AFTER IBM, PART II: BUYING LEADERSHIP IN ENTERPRISE SYSTEMS

With high-risk technology issues showing why they're risky in recent weeks, logic suggests singling out the sector leaders in enterprise systems for investment.

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From August 1994 issue

Fear rules the U.S. stock market right now. As the overall market continues to fall, money managers are scrambling just to stay even. In a search for safe havens, buyers of technology issues will probably find themselves turning to historical leaders: the companies that have consistently performed well over time are likely to be rewarded with improving stock prices.

The stock market side of technology may soon be in sync with the product side. In enterprise systems, both money managers and corporate purchasing departments may soon be buying leadership. In last month's column, we discussed the technical pressures operating upon the enterprise. As mainframes are replaced by client/server architecture, the enterprise system becomes a truly complex environment. A single application may use multiple protocols and interfaces while running on hardware and software purchased from multiple vendors. Out of that complexity, managers must somehow create a coherent system that users can rely on and programmers can maintain.

In an attempt to minimize the number of variables in this multi-vendor environment, corporate purchasers are reluctant to bet on second- and third-tier products. They consider only the two or three products that are already the most successful in a particular technical niche. Leadership thereby reinforces leadership. The strong vendors get stronger.

This "buy the leader" momentum quickly winnows out the field. After a technology enters the mainstream of business computing, new releases with hot features are less important to buyers than the assurance of choosing a standard, "market-approved" product. Vendors with less widely accepted products fall ever further behind, while product leadership becomes more firmly established. The result is technology-driven consolidation -- fewer viable vendors at each point in the complex world of the enterprise system.

When we look at the stocks of enterprise computing suppliers, we foresee a similar reinforcement of leadership. Money managers, like corporate systems managers, would like to find coherence and reliability. The market is likely to buy the strongest enterprise stocks, thereby keeping their prices high relative to the declining market. In the days of IBM's dominance, the saying was, "No one ever got fired for buying IBM." Soon the saying among money managers might be, "No one ever got fired for buying Oracle shares."

Finding Market Leaders

To find the leaders among enterprise issues, we constructed groups of companies that compete in technical niches within enterprise systems. We started with the five sectors in THE RED HERRING Tech 250 that are relevant to corporate computing: Desktop Computers/ File Servers, Enterprise Computers, Internetworking, Client/Server Enterprise Software, and Personal Productivity Software. While the Tech 250 sectors are generally descriptive, we wanted to design each group so that it encompassed a smaller technical niche and contained companies that competed directly against each other within that niche. The result was the 12 groups shown in Figure 1. To round out the groups, we added several companies not currently in the Tech 250.

Figure 1:
Enterprise Companies Grouped By Technical Niche

Rank	*Company Name*	**Symbol**
Desktop Systems & Small Departmental Servers		
	Apple Computer	AAPL
2	AST Research	ASTA
1	Compaq Computer	CPQ
2	Dell Computer	DELL
	Digital Equipment	DEC
1	Hewlett-Packard	HPW
	IBM	IBM
Workstations		
	Data General	DGN
	Digital Equipment	DEC
1	Hewlett-Packard	HPW
	IBM	IBM
1	Silicon Graphics	SGI
2	Sun Microsystem	SUNW
Network Servers		
	Auspex Systems	ASPX
1	Hewlett-Packard	HPW
	IBM	IBM
	Netframe Systems	NETF
	Parallan Computer	PLLN
	Pyramid Technology	PYRD
1	Sequent Computer	SQNT
2	Sun Microsystem	SUNW
Mainframes & Large Systems		
	Amdahl Corporation	AMH
	Convex Computer	CNX
	Cray Research	CYR
	IBM	IBM
1	Sequent Computer	SQNT
1	Stratus Computer	SRA
	Tandem Computer	TDM
1	Unisys	UIS

Rank	*Company Name*	*Symbol*
LAN & LAN/WAN Connectivity Hardware		
1	3Com	COMS
1	Cabletron Systems	CS
1	Chipcom	CHPM
1	Cisco Systems	CSCO
	CrossComm	XCOM
	Digi International	DGII
	MB Communications	MCBX
	Synoptics*	SNPX
	Wellfleet	WFLT
1	Xylogics	XLGX
*currently involved in merger		
WAN/Telecom Equipment		
*	DSC Communications	DIGI
*	ECI Telecom	ECILF
*	Network Equipment Tech	NWK
*	Newbridge Networks	NNCXF
*	StrataCom	STRM
*	Tellabs	TLAB
* growth area; leadership not yet differentiated		
Network Operating Systems		
	Artisoft	ASFT
	Banyan Systems	BNYN
	IBM	IBM
1	Microsoft	MSFT
1	Novell	NOVL
Middleware & Connectivity Software		
	BGS Systems	BGSS
1	Cheyenne Software	CYE
	LEGENT	LGNT
	Wall Data	WALL
	IBM	IBM

