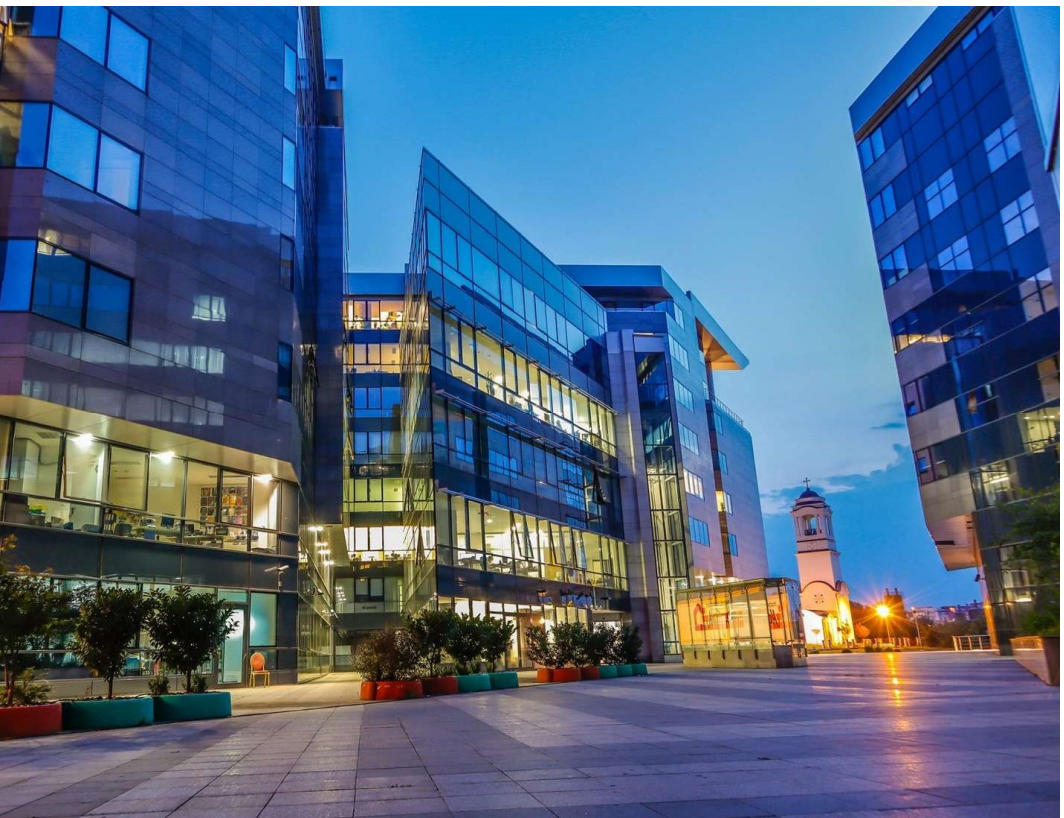
Bulls & Bears

A publication of Xicon Economics, LLC

Summer 2023

A publication of Xicon Economics, LLC, developed specifically for its clients and investors that sheds insights into financial economics as it relates to its investments and the US market.



AT ISSUE

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Investment Research, Advisory & Management

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Date: June 30, 2023

Clients & Investors,

It is with much enthusiasm that we submit our quarterly publication to you—our clients and investors. Without you, we would be without purpose. In fact, there is no greater time for us to serve you as a client or investor as we are prospering from this recent downturn in the economy while other firms are struggling.

Over the last quarter, we have increased our investor base by some 65% and our assets under management for our hedge fund, Xicon Squared, LP, more than 825%. Despite the overwhelming downturn in the economy, returns for Xicon Squared, LP remain strong. In so doing, we remain committed to our primary investment strategies and sectors. Further, while managing our current econometric models, we have developed and are back-testing an additional investment model using the most current methods derived, coupled with some probabilistic techniques also being back-tested. Along with these, we ran our models for profit capture around 400 times, making some 800 million calculations this quarter. Further, we projected the recent market upswing to within 98.2% of actual, paralleling our projections in the market in the economic collapse of 2008.

To this end, we remain committed to meeting the investment research, advisory, and management needs of our clients and investors. We appreciate your placing faith in our firm to deliver strong investment returns.

