Canada's competitive high-tech revival

A multi-year surge in high-tech investment is bolstering Canada's growth prospects. Aron Gampel of the Scotiabank Group of Companies outlines the facts.

Double-digit growth in business expenditures on computers and telecommunications equipment and services – designated as COM² – has been consistently recorded through the 1990s. Productivity and output gains are building momentum and contributing to Canada's competitive revival, just in time for the new millennium.

Canada's COM² investments have been keeping pace with those in the US, the world's high-tech leader. However, recent methodological changes in US GDP data have made direct bilateral comparisons of computer investments more difficult owing to the US inclusion of software (see *Figure 1*).

Bet on better growth

The Canadian economy is faring much better than is its currency. A strong second-half performance is likely to push output growth to nearly 4% in 1999, a figure that is rivalling the US for economic leadership in the G7. Outside the hard-hit farm sector, recent indicators in Canada are uniformly optimistic, with gains spread across the nation. Even one glaring shortcoming, household purchasing power, is now on the rise with after-tax income gains finally outpacing inflation.

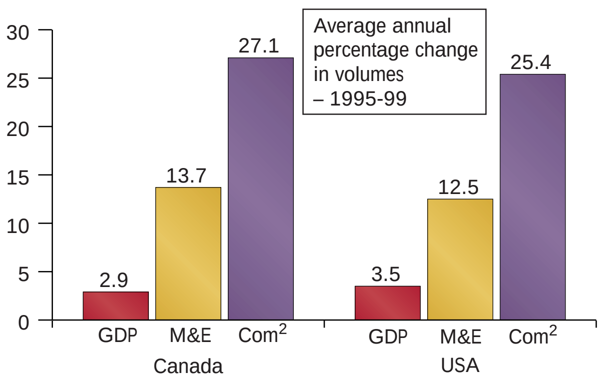
Looking to the future, there are relatively few imbalances threatening the economy's forward progress. The only significant cloud on the horizon is the upward tilt in US interest rates which, if sustained, threatens to increase domestic currency and financial market volatility and to restrain the pace of North American activity.

Yet, questions still persist about Canada's longer-term growth potential, particularly with the Loonie unable to gain take-off velocity. Canada has faced a barrage of criticism about its habitual underperformance, a conclusion magnified by inevitable comparisons to the US. Some reports have extrapolated Canada's sub-par income and stock-market returns in the 1990s and expect them to persist through 2000 and beyond. Most label poor productivity as the culprit, with performance purported to be undermined by sub-par growth in the high-technology fields, the dearth of home-grown innovation and managerial skills, as well as undue reliance on currency depreciation to camouflage domestic performance inadequacies.

This pessimism is overblown. In the race for worldwide growth, Canada is making important strides in raising its level of performance.

FIGURE 1

High-tech investments lead the way



Aron Gampel

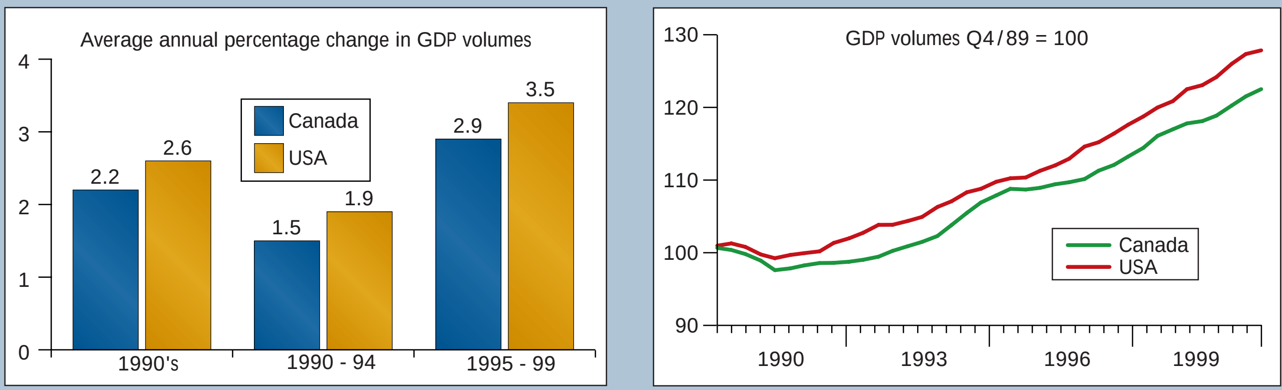
Brighter prospects for 2000

Taking an average of Canada's results through the entire 1990s tends to obscure the recent strengthening in the nation's economic performance. The country's real GDP growth has doubled in the second half of the 1990s to a 3% average annual advance, even accounting for the fallout from the mid-decade peso crisis and, more recently, the underperformance in Asia.

Domestic output growth has fallen short of the US advance by half a percentage point, but the performance gap is closing in spite of America's high-tech advantage and higher stock market valuations. Moreover, Canadian results have bettered the expansion in each of the other G5 economies by a percentage point or more since the mid-1990s (see *Figure 2*).

