Investment in research and development: Hope for productivity?

Like the bad results economic growth delivered in the first quarter of 2015, U.S. companies also showed weak productivity. For a second quarter in a row, output per hour worked in the non-agricultural sector contracted about an annualized 2%. The annual change in productivity was only 0.6%. In a context where—apart from cyclical fluctuations—the job market will be increasingly constrained by slower demographic growth, it will be imperative for medium-term economic growth to be able to count on better business productivity, which itself often depends on the strength of investment.

Yet the 3.4% contraction in business investment was also a disappointment in the first quarter. This marks the first decrease since the first quarter of 2011, and it stems mainly from the 23.1% plummet in non-residential construction. We also note anaemic growth of 0.1% in investment in equipment. One of the sole positive points is the 7.8% advance in investment in intellectual property products. But, drilling down into the details shows an increase of 12.4% in investment in research and development, which follows several quarters of similar gains. During the recovery, growth of this component of investment was fairly modest (2.2% on average from 2010 to the end of 2013), no doubt reflecting uncertainty about the economy and sources of public financing during a period of austerity. However, since the beginning of 2014, annualized quarterly growth has averaged 11.3%. This jump compares favourably with previous periods of technological advancement, such as seen in the second half of the 1990s.

Implications: Acceleration of research and development expenses should, given some time, mean that the United States is likely to enter a period of increased productivity soon. Stronger growth in productivity resulting from new technological and scientific developments will allow the U.S. economy to hold onto a strong potential for growth despite less favourable demographics. This could hold inflation at a more modest level, and in turn, limit key rate increases later in the current economic cycle.

Francis Généreux
Senior Economist