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Perspective

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Searchers and the Heartbeat

It's the dose that makes the poison. This old saying reminds us that small doses of harmful things may not be poisonous, while excessive quantities of even essential things like water and oxygen may prove toxic.

Although this adage may have its roots in medicine and toxicology, its message resonates in today's investment world.

Investor focus so far this year has largely revolved around two areas:

- the prospects for a transition in Federal Reserve policy
- the implications of Greece's debt woes

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Will a dose of Fed interest rate hikes prove toxic to the U.S. economic expansion? Will higher rates kill the bull market in stocks? Will Greece's debt woes poison the world financial system and economy?

The answers, we believe, require some perspective about 'dosages' surrounding these and related issues.

Small dose interest rate hikes

Fed Vice Chairman Stanley Fischer may well be the one to watch when it comes to domestic monetary policy. As the former Governor of the Bank of Israel and mentor to Ben Bernanke (prior Fed Chair), Janet Yellen (current Fed Chair) and the European Central Bank's Mario Draghi, Fischer is very likely an important influence at the Fed.

In recent speeches, he has been laying out what we suspect is the Federal Reserve's mindset, and also providing the appropriate context in which to view rate hikes. Fischer notes;

> "*Today we are engaged in managing the expected exit from the policies adopted by the Fed to deal with the Great Recession*." And one of the "*main lessons*" central bankers should learn from past policy actions; "*In normal times, monetary policy should be targeted at inflation and output or employment"*[1].

In others words, the Fed adopted crisis policies to deal with the Financial Panic of 2008 and its aftermath. And with the economy no longer in crisis, policy needs to be normalized. The Fed's long standing zero-interest-rate policy is no longer warranted by financial trauma. (That's good news in our way of thinking!)

In another speech, Fischer provided additional context on potential rate hikes. Policy will be moving from "*ultra-expansionary*", but only to a condition that should be regarded as "*extremely-expansionary*". Such a policy shift is a long way from removing the proverbial liquidity 'punchbowl' from the economic 'party'.

For those worried the Fed is going to repeat the mistakes of their 1937 counterparts, context and policy dosages are important to consider.

In 1937 the economy suffered its second big economic contraction of the decade. The Fed back then did not administer small dose policy changes, but instead ripped the liquidity punchbowl away in dramatic fashion. Their actions triggered another deflationary impulse to the 1930's economy.

Meanwhile, fiscal policy was also toxic to growth as Washington D.C. heaped a big dose of tax hikes on top of the monetary contraction. And finally, the Smoot-Hawley Tariff Act adopted earlier in the decade continued to smother global trade.

By contrast, the present context includes:

- ✓ Fed policy moving to "extremely expansionary"
- ✓ Fiscal policy largely stalemated
- ✓ Expanding trade pacts

2015 doesn't much resemble 1937 in our assessment.

