equity for residents of the territory. As will be discussed in Section 5, it is a reality that is often ignored by the federal government in program funding decisions.

3.2 The GEBs: A Brief History

The Gross Expenditure Bases (GEBs) for Yukon and the NWT were originally based on total revenues, including EPF and CAP transfers, of the territories in 1982-83, with some adjustments. These revenue levels emerged from years of line-by-line budget negotiations with federal government officials over a period of years. They were taken, perhaps with some concern on the part of the territorial governments, as “reasonable” estimates of the level of revenues required to provide “adequate”, if not necessarily fully comparable, levels of services to territorial residents compared to those of the provinces. Over time, the GEB has also been adjusted, as intended, to include programs devolved to the territorial governments, as well as other federal government programs.

The escalator chosen, from a variety of those considered, was the Provincial-Local Government Expenditure (PLE) escalator, based on the rate of growth of provincial-local government expenditures nationally. The PLE escalator was chosen as the most appropriate because the range of territorial government expenditure responsibilities was quite similar to those of the provinces.

In 1987, a particularly restrictive ceiling was placed on the PLE escalator. It was applied based on the rate of growth of GDP nationally in each year. Once it applied, it would reduce the escalator for all future years. By comparison, the ceiling on Equalization, when applied, does not affect entitlements in future years. The TFF ceiling applied in the four consecutive fiscal years 1990-91 to 1993-94.

In the review of TFF leading up to the first renewal in 1990-91, it was realized that the PLE escalator does not provide any adjustment to the GEB for differential population growth rates in a territory relative to that nationally. Accordingly, beginning in 1990-91, the PLE escalator was multiplied by a population adjustment factor for that purpose. (This was equivalent to calculating provincial expenditures and the GEB on a per capita basis, then using the territorial population directly.)

In the 1995 federal budget, a 5% reduction was made to the GEBs, again setting a “lower track” for all future years. This reduction was intended to match the reductions to the federal-provincial transfers for Health, PSE and social services, under the CHST.

Table 1 shows the history of the GEB escalator over the 1990-91 to 2002-03 period, excluding the population adjustment factor to which these restraints did not apply. As a result of the combined effects of the ceiling and the 5% reduction, beginning in 1996-97, as shown in Table 1, the GEBs of the territories (including that of the new socially and economically disparate territory of Nunavut, beginning in 1999-2000) have been 16.7% less than they would have been without these constraints beginning in 1996-97. This has resulted in a major reduction in territorial revenues over that period of time. But the impact of these reductions on the territories were even more severe than indicated by these differences.

This occurred because of the linkage between the rate of growth of provincial-local government expenditures and the GEB escalator. When transfers to provincial were reduced under the CHST, this inevitably resulted in a reduction in their expenditures. It may not have been exactly one-to-one but in some cases it may have been even more than one-to-one as provincial governments reined in expenditures financed from their own revenue sources. The important point is that these reductions in provincial government expenditures, resulting from the reduction in federal government transfers to them, reduced the GEB escalator (albeit with a lag) as a result of the PLE linkage.⁶ Thus, the 5% reduction to the GEB constituted a “Double Reduction” for the territorial

⁶ The impact of the federal government reductions in transfers on the rate of growth of provincial-local government expenditures can be gleaned from the reduced values of the PLE escalators over the 1995-96 to 1998-99 period in Table 1. Note that the escalators shown are 3-year moving averages and, thus, that the annual rates of change would generally have been even less.

governments. As a result, the territorial governments have felt the impact of this double-hit every year since then.

TABLE 1
COMPARISON OF TFF GEB ESCALATORS ^{1/}
UNCONSTRAINED VS. ACTUAL
1990-91 TO 2003-04

FISCAL YR	PLE ESCALATOR		GDP ESCAL ANN	MIN(PLE,GDP)		WITH '95 BUDGET 5% REDUCTION		% IN ESCAL
	ANN	CUM		ANN	CUM	ANN	CUM	
1990-1991	1.08393	1.08393	1.05836	1.05836	* 1.05836			2.36
1991-1992	1.08523	1.17631	1.03364	1.03364	* 1.09396			7.00
1992-1993	1.06890	1.25736	1.01822	1.01822	* 1.11390			11.41
1993-1994	1.03569	1.30224	1.02509	1.02509	* 1.14184			12.32
1994-1995	1.02285	1.33199	1.03986	1.02285	1.16793			12.32
1995-1996	1.00880	1.34371	1.04785	1.00880	1.17821			12.32
1996-1997	1.00931	1.35622	1.04828	1.00931	1.18918	0.95884	1.12972	16.70
1997-1998	0.99920	1.35514	1.04410	0.99920	1.18823		1.12882	16.70
1998-1999	1.01026	1.36904	1.04158	1.01026	1.20042		1.14040	16.70
1999-2000	1.03484	1.41674	1.05684	1.03484	1.24224		1.18013	16.70
2000-2001	1.04327	1.47804	1.06620	1.04327	1.29600		1.23120	16.70
2001-2002	1.04087	1.53845	1.05831	1.04087	1.34896		1.28151	16.70
2002-2003	1.03871	1.59800	1.04974	1.03871	1.40118		1.33112	16.70
2003-2004	1.03726	1.65755	1.04044	1.03726	1.45339		1.38072	16.70

1/ 3-YEAR MOVING AVERAGES

* GDP CEILING APPLIED

Moreover, because of the relatively greater size of territorial governments within their economies, compared to the provinces, any given percentage reduction in government revenues had a relatively greater impact on their economies.⁷

Overall, while the territories were the smallest, most vulnerable jurisdictions which needed the most support, they received much harsher treatment over the past 15-plus years than the equalization-receiving provinces.

⁷ There was another element, outside of TFF, that impacted the territorial governments much more severely than the provincial governments in the same (1995) federal budget. This was the federal government's withdrawal from social housing. In the provinces government expenditures for housing accounted for about 1% of the total expenditures. For the GNWT it was about 8%, and the impact of the funding reduction was of the same order of magnitude as the 5% reduction to the GEB. Again, the *relative* impact was much more severe.

3.3 Measuring Expenditure Need

Even at inception, before all the hoc adjustments, the GEB was at best only a proxy for the level of expenditures required to provide levels of service to territorial residents reasonably comparable to those in the provinces. To the authors' knowledge, no analysis has ever been undertaken to estimate what comparable levels of services would imply in terms of measures for the GEBs.

The purpose of the following sections is to examine a range of possible approaches to addressing this issue.

3.4 Implicit Measures of Territorial Expenditure Need

Expenditure Need is commonly considered to be a product of two overarching factors:

- Demands or "Need" for services or Workloads, and
- Prices or Costs of services

Using this simple equation, one can estimate what the relative "imputed" demands are for the three territories under TFF, given estimates of relative price levels and estimates of the relative values of the GEBs per capita.

These calculations are presented in Tables 2 for 2003-04 and described in ANNEX B.

The estimates in (5) in Table 2 show that per capita demand for public services in Yukon is about two-thirds of that in the NWT and that the per capita demand for public services in Nunavut is about 9% higher than in the NWT, given the value of the GEBs per capita and the estimated price levels.

One could accept as reasonable the relative value of two-thirds for per capita demand for Yukon versus the GNWT, given:

- relative income per capita levels of about 78% for Yukon relative to the NWT (see ANNEX A);
- the lower proportion of Aboriginal people in Yukon (about 25% vs. 51% in the NWT);
- the much more concentrated population in Yukon (e.g, about 72% in Whitehorse vs. about 44% in Yellowknife; and
- overall population density (about 80% higher in Yukon).

However, the imputed relative per capita demand for Nunavut, at only 9% higher than the GNWT, is highly problematic given the magnitude of the socio-economic disparities between them as outlined in ANNEX A.

TABLE 2
IMPUTED ESTIMATES OF RELATIVE TERRITORIAL
EXPENDITURE NEED AND DEMAND, 2003-04

1	<u>2003-04 BASE GEBS PER CAPITA</u>		
	<u>(After 5% Budget Reduction and Before Reduction for EDI)</u>		
	YUKON	408,515,903	
	NWT	789,639,061	
	NUN	750,563,111	
2	<u>2003 POPULATION</u>		
	YUKON	30,554	
	NWT	42,206	
	NUN	29,141	
3	<u>2003 BASE GEB PER CAPITA</u>		
	YUKON	13,370	
	NWT	18,709	
	NUN	25,756	
<u>PRICE X DEMAND = NEED</u>			
	Estimated Price Level	Estimated Demand	Estimated Need
4	<u>VALUES</u>		
	YUK	1.403	9,530
	NWT	1.300	14,392
	NUN	1.640	15,705
5	<u>INDEX (NWT=100.0)</u>		
	YUK	107.9	66.2
	NWT	100.0	100.0
	NUN	126.2	109.1

This result calls into serious question whether the existing relative levels of the GEB for Nunavut can be utilized as an equitable basis for allocation of a fixed amount of funding. It also calls into question whether the aggregate amount of funding to Nunavut has been adequate to address its much higher needs relative to the other two territories.

Imputed values of expenditure need and demand for public services in the territories can also be constructed relative to the provincial-local government sector. One such set of comparisons is provided, for 2003-04, in Table 3. The calculations in this table are also described in ANNEX B.

TABLE 3
ESTIMATES OF TERRITORIAL ADJUSTED GEBs COMPARED
TO STANDARD PROVINCIAL-LOCAL REVENUES, 2003-04

1	<u>2003-04 BASE GEBs (After 5% Budget Reduction and Before Reduction for EDI)</u>	
	YUKON	408,515,903
	NWT	789,639,061
	NUN	750,563,111
2	<u>2003-04 CHST+HRT EXCLUDED FROM ELIGIBLE REVENUES</u>	
	YUKON	10,387,000
	NWT	14,441,000
	NUN	9,961,000
3	<u>2003 LOCAL GOVERNMENT GENERAL REVENUES</u>	
	YUKON	43,813,000
	NWT	62,886,000
	NUN	53,856,000
4	<u>2003-04 ADJUSTED BASE REVENUE</u>	
	YUKON	462,715,903
	NWT	866,966,061
	NUN	814,380,111
5	<u>2003 POPULATION</u>	
	YUKON	30,554
	NWT	42,206
	NUN	29,141
6	<u>2003-04 ADJUSTED BASE REVENUES PER CAPITA</u>	
	YUKON	15,144

NWT	20,541
NUN	27,946

7.1	2003-04 EQUALIZATION STD PER CAPITA	5,909
7.2	TOTAL PROVINCIAL POPULATION (000s)	31,502
7.3	TOTAL PROVINCIAL REV @ EQ. STD.(\$MLNS)	186,145
7.4	TOTAL PROV. CHST+HRT CASH TRANSFERS (\$MLNS)	21,753
7.5	TOTAL PROV-LOC STD REVENUE (\$MLNS)	207,898
7.6	TOTAL PROV-LOC STD REVENUE (SPLR) PER CAPITA (\$)	6,600

8 2003-04 ADJ BASE REVENUES VS. SPLR PER CAPITA

YUKON	15,144
NWT	20,541
NUN	27,946
PROV	6,600

9 2003-04 INDEX OF ADJ BASE REVENUES VS. SPLR PER CAPITA (PROV/NWT=100.0)

<u>("IMPUTED" INDEX OF RELATIVE EXPENDITURE NEED)</u>	
YUKON	229.5
NWT	311.3
NUN	423.5
PROV	100.0

10 PRICE LEVEL INDEXES

YUK	1.403
NWT	1.300
NUN	1.640
PROV	1.000

11 2003-04 CONSTANT PRICE ADJ BASE REVENUES VS. SPLR PER CAPITA

YUKON	10,794
NWT	15,801
NUN	17,040
PROV	6,600

12 2003-04 INDEX OF "REAL" ADJ BASE REVENUES VS. SPLR PER CAPITA (PROV=100.0)

<u>("IMPUTED" INDEX OF RELATIVE DEMAND)</u>		
YUKON	163.6	68.3
NWT	239.4	100.0
NUN	258.2	107.8

PROV	100.0
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On the basis of these estimates, the indexes in (9) in Table 3 shows that expenditure need is about 2.3 times the provincial average in the Yukon, 3.1 times that average in the NWT, and 4.23 times in Nunavut.

Adjusting for estimated relative price level differences, the indexes in (12) in Table 3 suggest that demand for services in Yukon is about 1.64 times the provincial average, with 2.4 times the provincial average in the NWT, and 2.58 times the provincial average in Nunavut.

The adjusted base revenue estimates for the territories in Table 3 yield very similar indexes of demand in the 3 territories as those computed in Table 2 based on the Base GEBs alone - about 68% (compared two-thirds) for Yukon relative to the NWT and about 8% (compared to 9%) higher for Nunavut than the NWT.

How reasonable are these imputed values of relative demand and expenditure need for the three territories compared to the provinces? Certainly, the measures for Nunavut continue to be suspiciously low compared to the measures for the other two territories.

In order to answer this question, it would be necessary to undertake analysis to derive direct estimates of expenditure need and demand for public services in the three territories.

How this might be done is the subject of the next section.

3.5 Approaches to the Measurement of Expenditure Need

(Note: This section is drawn from a paper written by one of the authors about 2 years ago on the subject of Expenditure Need in the context of providing comparable services for First Nations.^{11, 12} However, the subject was approached in a general way and is, therefore, relevant for measuring expenditure need for the territories.)

The following sub-sections outline the discussion in this paper in four areas:

- Domestic and International Experience in Measuring Expenditure Need
- Alternative Bases of Comparison
- Methods for Measuring Expenditure Comparability
- Methods for Maintaining Expenditure Comparability over Time

¹¹ Zuker, Richard, "Approaches to Measuring and Implementing Expenditure Comparability for First Nations", Prepared for the Transfer Options Technical Table of the National Table on Fiscal Relations on behalf of the Fiscal Relations Secretariat of the Assembly of First Nations, February, 2003.

¹² An electronic version of this report has been provided along with this paper.

3.5.1 Domestic and International Experience

The report briefly describes a range of approaches to the measurement of expenditure need in the following domestic and international type-equalization programs in recent years:

- Financing of Education in Saskatchewan
- Financing Education On-reserve in Saskatchewan
- Financing Education in British Columbia
- Financing Medical Services On-reserve
- Australian Equalization
- German Equalization
- U.K. Financing of Local Government
- Danish Financing of Local Government
- Japanese Financing of Local Government
- Equalization in the Russian Federation

The following conclusions were drawn from these examples.

1. The Canadian equalization program and TFF are outliers in that neither incorporates any direct measurement of expenditure need.
2. Measures of expenditure are used in sector specific program transfers as well as broad-based equalization programs.
3. Measures of expenditure need are used in programs by state governments/provinces, in transfer programs from central governments in unitary states, as well as in transfer programs within federations.
4. Measures of expenditure need in practice vary in structure and content and range from very simple to very complex.
5. Measures of expenditure need are invariably formula-based.
6. Even newly developed governments, such as the Russian federation, have incorporated measures of expenditure need into their equalization program, despite the limited availability of good data.

3.5.2 Expenditure Need Concepts and Methods

ANNEX C summarizes the concepts and methodology discussed in the Expenditure Need paper related to Alternative Bases of Comparison and Methods for Measuring Expenditure Need.

It is noted that the measurement of expenditure need can be based on several distinct concepts of equity:

- (i) Equal per capita or per client
- (ii) Comparable access to services
- (iii) Comparable results

The concept of comparable access to services is almost invariably used as the conceptual basis for measurement of expenditure need.

