"To B2B[1], or Not to B2B?" – Evolutionary Thoughts of a Value Investment Manager

It has been declared obvious by some that anyone not investing in technology companies is either behind the times, mentally impaired, or simply stubborn. Maybe even just plain stupid. We're not fond of any of those labels, nor do we think they apply to us. Nonetheless, we have not owned anything tagged as a technology industry company in client portfolios and people are reaching their own conclusions. We hope to share some facts you may not know and clarify our thoughts.

Executive Summary

We have three main points to offer with respect to our thoughts and activities with regard to technology investing. We have made similar points in our prior communications, but offer them in a stand-alone forum to highlight them. This front page provides an overview, with details in the following pages for those more curious about the issue.

1. We have been actively looking in the technology sector for sensible values.

Labeling technology investing a craze, prima facie, serves no constructive purpose in our view. While there are debatable signs of excess and perhaps even mania in the sector, there are also real companies, with real businesses, solid competitive advantages, shrewd managers, and impressive market opportunities. We saw in excess of 100 technology companies in 1999 through a combination of industry conferences, company visits, and analyst meetings. We made an absolute zero commitment to any of them given 1999's pricing environment. We came close on a few, but backed away because either our confidence level was too low and/or pricing got too expensive. Neither of those two outcomes causes us great discomfort, as we do not expect that our entire research effort in the area will go for naught forever. Under the right conditions, we expect our knowledge in this area to meet opportunity at some point.

2. Viewed in a slightly broader context, we are already invested in technology, both directly and indirectly.

Witness our foray for shareholders into the telecommunication area, via GTE and AT&T. Our investment thesis for these is largely predicated on an expansion of high-speed broadband internet connections (read: technology) and other valuable information services to their customer base. Broadband is going to be huge in our view and we expect AT&T and GTE to capitalize on that trend (see p. 2 of our 4Q99 comments).

Less obviously, Disney has spent enormously to develop their internet capabilities, an effort for which they clearly expect some future return for shareholders. Tiffany shares ran to an extended price level late last year, partially on the strength of a successful website launch. And as pointed out in a February Paine Webber research report, much ink has been spilled over the fact that Warren Buffett "*has committed the seemingly unpardonable sin of ignoring the technology sector in its public equity investments. The fact that the bulk of Berkshire Hathaway is now represented by operating companies, many of which have a strong Internet presence, doesn't impress anyone* (emphasis ours)." The report goes on to point out that "*Berkshire was recently ranked by PC Week magazine as 12th of the top 100 leading-edge users of Internet technology out of 2600 companies surveyed.*" Our view is that you needn't be a "dot-com" with no earnings to join the information revolution. In the sensible ways we like to see companies leverage their use of technology, "we have seen the internet, and it is us (or at least our portfolios)."

3. In evaluating technology investments, there are things we will do, investment-wise, and things we will not do.

In the latter category, owning some of 1999's best performing stocks would have made us knowingly complicit in things we aren't comfortable with from an investment perspective. We refuse to speculate on maybes, overpay for companies under pressure to simply "get in the game," value companies on a me-too, multiple-of-revenue basis, or follow Wall Street **AND** Main Street in lemming-like fashion paying hyped stock prices that are divorced from the discipline of fiscal prudence. We make occasional mistakes in our evaluations, but many tech purchases in our view require a kind of "suspension of disbelief" as a price of entry. Such things do not interest us.

We see our charge as executing a proven investment discipline: a rational, logical approach to defining intrinsic value, the patience to execute that strategy at prices that provide favorable economics, and the discipline to apply our philosophy with a perspective that is suitable to that of a rational business owner, *i.e.*, long-term. We believe these principles are sufficiently flexible to provide opportunity to the diligent in any market environment, provided a careful, thoughtful, patient methodology is applied to surveying available investment alternatives. It is an energizing, if somewhat trying, time to be a student of changes in the markets. However, technology businesses are like any other in that they are subject to competition, and *must ultimately provide a cash return on invested capital to be successful*. Our responsibility is to be sure that any forays we make in this area provide a return on (and by definition therefore a return of) our shareholders' invested capital.