This improvement is being reinforced by continued US economic momentum and, recently, by a cyclical strengthening in commodity markets as a more synchronised worldwide recovery takes hold. Along with comparatively low borrowing costs and an undervalued dollar,

FIGURE 2 A late-cycle GDP growth spurt



these factors have already helped rejuvenate exports, which are the backbone of the Canadian economy.

Public sector initiatives also are contributing to a more favourable operating environment for business. Ottawa and many of the provinces are spending more, taxing less and reducing the barriers to growth through deregulation, privatisation, freer trade and investment incentives (R&D). Modest underlying inflation trends will help reinforce low borrowing costs and limit the upside risks in the event of a further backup in US rates next year.

But the most critical factor behind the more positive longer-term outlook is the corporate restructuring mandated by intensifying competitive pressures at home and abroad. Industrial diversification and product differentiation have enabled Canada to maintain positive economic gains despite encountering periodic speed bumps. To ensure that this momentum is sustained, Canadian firms have underwritten a multi-year capital spending spree on new technologies and business strategies.

A high-tech, high-growth future

Canada's inflation-adjusted machinery and equipment (M&E) investment has accelerated at a rapid annual pace of 14% since the mid-1990s. (M&E investment has averaged a solid 7% per year in the 1990s after registering minimal 1% annual growth through the restructuring phase in the first half of the 1990s.) These outlays have boosted M&E's share of GDP to almost 9%, a three percentage point rise over the 1990s. In the US, the contribution of M&E spending to output growth was larger at the beginning of the 1990s and its lead has been sustained (see *Figure 3*).

Larger productivity and output gains can be expected in the new millennium, because an increasing share of the investment spending is in leading-edge technology. Canadian business expenditures on the primary drivers of high-tech spending – productivity-enhancing computers and telecommunications equipment, or COM[2] – have rocketed ahead at a 19% annual rate in the 1990s, more than matching the strong 16% annual pace set south of the border. These high-tech investments have climbed at almost eight times the pace of domestic low-tech M&E expenditures this decade (see *Figure 4*).

The purchase of computers and other high-tech office equipment has been dominant. They represent 80¢ of each dollar of COM[2] expenditure, compared with 50¢ at the start of the 1990s.

Is Canada a high-tech laggard? Not when comparing those investments that are critical to raising the nation's longer-term productivity. The big jump in spending has lifted Canada's COM[2] share of M&E expenditures 28 percentage points during the 1990s, with 43¢ out of every M&E investment dollar allocated to leading-edge technology.

Technology-led growth reports solid gains. Output in the burgeoning high-tech sector has grown at over a 10% annual rate in the second half of the decade, 3½ times greater than the economy-wide GDP advance.

The comeback trail

A revival in productivity is underway, with multifactor gains averaging 1.4% annually in the 1995-99 period. While this advance appears small, it is more than double the yearly rise in the first half of the decade and it matches the equivalent gain in the US. An increase in domestic productivity over the