Two possible approaches to establishing benchmarks are also discussed - geographical comparisons, and “Standards” . It is suggested that standards should be used to the extent possible.

On methodology, ANNEX D identifies the major approaches that have been suggested or applied in practice. It is noted that Expenditure Need is fundamentally a measure of the costs of providing services. The Annex outlines the “Production-Function” (P-F) Model of the Standard Budget Approach that is proposed in the Expenditure Need paper.

3.5.3 Methods for Maintaining Expenditure Need over Time

Once a formulation for expenditure need for a given period (usually a year) is constructed, a method must be selected for maintaining comparability over time. The Expenditure Need report discusses six methods that are or can be used for this purpose.

1. Annual Application of Formulae on a Sectoral Basis
 - The formula for EC is applied to relevant data each year
2. Annual Escalation of Sector-specific Levels
 - Sector specific components of the formula are each escalated by sector specific escalators each year
3. Aggregation and Escalation from Base Year Values
 - the aggregate measure of EC is escalated by a composite escalator each year

Each of these three methods can be applied

- a. With Periodic Review
 - The formula and factors for the measurement of EC are reviewed periodically and modified as appropriate
- b. Without Review
 - The initial measure of EC is never reviewed

yielding 6 methods in all.

In terms of maintaining accuracy of expenditure comparability over time, method (1) is the most preferred and method (3) is the least. Also, method (a) is preferred to method (b).

It is significant to note that almost all the approaches reviewed in the report employ method 1.a. that is, the EN formula is applied each year and the formula is reviewed periodically. Although

the Canadian Equalization program does not involve explicit measurement of EN, method 1.a is applied in the case of the measurement of revenue capacity.

By contrast, the method used for the measurement of EN in TFF is 3.b, the least accurate method of the six.

Additionally, the degree of continuity in the knowledge base amongst officials increases significantly as one moves from (3) to (1) and from (b) to (a). Without the requirement for regular maintenance and application, experience suggests that the based of knowledge will be quickly eroded.

Costs of administration, of course, increase with the accuracy of the method but costs should decline over time as the methodology and data sources become more established. The need for more and higher quality data to maintain the measures of expenditure need can have other benefits, as well, since these data can be also used for other purposes.

3.6 Conclusions

This section covered a wide range of material related to expenditure need for the territories, and in general. Based on this discussion, the authors conclude and recommend the following:

1. If the GEBs for the territories under TFF, ever did represent a reasonable measure of expenditure need, the ad hoc manipulation that have occurred over the last 20 years have likely resulted in measures that no longer represent anything meaningful in that regard.
2. Given the relatively high levels of socio-economic disparities in Nunavut compared to the other two territories, the imputed measure of per capita demand for public services in Nunavut based on the GEBs, at only about 9% higher than for the NWT, strongly suggests that the GEB for Nunavut is too low.
3. Standard Provincial-Local Revenues per capita is a measure of the minimum level of revenues that the federal government deems to be sufficient for the provincial and local governments to meet their expenditure responsibilities, given the standard for Equalization and the level of cash transfers under the CHST (CHT and CST). As such, it could be used a point of comparison for the measure of expenditure need for the territories, and one that is not based on the level of actual provincial-local expenditures.
4. The method used to measure the territorial GEBs, an aggregate escalator applied to a base year value that is never subject to review, is the least accurate measure of the six general methods for maintaining expenditure comparability over time, that are identified. By contrast, the method generally employed in other equalization programs, including the Canadian one, is the application of the formula each year with relevant data, the most accurate of these 6 methods.

5. There are several options that can be considered for addressing the issue of expenditure need in TFF.
- (i) Leave the GEBs unchanged, both absolutely and relatively.
 - (ii) Adjust the GEBs upward, e.g., by at least 5% as a minimum compensation for the double-reduction that was made in the 1995 federal budget. This would not change relative values of the GEBs but would result in a (proportionately) larger transfer to all three territories, if a fixed envelope were not imposed.
 - (iii) Conclude that the relative value of the GEB for Nunavut is too low and make an upward adjustment to the GEB for Nunavut based on some measures of relative expenditure need between Nunavut and the NWT. This would provide a relatively greater transfer to Nunavut at the expensive of the other two territories under a fixed envelope, or an absolutely greater transfer to Nunavut, without affecting the transfers to the other territories, if a fixed envelope were not imposed.
 - (iv) Conclude that the current GEBs do not represent either relative or absolute meaningful measures of expenditure need for the territories and undertake a process to develop such measures over the next several years.

Measures of expenditure need could be developed for major sectors such as health, education, social services, housing, and perhaps, transportation and these relative results could be used as estimates to be applied to other sectors, pending the development of measures for those sectors.

6. The authors believe that developing and utilizing direct measures of expenditure need for the territories, if determined to be feasible, is the preferred option.

To that end, we recommend that an independent body be established with a three-year mandate to attempt to develop estimates of expenditure need for the three territories. If it is decided to attempt to implement expenditure need for the provinces under the Equalization program, then all this work could be undertaken by one body.

4. REVENUE CAPACITY

This section will review issues related to the measurement of revenue capacity in TFF and generally, and make a number of recommendations for improvement.

4.1 Evolution and the Current Situation

When TFF was first introduced, own-source revenue capacity of Yukon and the NWT were measured at 1982-83 tax rates. It is not clear why this was done. It may have been because there was no clear alternative or that most of the effort had been devoted to the much larger expenditure side of the formula and the revenue side was not considered to be of sufficient importance.

Regardless, in the comprehensive review¹⁴ leading up to the 1990-91 renewal of the formula this was seen as problematic for a number of reasons. The tax rates for the Yukon and NWT in 1982 were not the same so that this approach created inequities between the territories. The territories benefited from increases in provincial-local (P-L) expenditures under the PLE escalator but they did not bear any pressure to match provincial increases in tax rates that contributed to those increasing P-L expenditures.¹⁵ This was arbitrary and not consistent with the comparability principle of equalization. The territorial governments were being subsidized by the federal government for low tax effort. This situation could not be allowed to endure indefinitely.

It was decided to see whether the Representative Tax System (RTS) used for measuring revenue capacity for the provinces under Equalization could be applied to the territories. It took a major effort because some of the data used for the provinces were not readily available at the time for the territories. Also, it was desired to introduce the RTS in a way that would not require applying it each year, in order to reduce the administrative burden.

The approach that was adopted, after much consultation with the territories and over significant protest by them, is described in ANNEX D. Initially, the “base” year chosen for the RTS was 1987-88, the most recent finalized year for Equalization at the time of the 1990-91 renewal. It was subsequently updated to 1992-93 as the base year for the 1995-96 renewal. While some work was undertaken to update the RTS to a more recent year for the latest renewal, it was not pursued and 1992-93 continues as the base year.

The introduction of changes to the measurement of own-source revenue capacity were strongly argued to be “perverse” by the territorial governments, because they would end up with less total revenue as their tax base expanded. Indeed, it did appear to be so, unless the implication of using standardized tax rates is fully understood. This effect arises whenever the standardized tax rates,

¹⁴ Conducted by one of the authors while on exchange to the Department of Finance

¹⁵ It was noted, at the same time, that the territorial government bore no comparable burden where increases in P-L expenditures were financed by deficits. A proposal to address this “missing leg” was never introduced.

at which revenue capacity is measured under the formula, exceed the actual tax rates in effect. This so-called “perverse” effect occurs because, as a territorial government’s tax base expands, it loses more in transfers under TFF (because the loss through the formula is measured at the higher standardized tax rates) than it would gain in own-source revenues (at its actual lower tax rates). A similar effect occurs under Equalization, as well, and is well understood in that context.

This effect can only be eliminated by measuring revenue capacity in the formula at tax rates at or below the territorial government’s actual tax rates. This is inconsistent with the comparability principle and would create a non-neutral situation where the recipient government’s tax policy would determine the size of the grant. It would mean that the recipient government would be subsidized for low tax effort. In the extreme, it would be in the financial and political interest of the recipient government to reduce its tax rates to zero. This effect was one of the reasons that led to the introduction of the Economic Development Incentive (EDI), which is discussed in Section 4.6.

4.2 A Proposal for Measuring Revenue Capacity¹⁶: “Multi-Macro”

We would suggest, as a matter of principle, that unless there is sound reason to the contrary, the method used to measure revenue capacity for the territorial governments in TFF should, to the extent possible, parallel that used to measure revenue capacity for the provincial and local governments under Equalization.

There has been much discussion in recent years about two polar extremes for measuring revenue capacity for the provincial governments in equalization:

- The RTS, with separate tax bases for each, or similar, revenue sources
- A single macro measure based on GDP or some measure related to GDP.¹⁷

The RTS is considered by some to be too complex and often arbitrarily applied in the establishment of tax bases and to give rise to various types of distortions and associated incentives for undesirable economic impacts or negative behaviour by provincial governments. On the other hand, a single measure is argued to be no less complex in construction, cannot reflect actual revenue raising policies, and would not treat resource revenues appropriately.

There are many options in between a single measure and the 30+ revenue sources currently used in the RTS. The authors wish to suggest such a measure, which we refer to as a “Multi-Macro” approach to measuring revenue capacity. Under this approach, wherever possible various macro-economic measures, possibly with some adjustment, would be used as a tax base for a group of revenues that essentially tap that measure of economic activity.

¹⁶ In our use of the term revenue capacity in this section, “own-source” is implicit.

¹⁷ The authors would suggest, if a single tax base were contemplated, that GNP, a measure of national income, would be a more appropriate measure or basis for a measure than GDP, a measure of the national value of production.

For example, under this method, the authors would suggest consideration of the following macro-bases:

- (i) The tax bases for personal and corporate income tax would remain as separate bases
- (ii) One or more macro bases based on measures of personal income, personal disposal income, and/or personal consumption of goods and services would be used for the following revenue sources
 - General and miscellaneous sales taxes (paid by persons)
 - Tobacco taxes
 - Gasoline taxes (paid by persons)
 - Diesel fuel taxes (paid by persons)
 - Non-commercial vehicle licenses
 - Revenue from the sale of alcoholic beverages
 - Hospital and medical insurance premiums (paid by persons)
 - Insurance premium revenues
 - Payroll taxes
 - Lottery ticket revenues
 - Other games of chance
- (iii) One tax base based on corporate profits or value added for the following revenue sources:
 - General and miscellaneous sales taxes (paid by corporations)
 - Gasoline taxes (paid by corporation)
 - Diesel fuel taxes (paid by persons)
 - Commercial vehicle licenses
- (iv) A tax base for personal property tax revenues (discussed in Section 4.4)
- (v) A tax base for commercial and industrial property tax revenues (discussed in Section 4.4)
- (vi) A composite tax base for Miscellaneous Provincial-local revenues, as is the case currently.
- (vii) A single tax base for all resource revenues (discussed in Section 4.5)

Some analytical work on a Multiple-Macro approach was undertaken in Federal-Provincial Relations Division a number of years ago and it yielded results quite similar to those under the RTS. Thus, we suggest that in this case simplification could be achieved without sacrificing accuracy

4.3 Fees and Charges

In recent years, the federal government has moved to reduce the extent to which revenues from various provincial and local fees and charges are included in revenues subject to equalization.

It is not clear what the rationale is for this change. Perhaps, it is based on a theoretical perspective developed by Flatters and Boadway about 20 years ago. Or, it may simply be designed to reduce revenue subject to equalization and, therefore, equalization entitlements

In general, the authors are not been in favour of moving in this direction for a number of reasons

Under an equalization scheme based on separate measures of expenditure need and revenue capacity, either

- the expenditures associated with these excluded revenues would also be excluded, or
- both the needs and the revenues would be included.

The fiscal gap would be the same in both cases.

Taxes and fees & charges are generally close substitutes in theory and practice. For example, when the National Accounts were revised by Statistics Canada in 1997, in conjunction with revisions made internationally, a number of revenues sources previously classified as fees and charges were reclassified as taxes. With regard to practice, provincial and local governments often have a choice between taxes and charges (or some combination of the two) for financing services. Consistent with the neutrality principle, this choice should not influence the level of equalization entitlements. By contrast, excluding some portion of fees and charges would have that effect. In particular, under the current revenue-based program, it would result in a reduction of entitlements. Thus equalization-receiving provincial governments may be deterred from introducing user charges where it makes economic sense. Thus, partial exclusion is also not consistent with the economic efficiency objective. Lastly, excluding a portion of fees and charges has the effect of making revenue capacity “disappear” just because of the way revenues are raised, which seems to be inconsistent with the RTS concept.

4.4 Property Taxes

The property tax base has been one of the most conceptually difficult and contentious. The authors – and they are not alone in this -- have come to the following conclusion with respect to the property tax base: the real tax base is based on income levels and not property values.

In our view, property values are used to allocate a given amount of property tax revenue, rather than to set the aggregate amount of revenue.¹⁸ Thus, as property values rise to a greater extent that revenues required to provide services or a level politically acceptable, mill rates will decline.¹⁹ The total level of property tax revenues that can be raised is a function of income levels and not property values, since it is not expected that property tax payers will sell off part of their properties or other assets to pay their property taxes on an on-going basis.

Thus, we propose that some measure of personal income or personal disposal income be used as the tax base for residential property taxes and that some measure of corporate profits or after tax corporate profits be used as the tax base for commercial and industrial property taxes.

¹⁸ In the past and possibly currently, in some cases, frontage is used to allocate the property tax base rather than property values.

¹⁹ One of the authors had proposed undertaking an analytical study to demonstrate whether or not this has been the case.

4.5 Resource Revenues

There are many perspectives on what proportion of non-renewable resource revenues should be subject to equalization and what an appropriate approach to establishing tax bases for resource revenue sources should be.

With regard to the first matter, perspectives have been offered leading to zero per cent, 100% and numerous values in between. For example, the perspective that non-resource revenues represent a transformation of assets from one form to another and not income implies zero per cent inclusion. Alternatively, the perspective that resource revenues are revenues to government and that “a buck is a buck” implies that resource revenues should be fully included in revenues equalized.

Another perspective, that offered by the Breaux Commission, is that resource revenues should be viewed as income in the hands of individuals and corporations, and that revenue capacity should be measured on that basis. The recommendation, therefore, was that the inclusion rate should be based on some composite of provincial person and corporate income tax rates.

Boadway and Flatters argued that, under the so-called “narrow” concept of fiscal equity, fiscal equity could be achieved by an inclusion rate based on the federal governments personal income tax rates on the grounds that resource revenues are not subject to federal taxation

Another perspective offered is that resource revenues should be treated akin to RRSPs, i.e. only taken into account when actually brought into government revenue. Thus, revenues set aside in “heritage”-type funds would not be included in equalization revenues. One of the problems with this approach is that a heritage-type fund could finance much in the way of public services without the revenues passing through the government proper, thus resulting in fiscal inequities among provinces.

Not all these economic perspectives can be correct at the same time.

The authors offer another perspective, based on both principle and practicality. The relevant principle in the authors’ view is that of risk-sharing, given the unstable nature of non-renewable resource revenues. As a practical matter, the authors propose an equal basis, i.e., 50-50 risk-sharing between the federal and provincial governments, implying an inclusion rate of 50%.

