

# Review of Studies Assessing the Impact of Labor-Sponsored Investment Funds in Canada

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## *Introduction*

The purpose of this paper is to develop an understanding of the effectiveness of the Canadian labor-sponsored investment funds (LSIF) in reaching public policy goals. These investment companies are initiated by central labor federations or national unions with government participation. They raise funds from individual investors, of whom over 50% are union members, and manage diversified portfolios which include equity positions in targeted businesses. The public policy goals described in the legislation establishing the funds direct the use of strategic business investments to: 1) stimulate the economies of the provinces in which the funds are located; 2) create and maintain jobs locally; and 3) involve labor as informed partners in investment, governance and management in firms. Three studies have evaluated the performance of one of the funds, the Fonds de Solidarité (FTQ), using cost-benefit analytical methods. A comparison of the method and assumptions of these studies raises this researcher's confidence in the later studies, which conclude that government investment in the FTQ is recuperated in approximately three years.

## *Defining Characteristics of an LSIF*

The first LSIF, the Fonds de Solidarité des Travailleurs du Québec (FTQ), was founded in Québec in 1983. Legislative directives of the Québec parliament guide its operation as follows:

- its charter legislation targets firms with assets of less than \$50 million and fewer than 500 employees; and
- the proportion of the fund in targeted investments must represent at least 60% of the average net assets of the preceding year.

In more recent years, LSIFs have emerged, accompanied by new provincial legislation, in a number of provinces. Several of the funds have been modeled on the structure of the Fonds de Solidarité. Others, particularly some of the new funds located in Ontario, though sponsored by unions or professional associations, are managed by private firms and appear to be more focused on qualifying for investor tax breaks than social and regional development goals.

In response to the growth of these funds which are not directly managed by labor-led organizations, the Fonds de Solidarité and the three other LSIFs built on the FTQ model have released a statement defining the characteristics of an LSIF as:

- organization and direction by a labor body (a union or group of unions with membership exceeding 100,000 or chartered by the central labor council);
- commitment to meeting economic and social goals when making investments (e.g., job retention and creation, regional economic development, use of social audit in investment analysis);
- commitment to provide an equitable rate of return to shareholders;
- commitment to provide risk capital within a diversified portfolio;

- commitment to participation by a broad base of average working people (which may include training sales representatives from within the labor movement);
- facilitation of cooperation between labor and business.

The leaders of these four funds realize the importance of fulfilling the public policy mandate of the funds. They explain that the four funds place a high priority on engaging the cooperation of labor and management of the client firms and their surrounding communities. Workers are encouraged to invest in fund shares, to participate on investment committees and fund boards, and to participate in financial management and other training. Managements of investee firms are urged to: support worker training, health and safety and equal opportunity programs; cooperate with workers and unions as they become involved in enterprise decisions; pursue policies of growth in high value-added, employment creating activities; and promote product quality and environmental standards.

The performance of funds relative to the public policy goals specified in their founding legislation is key to any determination of the effectiveness of public expenditure toward tax credits aimed at LSIF investors. Though the current inquiry focuses on the performance of only one of the funds, the FTQ, other funds should also be evaluated according to their degree of fulfillment of the public policy goals outlined by the federal government and the governments of their respective provinces. Finally, the current situation in Ontario raises questions about offering tax credits to investors in funds which are not directly managed by a labor-led or other community organization with clear representative responsibility to contribute to regional development.

### ***Fund Expansion***

The first funds, the Fonds de Solidarité des Travailleurs du Québec (FTQ) and Working Ventures were launched in the aftermath of the recession of the early 80s, in 1983 and 1988, respectively. By the end of 1995, eighteen funds were established or starting up. A total of about 378,600 individual Canadians owned shares in the fourteen established LSIFs, with net combined assets of over \$2 billion [after the current selling season, this has jumped to more than \$3 billion]. The Fonds de Solidarité des Travailleurs du Québec (FTQ), sponsored by the Fédération des Travailleurs et Travailleuses du Québec, accounted for \$1.3 billion of the assets and 239,300 shareholders. The FTQ is the largest venture capital institution in Canada. Together, the LSIFs control over 30% of the formal venture capital market in Canada. This compares with only 8% in 1989.

