



Weekly Economic Update July 14, 2014

- It was a light week for economic data domestically, and little new geopolitical news.
- Equity markets sold off on the week, helped in no way by the troubles of the second largest bank in Portugal, which was having trouble rolling over its debt. In the risk-off environment, bonds gained.

Stocks were largely negative on the week, as a lack of positive data and a scare in Portugal. From a sector standpoint utilities and consumer staples outperformed, while energy and financials lagged. Small caps were hit especially hard in a risk-off week.

The second quarter earnings season is set to begin, and expectations remain tempered, but positive. The number of negative EPS preannouncements has been shrinking, while the number of positive preannouncements has been rising (although the number of negative still outnumber positive). Strength in expectations appears to be coming from info tech, health care and industrials / materials, while consumer discretionary and financial stocks appear to be weaker going into the reporting period.

At the same time, the bulk of the ten S&P sectors are expected to have better earnings results than in the 1st quarter, which were brought down by weather effects in line with the broader economy. All-in-all, expectations for index earnings growth hover around 5% (9% year-over-year) with revenue growth of 5% year-over-year. Profit margins remain high, so those will also be likely watched quite closely. That doesn't necessarily mean a terrible outcome for return-on-equity, though, as the slack could be picked up by leverage or sales turnover—the latter of which is at currently very low historical levels and could certainly be improved as economic growth picks up.

Foreign emerging markets were only down a fraction of a percent, led by gains in

Kenneth P. Butze, Jr., CFP®, CRPS

3570 Warrensville Center Rd., Suite 102A, Shaker Heights, Ohio 44122 | T 216.751.4229 | F 216.803.0411 | kpbutze@integrityfirstplanners.com

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Indonesia, Turkey and Brazil (and Argentina, perhaps helped by World Cup success). Developed markets were down a significantly larger amount thanks to peripheral Europe, specifically a -10% loss in Portugal. Investors were spooked a bit by the rumors that Portugal's second largest bank, Banco Espirito Santo, was on the path to filing for insolvency by not being able to roll over its debt. Interestingly, while stocks moved backward on the news, credit markets (who would presumably be more sensitive to such news) didn't move as much.

Bonds gained on a flight to quality, and falling yields on the order of a tenth of a percent. The best-performing segments were long government bonds, unsurprisingly, while European core and Japanese debt was also higher on the overall flight to quality. Floating rate, high yield and peripheral Europe sold off a bit on the week.

Real estate returns were led by a strongly positive week in U.S. retail and residential, while industrial/office also bucked the trend of other equities by rising a bit. Europe lost a few percent on the week, ending up in last place.

Commodities were generally lower on the week by several percent. Precious and industrial metals bucked the trend by gaining a few percent on the week—gold has performed a bit better as of late, with the geopolitical flare-ups and again lower real yields in fixed income. Industrial metals have also moved higher, with better PMI strength around the world providing a boost for materials. Coffee and grains were significantly lower (as in more than -5%)—both have seen a bit of a correction as a stronger coffee harvest in Brazil better grain crop estimates in the U.S. have led to better supply balances, and lower scarcity fears. By the way, in other mundane commodities news, the well-known Dow Jones-UBS (formerly DJ-AIG) index has changed sponsorship yet again—now, it is being referred to as the Bloomberg Commodities Index.

QUESTION OF THE WEEK

With the Dow at 17,000, when is the correction in equities coming? Aren't we about due?

Maybe. But maybe not. But if that type of logic ruled such things, we'd have already experienced one by now. This is the usual set of conditions we face in

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stock markets—climbing a wall of worry and dreading the worst while enjoying incremental gains in the meantime. We'll never know if a pause happens next week or after another 50% gain—which is why these things aren't possible to plan for. History can sometimes be a guide, but every cycle has its own quirks.

Based on analysis of stock market behavior over the last century, we should expect a -5% dip in prices about 3-4 times a year (we've had two -5% dips this year, in January and April, on track with this quarterly pace) and a more substantial drop of at least -10% about once a year. More extreme corrections in the -20% range or so happen less often, every several years, as one would expect with cyclical variations in the financial cycle. Last year, much of the S&P's gain was due to P/E expansion, while this year's return so far appears more substantiated by earnings growth—critical for the longevity of a bull market. In brief, short-term movements are largely geopolitical-, idiosyncratic-, and sentiment-driven.

