Like some other countries, including the United States, Canada has two separate surveys that track employment. The best known, the Labour Force Survey (LFS), is conducted among households. Its main objective is to divide up the population of working age into three mutually exclusive categories: those who are working, the unemployed and those who do not participate in the labour force. The LFS is also the official source of information for the unemployment rate. The LFS data attract close attention from investors, economic commentators, the media and government. Recently, however, some criticism has emerged about the LFS data. The numbers seem to be more volatile than in the past, with heavy job losses and strong gains following each other in succession. Moreover, the recent error by Statistics Canada in the release of the July LFS results has fuelled concerns about these data.

The second survey is used to a much lesser degree by the economic community and garners far less attention: the Survey of Employment, Payrolls and Hours (SEPH). The main goal of the SEPH is to take a monthly snapshot of the level of compensation, the number of jobs and the number of hours worked. The SEPH employment data come from a survey of payroll deductions provided by the Canada Revenue Agency.

The LFS and the SEPH clearly use different methodologies and definitions of employment but, as may be seen in graph 1, the employment trends revealed by the two surveys have been fairly similar from a historical perspective, if we make a few statistical adjustments.¹

For instance, the average monthly variations in employment between 2001 and 2011 have been nearly identical² in the two surveys. The LFS has shown the creation of 15,800 jobs on average, while the SEPH shows an increase of 15,100 jobs (graph 2). In both cases, the standard deviation is the same (±36.9), evidence of equal volatility for both surveys. Given that they so closely resemble each other, it is understandable that the SEPH attracts less attention, since its data are released nearly a month and a half after those of the LFS.

However, a significant divergence has emerged between the two surveys since 2012, in that the LFS data have become far more volatile. For example, the standard deviation of the LFS since 2013 is ±46.3, versus ±36.9 between 2001 and 2011. As for the SEPH, the standard deviation

¹ In order to make the fairest possible comparison, self-employed workers have been excluded from the LFS data.
² The SEPH data begin in 2001.
since 2013 is just ±29.5, less than that of the LFS for the same period.

One might nevertheless think that the recent upswing in the standard deviation of the LFS is actually the reflection of a statistical phenomenon linked to a smaller sample. The standard deviation of the LFS since 2014 is greater than that since 2013, which in turn is higher than that since 2012. However, this is not the case. Graph 3 shows the standard deviation of both surveys over a rolling 2-year period. We note that the volatility of both surveys increased in 2009 and 2010 due to the turbulence linked with the Great Recession. A significant lessening of volatility was observed after that. However, the volatility of the LFS has started increasing again since 2012, and this phenomenon has even intensified recently. Meanwhile, for the SEPH, the volatility has not only remained stable since 2012, but has stayed at a much lower level. The conclusion is simple: the SEPH results have been far more reliable than those of the LFS in recent months.

As may be seen in graph 4, the same phenomenon shows up in the employment data for both Quebec and Ontario. In fact, the volatility of the provincial results even appears to be greater, which is not surprising since their samples are smaller.

Implications: Analysts, investors, economic commentators and government decision-makers would do well to pay more attention to the SEPH results, in order to have a better and less volatile picture of the labour market situation. On this point, the recent SEPH data paint a much more positive picture of the employment trend. For example, the average monthly job growth since 2013 has been 18,900 according to the SEPH, while the LFS shows an average increase of only 10,000 jobs per month. We would point out that the creation of approximately 20,000 jobs per month is more in line with the economic growth that has been recorded in Canada in recent months.

Under these conditions, Statistics Canada might try to bring forward the release of the SEPH data, to have a smaller time lag from those of the LFS. In the United States, these two types of survey data are released at the same time, and the analysis of the employment trend is based on the establishment survey rather than the household survey.

Statistics Canada could also consider the option of releasing the employment data from the LFS only once per quarter, which would reduce their volatility. Some European countries, such as France and the United Kingdom, already use that approach. As for the unemployment rate numbers arising from the LFS, they are far less variable due to their nature; therefore they could still be released on a monthly basis.

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