A TECHNOLOGY-DRIVEN RECOVERY

THE U.S. NEEDS TO BRING BACK THE ENABLERS OF GROWTH

Conventional "wisdom" holds that the U.S. will invent her way out of the current economic mess and that new technologies will once again become the engine of economic growth and renewed economic prosperity.

After all, the nation has done it before and can do it again!

Not so fast . . .

It takes ideas, money and markets combined with a little luck to generate the kind of success the U.S. has been used to. It is not a good idea for governments, the U.S. or any other, to pick winners, but what governments can do is insure that the key enablers are in place, nurtured and nourished.

Driving innovation

So what are they key enablers?

First and foremost, talented people drive innovation. Unfortunately, the U.S. does not currently view recruiting and retaining valuable skills as an important ingredient in innovation, evidence the current lack of clarity around the H1B visa and other immigration issues that one can only understand if caught in its grip. Add to that, the high percent of foreign students that appear to be returning home to seek fame and fortune because, increasingly, the opportunities (and their families) are there.

The other issue is that much of the U.S.' talented young generation have been lured away from traditional careers in medicine, engineering and law to investment banking careers and Wall Street with all its promise of great riches, an observation made by one such person. I chatted with a recently unemployed Duke graduate, returning to her five-year reunion and applying to grad schools. She had just been reduced to the ranks of the unemployed from one of those investment banking careers. It seems that the standard recipe for getting through this recession is grad school, the theory being that in two years the economy will be recovering and Wall Street will once again be promising riches.

It comes as no surprise that with the combination of these effects, basic R&D, once the exclusive domain of the U.S. and Europe is now migrating to Asia. It is simply more cost-effective there, with more than enough qualified professionals available to do the work.

It was not too long ago that the developed nations viewed Asia as a source of cheap labor and therefore cost-effective components. Outsourcing became fashionable and purchasing became Supply Chain Management.

Components became finished products and when everyone started to produce finished products inside the nations, the region became "the market," as well What is left, of course, is "the technology," which is retained through a variety of technical and commercial agreements . . . for a while.

The reality is that when manufacturing was performed off-shore, R&D was destined to follow. It is all about validating test data. If you cannot validate theory with solid test data, you are guessing or chewing on your equity. At some point, you become stale at best or irrelevant in the limit.

We have government and independent lab and test capabilities in the U.S., but accessing them and protecting intellectual property at the same time is challenging for the innovation stage company. The labs also tend to focus on basic science, not product development, and the cutting edge product development is done where there is both manufacturing and money to support it.

The U.S. needs to understand and exploit its inherent competitive strengths to retain its R&D leadership.

Money . . .

More specifically, risk money. The U.S. used to have it in abundance. This was the key enabler for much of the new technology innovation experienced in recent years. It does not exist anymore and if it does, China has it.

At the same time, the markets of interest have been turned sideways. Consumerism is on the outs. The U.S. just cannot get there by inventing the next iPod. Energy, health care and education are now considered essential elements of the 21st Century economic miracle, but the U.S. can really only afford to do health care and education when she again has a robust economy.

Energy has to be the driver for both the environment and the economy.

I am as optimistic as the next and believe in technology-driven growth, but unless we change something, I am not so sure that the U.S will be its primary beneficiary. I wish I had specific recommendations, but I can only offer that I do not see the enablers in place.

PS-1: There is considerable debate before Congress on how to deal with the pressure exerted by the ruling that the Environmental Protection Agency must manage CO_2. This has accelerated interest in either a Cap & Trade or some other form of carbon tax (p. 22). Predictably, the players are jockeying for position. I saw a recent interview that featured an "industry" representative and a Sierra Club spokesman. Both made the point that the EPA ruling was a "blunt instrument." Their preference was "more precise" or "targeted" action . . . pick your own word. It seemed clear to me that they were trying to favor certain outcomes, as in making "winners" out of their pet ideas.

PS-2: There has been some discussion about empowering electric utilities to become more proactive in improving efficiency and promoting conservation. It usually takes the form of providing incentives for them to reduce their load and revenue.

In general, the electric rate includes both a capacity charge and an energy charge. A bad outcome would be to spit the energy charge in some way as to guarantee a portion of it to the utility in exchange for the efficiency initiatives. I thought that this was what these Demand Side Management initiatives (DSM) were about. This will ruin what is left of any cogeneration opportunity because the returns would have to be calculated on "half" the energy rate, a real deal killer. Any efficiency initiative should be measured against whether it helps or harms cogeneration. TI

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