

Statistics Canada's response
to the availability of data during the
Financial Crisis:
Timeliness, Data gaps and Communication
strategies

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Section 1: Background – Unfolding of Canadian Events

The Canadian economy had been on a relatively stable growth path for many years. The last recession occurred in 1990-91 with the economy growing on average % per year, including growth of labour productivity on average of 1%, declining government debt due to several years of surplus positions accompanied by Balance of payments surpluses and growing corporate incomes. At the same time the household sector had gone through years of both financial and housing investment, while taking on debt, had enjoyed low interest burden ratios and increasing net worth. In short, the fundamentals of the Canadian economy were strong.

In August of 2007, when the issues of sub-prime lending arose in the US, a quick response of Canadian portfolio investors to unload debt instruments appeared to be corrective action to mitigate any spillover effects in Canada. But the economy slowed early in 2008 due to an abrupt restructuring of the North American Auto industry and a slowing of demand by the US for Canadian products. The impacts appeared to be relatively isolated to those areas of the economy and not part of the “process” of a recession.

In October of 2008, when the full extent of the so called financial crisis became evident, all indicators of the economy began to shift. The first evidence again was a rapid change in the activities of portfolio investors, monthly data showed the impact already in the last two weeks of September. The Household Balance sheet took a hit on the value of financial assets based on the rapid declines in assets values in the third quarter even though there was little evidence in the real economy. These impacts quickly spilled over into the real economy. Since October, Canadian GDP has fallen 2.5% in tandem with employment and hours worked (monthly data for GDP available for February 2009-March and first quarter to be released June 1rst).

The rapidity of the evolution of this economic cycle was surprising and the data was difficult to “read” at the onset. This led us as a National Statistical Office to question whether we had been providing an adequate data package to analysts and policy makers. Our concerns were whether the data should have been timelier? Were there important gaps in the data system? And, were there data products which were of less significance during the strong economic growth period that should be highlighted more in our release strategy?

Section 2: Short term Economic data availability and characteristics

This section outlines the suite of indicators available on the economy published by Statistics Canada including the kind of detail made available and the timeliness of each. This is to provide background and context for the following sections when users were consulted on their requirements for timeliness or additional information to help analyse the current economic crisis.

Over the past 15 years, Statistics Canada has produced a stable suite of economic indicators to inform on the performance of the economy. Table one below outlines the suite of products that are considered “major” releases in our communications strategy. The release dates are committed to one year in advance. For internal budgeting and planning purposes they are classified as “mission critical” programs which signify that there are serious consequences to the user community if the products are not delivered on schedule with the expected high level of quality.

Table 1. Major infra annual data releases

Data Product	Variables	Timeliness
Monthly Retail Trade Survey	Sales by store type and by province Current and constant prices	52 days after the reference period
Monthly Survey of Manufacturing	Inventories, sales and orders of manufactures, by province Current and constant prices	45 days after reference period
Canadian International Merchandise Trade (Monthly)	Exports and Imports by commodity (HS classification) Current and constant prices Customs and BOP basis	42 days after reference period
Labour Force Survey (Monthly)	Employment by demographic characteristics and by industry Unemployment and labour force estimates By Province and for selected cities	First Friday of the month following reference period (within 10 days)
Consumer Price Index (Monthly)	Consumer Prices by commodity group and for selected cities Special Aggregates including Core CPI targeted by Central Bank	21 days after the reference period
GDP by Industry (Monthly)	Constant price GDP for 300 industries and total GDP	60 days after reference period
GDP by Income and by Expenditure (Quarterly)	GDP final expenditure – current & constant prices, incomes, outlays, savings and capital account of major institutional sectors	60 days after reference period – same day as monthly GDP for third month of quarter
Balance of Payments (Quarterly)	Current and capital account flows	60 days after reference period
Labour Productivity, Hourly Compensation and Unit Labour Cost (Quarterly)	Business sector GDP, hours worked, unit labour costs	75 days after reference period

Table two below outlines other infra-annual data products are also released but are not necessarily treated as major releases in Statistics Canada’s communication strategy. The release dates are only made available a month to two weeks in advance of the release.