### ***Incentives to the Individual Investing in an LSIF***

The government-provided incentives to the individual shareholders of the funds are the largest fiscal costs of the funds for the federal and provincial governments. In the case of Québec, a provincial tax credit of 20% of the individual's investment applies up to a maximum of a \$5,000 investment. Also, a Canadian federal tax credit of 20% of investment has applied for up to \$5,000 in annual investments, according to the revised 1992 legislation. Finally, when shares are transferred into a RRSP (Registered Retirement Savings Plans--similar to an IRA in the U.S.), a tax reduction is granted which is proportional to the individual's tax rate (the tax break increases with higher individual income). About 90% of LSIF investors use this deduction.

The tax assistance is designed in part to offset the liquidity restrictions placed on investors in these funds, whose shares are not traded on the stock market. Most of the labor funds require a long-term investor commitment ranging from five years in the case of the First Ontario Fund to retirement in the case of the FTQ. This aids the development of a stable source of investment capital.

### ***Cost-Benefit Analysis Methods***

The cost-benefit analyses of the FTQ differ in the specific methodologies employed. Following is a short review of methods used in cost-benefit analysis aimed at building the foundation for understanding each study and their differing assumptions, calculations and results.

The fiscal costs of the LSIFs is generally agreed to be the sum of start-up loans granted to the LSIFs and the cost of tax credits to individual investors. However, this is where agreement ends. The method for measurement of benefits differs among researchers.

The Suret study of the FTQ employs a narrow and simplified cost-benefit method in which benefits are limited to the dollar amount invested directly by the FTQ in Québec enterprises. Suret's resulting calculations support critics who argue that the FTQ is too costly to the public for the benefit provided.

In contrast, the INRS and CLMPC studies measure indirect benefits among supplier firms and induced effects in the economy as well as the direct benefits in the firms receiving LSIF investments, thereby acknowledging a multiplier effect of investment in the region's businesses. The latter two studies result in a positive evaluation of LSIF net fiscal benefits. Though the INRS and CLMPC studies also cite intangible benefits of the funds, their positive results do not require the inclusion of intangible effects in the analysis. In other words, using only quantifiable evidence of direct, indirect and induced effects of the funds' investments, these studies find that the public expenditures supporting the funds yield a positive net benefit and are repaid via tax revenues and program savings within three to four years.

The narrow cost-benefit analysis method, used primarily in evaluating private sector investments, compares only direct dollar benefits with direct costs in assigning a value to an investment project. In the public setting, however, most economists reason that such narrow cost-benefit analyses should not be the only method used for valuing a potential public investment. The narrow cost-benefit study should be used to identify and minimize costs. However, most analysts agree that indirect effects (such as increased tax revenue due to increased production among supplier firms), induced effects (such as increased tax revenue from higher consumer spending resulting from more employment) and intangible or qualitative effects (such as increased networking among regional businesses) should also be considered when making public investment decisions.

The idea of indirect and induced effects has been developed by Hirschman in his explanation of forward and backward linkages. Defining linkages helps to model the interdependencies present in a regional economy. Whereas forward linkages refer to a firm/organization selling or otherwise providing inputs or intermediate products to other firms/organizations, backward linkages refer to the inputs (either raw or transformed) which firms/organizations require from other firms/organizations in order to produce their final product or service.

These linkages may be reflected in interindustry or input-output models, where the interdependence of the sectors of the economy is represented by a set of simultaneous equations, with each equation expressing the specific production processes of an industry. In inter-industry models, all industries are viewed both as producers of outputs and users of inputs from other industries. Thus, direct, indirect and induced repercussions of changes in the demand for the products of any one industry on output, employment, and imports of all other industries can be traced throughout the economy. An interindustry model was used in the INRS study to calculate the employment, wage and tax revenue impacts of FTQ investments.

In addition to direct, indirect and induced effects, other factors that are often considered in cost-benefit analyses are:

- discounting the value of the net benefit by a factor equal to the cost of not presently having the money available for other uses  $\text{discounted net benefits} = \text{net benefits}/(1 + r)$
- the risk that investors in the project will not receive the expected return on their investments (e.g., multiply each year's discounted net benefits by the probability that returns will be realized);
- calculate net benefits throughout a project's life cycle and compare the results to the returns on other public investments which have been figured using the same method. A decision rule governing public investment choices may be based on ranking programs according to their returns or to a system in which all funded programs exceeded a certain threshold return.

The methods for addressing these and other issues in the Suret, INRS and CLMPC studies are discussed in some detail in the following section. However, a comparison of the researchers' approaches to the three issues above may be summarized consecutively as follows: a) the studies differ as to how net benefits are discounted; b) none of the studies incorporates estimates of risk; and c) detailed comparison with returns on other public investments is not performed by any of the researchers due to the lack of compatible data.

