The Impact of Economic Growth and Openness on Poverty: Canadian Experience (1981-2003)

Baotai Wang*
Economics Program
University of Northern British Columbia
Prince George, British Columbia
Canada
Tel: (250)960-6489
Fax: (250)960-5545
Email: wangb@unbc.ca

and

Ajit Dayanandan*
Economics Program
University of Northern British Columbia
Prince George, British Columbia
Canada
Tel: (250)960-6484
Fax: (250)960-5545
Email: dayanana@unbc.ca

Abstract: This study investigates the impact of economic growth and openness on poverty in Canada during the period of 1981 – 2003. To conduct this investigation, variables of export, import, and foreign direct investment are selected and ratios of each of these variable to gross domestic product are used as the proxies of the degree of economic openness, and the most wildly used poverty measure "low income cut-offs before tax, percentage of all persons" is used as an aggregated measure of poverty in Canada. The empirical study is conducted within the unit root and cointegration tests framework. It is interesting to find that export has a favorable impact whereas FDI has an unfavorable impact on poverty, while per capita does not affect poverty level significantly during the investigation period

Key Words: Low Income Cut-off, Unit Root, Co-integration, Economic Growth

JEL Classification: I32, C22

---

* The authors wish to thank Tomson Ogwang for his valuable comments on this study. However, the usual declaimer applies.

1. Introduction

Canada has been, in recent years, one of the fastest growing economies among the OECD countries and it is also one of the few OECD countries with a fiscal surplus at the federal level. But its record on the social front especially its record on poverty (and inequality) has not been without critics. Some critics argue that the growing global interface especially with U.S. and better economic performance has not "trickle down' to the less affluent while others point out the fact that the increase in poverty in Canada has been less pronounced than that in U.S. See, for example, Picot (1995), Maxwell (1996), Morrissette (1997), Gaston and Refler (1997), Beaulieu (2000), Osberg (2000), and Zyblock and Lin (2000), among others.

Most empirical studies on trends of poverty in Canada and policy implications have been so far conducted using conventional regression techniques and results are quite diversified depending on different model specifications and variables used in regressions. One problem that has not gained much attention in these studies is that the stationarity properties of poverty data (and data of other time series variables in regressions) need to be verified prior to the use of conventional regressions. The stationarity property of the variables is crucial in regression analysis because in case that the poverty rate and its determinant variables are non-stationary the use of conventional regression techniques may not be appropriate and results may be quite misleading.

The purpose of this study is, therefore, to investigate empirically the impact of economic growth and openness on Canadian poverty using the unit root and co-integration techniques. To conduct this investigation, variables of export, import, and foreign direct investment (FDI) are selected and ratios of each of these variable to gross domestic product (GDP) are used as the proxy of the degree of economic openness, and the most wildly used poverty measure "low income cut-offs before tax, percentage of all persons" is used as an aggregated measure of poverty in Canada.

The rest of the paper is organized as follows. In Section 2, the methodology applied in this empirical investigation is discussed. This is followed by a description of the data in Section 3. The empirical results are reported and discussed in Section 4, and concluding remarks are made in Section 5.

2. Methodology

To investigate the impact of economic growth and openness on poverty, the following model is specified:

$$p_t = \beta_0 + \beta_1 x_{1t} + \beta_2 x_{2t} + \beta_3 x_{3t} + \beta_4 x_{4t} + \varepsilon_t \qquad (1)$$

where p, $x_i \ (i = 1,2,3,4)$, and ε denote, respectively, the poverty rate, per capita GDP index, the export/GDP ratio, the import/GDP ratio, the FDI/GDP ratio, and the error term. The sign of β_1 is negative (positive) if economic growth tends to improve (deteriorate) poverty. As for the impact from international trade, one traditional view is based on the argument by Stolper and Samuelson (1941) that the returns to laborers tend to increase (decrease) with trade liberalization in countries whose labor (capital) endowments are abundant. Based on this argument, the sign of β_2 should be positive and that of β_3 should be negative for Canada if Canada is considered as a capital rich country and most of its exports (imports) are capital (labor) intense products. Studies on the impact of the FDI flows on poverty appear to be quite limited so far. According to the early work by Mundell (1957), the FDI flows would improve (deteriorate) poverty if FDI leads to an increase in productivity of unskilled (skilled) labor and consequently an increase in demand for unskilled (skilled) labor and their real wages. Based on this hypothesis, the sign of β_4 should be positive for Canada since most FDL to Canada flows into the capital intensive and high tech sectors.

