TD Bank Financial Group

TD Economics

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MORE THAN ONE WAY TO MEASURE AN ECONOMY: REAL GDP VS. REAL GDI

Creeping into the news more and more have been discussions on alternative measures of economic performance and wellbeing. Although normally reserved for economists and policy-wonks, this topic may soon rise to the status of common dinner conversation.

Typically when you hear economists talking about the performance of the Canadian economy they will point to the growth rate of *real Gross Domestic Product (GDP).* Growth in real GDP is a useful measure of economic performance because it tells us how the number of goods and services produced in Canada is changing over time, excluding any influence from prices. However, while real GDP is the most watched economic measure, it is not necessarily a catch-all indicator.

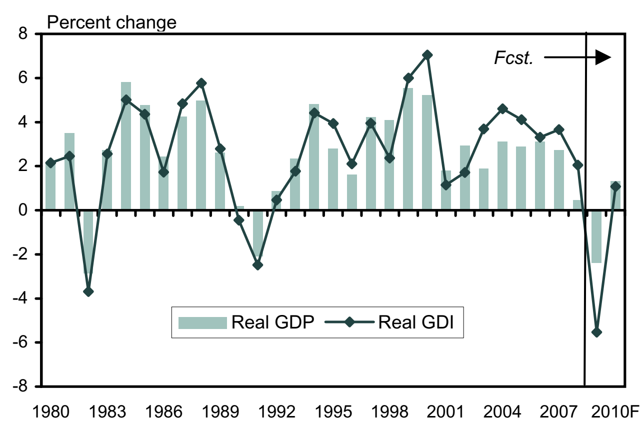
At times economists will also comment on *nominal GDP*. Nominal GDP measures the same goods and services measured in real GDP, except that it does so in current dollar prices. That is to say, if talking about the growth rate of nominal GDP, the number quoted will include both the amount by which goods and services have increased but also the amount that the prices for these goods and services has risen. The difference between nominal GDP growth and real GDP growth is the change in prices of all goods produced in Canada, including exports. Roughly speaking, if real GDP rises by 2.0% and prices by 3.0%, nominal GDP will rise by 5.0%.

In most cases, we do not think of increasing prices as raising our economic wellbeing (rather the opposite since