There is another important reason, based on the measurement of revenue bases, for proposing a 50% inclusion rate. Theoretically, non-resource revenue tax bases should be based on the value of economic rent. However, the measurement of economic rent is not an easy concept to apply in practice and much judgment must, inevitably, be used. Results obtained are unlikely to be unique. Moreover, estimating economic rent is a complex analytical process.^{20 21}

²⁰

One of the authors undertook a detailed and complex study on the measurement of hydro-electric rent in Canada. The analysis was subject to some justifiable criticism. Estimates developed by another author at the same time lead to a quite different set of results.

In short, we believe that attempting to estimate economic rent as a basis for tax bases for non-renewable resources will lead to a black hole in terms of both complexity and controversy. Moreover, we believe that the achievement of appropriate results does not require detailed estimates of economic rent.

By contrast, the authors propose that the resource revenues themselves be used as the tax base measures. It is the provincial governments' responsibility to extract resource revenues, and in some sectors provincial governments have invested heavily in developing royalty regimes to extract as much revenues as feasible, given the nature of the sector. We are far from convinced that the federal government should attempt to duplicate the expertise of the provincial governments in this matter or that, if it were to do so, it could do a better job.

If equalization is structured so that recipient governments can retain an acceptable share of resource revenues, then they would have a strong incentive to maximize these revenues. The authors believe that a 50% inclusion rate (i.e., a 50% tax-back rate) is sufficient to achieve this result, while at the same time addressing both the risk-sharing issue and reasonable fiscal equity among the provinces and territories.

This proposal offers a number of benefits. For one, all non-renewable resource revenues could be combined together into one single revenue source. Secondly, it would result in uniformity of treatment of all resource revenues in all provinces in all years, rather than the current system which results in highly disparate tax back results (including tax back rates exceeding 100%) depending on unpredictable circumstances. Lastly, it offers simplicity and transparency, which is certainly lacking in the current program and would certainly not be achievable by attempting to apply the concept of economic rent across the range of resources.

4.6 The Economic Development Incentive (EDI)

As noted earlier, one of the reasons for introducing the Economic Development Incentive (EDI) was to reduce the controversy related to the so-called "perverse" effect arising from the introduction of standardized tax rates based on those of the provincial governments. However, even before this issue arose, the Yukon government had proposed a type of EDI and the GNWT was not unsupportive.

In ANNEX E, the authors outline a series of comments on and criticisms of the current EDI and offer several proposals for reform. These cover the following aspects of the EDI:

1. Risk sharing
2. The baseline rate of growth
3. Selection of the base year
4. Presentation (of the EDI calculations in the Formula tables)
5. Unbalanced tax rates

4.7 Conclusions

In summary, we make the following recommendations regarding revenue capacity:

1. To the extent possible, the measurement of own-source revenue capacity for the territorial governments under TFF should parallel that used for provincial-local governments under Equalization.
2. A Multi-Macro approach to the measurement of own-source revenue capacity should be considered for both Equalization and TFF.
3. Fees and charges should be fully included in revenues subject to Equalization
4. The property tax based should be based on measures of personal income and corporate profits.
5. 50% of resource revenues should be included in revenues subject to equalization and all resource revenues should be combined into one tax base with total resource revenues as the tax base measure.
6. Four changes should be made to the EDI in order that it can more effectively serve the purpose for which it was created.
 - 6.1 Rebase the EDI for each territory at each renewal.
 - 6.2 Establish a baseline rate of growth that has a probability of at least 50% of yielding a positive fiscal incentive for each territorial governments.
 - 6.3 Present the full and explicit calculation of the EDI under the revenue side of the formula.
 - 6.4 Apply the Catch Up and Keep Up factors in the same way to determine both actual and baseline revenue capacities.

5. THE EXTERNAL DIMENSIONS OF TFF AND FISCAL EQUITY FOR TERRITORIAL RESIDENTS

The purpose of this section is to examine the so-called “External Dimensions” of TFF and their implications for maintaining fiscal equity for territorial residents vis-à-vis their southern counterparts. It will be recalled from Section 1.2 that the term External Dimensions is used to refer to linkages between TFF and fiscal arrangements between the federal government and the provinces, with other transfer arrangements with the territorial governments, and with fiscal arrangements with or for Aboriginal peoples.

There are three aspects to the External Dimension issue of TFF that need to be addressed in order to ensure fiscal equity for territorial residents:

- (a) The linkage between transfers to the provinces and transfers to the territories through the PLE escalator
- (b) Adjustment for higher costs or needs in the territories
- (c) How the GEBs could be adjusted to achieve fiscal equity

The implications of these aspects for various types of fiscal arrangements are discussed following.

5.1 Specific-Purpose Transfers to Provincial or Local Governments

Suppose the federal government introduces a new specific-purpose transfer program. The question that is being addressed here is: Does the federal government need to provide that transfer program to the territories or will the territories automatically benefit by an equitable amount through the mechanism of the PLE escalator?

There are several considerations that must be taken into account in order to assess whether the PLE linkage provides the appropriate incremental funding to the territorial governments.

One consideration relates to relative costs and needs. The GEBs per capita for the territories are specific multiples of provincial-local expenditures per capita. These multiples may or may not be appropriate to provide comparable levels of service for the program or service for which the specific-purpose transfer is being provided. They may differ because of differences in the relative magnitude of Demand (e.g., in the case of housing), in the relative magnitude of Costs, or both. There should be no automatic assumption that the average “mark-ups” reflected in the general GEB are appropriate for a new, specific program. Each should be assessed on its own merits.

A second consideration relates to the fact that the GEB escalator is based on a lagged three-year moving average. Thus, there will be a lag of any impact on the GEBs for the territories, even if the new federal-provincial transfer translates immediately and fully into provincial government expenditure changes (which would already be a speculative assumption). If the specific-purpose transfer program is time-limited, then the lag effect would fully work its way through to the GEBs two years after the program ends. In order that the timing of the benefit of the transfers to the territories be the same as for the provinces, adjustments would have to be made to eliminate

the lag effect. By contrast, if the specific-purpose program is on-going, then the shortfall in funding to the territorial governments through the lag effect in the first two years would never be made up automatically. The full effect of the lag (not just the timing effect, as in the case of a time-limited transfer) would have to be compensated for.

The third consideration is critical to this question. To what extent, if any, are increased specific-purpose transfers to the provincial or local governments in the provinces actually reflected in changes to provincial-local expenditures? The answer may range from 0% to 100%. Transfer dollars are fungible in provincial and local government finances; they could be used to fund the specific program, fund other programs, or provide a source of financing to reduce taxes or reduce debt. The reality is that there is no way to answer the question with any degree of certainty. This is because the answer requires knowing a counterfactual situation - what would provincial-local government expenditures have been in the absence of the specific-purpose federal transfer in question- which generally cannot be ascertained with any degree of certainty.

Thus, to address this issue directly in a quantitative manner would likely require agreement on an assumption as to what percentage of the specific-purpose transfer to the provincial or local governments in the south would be reflected in increased provincial-local government expenditures- no simple matter to resolve.

Other approaches to addressing this important and contentious issue are outlined in Section 5.5.

5.2 Specific-Purpose Transfers to Aboriginal Groups in the Provinces

In the case of new federal government transfers to Aboriginal peoples in the provinces, there is no reason why Aboriginal peoples in the territories should be denied access to comparable programs.

With regard to adjustments for costs and needs, there is a general similarity of social and economic circumstances of Aboriginal peoples in the provinces and territories. However, prices of goods and services are generally higher in the territories and Aboriginal people in the territories are often more remotely situated.

If the specific-purpose funding to Aboriginal groups in the provinces is for new or enhanced programs, then, by definition, they cannot already be included in the territorial governments' Gross Expenditure Bases.

With regard to the linkage through the PLE escalator, in this case there is no linkage between the transfers to the Aboriginal people in the provinces and the level of funding to the territorial governments through the PLE escalator, since these transfers to Aboriginal groups in the provinces do not flow through provincial or local governments and would not impact on their expenditure levels.

Thus, if additional funding, adjusted for relative costs and needs, is not provided directly to Aboriginal peoples in the territories or to the territorial governments on their behalf (because the

territorial governments may be delivering the services in question), then there is no way that they can benefit from the levels of services comparable to those supported by transfers provided to the Aboriginal peoples in the provinces. Thus, new initiatives or program enhancements for Aboriginal people involving funding that flows directly from the federal government to Aboriginal groups in the provinces, and not through provincial governments, need to be made to (or for) Aboriginal people in the territories with appropriate adjustments for Demand and Costs, if fiscal equity for Aboriginal peoples in the territories is to be maintained.

5.3 Federal Government Direct Transfers to Persons

The federal government recognizes, through its own expenditure policies, that costs of service delivery are higher in the territories. The use of Isolated Post price Indexes to adjust salary levels and other benefits provided to federal government employees resident in the North are clear examples of this fact. In the case of services provided by territorial governments on its behalf, these higher costs must also be recognized or the territorial governments would not undertake them.

The federal government also recognizes that costs and needs are higher in the territories for programs and services for which territorial governments are responsible. This is the reason that the territories are not included in the Equalization program for the provinces and why the GEBs per capita are multiples of provincial-local government expenditure per capita in southern Canada..

Thus, federal benefit programs for individuals funded through TFF and delivered by the territorial governments should be adjusted for cost and need. (For example, the GEBs originally included amounts for social assistance benefits delivered by the territorial governments that were cost shared by the federal government.

What about federal benefit programs that are delivered directly to individuals? True fiscal equity implies that these benefits should also be adjusted for the higher costs in the territories in order to provide comparable benefits on a purchasing power basis.

However, the rule for benefit levels under direct federal transfers to persons in the territories, such as under OAS/GIS and the Child Tax Benefit, is nominal dollar equality, even though the costs of goods and services are much higher in the North.

Moreover, equitable treatment with regard to transfers and credits that are income-tested also requires taking into account the threshold income levels at which tax back occurs. For example, if a transfer or credit begins to be taxed back at \$25,000 in the south, and the general price level is, say 40%, higher in a territory, then equitable treatment would require a tax back income level of \$35,000 in the territory.

5.4 The Federal Personal Income Tax and the Northern Deduction

Fixed nominal income level thresholds for changes in marginal tax rates do not provide for comparable tax treatment for residents in higher cost jurisdictions. For example, when federal marginal income tax rates change from 16% to 22% at a taxable income level of \$31,677, this overtaxes an individual who resides in an area where prices are significantly higher. If, for example, prices were 40% higher, then equitable treatment would require a taxable income threshold of \$44,334 in the higher cost area.

Not changing the threshold for the higher cost jurisdiction would impact on everyone paying taxes. (As noted above, income thresholds for tax credits affect their real purchasing power). For employed persons, the higher level of taxation might result in the need for higher salary and wage rates, possibly negatively affecting employment levels in the territories.

A Northern Deduction in the federal personal income tax system is provided for taxpayers resident in the territories (and northern areas of the provinces). This benefit is a deduction from net income to compute taxable income. The deduction is the same throughout the territories, despite major differences in price levels among communities.

Thus, the Northern Deduction is highly regressive in two ways. First, its value increases with income because it is a deduction and low income workers, who are non-taxable, would not receive any benefit. Secondly, the benefit is worth less in terms of purchasing power in higher cost areas, since it is the same nominal value for all.

When the income tax system was re-indexed several years ago, indexation was not provided to the Northern Deduction. This oversight should be corrected.

More fundamentally, the rationale and structure of the Northern Deduction should be re-examined. Its current rationale is supposedly to provide an incentive for employment in the North. It is not obvious why employment subsidies for Northern workers should be provided through the federal tax system.

The question arises, therefore, whether the rationale for a northern benefit should be rethought and restructured. A more valid rationale for such a benefit might be to make the federal personal income tax system tax more equitable for northern residents.. Thus, consideration might be given to adjusting for this fact through a different structure of a benefit in the federal income system.

Thus, in general a variety of federal tax and benefit provisions should in principle be adjusted to reflect the demonstrably higher northern cost/price levels. Incomplete adherence to this principle means that northerners are left with lower net benefits, placing even higher burdens on territorial governments as they try to meet northern needs.

If this issue cannot be fully addressed directly (by across-the-board adjustments to relevant federal programs), then an alternative way to address the inequity for territorial residents could be to leave the federal programs unchanged but to provide an appropriate increase to the GEBs

under TFF, leaving it to the territorial governments to make the necessary adjustments through their own expenditure or benefit programs.

5.5 Eliminating the PLE Linkage

Although the PLE escalator is, conceptually, a highly appropriate measure for escalating the GEBs over time, its use has become highly problematic in a dynamic environment where changes to existing, or new, federal transfer programs arise on a frequent basis.

The problem is that it cannot be determined with any degree of certainty how changes in federal transfers to provincial and local governments translate into changes in the level of the territorial GEBs. Moreover, even if this could be determined, the change to the GEBs may not be appropriate to achieve fiscal equity for the territories because of inappropriate Demand and/or Costs relationships.

Thus, the authors believe that there should not be a direct relationship between the level of the escalator for the GEBs and actual provincial-local expenditures.

Alternative approaches for establishing and maintaining fiscal equity over time depend on the approach used to measure expenditure need in the territories and the provinces. If expenditure need for the territories were measured each year based on a formula incorporating measures of Demands and Costs, then there need be no linkage between this measure and actual PLE.

If expenditure need were measured by a base year value and escalated over time, then another escalator other than PLE would be required.

One such escalator is Standard Provincial-Local Revenues (SPLR) as described in ANNEX B and shown in Table 3.

To recall, SPLR with the current Equalization program is computed as the sum of:

1. The Equalization standard revenue yield per capita for the five representative provinces multiplied by the total provincial population, plus
2. The CHST (CHT plus CST) plus HRT cash for all provinces

If the current revenue-based standard in equalization were to be based upon, or modified by, measures of expenditure need, then this new Equalization standard would be used in the above formula to determine SPLR.

Regardless as to how the Equalization standard is determined, SPLR is a measure of the revenues that the federal government considers – at least implicitly – adequate for provincial and local governments to fund their programs. It may also reflect federal government affordability concerns with respect to transfers to the provinces. Thus, there would also be no rationale for applying a ceiling to a GEB escalator that is based on this measure.

With a revenue-based Equalization standard, SPLR has some links to provincial government behaviour through national average tax rates in Equalization, but it is not linked directly to their actual expenditures. Thus, rather than tying the GEB directly to what the provinces actually spend – over which the federal government has no direct control – using the SPLR Escalator would base the rate of growth of the GEBs on a rate of growth that would enable this federally-determined standardized level of revenues to be maintained by the territorial governments. Thus, it represents an enabling-based concept rather than a behaviour-based concept. This enabling concept is fully consistent with the principles underling the Equalization program.

The SPLR Escalator would also offer administrative benefits, since it would use calculations that are undertaken for the Equalization and CHST/CHT+CST programs, and would eliminate the need for computing PLE escalators using National Accounts data and Conference Board projections. Federal government projections of their own program values (e.g., for the CHST/CHT+CST cash entitlements) would be used instead.

Additionally, it would link TFF more closely with the Equalization program. Currently, TFF is linked to Equalization for the determination of territorial own-source revenue capacity by using the Representative Tax System of the Equalization program to compute the Catch Up and Keep Up Factors. With the use of the SPLR Escalator, TFF would also be linked to Equalization on the expenditure side of the formula.

Since, the growth in the GEB would no longer be tied to the growth in provincial-local government expenditures, there would be no way for these decisions to impact on territorial funding and no need to attempt to estimate what portion of increases in federal government transfers to the provincial governments translated into increased expenditures. It simply would not matter.