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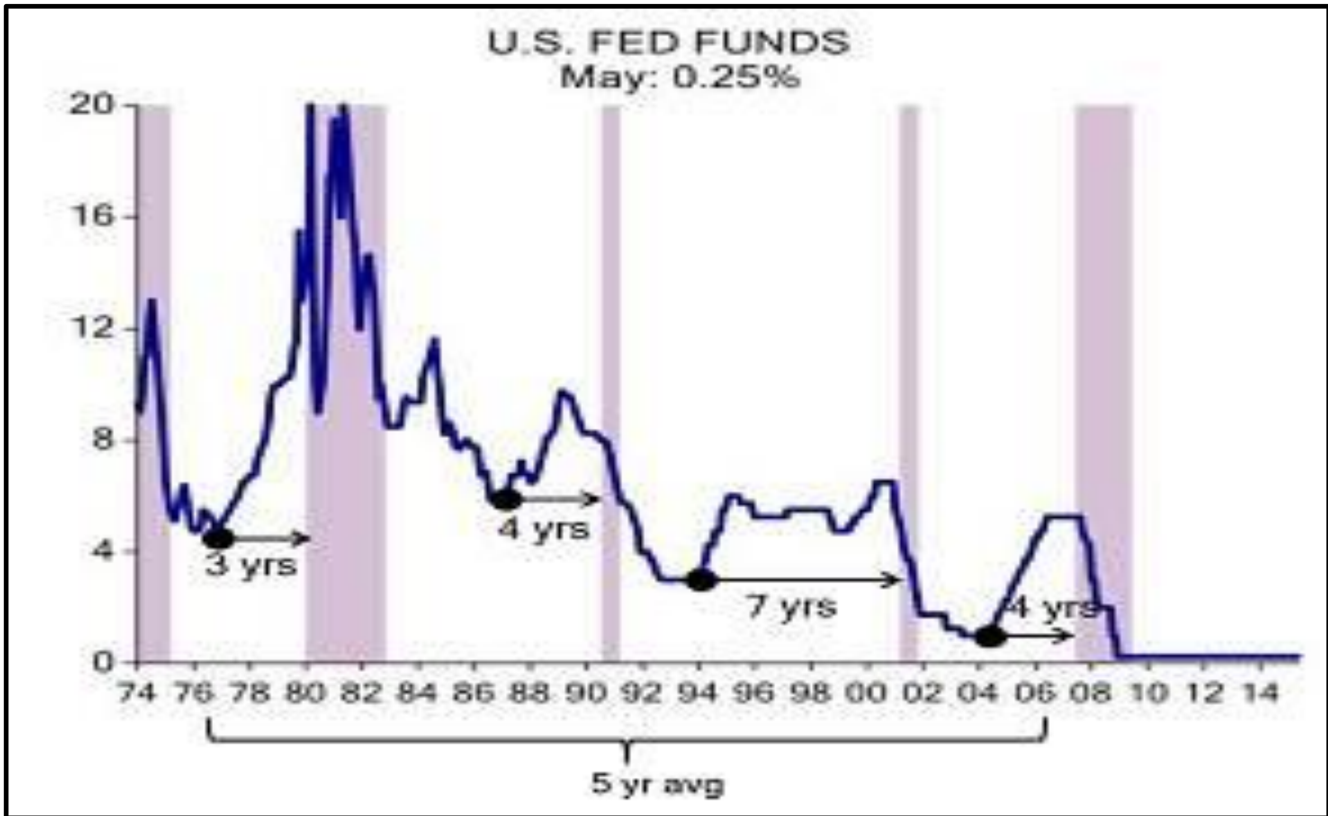
[1] Remarks from Speech "*What have we learned from the crisis of the last 20 years?"*, Stanley Fischer, June 1, 2015

Will the time come when investors will need to worry that multiple Fed actions will reach a dosage that ends up poisoning the economic expansion? Yes, and this will most likely occur as accumulated excesses (rising inflation and debt levels) become problematic. But we are likely a long way from such conditions (see Chart 1 below).

Chart 1: In recent decades, *3-5 years* of Fed rate hike doses usually precede recessions.
And…by the way…the stock market usually peaks after the last rate hike dose



Shaded periods =recessions. Interest rate on Fed funds=rate heavily influenced by Federal Reserve policy
Source: ISI Evercore

Greece—it's not 2011

2015 is not 1937 for the U.S., and it is also not 2011 when it comes to the Eurozone. About this same time of year four years ago, debt stresses in the so-called PIGS (Portugal, Italy, Greece and Spain) triggered fears that the Eurozone financial system could melt down and threaten the world economy.

Today the European Central Bank has tools—and demonstrated willingness—to stem any contagion that it politically and legally did not have at its disposal in 2011. In addition, market indicators strongly suggest severe fallout of a Greek debt default or exit from the Euro currency club will be concentrated within the Greek financial system itself.

Some worry that a potential Greek exit from the Euro will pave the way for the other countries to leave as well. This renews earlier fears that a mass exodus of countries with intertwined finances could unleash serious stresses across the Eurozone financial system.

We can be certain other Eurozone countries are closely watching how the Greek saga plays out. But it is not clear that an exit from the Euro will lead to an economic rose garden for Greece. One need only look at Argentina or Venezuela—in somewhat similar situations—to see that devaluations, debt defaults and capital controls are hardly panaceas. The remaining PIGS may not find a Euro exit path attractive.