FIGURE 3 Investment in machinery and equipment powers ahead

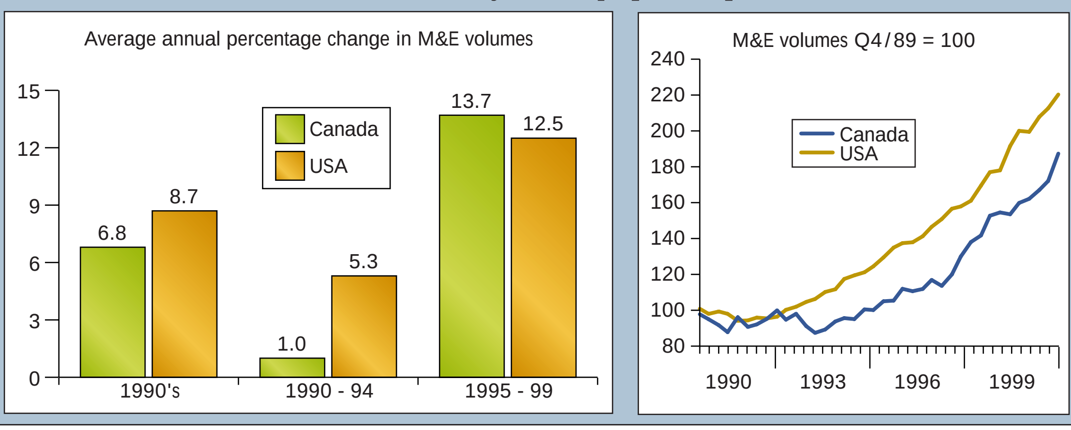


FIGURE 4 Spending on computers and telecom equipment and services

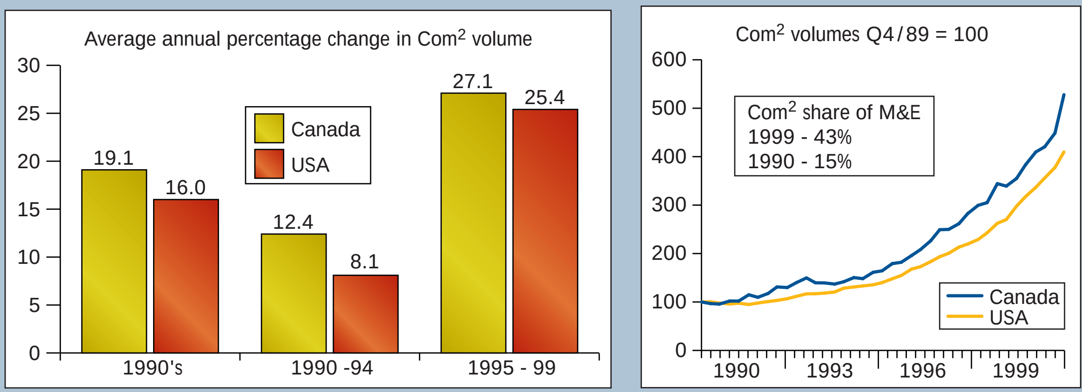


FIGURE 5 Productivity gains bolstered by high-tech spending and economic growth

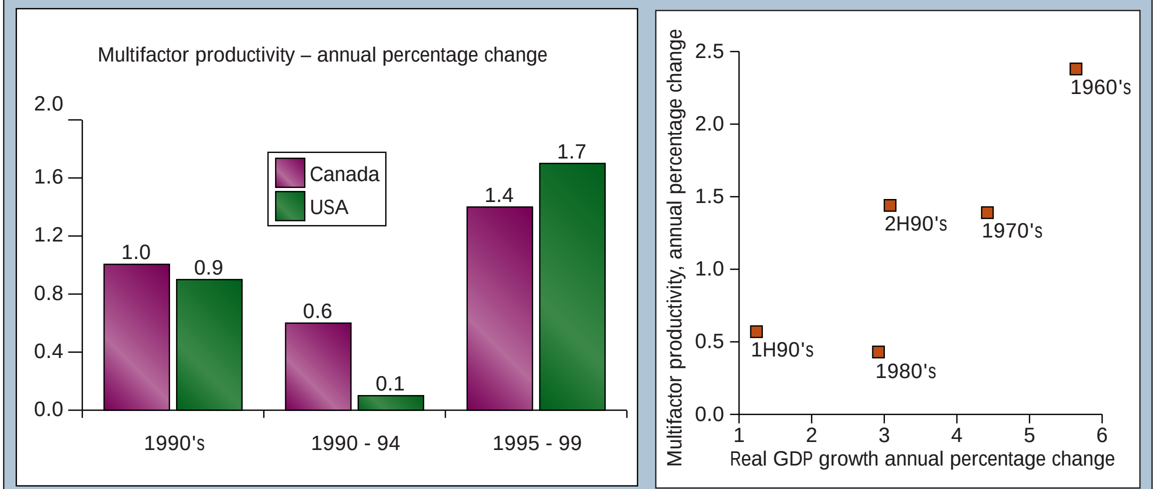
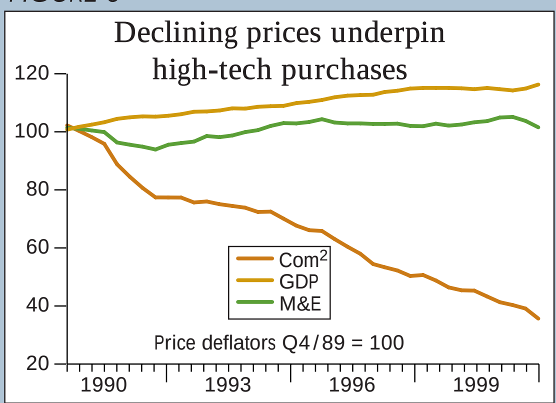


FIGURE 6



past five years is also back in line, with the average rise in the previous thirty years (see *Figure 5*).

COM^2 purchases typically trigger a secondary round of investments in training and organisational restructuring to take advantage of the new technologies. Measuring these changes is statistically challenging, a development complicated by the high incidence of COM^2 investments in the service industries, such as the financial sector, where qualitative changes make it difficult to quantify overall productivity gains. The proof, however, is in the competitiveness of many of our major service-oriented companies.

Even so, further progress has to be made towards elevating this country's economic potential, since the rebound in domestic productivity still lags behind the 1960s trend-setting growth standard by about a percentage point. Competitive forces will continue to encourage spending in productivity-enhancing leading-edge technologies. So will rapid product innovation and continuing declines in the cost of COM^2 investments, which have fallen consistently throughout the 1990s (see *Figure 6*).

Extending the longevity of this business expansion is just as important, because of the self-reinforcing nature of productivity gains and steady, uninterrupted growth. The best productivity performances in the past typically went hand-in-hand with the best output performances. Fiscal policy can complement monetary policy's pro-growth bias and help provide longer-term economic support by levelling and lowering corporate tax burden across all industries.

Maintaining the strong pace of COM^2 investments is paramount to Canada's competitive revival – businesses cannot rely on a chronically weak exchange rate to give them an edge. The exponential rise in computing and communications power is enabling firms to increase output, improve service and product quality and pare down inventories. By helping to reduce costs, it is allowing Canadian firms to increase their earnings even when pricing power is limited.

A more productive and durable economy is taking shape in Canada, with brighter prospects for the currency. And the timing could not be better as we enter the new millennium. ■

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