We find this again reinforces **valuation** being as the most useful gauge from long-term hindsight. Using a variety of metrics, current valuations range from a bit cheap (earnings yield) to the more expensive side (market cap as percentage of GDP and Tobin's Q, based on asset replacement cost), with the classic price/earnings ratio and dividend discount model fair value falling right in the middle, near long-term average or 'fair value.' As always, there is debate about the respective meaning of these various statistics in each cycle.

When large-cap equities are trading near 'normal' fair value (like now), we have tended to earn 'normal'-type results, although the band is wide. The extremes of cheap and expensive create more dramatic long-term outcomes (naturally, strongly positive expected returns happen when stocks are cheap and everyone is afraid to buy them; weak or even negative expected returns occur when stocks are priced more richly and investors have become overly enamored). There are other measures as well, but correlations are imprecise. We see the VIX pointed to quite a bit, as it's quoted by the minute and now that it's at lower levels in its range.

In the past year, it has fluctuated between levels of below 10 and over 20. It's important to remember what the VIX is and what it's designed to measure. Specifically, it's the mathematical output of the Black-Sholes option pricing model for the S&P's near-term standard deviation. So, as much as anything, and in

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keeping with the timeframe for many option traders, it reflects the recent past. The 'father of the VIX,' Vanderbilt professor Robert Whaley, who developed it for the CBOE in 1993, also assuaged concerns about recent low levels and put it into perspective—reaffirming the point of the number is to describe nothing more than the level of volatility expected over the next 30 days. So, while it's a figure we keep tabs on, we also don't put undue pressure on its ability to measure with precision.

So far in 2014, equities are up at a pace just over their long-term average (if we use a figure of roughly 10% annualized), while bonds are also above their long-term average (which has tended to be 5-6%). How can everything be winning? There appears to be a fork in the road in terms of fear: sentiment has vacillated between optimism (economy takes off from the lackluster past few years and winter doldrums) and pessimism (China slowdown, European deflation, Ukrainian war, now Iraq). When you combine these two together, you get an 'average' year, which is what we seem to be having up until now at least. No doubt, this is probably healthier than extremes in either case and perhaps most realistic since there is always something to worry about (that is so easy to forget).

Some choppiness wouldn't be out of the question, whether it be from earnings in July (as investors see if the spring rebound translates to company top- and bottom-line growth), escalation of the Iraq situation (and accompanying higher oil prices that would be more worrisome than the conflict itself), or another wildcard of yet unknown origin.

How is sentiment? Getting better, although retail investors continue to appear skittish. Institutional investors have moved more bullish as underlying economic conditions now appear to be improving, and interest rates remain very low (which allows 'carry' or borrowing opportunities for those using leverage). We've seen this in the form of equity exposure, but also through increased merger and acquisition activity, and the issuance of IPO's. In the 2nd quarter, the number of firms going public rose by over 40% over last year at this time. While tech and consumer companies are always high-profile firms in the IPO arena, health technology/biotech represent a particularly large chunk in this cycle, as new and targeted technologies in the device and genetic arena have altered the paradigm for treating certain diseases and Wall Street has made note of it.

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What about bonds?

Fixed income is the ongoing enigma in 2014. Despite theories about why long bonds have been so popular this year (such as heightened interest by corporate pension plans, etc.), analysis from PIMCO pointed out that foreigners and banks are by far the biggest buyers. There are some structural reasons that explain some of this—neither of which are directly related to U.S. economic conditions—such as Asian/European investors seeking an alternative ‘safe haven’ and regulatory considerations for safe capital that financial institutions needed to fulfill, as well as interest rate risk shifting among market players. Important, but not glamorous.

Now that economic and employment conditions are showing improvement, and inflation has risen somewhat, there’s been increasing debate recently about where ‘real’ rates should be. A nominal yield at least as high as inflation is a historical must-have (over the long-term anyway), while the ‘real’ rate is the amount of additional premium needed for a bond to entice buyers. Short-term bonds don’t need as much enticement, so anything around inflation plus a little bit of extra yield has sufficed. Longer-term bonds contain much more uncertainty about future prospects, so the real yield has needed to be higher to compensate and entice investors to take on this risk. Historically, this real rate has varied dramatically from sharply negative to sharply positive, based on conditions, but has averaged anywhere from 1-3% or so (that range intentionally ambiguous).