Planners versus Searchers

Greece is a small economy (GDP about the same size as the state of Washington), and as such it may well be receiving a disproportionate amount of attention on the world economic stage.

Still, with so much confusion on display within the "24/7" news/noise cycle about what makes economies actually tick, we think Greece's plight is worth some discussion.

First a little history may help set the stage.

A useful way to think about economies is provided by the development economist William Easterly. He simplifies the competing ways economies can be structured by differentiating between *Planners* and *Searchers*.

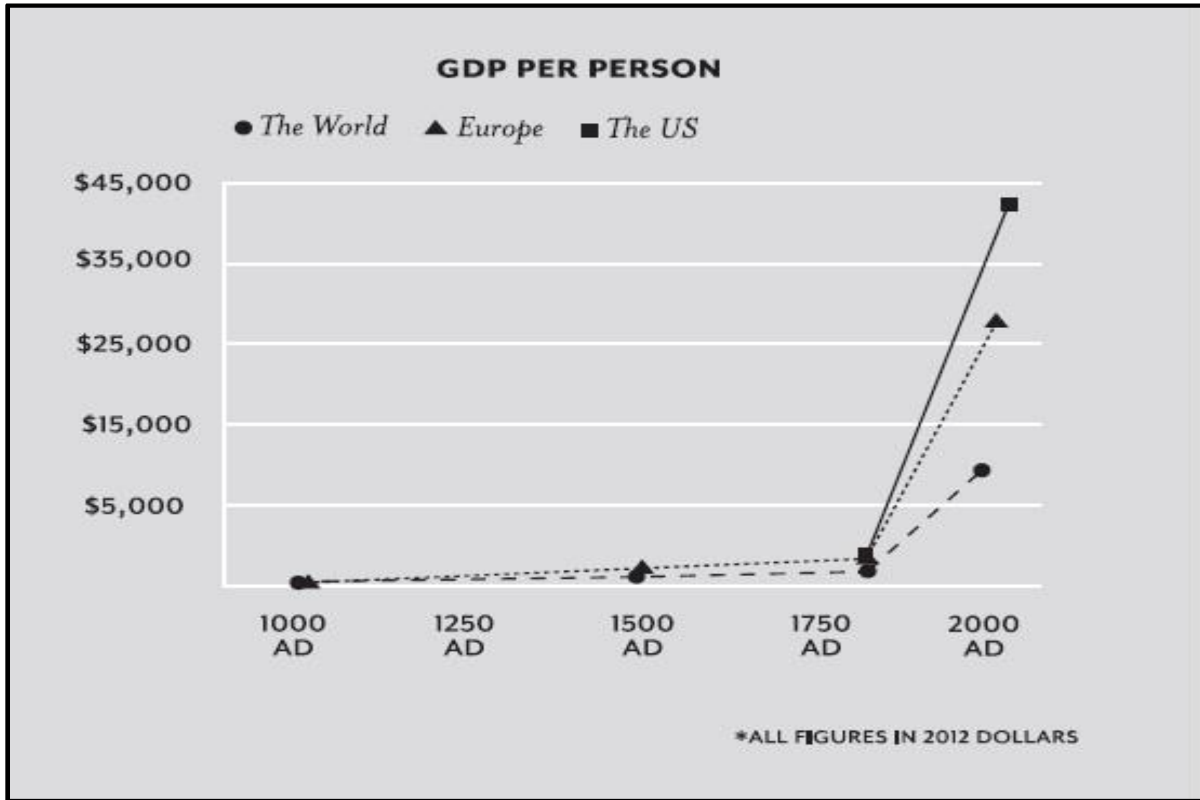
Government economic Planners emphasize a 'top-down' approach—that is they come to a task with preset ideas about what should work, and then go about implementing the plan. Economies that emphasize Searchers, by contrast, represent a 'bottom-up' approach. Searchers spend their time figuring out (i.e. *searching*) through trial and error what does work.

