Review of the CSLS Sessions at the 2004 Meetings of the Canadian Economics Association, Ryerson University, Toronto, June 4-6

Friday, June 4 10:30-12:00
Session 1 What Explains International Differences in Productivity Levels?

Chair: David Slater (Centre for the Study of Living Standards)

Papers:

- Brenda Lafleur (Conference Board of Canada) and Andrew Sharpe (Centre for the Study of Living Standards) "Industry Perspectives on the Canada-U.S. Productivity Gap"

- James Milway (Institute for Competitiveness and Prosperity) "Assessing the Drivers of the Canada-U.S. Prosperity Gap"

- Gilbert Cette (Banque de France and Université d'Aix-Marseilles) "Is Hourly Labour Productivity Structurally Higher in Some Major European Countries than it is in the United States?"

Discussants:

- Tom Wilson (University of Toronto)

- Andrew Jackson (Canadian Labour Congress)

- Pierre Fortin (Université du Quebec à Montréal)

After the Chair, David Slater, introduced the speakers, Andrew Sharpe began the session by presenting "Industry Perspectives on the Canada-U.S. Productivity Gap", which he noted had been drawn from work on a larger project being undertaken by CSLS and the Conference Board. The presentation was in three parts: the first discussed different methodologies available for analyzing productivity level differences at the industry level; the second discussed recent Industry Canada estimates of Canada-U.S. industry productivity gaps; and the third discussed case studies undertaken by the McKinsey Global Institute and the application of their findings to the Canada-U.S. productivity gap.

There are three approaches to comparing industry productivity levels internationally. The first involves the use of Unit Value Ratios (UVRs) to convert output estimates in national currencies into a common currency. This technique relies on detailed product prices that can be matched across countries. The UVR approach has been used by the Groningen Growth and Development Centre in their ICOP

(International Comparisons of Output and Productivity) database. The second is the 'deconstruction' of expenditure-based Purchasing Power Parity (PPP) estimates into industry-specific PPPs based on the detailed expenditure categories of the input-output tables. This technique has recently been used by Industry Canada to estimate Canada-U.S. productivity relatives for several industries. The third is the case study approach. In this approach the characteristics and actual operations of an industry are studied in detail and compared across countries. The McKinsey Global Institute has undertaken case studies for several different country pairings and industries.

A recent paper by Industry Canada researchers Someshwar Rao, Jianmin Tang and Weimin Wang, also presented at the CEA meetings, relies on the second method of comparing productivity levels at the industry level across countries. They present estimates of Canada's labour and multifactor productivity levels relative to the United States for the overall business sector and 31 industries for 1999. Their findings show that Canada's business sector had a labour productivity level 85 per cent of that in the United States in 1999, and that this was accounted for mostly by low labour productivity relatives in service sector industries.

Nine industries, mostly in natural resources, had labour productivity levels above their U.S. counterparts, with the construction industry having, surprisingly, a labour productivity level 151 per cent that of the U.S. construction industry. Only three industries had labour productivity levels between 80 and 100 per cent of their American counterparts, with the majority of industries having levels less than 80 per cent. Official Statistics Canada and U.S. Bureau of Labor Statistics output per hour estimates for the business sector and manufacturing can be used to extend the benchmark level estimates before and after 1999, and such extrapolations show a large deterioration in Canada's labour productivity position relative to that in the United States after 2000.

The small capital intensity gap between Canada and the United States at the business sector level in 1999 (of 11 per cent) means that the multifactor productivity gap, also at 11 per cent, is smaller than the labour productivity gap. The dispersion of this gap by industry was similar to that of the labour productivity gap.

The McKinsey Global Institute has made several in-depth case studies on productivity for specific industries for several countries, such as Brazil, India, Germany and France. The key finding across all of these studies is that competitive forces are the main driver of productivity. Some competition drivers mentioned by the McKinsey reports – such as zoning laws, unionization and minimum wages – are not necessarily applicable to Canada, as these factor are similar across Canada and the United States. Nonetheless, some conclusions match the Industry Canada results closely.