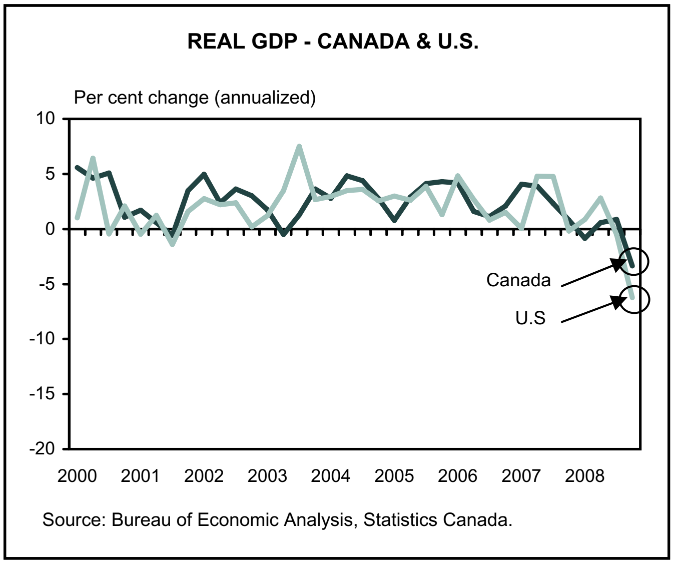
HIGHLIGHTS

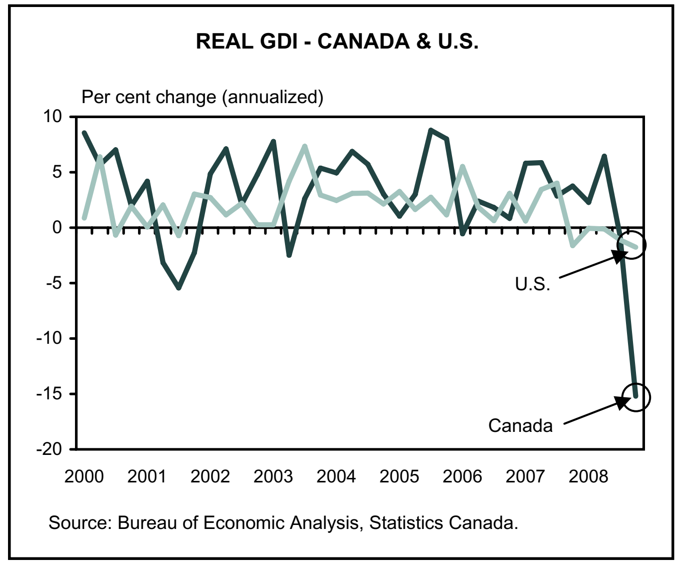
- **Real GDP is the most commonly cited indicator of economic performance and wellbeing of a country, but not the only one.**
- **For economies such as Canada, reliant on trade with other nations, prices of exports and imports also play a role in determining economic wellbeing.**
- **Real Gross Domestic Income (GDI) captures changes in economic wellbeing by including the relative change in export and import prices on Canadians' purchasing power.**
- **The drop in commodity prices and falling Canadian dollar in the final half of 2008 has led to a fall in Canadian export prices and rise in import prices, lowering the wellbeing of Canadians as captured by real GDI by 15.2% annualized in the fourth quarter of 2008.**
- **While real GDP growth in the fourth quarter of 2008 was worse in the U.S. at -6.2% compared to -3.4% in Canada, the difference in real GDI growth is more astounding at -15.2% for Canada and only -1.8% for the U.S.**

REAL GDP & REAL GDI - CANADA



Source: Statistics Canada. Forecast by TD Economics





it usually suggests an erosion in purchasing power). However, there are cases when price changes are a benefit to Canadians – and that is when the prices for what we are selling (our exports) are rising more than the prices for what we are buying (imports). Yet another measure of economic wellbeing that takes this into account is *real Gross Domestic Income (GDI)*. Real GDI measures the goods and services that domestic income can buy. To calculate real GDI growth we take nominal GDP growth and remove the change in domestic prices paid by Canadians. Anything left represents a gain in Canadians' purchasing power due to a change in the price of our exports relative to imports. This is a "real" measure because it measures real income gains of Canadians.

As a small open economy, changes in the prices of our exports versus our imports play an important role in determining changes in economic wellbeing. Over the last several years the rise in commodity prices has led to real GDI rising faster than real GDP (a positive trading gain for Canadians). Between 2003 and 2008, real GDI grew at an annual average pace of 3.5% compared to real GDP growth of 2.5%. Essentially, rising commodity prices allowed the real purchasing power of Canadians incomes to rise 1 percentage point more in every year than the number of goods and services produced. Moreover, in an environment of falling commodity prices, real GDI, more than real GDP, captures the real vulnerabilities faced by the Canadian economy.

The global economic downturn that took shape in the second half of 2008 resulted in a dramatic reversal in the prices of commodities produced in Canada. Our own measure of commodity prices, the TD Commodity Price Index (TDCI), which weights commodity prices by their share in Canadian exports, has fallen by 51% (in Canadian dollars), from its peak in July of 2008. While real GDP in the fourth quarter contracted by 3.4% annualized, this reversal contributed to the largest quarterly decline in nominal GDP on record (-13.4% annualized). Moreover, because it represented primarily a reversal in the price of our exports, it resulted in an even larger decrease in real GDI of -15.2% (annualized).

When comparing relative economic performance between Canada and the United States and thinking about the future path of both economies, the contribution of the reversal in commodity prices can not be underestimated. Much ado was made of the fact that in the fourth quarter of 2008, real GDP in the U.S. fell by 6.2%, while in Canada it declined by a smaller 3.4%. However, when one looks at real GDI, the fall in the U.S. was much smaller at 1.8% annualized, compared to the 15.2% decrease in Canada. While in the United States, lower prices for commodities in general make U.S. consumers and businesses relatively better off, in Canada it represents destruction of the real income of Canadians – one that shows up in lower corporate profits, slower disposable income growth and lower government revenues.

It is for this reason, that while Canada has avoided many of the major pitfalls of other countries in regards to our financial system, we can not escape the impact of the global economic downturn and will be dependent on a global recovery that results in demand for Canadian products once again contributing to the wellbeing of Canadians.

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