### ***A Comparison of Cost-Benefit Analyses of the FTQ***

The three analyses of LSIFs to be examined are The Fonds de Solidarité des Travailleurs du Québec: A Cost-Benefit Analysis by Suret, Impact Economique et Fiscal Des Investissements du Fonds de Solidarité des Travailleurs du Québec (FTQ), 1984-1993, by Lamond, Martineau and Allen and Economic and Fiscal Impacts of the Fonds de Solidarité des Travailleurs du Québec's Investments, 1984-93 by Jackson and LaMontagne. The Suret study was commissioned by the Fraser Institute and resulted in a negative evaluation of the net benefit of the FTQ. The Lamond, Martineau and Allen study was commissioned by the FTQ through Quebec's Institut National de la Recherche Scientifique (INRS) to assess the overall fiscal impacts of the fund's investments on the Quebec economy. The results of the INRS study, in contrast to those of the Suret study, showed a positive net impact. The INRS study's methods for computing the costs and benefits of the FTQ became the basis for a study by the CLMPC research team of Jackson and LaMontagne. The latter study used essentially the same methodology on an expanded sample of cases of seven FTQ investee firms and three investee firms of the Working Opportunities Fund in British Columbia. Because of the virtual replication of method in the latter two studies, they will be considered together as one study (the INRS study serving as an input to the Jackson/LaMontagne study) in the present comparative analysis.

### ***Suret study***

Jean Marc Suret, in a 1994 study commissioned by the Fraser Institute, mounts a critique of the FTQ using a narrow cost-benefit analysis method, limiting effects measured to those with direct impact. The author does not try to measure impacts of the FTQ on public policy objectives. Rather, his concern is whether FTQ returns to government expenditure and individual investors on FTQ funds are competitive with market returns. Suret argues that the coalition-funded FTQ is underinvested in regional firms and, to the extent that it is so invested, that individual investors, private investment companies and banks could provide adequate venture capital if the FTQ did not exist.

***Assumptions:***

Suret argues that the capital market would properly allocate financial resources among firms without government participation. His concern about competitive returns follows from a belief that the market is efficient and that competition exists to serve the target firms. (Though Suret cites a study claiming that there is no capital gap for startup financing, the CLMPC reports that a majority of FTQ investee firm managers report that they would not have been able to obtain adequate project finance without FTQ participation.)

Regarding the method of the study, Suret assumes that indirect and induced effects of FTQ investments are out of the scope of his investigation. He explains, "It is impossible to measure FTQ impact on job creation or maintaining, because the employment level without the FTQ is unobservable. Estimating the impact on economic development is also out of reach of conventional investigation methods." In the context of our earlier discussion of cost-benefit analysis techniques, Suret chooses a very narrow approach.

***Results:***

Suret does not count as effectively invested the funds which the FTQ reports as authorized but not yet disbursed. He argues that this category is overstated since a significant portion of these projects listed in 1991 were not completed by the end of 1992. Using revised figures, Suret estimates that at the end of fiscal year 1992 the 63 direct FTQ investments in Quebec enterprises represented only 37% of the fund's total assets of \$615 million. The bulk of the rest of the portfolio was invested in government bonds, publicly-traded stocks and the money market.

During the years covered by the study (1986-92), Suret found that the average return on fund equity was approximately five percent. Return on investment was about the same, due to the low level of leveraging of the fund. In every year except 1990, returns of the FTQ portfolio were found to underperform a benchmark constructed by the author from several market indexes weighted among categories of investment according to the asset allocation of the FTQ. Suret calculates that, as a result of lower growth performance, the individual investor would earn less from investing in the FTQ than in a mutual growth fund (figuring at 12% average annual return) unless the investment horizon is shorter than 20 years.

Based on Suret's reduced estimates of FTQ investment, each dollar directly invested by the fund into regional businesses costs the participating governments between \$2.02 and \$4.24 depending on whether investments are evaluated at market or book value and what proportion of secondary funds are considered to be invested in operating firms. Suret argues that this cost is too high for what he argues is relatively poor fund performance. He blames performance problems on high administrative costs and the limited portion of the funds assets directly invested in regional businesses.

