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Interpreting Economic Data

Victor A. Canto

Conclusions regarding political decisions, the evaluation of economic policies, and investment decisions are not made in a vacuum. The commentator or decision maker has some sort of framework that guides their decision making. Sometimes this framework is broad and general, while in other cases it is quite narrow and specific. How people develop their framework matters a great deal, as it also determines whether and how they will modify it over time. One potential source for modification of an individual's framework depends on its usefulness. How well does it explain the overall economic environment? How accurate are its forecasts? These are two of the criteria that one may use to evaluate and modify a particular point of view or framework. Then there is the modification of the process based on the magnitude of forecasting mistakes or the inability to fully explain the overall economic environment. Does one continually modify the process in order to explain every possible forecasting error? If so, by how much?

Our way of modelling and interpreting the revision process is qualitatively based on the Bayes Theorem, named after 18th century British Mathematician Thomas Bayes. The theorem provides a way to revise existing predictions of theories given new additional evidence. One of the many applications of the Bayes theorem is Bayesian inference, a particular approach to statistical inference. The theorem expresses how a prior probability distribution--the probability distribution that would express one's beliefs about this quantity before some evidence is taken into account--should rationally change to account for the availability of new evidence. Hence, if the new evidence regarding the effects of a policy change are consistent with the environment anticipated by the prior, the beliefs are reinforced and strengthened. That is, the prior is held with a greater degree of conviction. If, on the other hand, the results are inconsistent with those predicted by the prior, the degree of conviction is weakened. How much the prior beliefs are revised depends on the degree of conviction. A strong prior means a great deal of belief and a new piece of evidence may not be considered conclusive enough to move the conviction needle, resulting in a minor or quite possibly insignificant revision. In the extreme case, people with a really strong prior, i.e. strong beliefs, may not be swayed by the new evidence and thus will cling to their beliefs no matter what. In this case, the posterior distribution may be identical or little changed from the prior distribution or beliefs. On the other hand, given a diffused prior (suggesting no strong conviction), new evidence may result in quite a change in the conviction level. In this case the posterior distribution or beliefs could be quite different from that of the prior distribution. Again, in the extreme case of very weak priors, people with no conviction will adjust their views to whatever the new evidence points to.

The Peril of Strong Priors

The elections of Barack Obama and Donald Trump as presidents of the United States presents us with two distinct episodes which can be used to illustrate the potential perils of a strong prior. In an extreme case, the pundits or investors will not revise their posterior distribution and thus will cling to their beliefs no matter the evidence. The Anti-Obama and Never-Trump crowds had a common forecast regarding the Obama and Trump administrations. In both instances the opposition crowd believed that the economy would tank, and therefore so would the stock market. The investment implication of their beliefs was an obvious one: avoid the market, lighten up on equities, and go to cash. Yet as we now know, following that advice during the Obama years would not have been a wise choice. The stock market averaged a 9.9% annual return, well above the inflation rate. Not too shabby. While the Trump administration has only been in power for less than two years, so far the market has returned an annual average of 17.9% since the election.

The stock market data suggests that following the Anti-Obama and Never-Trump investment strategies would not have been a wise decision. The question is what a Bayesian Anti-Obama and Never-Trump investor would have done in light of the unexpected results. Given the stock market results, we know which way the prior would have been revised. How much would depend on the strength of the "political prior" as opposed to the "economic prior," and the understanding of the overall economic environment. Those with very strong political priors would cling to their beliefs and likely underperform during this time. In contrast, those who revised their "economic prior," their expectations would have improved their performance.

The Obama Years: The expectation revision mechanism depends in part on the investor's framework and how they process information relating to the economic environment. With the benefit of hindsight we can provide an interpretation that is consistent with our past writing during both time periods. We take the point of view that money is a veil and that the real economy is impacted by real factors. We also take the viewpoint that incentives matter and focusing on the impact of policy initiatives on the incentive structure provides us a way to understand the economy's overall equilibrium output and GDP growth rate.

We know that marginal tax rates and regulations rose by quite a bit during the Obama administration. The rising regulatory burden would lead to a lower level of output and quite possibly to a lower growth rate. We also doubted the effectiveness of the stimulus programs. Our argument was quite simple. The beneficiaries of the stimulus programs would increase their aggregate demand, but those who ultimately paid for the stimulus would have the opposite effect (a drop in aggregate demand). When the two groups are combined, there is no change in aggregate disposable income and hence no impact on the equilibrium GDP. All we have left is an income redistribution scheme that benefits one group at the expense of another. In this case, the "economic prior" would be revised to a slow growing economy, with slow and positive earnings growth.

