

Titre: Four Studies on the Canadian Equalization System
Title:

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Date: 2014

Type: Article de revue / Article

Référence: Dahlby, B., Feehan, J., Ferede, E., & Joanis, M. (2014). Four Studies on the Canadian Equalization System. SPP Communiqués, 6.
Citation: <https://doi.org/10.11575/sppp.v7i0.42476>

Document en libre accès dans PolyPublie

URL de PolyPublie: <https://publications.polymtl.ca/3625/>
PolyPublie URL:

Version: Version officielle de l'éditeur / Published version
Révisé par les pairs / Refereed

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Document publié chez l'éditeur officiel

Titre de la revue: SPP Communiqués (vol. 6)
Journal Title:

Maison d'édition: University of Calgary
Publisher:

URL officiel: <https://doi.org/10.11575/sppp.v7i0.42476>
Official URL:

Mention légale:
Legal notice:

Volume 6 • Issue 6
September 2014

SPP Communiqués are brief articles that deal with a singular public policy issue and are intended to provide the reader with a focused, concise critical analysis of a specific policy issue.

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The University of Calgary is home to scholars in 16 faculties (offering more than 80 academic programs) and 36 Research Institutes and Centres including *The School of Public Policy*. Under the direction of Jack Mintz, Palmer Chair in Public Policy, and supported by more than 100 academics and researchers, the work of The School of Public Policy and its students contributes to a more meaningful and informed public debate on fiscal, social, energy, environmental and international issues to improve Canada's and Alberta's economic and social performance.

FOUR NEW STUDIES OF THE CANADIAN EQUALIZATION SYSTEM

Bev Dahlby, Jim Feehan, Ergete Ferede and Marcelin Joanis[†]

On January 28 and 29, 2014, the University of Calgary's School of Public Policy (SPP) sponsored a conference on equalization reform. The event provided a forum for current and former federal and provincial officials, academics from Canadian, Spanish and German universities, as well as students from the Master of Public Policy program at the SPP, to explore the issues surrounding this often-contentious program. Four leading Canadian academics in the field, Bev Dahlby, Jim Feehan, Ergete Ferede and Marcelin Joanis, delivered papers at the conference, each advocating a particular path forward for Canada's equalization system. This commentary provides a summary of their proposals and arguments for reform.

[†] The authors wish to acknowledge the helpful comments of the anonymous referees.

An Overview of the Canadian Equalization System

The equalization system has been a cornerstone of intergovernmental fiscal relationships in Canada since 1957, when the federal government introduced a grant system to reduce the differences in revenue-generating capacity among the provinces. Ottawa's commitment was later formalized when the equalization system was enshrined in the Constitution Act, 1982. Under the equalization system, provinces with below-standard fiscal capacity receive equalization grants, while those with per capita fiscal capacity above the standard do not. The equalization grants are funded out of the general revenues of the federal government. In 2014-15, \$16.7 billion in equalization payments will be made to six provinces — Prince Edward Island, Nova Scotia, New Brunswick, Quebec, Ontario and Manitoba.

Designed to enable provincial governments to provide reasonably comparable levels of public services for their residents at reasonably comparable tax rates, equalization grants are determined by a formula based on three sets of key parameters: the national average tax rate, the per capita standard tax base and a province's per capita tax base. The national average tax rate is the ratio of the tax revenue collected by all provinces to the sum of the tax bases of all provinces for a particular tax source, such as the provincial personal income tax. The representative average per capita standard tax base for each relevant tax category is determined as the sum of the tax bases of all the representative "standard"¹ provinces divided by their total population. For each relevant tax category, a province's own per capita tax base is its tax base divided by its total population. The equalization grants entitlement for each revenue tax category is then computed by multiplying the difference between the per capita standard tax base and the province's own per capita tax base by the national average tax rate. The resulting values are then combined for all of the revenue sources to determine if a province has a net per capita deficiency.²

In the first stage of determining a province's equalization payment, the total sum of equalization grant entitlements from all relevant revenue categories is calculated. If this sum is positive, then the province is categorized as a receiving province and is eligible for an equalization grant equal to its per capita fiscal deficiency.³ However, if the sum of entitlements from the categories is negative, the province's fiscal capacity exceeds the national standard fiscal capacity and it is not entitled to equalization payments.