Thus, there would essentially be no issue of increases in federal transfers to the provinces increasing the territorial GEBs through the Escalator. The discussion between the federal and territorial governments could then focus on the fundamental questions of whether the level of funding under a new or enhanced program is sufficient to provide comparable levels of services to territorial residents.

It should be noted that the current population-adjusted PLE escalator is conceptually equivalent to maintaining a constant ratio between a territory's GEB per capita and PLE per capita. Thus, a territory's GEB for year 2 could be determined by applying this ratio for year 1 to PLE per capita for year 2 and multiplying by the territory's population in year 2.²¹ * Devolved programs would be incorporated by adjusting the ratio upward..

Correspondingly, a per capita ratio based on SPLR could be used instead of one based on PLE. The use of an SPLR per capita-based ratio would also have the benefit that it would isolate the GEBs from provincial government expenditure decisions. The focus would then become, where it

21 These calculations would need to be appropriately modified to take account of the 3-year moving average framework for the escalators. 8 x

should be, on the appropriate level of the GEBs per capita relative to SPLR per capita. In the case of program transfers or new or enhanced federal programs, the ratio for each territory could be adjusted, as appropriate, to maintain comparability, given the higher costs and needs in the territories.

5.6 Conclusions

1. Fiscal equity for territorial residents requires looking beyond TFF to consider other fiscal relationships of the federal government through
 - Specific-Purpose Transfers to Provincial or Local Governments
 - Specific-Purpose Transfers to Aboriginal Groups in the Provinces
 - Federal Government Direct Transfers to Persons
 - The Federal Personal Income Tax and the Northern Deduction

For each of these categories, as well, higher demands and/or price levels in the territories should be taken into account.

2. With respect to federal direct personal transfers and income taxes, one approach to achieving fiscal equity would be by means of increases to the GEBs of the territorial governments so that they can adjust their benefits or programs accordingly.
3. Eliminating or replacing the linkage between the GEBs and actual PLE with another measure, such as Standard Provincial-Local Revenues, would eliminate the uncertain and contentious issue as to whether transfers to provincial-local governments benefit the territorial governments through the PLE escalator.

6. MANAGEMENT OF FEDERAL-TERRITORIAL FISCAL RELATIONS²² 9

This section addresses issues related to the management of territorial formula financing. The discussion could also be extended to include other aspects of federal-territorial fiscal relations. The discussion begins with a review of a wide range of management relations that have been established for equalization-type transfer arrangements in other nations, at both the general and specific levels.

One of the institutional arrangements often utilized is an independent body to deal with various aspects of the fiscal relationship. A range of possible mandates for such a commission are then presented and reviewed. Issues related to the governance of such a commission are also briefly examined. The section concludes with a set of recommendations for the management of TFF.

6.1 Some Approaches in Practice

Equalization-type transfer arrangements between governmental levels can be, and often are, a continuing source of tensions. Across the world, governments have adopted a variety of approaches to address intergovernmental fiscal issues. Needless to say, some have been more successful than others in reducing conflict. The approaches used depend on a number of factors, such as: the levels of government involved, e.g., provincial-local, federal-provincial; the form of the political system; and historical traditions. For our purpose, the focus is on equalization-type transfers, including measures of expenditure need, which may span one or a number of sectors.

Approaches used include:

Management by one or more donor government ministers and departments

Oversight and/or decision-making by legislative bodies (sometimes composed of representatives of recipient governments)

- (3) Formal forum of donor and recipient government leaders (one form of “Executive federalism”)
- (4) Informal forum of donor and recipient government leaders (another form of “Executive federalism”)
- (5) Intergovernmental council of donor and recipient government representatives
- (6) Independent advisory body(ies), which may, or may not be, constitutionally based
- (7) Periodic enquiries by legislative bodies
- (8) Periodic enquiries by expert(s)
- (9) Consultation processes with recipient governments
- (10) Consultations with other stakeholders

22 This section draws heavily on Chapter 8 and 9 of the paper on Expenditure Need referred to in footnote 11 in Section 3.5.

Of course, not all of these would be employed for any given transfer system, but often more than one approach might be used. Two major issues that must be addressed are:

- (i) the level of the aggregate transfer
- (ii) The distribution of the transfer amongst potential recipient governments

Some examples are now briefly reviewed to indicate how some of these approaches have been used in different settings.

In the case of transfers from provinces or states to local governments, such as education or health transfers, the relevant donor government department and minister is usually responsible for determining both the level and the formula for the allocation of the transfers. In most cases, the provincial or state governments hold much of the legislative authority, and have much greater access to revenues. Thus, local governments generally face a large vertical fiscal gap, with access to revenues far short of that required to deliver the services that they have been assigned. Thus, the senior governments frequently “hold all the cards”. Consultation processes or special studies or reviews might be conducted from time to time to assess the arrangements, but aside from the budgetary approval process, the legislatures would generally not be integrally involved.

U.K., Japan

In the case of unitary governments, such as the U.K. or Japan, where the national governments receives most of the revenues and hold broad jurisdictional powers, some of which may be delegated to local governments, central government ministers and their departments would usually manage the transfer system. For example, in the U.K., various departments play a role in determining the measures of expenditure need for the services in their area of responsibility. Similarly, in Japan, program standards and funding is tightly controlled by the central government, while the local governments depend heavily on transfers from the central government to finance the delivery of services that have been delegated to them.

Denmark

The Danish system of intergovernmental fiscal relations between the central and sub-national level governments have been praised by some commentators as an example of extensive cooperation and negotiation. Over the last 20 years, a formal system of budget cooperation has developed, and since 1989, this has been based on voluntary agreements between the central government and two organizations representing the counties and municipalities. The two sub-national government organizations operate independently, but do consult regularly. Agreements between the central government and the local authority organizations are not legally binding on individual sub-national governments.

The system involves a formal schedule and co-ordinated approach to multi-level fiscal planning. This process of annual negotiations has attracted interest and been adopted by other governments for a number of beneficial reasons, namely:

- They provide local authorities sufficient time to prepare their budgets with greater certainty about available resources.
- Over time, the negotiations have been expanded to include other issues, such as examining certain legislative changes proposed by the central government.

An important component in budget cooperation is the adoption of the local budget safeguard rule, the so-called “Financing Principle”, by which all new legislation has to be negotiated with local governments to reach agreement on its effects for local government expenditure levels, with compensation via the general grant. Essentially, this means that vertical balance cannot be unilaterally changed by the central government, and requires that central government ministries must explicitly take into account the fiscal implications of their legislative changes on sub-national governments and fund any additional costs for those governments. The principle works in reverse, as well. Any savings for sub-national governments can result in a withdrawal of senior government funding.

The system involves a permanent committee in the Ministry of the Interior, with representation from the two organizations, which conducts reviews and makes preparations for changes of a technical nature. However, these sub-national organizations are often precluded from participating in discussion about changes in distribution under the equalization system, as these are viewed as political discussions.

Canada

In Canada, in the case of federal transfers to provinces and territories, federal government ministers and their departments play important roles. For example, Territorial Formula Financing (TFF) transfers to the territorial government are the responsibility of the Department of Finance, although DIAND administered the antecedent programs. Similarly, Finance is also responsible for the CHST/CHT and CST, a responsibility which it once shared with the departments of the Secretary of State and of Health and Welfare (and subsequently Human Resources Development Canada), when there were separate transfers for health, post-secondary education, and social assistance and social services. In recent years, First Ministers have also been directly involved in negotiating agreements on the aggregate level of the transfer.

In the case of both TFF and Equalization, there are extensive consultations at both the technical and senior officials’ levels prior to the quinquennial renewals, but these are consultations only, and not negotiations (which would imply decision-making powers for the recipients, which has not been the case in the Canadian context).

Similarly, in the case of education and health services on-reserve, the Departments of Indian Affairs and of Health, respectively, manage the programs. These departments determine the funding levels within their overall budgets and the allocation formulae, often with little, if any, on-going consultations with First Nation Band or Tribal Councils.

Germany

In Germany, which has a federal system of government, the federal government receives most of the revenues and holds much of the legislative authority, while the Lander deliver many of the services. However, there is a constitutional requirement (Article 106(3)2) for the federal and Lander (state governments) to “establish a fair balance” between them. Sharing of the VAT plays a key role in maintaining this fair balance. Additionally, the states are represented in the Bundesrat, a federal legislative body, which contributes to maintaining a balance of federal and state governments’ interests in federal government decision-making. By contrast, there is no such legislative body representing provincial/regional interests in the Canadian federal system. Rather, in Canada, as noted above, such political negotiations are generally carried out by Ministers or First Ministers, in a non-constitutionally and non-legislatively-based and irregular process, referred to as “Executive Federalism.”

Australia

There appears to be only a few instances of independent bodies established for the purpose of making decisions, or advising, on the level and/or allocation of intergovernmental grants on an on-going basis. The most important and oldest such institution is the Australian Commonwealth Grants Commission established in 1933 under federal legislation. This Commission has the responsibility to advise the federal government on the annual allocation of the General Revenue Grants among the states and territories. Its recommendations are published and since 1988 are updated annually. It is headed by a Chairman and at least two Commissioners (currently, there are five), who are supported by a staff of about 50, who assemble and maintain data - provided by the Australian Bureau of Statistics, from field studies, and from the States - and who conduct analysis for the purpose of providing and improving the measures of expenditure need and revenue capacity. To improve its data and methods, the Commission relies on internal work and submissions from the state and the federal governments, as well as other stakeholders or interested parties such as local governments, Aboriginal councils, citizens, and academics. The Commission may also hear submissions in camera, in order to provide confidentiality.

The Commission is not authorized to provide advice on the overall level of the General Revenue Grants or on the determination of the size and distribution of Special Purpose grants. It also does not have the authority to initiate inquiries of its own, and is limited to responding to formal references given to it by the responsible Commonwealth minister.

The Commission has established much credibility over the years because of its independence, the quality of its work, its formal procedure of consulting all governments, and its mandate to advise only on allocation, and not the size, of the General Revenue Grants.

With the introduction of the GST in Australia, all of its proceeds will go to the states as a basis for the General Revenue Grants. During a brief transition period, the Commonwealth government will make top-ups based on an agreed-upon formula for increasing the Grants until the GST yield catches up to them for all the states. Thereafter, the aggregate value of the General Revenue Grants will be formula-driven.

This new system replaced a previous attempt at cooperative determination of the aggregate size of the Grants at annual Premiers' Conferences. These annual conferences of the Prime Minister, State Premiers, and Finance Ministers from both levels of government, served as the forum in which the annual aggregate level of the General Revenue Grants in Australia was established. Before each conference, the federal government made a formal written offer of the aggregate amount to the state governments. The recommendations of the Grants Commission were also tabled at this meeting. Although there was a formal voting procedure, usually a consensus was reached on the level of funding, and the Commission's recommendations are usually endorsed. This is an example of Executive Federalism as well, but a process that appears to have been conducted in a much more systematic manner than in Canada.

Prior to that process, there was no systematic approach used to establish the aggregate level of the General Revenue Grants. They were based loosely on the level of federal government revenues, but in the early 1990's were based on such measures as the Consumer Price Index, or federal own-purpose expenditures, because of fiscal pressures. This led to unpredictable year-to-year variation which the states governments criticized as interfering with their ability to undertake medium-term planning.

Thus, although the national government in Australia also has much legislative authority and access to most of the revenues, in recent years it has attempted to work with the states to create and test new formal processes to address the issues of horizontal and vertical fiscal balance.

India

India has also had a Finance Commission, first established about 50 years ago, which makes recommendations on revenue sharing between the federal and state governments for five-year periods. The Commission's recommendations have normally been accepted. As well as making recommendations with regard to vertical fiscal balance, the Commission also makes recommendations regarding horizontal fiscal balance, that is, the allocation of the states' share of revenue among the states. Grants-in-aid, designed to reduce state deficits, are also recommended by this Commission.

Additionally, a Planning Commission approves states' development plans as a condition for federal grants to be paid.

Importantly, in contrast to the permanent Grants Commission in Australia, The Indian Finance Commission is a temporary body that is reconstituted each five years. Recently, the Indian government has examined the establishment of a permanent commission in order to provide for continuity.

South Africa

Under the reformed constitution of South Africa, a Financial and Fiscal Commission (FFC) was established, modeled somewhat on the Australian Grants Commission and the Indian Finance Commission.²³

10

The Commission is established under the constitution, as follows:

220. (1) There is a Financial and Fiscal Commission for the Republic which makes recommendations envisaged in this Chapter, or in national legislation, to Parliament, provincial legislatures and any other authorities determined by national legislation.
- (2) The Commission is independent and subject only to the Constitution and the law, and must be impartial.
- (3) The Commission must function in terms of an Act of Parliament and, in performing its functions, must consider all relevant factors, including those listed in section 214(2).
222. The Commission must report regularly both to Parliament and to the Legislatures.

Section 214 is a key section of the chapter of the Constitution outlining the financial framework for the Republic. It reads as follows:

214. (1) An Act of Parliament must provide for:
- The equitable division of revenue raised nationally among the national, provincial and local spheres of government:
The determination of each province's equitable share of the provincial share of the revenue; and
Any other allocations to provinces, local government or municipalities from the national government's share of that revenue, and any conditions on which those allocations may be made.
- (2) The Act referred to in subsection (1) may be enacted only after the provincial governments, organised local government and the Financial and Fiscal Commission have been consulted, and any recommendations of the Commission have been considered, and must take into account -
- (a) the national interest;
- (b) any provision that must be made in respect of the national debt and other national obligations

23 It is worth noting that Canada, through the International Development Research Centre (IDRC), has played an important role in advising the new government on a range of matters, and in particular has provided direct assistance to this Commission

- (c) the needs and interests of the national government determined by objective criteria;
- (d) the need to ensure that the provinces and municipalities are able to provide basic services and perform the functions allocated to them;
- (e) the fiscal capacity and efficiency of the provinces and the municipalities;
- (f) developmental and other needs of provinces, local government and municipalities;
- (g) economic disparities within and among the provinces;
- (h) obligations of the provinces and municipalities in terms of national legislation;
- (i) the desirability of stable and predictable allocations of revenue shares; and
- (j) the need for flexibility in responding to emergencies or other temporary needs, and other factors based on similar objective criteria.

The equitable division of national revenues lies at the heart of the functions of the FCC and the instructions under Section 214 form an integral part of its mandate.

The legislation, practices and protocols with respect to intergovernmental fiscal relations have been developing since 1994. Since 1998, the process for the establishment of the equitable division of revenue, as required under Section 214 of the Constitution, has been governed by the Intergovernmental Fiscal Relations Act. This Act outlines the roles of various parties including the Minister of Finance, the Financial and Fiscal Commission and others, including Parliament, the Budget Council, the Budget Forum, and provincial and organized local governments.

The role of the FCC extends beyond commenting on Parliament's annual Division of Revenue bills that accompany the annual Budgets. As part of its leadership role in the debate on the equitable sharing national revenue, the FCC

- studies principles for good intergovernmental relations
- undertakes extensive research activities to better inform the basis for decisions, not only for its own recommendations, but by the governments at all three levels
- has begun to strengthen its processes for consultations with stakeholders.
- may participate in other forums in which it may be appropriate to discuss fiscal relations, the equitable division of revenues, and related matters

Currently, the Commission consists of 22 members appointed by the President: a full-time Chair, a Deputy Chair, 9 commissioners appointed by the national government, 9 by the provincial governments, and 2 by organized local government. The commissioners serve five year terms that may be renewed.