If inflation moved to the Fed’s target of 2% (call it 2.25% on the CPI to account for differences in that versus the FOMC’s preferred PCE index), that puts us at a nominal yield for Treasuries at 3-5%—again we’re being vague on purpose as to not imply too much precision into the calculation. Rates are significantly below that right now, and real rates are also significantly below historical averages (and negative in short-term bond assets). This unusual low real rate condition may be in place for a variety of reasons, including levels of financial leverage in the system, risk tolerances, and lower inflation uncertainty in recent years. But, despite still-slow growth and lack of upward move to this fair value more recently, this represents a steady pressure in the bond market, as there isn’t much room for error. If things continue as they are now, the bump in rates might be delayed. If things improve more than expected, a rate rise wouldn’t be at all surprising. (The only eventuality not mentioned, a recession or less severe downturn, could turn rates lower yet again, but the spring gets wound pretty

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tightly at levels below where we are currently—not saying it’s impossible).

Corporate bonds, of course, have an additional layer of spread to account for the probability of default. Credit has been good to us in portfolios over the last several years, but this will, too, someday come to an end. Both investment-grade and high yield spreads have moved tighter this year, and, eventually, the smaller reward won’t be worth the risk. The high yield market is fairly new, so the graphs below (courtesy of the St. Louis Fed) provide some intermediate-term high yield spreads and a long-term historical context for AAA and BAA (top-grade and lowest level of investment-grade, respectively) corporate spreads versus the 10-Year Treasury. As you can see, spreads are tighter as conditions are stronger, so another area we’re keeping close watch on.

Weekly Economic Notes

(-) Wholesale inventories for May rose +0.5%, which was a tenth less than the expected increase and contained a small revision down for the previous month.

(-) The NFIB small business optimism index fell from 96.6 in May to 95.0 for June (consensus called for a gain to 97.0). Expectations for the economy dropped -10 points, which represented the most significant negative component in the survey; expectations for sales and expansion plans also declined to lesser degrees. At the same time, plans to add jobs rose a bit with an increasing number of respondents noting that jobs are getting difficult to fill (again implying a bit of mismatch present in the current job market). Expectations of having to raise wages also rose (about a fifth of those responding), which was interesting.

(+) The JOLTS job openings report for May showed another gain to 4,635k, which outperformed the forecasted figure of 4,350k and is actually one of the highest readings in the 13-year history of the series. The peripheral hiring and quit rates were unchanged, at 3.4% and 1.8%, respectively, and the layoff rate dropped by a tenth to 1.1%. The job opening gains were widespread in all major sectors, which was a positive, but current figures remain low compared to previous cycles. One example of this is the ratio of unemployed to openings, which is at 2.1 relative 1.5 or so more typical of fuller employment conditions.

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(+) Initial jobless claims for the July 5 week fell to 304k, which was below expectations calling for 315k. Although there were no special factors, the short holiday week might have added some noise and a few auto plan shutdowns for summer may affect these numbers a bit. Continuing claims for the June 28 week rose a bit to 2,584k, which was slightly higher than the 2,565k expected.

(0) The June FOMC meeting minutes were released, and were generally neutral in impact. Obviously, the meeting's already long over, but these sometimes provide some color into underlying thinking, opinions and potential concerns raised by committee members that aren't captured in the formal statement. In this case, the bump in inflation was acknowledged, although the committee has been backtracking on how far unemployment needs to fall to justify a tightening of monetary conditions. Also, interestingly, comments were made regarding the current low levels of volatility in a variety of financial markets. Other discussions confirmed a Fall 2014 end to QE via tapering down to zero, and future use of reinvestments, the Fed Funds rate and forward guidance to express policy.