Kind regards,

Herbert M Barber, Jr, PhD, PhD
Managing Partner & Chief Investment Officer
Xicon Economics, LLC

Invest in Xicon Squared, LP
(Open to review presentation)

Infrastructure Spending

as an economic stimulus, using the Port of Savannah as an example

Herbert M Barber, Jr, PhD, PhD, Xicon Economics, LLC

Democrats are infamous for increasing spending, and while Republicans talk a big game regarding spending cuts, how often do we really see serious cuts? If we managed our personal budgets as politicians and other government employees manage our public budgets, we would have no budgets to manage. But one thing is certain; our growing $32 trillion national debt will not be righted without serious cuts. Until then, we will continue moving toward a slow death as a nation.

For most Democrats, however, as well as some Republicans, it apparently is believed that we can spend our way out of debt as a nation through government handout and incentive programs. Others believe we should tax the private sector to death, but even then, be reminded that the number of persons contributing to the US economically is roughly one-third (37%) of the population, as government employees, welfare recipients, and all others living off the government are not really living off the government, at all. These persons are living off the *private sector* employee; any taxed monies they provide were monies already in the money supply, being used by the private sector to generate new money. Subsequently, many tax-dollars have become in effect some form of handout that does little more than drain our society from its financial livelihood. We see this playout daily. Highways, interstates, bridges, community centers, libraries, housing, and a host of other items. We all use these; only a few of us pay for them, and the more you earn, the more you pay.

To this end, most Administrations are supporters of leveraging infrastructure spending as a catalyst for economic growth. In many cases, however, such spending becomes merely superfluous spending. In fact, the relationship between infrastructure spending and economic output is a cumbersome relationship that very few understand.

Subsequently, sophisticated methods must be used to determine whether such spending will positively impact the economic output. Financial feasibility and economic impact must both be examined; and examined collectively.

The relationship between financial feasibility and economic impact as it relates to infrastructure spending is analogous to the relationship between scientific validity and reliability. We can have reliability without validity, but we cannot have validity without reliability. Similarly, we can determine economic impact without financial feasibility, but we cannot determine financial feasibility without economic impact.

Economic impact assumes that at least one unidirectional relationship exists. To a large extent, economic impact also assumes that this relationship is causal. Of course, assuming a relationship between two or more variables exists and that the relationship is causal is problematic, altogether, as we regularly find otherwise. Nonetheless, at least one independent variable has an impact (statistical effect) on a dependent variable—or, hopefully, variable A *causes* variable B (or variable B does something). For example, most people assume that increasing infrastructure spending increases economic output (GDP, jobs, personal incomes, tax generation, and similar variables). Unfortunately, this is not always the case. Increased spending does not inherently lead to increased economic output.

Somewhat conversely, feasibility compares the differences between two independent variables. In the private sector, for example, that comparison may be between profit and loss. In the

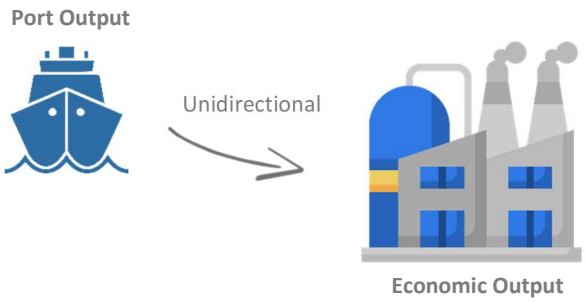
public sector however, feasibility most often results in the differences between financial cost and economic impact. This in and of itself is a difficult undertaking because we are comparing unlike units. We are comparing the financial costs associated with implementing a large infrastructure project, such as construction and operating costs, against the economic impacts of the project, such as the number of jobs that the project supposedly creates long term, or the capital outlay of a project versus increases in personal incomes or tax revenues to be generated, again, long term. The two sides of the equation are not diametrically opposed but neither are they mutually congruent; thus, we are forced to develop methods through which comparisons can be rendered.

Along with comparing unlike units, causal relationships must be investigated, especially when using economic impact to justify feasibility. Unfortunately, we have never seen a firm nor agency investigate causal relationships as they relate to estimating economic impact. As an example, the Port of Savannah hoped to capture post-Panamax shipping from the Asian market via harbor deepening, with that market being divided roughly between Charleston, Savannah, and Jacksonville. This should have set in motion a complex financial and economic investigation to determine feasibility. In the case of Savannah, unfortunately, the Authority opted to have the Army Corps of Engineers conduct what amounted to an environmental study, with less than two pages of a 200-300 page document associated with financial feasibility and economic output. The Authority gambled on a deepening project just shy of a billion dollars. Fortunately, other ports who have expanded have not rendered these decisions so flippantly.

