(Mis)reporting Mexico's Gross Domestic Product

The health of Mexico's economy is important to business people and analysts in the United States. This is especially true in Texas, which shares a 1,254-mile border with Mexico and whose economy is closely related to that of its southern neighbor. For example, approximately 43 percent of Texas' exports flow to Mexico. Perhaps the most closely watched indicator of the Mexican economy is quarterly Gross Domestic Product (GDP), published by Mexico's Instituto Nacional de Estadística, Geografía e Informática (INEGI). This article cautions followers of Mexico GDP that the media have misinterpreted the recent GDP statistics, resulting in reports that exaggerate the weakness in Mexico's economy.

INEGI released second-quarter 2003 GDP statistics on Aug. 15. News media characterized the results as continued weakness in the Mexican economy. According to Reuters, "Mexico's economy slowed in the second quarter to post anemic year-on-year growth of 0.2 percent in the second quarter...." The headline of a *Wall Street Journal* story read, "Mexico's GDP Barely Grew in the Second Quarter." Market News International reported, "Mexico's gross domestic product grew a paltry 0.2% year-over-year in the second quarter, following a 2.3% rise in the prior quarter...." Dow Jones said, "Output of goods and services in Mexico grew modestly in the second quarter...."

The United States and most other countries routinely report GDP statistics that have been statistically adjusted to remove the effects of seasonality, the presence of which makes quarter-to-quarter comparisons difficult. For example, there is *always* a decline in GDP from the fourth quarter of one year to the first quarter of the next because of a ramp-up in production for the Christmas season and a decline in economic activity following Christmas. One would need to know the normal magnitude of this decline to know whether a particular fourth-quarter to first-quarter change meant strength or weakness in the economy. Seasonal adjustment removes this confounding effect from the data and makes comparisons from quarter to quarter straightforward. Until recently, reliable seasonally adjusted Mexico GDP data were not generally available. Therefore, analysts and the media have tended to focus on year-over-year comparisons—which should at least be free of the clouding influence of seasonality—although they don't provide information on the most recent trends.

One factor that makes such year-over-year comparisons of Mexico's GDP highly unreliable is the tendency for the Easter holiday to move around in the calendar. Easter can fall as early as March 22 or as late as April 25. In many Latin American countries, economic activity declines during the week or so prior to Easter. La Semana Santa, or Holy Week, runs from Palm Sunday to Easter Sunday and is a period of reduced economic activity during which many Mexicans take vacation. When Easter occurs in March or early April, the lull in economic activity shows up in first-quarter figures. When Easter occurs later in April, the lull manifests itself in second-quarter data. Clearly, a year-over-year comparison in which Easter does not occur in the same quarter in both years will produce an unreliable estimate of true economic growth.

In 2002, Easter fell on March 31, depressing economic activity in the first quarter. In 2003, Easter occurred on April 20, exclusively affecting second-quarter data. The year-over-year GDP growth of 2.3 percent, measured as of the first quarter of 2003 in the unadjusted data, is biased upward, while the 0.2 percent year-over-year growth, measured as of the second quarter of 2003, is biased downward. These are the figures being widely cited in media reports.

Following a joint effort with the Finance Ministry and the Bank of Mexico, INEGI began publishing seasonally adjusted GDP data with its release of first quarter 2003 data on May 15. The new statistical series is calculated using the X12-Arima procedure, which has appropriate tools for correcting the moving Easter problem. In the adjusted data, the year-over-year GDP growth rates, measured as of the first and second quarters of 2003, are 1 and 1.4 percent, respectively (*Chart 1*). Compare these figures with the previously cited 2.3 percent and

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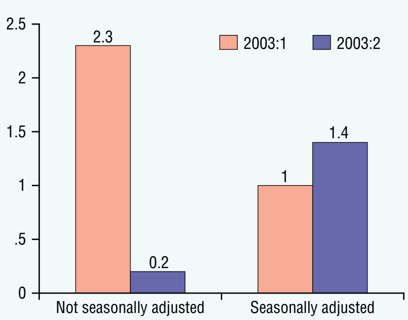
Chart 1

Adjusted Mexico GDP Shows Less Volatile, Accelerating Year-Over-Year Growth

Percent change from same quarter, previous year

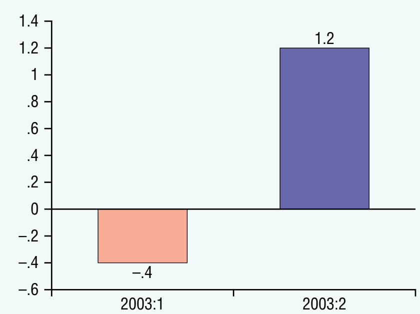


SOURCE: Instituto Nacional de Estadística, Geografía e Informática.

Chart 2

Recent Mexico GDP Growth Far From Paltry

Percent change from previous quarter



SOURCE: Instituto Nacional de Estadística, Geografía e Informática.

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0.2 percent from the unadjusted data. We see a less volatile and accelerating growth pattern using the unbiased data.

The new seasonally adjusted GDP series is better not only because it allows unbiased calculation of year-over-year growth, but also because it allows meaningful quarter-to-quarter comparisons. INEGI's Aug. 15, 2003, press release reports that seasonally adjusted GDP increased by 1.21 percent from the first quarter of 2003 to the second quarter, following a decline of 0.4 percent from the fourth quarter of 2002 (*Chart 2*). Most of the media sources we surveyed did not mention quarter-to-quarter growth at all. Those that did seemed not to know what to make of it, reporting it without comment and without noting the inconsistency of the second-quarter figure with their characterization of poor performance in the second quarter, based on the 0.2 percent year-over-year figure. The 0.2 percent figure is wrong because it includes the Easter bias. Furthermore, it is misleading to treat the year-over-year growth measure as if it reflects recent activity. The media reports cited earlier repeatedly use the phrase, "in the second quarter." It is important to note that these reports refer to growth *over an entire year*, not growth *in the second quarter*.

What are the data really saying? First, GDP growth during the preceding year, measured as of second quarter 2003, was 1.4 percent, not 0.2 percent as has been widely reported. Second, GDP growth between the first and second quarters of 2003 was 1.21 percent (which is a robust 4.9 percent, annualized), up from the 0.4 percent decline in the previous quarter. It is beyond the scope of this article to speculate about whether Mexico's economy is emerging from recession. Other economic indicators suggest that is not the case. Suffice to say that media reports have underreported Mexico's GDP growth during the last year and that growth has, in fact, accelerated recently.

The introduction of the new seasonally adjusted GDP data has contributed greatly to our ability to assess the performance of Mexico's economy. In time, analysts and the media will learn to put this information to best use—both to calculate meaningful year-over-year comparisons and to pay increased attention to quarter-to-quarter changes.

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