

Economic Analysis

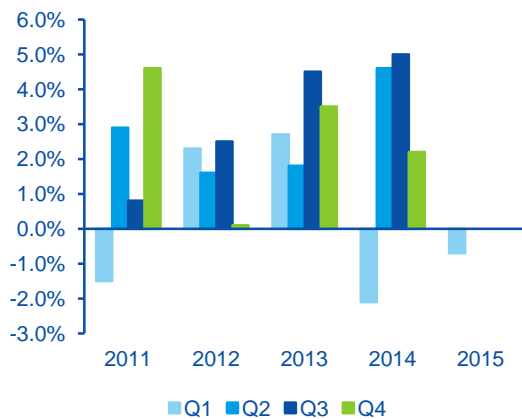
Another Strong Rebound in GDP for 2Q15? Maybe Not as Strong as in 2014

Kan Chen / Kim Fraser Chase

- **Weak first quarter GDP could be reflecting residual seasonality**
- **Our nowcasting model projects a moderate rebound in 2Q15 of 2.2% QoQ annualized**
- **A modest growth rate in 2Q may signal uncertainty regarding the U.S. economy**

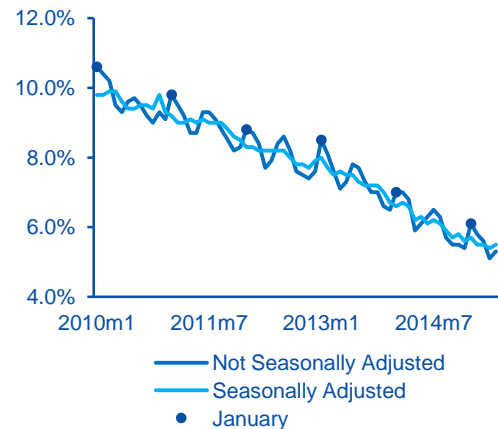
In recent years, first quarter GDP growth has been consistently weaker than in following quarters, which in contrast exhibit a strong rebound (Chart 1). This pattern naturally raises the question whether there is residual seasonality in the seasonally-adjusted data published by the BEA. Furthermore, we are left to question whether or not we will see a strong rebound for 2Q15 following the minor contraction in 1Q15.

Chart 1
Quarterly GDP Growth at an Annual Rate (QoQ %)



Source: BEA

Chart 2
Civilian Unemployment Rate (%)



Source: BLS

Most monthly and quarterly economic series need to be seasonally adjusted because raw (unadjusted) series generally show strong patterns of seasonal fluctuations caused by normal weather changes and holiday schedules. For example, sales of ice cream peak in the summer, and sales of toys peak in December. Moreover, given the wide existence of seasonality in economic data, series at the aggregate level show patterns of seasonality as well. For instance, Chart 2 shows the seasonally-adjusted and the raw series of unemployment rates, and it is clear that there exists a strong seasonal component in the raw series. The process of removing such recurring seasonal patterns is called seasonal adjustment, and the goal is to eliminate the confusion of movements driven by seasonal factors and economic factors. Most economic and government agencies make seasonal adjustments of national account data by using the X-13 ARIMA-SEATS program developed by the U.S. Census Bureau.¹

¹ For more details about the X-13ARIMA-SEATS program, please refer to: <https://www.census.gov/srd/www/x13as/glossary.html>

Residual seasonality exists when a series presents signs of seasonal patterns despite being seasonally adjusted. In the last 10 years, other series besides GDP have exhibited similar concerns. For example, the consumer price index, the broadest measure of inflation, has tended to be higher in the first half of the year than in the second half, raising a similar debate as with GDP.

Economists and policy-makers hold different opinions over the existence of residual seasonality. Recently, economists from the Federal Reserve Bank of San Francisco (FRBSF), Glenn Rudebush, Daniel Wilson and Tim Mahedy, released an economic letter on May 18, 2015 arguing that “the published real GDP data still exhibit... residual seasonality.”² If residual seasonality does exist, it implies that a strong rebound of economic data will take place in 2Q15. Instead of capturing actual economic fluctuations, the rebound of GDP growth for 2Q15 will likely be a consequence of inaccurate seasonal adjustments in the official data, which leave a negative seasonal effect for the first quarter and a positive one for the second quarter – regardless of how strong the underlying data may be for 2Q. The FRBSF report indicates that “there is a good chance that underlying economic growth so far this year was substantially stronger than reported.” Such a rebound is also expected by many professional forecasters, as the mean of Blue Chip Consensus for 2Q15 is around 2.5% as of the end of May.

On the other hand, some economists insist that the evidence is not sufficient to conclude the existence of residual seasonality. For instance, a recent report published by economists from the Federal Reserve Board, Charles Gilbert, Norman Morin, Andrew Paciorek, and Claudia Sahm states that “indeed, our analysis here does not find convincing evidence of material residual seasonality in GDP in recent years.”³ The non-existence of residual seasonality will have a different implication from the previous one, as weak first quarter economic growth will not necessarily be followed by a strong rebound of economic data.

The recent development of nowcasting models sheds some light on our GDP growth forecasting for 2Q15. In contrast to traditional time-series models, which only work with quarterly data to forecast quarterly GDP growth, nowcasting models use datasets of mixed-sampling frequencies. They extract information from high-frequency series and make use of the information to “nowcast” the value of the low-frequency indicator. The Federal Reserve Bank of Atlanta, for instance, develops their nowcasting model called GDPNow. It nowcasts 13 subcomponents of GDP and aggregates them to predict the current quarter GDP growth before the official value is announced. In fact, GDPNow is forecasting a real GDP growth rate of 1.9% QoQ at a seasonally-adjusted annualized rate (SAAR) for 2Q15 (as of June 11th).