For example, Canada's product market is frequently described as less competitive than the U.S. market, and this could explain the large productivity shortfall in services in Canada relative to the United States. The Canadian natural resources sector, on the other hand, has historically been exposed to a great deal of international competition, and has performed remarkably well relative to its U.S. counterpart in terms of productivity.

Likewise, the poor productivity performance of agriculture and banking may be related to less competition in these industries in Canada than in the United States.

The discussant for this paper was Tom Wilson, of the University of Toronto. He first discussed the possibility of measurement issues interfering with accurate industry productivity comparisons across Canada and the United States. For example, large differences have been found in the depreciation rates used in the estimation of the capital stock in the two countries. The higher depreciation rates in Canada have likely lead to a low measured capital-labour ratio in Canada compared to the true level if it were properly measured. Also, the measurement and composition of the finance and insurance industry may be different across the two countries, and the United States appears to have been more aggressive than Canada in adjusting prices for quality improvements. Finally, the greater preponderance of small plants and the self-employed in Canada than the United States may complicate cross-country comparisons.

Wilson also commented that, although the McKinsey Global Institute studies appear to have relevant lessons for some Canadian industries, the poor and worsening productivity performance of Canadian manufacturing relative to the United States does not appear to be driven by differences in competitiveness. He suggested that export promotion may be a favourable trade intervention in terms of improving the Canadian manufacturing industry's productivity performance. Also, while marginal effective tax rates facing the manufacturing industry appear to be much lower in the United States than in Canada, Wilson noted that statutory rates are not significantly different between the two countries, and suggested that policies to improve manufacturing productivity may want to consider adjusting tax deductions and depreciation schedules. Finally, he suggested that some policies in Canada may inadvertently encourage manufacturing firms to stay private rather than go public, which may have negative productivity consequences.

James Milway then presented the paper "Assessing the Drivers of the Canada-U.S. Prosperity Gap". He began by explaining that the Institute for Competitiveness and Prosperity was put in place by the Harris government in Ontario, with the goal of comparing Ontario to other jurisdictions with similarities in the diversity of industry and other variables. For this paper, this same approach was taken for Canada as a whole. The prosperity gap between Canada and the United States amounts to about $10,000 per person per year in after-tax income. While Canada fares well relative to all the other countries in its peer group, the differences in prosperity with the United States represent an opportunity gap.

The Canada-U.S. prosperity gap can be decomposed into labour market, hours worked, demographic, and productivity components. The problem does not lie in the first three of these, and indeed Canada's labour force participation rate exceeds that in the United States. Therefore, the primary factor, namely productivity, is decomposed into a number of driving factors. These include cluster effects, urbanization, education, capital investment, and a residual "effectiveness" component.

Cluster mix and content are found to positively affect Canada's productivity and hence prosperity relative to the United States. This refers to the clustering of industries into traded, local and natural resource groupings, and the actual industries that are found in each of these groupings. Also, while measurement issues in education persist, Canada appears to be fairly similar to the United States, although still appears to lag the United States in terms of the proportion of people with advanced degrees

However, lower urbanization in Canada compared to the United States was found to have a large negative effect on Canada's relative productivity level. This lower level of urbanization was found to have negative effects in terms of less innovation through networking, higher unit costs through a more limited ability to achieve scale economies, and a less diversified pool of labour. Persistently lower levels of capital investment were also found to have a negative effect on Canada's relative productivity performance.

The remaining effectiveness gap accounts for a dominant proportion of the overall productivity gap. Milway concluded by suggesting that this effectiveness gap can be closed – and with it a large part of the prosperity gap – if Canadian attitudes towards competitiveness, our investments, our motivations to work and hire, and our market and institutional structures combine to drive the required innovation.