6.2 Implications for Federal-Territorial Fiscal Relations

The brief descriptions in the previous section were intended to provide a snapshot of how governments in other countries address issues of vertical and horizontal fiscal balance. Generally, the international examples illustrate approaches that include constitutional, legal, and formal and informal institutional arrangements for attempting to achieve a more balanced and co-operative structure of intergovernmental fiscal arrangements.

It is the view of the authors that Canada could learn and benefit much from examining and adopting some variation of some of these approaches. In the authors' view, experiences over the last 15 years has demonstrated that fiscal relations between the federal and provincial and territorial government have created excessive and unnecessary instability and have not served Canadians particularly well. Certainly, several other countries appear committed to a more collaborative and robust approach to these issues, with conscious respect for interdependent responsibilities and shared decision-making.

In the case of the provinces, there is, to some degree, a potential political balance of power, because collectively the provincial governments represent virtually the same constituents as the federal government. Nevertheless, the federal government has, and does exercise, unilateral²⁴ power over the final say on the levels of the major transfers to the provinces - Equalization²⁴ and the CHST/CHT and CST.

The political balance is much more skewed in the case of the territories, as they are much more fiscally dependent on the federal government, and as their populations are so small. Nunavut, with the federal government providing about 90% of the government's revenues, a population of only about 29,000 residents, and one Member of Parliament, represents the extreme of the three.

The question thus arises - based on the historical success of the Australian Grants Commission, the long history of the Commission in India, and early evidence from the South African Financial and Fiscal Commission - as to whether a similar type of institution might serve the interests of both the federal and territorial governments by fostering more harmonious fiscal relations between them.

The following sections examines some options as to what the mandate of an independent commission for TFF (or wider federal-territorial fiscal relations) might include, how it might be governed accordingly and how it might conduct its operations.

6.3 Possible Roles for an Independent Federal-Territorial Fiscal Commission

An examination of the range of possible roles outlined in this section indicates that they fall into two major categories: one is a policy and research role, and the second is a role with regard to administration. While the policy role is envisaged to be a more important one, and the main

²⁴ In the case of Equalization, for example, entitlements are determined by formulas that are designed by the federal government, and, in 1982, the federal government placed a cumulative GDP ceiling on the aggregate annual transfer.

rationale for an independent commission, it could also be assigned a secondary role in the administration of TFF.

6.3.1 Policy Role

The possible policy roles relate to both the level and allocation of funding. A key issue regarding this policy role is whether an independent commission would have a decision-making, or only an advisory, role with respect to either or both the level and allocation of funding.

(i) Level of Funding

With regard to the level of funding, international experience suggests a general reluctance on the part of funding governments to yield decision-making power on funding levels to appointed bodies, presumably for reasons of democracy and political accountability. Thus, it is difficult to envisage the federal government yielding ultimate decision-making powers in this area to an independent commission.

This does not mean, however, that an independent commission could not play a useful role in the determination of funding levels through an advisory mandate or a “mixed mandate” involving more formal treatment of commission recommendations. With the acquisition of credibility and moral authority over time, as a result of solid analysis, broad consultations and good judgment, it might become a voice respected by both parties, even without formal commitments.

Thus the role assigned to an independent commission with regard to the level of funding could be somewhat stronger than purely advisory, but somewhat weaker than decision-making. There are several ways that this could be arranged.

For example, it could be established, formally or informally, that the recommendations of the commission on the level(s) of funding would prevail, unless overridden, by the federal government, with the requirement for an explicit written statement of the reasons for deviating from the recommendation. Under one type of arrangement of this nature, the commission could operate as does the Governor of the Bank of Canada in relation to the Minister of Finance. That is, the Governor has a wide and independent range of action, but could be subject to “A Directive” from the Minister of Finance to constrain or modify his/her decisions. Since such a situation is not in the interest of either party, such an arrangement would put a strong onus on the commission to make recommendations that would not be overridden by the federal government.

A second approach, giving somewhat greater powers to the commission, could be one where the commission is given decision-making powers with regard to the level(s) of the transfer(s), but the federal government could override that decision in certain prescribed types of exceptional circumstances in accordance with certain procedures.

Another type of arrangement, that could serve as an intermediate one, between an advisory and decision-making role, would be to allow an appeal process by either donor or recipient governments, following an initial decision by the Commission. This would enable another round

of discussions among the parties through the commission. In particular, it would allow the federal government to request the commission to reconsider its decision, prior to a potential decision by the federal government to override the commission's recommendation regarding funding levels.

Yet another set of approaches could be based on the use of a prescribed formula and/or a ceiling(s) for the level(s) of funding. These could be negotiated by the donor and recipient governments, possibly based on recommendations of the commission. If there were an agreed-upon formula in place for the level, this would remove the aggregate funding level decision from the commission. But, if there were only an agreed-upon ceiling, then it could be left to the commission to decide on the level of funding below the ceiling.²⁵

There are, undoubtedly, other possible arrangements that might be considered between a pure advisory role and ultimate decision-making powers by an independent commission, with regard to the level(s) of funding.

(ii) Allocation of Funding

A mandate to recommend or decide upon the allocation of funding among recipient governments could be a most important role for an independent commission.

Again, the role of a commission could range from ultimate decision-making to advisory. An independent commission that had respect of all governments could be given decision-making powers in this area, possibly with an appeal processes available. In the case of an advisory role only, it would have to be determined how final allocation decisions would be taken.

(iii) Principles and Policies

It would be most helpful if an independent commission could develop a set of accepted principles and policies as a basis for its policy-related roles.

6.3.2 Research and Analysis

For participation in either process - for the level of the aggregate transfer or for its allocation amongst territorial governments, and whether its participation is purely advisory or as a final decision-maker, or something in between - an independent commission must have strong on-going, preferably in-house, capacity to undertake relevant research and analysis. This is an essential requirement in order for a commission to gain and maintain the essential credibility required to function effectively in any of these roles. The commission should publish the results of its good quality research and analysis, whether or not it subscribes to the findings.

25 If the Commission were to adopt a "bottom-up" approach to the measurement of expenditure need, then it would be desirable if it were to report whether and to what extent the aggregate of the bottom-up measures differed from the prescribed level or ceiling amounts.

Relevant research and analysis has traditionally been undertaken within the finance ministries in Canada. This was manageable given the overall scope of the transfer programs, and the relatively strong professional staff base both in Ottawa and in provincial capitals. As the programs have developed and grown, and especially as staffs have been subject to budget restraints, it is a question whether adequate R&D could continue to be handled adequately in-house. In any case, challenges for the future, especially if they are to include wider investigation of some options (e.g., expenditure needs analysis) and if they are to engage in more open processes (for improved accountability, transparency and public understanding and participation) suggest a stronger base of professional, dedicated resources. In-house resources will always be needed, and may require strengthening, but more independent outside work also seems desirable, whether by means of a commission or otherwise.

6.3.3 Conducting Consultations

Holding consultations with both donor and recipient governments in order to hear their views on specific or general issues is another essential role in order for a commission to operate with the credibility and respect necessary to function effectively, with respect to either of the policy roles. The commission should publish a record of its proceedings, and submissions should be publicly available.

Internal research and analysis and an open and transparent consultation process are highly complementary functions. The former insures that the commission's work is well-grounded in solid independent evidence. The latter ensures that the commission does not operate in an ivory tower, that it can defend its work, and that it is open to the views and critiques of the governments and population that is serving.

In this regard, there is the issue as to whether an independent commission should be open to submissions or interventions of third-parties, either interest groups or individuals. In Australia, the Grants Commission is open to third-party consultations. In Canada, it is likely essential for a commission of this type to be open to consultations with all interested parties, whether they be institutions or individuals. While this would entail more work on the part of the commission, it would contribute to a more open dialogue on the policy issues, and likely greater acceptance of its decisions and/or recommendations.

6.3.4 Administration of Funding

An independent federal-territorial fiscal commission could take on the role of administering funding on behalf of the federal Department of Finance.

This possibility might be considered if fairly complex expenditure need measures were to be incorporated into TFF.

6.3.5 Reporting and Record-Keeping

Regardless of the nature of its mandate it is important that the commission report regularly to governments and to the public.

Depending on its mandates, the committee should report on its:

- consultations
- research work
- recommendations and/or decisions and their rationales
- the principles, approaches, and methods recommended to measure expenditure need and revenue capacity
- computations of transfer payments and entitlements
- input data and sources
- activities, operations, and finances

6.3.6 Dispute Resolution

If it were recommended by the Expert Panel that an independent commission should not be established for either a policy or program administration role in TFF, then it might consider recommending a body, to be convened as necessary, to address disputes that will, inevitably, arise from time to time related to the administration of the formula.

A dispute resolution body could be given one of the following mandates:

- mediation
- recommending a solution
- arbitration

6.4 Governance Issues

This section briefly addresses some of the key issues that would need to be addressed regarding the governance of a federal territorial fiscal-arrangements commission.

How many commissioners should there be? Reference to the Australian Grants commission suggests that three is an adequate number.

How should commissioners be selected? In order for the commission to have credibility with both the federal and territorial governments, it would be necessary for all governments to be integrally involved in the selection of commissioners. One generally used approach would be for the territorial governments (at least two of them) to select one commissioner, the federal government to select one, and the federal government and at least two of the territories to agree on the chairman.

How long should the term of a commissioner be? How many terms should a commissioner be allowed to serve? These are just some of the issues regarding governance for a commission that would need to be addressed.

How should the commission be staffed? The staff of the commission should be highly qualified in the required areas of expertise. It would also be a good idea for the commission to take in staff on an exchange or secondment basis from the federal and territorial governments for educational purposes and, looking to the future, to operate a cooperative education program particularly for territorial students.

6.5 Conclusions: Possible Directions for Change

If, as recommended by the authors in Section 3.6, measures of expenditure need are to be successfully developed and incorporated in the TFF formula, then we would recommend that the entire formula, both expenditure need and revenue capacity, be determined by an independent commission. The reason for this is that we believe that the proper maintenance of measures of expenditure need on an on-going basis would best be undertaken by a dedicated staff rather than by a constrained number of Finance officials who are likely to be distracted by other matters. Also, measures of expenditure need should ideally be developed by an objective body if they are to gain legitimacy by all parties.

In Section 7 below the authors presents arguments against a fixed envelope for TFF. Without a fixed envelope, the application of a formula developed by an independent commission would result, de facto, in decisions for the levels of funding to each of the territories. Thus, we believe that an independent commission should play a role in the determination of funding levels for TFF, through one of the type of arrangements outlined in the discussion on the Level of Funding in the Section 6.3.1.

Under these circumstances, given its knowledge base, the commission could also be given the mandate to compute payments and entitlements.

If explicit measures of expenditure need are not incorporated into TFF, then it could be remain the role of the Department of Finance in consultation with territorial departments of finance, to manage the formula and the computation of payments and entitlements. In that case, we would recommend that a body be established to participate in the resolution of administrative disputes that may arise. Our preference is first for an arbitration mandate followed by a mandate to make public recommendations.

7. A FIXED ENVELOPE

7.1 Introduction

The federal government recently introduced the “New Framework” for Equalization and TFF whereby the total amount of entitlements for each program would be a fixed pre-determined amount.¹³ Amongst the terms of reference of the Expert Panel is the determination of how these “fixed envelopes” should be allocated between recipient jurisdictions.

While fixed envelopes have applied to both Equalization and TFF in the past under restraint measures, these were, or at least were intended to be, the exception rather than the rule. Basing entitlements on a fixed envelope as an on-going method is quite another matter.

Addressing this issue directly is outside the formal terms of reference for the Expert Panel. From the authors’ perspective, however, this is highly unfortunate since the decision regarding a fixed envelope is critical in determining the transfer program’s potential for meeting its primary, fiscal equity objective of establishing and maintaining comparability across jurisdictions.

This matter, therefore, is of prime national interest given the presence of Sections 36(2) in the *Constitution Act, 1982*, and the general acceptance that this same principle should apply to the territories. The authors believe there are several fundamental problems associated with a fixed envelope approach, for both TFF and Equalization.

Thus, the authors respectfully urge the Expert Panel to consider this critical issue as one of national interest, and to assess and make recommendations on this matter despite its explicit absence from its terms of reference. We would hope as well that the Panel takes into account the perspective and arguments as set out below.

7.2 The Problems Associated with a Fixed Envelope

7.2.1. Fiscal Equity

There are two aspects from the perspective of fiscal equity against a fixed envelope. One relates to the issue of separate envelopes for Equalization and TFF. The second argument against a fixed envelope relates to the objective of fiscal equity within TFF (and correspondingly within Equalization as well).

With regard to the first aspect, currently if fiscal disparities (as measured) for receiving provinces as a group narrow then Equalization entitlements decline, as they should, given the fiscal equity objective. Correspondingly, if fiscal disparities (as measured) for the territories as a group widen, then TFF entitlements increase, as they should given the fiscal equity objective. With separate fixed envelopes for the provinces and territories, there is no way for this type of redistribution to

occur in these circumstances, since total Equalization and TFF entitlements would remain unchanged.

A fixed envelope approach is totally at odds with the comparability objective under Section 36(2). A predetermined envelope that is established independently of evolving fiscal circumstances cannot meet that objective. It turns the whole notion of fiscal equity and the concept of a standard for comparability for the purpose on its head.

We believe that, for purposes of clarity of principle and transparency for these programs, there should be explicit *ex ante* standards that should be met. A predetermined envelope cannot support this objective; essentially it abandons the concept of a standard. Rather, under a fixed envelope, the “standard” is that level that turns out to be consistent (implicitly) with the level of funding, rather than the other way around.

The second problem relates to the relationship of entitlements between the territories. Why should changing circumstances in one territory (e.g., a drop in fiscal capacity or increase in needs) affect the level of entitlements to another territory? Yet that is the nature of the reality under a fixed envelope. While there is some linkage under Equalization between circumstances in one province and the next, this linkage is indirect and occurs through the averaging process under the “Representative” approach.

7.2.2 Stability

One of the major arguments offered by the federal government in support of fixed envelopes was greater stability.

While a fixed envelope undoubtedly provides increased stability and control for the federal government, it does not necessary do so for the territorial governments. In fact, as will be explained following, it could introduce even greater instability for the territorial governments than is currently the case.

Given the small size of TFF in federal expenditures and the national economy, in contrast to the much larger size of these transfers in the territorial governments’ revenues and economies, stability of these transfers to the federal government should be a matter of relatively little import. Primary consideration should be to the territorial circumstances, consistent with overall program goals. Further, as we have argued in Section 2.3.2, the focus with regard to stability for the recipient governments should be aggregate revenues and not the transfer itself.

Currently, the value of a territory’s TFF entitlement is based on its own fiscal circumstances and not in any way linked to those of the other two territories. Thus, for example, a territory’s TFF entitlement will respond oppositely to fluctuations in its own revenue capacity, providing for greater stability in its aggregate revenues. Fluctuations in the GEBs or revenue capacity of the other territories will not impact on the stabilization nature of this arrangement.

By contrast, under a fixed envelope, instabilities in one territory will impact directly on not only its own entitlements but those of the other two territories as well. Such transmission of instability from one jurisdiction to another has been of some concern in Equalization through the averaging mechanism, particularly with regard to the standard. But, in that case the transmission effect is less severe than one could expect for the territories under a fixed envelope for three reasons:

- the effect occurs through an averaging process rather than directly
- there are more provinces than territories
- the provincial economies tend to be more stable than those of the territories.

