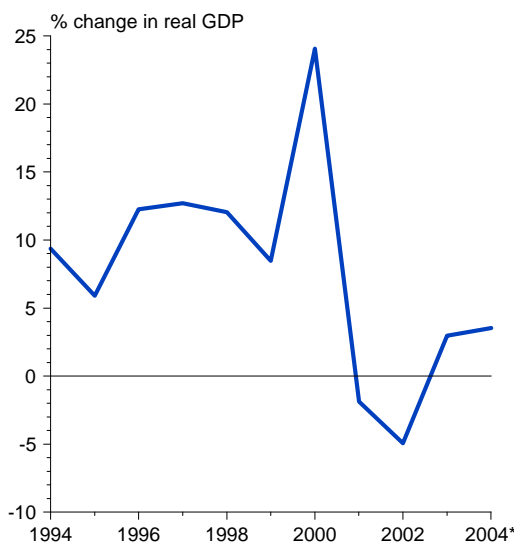


## Business Indicators ♦ May 2005

### High Technology's Rebound

After two years of decline, British Columbia's high technology sector started to rebound in 2003, with high tech GDP expanding 3.0% from the level achieved in 2002, rising to just under \$3.6 billion (1997 constant dollars). Preliminary data for 2004 indicates that the industry has fully recovered from its slump as GDP climbed a further 3.5% last year.<sup>1</sup>

BC's high technology sector GDP has bounced back from a two year slump



\*Data for 2004 is a preliminary estimate subject to change

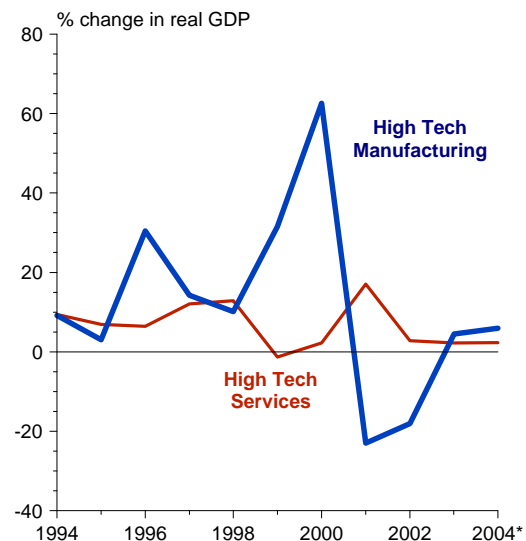
The high tech service sector continues to fare well, with GDP rising 2.2% in 2003

<sup>1</sup> The high technology data is produced with the assistance of *Leading Edge BC*. The definition of the high technology sector used in this report is described in the document *Profile of the British Columbia High Technology Sector: 2004 Edition* available online at: [www.bcstats.gov.bc.ca/data/bus\\_stat/busind/hi\\_tech/HTPcurr.pdf](http://www.bcstats.gov.bc.ca/data/bus_stat/busind/hi_tech/HTPcurr.pdf)

Although annual estimates for 2004 are reported here, these numbers should be used with discretion as they are preliminary and are subject to revision.

and 2.3% in 2004, marking five consecutive years of growth. However, it is the manufacturing sector in which the real turnaround occurred. After two years of double-digit declines, high tech manufacturing GDP jumped 4.5% in 2003 and climbed a further 5.9% in 2004.

