Economic Diversity

Noteworthy:

- In the years between 1971 and 1999, the diversity of Alberta’s economy was the most similar to that of Canada’s as a whole in 1971.
- The diversity of Alberta’s economy was the least similar to Canada’s from 1983-1985 because of Alberta’s increasing dependence on the mining, oil and natural gas industries.
- Although the Gross Domestic Product (GDP) in Alberta has grown steadily since 1961, the diversity of Alberta’s economy relative to that of Canada was substantially less in 1999 than in 1971.
- In 1999, Alberta’s economy was only slightly less dependent on resource-based industries (25.9% of GDP) than it was in 1971 (28.0% of GDP). Resource-based sectors include agriculture and food, forest industries and petroleum and mining-based industries.
- The importance of the service and knowledge-based economy has grown only marginally in importance—from 57.6% of the GDP in 1971 to 60.4% in 1999.

Economic Diversity in Alberta: How Much?

Measuring the diversity of Alberta’s economy is critical to understanding the resiliency of the economy in the past, present and future. We developed an Economic Diversification Index (EDI) which describes the diversity of Alberta’s economy relative to the more diverse economy of Canada as a whole. The EDI compares the percent of GDP attributable to each industry in Alberta with that of Canada. The closer Alberta’s EDI is to 1.00, the more closely the distribution of GDP by industry in Alberta resembles that in Canada. The closer the index is to zero, the less diversified is Alberta’s economy relative to Canada’s, with one or more sectors dominating in the province. The EDI indicates that the diversity of Alberta’s economy was most similar to Canada’s in 1971 when the EDI equaled 0.59. The EDI was lowest from 1983-1985, due to Alberta’s increasing dependence on the mining, oil and natural gas industries. While the economy has since become more diversified and less dependent on oil and gas, the EDI in 1999 was 0.23, 0.36 points lower than in 1971 (see figure below).

Source: Using the “Hachman Index” formula, the EDI was derived by the authors using GDP by sector data from Statistics Canada and the Alberta Economic Accounts 1999 (Alberta Treasury).
So What?

Is Alberta’s economy healthier and more diverse now than in 1971? Are we on the verge of a new era in economic prosperity? That depends on your perspective.

As the figure at the upper right shows, the GDP in Alberta has grown steadily since 1961, but the diversity of Alberta’s economy, relative to that of Canada was substantially less in 1999 than it was in 1971. In this figure, we show the EDI as an index where the year with the highest EDI between 1971 and 1999 is set equal to 100 and changes in the EDI are measured as movement towards zero. The evidence suggests that Alberta’s economy in 1971 was one of the most diverse in the past 30 years. The lower figure shows the contribution of resource-dependent industries as well as manufacturing and construction, and service industries to Alberta’s GDP in 1971, 1981, 1991 and 1999. The aggregation of resource-dependent industries (agriculture and food, forest industries and petroleum and mining-based industries), manufacturing and construction, and service industries reveals that Alberta’s economy was only slightly less dependent on resource-based industries in 1999 (25.9% of GDP) than it was in 1971 (28.0% of GDP). The importance of the service and knowledge-based economy grew only marginally—from 57.6% of the GDP in 1971 to 60.4% in 1999. While the economy is shifting to a knowledge and service base, it appears that at least in the foreseeable future Alberta’s economy will remain resource-dependent (oil, gas, agriculture, timber) and thus we must be concerned about the sustainability and health of the province’s natural capital.

On a scale of 0 to 100, where 100 is the highest level of economic diversification that occurred in Alberta from 1971 to 1999, Alberta ranked 38.45 in 1999 (see figure above).

While it is not possible to place a dollar figure on the cost of having a less diversified economy than Canada as a whole, we do recognize that there are risks associated with a less diversified economy, including vulnerability to market changes and ecological implications associated with long-term resource depletion.