

rates are particularly important for GVCs as tariffs can potentially be magnified as they are applied to both inputs as well as the final output. Other barriers to trade (i.e. non-tariff measures and regulatory requirements) are likely to be just as important and would also extend to services.

To summarize, very little systematic empirical work has been performed to assess the drivers of the growth of global value chains and more work is definitely needed on this important topic. The work to date suggests that containerized shipping may have played a role, but developments in air transport were most important for the fragmentation of goods production and would likely play an important role for services as well. Given that air transport is the most expensive way to ship goods and that trade did not appear to be overly impacted by the rise in oil prices over the 2000s, rising oil prices will likely not be the critical factor in determining the continued growth of GVCs. Although ICTs and the declining costs of telecommunications are often cited as a driver for the growth of GVCs, there is

currently little hard evidence to support this belief. There is some evidence that formerly communist countries entering the global economy during the past decades was an important factor behind the rise of GVCs, but that effect has mostly dissipated. Declining tariff rates and more general market opening likely played an important role as well. This last, being directly under the control of policymakers, may prove to be the most important.

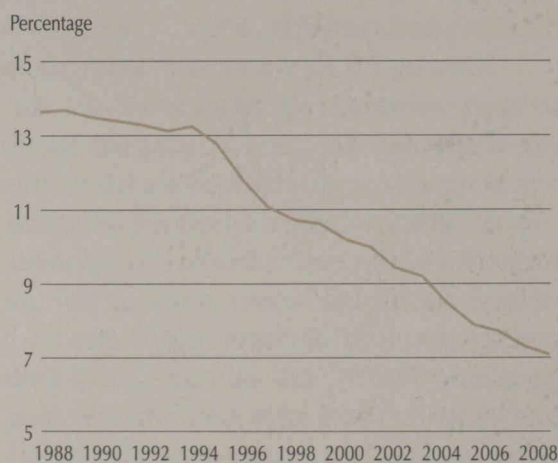
Canada and GVCs

No reliable method exists to measure global value chains (GVCs) or to determine how a country such as Canada fits in. Indirect methods must be relied upon instead, such as using existing measures of international commercial engagement, from data presented in the United Nations BEC, and from input-output tables.

Making use of existing sources of data, for Canada, it can be seen that trade (exports plus imports) increased about 50 percent faster than nominal GDP over the 1990 to 2008 period.¹⁰ This result indicates the

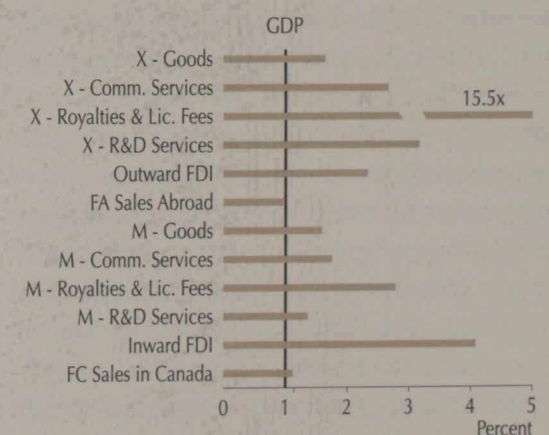
¹⁰ The recent global economic crisis is excluded here. That said, the general trends remain the same when data for 2009 and 2010 are included.

Global Average Applied Tariff Rates on All Products



Data: World Bank.

Growth In Global Value Chains in Canada Growth Relative to Canadian GDP, 1990-2008



* For FA Sales and FC sales, period is 1999-2008.

Data: Statistics Canada.