Growth in GDP for high tech services has helped offset declines in manufacturing

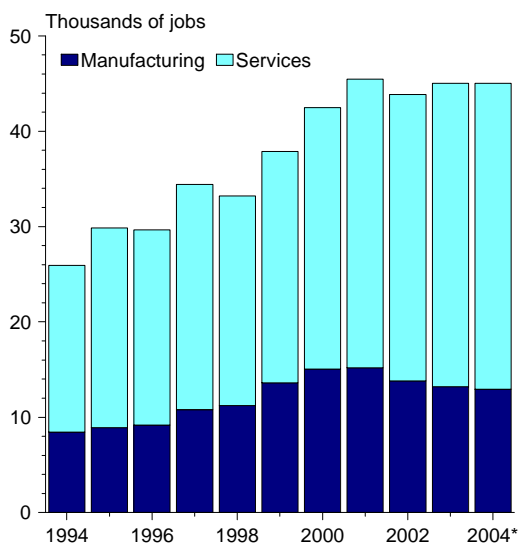


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The divergent paths of the high tech goods and services sectors are evident in measures of employment as well. The growth in high tech manufacturing jobs in BC slowed considerably in 2001 before plunging 8.9% in the following year and continuing to drop a further 4.4% in 2003. In high tech services there was still robust growth in employment in 2001 and the decline in 2002 was marginal (-0.9%). By 2003, high tech service jobs

were on the rise once again, climbing 6.0%. Preliminary data for 2004 indicates that growth in the service sector has slowed (+0.9%), while manufacturing jobs continue to disappear (-2.1%). Overall, employment in the high technology sector in BC climbed 2.7% in 2003 and remained unchanged in 2004.

Growth in high tech service jobs has offset a decline in high tech manufacturing employment



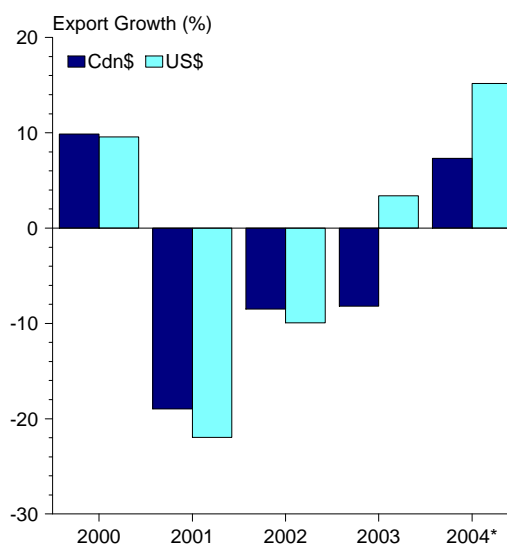
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The increase in manufacturing output coupled with reduced employment has resulted in productivity gains in high tech manufacturing. The improved productivity continues a long-term trend that was halted in 2001 and 2002 when the nosedive in high tech manufacturing GDP was not matched by commensurate reductions in employment.

While GDP and employment in BC's high tech sector showed signs of recovery in 2003, the value of exports of high technology goods continued to decline, dropping 8.2% to \$628.5 million. However, unlike the previous two years when the declines were due to a drop in

demand for high tech products, the weaker performance in 2003 was mainly the result of the rapid appreciation of the Canadian dollar against its American counterpart. When valued in American currency, BC high technology exports actually increased in 2003, rising 3.4%.<sup>2</sup> Although the value of exports of high tech goods have rebounded in 2004, expanding 7.3%, the high Canadian dollar continues to play a role as the growth of these exports valued in American dollars was more than double that rate (+15.2%).

The drop in the value of BC high tech exports in 2003 was mainly due to the rapid appreciation of the Canadian dollar



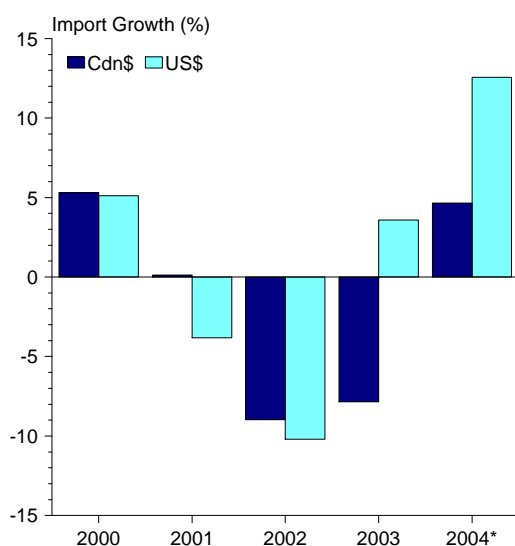
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Contrary to what one might expect, the spiralling Canadian dollar did not result in substantial growth in the value of high technology imports into the province. The allure of less expensive merchandise did not translate into substantially higher demand for imported high tech goods. In fact, imports

<sup>2</sup> The value of exports was converted to US dollars using an average monthly exchange rate and applying it to monthly trade data.

of high tech goods fell 7.8% in 2003, almost the same rate of decline as exports. However, similar to exports, when converted to American currency, imports actually grew, rising 3.6%. High tech imports rebounded in 2004, expanding 4.7%, but once again, the stronger loonie hid some of the growth as imports valued in US currency rose 12.6%.