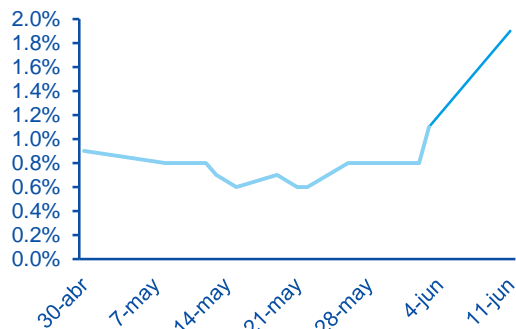
In the same spirit, we have also developed a nowcasting model (BBVA MIFUS) to make GDP nowcasting based on high frequency economic and financial indicators. Instead of nowcasting all subcomponents of GDP, we use monthly data of the leading indicators of business cycles, such as manufacturers' new orders, building permits, and weekly initial claims of unemployment insurance. Unlike the data-intensive “bridge models” used by GDPNow and other policy making institutions, our nowcasting model belongs to the mainstream models of mixed-data sampling (MIDAS). It is flexible with different data frequencies and provides direct forecasts/nowcasts without “bridge equations”.⁴

² <http://www.frbsf.org/economic-research/publications/economic-letter/2015/may/weak-first-quarter-gdp-residual-seasonality-adjustment/el2015-16.pdf>

³ <http://www.federalreserve.gov/econresdata/notes/feds-notes/2015/residual-seasonality-in-gdp-20150514.html>

⁴ For a comprehensive survey of nowcasting models, please refer to Foroni and Marvellino (2013), “A Survey of Econometric Methods for Mixed-Frequency Data”.

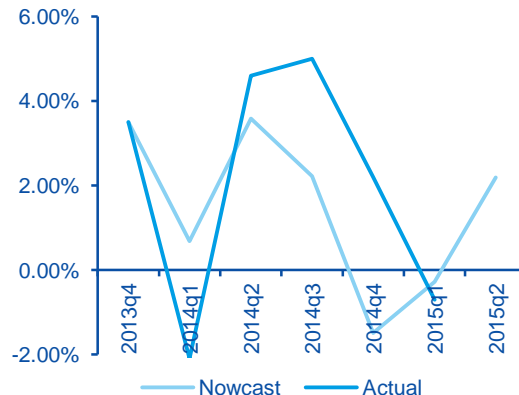
Chart 3
GDP Growth Rate Forecast for 2Q15 by GDPNow



Date of forecast (latest update: 6/11/2015)

Source: Federal Reserve Bank of Atlanta

Chart 4
GDP Growth Rate Forecast by BBVA-MIFUS



Source: BBVA Research & BEA

Based on the historical quarterly GDP growth and monthly business cycle leading indicators, our nowcasting model predicts real GDP growth for 2Q15 to be 2.2% QoQ SAAR. Thus, it indicates a moderate economic rebound after the downwardly revised GDP growth of -0.7% for 1Q15. Moreover, we also conduct a pseudo real-time nowcast to evaluate the nowcasting power of our model. For instance, we use the data only available to January 2014 to forecast real GDP growth for 1Q14, and compare the forecast with the official value. The results in Chart 4 show that our model correctly predicts the strong rebound of 2Q14 as well as the weak performance of 1Q15.

Bottom Line: Slower Rebound Expected for 2Q15 than in 2014

Our nowcasting model, BBVA MIFUS, was developed in order to forecast short-term real GDP growth. Using monthly data available as of June 12 2015, the model suggests a growth rate of 2.2% QoQ SAAR for 2Q15. Therefore, our forecast indicates that a rebound following the weak economic performance of the first quarter is likely to be limited in scope and not as dramatic as in 2014 when real GDP increased at an average of 4.8% in the second and third quarters after a decline of -2.1% in 1Q14.

It is worth noting that we will update our forecast upon official releases of monthly data for May and June once the data become available, and our forecast may change due to the volatility of high frequency data. We expect the accuracy of our forecasts to be the highest in early to mid July, when we have complete monthly data for the second quarter. When the 2Q15 GDP figure is officially released on July 30th, it will be useful to see how well our nowcast performs. The BEA is also in the process of checking their seasonal adjustment process and may release significant revisions (if necessary) along with the usual annual revisions in July. If the BEA's official GDP data for 2Q15 do not show a strong rebound suggested by the residual seasonality argument, then we can assume the BEA has correctly adjusted their data, and we can expect to see less dramatic drops and rebounds of GDP growth in the coming years.

If our current nowcast model turns out to be accurate, we may need to consider slightly revising down our baseline scenario for 2015. Despite the obvious potential risk factors, such as strong U.S. Dollar and the federal funds rate liftoff, financial vulnerabilities and fiscal policy dysfunction could have further negative impacts on the U.S. economy. However, at this point it is too soon to know for sure, and therefore we are maintaining our forecast for 2.9% growth for 2015.

DISCLAIMER

This document was prepared by Banco Bilbao Vizcaya Argentaria's (BBVA) BBVA Research U.S. on behalf of itself and its affiliated companies (each BBVA Group Company) for distribution in the United States and the rest of the world and is provided for information purposes only. Within the US, BBVA operates primarily through its subsidiary Compass Bank. The information, opinions, estimates and forecasts contained herein refer to the specific date and are subject to changes without notice due to market fluctuations. The information, opinions, estimates and forecasts contained in this document have been gathered or obtained from public sources, believed to be correct by the Company concerning their accuracy, completeness, and/or correctness. This document is not an offer to sell or a solicitation to acquire or dispose of an interest in securities.