Table 2. Other infra annual indicators published

Data Product	Variables published	Timeliness
Employment Insurance (Monthly)	Numbers of Claimants to employment insurance	55 days after reference period
Payroll Employment, Earnings and Hours (Monthly)	Employment, earnings and hours worked by 3-digit NAICS industry by province and national totals	60 days after reference period
Monthly Wholesale Trade Survey	Sales by type of Wholesaler, by province and territory Current and constant prices	49 days after reference period
Canada's International Transactions in Securities (Monthly)	Sales and purchases between Canada and non-residents of portfolio investments	50 days after reference period
Leading Indicators (Monthly)	Unweighted average of indexes of leading indicator such as new orders, stock exchange index, sales of motor vehicles, money supply etc	50 days after reference period – approximate 5 month leading indicator of GDP
Building Permits (Monthly)	Value of permits issued for new construction of residential, institutional, industrial and commercial buildings By province and territory / for major urban areas	36 days after reference period
Quarterly Financial Statistics for Enterprises	Corporation profits, income statements and balance sheet by industry	54 days after reference period
Canada’s International Investment Position (Quarterly)	Aggregates of Foreign direct investment and foreign portfolio investment positions	70 days after reference period
National Balance Sheet Accounts (Quarterly)	Financial and non-financial asset and liability positions, and net worth by major institutional sector	75 days after the reference period
Financial Flow Accounts (Quarterly)	Net investment in financial assets /liabilities by instrument type, fixed investment by type, by institutional sector	60 days after the reference period

As can be seen from the tables above, Statistics Canada publishes infra-annual statistics that cover the entire economy both from the point of view of financial transactions and of the dynamics of the real economy. No “flash” estimates are produced, only estimates that

meet a quality objective of very low revisions from preliminary to final. Some products are very timely – within days of the reference month, for example the Labour Force Survey, Consumer Prices, housing starts and building permits. A monthly GDP in real terms is published which gives an accurate of the growth of quarterly GDP after 30 days when 2 months of the quarter have been released. By 75 days after the reference quarter, a complete set of accounts is available – including financial accounts and balance sheets.

Our users are regularly consulted on the issues of relevance and timeliness in a process of quadrennial program reviews. By and large they respond that they believe that the trade-off between timeliness and accuracy is appropriate and that the suite of products offered is adequate, but often request more detail.

Section 3: Preliminary Actions by Statistics Canada

At the regular briefing with the Chief Statistician and senior management committee on the third quarter National Accounts results, the Chief Statistician suggested that we consider thinking about what products should be highlighted more in our communication plan and if there were any releases that were of less importance given the unfolding circumstances.

With this in mind, a meeting was convened with all of the compilers involved in the release of financial accounts or financial data to discuss possible strategies.

The following recommendations came out of that meeting:

1. Some releases of financial data products should be “promoted” to major releases.
2. Since financial data is more difficult to analyse and report on, analytic ratios like debt-to-equity ratios and interest-burden ratios should be added to the releases
3. An analytic paper should be written to highlight the financial trends in the data – which would serve to inform users of the suite of data available
4. Key users should be contacted to make sure they were aware of these key data products since our internet statistics hinted that very few users were accessing the products.
5. Assess the feasibility of converting the product “Monthly International Transactions in Securities” to a product covering all transactions in securities, domestic and foreign.

All of these ideas were put in motion, including the beginning of a process of consultations in December 2008 with users, which confirmed the lack of awareness of the financial accounts and balance sheet products. The business sector analysts immediately began to tap into these data sources and an important analytic debate ensued between the financial sector and the central bank on the availability of credit.

To view the revamped press releases for the Financial Accounts and Balance Sheets, click on the following links.

Financial Flow Accounts

<http://www.statcan.gc.ca/daily-quotidien/090302/dq090302b-eng.htm>

International Investment Position

<http://www.statcan.gc.ca/daily-quotidien/090312/dq090312a-eng.htm>

National Balance Sheet

<http://www.statcan.gc.ca/daily-quotidien/090316/dq090316a-eng.htm>

In addition to revamping releases, a workshop was developed to demonstrate the analytic content of the various financial data products. This workshop was delivered to the Toronto Association of Business Economists and to the Economics and business faculties at the University of Ottawa. Requests have been made to take this workshop to Vancouver and Montreal. An analytic paper is being developed around the slides used in the workshop presentation and will be published in the June issue of the Canadian Economic Observer.