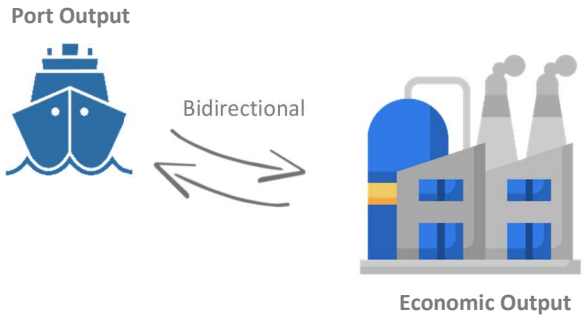
No serious inquiry into economic impact was conducted, and no inquiry into financial feasibility was conducted. Moreover, economic impact and financial feasibility were not integrated such that an econometric analysis could be conducted that statistically proved the spending of a billion dollars for the project was feasible. Here are a few questions that should have been addressed:

1. What is the total TEU projections expected from the Asian market? (As the economist who made these projections, I know the Authority completely disregarded this information altogether… one of the most important aspects of the spending bill.)
2. What are the current container TEU projections and similar projections without the project? (Again, as the economist who made these projections for other Port Authorities, the Georgia Port Authority overestimated TEU projections by more than 20 years.)
3. Why did the Authority contend the existing Talmadge Bridge needed replacing, when we proved such beyond any doubt using sophisticated modeling that such would *not* be necessary until 2045? (Such was proven and presented by our firm and presented to the Port Executive Director, Governor of Georgia, and US Senators, as well as the Commissioner of the Georgia Department of Transportation.)
4. What was the econometric effect spending was projected to have on the economies of Savannah MSA, State of Georgia, and United States? Were these effects positive or negative? Did these (causal) effects prove feasibility?

Economic Impact



Financial Feasibility



Relationship between Economic Impact & Financial Feasibility

5. What were the causal relationships between port output and economic output? Which relationships were unidirectional, and which relationships were bi-directional? How was causality established? Did the Authority use Granger-causality?

These five questions are some of the most important questions the Authority needed to address prior to spending nearly a billion dollars on harbor deepening, albeit there are countless others. Not a single basic question such as these were addressed by the Port Authority. The build it and they shall come strategy was used; hence, rather than booming forward with growth as the Authority claimed, the Port of Savannah has found itself dropping from being the 3rd largest US port by container volume (TEUs) to being the 4th largest by container volume. So, the question becomes, who pays for this poor decision? Well, the deepening project was likely a one-third to two-thirds split, with the City of Savannah paying one-third. But guess who paid for both splits? You, the private sector.

Infrastructure is crucial to the local, state, and US economies. In fact, much economic output can be traced back to infrastructure spending, that spending serving as a causal catalyst for financial and economic output—and that spending that serves as a drain on the economy. As we have statistically proven repeatedly, public sector spending often has a negative impact on economies, including the market, as there is a significant effect GDP has on the market ($p<.05$). Subsequently, it is essential that appropriate measures be taken when considering infrastructure spending as a financial and economic stimulus, in Savannah and elsewhere.

Biden vs Obama

The State of the Market

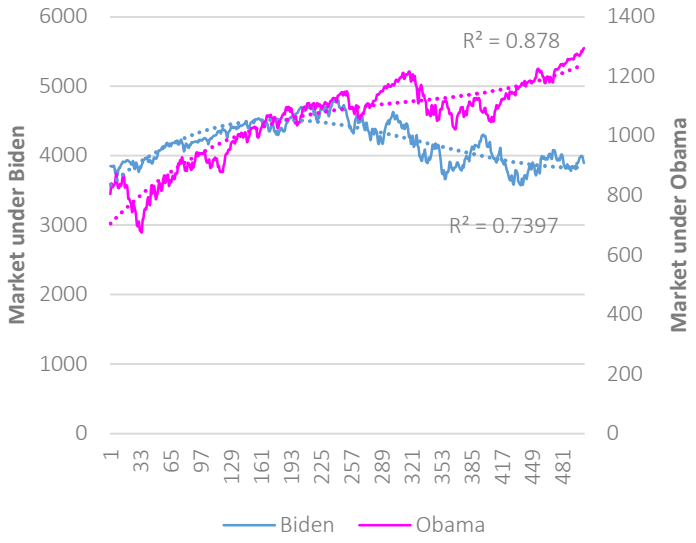
Robin H Barber, MBA, CPA
Xicon Economics, LLC