Unlike toxicology, chemistry and other 'hard sciences', experiments involving economics cannot be conducted in a lab where some factors can be held constant while varying the dosages of other variables to measure their impact. However, we believe history provides the next best thing to a laboratory from which to garner economic insights.

History does not paint a pretty picture for the highest profile planned economy experiments. The U.S.S.R, Mao's China and present day North Korea—were (are) characterized by economic stagnation, a lack of human flourishing and populations that lived in abject fear of their government. Hardly the "workers' paradise" initially promised by the Planners.

The history of Searcher-driven economies is, of course, a *much* different and happier picture. (See Chart 2 on the following page).

Chart 2: The record of Searcher economic systems and mass flourishing



Source: _Economic Growth: Unleashing the Potential of Human Flourishing,_ American Enterprise Institute

For much of human existence, life was characterized by short life spans, grinding poverty and a hand-to-mouth existence with little broad-based economic progress. Feudalism reigned and the primary way to improve living standards was by conquest.

This pattern changed in a massive way in the 1800s as economic growth and the well-being of an increasing larger percentage of people rocketed higher. In the period since, daily life changed and improved by more than it did in the previous history of humankind.

What happened to trigger the growth explosion? Most fundamental was emerging personal, political and economic freedoms, the cultural and social acceptance of the marketplace for competing ideas for goods and services (capitalism), willingness to trade with other nations, and governmental actions that supported all these by providing for national defense, protecting personal property rights, enforcing contracts and the rule of law.

People are motivated by wanting to better their lives. The confluence of factors that emerged 150-200 years ago unleashed the Searchers within like never before in history. They triggered an innovation dynamic of constant betterment that is the *heartbeat* of economic growth. This force pushed the productive potential of economies outward. In turn, the innovation dynamic dramatically lifted the standard of living higher for residents of Searcher-led economies.

The following comments from others help tell the Searcher/heartbeat economic story:

- *"Capitalism is relatively new in human history. Prior to capitalism, the way people amassed great wealth was by looting, plundering and enslaving their fellow man. With the rise of capitalism, it became possible to amass great wealth by serving and pleasing your fellow man."*

  —Economist Walter Williams

- *"There are two ways standard of living can increase—wage gains (which are driven by innovation/productivity) and 'democratization' of goods and services as more and more can afford something. Air travel in my lifetime, computers, access to books and stored knowledge. Today's poor are fighting obesity rather than starvation as calories are now so inexpensive*."

  —Economist Thomas Sowell

- *"The past five decades (alone) have seen people becoming on average wealthier, healthier, happier, better fed, cleverer, kinder, more peaceful and more equal.*

  Compared with 50 years ago, people now live 30 per cent longer; have 30 per cent more food to eat; spend longer in school; have better housing; bury 70 per cent fewer of their children; travel more; give more to charity as a proportion of income; are less likely to be murdered, raped or robbed; are much less likely to die in war; are less likely to die in a drought, flood or storm.

  The data shows a correlation between wealth and happiness both within and between countries and within lifetimes. Global inequality has been plummeting for years as people in poor countries get rich faster than people in rich countries. The vast preponderance of these improvements has come about as a result of innovation in technology and society."