The discussant for this paper was Andrew Jackson, of the Canadian Labour Congress. He stated that the paper provides a strong policy framework, although some research questions remain. He suggested that the use of GDP per capita in defining prosperity may overstate the gap between Canada and the United States, and that median personal income may be a better metric. In terms of measurement issues, he suggested that the comparability of U.S. and Canadian hours estimates is questionable, that there may be differences across the two countries in what is defined as non-traded (in terms of defining clusters), and that there may be comparability issues in terms of smaller scale operations and less high-tech industries within Canadian manufacturing than within U.S. manufacturing.

Jackson also said that urbanization can be defined in different ways, and that he is skeptical of whether this is really as large a factor in the productivity gap as Milway's work suggests. Also, while differences remain between Canada and the United States in terms of the proportion of people with high-level university degrees, other education indicators such as literacy and numeracy favour Canada.

In terms of Canada's lagging investment, Jackson mentioned that this may not be a taxation issue, but rather a choice consciously made by firms. In this sense, the employment growth experienced by Canada in the 1990s may not have been a bad option even if there was a tradeoff with productivity growth and even though this was in contrast to low employment growth but high productivity growth in the United States. Finally, Jackson suggested that there be more discussion of differences in social programs between Canada and the United States. The many differences could be interpreted either as advantages or disadvantages for Canada.

The final paper, "Is Hourly Labour Productivity Structurally Higher in Some Major European Countries than it is in the United States?" was presented by Gilbert Cette. While conventional measurements of hourly labour productivity show higher levels in several continental European countries than in the United States, GDP per capita in these countries is still below U.S. levels due to fewer hours worked (i.e. greater leisure time) in these countries. This suggests that, if workers in these countries chose to work longer hours (or more people decided to enter the workforce), the GDP per capita gap with the United States could be closed.

However, there appear to be diminishing returns to more hours of work and a higher employment rate in terms of closing the GDP per capita gap. This is because the largest differences in working hours and the employment rate are for the youngest and oldest age groups. As the employment rate of these age groups increases, productivity can actually decrease, since the inexperience of youths and the less maintained skills of older people will offset the high productivity of the prime-age workers.

Based on this concept of diminishing marginal returns, Cette discussed the calculation of "structural" hourly labour productivity estimates, i.e. estimates of output per hour that take into account which specific demographic groups are actually working. These estimates were calculated by applying elasticities of labour productivity with respect to hours worked and the employment rate (estimated econometrically) to gaps in these variables with the United States. Such estimates show that, in contrast to conventionally measured output per hour, structural labour productivity in European countries is actually lower than in the United States. This is consistent with the observation that is often made that the United States sets the technical efficiency frontier.

The discussant for this paper was Pierre Fortin, of the University of Quebec at Montreal. Fortin stated that Cette's calculation of "structural" labour productivity could be framed in another way. Specifically, structural labour productivity as calculated by Cette is equivalent to calculating labour productivity while restricting the capital-labour ratio in Europe to the U.S. level. An additional question raised by the paper thus concerns the sources of the high capital-labour ratio in some European countries.

Fortin also commented briefly on the first two papers. For the first paper he suggested that the surprising result for the construction industry needs to be addressed further. A comment from the audience suggested that there may be issues with the PPP estimate derived by the Industry Canada researchers for the construction industry. For the second paper, Fortin suggested that in times of a low Canadian dollar exchange rate, Canada may actually be too competitive relative to the United States, in that efforts of firms focus more on expanding markets than on improving productivity. In this sense, other factors besides competitiveness may be of more importance in improving Canada's labour productivity performance relative to the United States.