Thus, even under “normal” circumstances, a fixed envelope can be expected to result in much greater instability for the territorial governments than is currently the case. But circumstances are unlikely to be normal in the coming years. Major development projects, for example the Mackenzie Valley Gas Pipeline, could be expected to introduce much greater instability into the NWT economy. This instability would impact directly, albeit positively, on TFF entitlements to Yukon and Nunavut.

7.2.3 Inconsistency with Basic Criteria

The authors believe that a fixed envelope cannot fully meet the basic criteria given to the Expert Panel with regard to “evidence-based” measures of fiscal disparities and “formula-based” transfers, except in a very secondary form.

What is the point of having evidence-based measures of fiscal disparities if the level of funding essentially ignores these measures?

And how well does a formula-based allocation of a fixed envelope, that is unrelated in magnitude to formula-based measures of fiscal disparities, meet the criterion of formula-based transfers?

7.2.4 Views of the Provincial and Territorial Governments

To the authors’ knowledge, not one of the recipient provincial governments nor any of the territorial governments supports a fixed envelope approach, even though it provides them with guaranteed (and increasing) aggregate increased levels of funding. The fact that that these programs

- are of national importance;
 - are much more significant for the recipient governments than for the federal government ; and
 - must meet the needs of these governments and of federalism generally;
- suggests that a fixed envelope approach would be highly contentious.

7.2.5 Sustainability

The problems outlined above suggest that a fixed envelope approach is likely to be unsustainable over time. To take one simple example, would a fixed envelope that continually fell short of the magnitude of measured fiscal disparities be politically sustainable? Would the federal

government support major windfalls to (say) two territories, if the economy of the third were to enjoy a major surge?

Given these fundamental problems with a fixed envelope approach and the likelihood that it would not be sustainable, and given the potential benefits of the work of the Expert Panel, does it really want to devote excessive effort to devising, as its legacy, an allocation method which will likely be highly contentious and have a very short life? Would a commission make sense, with major efforts to benchmark expenditure needs in the territories, when most of the consequences would be simply to shuffle the predetermined deck?

7.3 Recommendation

The Expert Panel should assess the fixed envelope approach, and based on principled arguments recommend that it not be utilized beyond a brief transition period necessary to design and implement more evidence-based and sustainable formula-driven programs.

8. CONCLUSIONS AND RECOMMENDATIONS

This paper has canvassed a wide range of issues related directly and indirectly to TFF with a view to establishing and maintaining fiscal equity for territorial residents.

It will take a lot of work over several years and a new way of managing in order to fix TFF to provide greater fiscal equity for territorial residents, and to establish improved fiscal relations between the federal and territorial governments.

To that end, following is a recap of our specific conclusions and recommendations, identified by main sections of the paper.

2. Scope of TFF

2.1 Two options for TFF's scope that might be considered:

- (i) Base the GEBs on the standard that is utilized for the province under equalization with relative need adjustments for each territory.²⁶ Under this model, other federal government transfers to the territorial government such as the CHT and CST would be outside of TFF, as they have been outside of equalization for the provinces. Thus, TFF would be structured as a horizontal equalization program consistent with that for the provinces.
- (ii) A continuation of the intended historical model for TFF, which would be highly inclusive but not fully over-arching. It would involve establishing a new level for the GEBs that reflected expenditure needs that fully included the new funding levels of the CHT and CST, as was the case initially, and that would be expanded to fully include local government needs in order to correspond with the circumstances for the provinces.

3. Expenditure Need

- 3.1. If the GEBs for the territories under TFF ever did represent a reasonable measure of expenditure need, the ad hoc manipulations that have occurred over the last 20 years have likely resulted in measures that no longer represent anything meaningful in that regard.
- 3.2. Given the relatively high levels of socio-economic disparities in Nunavut compared to the other two territories, the imputed measure of per capita demand for public services in Nunavut, based on the GEBs that are only about 9% higher than for the NWT, strongly suggests that the GEB for Nunavut is too low.

26 In that model, there would be little rationale to maintain separate envelopes for the provinces and territories, if a fixed-envelope model would be in place. The deficiencies of a fixed envelope model for TFF (and equalization) will be discussed in Section 6.

- 3.3 Standard Provincial-Local Revenues (SPLR) per capita is a measure of the minimum level of revenues that the federal government deems – *at least implicitly* – to be sufficient for the provincial and local governments to meet their expenditure responsibilities, when one considers the existing “standard” for Equalization and the level of cash transfers under the CHST (CHT and CST). As such, it (the SPLR) could be used a point of comparison for the measure of expenditure need for the territories, and one that is not based on the level of actual provincial-local expenditures.
- 3.4. The method used to measure the territorial GEBs, with an aggregate escalator applied to a base year value that is never subject to review, is the least accurate measure of six general methods for maintaining expenditure comparability over time. By contrast, the method generally employed in other equalization programs, including the Canadian one, is the application of the formula each year with relevant data, the most accurate of these 6 methods.
- 3.5 There are several options that can be considered for addressing the issue of expenditure need in TFF.
- (i) Leave the GEBs unchanged., both absolutely and relatively
 - (ii) Adjust the GEBs upward, e.g. by at least by 5% as a minimum compensation for the double-reduction that was made in the 1995 federal budget. This would not change relative values of the GEBs but would result in a (proportionately) larger transfer to all three territories, if a fixed envelope were not imposed.
 - (iii) Conclude that the relative value of the GEB for Nunavut is too low and make an upward adjustment to the GEB for Nunavut based on some measures of relative expenditure need between Nunavut and the NWT. This would provide a relatively greater transfer to Nunavut at the expensive of the other two territories under a fixed envelope, or an absolutely greater transfer to Nunavut, without affecting the transfers to the other territories, if a fixed envelope were not imposed.
 - (iv) Conclude that the current GEBs do not represent either relative or absolute meaningful measures of expenditure need for the territories and undertake a process to develop such measures over the next several years.
- Measures of expenditure need could be developed for major sectors such as health, education, social services, housing, and perhaps, transportation and these relative results could be used as estimates to be applied to other sectors, pending the development of measures for those sectors.
- 3.6 The authors believe that developing and utilizing direct measures of expenditure need for the territories, if determined to be feasible, is the preferred option.

To that end, we recommend that an independent body be established with a three-year mandate to attempt to develop estimates of expenditure need for the three territories. If it is decided to attempt to implement expenditure need for the provinces under the Equalization program, then all this work could be undertaken by one body.

4. Revenue Capacity

- 4.1 To the extent possible, the measurement of own-source revenue capacity for the territorial governments under TFF should parallel that used for provincial-local governments under Equalization.
- 4.2 A Multi-Macro approach to the measurement of own-source revenue capacity should be considered for both Equalization and TFF.
- 4.3 Fees and charges should be fully included in revenues subject to Equalization
- 4.4 The property tax based should be based on measures of personal income and corporate profits.
- 4.5 50% of resource revenues should be included in revenues subject to equalization and all resource revenues should be combined into one tax base with total resource revenues as the tax base measure.
- 4.6. Four changes should be made to the EDI in order that it can more effectively serve the purpose for which it was created.
 - (i) Rebase the EDI for each territory at each renewal.
 - (ii) Establish a baseline rate of growth that has a probability of at least 50% of yielding a positive fiscal incentive for each territorial government.
 - (iii) Present the full and explicit calculation of the EDI under the revenue side of the formula.
 - (iv) Apply the Catch Up and Keep Up factors in the same way to determine both actual and baseline revenue capacities.

5. External Dimensions

- 5.1 Fiscal equity for territorial residents requires looking beyond TFF to consider other fiscal relationships of the federal government through
 - Specific-Purpose Transfers to Provincial or Local Governments
 - Specific-Purpose Transfers to Aboriginal Groups in the Provinces
 - Federal Government Direct Transfers to Persons
 - The Federal Personal Income Tax and the Northern Deduction

For each of these categories, as well, higher public needs and/or price levels in the territories should be taken into account.

- 5.2 With respect to federal direct personal transfers and income taxes, one approach to achieving fiscal equity would be by means of increases to the GEBs of the territorial governments so that they can adjust their benefits or programs accordingly.
- 5.3 Eliminating or replacing the linkage between the GEBs and actual PLE with another measure, such as Standard Provincial-Local Revenues, would eliminate the uncertain and contentious issue as to whether transfers to provincial-local governments benefit the territorial governments through the PLE escalator (the contentious “flow-through” issue), while also improving the conceptual linkages between TFF and transfers to provinces.

6. Managing TFF

- 6.1 If, as recommended by the authors in Section 3.6, measures of expenditure need are to be successfully developed and incorporated into the TFF formula, then we would recommend that the entire formula, both expenditure need and revenue capacity, be determined by an independent commission.

The reason for this is that we believe that the proper maintenance of measures of expenditure need on an on-going basis would best be undertaken by a dedicated staff rather than by a constrained number of Finance officials who are likely to be distracted by other matters. Considerable work would be needed, and the issues are complex. We believe that measures of expenditure need developed by an independent body can make faster progress and gain greater legitimacy, for the public as well as for governments themselves.

- 6.2 In Section 7 the authors presented arguments against a fixed envelope for TFF. Without a fixed envelope, the application of an appropriate formula would result, de facto, in decisions for the level of funding to each of the territories. Thus, we believe that an independent commission should play a role in the determination of funding levels for TFF, through one of the type of arrangements outlined in the discussion on the Level of Funding in Section 6.3.1.
- 6.3 Under these circumstances, given its knowledge base, the commission might also be given the mandate to compute payments and entitlements.
- 6.4 If explicit measures of expenditure need are not incorporated into TFF, then it could be remain the role of the Department of Finance in consultation with territorial departments of finance, to manage the formula and the computation of payments and entitlements. In that case, we would recommend that an explicit process (perhaps an independent body) be established to participate in the resolution of administrative disputes that may arise. Our

preference is first for an arbitration mandate followed by a mandate to make public recommendations.

7. A Fixed Envelope

- 7.1 The Expert Panel should assess the fixed envelope approach, and based on principled arguments, recommend that it not be utilized beyond a brief transition period necessary to design and implement a program that is truly evidence-based and formula-driven.

ANNEX A

FACTORS AFFECTING EXPENDITURE NEEDS IN THE TERRITORIES

This section provides a brief overview of some of the unique geographic, demographic, social, and economic circumstances in the territories that cause the cost of providing public services to be much higher than in the provinces.

1. Higher Price Levels

Prices of most goods and services are generally higher in the territories than in the provinces, because of their northern location and less accessible and small communities.

Statistics Canada maintains Isolated Post Price Indexes (IPPI) for the Treasury Board as a basis for wage and salary adjustments for federal employees in over 500 communities, designated as isolated, including all the communities in the territories. The indexes are based on comparison of retail prices of a sample of goods and services in the community with one of 7 southern “base” cities that is considered to be the major source of supply for that community. It is important to note that these indexes do not take account of differences in shelter costs, but they are the only indicators available that provide an indication of living cost differentials in the territories.

As noted, the price index in each community is compared to a southern base city. In addition, Statistics Canada publishes retail price indexes for southern cities relative to the national average. Thus, the product of a community’s IPPI and the retail price index for its base city, provides a measure of the Living Cost Differential (LCD) for that community relative to the nation average. The LCDs can then be weighted by community populations to produce a composite LCD for each territory.

Based on data for recent years, the Composite Living Cost Differentials range from 130.0 in the NWT to 164.0 in the Nunavut. Of course, there are more remote communities with much higher LCDs, since the composite LCDs are heavily weighted by the more accessible and larger capitals.

**ESTIMATES OF LIVING COST DIFFERENTIALS
NUNAVUT, NWT, YUKON, 1997/98
(CANADA=100.0)**

	YUKON	NWT	NUNAVUT
RECENT ESTIMATES 1997/98	140.3	130.0	164.0
DATES FOR DATA			
IPPIs	FEB/MAR 98	FEB/MAR 97	FEB/MAR & SEP/OCT 97
INTERCITY PRICES	OCT 97	OCT 97	OCT 97
COMMUNITY POPU.	1999	2000	1999

2. Community Size

The following table shows the average community sizes for the three territories, based on the 2001 Census of Population.

The average community population for the three territories was just under 1,000, and quite similar to that for each territory. Excluding the capital, however, the average community size was only 545, ranging from only 225 in the Yukon to 768 in the Nunavut.

COMMUNITY SIZE IN THE TERRITORIES, 2001

	YUKON	NWT	NUNAVUT	TOTAL
POPULATION				
CAPITAL	20,695	16,541	5,236	42,472
OTHER	6,758	20,804	21,509	49,071
COMMUNITIES				
UNORGANIZED	1,221	15		1,236
TOTAL	28,674	37,360	26,745	92,779
NO. OF COMMUNITIES				
CAPITAL	1	1	1	3
OTHER	30	32	28	90
COMMUNITIES				
UNORGANIZED				
TOTAL	31	33	29	93
AVERAGE COMMUNITY SIZE				
CAPITAL	20,695	16,541	5,236	14,157
OTHER	225	650	768	545
COMMUNITIES				
UNORGANIZED				
TOTAL	925	1,132	922	998

3. Population Density

The table below compares the population density (population per square kilometre) of the territories to Canada, as a whole, and Newfoundland and Labrador, the province with the lowest population density.

The population density of Canada as a whole is 240 times that of Nunavut, the jurisdiction with the lowest population density. The population density of Newfoundland and Labrador is 100 times that of Nunavut's. The other two territories have somewhat higher densities than Nunavut, 2.4 times for the NWT and 4.3 times for the Yukon. Nevertheless the population density of Canada is 56 times that of the Yukon, and that of Newfoundland is 23 times that of the Yukon.

POPULATION DENSITY, 2001

YUKON	NWT	NUN	NFLD & LAB	CANADA
(POPULATION PER SQUARE KILOMETRE)				
0.060	0.033	0.014	1.384	3.330
INDEX (NUN. =1.0)				
4.3	2.4	1.0	99.6	239.7

4. Population Dispersion

Neither of these statistics above adequately portray the remoteness and difficulties of access to many communities in the three territories. Consider the following distances, by air:

The more accessible communities are quite distant from major southern cities:

- Iqaluit is 2,000 kilometers from Montreal
- Rankin Inlet is 1,100 kilometers from Winnipeg
- Yellowknife is close to 1,000 kilometers from Edmonton
- Whitehorse is close to 1,500 kilometers from Vancouver
- Rankin Inlet is close to 1,200 kilometers from Iqaluit and 1,100 kilometers from Yellowknife
- Grise Fiord is 1,800 kilometers from Iqaluit
- Cambridge bay (Nunavut) is close to 1,000 kilometers from Yellowknife
- Inuvik is 1,100, Kilometers from Yellowknife

Nunavut spans three time zones.

Many communities have no or only limited access by road, air, or sea. For example, in the case of Nunavut, there is no road access to any of the communities. There is access by air, weather permitting. There is access by sea during the short summer season. Thus, many commodities must be brought in during this limited shipping season and stored for up to a year. Many communities in the other territories have similar constraints on accessibility, which is one of the important factors underlying their higher living costs.

In addition to this remoteness and limited access is the longer and generally colder winter season, which raise heating and other living costs.