The market, perhaps one of the most frequently used words in the business and investment community. The S&P 500, the standard in market measure. For those of us in the field of investment economics, we gage our success against it. The market increases, and we rejoice. The market falls, and we worry, at least those trading only on growth. We center our livelihoods around the market, or at least its performance. And as for those who hope to have some form of return on investment, we almost worship it.

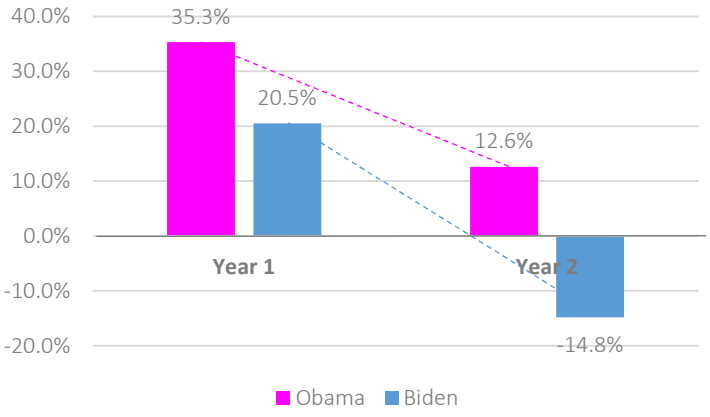
Unfortunately, during both the Obama Administration and Biden Administration, the market struggled. Under the Obama Administration, the US economy required eight years to recover, while the market corrected more quickly. Such appears to be the case under the Biden Administration, as while the market appears to be recovering, the economy is looming behind.

To compare the market under the Obama and Biden administrations, we considered their first two years in office, specifically the first 504 trading days (1 trading year = 252 trading days). To make the analysis easier to understand, we assumed we had invested $100,000 (using returns from the S&P 500), followed by an investment of $100,000 in a separate equity in the S&P 500 (Amazon). And while Amazon alone does not allow for us to draw inferences across the population of the S&P 500, the comparison gives us some idea of the state of the market under each administration, especially when using the S&P 500, at large.

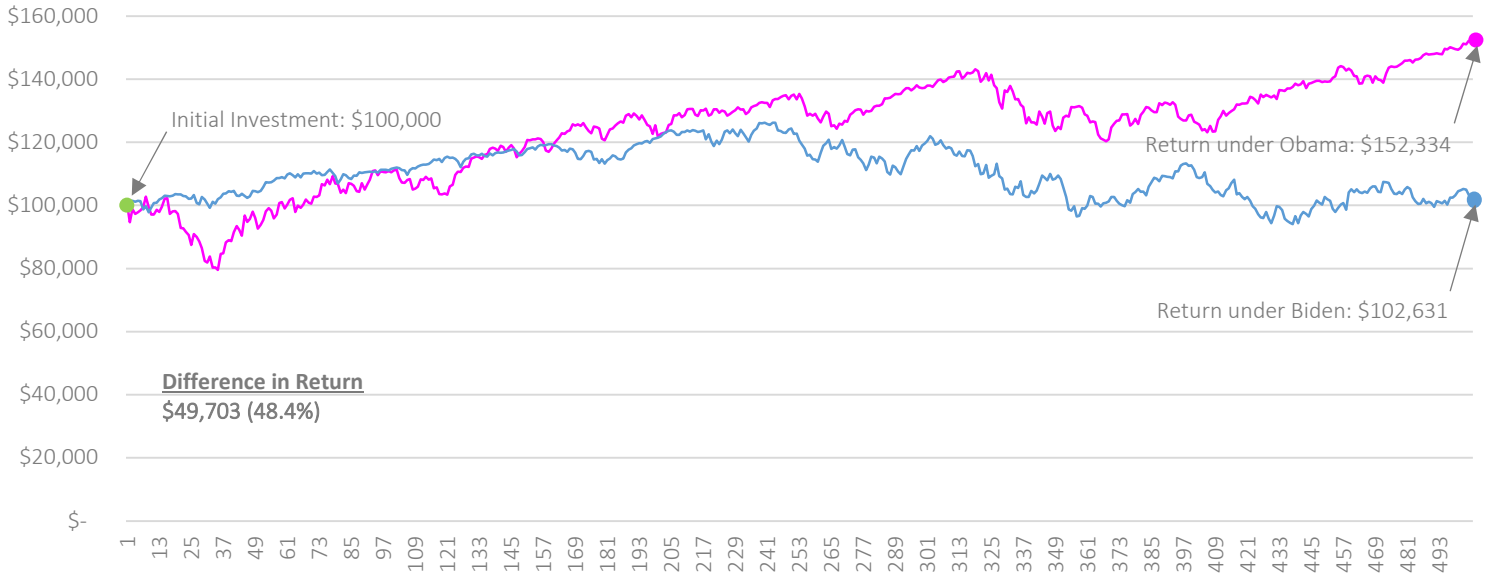
Subsequently, had we invested $100,000 in the market on January 20, 2021, the day Obama was inaugurated, in one trading year we would have realized a return on our investment of 35.3%, a return not often gained in the market at large. By comparison, had we invested $100,000 in the market on January 20, 2021, on Biden's first day in office, we would have earned 20.5%. Similarly, had we held our principal investment of $100,000, plus its gains, for an additional year under each administration, we would have realized another gain of 12.6% under Obama and lost -14.8% under Biden. As such, under Obama, our $100,000 investment yielded over $52,300, while our $100,000 investment under Biden yielded only $2,600. Refer to the graphs below.