Fiscal policy is only half of the policy mix. Monetary policy also comes into play as far as the economic environment is concerned. As we know, the Bernanke Fed significantly expanded its balance sheet in the aftermath of the crisis. Monetarists argued that the balance sheet expansion would result in a much higher inflation, which is something that has not materialized. It should force these economists to revise their prior and search for an explanation as to why inflation did not materialize. The revision in their prior would also lead one to question the current forecast that other pundits are making regarding the current inflation outlook. Many are a looking for a rise in the inflation rate, and yet to their disappointment, it still hovers around the 2% rate.

The Fed's action, i.e. the expansion of the balance sheet, was reflected in the large expansion of the monetary base and prevented a collapse of the U.S. money supply, MZM. For example, from 2008 to 2009 the monetary base grew at a 20% clip, while MZM grew at 4.08%. This suggests that the explosion in the monetary base was not accompanied by a corresponding increase in MZM, hence the increase in inflation predicted by those who equated the expansion of the Fed balance sheet with an increase in MZM did not materialize. We now know why. Inflation during that time was 1.5% as measured by the PCE. Viewed from this perspective, the Fed did prevent a deflationary spiral. But there is more. Comparing the realized inflation with the target inflation rate, one could argue that the Fed was not expansive enough. Otherwise the 2% target would have been met. Kudos to the Fed.

Now let's move on to asset valuation. We know that most valuation models discount current and future earnings, hence there are two components that determine valuation: the earnings growth and the discount rate. As the economy recovered, earnings rose significantly, from negative earnings to positive earnings. However, that was a one-time effect. The question at the time was what would happen to earnings growth. We believe that the Obama tax rate and regulation increases had a negative effect on the economy's earnings growth and thus the market valuation. Hence in this regard, the Anti-Obama crowd had an argument. Unfortunately (or fortunately), they overlooked the Fed and the discount rate effect. The reduction in the discount rate lengthened the investor's horizon and increased the discount factor or valuation. To the extent that this effect dominated the low earnings growth, valuations would rise. We have already alluded to the answer. As already mentioned, the market gained an average of 9.9% during the Obama years, a solid performance.

The Trump Early Years: The election of Donald Trump forced many people to reevaluate their economic views and investment policies, i.e. their "priors". One group agreed with our views regarding the slow growth during the Obama years. However, unlike the explanation we presented above, this group believed that the slow growth was the "new normal." As such, they believed the slow growth in real GDP would continue. Add the fact that the Fed would return to normalcy--which implied a rise in interest rates-- and we have a lethal combination for asset valuation: slow earnings and a rising discount rate. It was not a bullish outlook. Then there was the Never-Trump view that Mr. Trump's policies would be disastrous for the world economy. The investment implication for this group was quite clear: reduce equity exposure and shorten the duration of their fixed income allocation.

Not everyone belonged to the Never-Trump group, nor was everyone bearish about his election. Those whose prior leads them to focus on incentives had reason to be quite bullish. Mr. Trump campaigned on reversing the Obama administration's regulations and lowering tax rates across the board. The reduction in tax rates and regulations would increase the after-tax rates of returns, and increase the incentives to work, invest, and produce. This is an important point. This group argued that the slow growth during the Obama years was due to higher tax rates and regulations and thus reversing the tax and regulatory burden would reverse the economic performance. This is a very different view than those who believed in the "new normal." Both points of views can explain the slow growth during the Obama years, as there was a correlation between the economic activity and their views. However, as we know, correlation does not imply causality. Fortunately, the two alternatives had very different views regarding the forecast for economic activity during the Trump administration.

So far the data squarely supports the incentive views. Reversing the Obama regulations and tax rate increases has resulted in a GDP growth rate above what the "new normal" had forecast. The economic and financial performance eliminated the new normal theory. Good economic policy results in faster growth, while higher tax rates and regulations slow it. Under the Trump policies, the U.S. is growing at better than 3%, while the stock market is appreciating at double digit rates (17.9%). The inflation rate remains well below the 2% target rate, at 1.52%.

Going Forward

The Trump policies have produced a result inconsistent with the "new normal" view, but is consistent with the view that reversing the Obama regulation and tax rates policies would also reverse the relative economic performance, which it has. However, there is one issue that the data has yet to allow us to determine. And it is whether President Trump is a true conservative that believes in lower tax rates and higher incentives to work, save, invest, and produce across the board. A true conservative would have undone much of the Obama policies, and that is something the president has done. But undoing the Obama policies does not necessarily prove that he is a true conservative. There may be other reasons why he may pursue an undoing of the Obama policies: to replace them with his own preferred taxes and regulations. The president's trade views are consistent with both alternatives. Time will reveal the true Trump. If he uses the threat of trade restrictions to achieve a level playing field with free trade, he will prove himself to be a true conservative. However, if he chooses to replace the Obama regulations with his own preferred policies, such as trade restriction and mandates such as minimum salaries for auto workers in Mexico, he will simply be replacing the Obama industrial policies with the Trump industrial policies. That is not a bullish outlook. Time will reveal the true Trump administration's beliefs and policies. Keeping an eye on the trade issue is worthwhile. It is the canary in the coal mine.