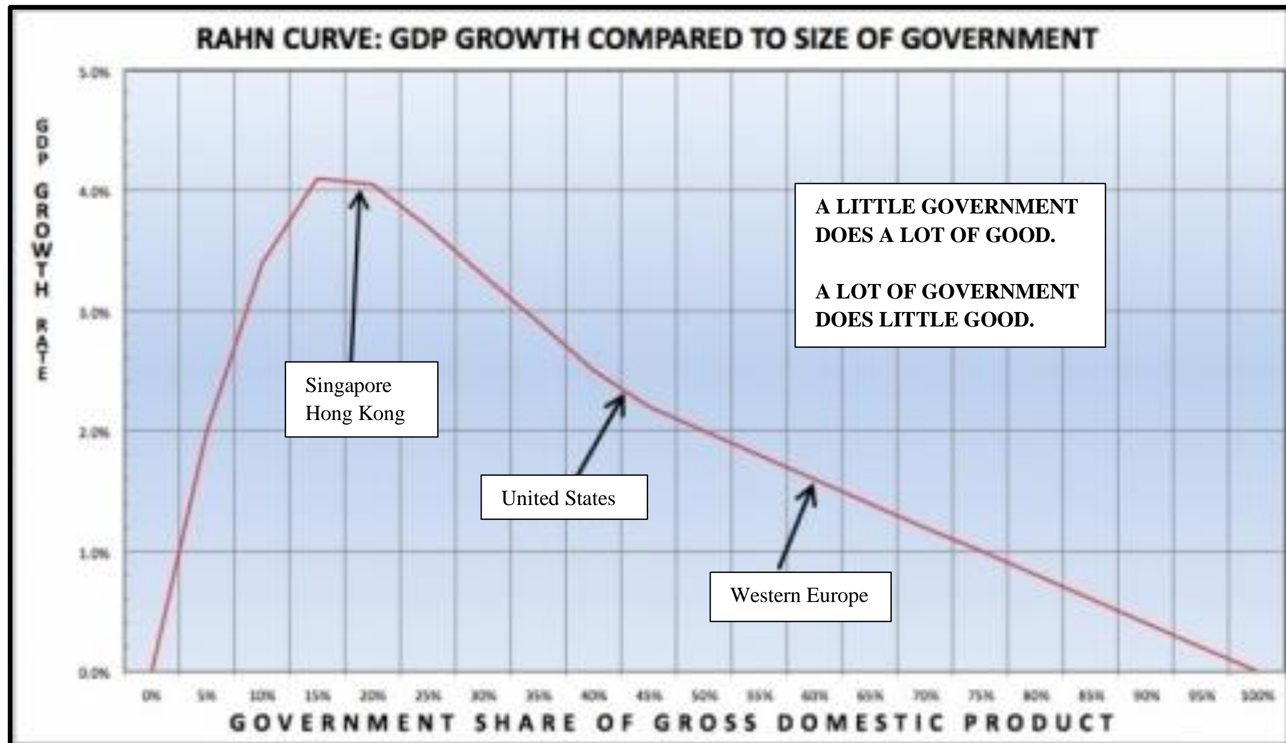
  —Author Matt Ridley

Greece—an unsustainable welfare state experiment with a weak economic heartbeat

You may have noticed when looking at Chart 2 that growth in Europe has long lagged behind that of the U.S. That's no surprise. Europe has a history of allowing entrenched interests to preserve the economic status quo. This has limited the impact of the heartbeat of Searcher-led economies.

We believe history also supports the notions behind the Rahn Curve (Chart 3 on the following page) which we discussed a few years back. The curve—named after Economist Richard Rahn—suggests that beyond a certain point, a trade off exists between the performance of an economy and the degree of government economic intervention (i.e. planning).

Chart 3: The more Planners crowd out Searchers, the slower is economic growth



Source: bizpacreview.com

While the exact shape of the Rahn curve is open to debate, we believe its general shape is confirmed within the economics laboratory of the ‘real world’. And we suspect the curve explains, at least in part, the sluggish growth that has occurred around much of the developed world in recent years as governments’ roles in economies have expanded.

Which leads us back to the Greece situation. With its government absorbing so much of the economy, Greece suffers from an economic heartbeat so faint it cannot afford the fiscal promises it has made.

As one commentator recently remarked:

> *“It (Greece) wanted wealth without work. It wanted a five-star welfare state with a two-star economy”.*[2]

Making financial security and promises of comfort it cannot keep has resulted in insecurity and discomfort for its entire country. The smothered heartbeat/unsustainable spending condition is not limited to Greece.

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[2] *Greece and the Flight From Reality*, Brett Stephens, Wall Street Journal, July 7, 2016

Why does the heartbeat slow as government economic intervention rises?

Pundits point out that in the U.S., taxpayer-funded basic research within government also enables significant innovation to occur. Does this invalidate the Searcher/Planner arguments and the Rahn curve?