5. Aboriginal Population

The following table provides estimates of the aboriginal share of population in the territories, Canada, as a whole, and Manitoba and Saskatchewan, the provinces with the greatest shares of Aboriginal population.

ABORIGINAL POPULATION PROPORTION, 2001						
	YUKON	NWT	NUN	SASK	MAN	CAN
POPULATION ABORIGINAL^{1/}	6,990	18,955	22,860	135,035	160,250	1,319,890
TOTAL	28,520	37,105	26,670	963,150	1,103,695	29,639,035
%	24.5	51.1	85.7	14.0	14.5	4.5
ABORIGINAL						

1/ BY ORIGIN

A large proportion of Aboriginal people face very large social and economic disparities compared to the population as a whole. Aboriginal people represent a large share of population in the territories, about 25% in the Yukon, over 50% in the NWT, and 86% in Nunavut. This compares with less than 5% for Canada as a whole and about 14-15% in Saskatchewan and Manitoba, the provinces with the highest share of Aboriginal population. However, in the case of these and the other provinces, a large proportion of Aboriginal people are First Nations who resides on reserve and receive many of their public services from the federal government. By contrast, most of the public services for all Aboriginal people are the responsibility of the territorial governments.

The high percentages of Aboriginal people in the territories are, unfortunately, reflected in many of the social and economic disparities faced by the territories. Some of these disparities are presented following.

6. Age Structure

The following table provides statistics on the age structure of the population in the three territories compared to the nation as a whole.

The population in the three territories is generally much younger than in Canada as a whole.

The median age of the population in 2001 ranged from 36.1 in the Yukon, to 30.1 in the NWT, to only 22.1 in Nunavut, compared to 37.6 in Canada as a whole. Additionally, Population age 0-24

accounted for 34.7% of the population in the Yukon, 42.2% in the NWT, and 54.5% of the population in Nunavut, compared to 32.4% in Canada. On the other hand, population age 65+ accounted for a lower proportion of the population.

The ratio of the population age 25-64 to the population age 0-14 & 65+ is a measure of the dependency rate. It measures how many people of working age are available to support each member of the more dependent age groups. Nunavut has a ratio of 1.5 compared to 2.1 for Canada, indicating fewer working age people for the dependent population. The NWT's ratio, at 2.2, was similar to Canada's, while the Yukon's, at 2.7, was higher.

This dependency ratio only provides a potential measure of support for the dependent population, since it does not take into account the proportion of the working age population that is available for work or, more importantly, actually employed. These measures are reviewed in the next section.

AGE STRUCTURE OF THE POPULATION, 2001

	YUK	NWT	NUN	CANADA
MEDIAN AGE				
	36.1	30.1	22.1	37.6
POPULATION				
AGE 0-14	6,030	10,110	9,925	5,725,535
AGE 15-24	3,930	5,650	4,655	4,009,140
AGE 25-44	9,455	12,860	8,030	9,096,565
AGE 45-64	7,525	7,115	3,545	7,287,305
AGE 65+	1,730	1,640	595	3,888,550
TOTAL	28,670	37,375	26,750	30,007,095

POPULATION STRUCTURE (%)

AGE 0-14/TOTAL	21.0	27.1	37.1	19.1
AGE 15-24/TOTAL	13.7	15.1	17.4	13.4
AGE 0-24/TOTAL	34.7	42.2	54.5	32.4
AGE 65+/TOTAL	6.0	4.4	2.2	13.0
AGE 0-14 & 65+/TOTAL	27.1	31.4	39.3	32.0
AGE 25-64/AGE 0-14 & 65+	2.7	2.2	1.5	2.1

7. Labour Market Participation

The table below compares the major labour market indicators for the territories compared to the national average.

Although the Labour Force Population (population age 15+) was a lower proportion of total population in the territories than for Canada, the participation rates, the population working or unemployed as a proportion of the population age 15+, was greater than the national average in all three territories. Unemployment rates were higher in the three territories, ranging from 9.5% in the NWT, to 11.6% in the Yukon, to 17.4% in Nunavut, compared to 7.4% nationally. The proportion of population age 15+ employed was notably higher than the national average in the Yukon and NWT, but lower in Nunavut. Adjusting for the higher proportion of young people age 0-14, the proportion of population employed was 55.3% in the Yukon, 50.3% in the NWT, and only 35.1% in Nunavut, compared to 49.0% nationally. Thus, dependency, based on employment, rather than population of labour force age, measured as employment as a percentage of population was lower than the national average in the Yukon and the NWT, but higher in Nunavut.

LABOUR MARKET INDICATORS, 2001 CENSUS

	YUK	NWT	NUN	CANADA
NUMBER				
TOTAL POPULATION	28,670	37,375	26,750	30,007,095
LABOUR FORCE POPULATION (LFP)	22,485	26,940	16,680	23,901,360
LABOUR FORCE (LF)	17,950	20,785	11,355	15,872,070
EMPLOYMENT	15,860	18,815	9,380	14,695,135
RATIOS (%)				
LFP/POPULATION	78.4	72.1	62.4	79.7
PARTICIPATION RATE	79.8	77.2	68.1	66.4
UNEMPLOYMENT RATE	11.6	9.5	17.4	7.4
EMPLOYMENT/LFP	70.5	69.8	56.2	61.5
EMPLOYMENT/POPULATION	55.3	50.3	35.1	49.0

8. Educational Attainment Levels

The following table provides statistics on comparative levels of educational attainment by population in the territories and the nation.

The percentage of population age 25-64 without a high school diploma was 37.6%, in Nunavut much higher than the 22.6% in Canada. The proportion for the NWT, 24.9%, as slightly higher than the national rate, while the proportion in the Yukon, 16.5% , was significantly lower than the national rate.

INDICATORS OF EDUCATIONAL ATTAINMENT LEVELS, 2001

	YUK	NWT	NUN	CANADA
	NUMBER			
POPULATION AGE 25-64	16,980	19,975	11,575	16,383,870
POPU WITHOUT HIGH SCH	2,795	4,970	4,355	3,698,235
TRADE CERT. OR DIPLOMA	3,045	3,380	1,500	2,097,140
COLLEGE	3,510	3,600	1,900	2,917,895
UNIVERSITY	3,960	3,845	1,355	3,676,630
TOTAL POST-SECONDARY	10,515	10,825	4,755	8,691,665

PERCENTAGE OF POPULATION AGE 25-64 (%)

POPU WITHOUT HIGH SCH	16.5	24.9	37.6	22.6
TRADE CERT. OR DIPLOMA	17.9	16.9	13.0	12.8
COLLEGE	20.7	18.0	16.4	17.8
UNIVERSITY	23.3	19.2	11.7	22.4
TOTAL POST-SECONDARY	61.9	54.2	41.1	53.1

A similar set of relative circumstances existed for post-secondary educational attainment levels. The proportion of the population age 25-64 with post-secondary education in Yukon, at 61.9%, was much higher than the 53.1% national average, while the rate of 54.2% for the NWT was similar to the national rate, and the 41.1% for Nunavut was notably lower than the Canadian average

9. Personal Income per Capita

The table below provides estimates of income per capita in the three territories compared to the national average. The territorial income levels are adjusted for the Living Cost Differentials in order to attempt to provide comparative estimates based on real purchasing power.

Per capita income adjusted for cost differences ranged from only 51% of the national average in Nunavut to 81.3% in the Yukon, to 104.4% in the NWT.

PERSONAL INCOME PER CAPITA, 2000

YUK	NWT	NUN	CANADA
30,774	36,659	22,519	26,999

LIVING COST DIFFERENTIAL

140.3	130.0	164.0	100.0
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REAL PERSONAL INCOME PER CAPITA

21,938	28,199	13,734	26,999
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INDEX (CAN=100.0)

81.3	104.4	50.9	100.0
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SOURCE: PROVINCIAL ECONOMIC ACCOUNTS, 2000, TABLE 17

10. Social Assistance Beneficiaries

The following table provides estimates of the number of social assistance recipients as a percentage of the population for the three territories compared to the national average, in March, 2002.

The percentage was 3.4% in the Yukon, less than 60% of the national average 5.9%, and 5.2% in the NWT, about 90% of the national average. By contrast, about 28% of the Nunavut population was receiving social assistance, close to 6 times the national average.

**NUMBER OF SOCIAL ASSISTANCE RECIPIENTS
AS A PERCENTAGE OF POPULATION, MARCH 2002**

	YUK	NWT	NUN	CANADA
NO. OF S.A RECIPIENTS	1,000	2,100	8,100	1,842,600
ESTIMATED POPULATION	29,552	40,071	29,016	31,260,388
RECIPIENTS /POPULATION	3.4	5.2	27.9	5.9

(%)

INDEX (CANADA=100.0) 57.4 88.9 473.6 100.0

SOURCE: HRDC SOCIAL POLICY

11. Housing Conditions

The following table provides some indicators of housing conditions in the three territories compared to Canada as a whole.

The percentage of dwellings needing major repair varies from 170% of the national average in Yukon to 230% of the national average in Nunavut.

	HOUSING CONDITIONS INDICATORS, 2001			
	YUK	NWT	NUN	CAN
% OF DWELLINGS NEEDING MAJOR REPAIR	13.9	16.04	18.9	8.2
INDEX (CANADA = 100.00)	169.5	195.6	230.5	100.0
NUMBER OF PERSONS PER ROOM	0.42	0.52	0.71	0.41
INDEX (CANADA=100.0)	102.4	126.8	173.2	100.0
ADJ. NUMBER OF PERSONS PER BEDROOM*	0.78	0.92	1.21	0.73
INDEX (CANADA=100.0)	106.6	126.0	165.7	100.0

SOURCE: 2001 CENSUS OF POPULATION

*** Married and common law couples treated as single person**

The next two measures are indicators of the degree of crowding, which can affect many aspects of socio-economic circumstances from family violence to educational attainment. The number of persons per room in Nunavut was about 27% higher than the national average in the NWT and 73% higher in Nunavut. The situation on the basis of bedrooms was similar.

12. Crime Statistics

The following table provides crime rates for the three territories relative to the national average for 2003. Overall crime rates were between 3 and 4.5 times the national average in the territories. Rates for crimes of violence were comparatively even higher, 4 times for Yukon, 7 times for the NWT and over 8 times for Nunavut. Similarly, the rate for property crimes was about 5 times the national average in Yukon, 7.5 times in the NWT, and 6.5 times in Nunavut. These rates are

likely a reflection of the severe social and economic problems, particularly among the Aboriginal populations.

CRIMES BY OFFENCES, 2003				
	YUK	NWT	NUN	CAN
	RATE PER 100,000 POPULATION			
ALL INCIDENTS	28,409.50	39,802.30	36,496.10	8,884.80
INDEX (CAN=100.0)	319.8	448.0	410.8	100.0
CRIMINAL CODE (EXCL. TRAFFIC)	25,998.10	36,864.70	34,774.00	8,132.40
INDEX (CAN=100.0)	319.7	453.3	427.6	100.0
CRIMES OF VIOLENCE	3,799.10	6,792.10	7,943.10	962.8
INDEX (CAN=100.0)	394.6	705.5	825.0	100.0
PROPERTY CRIMES	7,421.10	7,219.60	7,221.60	4,121.40
INDEX (CAN=100.0)	180.1	175.2	175.2	100.0
OTHER CRIMINAL CODE	14,777.90	22,853.00	19,609.30	3,048.30
INDEX (CAN=100.0)	484.8	749.7	643.3	100.0

ANNEX B**ESTIMATES OF IMPUTED RELATIVE TERRITORIAL EXPENDITURE NEED AND DEMAND****TABLE 2: ESTIMATES OF IMPUTED RELATIVE TERRITORIAL EXPENDITURE NEED AND DEMAND, 2003-04**

The price levels used are those shown in Section 3.1. Estimating appropriate and comparative GEBs levels is not that straightforward. We utilize the “Base” GEBs, i.e., the initial values in 1985-86 before any adjustment for program transfers, escalated to 2003-04, less the 5% reduction in the GEBs as a result of the 1995 federal budget. We exclude the reduction to the GEBs for the Economic Development Incentive (EDI).^{1,2} These values are shown in (2) in Table 2.

Applying the formula for expenditure need to these values per capita in (3) allows a derivation of imputed estimates of demand per capita for the three territories (at constant prices) in (4) and thus, relative demands in (5).

TABLE 3: ESTIMATED OF TERRITORIAL ADJUSTED GEBs COMPARED TO STANDARD PROVINCIAL-LOCAL REVENUES, 2003-04

For the purpose of this comparison for 2003-04, the Base GEBs are augmented by the values of the CHST plus the Health Reform Transfer (HRT) that are excluded from Eligible Revenues, i.e. the CHST plus HRT transfers that the territorial governments retain on a net basis above the TFF grant, as shown in (2).

Also added to the Base GEBs for comparison with the provinces are local government general revenues (actual revenues, not measured at standard tax rates). These values are shown in (3)

Conceptually, the sum of these three components,(shown in (4)), the GEB (ignoring the excluded program transfers), net CHST and HRT revenues, and local general government revenues provide a measure of the level of revenues that the federal government implicitly deems to be sufficient for the territorial governments to deliver reasonably comparable levels of services. The per capita values of these adjusted base revenue estimates for the three territories are shown in (6).

-
1. For Yukon, this value is readily available from the formula tables, while this is not so for the NWT and Nunavut. Only someone who really understands the formula could derive these values without great difficulty. This is one simple example of a lack of transparency that was never addressed.
 2. In any case, this reduction for the EDI should never have been made to the GEBs. The EDI is a revenue-based measure and to deduct it from the GEB conceptually, distorts the latter as a measure of expenditure need.

For comparison with the provinces, we use a measure we call “Standard Provincial-Local Revenues” (SPLR). It consists of the level of own-source provincial-local revenues for the provinces computed at the equalization per capita revenue standard (7.1). This value of revenues for the provinces is shown in (7.3). To this is added CHST Cash plus the Health Reform Transfer to all provinces (7.4) to yield the aggregate measure of SPLR (7.5) and the per capita measure (7.6). Conceptually, this is a per capita measure of provincial-local revenues that the federal government implicitly deems to be adequate for the delivery of provincial-local government services.

The per capita base revenues for the territories and SPLR for the provinces are compared in (8) and in index form in (9), which can be viewed as represent imputed indexes of relative expenditure need based on the federal government’s funding levels. On this basis, expenditure need in Yukon is about 3.3 times the provincial average, it is 3.1 times the provincial average in the NWT, and 4.23 times the provincial average in Nunavut.

Adjusting (deflating) the measures of expenditure need for estimates of relative price level difference (10) yield measures of imputed demand (11) and indexes of relative demands for public services by these governments (12).

The adjusted base revenue estimates for the territories in Table 3 yield very similar indexes of demand in the 3 territories as those computed in Table 2 based on the Base GEBs alone - about 68% (compared two-thirds) for Yukon relative to the NWT and about 8% (compared to 9%) higher for Nunavut than the NWT.

ANNEX C

EXPENDITURE NEED CONCEPTS AND METHODS

1. Alternative Bases for Comparison

(i) Geographic comparisons

Geographic comparisons or comparisons among jurisdictions are frequently used as a basis for benchmarks for similar services. Equalization programs often use national averages as the benchmark. For example, this is the case in Australia, Germany, and Denmark. In the Canadian equalization program, the national average standard was changed to a “Representative Five-Province “standard in 1982. In the case of First Nation self-government agreements, geographic benchmarks have been used, as well. For example, The Council of Yukon Indians Self-government Agreements use Yukon as a standard, and the Nisga’a Final agreement uses northwestern British Columbia as the area of reference.