The presenters were then given an opportunity to respond to comments. Sharpe replied that previous work by CSLS had found sustained negative productivity growth in the U.S. construction industry compared to a stagnant but non-decreasing level of

productivity in the Canadian construction industry, so that in a sense the high Canadian level found by the Industry Canada researchers was not entirely surprising (although measurement issues may be contributing to the measured poor performance of the U.S. industry). Further, true purchasing power parity is driven by cross-country productivity differences, so that the Industry Canada construction PPP estimate does not look unreasonable in light of the previous CSLS findings. Also, efforts had been made by the Industry Canada researchers to correct for some of the measurement issues mentioned by Tom Wilson, although Sharpe conceded that issues with deflators and smaller scales of operation in Canada could still be present. Finally, while concurring with the points made by Wilson on the productivity performance of Canada's manufacturing industry, Sharpe suggested that part of the poor manufacturing performance is simply due to the fact that some high-tech manufacturing activities are not located in Canada. In terms of the business sector, Sharpe mentioned that Canada's recent deterioration in relative productivity performance may in part be due to cyclical factors in Canada, and that the unprecedented U.S. performance should eventually spill over into Canada.

Milway stated that further work by the Institute of Competitiveness and Prosperity has found that the private/public mix may not have significant implications on Canada's productivity performance relative to that in the United States.

Cette stated that he agreed with Fortin's alternate interpretation of the structural productivity concept. He also stated that, at least from his view, France seems to spend a lot of resources on encouraging young, old and unskilled (especially female) workers to leave or never enter the labour market. This means that the greater leisure enjoyed by people in France on average compared to the United States may not be as much a matter of personal choice as is sometimes assumed.

Friday, June 4 13:45-15:15
Session 2 What Accounts for the Recent Rebound in Participation Rates in Canada?

Chair: Andrew Sharpe (Centre for the Study of Living Standards)

Papers:

- Russell Barnett, Steven James and Tim Sargent (Finance Canada) and Claude Lavoie (Bank of Canada) "The Canadian Labour Force Participation Rate Revisited: Cohort and Wealth Effects Take Hold"

- Pierre Fortin (Université du Quebec à Montréal) and Mario Fortin (Université de Sherbrooke) "The Changing Labour Force of Canadians: New Evidence from a Panel of Demographic Groups"

Discussants:

- Craig Riddell (University of British Columbia)
- Louis Grignon (Human Resources and Skills Development Canada)

In 1998, CSLS organized a number of events discussing the labour force participation rate, both at the 1998 CEA annual meetings at the University of Ottawa and in conjunction with Human Resources and Development Canada at the Congrès annuel de la Société canadienne de science économique in Québec, Québec. A number of contributions from these events were subsequently published as a Symposium on Labour Force Participation in Canada in the 1990s in the May 1999 volume of *Canadian Business Economics*. The consensus arising from the authors and discussants at these events was that the level of the labour force participation rate attained in 1989 in Canada would never be reached again, due to a number of structural forces. In 2003 these predictions were proved incorrect when the participation rate regained and exceeded its 1989 level. This session was hence an opportunity for some of those involved with the 1998 sessions to revisit their predictions.

The first paper to be presented was "The Canadian Labour Force Participation Rate Revisited: Cohort and Wealth Effects Take Hold", presented by Russell Barnett. Barnett presented the results of an econometric investigation based on a large Statistics Canada microdata set and adapted from a model explaining employment rates rather than participation rates. In the model, the labour force participation rate was regressed on a number of independent variables, such as age profile, net wealth, and a measure of the health of the job market. This last variable was proxied with the job offer rate, calculated from the Help Wanted Index.

The behaviour of the labour force participation rate since 1989 can be analyzed over three sub-periods, namely the early 1990s, the late 1990s, and the period since 2002. The econometric results presented by Barnett show that, in the early 1990s, the decline in the labour force participation rate was primarily caused by the sharp drop in labour demand during and following the 1990-1991 recession. This was reinforced by a wealth effect: strong gains in equity and pension assets in this period gave some people an incentive to exit the labour market.