Direct application of conventional regression techniques to Equation (1) is not appropriate since most macroeconomic time series variables are non-stationary so as to make conventional hypothesis-testing procedures based on the t, F, and χ^2 test statistic unreliable. In order to avoid the possibility of spurious results, our empirical investigation follows the tradition of testing for unit roots and testing for cointegration in macroeconomic time series, which started gaining popularity in the early 1980's.

The Augmented Dickey-Fuller test (ADF, Dickey and Fuller, 1979, 1981) and the Phillips-Perron test (PP, Phillips and Perron, 1988) for testing the null hypothesis of a

unit root have been widely used in empirical work. However, Perron (1989) shows that if there is a structural break, the power to reject a unit root hypothesis decreases when the stationary alternative is true and the structural break is ignored. There are several events in Canada during the period of investigation which could have caused a structural break in the variables. Such events may include the Asian financial crisis (1997-98) and the September 11 episode etc. Therefore failure to find significant evidence of stationarity with the ADF and Phillips-Perron unit root tests could reflect misspecification of the deterministic trend.

Perron (1989) proposes a model which imposes the null hypothesis that a given series has a unit root with drift and an exogenous structural break against the alternative of stationary about a deterministic trend with an exogenous structural break. Zivot and Andrews (1992) extend Perron's (1989) model by endogenizing the break point determination and thus transforming Perron's conditional unit root test into an unconditional test. In this study, the Zivot-Andrews unit root test is performed using three models:

Model A (a shift in the mean of the process):

$$\Delta w_t = \mu + \alpha w_{t-1} + \beta t + \theta DU_t + \sum_{i=1}^{p} \eta_i \Delta w_{t-1} + e_t \qquad (2)$$

Model B (a shift in the rate of growth of the process, i.e., the slope):

$$\Delta w_t = \mu + \alpha w_{t-1} + \beta t + \gamma DT_t + \sum_{i=1}^{p} \eta_i \Delta w_{t-1} + e_t \qquad (3)$$

Model C (a shift in both the mean and the rate of growth of the process):

$$\Delta w_t = \mu + \alpha w_{t-1} + \beta t + \theta DU_t + \gamma DT_t + \sum_{i=1}^{p} \eta_i \Delta w_{t-1} + e_t \qquad (4)$$

where w_t, DU_t, DT_t, e_t denote, respectively, the time serious variable under the investigation, the indicator dummy variable for a mean shift occurring at the break time (TB), the corresponding trend shift dummy variable, the error term, and Δ is the first-difference operator. For DU_t and DT_t, we have

$$\mathrm{DU}_t = \begin{cases} 1 & \text{if } t > \mathrm{TB} \\ 0 & \text{Otherwise} \end{cases} \quad \text{and} \quad \mathrm{DT}_t = \begin{cases} t - \mathrm{TB} & \text{if } t > \mathrm{TB} \\ 0 & \text{Otherwise} \end{cases}$$

To implement the sequential trend break model, some regions must be chosen such that the end points of the sample are not included. The reason is that in the presence of the end points, the asymptotic distribution of the statistics diverges to infinity. Zivot and Andrews (1992) suggest that the 'trimming region' be specified as (0.15T, 0.85T). The break points are selected recursively by choosing the value of TB for which the ADF t-statistic (the absolute value of the t-statistic for α) is maximized. Since their testing methodology is not conditional on prior selection of breakpoint (all points are considered potential candidates), their critical values are larger than those of Perron (1989) and hence it is difficult to reject the null hypothesis of unit root. The null hypothesis in Equations (2) to (4) is that $\alpha = 0$ which implies that there is a unit root in w_t. The alternative hypothesis is that $\alpha < 0$, which implies that w_t is a trend stationary process with a once only breakpoint occurring at an unknown time in each. The aim of the Zivot and Andrews procedure is to sequentially test the candidates for this breakpoint and select the one that gives the most weight to the trend stationary alternative.