The exchange rate made a big difference for high tech imports as well



\*Data for 2004 is a preliminary estimate subject to change

The reason why the higher exchange rate did not immediately translate into an increase in the volume of high tech imports is possibly due to the fact that a significant amount of high tech goods imported into the province are used as inputs into BC's own high technology manufacturing. Since demand for domestically produced manufactured high tech goods was tepid in 2003, the demand for input goods imported into the province was also muted. The stronger demand for exports in 2004 has also helped boost imports.

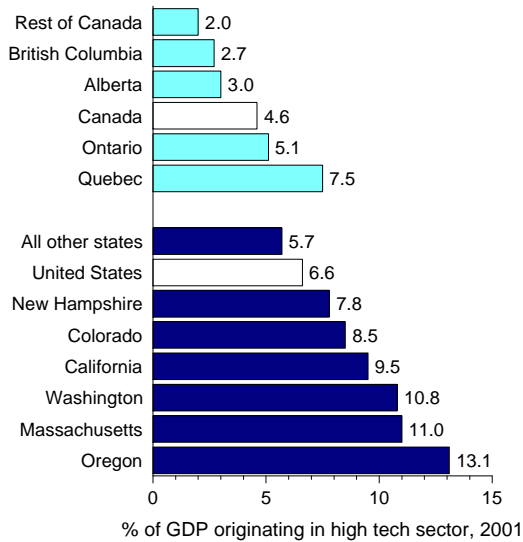
## BC's High Tech Industry in Context

The high technology sector in British Columbia has experienced strong growth in the last decade and has performed well relative to other industries within the province, but in order to truly judge the size and scope of the industry, it is necessary to compare it to high tech in other jurisdictions.

Within Canada, BC's high tech industry generally ranks behind Quebec, Ontario and Alberta in most measures of size and performance. In 2003, BC's high tech sector recorded the strongest improvement among the provinces, ranking first in GDP growth after having suffered through the poorest performance among the top four provinces a year earlier. BC also had the highest increase in high tech revenues and employment and, despite an 8.2% decline in exports, still fared better than most provinces on the trade front as well.

Nevertheless, BC's high technology sector is still small relative to other jurisdictions, particularly many US states, including those in the Pacific Northwest such as Washington State and Oregon. Only 2.7% of BC's GDP was derived from high technology in 2001 compared to 13.1% in Oregon and 10.8% in Washington. The only Canadian province to exceed the US average of 6.6% was Quebec, with 7.5% of that province's GDP originating in the high tech sector, well ahead of the Canadian average of 4.6%. Compared to BC, high technology played a larger role in the economies of both Ontario (5.1%) and Alberta (3.0%) as well.

Compared to BC, high tech industries play a more significant role in the economy of many American states



bination of lucrative revenues and well-paid employment offered by high tech, there is little doubt that the sector will continue to attract attention in British Columbia and elsewhere.

In 2002, approximately 4.0% of American employees worked in high technology industries. This compares to about 3.5% of Canadian employees and 2.8% of employed workers in British Columbia.<sup>3</sup>

Approximately 23.3% of total US domestic goods exports were high technology products, compared to only 7.1% of Canadian exports and 2.2% of BC origin exports. Quebec, with 23.4% of exports comprised of high tech goods, is the only province with a comparable ratio to the United States.

These data demonstrate that put into context with surrounding jurisdictions, BC's high tech sector is relatively small. However, high technology in BC has undergone rapid expansion in the last decade and there is no reason to suspect that it will not continue to grow. Given the importance of high technology products in today's world and the com-

<sup>3</sup> The employment data comes from employer surveys and therefore self-employed workers are excluded.