Market, First Two Years



Market Return by Administration, First Two Years



Return on Investment, Obama vs Biden, First Two Years in Office

To further consider the market under both administrations, we reviewed the returns of Amazon (AMZ) during these same periods, or the first 504 trading days of each administration. During the first trading year under the Obama Administration, Amazon realized an ROI of 143.8%, while during the first year of the Biden Administration, Amazon realized a return of 100.6%, both huge returns, albeit a 42.9% difference. During the second year in office, Amazon returned 44.7% under Obama and 0.8% under Biden, a difference of 54.9%. During these first two years collectively, Amazon was more stable than the market, at large, with a beta coefficient of 0.906 under the Obama Administration, while during the Biden Administration, Amazon yielded a beta coefficient of 0.732, meaning the Amazon's performance more closely mirrored that of the market in terms of risk, while such was not the case with Amazon's performance under the Biden Administration. To this end, both the market and Amazon performed better under the Obama Administration than under the Biden Administration during their first two trading years based on returns, beta coefficients, and variances explained.

By the Numbers

Georgia by the Numbers

Gross Domestic Product	$746 Billion
Unemployment	1.3%
State Debt	$71 Billion
State Debt per Citizen	$6,500
Welfare Recipients	1.7 Million (15.3%)

United States by the Numbers

National Debt	$31.9 Trillion
National Debt held by Others	$7.3 Trillion
National Debt per Citizen	$95,125
National Debt per Taxpayer	$249,000
Unemployment Rate	3.7%
Real Working Population	37% (varies)