(-) Factory orders for May were weaker, per expectations, falling -0.5% versus an anticipated drop of -0.3%; at the same time, April orders were revised up a tenth. (-) Construction spending in May rose +0.1%, which lagged the forecasted gain of +0.5%. In the month, residential spending fell -1.4%, while non-residential rose +1.1%. Interestingly, the report contained substantial revisions for the past six years, but this didn't affect the more recent months (of current interest) to the same degree.

(+) Total auto sales for June came in better than expected—rising from 16.7 million annualized units in May to 16.9 million units (compared to expectations of 16.4 mil.), the highest annualized figure in 8 years. Of this, the domestic portion, rose from 13.1 mil. to 13.3 mil., also surpassing expectations by a few hundred thousand vehicles. This was also accomplished with one less weekend than in the prior month (weekends are big in the auto sales world, so analysts make special note of this). Just to make this a bit more interesting, the graphic below depicts the differential in year-to-year sales among the larger car makers—Chrysler continues to lead, while Ford and Honda have lagged. In Ford's case, a pending truck redesign appears to be partially the cause for a lower sales push (important considering that almost two-thirds of sales have come from trucks and SUVs). Nevertheless, recent recalls from several manufacturers don't seem to be making a large dent in auto-buying and low financing rates (for now) continue to entice buyers, who seem to be increasingly confident.

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(+) The trade balance for May narrowed a bit, to a deficit of -\$44.4 billion, even further than the expected -\$45.0 billion level. This was entirely due to the petroleum balance, which narrowed by \$1.7 billion due to stronger oil exports, while the ex-petroleum balance widened. Overall exports rose 1%, which was a positive—contributors were autos, engines and consumer goods.

(+) Pending home sales for May rose +6.1%, which was far better than the expected +1.5% increase (in contrast to a year-over-year decrease in this metric of -7%). It represented the third straight month of gains, with rising sales in all four regions—the Northeast and West led with 8-9% results. As a good indicator of future 'existing' home sales (the pending status implies they'll be converted to final sales at some point), this type of result is a positive. Increasingly, it also appears that fundamentals are taking over for low mortgage rates as inventories of foreclosures and other 'abnormal' properties are draining from the system in favor of more 'conventional' home purchases.

On a more unique note, legislation was introduced in the House of Representatives last week that would, if enacted, shake up the FOMC's monetary policy process and reporting requirements—essentially to impose a mathematical 'Taylor Rule'-type (quantitative interest rate model) framework for Fed decision-making, with the important part being a requirement that deviations from this model be formally documented and/or coincide with Fed chair testimony before Congress, as well as opens the FOMC to audits by the General Accounting Office. This sounds dramatic, and doesn't appear likely to go anywhere at this stage, but it does demonstrate growing discontent among some groups, particularly with currently low interest rate policies in an increasingly normal non-emergency environment and high levels of government debt. Some of this started with Rep. Ron Paul's attempts a while back to remove the prohibition on GAO audits of the FOMC, but this recent bill goes a bit beyond that. The Fed hasn't commented, but no doubt would oppose any regulation that takes away the institution's flexibility in fulfilling its mandates.

One last thing. We report on a lot of economic data week after week, some of which is worthwhile in hindsight, while other stats are revised/corrected in one way or another. While accuracy of the final figures is important, this is an imprecise blend of art and science at times—and a lot of work goes into the tabulation of these numbers by a variety of agencies and firms. We report on these data points because they affect investment markets, and often the first release is what drives near-term behavior on a week-to-week basis. But the

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process is never perfect. Northern Trust wrote an interesting editorial (attached to the back of the weekly update) on the subject concerning data gathering realities and pitfalls.

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THE VIEW FROM HERE

BROAD THOUGHTS ON THE ECONOMY

A High-Stakes Numbers Game

Can we trust our economic data?

July 7 2014

There are three types of lies: lies, damned lies and statistics.

