From Little Acorns Mighty Oaks Grow

Palmisano and His Team of "Constant Gardeners" Are Nurturing Big Blue Garden to Growth and Beauty

IBM: A $125-Stock?

SCOTTSDALE, Nov 10 - It used to be a business of speeds and feeds. Now it's more about weeds and seeds. Running a successful IT business these days is not unlike what it takes to have a beautiful garden - a lot of TLC (tender loving care) and creativity. And back-breaking work... planting the seeds for future growth; nurturing them to seedlings; weeding and
pruning the excess, thus shaping the design into a "constant gardener's" vision of beauty.

Sometimes, it can be years before results become discernible. Which takes patience and perseverance. Both are in short supply on Wall Street. But "from little acorns might oaks grow." Small seeds sprout into pretty seedlings. As Sam Palmisano's new Big Blue garden is starting to take shape, Wall Street is (finally) taking notice of some seedlings that have grown from seeds planted years ago.

Earlier this week, the IBM stock set a new 52-week high. Which is just a few dollars below its two-year high (see the chart). As more Wall Street investors turn their eyes from feeds and speeds to weeds and seeds, more will recognize the growth potential of the new seedlings in the Big Blue garden. As they do, the IBM stock will break out of its multi-year slump and surpass that two-year record.
Constant Gardeners

Weeding (2002-2004). The first thing Sam Palmisano did after taking over the care and feeding of the Big Blue garden in 2002 was weeding. His predecessor never weeded out anything. Lou Gerstner was an acquisitor and accumulator. So he left in his wake some money-losing or low margin businesses.

So Palmisano got rid of was the money-losing hard disk business, which he sold to Hitachi in 2002. Two years later, he disposed of IBM's PC unit, which he sold to China's Lenovo. Free of such ballast, the company's profit margins shot up (see "IBM: A Slam Dunk Quarter," Oct 2006).

Seeding (2003- ). At the same time as weeding, IBM was planting the seeds of its future growth. On the hardware side, Bill Zeitler was opening up IBM server platforms and designing new ways of attracting customers to it (Linux, virtualization, T-Rex, Power 5, Polaris... and, of course, E&TS [Engineering & Technical Services]).

In the software business, Steve Mills was filling out its portfolio through dozens of acquisitions while developing existing products into future winners (WebSphere, DB2, DB2, etc.).
Lotus...).

On the services manor, IBM Global Services (IGS) acquired Price Waterhouse Coopers Consulting (PwCC) in 2002, and successfully integrated it into BCS (Business Consulting Services). This gave IGS a sudden growth spurt.

On the sales side of the house, Palmisano also recognized that bigness isn't necessarily always goodness, and started to push for greater company's involvement in the small and medium size businesses (SMB).

On the cost side of the ledger, IBM invested in a global delivery system, transferring many such functions to India. A result was a lower cost of doing business. The company even held an investor conference there this year as if to underline India's importance (see "IBM vs. HP: A Tale of Two Blues", June 2006).

**Pruning (2002-2005).** As good gardeners know, sometimes you don't have to replace an entire plant to give it a growth spurt. Sometimes pruning it will do the trick. Palmisano did that twice. The first work force rebalancing took place in 2002, the second in 2005 (the latter mostly in Europe and IGS - see "Tweaking Big Blue", May 2005).

Sometimes pruning, by way of splitting up, is a way to grow. Palmisano tried that, too. He broke up the huge IGS in 2005 into two parts - Global Technology Services (GTS) and Global Business Services (GBS). The two operations are still gigantic by the services industry standards, and the growth has not exactly been stellar this year, but splitting up was a step in the right direction. Smaller is often better in IT services.

**Sprouting Seedlings (2006-2007).** The preceding are only highlights of some of the steps the Big Blue gardeners undertook in the last four years in order to revitalize and beautify their garden. They have gone unappreciated for the most part, as we noted earlier this year (see "IBM Stock Grossly Undervalued," July 2006). Until now. As you saw earlier, the IBM shares have been on an upward march since that time, as Wall Street is finally starting to notice the seedlings that have resulted from all these gardening efforts. Here are some of them...