The second stage in determining equalization payments involves caps on individual provinces' equalization payments and a ceiling on total equalization payments to all provinces. The cap is intended to prevent a recipient province from having a greater equalization-inclusive fiscal capacity than a non-recipient province. Thus, for any recipient province, its equalization entitlement is reduced to the extent that its fiscal capacity, including 100 per cent of its natural resource revenues plus its equalization entitlement, exceeds the cap. For any recipient

¹ The definition of "standard" provinces has changed a few times in the past. For most years prior to 1982, all ten provinces were included in the standard. From 1982-2006, however, the federal government used a five-province standard, consisting of the tax bases of Quebec, Ontario, Manitoba, Saskatchewan and British Columbia. Ottawa once returned to the ten-province standard in 2007.

² The one exception is resource revenues. In this case, entitlements are based on fifty per cent of the difference between the average per capita provincial resource revenue and a province's per capita resource revenue.

³ The total federal equalization grant for a province is determined by multiplying its per capita fiscal capacity deficiency by its total population.

province, equalization entitlement is reduced to the extent that its fiscal capacity, including 100 per cent of its natural resource revenues, plus its equalization entitlement exceeds the cap. In 2009, the federal government imposed a ceiling on total equalization payments and restricted future growth in total equalization payments to the rate of nominal GDP growth. If total equalization entitlements exceed the ceiling, then each recipient province's equalization grant is reduced by an equal per capita amount.

Canada's Equalization Formula: Peering Inside the Black Box ... and Beyond

by Jim Feehan

The procedure for computing equalization entitlements is complex and it is sometimes referred to by its critics as a black box. Feehan's paper sheds light on this black box by describing the evolution of the equalization system, particularly the major changes that were introduced in 2007 following the publication of the Expert Panel report.⁴ In Feehan's view, the most problematic change was the implementation of a ceiling on total equalization payments. While the ceiling was introduced to make federal expenditures under the program more predictable and affordable, it has meant that total equalization payments have become less and less reflective of the fiscal disparities across provinces. The fundamental principle that payments should rise and fall alongside increases and decreases in fiscal disparities is violated by this allocation rule. Feehan estimates that the ceiling has resulted in a cumulative reduction of \$10.9 billion in equalization payments, with the largest reduction (more than \$4.5 billion) occurring in 2010/11, but most recently in 2013/14 the reduction was only \$0.37 billion.

While Feehan supports the idea of eliminating the ceiling on total equalization grants, he acknowledges that the federal government will have to do something if the disparities in the fiscal capacities of the provinces continue to grow, resulting in mushrooming equalization payments over the long term. His solution would be to reduce the Canada Health Transfer (CHT) and Canada Social Transfer (CST) payments to the provincial governments with above average fiscal capacities according to some proportional or progressive scale, with a limit on the maximum fraction the grants could be reduced, say 50 per cent.⁵ The effect of this change would be to shift the equalization claw-back away from recipient to non-recipient provinces.⁶

The inclusion rate for natural resource revenues in the equalization calculation is one of the most important and controversial aspects of the system (the current rate is 50 per cent). The asymmetric treatment of resource revenues is not a new phenomenon. Throughout the history of the program, natural resource revenues have been treated differently from the other major sources of tax revenue. The inclusion of natural resource revenues in the equalization grant system has always presented difficulties because:

- natural resources, especially high-revenue yielding oil and gas, are very unevenly distributed across the provinces compared to other revenue sources, which drives up equalization entitlements;

⁴ Expert Panel on Equalization and Territorial Formula Financing, *Achieving a National Purpose: Putting Equalization Back on Track* (Ottawa: Department of Finance Canada, 2006).

⁵ In 2014-15, Ottawa transferred \$32 billion to the provinces through the Canada Health Transfer and another \$12.5 billion through the Canada Social Transfer.

⁶ This assumes that to start with the per-capita Canada Health Transfer and Canada Social Transfer are adequate, which is an important but separate issue of vertical fiscal imbalance.

- the provinces own the natural resources within their borders, and the Constitution, gives them the sole right to impose royalties on them, so the federal government is excluded from this source of natural resource revenue; and
- determining natural resource fiscal capacity is fraught with major measurement problems. As a result, since 2007, resource revenues rather than proxies for fiscal capacity have been used to calculate equalization entitlements. Doing so, however, creates the perverse incentive for recipient provinces to lower their taxes/royalties on natural resources to benefit residents while being cushioned by increased equalization entitlements.

