

A Revision of the Methodology of the Internet Access Services Component of the Consumer Price Index beginning with the March 2008 CPI

Background

The Internet Access Services (IAS) index is a component of the Consumer Price Index, an indicator of changes in consumer prices experienced by Canadians. The IAS index is obtained by comparing, through time, the cost of a constant level of internet access purchased by consumers.

The structures of this market have been completely revamped over the last ten years or so, a reflection of a fierce competition, technological change and a rising demand for information technology products and services. This industry is marked by a large number of players (roughly 480) and a high degree of turnover rate. Some Internet providers have entered or exited the market; others have merged, while some large telephone and cable companies expanded their business beyond their core activities. Similarly, consumers' spending shifted away from dial-up internet services towards a variety of high-speed internet services.

The CPI began reflecting IAS price change with the 2001 basket update that came into place in 2003. Internet Access Services (IAS), which accounts for 0.51% of the 2005 basket,¹ is part of communications in household operations, a component of the household operations, furnishings and equipment major class.

The New Method

Statistics Canada is engaged in a continuing effort to improve the Consumer Price Index program. Some concepts and methods are periodically reviewed and updated to ensure that they accurately reflect changes in the economic environment and the behaviour of consumers.

This review highlights three sets of changes to the IAS index:

First, a change in data sources enhances the sample size and the sample diversity. A variety of Internet service providers have been taken into account, reflecting the changes in the structure of the industry. Internet service providers were selected by province based on their relative importance in the market. On average, the selection of Internet service providers covers approximately 90 percent of the market in each province.

An economic weight representing the market share is assigned to each selected Internet provider in the index calculation. As a result, a price change for Internet services from a

¹ 2005 basket at April 2007 prices

large provider will have a greater effect on the IAS index than a price change from a small provider. This is of particular importance as the Internet market becomes more and more concentrated.

Second, owing to a shift in demand for different types of high-speed services, the consumer profiles used to track prices have been updated to reflect the most popular types of high-speed services.

Third, in order to better track the pure price change of internet services, the quality adjustment for the IAS index is now done with a hedonic technique. A hedonic regression is used to determine the impact of the quality features of the service (such as download and upload speed, transfer limit, etc.) on its price. By doing so, it allows us to decompose a price change into a pure price change (holding constant the quality features) and into a quality change.