**IBM Seedling: Technology Collaboration Solutions**

As with most real trends and garden plants, this one started out bottom-up. IBM's E&TS grew from the idea that maybe IBM can use its vast array of patents and innovative technology designs to help other companies. And it landed Big Blue smack in the middle of the consumer gaming market, with Microsoft, Sony, Nintendo... as valued customers. In the process of doing reaching out to other industries that were willing to outsource some of their R&D to IBM,
this Systems & Technology Group (STG) sub-segment produced the fastest growth of any IBM unit in recent years.

Here's what we said about it back in June:

IBM hardware revenues are receiving a boost from a brand new source - outsourced R&D - or Engineering & Technical Services (E&TS), as Big Blue calls it. E&TS revenues were $582 million in 2005, up 37% from the year earlier, the fastest growth rate of any IBM product line.

(Bill) Zeitler saw "enormous growth" opportunities in this "technology collaboration" arena (which includes E&TS), where IBM expected to grow at 10% to 12% on a sustained basis. He foresaw a possibility that IBM may even grow by acquisitions in this market, something that the company has traditionally not done in the hardware business.

Just as important as its revenue contribution, E&TS gives IBM an indirect presence in consumer markets - through its customers, such as Sony, Microsoft etc.

(An excerpt from IBM vs. HP: A Tale of Two Blues", June 2006)

"Innovation is a dog-eared word these days," said Bob Samson, IBM STG's top worldwide sales executive, speaking at a recent IBM conference in New York. "The trick is how good you are at doing it. To do it well, you have to have collaboration."

Enter TCS...

Earlier this year, IBM combined E&TS, Microelectronics division and several other STG parts into a new unit, headed by Adalio Sanchez, which the company named Technology Collaboration Solutions (TCS). This year, TCS is expected to post revenues of about $4 billion. Which makes it a seedling of respectable size already.

Like Outsourcing? But it is its growth potential that distinguishes this IBM endeavor as possibly the most exciting new
business since the early years of the outsourcing and services trend. In fact, at $4 billion, TCS is today roughly the size IBM services were in 1990 (see the chart - left). IBM expects that division's revenues to hit $10 billion by 2010, and $20 billion by 2015, according to a recent AP story.

A far-fetched forecast? Well, that's the way the outlook for IBM services business may have looked to most people back in 1990, including many IBM insiders. Yet 14 years later, IBM services hit $40 billion, a 10-fold increase from 1990. The above forecast for this new IBM seedling actually looks downright conservative when you consider the differences between TCS and the outsourcing trends.

New Sources of Revenues, Outside IT. First, the TCS business taps into new sources of revenues for IBM outside the IT industry. The worldwide R&D spending, for example, is estimated to be about $90 billion in 2006, based on recent surveys by the EU (European Union) and the IEEE data. That makes it almost as big as the entire IT industry in 2006.

More importantly, however, the R&D spending is growing faster. For the last two years (2004 and 2006), it has grown at 7.6% and 7.7% respectively, while the IT industry growth has lumbered in the low to mid-single digit figures.

Furthermore, the R&D often represents a more important lever for companies than IT. While global IT spending has averaged about 2% of revenues, the R&D expenditures have been twice as high - around 4% of revenues. When companies are in trouble, they tend to boost their R&D spending in the hopes that technology

[Image: Global R&D Spending chart]

Source: Amex Research (based on IEEE, Dec 2005) *WW total based on EU Oct/06 study

and innovation may help them dig out of the hole. That's why R&D spending is often growing faster than the revenues of the companies that are making those investments.

The auto industry is a classic example of that. With about $76 billion in R&D spending this year, this is by far the most aggressive innovator of any industrial segment that IEEE tracks (see above chart). Its R&D investments have grown by 52% in the 2000-2004 period, or more than 11% compounded annually, the highest of any industry group.

Just as often, the companies that are successful in the marketplace also turn to R&D in order to accelerate their rates of growth or share gains. The following table shows the top 10 fastest-growing R&D budgets among the Top 50 R&D spenders, taken from an Oct 2006 European Union study.