Another controversial issue is the treatment of remittances from provincial Crown corporations engaged in resource extraction, especially those of the provincially owned hydro corporations. The federal government has adopted the Expert Panel recommendation that the remittances of hydro-electric Crown corporations be included in the natural resource revenue category in calculating equalization payments. Feehan notes that remittances from other provincially owned commercial enterprises are included in the Business Income Tax category for equalization purposes, and he recommends that the remittances of hydro corporations should be removed from the natural resource revenues category and included in the Business Income Tax category. Going beyond equalization, Feehan suggests that it may be time to reconsider the practice of exempting commercial Crown corporations from federal income tax.

Another issue concerning provincially owned hydro corporations is the under-pricing of electricity rates by charging low water rentals and/or realizing low returns on hydro corporation capital. This benefits provincial households and businesses while increasing a province's equalization entitlements relative to a situation where market-determined prices are charged and the economic rents from hydro developments flow into the provincial government's general revenues. According to data presented by Feehan, three traditional equalization recipients, Newfoundland and Labrador, Quebec and Manitoba, collected \$0.07, \$3.36 and \$3.45 per MWh in water power rentals respectively, while British Columbia and Ontario collected \$8.40 and \$5.00 respectively. Feehan argues that it is now time to deal with this issue because the development of competitive wholesale electricity markets in North America has resulted in prices that can serve as indicators of the value of electricity. Also, with the current low natural gas prices, wholesale electricity prices have softened, and therefore, the transition to market prices for valuing potential hydro revenues will not cause an immediate dramatic shift in equalization entitlements, especially if water rentals remain subject to the 50 per cent inclusion rule for resource revenues.

Revenues from user fees are currently not included in the calculation of provincial governments' fiscal capacities. Feehan argues that municipal governments' user fees are a substitute for municipal property taxes, which are included in the equalization formula, and therefore, municipal user fees should be included in the calculation of a province's fiscal capacity. He argues that this reform is completely feasible since the user fee revenues are known and the same tax base, residential property values, would continue to be used. The only implication of including municipal user fees would be an increase in the national average tax rate for the property tax revenue category, and therefore an increase in the national average tax rate. Feehan argues, however, that other provincial user fees, such as university tuition, should not be included in the equalization formula, because provincial fees are tied to a gamut of activities, making it inherently difficult to identify the appropriate base let alone measure it accurately, and provincial governments' reliance on user fees is relative small. As a practical matter, therefore, adding provincial user fees would likely be of negligible significance.

While the equalization system reduces the differences in the provinces' revenue-raising capacities, it does not address the differences among the provinces in terms of the cost and needs of providing public services to their respective populations. The feasibility of incorporating costs and needs has recently been demonstrated by work conducted by Gusen.⁷ His prototype study for the fiscal year 2008-09 shows that while the overall total of equalization payments would decrease only slightly, its allocation would change greatly, largely to Ontario's benefit and Quebec's detriment. Given the expenditures associated with the provinces' areas of responsibility, Feehan argues that extending equalization entitlements to include expenditure needs and costs would be akin to opening Pandora's Box, both with respect to the open-ended nature of provincial spending and provincial government autonomy in their areas of expenditure responsibility. In his view, a preferable approach is for the federal government to adjust the CHT and the CST to reflect relevant demographic and other considerations that affect needs within the set of provincial programs that these grants are intended to help support.

Finally, Feehan notes that a number of commentators have argued that recipient provinces receive too much equalization and that this is damaging to the national economy. However, this "over-equalization hypothesis" has been challenged in a recent study by McMillan who concludes that equalization spending has not been rising relative to overall federal spending or as a percentage of national GDP.⁸ Furthermore, while recipient provinces tend to have higher tax rates, overall per capita spending by recipient and non-recipient provinces is roughly the same. Feehan concludes that worries about over-equalization are overstated, arguing that concerns about excessive expenditures by recipient provinces has yet to be borne out. Moreover, spending on equalization has not changed much relative to national income or total federal spending, indicating that if there is over-equalization, it is not a growing problem.

Reforming Equalization: Balancing Efficiency, Entitlement and Ownership

by Bev Dahlby

Dahlby addresses a number of the same policy issues as Feehan. He argues that any reforms to the equalization system have to balance concerns about the "efficiency" effects that arise from federal financing of the transfer and the incentive effects on provincial fiscal policies, the entitlement to reasonably comparable public services at reasonably comparable levels of taxation and the "ownership" of natural resources by provincial governments. Achieving a fine balance of these goals is not easy, and inevitably there will be differences in the emphasis that commentators and government officials place on each.