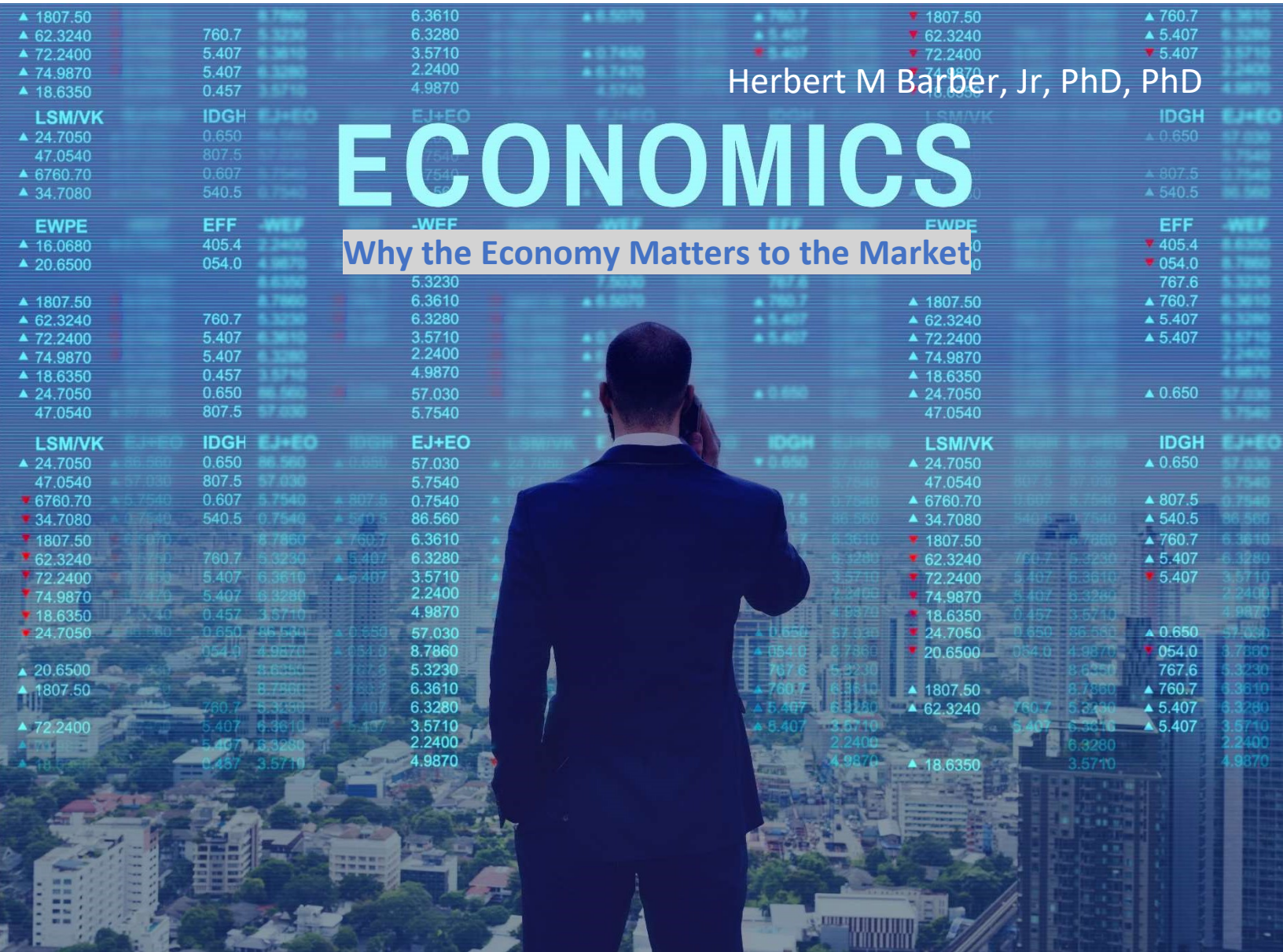
> Xicon Economics solved very complicated undertakings for us. In so doing, they did not just provide us the positive aspects of our decisions but also the ramifications.
>
> *President & Vice-Chairman, CSX*

ECONOMICS: Why the Economy Matters to the Market

Herbert M Barber, Jr, PhD, PhD
Robin H Barber, MBA, CPA

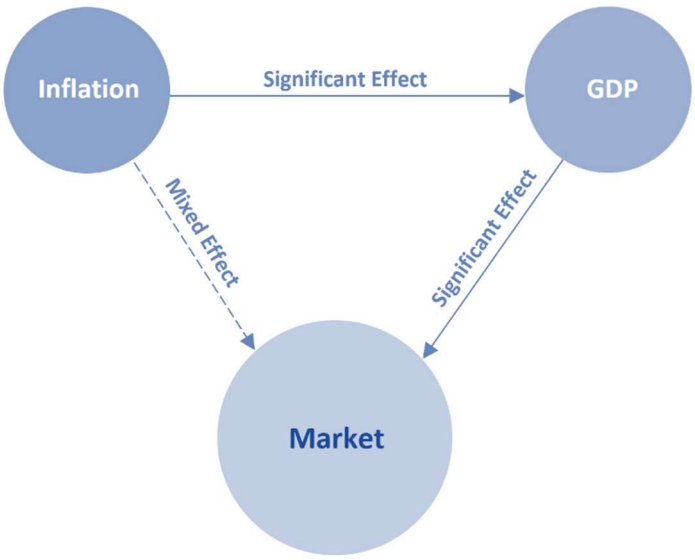
To those who spend their careers investigating and managing complex investments, the relationship between the economy and market becomes a cumbersome construct, one that seems to become more cumbersome the more we understand. As with all professionals involved in deep learning, we eventually yield to the fact that we may never fully grasp the dynamics associated with variables individually, let alone collectively. However, such does not mean variables and their collective relationships should not be studied, as piece by piece we may eventually understand the inner workings of the whole. Until then, we are left to chip away with incremental learning by investigating the whole, at large, or pieces and parts of the whole individually.