If all variables in Equation (1) are $I(1)$, the next step is to undertake the cointegration test. The existence of the cointegration relationship indicates that these variables share a mutual stochastic trend and are linked in a common long-run equilibrium. In this study, we conduct the maximum likelihood approach of testing the number of cointegrating vectors suggested by Johansen (1988) and Johansen and Juselius (1990). Theoretically, if there are *n* variables in the system, it is possible to have a maximum of $n-1$ linearly independent cointegrating vectors. As discussed in Dickey *et al.* (1991), the number of cointegrating vectors can be thought of as representing constraints that an economic system imposes on the movement of the variables in the system in the long run. As such, more cointegrating vectors imply that the system is "more stable" because the system is stationary in many directions. However, if the existence of more than one cointegrating vectors is confirmed by the test results, we will encounter an identification problem. In such a case, we will have to determine which cointegrating vector represents the true relationship based on the economic theories, as suggested by Johansen and Juselius (1994). The estimated cointegrating coefficients will allow us to examine the impact of economic growth and openness on Canadian poverty.

Studies using Monte Carlo experiments (Campos, Ericcson and Hendry, 1996, and Gregory and Hansen, 1996) show that when a shift in parameters takes place, standard tests of cointegration may lose power and falsely signal the absence of equilibrium in the system. To explore the possibility of one time shift in the parameters of the cointegrating vector, we implement the Greogory and Hansen (1996) residual based cointegration tests. The Gregory-Hansen test assumes the null hypothesis of no cointegration against the alternative hypothesis of cointegration with a single structural break of unknown timing. The timing of the structural change under alternative hypothesis is estimated endogenously. Three cases will be tested in this study, namely, change in intercept only (C), change in level with a trend (C/T), and change in both the intercept and slope of the cointegrating vector (C/S). If the cointegration relationship is confirmed, the acceptance of the null hypothesis in the Gregory-Hansen test would suggest there is no any structural break in the long-run poverty function, i.e., Equation (1).

3. The poverty data

Canada does not have an official definition of poverty. In the literature on poverty, a number of concepts have been used, such as low income cut-off (LICO), low income measure (LIM), and market based measure of poverty (MBM).

In Canada, most of the discussion on poverty is so far based on LICO measure compiled by Statistics Canada since the early1970s. To compute these cut-offs, Statistics Canada conducts a detailed survey of the expenditure patterns of Canadian families every four years. It then calculates the average percentage of pre-tax income that Canadian families spend on food, shelter, and clothing. The LICOs are set where families spend 20 percentage points more of their income than this average. The low-income lines are then calculated for communities and for families of various sizes within those communities and updated annually using the data obtained from the Consumer Price Index surveys (see Statistics Canada, 1998). As a poverty measure, it is a relative measure and is based on the concept that people in poverty live in compromised circumstances - defined as

spending a disproportionate amount of their total gross income on food, clothing, and shelter.

Another measure introduced in the late 1980s by Statistics Canada is LIM. The LIM is defined as 50% median income, adjusted for family size[1] and composition using an equivalence scale. It takes all of the after-tax incomes and finds the median income, so anyone who makes less than half of that median income is considered to be poor.

In 1997, Federal/Provincial/Territorial Ministers Responsible for Social Services asked Statistics Canada to work on developing the MBM to complement LICO and LIM to measures those who are substantially worse off than the average. The MBM, only available since 2000, is based on a basket of goods and services. The "basket" includes five types of expenditures for a reference family of two adults and two children: expenditures on food, clothing, shelter, and other household needs (e.g., school supplies, personal care products, a telephone, etc.). The cost of purchasing this basket of goods and services has been determined for 48 different geographical areas in the 10 provinces, and takes into account the fact that living costs vary depending on where people live.

The present study uses national and provincial data on annual "low income cut-offs before tax and percentage of persons in low income" from 1981 to 2003, collected from Table 2020802 in CANSIM II - the Canadian Socio-economic and Information Management database compiled by Statistics Canada. Although some have been questioning about effectiveness and appropriateness of using this poverty measure[2], it happens to be the longest currently available and most reliable time-consistent data on the poverty measures for Canada and for its ten provinces. The LICO for Canada varies from a minimum of 14.0% in 1989 to a maximum of 20.6% in 1996, yielding an average of 16.63% during the investigation period.

[1] The scale in question uses a weight of 1 for the first family member and 0.4 for the second family member regardless of age. The third and subsequent family members are assigned a weight of 0.4 if they are aged 16 or over.

