

Executive Summary

The British Columbia Progress Board (BCPB) has asked the Centre for the Study of Living Standards (CSLS) to consider producing a set of studies on productivity in British Columbia in five issue areas. Each report would provide recommendations for action by government, the private sector and individuals to improve productivity. In this paper, we provide a brief analysis of British Columbia's productivity performance and the state of the drivers of this performance. We then identify the five strategic areas that we believe should be the focus of the reports and that are most likely to result in recommendations that would help to improve BC's productivity performance.

They are, in the proposed order of completion:

- Public and private investment, including public infrastructure, business investment and taxation structure.
- Education and literacy, including professional qualifications and education for targeted groups such as aboriginals and recent immigrants, credentials recognition.
- Research and innovation, including R&D investment, product and process innovation, knowledge diffusion and technology adoption.
- Resource reallocation, including competition policy, improving market mechanisms, product market regulation and foreign ownership rules.
- Trade and migration, including interprovincial and international movement of goods and services, skilled and unskilled immigration and emigration and interprovincial migration.

Labour productivity in British Columbia grew on average 0.7 percent a year during the 1987-2006 period while Canada as a whole experienced average annual growth of labour productivity of 1.3 percent. In fact, labour productivity growth in British Columbia was below that of every other province over that period. British Columbia's total factor productivity growth, however, was above the national average. The report finds that from a growth accounting perspective declining capital intensity accounts for virtually all the labour productivity difference between Canada and British Columbia. With population aging and a soon stagnating labour force, labour productivity growth will become increasingly synonymous for GDP and income growth in British Columbia. Indeed, the CSLS estimates that 72 percent of GDP growth and 156 percent of GDP per capita growth will come from labour productivity growth in the 2006-2026 period in British Columbia. To increase its productivity growth, British Columbia will have to improve its performance in a number of key areas.

This report identifies a number of areas in which British Columbia underperforms compared to the rest of Canada. This underperformance may explain its lagging labour productivity growth and improvements in these lagging areas offers the possibility of stronger productivity growth in the future. First, despite having strong human capital in certain areas, British Columbia remains below the national average in terms of post-secondary and university completions. Moreover, its

level of M&E investment as well as its growth in total investment have been below the national average and have translated into negative growth in capital intensity. Indeed, as previously noted, falling capital intensity appears to be a key factor in explaining the gap in labour productivity growth between British Columbia and Canada. In addition, although the percentage of firms in British Columbia reporting product and process innovation is similar to the national average, the province's R&D expenditure as a share of GDP is only about three quarters the national average. The industrial structure of British Columbia's economy was also found to be a drag on its productivity level and growth. Finally, British Columbia exhibits a lower share of exports as a share of GDP relative to other provinces in spite of its strategic geographic positioning.

This report identifies three key drivers of productivity: human capital, physical capital and technological progress. Clearly, to increase productivity in the future, British Columbians will need to invest more both in their people and in new technologies, as such investments are two of the key drivers of productivity growth. The first two proposed reports would assess in which specific sphere investments in human and physical capital are most needed and how they can be achieved. The third proposed report would focus on research and innovation, the third key driver of productivity. Innovation generally refers to both knowledge creation and technology adoption, which results in new or enhanced products or production processes. Innovation finds its source in both embodied capital, as is the case of ICT investment, and disembodied capital, as is the case for network capital acquired through technological clustering. In this context, this report will be able to efficiently harness the findings of the two previous reports.

In addition to the key drivers of productivity, there are a number of cross-cutting issues which affect productivity through more than one of the aforementioned drivers. In a fourth report, we propose to focus on microeconomic forces facilitating resource reallocation, and address the broad questions of market structure, market regulation and firm incentives, all of which directly affect productivity levels and growth. A fifth and final report would address the key questions of trade and migration, both macroeconomic factors which impact productivity growth. Trade plays an important role in ensuring an adequate level of competitive pressures and can open new markets and create new opportunities for firms located in British Columbia. Migration, on the other hand, can significantly alleviate current and future labour scarcity and dampen the effect of population aging, both of which are possible bottlenecks to productivity growth.