Partially offsetting these negative effects on the participation rate was a strong female cohort effect. This cohort effect refers to the propensity for subsequent generations of women to have an increasing attachment to the labour force. This could be due to a number of factors, such as greater control over the decision of when to work and when to have children, and the increasing education level of women. As older cohorts (with low labour force attachment) exit the sample and younger cohorts (with higher labour force attachment) comprise a greater proportion of the sample, the labour force participation rate will be positively affected through this compositional effect.

In the later 1990s the labour force participation rate stopped declining and began to rise slowly. The econometric evidence presented by Barnett suggests that while labour demand had improved by this time, this trend was primarily driven by continuing cohort effects. The largest increase in the labour force participation rate, however, occurred after 2002, and does not appear to have been driven by cohort effects. Rather, the econometric evidence points to large wealth effects. Contrary to the situation in the early 1990s, the declining equity markets in the early 2000s convinced many people to re-join the labour market. This effect was particularly strong among older age groups.

Barnett concluded by discussing future prospects for the participation rate. It is expected that the labour force participation rate will decline significantly over the next several years due to age effects. That is, as the baby boom generation begins to retire, younger workers, with less attachment to the labour force, will begin to make up a greater proportion of the working age population, and the participation rate will be reduced through this compositional effect.

The second paper, presented by Mario Fortin, was "The Changing Participation Rate of Canadians: New Evidence from a Panel of Demographic Groups". Fortin's presentation was also based on econometric evidence, with a model including such variables as age composition, school attendance, income protection, and minimum wages.

This model suggests that, in the early 1990s, the slump in labour demand accounted for slightly more than a third of the declining labour force participation rate, with the rest accounted for by structural effects. One such effect was the tightening of employment insurance requirements, which forced a larger proportion of the unemployed to leave the labour force, rather than retain unemployed status while having only a marginal attachment to the labour force in terms of not looking for work.

The most significant finding of this paper is that the strong increases in the participation rate after 2002 are almost entirely structural. In contrast to the first paper though, the econometric evidence presented by Fortin suggests that wealth effects did not play a large role in the sharp increase in the participation rate in this period. While it is true that equity wealth did decline in this period, Fortin showed that housing wealth more than offset this decline. Therefore, the total net wealth of households was actually increasing over this period, which should have had a downward effect on the labour force participation rate if any.

While the paper is unable to find completely satisfactory explanations for the structural rise in the participation rate after 2002, it does make some related observations. First, participation rates in this period increased the most for young males and within older age groups. Second, the sharp increase in the participation rate coincided with a sharp increase in part-time work. Third, there was a further unexplained increase in the participation rate after 2003, but only for older men and women. Finally, Fortin mentioned that there is evidence that some anti-deficit policies implemented in the early 1990s, in the form of early retirement packages to public-sector employees, contributed

to the declining labour force participation rate at this time, and consequently that the currently less generous early retirement packages could be fuelling increases in labour force participation among older workers.

Craig Riddell, of the University of British Columbia, and Louis Grignon, of Human Resources and Skills Development Canada, both provided comments applicable to both papers. Riddell began by stating that the largest increases in the participation rate occurred after 1998, and joked that perhaps the original symposium organized by CSLS played a role in the increase.

Several of Riddell's suggestions focused on the econometric models: out-of-sample predictions should be attempted; Canadian coefficients could be applied to U.S. data; possible new variables include the number of children, employment situation of the spouse, and education; supplemental surveys to the Labour Force Survey could also contain data on wages; and the treatment of students in the Labour Force Survey needs to be confirmed.

Grignon's comments also focused on possible improvements to the econometric analyses: estimation periods can be significantly extended; quarterly as opposed to annual data could be used (applicable to the second paper only); education should be included (consistent with Riddell's recommendation); and specific data on the National Child Benefit program should be included.