Dahlby evaluates five recent proposals for reform of the equalization system:

- Lowering the inclusion rate for natural resource revenues;
- Removing the ceiling on total equalization payments to the recipient provinces;

⁷ Peter Gusen, "Expenditure Needs: Equalization's Other Half," Mowat Centre 46. (Toronto: Mowat Centre, School of Public Policy and Governance, University of Toronto, 2012).

⁸ Melville L. Millan, "Alberta and 'Equalization': Separating Fact from Fiction or Sorting Out Some Implications and Options in Canadian Fiscal Federalism," Information Bulletin, Number 155 (Edmonton: School of Business/Western Centre for Economic Research, University of Alberta, 2012).

- Exempting resource revenues deposited in provincial sovereign wealth funds from the calculation of a province's fiscal capacity;
- Basing the CHT and the CST on the fiscal capacities of the provinces; and
- Incorporating cost and needs factors in the calculation of equalization entitlements.

Dahlby argues that lowering the inclusion rate for resource revenues from 50 per cent to 25 per cent would increase the incentive for provinces to develop and tax their natural resource bases. Halving the inclusion rate would also decrease the financial pressure resource development places on Ottawa vis-à-vis equalization, helping, in particular, to alleviate the problem that arises when higher equalization are not match by comparable increases in federal tax revenues.

Dahlby's proposal to reduce the inclusion rate is connected to his proposal to eliminate the ceiling on total equalization grants. Introduced by the federal government in 2009 to limit its financial commitments as a result of increases in provincial resource revenues, the ceiling fixes total equalization payments to the recipient provinces. This limits risk sharing from provincial fiscal shocks. If the fiscal capacity of one recipient province goes down, the equalization payments to the other recipient provinces are reduced, while federal taxpayers in the non-recipient provinces are not directly affected. The removal of the ceiling on total equalization entitlements would help to spread the burden of the adverse provincial fiscal shocks to all federal taxpayers in Canada. If the elimination of the ceiling were combined with a reduction in the resource revenue inclusion rate from 50 per cent to 25 per cent, the efficiency and effectiveness of the equalization program would be improved while maintaining approximately the same level of total equalization transfers to the provinces.

Exempting resource revenues that are deposited in provincial sovereign wealth funds from the calculation of equalization entitlements would reduce fluctuations in equalization entitlements, but it would not reduce total entitlements in present value terms. It would also involve complex calculations if it were applied to all forms of savings by the provinces, such as debt reduction, and would not alter the resource-rich provinces' incentives to save more of their resource revenues. It is for these reasons that Dahlby argues this proposal should be rejected.

As noted in Feehan's paper, there have been proposals to reduce the CHT and the CST to provinces with above average fiscal capacities. Dahlby argues that this proposal should be rejected because it would reduce the incentive of the resource-rich provinces to develop and tax their resources. More importantly, it would negate the purpose of these block transfers, which is to reduce the vertical fiscal imbalance between the federal and the provincial governments.

Also, as addressed by Feehan, the recent work by Gusen shows that addressing variations in costs and needs in the computation of the equalization entitlements seems feasible.⁹ Dahlby argues that while there are conceptual and practical problems with incorporating costs and needs elements in the equalization system, such problems also exist with the measurement of fiscal capacity. The equalization system has managed to overcome — or in some cases, to overlook — these problems to create a system that, while far from perfect, functions reasonably well. For these reasons, Dahlby argues incorporating needs and costs elements into the equalization system should be placed high on the reform agenda.

⁹ Gusen, "Expenditure Needs."

The Incentive Effects of Equalization Grants on Fiscal Policy

by *Ergete Ferede*

The Canadian equalization system was designed to address provincial fiscal disparities by compensating provinces when their per capita tax base is below the standard per capita tax base. However, as noted by Feehan and Dahlby, the equalization grant system may affect the provinces' tax and expenditure policies by creating incentives to raise or lower certain tax rates or alter their pattern of spending in order to increase their equalization grants. For example, a large province, such as Quebec, can increase its equalization entitlements by increasing its tax rate on those tax bases where its per capita base is below the standard per capita base and lowering its tax rate on those tax bases where its per capita base exceeds the standard per capita base. Furthermore, the equalization grant formula gives all recipient provinces an incentive to raise their tax rates because any decline in the tax base, due to tax avoidance or tax evasion, is offset to some degree by higher equalization payments. This reduces the perceived cost of raising tax rates, creating an artificial incentive for provinces to raise their tax rates.