***Limitations of the study:***

The Suret study uses a data series which ends with fiscal year 1992, thereby missing an analysis of 1993-95, years of important growth and development for the FTQ. This was a period when the FTQ reports significant lower administration costs (to about 3% of total assets, which matches the industry norm). Also during this period the proportion of funds reported as invested directly in regional firms was significantly increased. (By late 1995, the CLMPC reports that the FTQ portfolio of investments in 131 firms was valued at \$641 million of its total \$1.3 billion in assets. This amounts to about a .5 direct investment-to-total assets ratio.) The Suret study underemphasizes the quality of the fund's investments, which would appear to be at least as important as the quantity of direct investments to the survival of the fund and to the quality and stability of the jobs impacted.

The author assumes alternative sources of venture capital are available to target firms. Because he does not believe that the firms served would have otherwise suffered, he does not measure indirect or induced benefits such as avoided unemployment and other income support program costs due to increased and maintained employment in investee firms and their suppliers.

The author's concern about "opportunity loss" to individual investors assumes that shareholders are ex-ante educated investors who would be taking advantage of a balanced investment portfolio if they were not investing in the FTQ. Studies of saving patterns of Canadian workers do not warrant this assumption. Therefore, the assertion that FTQ returns should be compared to a 12% market rate is questionable.

### ***Jackson and Lamontagne study (building on the INRS study)***

Edward Jackson and François Lamontagne prepared a study of the economic and social impacts of two of the LSIFs for the Canadian Labour Market and Productivity Centre (CLMPC) in 1995. The study focuses on the FTQ, since the data series for the Quebec fund is the most complete. The study employs a cost-benefit analysis as well as a qualitative analysis of a set of ten case studies of investee firms. The authors choose a comprehensive social cost-benefit analysis approach. They explain, "In the final analysis, taxpayers and their representatives must be in a position to compare the full range of the public costs of LSIFs with the full range of their benefits." The CLMPC study includes several case studies and a survey analysis which assess qualitative effects as well as a detailed quantitative analysis. The quantitative portion of the study is the focus of the remainder of this section, as it provides the data most comparable with the Suret study.

### ***Assumptions:***

The key methodological features and assumptions of the CLMPC study are:

- The study builds on a 1994 INRS study of the FTQ, using the same method for calculating fiscal costs.
- The study includes an assessment of direct, indirect and induced fiscal benefits using the Quebec government's provincial input-output model.
- The study incorporates conservative assumptions throughout the analysis, thereby avoiding potential exaggeration of FTQ benefits. For example, the authors use the proportion of LSIF investment to the investee firm's total investment to calculate the share of employment and increased tax revenues for which the LSIF investment should be credited. Additionally, where domestic competitors exist which could fill any supply gap left by investee firms had they ceased operations, a downward adjustment is made in the tax revenue increment which is credited to fund activity. These measures directly address the concern expressed by Suret that FTQ impact would be overestimated if all employment, tax revenue and other positive benefits of the ongoing operations of investee firms is attributed to the FTQ.
- The study does not consider costs (Suret's "opportunity loss") to individual investors because of demographic research showing that a large proportion of LSIF shareholders are first-time investors. Therefore, if the funds did not exist, returns on the savings of many of these workers would only be the low returns offered by commercial banks on savings accounts. Additionally, a 1992 FTQ survey of shareholders that indicates that 87% were satisfied with their earnings.

**Results:**

As figured in the INRS study, total costs are expressed at present value and discounted at the government's long-term borrowing rates. The result of a study of ten investee firms of the FTQ and the Working Opportunity Fund is that discounted annual benefits of \$13.8 million from 1992 through 1994, when deducted from total costs of \$37.5 million, account for a payback period for government investment of less than three years ( $37.5/13.8=2.7$ ).

The components of total fiscal costs included are:

- initial start-up financing of the FTQ--\$20M compounded annually using a blended Quebec-Canada long-term bond rate, since both governments shared the expenditure. The \$20M compounded results in a \$46M cumulative fiscal cost by 1993.
- tax credits to the Fund's shareholders (40% of their contributions) calculated in aggregate by multiplying total annual contributions by 40% and compounding as above.
- RRSP tax savings realized by individuals when RRSP contributions are withdrawn at retirement. A gross fiscal cost estimate is based on Statistics Canada's median income estimates and investor survey data (on current age, retirement age, tax bracket, etc.). Gross cost is adjusted to account for future tax revenues when the RRSP contributions are withdrawn and to account for future fiscal benefits due to higher disposable income after retirement.

Combined federal and provincial fiscal costs in Quebec were found to be \$1.35 for each dollar of investment the FTQ placed in its firms from 1984 through 1993.