[2] For example, Sarlo (2001) has criticized LICO as a good poverty measure by arguing that LICO is a 'relative' measure in the sense that it rises with increases in average spending, so this "relativism" means that LICO is really measuring inequality and not poverty. Sarlo also argues that the LICO measure has no relation to the actual costs that people must face in buying the necessities and no relation to the regional differentials in costs that really matter.

The annual data of Canadian GDP, total population, total exports, total imports, and total FDI inflows for the same period are collected from relevant tables in CANSIM to construct the variables required in this empirical work. The GDP deflator (1992=100) is used to deflate all nominal time series variables. To conduct the unit root and cointegration tests, the variable of per capita GDP is scaled based on the first observation.

4. Test results.

The results of the standard ADF and PP unit root tests are summarized in Table 1 and Table 2 respectively. The ADF test results show that, for all Canadian time series variables in level form, the null hypothesis of a unit root cannot be rejected at the conventional significance levels if the time trend is not included. However, if the time trend is included, the poverty rate seems to be integrated of order 2 or higher and the export/GDP ratio is integrated of order 0. The results of the PP tests are consistent with those of the ADF tests, except that the export/GDP ratio has a unit root in the PP test but not in the ADF test when it is modeled as "constant with a time trend". These results conclude that these Canadian time series variables in the model are all $I(1)$ series but some of them may not have a time trend.

Table 1. Results of the Augmented Dickey-Fuller (ADF) Unit Root Test

	Constant without trend				Constant with trend			
	Levels		1st difference		Levels		1st difference	
Poverty Rate	-2.34	[1]	-2.98***	[0]	-2.26	[1]	-2.89	[0]
Per Capita GDP	-2.01	[0]	-4.67*	[0]	-1.83	[0]	-5.08*	[0]
Export/GDP	-2.48	[0]	-4.14*	[4]	-4.70*	[3]	-4.09**	[4]
Import/GDP	-1.89	[0]	-3.82*	[0]	-1.88	[0]	-4.57*	[1]
FDI/GDP	-1.32	[0]	-4.28*	[0]	-2.33	[0]	-4.14**	[0]

Note: The optimal lag length, presented in brackets, for the unit root tests were based on the SIC criterion. *, **, and *** indicate significance at 1%, 5%, and 10% levels respectively.

Table 2. Results of the Phillips-Perron (PP) Unit Root Test

	Constant without trend		Constant with trend	
	Levels	1st difference	Levels	1st difference
Poverty Rate	-1.89	-2.95***	-1.62	-3.02
Per Capita GDP	-2.03	-4.66*	-1.82	-5.10*
Export/GDP	-2.51	-4.19*	-2.55	-4.15**
Import/GDP	-2.12	-3.81*	-2.06	-3.86**
FDI/GDP	-1.44	-4.34*	-2.56	-4.16**

Note: *, **, and *** indicate significance at 1%, 5%, and 10% levels respectively.

Table 3 above presents the results of the Zivot-Andrews test for models A, B and C for each of the variables in the poverty model for Canada. The test results do not reject the null hypothesis of a unit root in all cases, which indicate there are no breaks in all time series variables. A plausible reason for these results of the Zivot-Andrews test is the low frequency of the data and the fact that reforms in Canadian economies have been gradual and distributed over a wider time frame. Given the test results yielded by the Zivot-Andrews unit root test, we are more inclined to go with the conclusions from the ADF and PP tests reported in Table 1 and Table 2.

Table 3. Results of the Zivot and Andrews Unit Root Tests

	Model A		Model B		Model C	
	Levels	First difference	Levels	First difference	Levels	First difference
	Break point t value	Break point t value	Break point t value	Break point t value	Break point t value	Break point t value
Poverty Rates	1992 -2.59	1990 -4.78	1997 -3.01	1993 -3.24	1995 -3.36	1990 -4.29
Per capita GDP	1992 -3.57	1990 -4.33	1998 -3.67	1993 -3.63	1996 -3.21	1990 -4.10
Exports/GDP	1986 -3.12	1994 -3.95	1993 -3.41	2000 -3.00	1986 -3.08	1994 -3.98
Imports/GDP	1988 -2.70	1994 -4.49	1992 -3.43	1999 -3.61	1990 -2.97	1994 -4.67
FDI/GDP	2000 -3.59	2000 -4.08	1999 -4.96	1995 -3.49	1997 -4.54	1994 -3.69
Critical Values						
1%	-5.34	-5.34	-4.93	-4.93	-5.57	-5.57
5%	-4.80	-4.80	-4.42	-4.42	-5.08	-5.08