Even the casual investor has considered what makes the market tick, especially as it relates to the economy. If the economy is strong, does this mean the market is strong due to the economy? Or conversely, if the market is strong, does this mean the economy is strong due to the market? Well, ironically, this is one relationship, per se, but we have presented the relationship such that possibly



two separate directions exist, one where changes in the economy cause changes in the market, and another where changes in the market cause changes in the economy. The relationship may be unidirectional or bidirectional…or there may be no relationship, at all. Even worse, perhaps the relationship between the economy and market is a spurious relationship, one of the most difficult relationships with which to wrestle. As a sidenote, a spurious relationship is one in which variables statistically correlate but do so by statistical chance. Such a phenomenon can be dangerous in investment research, costing investors if not recognized. For example, an investment professional may determine that the relationship between Microsoft (MSFT) and Exxon Mobil (XOM) is 0.89—a relationship most would consider a strong relationship at first glance. After all, assuming Microsoft is the dependent variable in the mix, Microsoft explains 79.2% of the variance in Exxon Mobil. Subsequently, assuming the relationship is causal, the investment professional may encourage its client to invest in Exxon Mobil because price movement in Microsoft is rapidly increasing. However, under closer investigation, we may find that the relationship between Microsoft and Exxon Mobil is not causal, at all, despite the relationship; rather, the relationship is spurious, meaning perhaps that Microsoft is rapidly increasing for reasons unrelated to Exxon Mobil—say Microsoft simultaneously received a new multi-billion-dollar multi-year contract at the same time a military conflict began in the Middle East, driving up the prices of each equity, respectively. As such, there may indeed be a relationship, but the relationship is spurious—and seriously problematic if used to render investment decisions. Nonetheless, wrestling through causal and spurious relationships are far beyond our scope here; however, investors and investment professionals should remain keenly aware of these topics during the decision-making process.

In research previously conducted by Xicon Economics, we addressed the relationship between the economy and market, specifically investigating two key economic variables potentially impacting the market, including GDP and inflation. We determined that inflation had a mixed statistical effect on the market (S&P 500 Index). For example, we found that inflation had no significant effect on the market, $F(1,18)=0.046$, $p=.832$, while over other periods, we determined that inflation indeed had a significant effect on the market, $F(1,48)=63.6$, $p<.001$ and $F(1,630)=103.8$, $p<.001$. Inflation unfortunately presents mixed findings when considering its effect on the market directly. However, inflation may have a mixed effect on the market, but it has a strong significant effect on GDP, $F(1,48)=433.4$, $p<.001$, as well as a strong practical effect using Cohen's d (Cohen's $d=8.16$). As such, its effect can neither be overlooked nor considered lightly as the relationship between inflation and GDP is approaching perfection ($r=.900$, $p<.001$). Further, we also found US GDP to have a significant effect the market, $F(1,48)=83.9$, $p<.001$; as GDP increases, the market increases, and vice-versa ($r=.800$, $p<.001$).



Impacts on the Market

In fact, GDP explained 63.6 percent of the variance in the market. Consider it as such; when production in the US decreases due to poor decisions by an Administration and policy makers, GDP is not the only variable to decrease. GDP per capita decreases along with GDP, of course, but so does the market. This impact is not obvious, but it is crucial in understanding market movement. For this reason alone, we should concern ourselves with every decision our local, state, and national politicians consider. For example, when Biden foolishly shut down a pipeline and forced us buy oil elsewhere, he increased our debt load by $4.8 trillion without even thinking. Such demonstrates Biden has not a basic understanding of economics. Issues such as these must be thoroughly investigated by persons fully aware of likely outcomes, despite their political ideologies.

The economy flourishes, the economy struggles. The market increases; the market decreases. But the relationship between the economy and market is complex, and such must be understood in full when wrestling with constructs as difficult as the US economy and market. Even despite the sophisticated analytical techniques available, the relationship remains cumbersome, and only piece by piece can it be understood.

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Where smart people come for advice.

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