The 10 fastest R&D growers of among top 50 worldwide (based on an EU Oct 2006 study)

<table>
<thead>
<tr>
<th>Company</th>
<th>Region</th>
<th>Sector</th>
<th>R&amp;D grew by (%)</th>
<th>Posit. upward</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAE Systems</td>
<td>EU</td>
<td>Aerospace &amp; defense</td>
<td>30.5</td>
<td>+5</td>
</tr>
<tr>
<td>Hyundai Motor</td>
<td>Korea</td>
<td>Automobiles &amp; parts</td>
<td>21.9</td>
<td>+13</td>
</tr>
<tr>
<td>Johnson &amp; Johnson</td>
<td>US</td>
<td>Pharmaceuticals</td>
<td>21.3</td>
<td>-7</td>
</tr>
<tr>
<td>Motorola</td>
<td>US</td>
<td>Technology hardware</td>
<td>20.3</td>
<td>+14</td>
</tr>
<tr>
<td>Finmeccanica</td>
<td>EU</td>
<td>Aerospace &amp; defense</td>
<td>20.1</td>
<td>+2</td>
</tr>
<tr>
<td>Boeing</td>
<td>US</td>
<td>Aerospace &amp; defense</td>
<td>17.4</td>
<td>+8</td>
</tr>
<tr>
<td>Ericsson</td>
<td>EU</td>
<td>Technology hardware</td>
<td>16.5</td>
<td>-2</td>
</tr>
<tr>
<td>Renault</td>
<td>EU</td>
<td>Automobiles &amp; parts</td>
<td>15.5</td>
<td>+2</td>
</tr>
<tr>
<td>Novartis</td>
<td>Switzerland</td>
<td>Pharmaceuticals</td>
<td>15.2</td>
<td>+7</td>
</tr>
<tr>
<td>Alcatel</td>
<td>EU</td>
<td>Technology hardware</td>
<td>15.1</td>
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Successful automakers, such as Hyundai and Renault, share the top honors with three aerospace and technology companies and two pharmaceutical firms.

Effect on Top Line. Another important distinction between TCS and the outsourcing trend is that infrastructure outsourcing was typically justified on the basis of cost savings. R&D, on the other hand, affect both top and bottom lines. Thus it gets more attention of the companies' top executives. From a marketing standpoint, that's important for vendors with wide offerings like IBM, that can use the TCS projects as a thin edge before selling to the customer other products or services.

Risk of Over-managing. The way we see it, IBM faces two challenges at this stage of the TCS growth and development. First is not to over-manage this whole thing. This seedling has been a grassroots development, and the best way to "manage it" is to do it the entrepreneurial style - let it grow and spread wherever it wants to (i.e., wherever the customer demand takes it).
The TCS head, Adalio Sanchez, told us at an IBM STG conference in Las Vegas last month that he is targeting four industry groups for growth (consumer gaming, telecomm., health care and aerospace/defense). Well, that's fine. Those industry groups are indeed growing and spending on R&D. But they are not the biggest nor the fastest growing. Nor are they necessarily the easiest to start with.

We think that IBM TCS should go with the flow and be surprised where it ends up. Otherwise, over-managing and directing its growth may end up actually stunting it (because of missed opportunities).

**Revenue Sharing.** Second, we think that the whole idea of R&D outsourcing lends itself well to possible revenue and profit sharing between a vendor and a customer. We asked Sanchez and Dan Kuper, for example, the head of Microsoft's highly successful collaborative project with IBM - xBox360, one of the customer panelists at the IBM Las Vegas conference, if the deal involved any revenue sharing. It did not, they replied. Instead, the two companies' lawyers carefully defined their respective IP (Intellectual Property) interests in the agreement that led to the joint development.

After that, "we melded the two cultures together and worked as one design team," Kuper said. "IBM has great people," he added, a nice kudo especially considering that it comes from an IBM competitor in other markets.

Another panelist, Bill Bushnell of Lucent Technologies, talked about their experience in dealing with this issue during the joint development with IBM.

"We were uncomfortable at first. We had this big moose on the table. Then we started talking. We developed each a list of 'crown jewels.' That helped us build the trust."

All panelists agreed that the crux of collaborative innovation is TRUST. Which makes sense. Trust is an essential ingredient of any successful relationship, business or personal.