Note: The table presents the potential break points (years) which correspond to the largest (in absolute value) test statistic in all tests. The computed t test statistics for variables in level and in first difference are presented below the break points in the table

The Johansen-Juselius test for cointegration relationships is subsequently performed and the results are summarized in Table 4. At the 95% significance level, the trace test statistic rejects the null hypothesis that the number of cointegrating vectors is zero, in favor of the alternative that there exists one cointegrating vector. The existence of one cointegrating vector indicates that these time series variables share a mutual stochastic trend and are linked in a common long-run equilibrium. The cointegrating coefficients are then normalized based on the poverty rates. The significance test indicates that per capita GDP growth and changes in the import/GDP ratio do not affect poverty significantly during the investigation period whereas the increase in the export/GDP ratio improves the poverty but the increase in the FDI/GDP ratio deteriorates Canadian poverty.

Table 4. Results of Johansen and Juselius Cointegration Test

A. Cointegrating LR test based on Trace of the stochastic matrix

Null	Alternative	Statistic	95% critical value
$r = 0$	$r = 1$	69.83**	69.61
$r \leqslant 1$	$r \leqslant 2$	36.56	47.07
$r \leqslant 2$	$r \leqslant 3$	21.09	29.80
$r \leqslant 3$	$r \leqslant 4$	7.73	15.41
$r \leqslant 4$	$r \leqslant 5$	0.02	3.84

B. Estimated Cointegrating Vectors, Coefficients Normalized on the Poverty Rate

Vector	Poverty Rate	Per capita GDP	Export/GDP	Import/GDP	FDI/GDP
1	1.00	0.604	-0.58	-0.03	1.08
$\chi^2(1)$		(2.45)	(4.86)**	(0.01)	(2.74)***

Note: Maximum lag in VAR = 1. Eigenvalues in descending order are: 0.849, 0.570, 0.491, 0.308, and 0.001. *, **, *** indicate significance at 1%, 5%, and 10% levels respectively.

A brief discussion on these empirical results is provided here. First, the insignificance property of per capita GDP on poverty from our cointegration tests indicate that the Canadian poor have not benefited from economic growth during the last two decades. This result is quite consistent with our early work on Canadian income distribution and income inequality (see Wang and Dayanandan, 2006), in which we find that Canadian inequality has worsened during the last two decades. All these results

imply that current Canadian social safety and assistance programs at both federal and provincial levels may not be sufficient and efficient to fight poverty and inequality, and therefore some reforms are necessary. Second, economic globalization, which may be characterized by increasing international trade and foreign direct investment (FDI) flows, has brought great impacts and led to dramatic changes to the world economy since the early 1980s. However, the impact of economic globalization on poverty inequality remains a highly controversial issue with limited empirical investigation. Our work indicate that the trade liberalization following globalization has produced favorable impacts on poverty in Canada as evidenced by the sign and significance of the cointegrating parameter for the export/GDP ratio and the insignificance cointegrating parameter for the import/GDP ratio. With this result, the Stolper and Samuelson (1941) hypothesis is not strongly supported by Canadian empirical evidence. Third, although per capita GDP and trade liberalization have often been studied as important determinants of poverty, ignoring the role of the FDI flows could hamper the validity of these results. Studies on the impact of the FDI flows on poverty appear to be quite limited so far. Our results indicate that the FDI inflows have an unfavorable impact on poverty, although this impact may not be very strong given that the FDI/GDP ratio is less than 5% for most years during the investigation period. Based on this result, the Mundell's (1957) hypothesis is supported by Canadian empirical evidence.

To verify the robustness of our results, we also carry out the Gregory-Hansen test, which explicitly takes into consideration the structural change in cointegration vector. The test results, reported in Table 5 above, clearly reveal that there is no evidence of structural change in the cointegration relationships in the poverty model for Canada during the investigation period.