Some general comments were made by members of the audience. One audience member suggested that the treatment of female cohort effects lumps together a number of interesting variables, such as marriage tax rules and divorce behaviour. The analysis could be potentially more informative if it were possible to include these factors individually. Other comments included the following: retirement decisions of men and women are not independent; the effects of pension wealth should be separated from the effects of RRSP wealth; the strong wealth effect results of the first paper may be sensitive to the fact that the analysis does not include 2003, a year in which stock market wealth rebounded yet the labour force participation rate continued to increase; and that the second paper should include the interest rate to address the substitution effect between housing wealth and equity wealth.

Saturday, June 5 13:45-15:15
Session 3 Are Indicators of Well-being Relevant for Public Policy?

Chair: Ian Stewart (Centre for the Study of Living Standards)

Papers:

- Lars Osberg (Dalhousie University) "The Relevance of Objective Indicators of Well-being for Public Policy"

- John Helliwell (University of British Columbia and Bank of Canada) "Does Subjective Well-Being Research Have Policy Implications?"

Discussant:

- Jean-Pierre Voyer (Policy Research Initiative)

Osberg began the session by observing that there has recently been a flourish of social indicators literature, after a long hiatus. He speculated that this recent surge has been driven by the rhetoric of accountability that has developed, and the related need for performance measures. There are two major choices to be made in presenting these performance measures: the choice of objective, third-party-verifiable data versus subjective, survey- or interview-based data; and the choice of a battery of indicators versus a composite indicator that aggregates several variables into a single number. Recently the report card style has been popular, in which a large number of indicators is presented, mixing flows with stocks, and objective with subjective data, with no attempt at aggregation.

There are two main perspectives on why the collection of social indicators is important. The first is the idealist perspective. According to the idealist perspective, social indicators improve policy decisions by providing a feedback loop: after a policy has been implemented, social indicators can be consulted to evaluate whether this policy has benefited or been detrimental to society, and so whether or not further policies in this direction should be implemented. By using social indicators in this feedback loop it is presumed that people have social objectives to some degree, rather than caring only about how a given policy affects them personally.

From the idealist perspective, the clearest guide to public policy decisions is provided by objective data aggregated in a transparent way. Excess aggregation of a number of underlying variables is not useful because it does not allow voters and observers to understand exactly what went right or wrong – i.e. what aspect of well-being has gone up or down due to a given policy. Excess aggregation also does not allow the disentangling of value judgements and statistical judgements. However, when there is no aggregation, in the report card or dashboard approach, it is difficult for voters to digest information in a useful way.

But idealists are not necessarily interested in objective data exclusively. This is because, in some instances, objective data do not correlate well with self-reported happiness and other subjective indicators. There may be an explanation for this non-correlation though. First, the non-correlation with subjective indicators may simply be a sign that better objective indicators need to be included in the analysis. For example, the importance of leisure time and the negative effects of unemployment have been shown to be important to happiness, but are not always included in objective indicators.

More importantly, however, is that happiness and well-being are not the same thing. Self-reported happiness seems to depend on the divergence between personal aspirations and actual outcomes, while well-being is usually equated either with Amartya Sen's conception of capabilities to lead a life of personal satisfaction, or with proximity to an objective norm such as "the good life". In this sense it is objective indicators that are important for tracking well-being.

In contrast to the idealist perspective on the importance of social indicators is the cynical perspective. According to the cynical perspective, it is politicians that dictate policy decisions exclusively, and politicians care about re-election rather than the well-being of society directly. In this sense, subjective indicators are preferred as they serve to highlight potential discontent from the electorate, and so to guide electoral promises in the direction of appeasing voters.

From the cynical perspective the report card approach to indicators is also favoured. This is because the selective publication of a large number of diverse variables provides politicians with the opportunity to give the impression that variables of concern to single individuals or small groups of people are being taken seriously, while in reality there is no commitment to do anything about any of the variables.