-- Benjamin Disraeli

Bring up the subject of economic data with any investment professional, and a roll of the eyes is the likely response. Everyone in the financial community has a favorite war story, among them:

- In late 1979, when Federal Reserve Chairman Paul Volcker had everyone taking the money supply very seriously, the Thursday afternoon release of M1 was each week's flash point. Late that year, an unexpected jump of \$3.7 billion was reported, leading to a sell-off in bonds and stocks. As it turned out, though, the "gain" was actually a \$700 million fall: a certain clerk at a large bank was on vacation, and a replacement had mistakenly added a zero on his submission to the Fed.
- The slogan, "It's the economy, stupid!" was a linchpin of Bill Clinton's 1992 presidential campaign. Harping on slow growth and the loss of employment, the Democrats wrested control of the White House for the first time in 12 years. One year later, the Bureau of Labor Statistics reported that it had overstated the number of jobs lost during the election year by 540,000, but the revision came too late to influence the polls.

These episodes are laughing matters for some but a source of serious concerns for others. Economic information drives decisions in the public and private sectors and serves as the basis for trillions of dollars in financial transactions. Instability in the figures can create an unwanted source of uncertainty for markets and policy-makers. Most recently, the huge revision to gross domestic product (GDP) growth in the United States for the first quarter of 2014 stunned markets and left economists scrambling for explanations.

It therefore seems like a good time to review the ways in which readings on business conditions are assembled and offer some commonsense rules for using the data. Understanding the strengths, weaknesses and limitations of statistics is critical to using them properly. And we must be careful not to expect too much precision from this inherently imprecise discipline.

Getting Things to Add Up

Economic measurement is many centuries old. Accounting for output and price goes back to the dawn of the market mechanism. Historians have been able to construct surprisingly lengthy histories on certain concepts, spanning both time and geography.

But systems that capture activity comprehensively arose less than a century ago. National income and product accounts (NIPAs), which feed the calculation of GDP, were first formulated during the Great Depression. The process provided readings in "near time" that could be used to assess conditions and guide decisions.

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Northern Trust
Global Economic Research
50 South LaSalle
Chicago, Illinois 60603
northerntrust.com

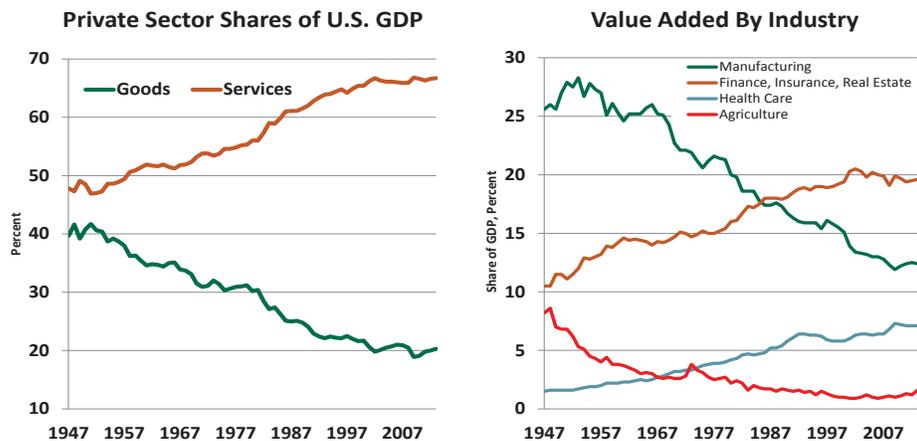
Carl R. Tannenbaum
Chief Economist
312.557.8820
ct92@ntrs.com



It was a remarkable achievement, given the limitations researchers faced at the time. Incomplete collections, long time lags and what we would consider primitive calculation tools by today's standards were among the obstacles to overcome. There are no natural laws in economics that establish immutable relationships among variables; human behavior can be quite volatile in the short run and prone to significant secular transitions in the longer run.

In one sense, the originators had the advantage of studying an economy which was somewhat easier to account for than it is today. Industries where quantification is relatively straightforward, like agriculture and manufacturing, have lost share to health care and financial services, which are more complicated to assess.

Demands for accurate accounting are rising, while the economy has gotten more difficult to count.



Source: BEA/Haver Analytics

The output and price associated with a service are hard to gauge. How can you measure the production of a teacher? Or a doctor? Or a cellular service carrier? Or a bank? In these cases, statisticians are able to collect information on payments made to providers, but determining what services and service levels have been provided is not a simple task.

Ironically, the expanding employment of technology in our economy has made life both easier and harder for economic statisticians. Modern computers have certainly simplified the compilation and analysis of economic data, and we get more information sooner than we ever did before. But the shift toward digital industry has complicated efforts to account for output.