Which is why we saw some parallels between the TCS business and that outlined in our last "Holy Grail" quest, especially when it comes to "parenting" of new business creations (see "IT Industry: Whither Goeth It?", Jan 2004). Here's an excerpt:

"The successful process, as we see it, is analogous to creating a painting or a sculpture. The IT services vendor brings to the table his toolkit and paints. (The client provides the industry expertise). [snip] Together with the client, he designs a kaleidoscope of shapes that the client CEO wants his "adaptive enterprise" [or TCS solution] to take, depending on the needs of the marketplace.

So the search for the new Holy Grail... is a bipolar process. Like procreation, it
takes a union of $\nabla$ (chalice – woman - client) and a $\Delta$ (spade – man - vendor) to make it work. The chalice is the marketplace (customer), the spade is the IT provider (vendor).

As equal partners in procreating and parenting the new “adaptive enterprises,” the IT services vendors have the right to demand and to expect commensurate shares of the revenues and profits that the corporate newborns generate. [snip]

**New Terms...** New roles and new metrics of the IT services providers also require new terms that describe them. “Outsourcing,” for example, should be abandoned as an outdated type of business relationship. Outsourcing implies that the customer turns over the responsibility for running its IT to a vendor, and then just yells at him if something goes wrong. As a parent of a new “adaptive enterprise,” the customer (mother) has a *joint custody* of the infant with the vendor (father). Both are responsible for its well-being. Both should share in risks and benefits of its upbringing."

(An excerpt from "IT Industry: Whither Goeth It?", Jan 2004).

"(If) you can help the client change the world a little, that's really a profound and inspiring thought," IBM's Samson said at the Las Vegas event.

So if IBM (TCS) helps the customer create something new and valuable (such as the xBox360 for Microsoft, for example), we see no reason why IBM should not be able to share the risks and the benefits of its creativity. And if that were to pass, that this $4 billion-seedling might grow to be a mighty oak even faster than IBM's current forecast implies ($10 billion by 2010, and $20 billion by 2015).

**IBM Seedling: Small & Medium Business**

That IBM ought to be in the SMB market is something we first suggested to the then Big Blue leader back in 1996. That's because we expected this segment to grow faster in the future than IBM's traditional enterprise market. The last decade has proven that in spades, as the SMB became the engine of growth both of the U.S. economy, and globally.

So in 2003, under the new leadership, IBM changed its tack and announced that it was now serious about the SMB market (see "Finally Heard!", Jan 2003, "Finally Heard, Part II," Nov 2003 and "Big Blue Thinks Small," Nov 2005). And by 2006, the SMB has become another discernible seedling in the Big Blue garden.
As reported, the SMB represents about a 19% share of IBM's total revenues in 2006. But we have found that in some countries, many large enterprise are also counted as part of SMB. That's why we estimate that the "true SMB," i.e., companies with 100-1,000 employees, is about half that total (about $8.5 billion in 2006 revenues). Even at that reduced size, however, this seedling already looks more like a young tree in the Big Blue garden.

Furthermore, the SMB is also growing faster than IBM in the aggregate. In the latest quarter, for example, it grew by 7% while IBM revenues rose by 5%.
But the SMB is growing more rapidly in some markets, especially in emerging countries. Steve Solazzo, who heads up SMB for IBM, said at a recent IBM conference in New York, that his business is up between 20% and 40% in some big developing countries (see the chart on the right).

That is why he sees China, for example, as a $17 billion SMB market opportunity, growing at 15% per year in 2006-2007; India as a $6 billion market with an 18% growth rate, and Russia as a $5 billion market expanding at 14% annually - as key growth limbs of the SMB tree.

In the global scheme of things, IBM's Solazzo sees the M-portion of the SMB market as big as the large enterprise opportunity - at $133 billion each in 2006 (see chart left, a narrow SMB definition,), or even larger - at $225 billion (see chart right, a broader definition). Again, the SMB is growing faster here than the enterprise market, thus evoking a reference to it as the "IBM growth engine."

**SMB Buy from SMB.** But the SMB market has unique characteristics. One of them is that SMB companies like to buy from other SMB companies.

"Midmarket companies have a propensity to buy from other midmarket companies," Solazzo noted in one of the most profound statements during the 1.5-day IBM conference. Furthermore, they tend to buy on a "word of mouth" basis. And not often; maybe every two to three years.