The fiscal benefits resulting from the FTQ investments included: reduced program costs due to job creation and maintenance, increased tax revenues from investee companies and their workers; and increased tax revenues resulting from increased supplier firm activity and increased consumer spending of the wages generated from investee companies' projects. In each case, the portion of benefit credited to the FTQ investment was based on the proportion of the FTQ investment to the investee firm's total investment and was also reduced to account for the substitution effect where domestic competitors were present.

The study computes an aggregate impact on provincial employment such that with each job directly created, another job is indirectly generated. A total of 15,372 direct, indirect and induced jobs were reported by INRS to be created as a result of fund activity during the study period. A particularly large impact was measured on the maintenance and creation of well-paying jobs for workers 45 or older. Additionally, for each \$1 directly invested by FTQ, approximately \$1 of value-added is indirectly created in the provincial economy.

Qualitative benefits reported included improved labor relations and training in investee firms, increased regional inter-firm and community-firm relations, management input by fund staff and nominees to company boards, and more effective adaptation of work processes to new technologies. Additionally, the FTQ has an "investment leverage" ratio of 1:3, meaning that, for every dollar invested in SMEs by the FTQ, other investors added three dollars.

In summary, Jackson and Lamontagne conclude that the LSIFs have been very successful at: drawing in new individual investors and mobilizing a large pool of venture capital across Canada; employment retention in investee firms, many of which had been candidates for closure; generating development spin-offs; improving labor relations; developing good relations with local business community and the encouraging of strategic alliances involving business, labor and government to meet shared objectives and manage economic change; and providing economic and financial education of workers.

Additionally, most of the surveyed managers reported that they had not been able to obtain financing from other sources, suggesting that LSIF investments have not displaced private venture capital.

***Policy implications:***

- Government support should be continued for tax credits to individual fund investors.
- LSIFs which deliver fewer positive economic development and social policy impacts should be less generously supported by government.
- There is a need to widen the geographic coverage of the funds.
- There is also a need to simplify the business application process, which could lower administration costs as well as increase effective business investments
- The authors recognize some limitations of the research which has been completed on LSIFs to date and identify directions for future study. They point to the need to develop longitudinal studies, following firms over a period of ten to fifteen years; to do comparative analysis among a broader sample; to fully assess methodological options for cost-benefit research and establish procedures for comparing LSIF findings with those of other programs; and to assess firm level productivity and educational impacts.

***Limitations of the study:***

The study underemphasizes the allocation choices made by fund managers among categories of investment. As noted earlier, none of the studies consider the differential risk of different types of investments.

The CLMPC study does not directly address Suret's charge that the FTQ has been underinvested in targeted investments (direct investments in Québec firms). This is important since Suret's low estimate of the FTQ's targeted investments is a key reason that Suret's cost estimates per direct investment were higher than those of the Jackson/LaMontagne study.

The FTQ, according to its own estimates, has reached a point where about 50% of its assets are invested directly in regional firms. The Québec legislature mandates that this percentage eventually reach 60%. During the developmental stage of the fund, slow growth of the direct investment-to-total asset ratio appears prudent, rather than representing underinvestment.



### ***Conclusions of a Comparison of the Studies:***

Though more study remains to be done to fully understand the impact of the Canadian LSIFs, the juxtaposition of the cost-benefit analyses examined above clarifies how the choice of different assumptions and methods has led to different results. The Jackson and Lamontagne study, building on the method outlined in the earlier INRS study, is clearly more comprehensive than the Suret study due to its inclusion of linkage effects and, at the same time, has made conservative assumptions to safeguard against exaggeration of the benefits of FTQ investments. In this researcher's judgment, the results of the Jackson and Lamontagne study, including its use of the INRS cost estimates, are based on sound research method. When direct, indirect and induced effects of the fund investments are considered, the FTQ appears to be a worthy target for public investment.

### ***Summary:***

- Research supports the finding that public expenditures in support of Québec's Solidarity Fund are cost-effective and recuperated in approximately three years.
- Since positive results are only achieved when public policy goals of regional economic development are considered, these results should not be used to justify investment tax credits which are not directly managed by a labor-led or other community organization with a commitment to regional development.

### ***Recommendations:***

- The U.S. should analyze the Canadian LSIFs as a possible model for job generation through targeted investment of workers' savings. Such a model must incorporate a significant and meaningful worker voice with a commitment to local economic development if it is to succeed.

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