Equalization grants may also influence the composition of provincial governments' expenditures by discouraging spending on activities, such as education, transportation and communication and industrial development that enhance their fiscal capacities and thereby reduce their equalization grants. In this way, recipient provinces' expenditures may be biased towards spending on consumptive programs, such as social services, recreation and culture.

An evidence-based assessment of the incentive effects of the equalization program can help resolve some of these concerns. Ferede conducted a detailed econometric analysis of the effects of the federal equalization grant program on provincial governments' tax and spending policies over the period 1981-2008. The main results from his statistical analysis of the provincial responses to equalization grants are as follows:

- Equalization grants provide recipient provincial governments with an incentive to raise their business and personal income tax rates. If a \$100 block grant, such as the CHT that is not tied to a province's fiscal capacity, were substituted for the equivalent equalization grant, a recipient province's business income tax rate would decline by 2.6 percentage points and its personal income tax rates would decline by 0.26 percentage points.
- A one-dollar increase in per capita equalization grant is associated with a \$0.21 increase in per capita provincial expenditure on health services, a \$0.35 increase in per capita provincial expenditure on resource conservation and industrial assistance, a \$0.05 increase in per capita spending on the environment and a \$0.058 increase in spending on housing.

Ferede concludes that the equalization system increases business and personal income taxes in the recipient provinces. Some commentators argue this is a result of recipient governments being compensated when their tax bases decline in response to higher tax rates, which allows them to underestimate the true deadweight cost associated with higher tax rates. However, the incentive to raise tax rates under the equalization system may offset the competitive pressures to lower taxes to attract inter-provincially mobile tax bases, and therefore, counteract tax competition that reduces the ability of all provinces to raise revenues for needed public services. Consequently, the policy conclusion to be drawn from Ferede's analysis is not straightforward, with further research being required to determine the balance between reducing the harmful tax competition and exposing provinces to the full cost of their tax policies.

The Politics of Chequebook Federalism: Can Electoral Considerations Affect Federal-Provincial Transfers?

by Marcelin Joanis

Given the important role federal transfers plays in financing provincial governments, it is not surprising that many changes to the equalization and other major grant programs are politically motivated. It has been argued that the proliferation of electorally motivated side deals between the federal government and some provincial governments may undermine the equalization program's ability to equalize fiscal capacities. Consequently, it is important to have a careful empirical analysis of the extent to which changes in the level and distribution of federal transfers to the provinces has been affected by political variables.

Joanis argues that changes to Canadian fiscal arrangements are the result of an ongoing trade-off between three oft-conflicting objectives:

- Respecting the equalization program's constitutional principle;
- Ensuring the political acceptability of all transfer programs; and
- Respecting the federal government's budget constraint.

As Canada's centre of political gravity has shifted westward over the past decade, the second and third objectives have aligned themselves to limit the extent of redistribution through federal-provincial transfers.

Joanis uses data from 1982-2012 to investigate the relationship between federal and provincial electoral variables and changes in a province's federal transfer revenues. The main variable of interest is the provincial vote share of the federal governing party. The econometric model indicates that a province's share of total transfers increases as the provincial vote share of the party in power in Ottawa increases, an effect that has been weaker under the Liberals than it is under the Conservatives. On average over the period, a province's real per capita total federal transfers were higher when the Conservatives' share of the vote in that province was higher.

Joanis's analysis of equalization grants indicates that the primary factor is the province's fiscal capacity with lower capacity resulting in higher grants. The provincial vote share of the federal party in power does not have a statistically significant effect on the province's share of equalization grants. The social transfers, currently the CHT and the CST, provide the strongest empirical evidence that provincial vote shares for the federal party in power has a positive effect on distribution and levels of these transfers.

In light of these statistical results, Joanis discusses three potential reforms to attenuate political distortions in the allocation of federal transfers. First, an independent body could be established to manage the fiscal arrangement programs to reduce political influence on the allocations of funds. Second, the equalization program could be partially pre-funded with a predetermined federal contribution separate from the federal government's budget. This would have the benefit of isolating the program from cyclical federal cost-cutting decisions while also making the program's funding more predictable for the federal government. Third, equalization entitlements could be based on a macro approach (e.g., using real per capita provincial output) rather than the current procedure of trying to calculate measures of fiscal capacity for individual tax sources. Adopting a simpler, less contentious approach to allocating equalization

payments would improve the transparency of the program, eliminate the continuing technical debates on the treatment of various special cases, such as hydro revenues and property taxes, and reduce opportunities for politically motivated side-deals.



