January 9, 2002

The More It Changes

I have been trying to make sense of the market and I was at the point of despair but after bringing together many diverse sources I think I am once again able to understand the market a bit better. My conclusion is that:

The more it changes the more it becomes different!

Let's start with Ray Kurzweil. He says that not only are things happening faster but as systems get organized time itself accelerates. Could this be the reason why BEA Systems has become the fastest company to reach the one billion revenue level surpassing MS despite the deflationary recession we are supposedly living in?

According to Brian Arthur, commodity based markets respond to the law of diminishing returns just as Alfred Marshall proposed while knowledge based industries respond to the law of increasing returns. Could this be the reason why Andrew Carnegie had to literally ship megatons of steel to became super rich while Bill Gates only had to ship a few tons of diskettes and CD to make a comparable fortune?

Ronald Coase argued that Adam Smith's invisible hand did not work for free but that it had associated "transaction costs." **November 2001 issue of Rule the World Newsletter** Since the cost of external transactions was greater than the cost of internal ones, it made sense for companies to become vertically integrated to reduce their overall costs. Could it be that the lowering of external transaction costs by the adoption of the Internet is the reason why companies are being broken down and many activities are being outsourced. Could DELL be the poster boy for this trend?

According to Charles A. Morris and Charles H. Ferguson [*How Architecture Wins Technology Wars*, Harvard Business Review on Managing High-Tech Industries]:

> *Since no single vendor can keep pace with the outpouring of cheap, powerful, mass-produced components, customers insist on stitching together their own local systems solutions. Architectures impose order on the system and make the interconnections possible. The*

> *architectural controller is the company that controls the standard by which the entire information package is assembled.*

Despite the fact that vertically integrated companies like IBM are being replaced by horizontal value-chains, there remains in these value chains one or more focal points that garner the largest profits.

While in Buffett's world the more thing change, the more they stay the same, in our high-tech world that is not so. No wonder that Buffett admits to not understanding technology. To invest in technology we have to be aware of the increasingly fast rate of change of how business is done. Not only are new technologies being invented, but the way business itself is conducted is being changed by these very same technologies.

From the above it becomes clear that it is good to invest in two types of high-tech companies: Those good at reducing their transaction costs making them the low cost producer of essentially commodity products -- DELL -- and the owners of the architectures that hold together value chains.

Using all the above ideas, BEA Systems should be able to beat IBM to become the gorilla of application servers. By the same token, Portal Software would become just one more vendor in the BEA Systems value chain unless it can turn itself into the architectural focal point of Customer Care and Billing.

Micromuse, *the leading provider of service and business assurance software,* does not seem to be the focal point of any particularly interesting value chain as far as I can tell so it does not seem a buy with a current P/E ratio of 56.48. On the other hand, Check Point Software, *the worldwide leader in securing the Internet,* could be at the center of an Internet security value chain that includes hardware manufacturers such as Nokia and all the companies that supply Check Point compliant hardware and software. With a P/E ratio of 36.26, Check Point could be an interesting buy and a potential gorilla.

I believe the best positioned high-tech company today to be ARM Holdings, *the industry's leading provider of 16/32-bit embedded RISC processor solutions.* They are positioned at the focal point of not one but of several value chains including consumer electronics, cell phones, PDAs, automotive controls and others. I don't think there was ever before a company so well positioned to take advantage of the future. I think the market agrees with me and that is the reason ARMHY sports a P/E ratio of 107.43, a truly gorillesque valuation.

How does Global Crossing fare in this analysis? Not too well, I am afraid. GX started out with a brilliant business plan based on junk bond financing that in another era would have been tremendously successful. Initially GX was very successful in building the low cost transoceanic optical network that would have given them the advantage of low transaction costs. On the way to the present, GX has managed to frit away a lot of its early advantages. A revolving door upper management cost a lot of money and credibility. The purchase and subsequent bankruptcy of some of assets such as Exodus also have reduced GX's cost advantage. Deflation and the closing of the capital markets are no help either. The sale of Global Marine and SWIFT are proof that their purchase was not a good idea in the first place (remember transaction costs and the resulting value chains instead of vertical integration?). GX does not have architectural control of a value chain and they have lost a lot of the early advantage of being the low cost producer. What this means is that there is no compelling reason to hold GX. There are better opportunities out there for earning returns on your money.

I suppose that this is the post about software that I had been promising. I think we need to evaluate software companies in the light of the above terms of reference to arrive at valuable conclusions

Denny
"Demand creates queues. Supply gets rid of them."
Software Times