Not at all. The Rahn curve reflects that the government plays an important and favorable role within the economy—in certain doses. But as government intervention increases its reach into an economy, it expands into areas for which it is not well suited. As the dose of government reaches and exceeds these levels, it stunts the heartbeat, growth and improvements in the standard of living of its citizens.

The current U.S. heartbeat

We believe the U.S. economic expansion is sufficiently resilient to withstand the transition in interest-rate policy being telegraphed by the Fed, and the woes of Greece (or Puerto Rico or Illinois for that matter). In addition, as we have discussed on prior occasions, we believe it can also withstand both the flame-out of the "commodity super-cycle" and the end of the "emerging markets century" trends that continue to unfold.

It does not mean our economy is bullet proof of course. But, the very reason the Fed is preparing for a transition away from a crisis policy is because a more 'normal' self-reinforcing business expansion has emerged.

The innovation heartbeat is alive and beating as we discuss in more detail within the appendix. We suspect many, if not most people still get up each day with the desire to make their lives and the lives of their families better.

The Searchers are busy seeking ways to deliver products and services that make our lives better. **We see the Searchers constantly at work within the portfolio of companies we own. It is one of the primary reasons, in fact, why we expect their stocks to be rewarding investments over time**.

Economy-wide U.S. growth may be slow, but it is not being artificially pumped up by unsustainable excesses (debt accumulation and inflation) that sow the seeds of the next recession. We expect growth, corporate earnings and the stock bull market all to grind higher for some time yet.

Investors, as always, will have to tolerate volatility along the way. But enduring the bumpy ride should be well worth it.

Appendix 1: The (heart)beat goes on—some Searcher examples

The innovation heartbeat underlying economic progress requires new ideas, insights, knowledge and, most of all, persistence. Technological advances of the Searchers have taken the world to a unique point in time.

We now have unbelievable *search engines* (on the supercomputer smartphones carried in our pockets no less!) that enable nearly anyone to tap into much of the accumulated knowledge of mankind. Technology is enabling more sharing and cross-pollination of more ideas across more minds than ever before.

> The caveman had the same natural resources at their disposal as we have today, and the difference between their standard of living and ours is a difference between the knowledge they could bring to bear on those resources and the knowledge used today. Although we speak loosely of 'production', man neither creates nor destroys matter, but only transforms it – and the knowledge of how to make these transformations is a key economic factor.
>
> *–Economist Thomas Sowell*

We believe America's heartbeat is vibrant and adding to the economy's resilience. For investors, the benefits of innovation are not limited to newly minted companies trading at high-risk and nose bleed stock valuations. The following examples from 'older economy' companies will perhaps offer some insights about the heartbeat.

- "*A little over a year ago, a young Indonesian man named Arnie Kurniawan participated in an open innovation challenge hosted by GE. The goal was to redesign the bracket that attaches a jet engine to an airplane wing.*

  Arnie's design beat out over 1,000 other submissions, which was surprising to everyone. For one, Arnie had absolutely no experience whatsoever with industrial manufacturing. None.

  Secondly, he had used a completely new design technique enabled by industrial 3d printing technology. But Arnie's bracket worked perfectly. It passed every one of the rigorous end use industrial tests for durability, strength and reliability."[3]

- Fortune magazine recently updated its Fortune 500 company list. They noted that Union Pacific—operating in one of the oldest of 'old economy' industries (railroads) "*is just as efficient (or more) at making money as new-economy icons Apple and Google*."[4]

[3] *3d Printing is About to Change the World Forever*, Rick Smith, Forbes.com, June 15, 2015

[4] *Profit Engine on the Rails*, Fortune, June 15, 2015

Constant investments in productivity improvements at Union Pacific are doing the trick. Forbes notes that the "big belt pack" —a yellow control box—worn by a Union Pacific employee can reconfigure driverless trains in a switching yard in a fraction of the time it used to take.

Union Pacific has also invested heavily in a new intermodal route and facilities terminal that will allow freight to be moved at a fraction of its current cost. As Forbes notes, "*Trucks ship a ton of freight an average of 120 miles on a gallon of fuel; (intermodal) rail can move the same cargo 600 miles on that gallon"*.