Computer Operating Systems				**Database Software**		
1	Microsoft	MSFT		**2**	Informix	IFMX
1	Novell	NOV			Microsoft	MSFT
	Santa Cruz Operation	SCOC		**1**	Oracle System	ORCL
Client/Server Application Software					Progress Software	PRGS
1	Computer Associates	CA		**2**	Sybase	SYBS
	IMRS	IMRS		**Host-Based Application Software**		
1	Lotus Development	LOTS		**2**	BMC Software	BMCS
2	PeopleSoft	PSFT		**1**	Boole & Babbage	BOOL
	Platinum Software	PSQL		**2**	Compuware	CPWR
Client & Client/Server Development Tools				**1**	Sterling Software	SSW
	Borland International	BORL			System Software Assoc	SSAX
	Blyth Holdings	BLYH			Walker Interactive	WALK
	Gupta Corporation	GPTA				
	Intersolv	ISLI				
	Micro Focus Group	MIFGY				
1	Microsoft	MSFT				
1	Powersoft	PWRS				
	Symantec	SYMC				

Notice that a company can appear in more than one group. We included a company only if it had a significant *competitive* product presence within the niche. Even though, for example, IBM certainly is a significant player in database software and development tools, we believe that IBM's products in these areas are mainly of interest to IBM shops. Similarly, Hewlett-Packard and Digital both sell UNIX operating systems, but the systems are for their own hardware. In general, we included a company in a group only if a corporate buyer might consider that supplier's product in a true multi-vendor environment.

After constructing the groups, we evaluated the historical performance of each company. We looked at 3-year and 5-year average growth rates in stock prices (where such historical data were available; some companies involved in enterprise computing have not been public for long periods of time). We then decided rankings as follows: The first rank was given to companies whose stock price showed both high average growth rates and consistent performance. The second rank went to companies with lower growth rates and/or less consistency. Unranked companies are, for the most part, poor performers; however, some unranked companies simply lacked history or are undergoing transitions whose outcomes are currently hard to call.

Clear Leadership inthe Mainstream

The most notable point about our rankings is how easy they were to determine. Once we had the historical analysis, the leaders all but announced themselves. In most of the product niches, two or three companies immediately stood out as top performers. This clear and explicit leadership is just what we would expect under the twin pressures of technology-driven consolidation and a declining overall stock market. Corporate system buyers have been rewarding the leaders with purchases, and stock buyers have been looking for consistent performers. The historical niche leaders constitute a sort of core technology portfolio that fund managers have turned to in the past and will probably turn to again.

In two groups, however, market leadership was more diffuse. We found a large group of leaders in LAN and LAN/WAN Connectivity Hardware. And we found the entire WAN/Telecommunications group to be strong. Since networking and telecommunications are currently undergoing significant technological developments, we would expect to find a larger number of viable vendors in these niches. As we discussed in last month's article, when technologies are still on the leading edge, there is more competition on features, which leaves the field open to a wider range of vendors. The current shift to multimedia has created new uses for networking and telephony, creating opportunities for new features and products from many competing sources.

Buying Strategies

One strategy in difficult markets is to stay with the leaders, if you already own them, or buy them on correction. In most of our enterprise groups, this is the only viable stock-purchasing strategy. The overall performance of most groups is rather poor. A buyer would have to be very selective. Our research indicates that the strongest stocks are the first ones to emerge from overall market downturns. Therefore, the group leaders should be the first ones to rise out of the current bear market, an emergence we expect to begin in late 1994 or early 1995.

Alternately, you might consider investing in the entire LAN/WAN and Telecommunications groups. These groups as a whole have outperformed the other enterprise niches, and both are currently out of favor with the market. In our sentiment indicator, LAN/WAN has an extremely negative reading of 100, and Telecommunications has a mildly negative reading of 67. When sentiment moves to a negative extreme, it can signal a pending shift; LAN/WAN suppliers could be due to return to favor. However, you would have to watch these groups carefully to determine if and when they will recover.

Two other enterprise groups also show overall strength. In the Database Software group, an investor might consider both first, and second-ranked companies; Informix, in particular, could offer pleasant surprises, and the Host-Based Application Software group has been a steady performer.

Portrait of a Paradigm Shift

In addition to identifying individual leaders, our historical analysis of enterprise systems revealed a compelling picture of the shift to client/server technologies. To create Figure 2, we charted the Mainframe, LAN/WAN, Database Software, and Telecommunications groups. We then added achart of the leaders in client hardware, networks, operating systems, and development tools.

The chart tells us this: stock prices have followed technologies. Mainframe stock prices peaked in 1987-88, just as LANs emerged as a market force. LAN/WAN equipment provided enabling technology for the development of server-based Database Software in late 1988-early 1989. As Mainframe stock prices continued an overall long-range decline, WAN and Telecommunications hardware further enabled the growth of networked systems, propelling the growth of Database Software, LANs, and client systems.

Figure 2 shows us a portrait of a paradigm shift. While mainframes will have a role in modern distributed systems (probably as large database servers or network controllers), they no longer dominate the enterprise. Leadership in enterprise systems is now shared among clients, servers, and networks. Figure 2 also presents a question about the future: Does 1994 represent a long-term peak, or is the overall market simply pausing? Our research indicates that the generation-long "secular trend" in technology is still rising, which means that the leaders should continue to benefit from that upward momentum, corrections notwithstanding. Until there is another technical paradigm shift equivalent to the rise of client/server computing, you might profit by buying leadership on correction and riding upward on the secular trend.

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