Creating a complete depiction of economic activity was a significant endeavor when begun, and it has only gotten more complicated over time. It is worth keeping this background in mind as we assess the value of the output; we may be asking more from economic statistics than they are able to give.

Revisions, Restatements and Rebasing

Understanding how the various indicators are assembled can help place their movements into proper perspective. The process starts with some basic data, which can take time to accumulate. Staggered availability of information contributes to the revisions that are often made to initial

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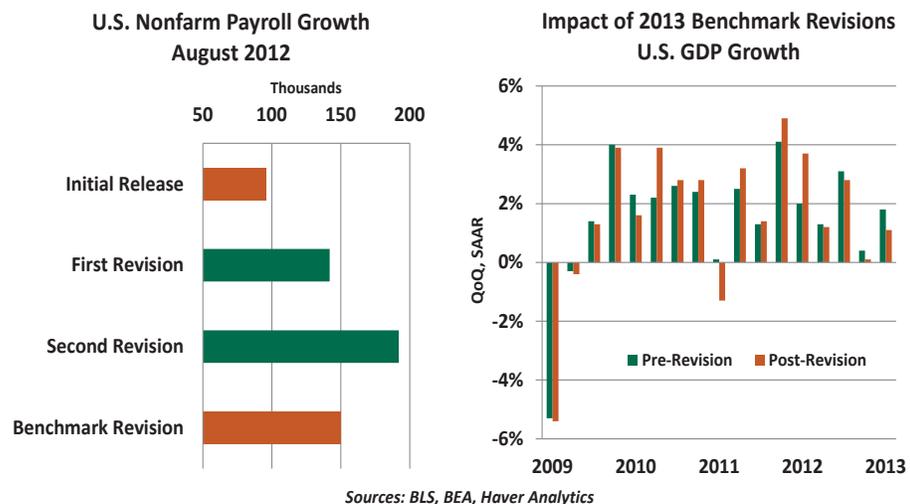


releases. Because of the lags involved with collecting component parts, GDP progresses through advance, preliminary and final stages. It was updated information on medical expenditures that drove the last, large revision to U.S. first-quarter 2014 GDP.

Much of this information is captured through surveys. This technique relies on polling a carefully selected sample that represents a broader population. There is always the risk that this linkage can change over time, rendering the sample less-indicative. And securing consistency in survey responses is an elusive goal in the social sciences, no matter how detailed instructions are.

From there, a multitude of assumptions are required to complete the picture. Some are based in statistical study, while others are established judgmentally. Once annually, changes in measurement methodology are applied to past readings to create what are known as benchmark revisions.

At times, these updated views significantly alter the reported course of the economy. Employment readings that initially disappointed markets later turn out to be much better than expected. Initial reports of GDP growth have been reversed upon further review. Decisions taken on the first release can therefore look erroneous in retrospect.



Accusations aimed at producers of economic data are misplaced.

In light of this, some have suggested that the numbers are being cooked up by analysts whose skills and objectivity are questionable. Nothing could be further from the truth: economic statisticians are not political appointees, they are incredibly skilled, and they take the work very seriously.

The agencies that produce economic data are very transparent about what they are doing. (Those who really want to get deeply into the detail of how GDP is put together can find it in the [NIPA Handbook](#) published by the Bureau of Economic Analysis.) Yet as earnest as they are, the statisticians struggle with the inherent limitations of the discipline. This can be well-illustrated by two areas that are particularly important to monetary policy.

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How Much Do Things Really Cost?