> The ultimate resource in any economy is not inanimate stuff such as land or petroleum or gold or iron ore but, instead, the human mind that is free to innovate. *–Economist Julian Simon*

- Gas caps for autos may appear mundane, but Searchers have been busy with improvements here as well. Auto manufacturer clients of Illinois Tool Works (ITW) were wrestling with costs associated with warranty service for vapor issues on screw-type gas caps. Either car owners were not tightening them sufficiently or the caps were not sealing properly.

  Sensing a business opportunity in solving customers' problems, ITW came up with a capless gas tank closure system that has saved auto makers from the service costs associated with the old cap systems. As one of ITW's global product development center vice presidents notes; "We make lots of gizmos that you never see".

- Today's bank customers want access to their funds with speed, convenience and security whenever and wherever they want it. Similarly, credit card companies and payment systems like those of PayPal and Apple Pay are forging new boundaries in mobile electronic payment trends to meet consumer demand.

  Fiserv has seized the opportunity and become a leader in providing the enabling technology to make electronic banking possible. As one innovation expert recently summarized;

  "*Innovation has become a way of life at Fiserv. Each and every innovation must address a client need. (Fiserv) make(s) tough decisions about existing business lines. For if they do not cannibalize their own sacred cows, (they know) a competitor will. This requires the dedication of serious capital to the future and investing in people—for people drive innovation"*.[5]

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[5] *Innovate or Die*, Dan Steininger, biztimes.com, June1-14, 2015

Appendix 2: Productivity hiding in plain sight?

Some economists are wringing their hands about recent weak productivity statistics. The slow growth recovery and the apparent productivity weakness have caused some to proclaim that "secular stagnation" has set in for world economies.

Yet we and others note a significant disconnect between the signals given by top-down derived productivity statistics and what is occurring with bottom-up innovation activity.

Commenting on this disconnect (or paradox as he calls it) one economist offers the following observations[6]:

"*But there is a paradox. Corporate profit margins, while enduring cyclical fluctuations, have reached new peaks since the 2008 recession. Somehow, firms are achieving improved productivity that is not showing up in the national income accounts.*

So what is going on? The following examples point to a possible explanation.

- *Thirty years ago, an oil exploration company would have had to drill a number of trial wells to locate reserves. That activity would require a good bit of equipment and the services of both geologists and roughnecks. All of these would contribute to gross domestic product (GDP).*

  Today, satellite imaging is used to pinpoint the most opportune deposits and the best places to harvest them. Applying this technology has reduced the number of people and rigs needed to achieve the same output.

  To utilize this modern capability, the exploration company pays a licensing fee to access the satellite and buys software and hardware to analyze the output. Those costs have become the contributors to GDP, even though the value they are producing might be significantly higher.

- *Thirty years ago, a patient with a knee injury would require a full reconstruction. The procedure was extensive, and a week of hospitalization was normal. Today, arthroscopy is used extensively for more minor damage. The procedure is minimally invasive and is often done on an outpatient basis.*

  Output for medical services is measured based on billings. Modern procedures that reduce hospitalization can, therefore, reduce the contribution of the sector to GDP even though the patient outcomes are as good or better.

[6] *Are We Mismeasuring the Economy*?, Carl Tannenbaum, Northern Trust Publication, June 12, 2015

There are legions of examples like these, where the application of technology has enhanced productivity in a way that is poorly captured when GDP is compiled.

The implications of all this are profound. If output is understated, then so is productivity. If productivity is understated, our potential for growth is higher and the momentum behind the secular stagnation theory is greatly diminished. While countries should still consider strategic investments in their economic infrastructure, fears that we are doomed to a sluggish future may be overblown."

> *MIT Researcher Erik Brynjolfsson,* offers similar thoughts. He notes that "today's machines augment our minds the way that the industrial revolution's machines augmented muscles. This creates progress that government statistics may not measure.
>
> It used to be you could just count physical objects – tons of steel, bushels of wheat. As we have more of an idea economy, it's harder to measure the values of those ideas."

The disconnect will be resolved over time. In the meantime there are fertile investment opportunities within the Searchers.

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