One SMB customer, a guest speaker at the IBM conference, confirmed that theory.

Dana Endicott, managing director of New York-based Floorworks, said that she'd always had a favorable view of IBM, but never thought her small company could afford to do business with such an industry giant (a typical SMB customer view, as we are finding out). When she ran into a security breach issue with her computer system, Endicott's lawyer recommended that she contact an independent software vendor (ISV).

That turned out to be Michael Avari, president of Grace One, an IBM partner. He pointed Endicott the IBM way. Together, they implemented an IBM-based solution that Floorworks could evidently afford. And now Endicott is singing praises to Big Blue as her trusted supplier and
partner.

Another SMB "success story." But to most SMB customers, IBM still appears distant and unreachable. That was also the impression this writer got in customer and ISV meetings during his recent trip to Japan and China. Which means that in order to fully exploit the SMB growth opportunity, IBM may need to re-brand itself in this market.

Let's call the new brand "Baby Blue" for the purposes of this report. What should its marketing message be? Maybe...

**eMpowered:** Blue chip solutions for everyday businesses... at a price you can afford.

We see this new, smaller, nimbler "Baby Blue" as **empowering** small and medium size companies to compete with industrial giants. As was the case with Floorworks' Dana Endicott, for example. Replicating success stories like that into millions like it around the world - is what it will take to grow the $8.5 billion-"young tree" into a mighty SMB oak.

There are plenty of opportunities for it. In China alone, there are eight million SMB enterprises. That's why IBM chose to make its "everyday mainframe" ("business class" System z) announcement there earlier this year (see "Everyday Mainframe," Apr 2006). In the more developed markets in Europe and the U.S., the SMB opportunity is in the tens of millions (of companies). And then there's India, Russia, Brazil and the rest of the world...

But first, the SMB needs to be empowered itself to act and look as an SMB company. Then it can walk its talk more freely.

**Mature Trees, Shrubs... Also Doing Well**

**Mainframe.** Meanwhile, the mature trees and shrubs in the Big Blue garden are also doing well. Starting with the biggest, the magnificent 42-year old oaks - the mainframes. They have been rejuvenated by IBM, and are being upgraded not just by existing customers, but the new "everyday mainframe" is now also attracting
some new ones.

Belarus Bank, for example, is a brand new System z customer. They deployed the first SAP banking installation in "Greater Russia." The solution included a midrange z9, with a Java specialty processor, along with IBM Storage and System p.

No surprise there...

A year and a half ago, we predicted an upcoming mainframe resurgence in a whitepaper titled "Poughkeepsie Spring." The latest IBM results show that what you sow in springtime, you harvest in the fall, even it takes a year or longer for some fruit to ripen (pineapples, for example, have a two-year gestation period).


As a result, IBM mainframe revenues shot up 25% in the latest quarter, lifting the installed capacity above 10 million MIPS for the first time in history. "Our System z performance was exceptional," gloated Mark Loughridge, IBM CFO, as he announced the third quarter results.

Speaking at the IBM Las Vegas, Jim Stallings, the head of IBM's System z unit, put these results in a wider perspective. "This (mainframe resurgence) is wide and deep," he said. "It stretches across all geographies."

**System p.** IBM's System p is also growing in double digits. In the latest quarter, its revenues were up 10%, propelled by IBM's transition to POWER5+. The new
technology boosted IBM's price/performance and virtualization leadership position that has made Big Blue the #1 UNIX vendor worldwide.

"We're eating (HP) Superdomes like they are popcorn, and are stepping on Sun (Microsystems) like ants on a sidewalk," boasted Ross Mauri in Las Vegas, the head of IBM's System p program.

IBM Storage and Retail (POS) store solutions are also growing in double digits (12% and 18% respectively), while its Intel-based System x servers were up 4% in the latest quarter.

Of course, there are some shrubs in the IBM patch that are not doing so well. The System i, for example, has hit a rough patch again this year. Its third quarter revenues declined 22%. One should keep in mind, however, that the third period of last year was its best, and thus provides for what Wall Street calls "a difficult comparison."