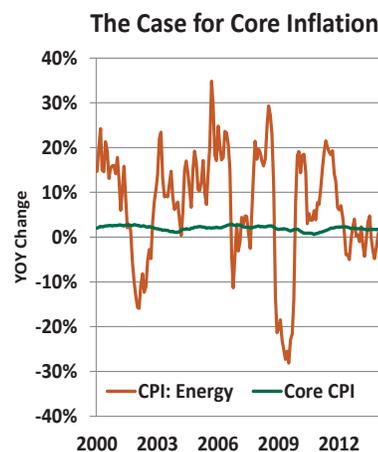
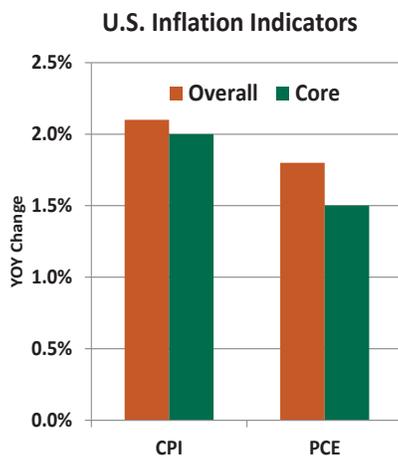
Twice this spring, I was asked if the Federal Reserve was manipulating the inflation rate in order to justify continued monetary accommodation. Since the Fed does not compute the inflation rate, I could confidently deny those allegations. But the mere suggestion reflects ongoing controversy over the measurement of the price level.

Collecting the needed data is a massive effort. Representatives visit retail outlets and service establishments to collect approximately 80,000 indications every month. Establishing that products are comparable from period to period can be challenging; a dozen eggs may not change all that much, but computers do. Analysts try to adjust for this using hedonic modeling, which reduces a product to its component features. A stable retail price for an improving product will therefore be seen as deflationary, since you're getting more for your money.

Services present their own challenges for inflation calculations. A prominent example is something called owner's equivalent rent (OER), which is the cost of lodging that homeowners implicitly pay to themselves. To assess this, analysts try to find a rented dwelling that is similar to owned property; making a perfect match, though, is difficult. (Even as housing prices were rising rapidly 10 years ago, OER was subdued.) OER accounts for about 25% of the Consumer Price Index (CPI), so the accuracy of this component has a significant influence.

Public concern over the measurement of inflation typically centers on two aspects. The first is the basket of goods and services used in the exercise and how the components should be weighted. The second is the tendency of policy-makers to focus on "core" measures that exclude food and energy prices. Different definitions of inflation can create pretty significant differences in outcomes. Since pay and benefits are indexed to inflation in many places, these distinctions are of more than academic concern.

Measuring inflation is a massive endeavor with lots of moving parts.



Sources: BLS, Bloomberg, Haver Analytics

The Federal Reserve favors the deflator on Personal Consumption Expenditures (PCE) partly because it adjusts interactively to what people are buying. If expensive beef leads people to

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switch to chicken, the PCE will pick this up early and reflect a more limited increase in what households are paying for food. The CPI, by contrast, uses a fixed basket of goods that is updated only periodically.

The justification for focusing on core inflation is sometimes more difficult to explain. After all, most of us spend a good deal of our incomes on food and energy. (These two categories account for almost 23% of the CPI.) Nonetheless, the costs of these elements are quite volatile, as shown in the chart above. To avoid getting “whipsawed” by frequent peaks and valleys in food and energy prices, monetary policy focuses on core measures.

Whatever definition is used, it is highly unlikely that the aggregate basket of goods and services used will exactly match what a given individual is buying. Some pensioners will receive more-generous cost-of-living adjustments than they might need, while others will feel shortchanged. There is little that can be done about this.

Over time, the various inflation measures typically move in synch. Trends seen in one can often foreshadow trends in another. Each of them has strong points and vulnerabilities. So developing a sense of inflation requires giving each of them important consideration; relying on a single indicator can be myopic.

How Many People Are Really at Work?

Employment would seem like one of the easiest things to account for: either you’re working or you’re not. Yet the two government surveys (known as the household and establishment series) that attempt to measure this don’t always agree with one another. It is not infrequent to wake up on the first Friday of every month (when the new employment readings come out) and learn that the unemployment rate went down even though we created few new jobs. That happens because the two numbers come from different sources.

The household survey covers about 60,000 homes and is the basis for the unemployment rate we see every month. Part-time workers are counted as employed (even as they aspire to full-time positions) and those “discouraged” workers who have not been looking actively are not considered part of the labor force. These factors tend to understate unemployment in the current environment.

The sample size for the household survey is very small, considering that the American labor force includes nearly 155 million people. The geographic distribution of these surveys may not be ideal for national reporting, given the need to estimate joblessness for individual states. Consistency of responses is a challenge; some who are between full-time opportunities may report themselves to be self-employed, while others will indicate that they are not in the labor force.