Although the authors of the four papers presented at the conference focus on different aspects of the equalization program, several common themes emerged. First, both Dahlby and Feehan deplore the ceiling that has been imposed because it negates the fundamental principle that payments should rise when fiscal disparities increase. Furthermore, the ceiling places the burden of dealing with provincial fiscal shocks on the residents of the recipient provinces. While agreeing that the ceiling is problematic, Dahlby and Feehan diverge on their preferred solution. Whereas Dahlby favours reducing the percentage of resource revenues that are included in the calculation of equalization entitlements, Feehan proposes reducing the CHT and the CST for the provinces with above average fiscal capacities.

A second common theme concerns the equalization system's incentive effects on the fiscal policies of the provinces. Part of the reason Dahlby advocates a lower inclusion rate for resource revenues is that it would reduce disincentive effects for the provinces to develop and tax resource revenues. Feehan links the under-pricing of electricity by provincially owned hydro companies to a strategy that benefits provincial consumers of electricity while increasing their equalization entitlements. Ferde's econometric study indicates that the equalization system has provided recipient provincial governments with an incentive to raise their business and personal income tax rates.

A third common theme is that changes to the system have too often been driven by short-term financial considerations and political expediency, which has resulted in a departure from a principle-based approach to calculating equalization grants. Joanis's econometric study demonstrates the impact of political factors on the distribution of federal transfers to the provinces. Institutional reforms to make the equalization system more transparent and shield it from short-term political and economic events are worthy of further consideration.



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Bev Dahlby, Professor of Economics and Distinguished Fellow at The School of Public Policy, University of Calgary, attended St. Peter's College, the University of Saskatchewan, Queen's University and the London School of Economics. Dr. Dahlby has published extensively on tax policy and fiscal federalism. He has served as a policy advisor to the federal and provincial governments. His international experience includes advisory work on tax reform for the IMF in Malawi, for the Thailand Development Research Institute, and for the World Bank in Brazil. He was a member of the Jenkins Panel on federal support to research and development, a research fellow at the C.D. Howe Institute, and currently serves as a member of Statistics Canada's advisory council.

James (Jim) P. Feehan is a Professor of Economics at Memorial University of Newfoundland and a former director of its Institute of Social and Economic Research. He is currently editor of the journal, *Newfoundland and Labrador Studies*. He holds a Ph.D. in Canadian economic policy from Carleton University and an M.Sc. in economics from the London School of Economics. Dr. Feehan has had visiting professorships at Carleton University, the University of Western Ontario and the National University-Kiev/Mohyla Academy in Ukraine. In addition to fiscal federalism, he has published in his other research areas, which include the economics of public investment, taxation and public policy.

Ergete Ferede is currently an associate professor of Economics at Grant MacEwan University and Fellow of the Institute of Public Economics, University of Alberta. His B.A. and M.Sc. are from Addis Ababa University in Ethiopia and his Ph.D. is from the University of Alberta in 2005. His main research areas are public finance and economic growth. His research has been published in *National Tax Journal*, *International Tax and Public Finance*, *Small Business Economics*, etc. He has previously taught a wide range of courses at Addis Ababa University, University of Alberta, and University of Windsor. He was a winner of the University of Windsor Teaching Score Award for the academic year 2005/6.

Marcelin Joanis is holding a Ph.D. in economics from the University of Toronto, and is an associate professor of economics at Polytechnique Montréal and a fellow of the Center for Interuniversity Research and Analysis on Organizations (CIRANO). He was previously an associate professor at the Université de Sherbrooke, where he also served as director of the Research Group in Economics and International Development (GREDI). A specialist of public economics and political economy, he has published articles in, amongst others, the *Journal of Development Economics*, *Public Choice*, *Economics and Politics*, *Economic Papers*, *Canadian Public Policy* and *Policy Options*, and a series of book chapters. Professor Joanis is the founding co-editor of the annual monograph *Le Québec économique*, published since 2009 by Presses de l'Université Laval and CIRANO. He has also worked as an economist at Finance Canada and Quebec's Commission on fiscal imbalance.