In most of these cases, the selected benchmark is often a starting point, that is then subject to adjustment based on specific relevant demand and/or cost factors.

(ii) Standards

Standards often play an important role in regulating the provision of public services (as well as private services). These standards generally reflect the (minimum) characteristics of the public services that the government or professional bodies require or believe should be maintained, and correspondingly, that the public generally expects to be available.

Standards may be codified in a number of different forms, such as the constitution, legislation, regulations, policies, program guidelines, recommendations of expert bodies, etc. As such, these standards may have different degrees of compulsion, ranging from absolutely required to suggested.

Regardless, these standards can serve as a sound and useful basis for establishing measures of expenditure comparability. There are a number of different types of standards and their efficacy for this purpose may vary.

There are a number of different types of standards that are discussed in some detail in the report:

- Output standards
 - principles
 - client eligibility (actual or potential)
 - service levels

- Input standards
 - input quality
 - input ratio
 - economy/dis-economy of scale factors
 - cost standards

Various types of these standards may be used together in the measurement of expenditure need.

2. Methods for Measuring Expenditure Need

A number of countries have adopted a set of principles or guidelines for the measurement of expenditure need.

For example, in Denmark, the selection of variables for the measurement of expenditure need must meet the following criteria:

- a common characteristic observable in each authority
- related to specific significant costs of that authority
- objectively and frequently measurable
- reflects quickly and adequately changes in expenditures
- cannot be influenced by local policy
- different in effect from other criteria

In Sweden, the following criteria have been adopted for identifying factors to be used to measure structural costs differences:

- theoretically viable
- intuitively understandable
- practically applicable
- generally accepted

The report identifies and comments on a number of basic methods that have been proposed or utilized for measuring expenditure need.

- Regression Approach
- Factors Approach
- Representative Expenditure System
- Standard Budget Approach

It is noted in the report that the measurement of expenditure need ultimately involves the measurement of the cost of service (relative or absolute) and, accordingly, a “Production-Function” (P-F) Model of the Standard Budget Approach is proposed as a methodological approach.

Under this model, expenditure need would be measured as the ‘product’ of the following factors:

$$EN = N * S * I * J * P * K$$

where, for a given recipient government,

EN represents Expenditure Need

N represents the Number of clients in various client categories

S represents the standard quantities of Services for each client category

I represents the standardized quantity of inputs required for each standardized quantity of services

J represents the effects of factors on the standardized quantities of inputs

P represents standardized Prices of the inputs, and

K represents the effect of factors on standardized price levels of inputs

The first four factors can be viewed as components of Demand while the last two factors can be viewed as components of Cost.

Benchmarks or Standards may be incorporated into this formulation in a number of areas, for example:

- the services to be included and standard levels for those services
- the type and number of eligible or actual clients for the services in standardized client categories
- the standard quantities of each services for a standard client in a standard category
- the factors taken into account and the adjustments to be made for how these factors affect the level of demand for services for the client categories, e.g. relevant demographic or socio-economic circumstances
- the standard types and standard quantities of inputs required per standard units of services
- the factors to be taken into account and the adjustment for how these factors affect the quantities of inputs required to provide the standard levels of services, e.g., scale, sparcity
- the standard prices for the inputs
- the factors to be taken into account and the adjustment for how those factors affect the prices of inputs or costs of service delivery, e.g., remoteness, harsh climates

Thus, this Production Function model consists of the following components:

- Clients
- Services
- Inputs
- Factors affecting input requirements
- Prices of inputs
- Factors affecting prices, and
- Benchmarks or Standards (as noted above)

ANNEX D**DESCRIPTION OF THE USE OF THE REPRESENTATIVE TAX SYSTEM
TO MEASURE TERRITORIAL GOVERNMENT
OWN-SOURCE REVENUE CAPACITY**

Initially, the base year was 1987-88.

The formula for measuring revenue capacity is the following:

O-S revenues in the formula at territorial own Base Year tax rates (1)

X

$\frac{\text{Terr. Base Year Revenue Capacity under RTS at National Average Tax Rates}}{\text{Terr. Base Year Actual Revenues under RTS}}$ (2)

X

0.85 (for Northern circumstances) (3)

X

Product of year-over year ratios for the years following the base year of: (4)

$\frac{\text{All Prov. Revenue Yield at Year (t+1) Tax Rates applied to Year t Tax Bases}}{\text{All Prov. Revenue Yield in Year t}}$

In the original formula, these territorial revenues were measured at 1982-83 tax rates. Instead, they would now be measured at Base Year tax rates. So, once the adjustment was made, this entailed no additional administration on an on-going basis.

(2) is referred to as the “Catch-up Factor”. Note that it involves the application of the RTS to the territories only for the base year.

The effect of the Catch-up Factor is to adjust the actual revenue of the territorial government at its own tax rates, to revenue capacity measured at National average Tax Rate (NATRs), based on the RTS.

Note the first component and the denominator of the Catch-up Factor are not the same, as the tax base used by the territorial government and that used in the RTS differ and because the revenue sources included in (1) are not the same as those included in the denominator of

the Catch-up Factor (which included local government revenue. Thus, this formulation does not modify the revenue sources included in the formula - it only makes an adjustment to the tax rates.

The 0.85 included as (3) was introduced in an attempt to take into consideration the fact that the RTS has some comparability limitations in its application to the territories. For one, there are some revenue sources, such as the capital tax, which it was considered to be infeasible for the territorial governments to levy. More important was the comparability of the personal income tax system in the territories to those of the provinces given that, at the time, the federal government controlled the tax brackets. The brackets are in nominal dollar terms and not in comparable purchasing power terms. Thus territorial residents pay higher taxes in purchasing power terms. The Northern deduction is an imperfect adjustment and limited in application as a compensating adjustment.

It should be noted that the RTS applied to the territories included the general sales tax base, even though the territories do not levy a sales tax but excluded resource revenues, as the territorial governments did not have access at the time-essentially, their tax bases were zero.

The product of (1), (2), and (3) yields an adjusted measure of the territorial governments' revenue capacity in the base year at NATRs in that year. Component (4), referred to as the "Keep-up Factor" was included to maintain comparability with provincial tax rates over time, based on the RTS.

It is computed as the product of ratios of total provincial government revenue capacity measured at tax rates in one year divided by the provincial government revenue capacity at tax rates in the immediately preceding year. This is a measure of (1 plus) the percentage change in average tax rates over the year. Thus, purpose of this factor is to adjust the NATRs in the base year to the NATR in the current year.

In both the numerator and denominator of the Keep-up Factor, the tax base and revenue definitions are the same as those used in the initial year, so that the ratios would not be affected by changes in definitions over time. Tax base and revenue definitions under the RTS do change over time and it becomes increasingly difficult to compare years that are far away in time. For that reason, the Keep-up factor was introduced as a product of year-over-year ratios, rather than the ratio of the current year to a much earlier base year.

ANNEX E

THE ECONOMIC DEVELOPMENT INCENTIVE (EDI)

This Annex discusses several problems with the current structure of the EDI and proposes approaches for addressing them.

1. Risk Sharing

It has been suggested by the territorial governments that, if the EDI is to act as a true incentive, then the possibility of a reduction in the grant should not arise. This could imply, for example, that negative results would be set at zero.

One could make an argument for this structure, but the argument made at the time that the EDI was introduced was that it should take the form of modest risk-sharing between the parties. Risk sharing would, in principle, not create an incentive for a territorial government to make excessively risky decisions since bad decisions could result in a reduction in the grant.

There are other ways to skew the risk other than providing for zero reductions, for example, by applying a lower percentage to negative than positive values, but a “symmetric” risk-sharing approach was taken at the time.

Apparently, the GNWT would prefer to increase the risk-sharing percentage to 30% from the current 20%. This is not surprising given that it is now experiencing a positive incentive that is likely to endure.

Originally, it was intended that it could be left to each territorial government to determine how much risk it was willing to accept within some range. Thus, uniformity among territories was not considered essential. With a symmetric risk-sharing design, each territory would have to make a balanced decision, given its circumstances and expectations. If there was no potential for losses or the losses and gains were treated asymmetrically (with greater gains than losses), then a territorial government would likely choose a higher percentage. Thus, symmetry creates a framework for a balanced decision on risk. Of course, this decision would be changeable by a territorial in the next renewal.

The federal government agreed to introduce an EDI on the principle that it should be symmetric in terms of risk-sharing, that is, the territories should be able to retain a share of revenues resulting from increases in tax bases provided that they would, correspondingly, share in reductions in tax bases. The parties agreed on risk-sharing at 20% for the territorial governments and 80% for the federal government, i.e., an inclusion rate of 80% instead of 100%.

In conclusion, the authors are supportive of an EDI for the territories, in principle, as long as it is balanced (for increases and decreases in tax bases) in terms of risk-sharing. The authors have no difficulty with different risk-sharing rates for the territories, within reasonable bounds.

2. The Baseline Rate of Growth

Both Yukon and Nunavut have been experiencing losses quite consistently in recent years, under the EDI, which detracts from the purpose as an economic development incentive.

The main reason for the losses for the territorial governments that are being generated by the EDI is that the baseline growth rate, to which the actual rate of growth of revenue capacity is compared, is simply too high. The rate of growth currently used is the GEB escalator. Thus, a lower rate of growth should be used in order to create a more balanced probability that the EDI will provide a positive incentive, rather than just act to reduce the grant.

Thus, we offer the following proposal for reform. At a minimum, the baseline growth rate should reflect some rate of inflation, since the EDI should apply to real and not inflationary revenue gains. For this purpose, the CPI is probably the administratively easiest because it is available with only a short time lag and not subject to revision.

Another option to measure inflation would be the Final Domestic Demand Chain Price Index from the National Accounts. (The Chain Price Indices have now replaced the Implicit Price Deflators in the National Accounts.) These are quarterly measures and, of course, subject to the usual National Accounts re-estimation procedures. Comparison over the 1990's suggests that the CPI and the FDDCPI are fairly similar.

Applying only an inflation factor to establish the baseline rate of growth would be more "generous" on the part of the federal government and provide a greater probability that the EDI would, in fact, provide positive gains for the territorial governments.

However, the baseline rate of growth should also include some real growth factor, so that the territorial governments would gain only for economic performance exceeding that real rate of growth. One possibility is some percentage of real GDP, say 50%. An approximation of inflation and 50% of real GDP growth would be about 70% of nominal GDP. (2% inflation plus 50% of 3% real growth is 3.5%, which is 70% of 5% nominal growth).

One question is whether the baseline rate of growth should be adjusted for population. In the view of the authors, it should not be. Differential population growth probably plays a minor role in generating revenue for the territorial governments, particularly, when most, if not, all of that differential growth is currently driven by higher birth rates - babies do not add much revenue capacity. If a population factor were to be applied, it should be based on population of labour

force age, not total population, and it probably isn't worth the administrative burden for such a small fiscal matter.

As noted in Section 4.6.5 following, the baseline revenue capacity should be measured at the same tax rates as actual revenue capacity.

3. The Base Year

It appears that the intention is to retain the present base year (1995-96) indefinitely.

This creates several potential design problems. First, as can be seen from past performance, it is quite likely that actual revenue capacity and the base line value can get significantly out of line in a short period of time. In particular, once the gap becomes negative for a territory, it can become very difficult for it ever to become positive again for the foreseeable future. Thus, the EDI loses its ability to become a positive incentive. On the other hand, if it becomes positive for a territory, the incentive could begin to grow progressively larger over time.

If there is no rebasing, then, because of this potentially large gain by a territory, it is quite understandable that the federal government would be reluctant to allow a baseline escalator that is likely to create such large gains indefinitely. Thus, it would tend to insist on a high value, which it has.

There is another important perspective on the issue of rebasing. The EDI was initially intended to serve as a modest and short term incentive for current decision-making, and not as an indefinite reward for long past decisions. This perspective, together with the recognition of potential great variability in territorial revenue capacity, implied that it was the intention to reset the base value at each renewal of the agreement. The base line value for each territory would be determined by its revenue capacity experienced at the time of rebasing. With this approach, it becomes much more possible for a baseline growth rate to be set that would likely yield a modest fiscal incentive and would prevent the incentive value from getting out of hand, either positively or negatively.

In summary, the base value should be rebased for each territory at renewal of the agreement. Several options for setting a base are set out below.

The base is currently set in the first year of the current formula. Thus, the EDI does not apply in the first year. This need not be the case; the EDI could be based on recent year(s) of the previous agreement period. This would allow the EDI to apply in the first year of an agreement. Also, it would allow the base value to be known at an earlier date, thus reducing uncertainty as to the true values of the EDI.

It is important to note that, if the EDI is to serve its purpose as a short term fiscal incentive, the base value should be based on where territorial revenue actually is, and not some unrelated hypothetical value.

Thus, one simple option is to choose the value in the last year of an agreement as the base value for the subsequent agreement. However, since territorial government own-source revenues tend to be relatively unstable, a more appropriate base value might be one based on an average of the last three years of an agreement. In this case, the revenues for the two earlier years should be adjusted by some measure of inflation to bring them up to the same constant dollars of the latest year, before averaging.

4. Presentation

The EDI is a revenue incentive and, accordingly, it was intended that it would be shown in the formula calculation under the revenue side. Thus, the net gain or loss would be transparent and readily evident.

The EDI has nothing to do with the GEB. Nevertheless, somehow, the presentation became separated, with the base line value presented as a reduction against the GEB. Determining the net effect required comparing these two items on different sides of the formula - hardly straightforward and transparent.

In the case of the Yukon, the reduction from the GEB is shown in the presentation of the formula calculations. However, the presentation is even less transparent for the GNWT and Nunavut under the current agreement, when it was decided that the baseline rate of growth would be the GEB Escalator. Mathematically, then, this baseline value could be subtracted from the GEB without affecting the calculation. (This can only be done if the GEB escalator is used as the EDI baseline growth rate.) One now needs to reconstruct the baseline value from the base year in order to determine the value of the EDI in any year. This also distorts the GEB, conceptually, as a measure of expenditure need. This form of presentation is the antithesis of simplicity and transparency.

This separation also created a conceptual error in the calculation of the EDI, which is described in the following section.

5. Unbalanced Tax Rates

The Catch Up and Keep Up factors are applied to the actual revenue capacity for the purpose of measuring the EDI on the revenue side of the formula. This adjustment provides that the EDI be

applied to the measure of the territorial government's revenue capacity at the standard tax rates used to measure revenue capacity in the current year. The baseline value of revenue capacity should also be measured at the same tax rates, as the EDI is supposed to be a measure of differences in revenue capacity only, and should not be influenced by differences in tax rates. Thus, the Cumulative Keep Up Factor from the EDI Base year to the current year should be

applied to the baseline measure of revenue capacity (since the base year value of revenue capacity will be based on the Catch up Factor and Cumulative Keep Up factor at that time. Thus, the comparison of revenue capacity between actual and the baseline value will be made at the same tax rates, the standard rates in effect in the current year.

As a result of the separation and presentation of the baseline revenue on the expenditure side of the formula, the baseline revenue has not been adjusted for these tax rates. This would be easy to do and obvious, if the baseline revenue was presented along with actual revenues on the revenue side of the formula and if the full EDI calculation were done there.