The establishment, or payroll, survey encompasses 140,000 businesses and a substantial fraction of American workers (and is consequently considered more reliable). It can, however, be skewed toward large companies and accounts poorly for entrepreneurs.

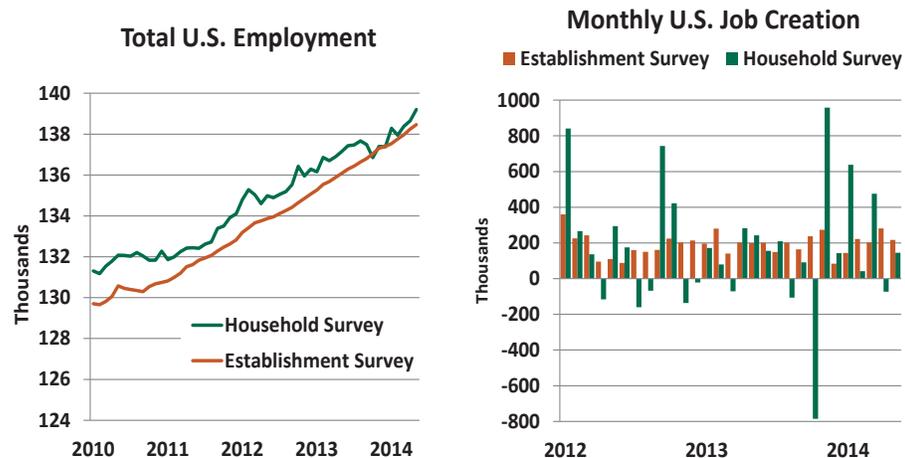
The two employment surveys approach the same question in very different ways.

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Like many economic series, the employment indicators attempt to adjust for seasonal factors. Construction employment, for example, peaks in the spring and summer and wanes when the weather worsens. Past patterns are used for this purpose, but when seasonal extremes deviate from their moving averages (as they did during the Polar Vortex winter of 2014) the adjusted figures can show unusual variation.

Results from the two employment surveys tend to move in the same manner over time, monthly but variations in reported job creation between them can be sizeable.



Sources: BLS, Bloomberg, Haver Analytics

The employment report is arguably the most important one we receive each month. The challenges inherent in assessing labor supply and utilization are especially topical today, as the Federal Reserve attempts to determine how far away we are from full employment.

A Survivor’s Guide

It is said that we’re best off not knowing how legislation and sausage are made. The assembly of economic metrics might fall into the same category. The litany of measurement problems described above might certainly lead some to dismiss the data as unreliable.

But this really isn’t an option for investors. So here are some tips for making the best of what we have to work with.

- **Don’t overreact to a single release.** Look at variables over time, and place them into perspective. Some announcements come with error bands around the data point, which are worth reviewing.
- **Be aware of paradigm shifts.** When technology advances, or when new taxes or regulations take hold, or when natural disasters strike, it creates discontinuity in data series. It can take time for new normalcy to be established; in the interim, we need to mentally adjust for the distortion.

We can’t live with economic information, but we can’t live without it, either.

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- **Connect the dots.** If something is truly trending, we'll see confirmation across economic indicators and corroboration with anecdotal information. Until the folio is full, though, caution should be applied before reaching a conclusion.
- **Understand the source.** Some economic data, and a lot of interpretation of the data, is offered by people or organizations with a particular point of view. Carefully selected indicators, reviewed over carefully selected time periods, can support a wide range of conclusions. Best to latch onto impartial sources wherever possible.

It is sometimes scary that so much is riding on information that has so many flaws. Additional funding for economic data would certainly help (we spend a pittance on this effort in the United States), and efforts to capitalize on what "big data" might do to help in this area should be extended. Perfect precision is unattainable, but progress is certainly possible.

It's been said that the definition of delusion is an economist who issues forecasts with decimal points. The same is true of anyone who trusts short-term movements in economic indicators. Yet the data can be extremely useful when placed into the proper context. We'll look forward to continuing our efforts to help you separate the signal from the noise.

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