To illustrate the difference between the idealist and cynical uses of social indicators, Osberg discussed the example of the risk from death due to terrorism. In North America this risk, in a measured, objective sense, is minute. Idealists would therefore hope that policies on preventing premature death would focus more on reducing automobile accidents than on terrorist attacks, since the probability of death from the former far exceed that from the latter. Cynics, on the other hand, would use the subjective fear of terrorist activity to justify large expenditures on combating such activity, and thereby improve their chances of electoral success, even though the measured probability of premature death would be virtually unchanged.

Helliwell's presentation was based on the large amount of research he has recently undertaken on subjective happiness. His main findings are that self-reported happiness appears to be driven by religious beliefs and participation, trust in government and neighbours, and marriage. Further, an observed U-shape in happiness over the life cycle can be explained by a perceived shortness of time, i.e. stress in middle age.

Helliwell's presentation focused mainly on how new work has made these findings more robust. One criticism of happiness research, from experimental psychologist and Nobel Laureate Daniel Kahneman, is that there is a large divergence between remembered utility (i.e. what an individual remembers about a given event) and experienced utility (what the individual reports when the event is actually taking place), so that it is not clear how seriously self-reported life satisfaction statements should be taken. Helliwell stated that while this is true, it is remembered utility that is much more germane to public policy, and that self-reported happiness measures therefore have importance in policy formation.

Other criticisms of happiness research have been that international differences in self-reported happiness are too large to be believable, and that trust in government and marriage do not necessarily cause people to be happy but rather happy people are more likely to get married or have trust in government. Helliwell explained that these concerns can be addressed by looking at international data on suicides. Such data show even larger differences across countries than self-reported happiness. Further, suicide is affected by the same variables as is happiness, although with suicide there can be no question of reverse causality.

Helliwell added that an additional reason that subjective indicators are important for public policy is that they can be used in conjunction with objective indicators. Indeed, subjective preferences towards certain concerns are crucial in choosing which objective indicators to focus on and in evaluating the importance to society in trends in these variables.

The discussant for both papers was Jean-Pierre Voyer, of the Policy Research Initiative. His first remark was that subjective indicators have policy relevance in the same sense that polling is important. However, he conceded that there are still areas of weaknesses. In terms of the econometric evidence on the drivers of happiness, he stated that there may be problems with omitted variables. Also, he noted that some of the concepts involved in happiness research remain unclear.

In reference to the revival in interest in social indicators observed by Osberg, Voyer noted that this seems to be driven by dissatisfaction in discourse on social expenditures. However, in contrast to the focus on accountability proposed by Osberg, Voyer sees a growing interest in, more simply, acting responsibly, although this still requires indicators for evaluation. He stated that the achilles heel of objective indicators remains the weighting of individual components, and in some cases the selection of the components themselves.

Voyer concluded by commenting that, even though there has been a recent interest, policymakers have been slow to embrace indicators. He stated that, in this respect, the report card approach might be useful in terms of appealing to a wider audience. Also, it is not necessary to make a clear choice between aggregate indicators and batteries of indicators, as it is possible for them to coexist in a policymaking setting.

One comment from the audience was that indicators seem to be more prevalent at the national level than at the provincial level in Canada, and that there is a need for province-specific data in order to make comparisons. Another member of the audience stated that a report card system at the provincial level was in the works, but that there had been coordination difficulties across provinces.

Another comment from the audience was that other researchers, referencing the result that happiness is compromised by too much work, had stated that labour taxes might be beneficial not only in a redistributive sense but also in encouraging people to

work less. Helliwell stated that such definite statements are premature, but that one of the successes of happiness research to this point has been in highlighting policy tradeoffs.

There was also a discussion on the credibility of treating some drivers of happiness as policy levers. For example, since marriage and religion are apparently important for happiness, this might suggest that policies to improve society's level of happiness could focus on making divorce illegal or mandating a certain level of involvement with a church. Helliwell responded that the results on the drivers of happiness still need to be treated cautiously, but that in any case, the implications are more in favour of policies of a facilitating nature: if people desire to become married or involved in religion, policies should allow for or simply not interfere with this, rather than attempting to force such behaviour.