Table 5. Results of Gregory-Hansen Tests

Model	Test Statistic	Break Date	Critical Values	
			1%	5%
C	-2.38	1991	-6.05	-5.56
C/T	-2.80	1992	-6.36	-5.83
C/S	-3.30	1993	-6.92	-6.41

5. Conclusions

In this paper, we have investigated the impact of economic growth and openness on Canadian poverty. Our empirical investigation is conducted within the framework of the unit root and cointegration tests. Empirical results indicate that exports have a favorable impact whereas the FDI inflows have an unfavorable impact on Canadian poverty, while per capita does not affect poverty significantly during the investigation period. These results are very informative to the policy makers.

Although the results obtained in this paper may be regarded as preliminary while we await the availability of even longer and better time series data on the poverty rates for Canada, nevertheless these results should also be viewed as an important first step in addressing such an important topic, which has important public policy implications.

References

Beauliey, E, (2000) The Canada-U.S. Free Trade Agreement and Labor Market Adjustment in Canada, *Canadian Journal of Economics*, 33.2: May, 540-563.

Campos, J., Ericcson, N.R., and Hendry D.F (1996) Cointegration tests in the presence of structural breaks, *Journal of Econometrics*, 70: 187-200.

Dickey, D. A. and W. A. Fuller (1979) Distribution of the Estimators for Autoregressive Time Series with a Unit Root, Journal of the American Statistical Association, 74: 427-431.

Dickey, D. A. and W. A. Fuller (1981) Likelihood Ratio Statistics for Autoregressive Time Series with a Unit Root, Econometrica, 49: 1057-1072.

Dickey, D. A., Jansen, D. W., and Thornton, D. L. (1991) A Primer on Cointegration with an Application on Money and Income, *Economic Review*, Federal Reserve Bank of St. Louis, March-April, 59, 2, 58-78.

Elliott, G., T. J. Rothenberg, and J. H. Stock (1996), "Efficient Tests For an Autoregressive Unit Root," *Econometrica*, 64: 813-836.

Gaston, N., and D. Refler (1997) The Labor Market Consequences of the Canada-U.S. Free Trade Agreement, *Canadian Journal of Economics*, 2.30.1: February, 18-41.

Gregory, A. and Hansen, B. (1996) Residual-based Tests for Cointegration in Models with Regime Shifts, *Journal of Econometrics*, 70, 99-126.

Johansen, S. (1988) Statistical Analysis of Cointegration Vectors, *Journal of Economic Dynamics and Control*, 12: 231-255.

Johansen, S. and K. Juselius (1990) Maximum Likelihood Estimation and Influence on Cointegration with Application to the Demand for Money, *Oxford Bulletin of Economics and Statistics*, 52(2): 169-210.

Johansen, S. and K. Juselius (1994) Identification of the Long-run and Short-run Structure: An Application to the IS-LM model, *Journal of Econometrics* 63: 7-37.

Maxwell, J (1997) Social Dimensions of Economic Growth, *Eric J. Hansen Memorial Lecture*, University of Alberta, January 25.

Morrissette, R (1997) The Declining Labor Market Status of Young Men, presented at the *Conference on Inter-generational Equity*, February 21-22, Ottawa: Statistics Canada.

Mundell, R. A. (1957) International Trade and Factor Mobility, *American Economic Review*, 47: 321-335.

Osberg, L (2000). Poverty in Canada and the United States: Measurement, Trends and Implications, *Canadian Journal of Economics*, 33. 4: 847-877.

Perron, P (1989) The Great Crash, the Oil Price Shock and the Unit Root Hypothesis, *Econometrica*, 57: 1361-1401.

Phillips, P. C. and P. Perron (1988) Testing for a Unit Root in Time Series Regression, *Biometrika*, 75: 335-346.

Sarlo, C. (2001) *Measuring Poverty in Canada*, Fraser Institute of Vancouver.

Stolper, W. and Samuelson, P. (1941) Protection and Real Wages, *Review of Economic Studies*, 9: 58-73.

Wang, B and A. Dayanandan (2006) The Impact of Globalization on Income Inequality: Some Empirical Evidence from Canada and India, The ICFAI Journal of Applied Economics, (forthcoming)

Zivot, E. and Andrews, D. (1992) Further Evidence of the Great Crash, the Oil-price Shock and the Unit Root Hypothesis, *Journal of Business and Economic Statistics*, 10: 251-70.

Zyblock, M. and Z. Lin (2000) Trickling Down or Filling Out? Economic Performance, Transfers, Inequality and Low Income in Canada, *Journal of Income Distribution*, 9: 137-154.