The slide presentation for the workshop is available at the following link:

http://www.cabe.ca/jmv1/index.php?option=com_docman&task=doc_details&gid=592&Itemid=38

Very soon after the onset of the financial crisis the spill over to the real economy became evident in a large drop in employment statistics in November. An internal meeting was held among compilers of labour market data to develop strategies to highlight that data. Recommendations from that meeting included

1. Promoting the release of the payroll survey to a major release, and
2. Highlighting employment insurance data as a major release including the use of maps to highlight geographical aspects of the labour market dynamics.

To view the releases, click on the following links.

Labour Force Survey

<http://www.statcan.gc.ca/daily-quotidien/090206/dq090206a-eng.htm>

Payroll Survey

<http://www.statcan.gc.ca/daily-quotidien/090429/dq090429a-eng.htm>

Employment Insurance

<http://www.statcan.gc.ca/daily-quotidien/090428/dq090428a-eng.htm>

Since these early initiatives focussed on better communication of existing data products, Statistics Canada management began to consider if there were data gaps or timeliness issues to be addressed. A “brain storming” session was held at the executive committee.

Our first reaction was to develop a quick “credit conditions” survey to address the key element of the financial crisis; that the turning point in this crisis is likely to follow the easing of credit conditions. The survey was to be a simple three or four question inquiry of financial institutions collecting qualitative information on the direction of change for:

- Numbers of applications for access to credit
- Numbers of refusals or approvals of credit
- Numbers of defaults of debt

Consultations with clients indicated that there were several players in the market collecting and publishing this type of qualitative data including the Central Bank, Finance Ministry and industry associations. While some thought that Statistics Canada was better placed to do these types of surveys, the consensus was that Statistics Canada should not devote resources to this area.

Two other ideas on data gaps to fill in the short run were also considered. One idea was to add an extra iteration to our Investment Intentions Survey. This is an annual frequency survey that asks both the private and public sectors about investment plans for the coming year. It is published in February of each year. Since fixed investment is a key cyclical variable and the Canadian stimulus package is focussed on infrastructure spending it was thought it could be valuable to do a mid-year update of those intentions.

The other idea was that 3 or 4 questions could be added to the monthly Labour Force Survey to collect information from households on a range of effects of the crisis including:

- The labour market and job transitions
- The effects on household finances of a change in employment status
- The change in households wealth position
- Social conditions and well being.

Section 4: Formal Consultation Process

At this point a strategy was developed to consult on the three issues of timeliness, data gaps and communication strategies on data products including feedback on the usefulness of the investment intentions survey or additional information from the household sector.

The consultations included the key policy departments, the Finance ministry in charge of the stimulus package, the Central Bank and the Human Resources department. We also consulted with the business analysts, academic and economic forecasting communities. The questions were also posed to the National Accounts Advisory Committee and to the National Statistics Council. (The National Statistics Council is a group of prominent Canadians who advise the chief statistician on strategic issues twice per year. The other committees are in place to advise on specific subject matters such as National Accounts, Trade Statistics, Prices statistics and so on. These committees meet either once or twice per year.)

We asked for advice on the following:

1. Is our timeliness on the key economic indicators appropriate or should we consider “flash” estimates in any areas?
2. Are there any key missing data products that are needed to help identify the turning point in this crisis? Are these data products that could be started quickly at low cost, and then stopped when the “crisis” is over?
3. Are there any things in addition to adding emphasis to some key financial and labour market releases that should be done to better communicate the data holdings/findings to the public?

This consultation process took place throughout March and April.

Section 5: Stakeholders’ Responses

The following are items of advice which were common across the consultations.

Timeliness:

1. The release of the Financial Flow Accounts is too slow (60 days after the reference quarter). Since a lot of high frequency data exists on financial transactions published by the Central Bank and large institutional investors, is there a possibility of doing the Financial Accounts on a monthly basis?
2. There are no “between quarters” indicators or estimates for some final demand categories of final-expenditure based GDP even though some monthly source data exists. Is there a possibility of publishing:
 - a. Monthly estimates of personal expenditure on goods based on monthly retail sales data?
 - b. Monthly estimates of inventory investment based on survey data from manufactures, retailers and wholesalers?
 - c. Monthly indicators of engineering investment projects?
3. “Flash” estimates or real time estimates of retail sales could be useful to signal the turning point depending on the reliability

Data Gaps:

1. Investment data on an infra-annual basis is only derived from indicators and no direct measures exist. On this basis there was broad support for the proposal to do a mid-year update of investment intentions for 2009.
2. Since there are already many players in the business and consumer conditions survey data business, there is no need to Statistics Canada to spend resources in that area. The National Statistics Office should stick to quantitative measurement of performance.
3. In terms of adding questions to the Labour Force Survey, the most useful information in the short run would be related to labour market transitions such as:
 - a. Time spent on job search after layoff

- b. Transition to a new industry or occupation
 - c. Was a pay cut required to transition to a new job?
 - d. Was geographical relocation necessary?
4. No price index exists for the resale of existing housing assets within the Statistics Canada data sets on prices. Could such an indicator be developed, perhaps using the “Case-Shiller” approach used in the United States?

Communication of data products

1. The meta data and the structure of the financial accounts and balance sheets are out-of-date and need to be modernized.
2. Users have trouble interpreting the changes in the high frequency financial data published by others (but often used as inputs later in the FFA and Balance sheets) in parallel with the quarterly financial accounts. A reconciliation of concepts and methods would be useful.
3. Adding analytic content like leverage and debt burden ratios is very helpful and addition of maps to display geographic detail on employment insurance was appreciated by users.
4. Users still have difficulty finding the data they need quickly when they are unfamiliar with data holdings in certain areas. A better organization of the web site and a better search engine could help.

Other general messages included:

- A worry that a NSO should not rush into short term data collection without the usual testing of the instrument.
- Short term ad hoc measures will not be useful unless there is time series continuity.
- The agency should continue its longer term investments in quality improvements and new data products

An important point was raised by representatives of the Financial Services industries that the work going on at the international level for coordinated regulatory reform was the opportune time for the Central Bank and the National Statistical Office to work together to outline the information needs for financial information going forward, and to work out a clear delineation of the statistical work of the two organization

Section 6: Action items

Actions that were already underway (before consultations confirmed them) to improve the communications the financial and labour market data are being continued. These include:

1. Addition of analytic ratios like debt-to-equity ratios and interest-burden ratios to the financial releases

2. An analytic paper is to be published in June to highlight the financial trends in the data – which would serve to inform users of the suite of data availability
3. Promoting the release of the payroll survey to a major release, and
4. Highlighting employment insurance data as a major release including the use of maps to highlight geographical aspects of the labour market dynamics.
5. Highlighting of Financial accounts and balance sheets as major releases.
6. Workshops will continue to be developed and delivered to various user groups, especially on the use of financial data products.

Other action items are being worked on.

Short term action items

1. It has been decided to go ahead with the investment intentions survey. The resources have been identified by dropping a less relevant annual survey. It will have a large enough sample to produce reliable national level estimates by 3 digit industry. Collection was started in mid May and will be completed by end of June. The results will be published by the end of July.
2. A feasibility study is being done on whether the monthly transactions in international securities to a broader measure using the data already collected.
3. The possibility of increasing the timeliness (even by a couple of days) of the release dates of monthly indicators is being reviewed.
4. A module on labour market transitions is being developed for the Labour Force Survey and a funding source is being identified.
5. A meeting will be set up by the joint Bank of Canada – Statistics Canada Financial Statistics Coordination Committee to begin discussion on the potential effects of regulatory reform

Longer term actions

1. A project will be launched to begin the improvement of metadata for the financial accounts and balance sheets and to modernize the classifications and data presentation.
2. A longer term outreach program will be developed with workshops for keeping key client constituencies informed.
3. The possibility of a version of monthly financial accounts will be studied.
4. A project to improve the Statistics Canada web site has already been started.

Section 7: Conclusions

Lessons Learned

A great deal of trust for the statistical system was expressed during the consultations with users. The whole exercise has emphasized the importance of user consultations and outreach. Users are not comfortable with the NSO making unilateral decisions on the

product line without consultation and provided useful feedback on many items which have led to important action items. There is no value in producing statistics that are not needed or perceived to be unnecessary.

Moving Forward

In addition to the action items, an initiative by the Chief Statisticians has been put in place to have an annual consultation process with key policy departments. The pre-existing consultative committees ignored this aspect of consultation. It is possible for the NSO to gather priorities on data needs and adjustment to the statistical program and still maintain political independence. The feedback is an essential element of the relevance of the statistical system.