Overall, however, IBM hardware is experiencing a revival. In the latest quarter, the STG revenues were up in double digits (up 10%) to $5.5 billion. More importantly for IBM shareholders and Wall Street, the hardware margins have shot up by almost six points since the company dumped the PC business. In the third period, IBM gross margins were 38% of revenue, while the STG pretax margins were 7%.

Software. Software is another patch of the Big Blue garden that's in full bloom even though it is the autumn now. Here's what we said about its performance in the
last quarter:

The Websphere and Tivoli (software brands) performance was nothing short of spectacular, each soaring by 30% and 44% respectively in the quarter compared to the year ago revenues. The five key IBM brands grew by 20% in the aggregate, while software revenues as a whole were up 9% year-over-year to $4.4 billion. [snip]

As we file this report from Shanghai, China, we can also add that Websphere, Tivoli and Lotus are becoming a defacto standard in web-based applications design, based on our discussions with IT customers and independent software vendors in Japan and China. That includes many of the small and medium size companies, and not just the major enterprises that have been the IBM mainstay for decades.


"Software was our largest profit contributor," Loughridge said on Oct 17. "We've been investing heavily in our software business for some time. Our performance in 2006 underscores that this strategy is working."

Indeed, with a 26% pretax margin, up one point from a year ago, the software contributed $1.3 billion in pretax profit to the IBM bottom line, more than all Big Blue services operations combined, even though the latter are almost three times bigger (in terms of revenues).

And software is also growing faster. In the latest quarter, its
branded products grew by 20%, while the aggregate software revenues rose by 9%. And here again we synergies between the SMB and software markets. IBM software people see the SMB as their biggest opportunity, largely under-exploited so far, by their own admission (see the chart left).

Summary

Big Blue's constant gardeners have been hard at work for a number of years now. And their patch, spread over 219 territories around the world (see right chart), is looking more resplendent all the time. It's only recently, however, that the outside world, Wall Street in particular, is beginning to notice the fruits of their labor.

Of course, a gardener's work is never done. There's more to be seeded, weeded and pruned. But Big Blue garden is definitely taking shape. And what we see is easy on the eye and on the pocketbook. From little acorns mighty oaks have sprung and some strong seedlings are coming along.

Happy bargain hunting!

Bob Djurdjevic

IBM: A $125-Stock?

MOSCOW, Russia, Nov 26 - The IBM stock has come a long way since its summertime doldrums. Ironically, they followed the company's June Bangalore conference for financial analysts and investors intended to boost its shares (see "IBM vs. HP: A Tale of Two Blues," June 2006). Wall Street shrugged off IBM's first ever event staged for it in India. So in July, we reiterated our view that the "IBM Stock (Was) Grossly Undervalued".
Investors finally reawakened to the value inside IBM following the company's stellar third quarter results (see "IBM: A Slam Dunk Quarter," Oct 2006). Big Blue shares are up about 28% since their summertime lows (at just under $94), after setting a 52-week high on Nov 17 (see the chart).

So naturally, people are wondering - is the IBM stock now fairly priced? Not by a long shot. At least that's the conclusion at which we arrived after comparing Big Blue fundamentals and share prices to those of some of its major competitors'.

http://www.djurdjevic.com/Bulletins2006/41.ibm_acorns_oaks.html
Big Blue's net profit, for example, is 4.4 times higher than the average of Dell, HP, Fujitsu, EDS and Capgemini, for example, the five thriving competitors against which we had compared IBM. Yet its price/earnings ratio is 34% lower than the average of those five (42% lower in terms of trailing 12 months P/E; 26% lower than the forward 12 months P/E - see the chart). So if IBM were to be priced fairly relative to its major competition, we figure its shares should be valued at about $125.
Big Blue's superior business fundamentals provide additional justification for such an assessment. Its net and operating profit margins, for example, are 2.5 times higher than the corresponding average of its five major competitors. One would think, therefore, that if quality of earnings still matters at all to Wall Street, that the investors would put a premium on the value of IBM shares relative to such competition.

We are not holding our breath for it, given Wall Street's erratic behavior in recent years. (Well, maybe not erratic... just investment cash flow-driven, rather than by business fundamentals, as in the past). But we do think that there is plenty of headroom left for the IBM stock to rise from where it is today. It remains to be seen when, rather than if, Wall Street also takes notice of that.

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