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[1] Not to get off on a rant here, but while we believe in the viability of technology in the economy, there is an absolute plethora of worn-out buzzwords associated with technology investing. B2B is short-hand, investment-speak for *business-to-business*, the buzzword/craze most recently in vogue among internet and technology investing enthusiasts excited about the possibilities for commercial ventures in which businesses sell products and services to other businesses (as distinguished from B2C, or business-to-consumer). Our apologies to William Shakespeare and English professors everywhere for the bastardized reference; we simply couldn't help ourselves. Here are a few of our other favorite hackneyed phrases (glossary available for the "tech challenged"): 24/7; "space"; revenue model; "stickiness"; C2C; B2C; "first mover advantage"; "land grab"; capturing eyeballs; clicks and bricks; and "e"- attached to pretty much anything. If we begin to talk in strings of phrases like this in anything pretending seriousness, you will know that we have been taken over by aliens.

Paul Harvey's "The Rest of The Story"

Investors have primarily become attracted to the technology sector because many of its constituent companies have posted gains in sales (and in some, but by no means all areas of tech, also those quaint things called earnings) at rates that simply boggle the mind. The issue of massive revenue and earnings sustainability and the length of company/product life cycles is of course the great unknown factor, especially for newer businesses.

Notwithstanding that uncertainty, we have learned (painfully perhaps at times in the form of opportunity cost) that we would be ill-advised and our shareholders ultimately ill-served if we do not at least investigate and comprehend the changing nature of business and the new opportunities created by technology oriented companies. Many of the company and stock price success stories have been enabled by technology enhancements that have spawned **hyper-growth** - accelerated business expansion opportunities that evolve in ways that were scarcely imaginable in the "un-wired" world.

Importantly, the changes being wrought may also be creating a level of **hyper-competition** never before seen, as undoubtedly greater benefits and arguably greater power shifts to consumers and away from particular business owners. This shift could occur via, among other things, access to more and better information, greater price transparency and low or no switching costs: *knowledge as power*. No matter what kind of business or investor you are, that set of facts means you have to care about technology and the changes it both promotes and imposes. (The book Blown to Bits by Evans and Wurster discusses the threat posed to traditional business by the information age in a remarkably cogent fashion. We recommend it.) For these reasons, in this brave new world of competition, it would be both intellectually dishonest and shortsighted for us as rational investors not to gain a base of knowledge about what is happening in the so-called new economy.

There are exciting things going on today. Some of those things are not, in our humble opinion, nearly exciting enough to justify the prices being paid for certain stocks, but the businesses are interesting nonetheless, and they create market dynamics of which we need to be aware. It would be foolhardy for us not to acknowledge the reality and magnitude of the changes occurring and at least have a look. We are handicapped by neither intellectual capital nor capacity, and we don't believe it's a "*never trust anyone over thirty*" market where only young tech types will be rewarded with extraordinary insight. Many newer, shorter-memoried investors have been wildly rewarded up to now for the absence of any sense of fear about markets. We are certain that set of circumstances will not persist forever, and that a shift from emotional drivers of valuation to logical ones may prove painful for some.

Yet we also recognize that a cavalier dismissal of technology companies as fads, without truly peeling back the covers and seeing the real story and "doing the math" for ourselves would be a grave disservice to our shareholders and ourselves. The willingness to investigate, rather than simply pontificate and castigate, is (we humbly submit) what we believe separates us from the "typical" value investor.

Our attraction has always been to great businesses which:

1) have franchises somehow protected from the vagaries of competition,
2) produce predictable, growing excess cash flow beyond that needed to maintain the business, that
3) are shepherded intelligently, by honest management, and
4) may be purchased at a discount from the rationally determined present value of the future (reasonably expected) cash flows.

If we can find those aspects in an investment, we care little for the industry identifier it carries; history indicates that superior businesses can be identified and that the virtue of patience nearly always makes them available at a sensible price, sooner or later. We expect technology companies to be no exception to this pattern.

We recognize that some "value puritans" may accuse us of trying to "get a little bit pregnant" by even looking at technology. Our initial investigations into the technology area have indicated that while pricing may have become challenging to say the least (in certain examples quite absurd to say the most) there are in fact viable business models that are worth a second and perhaps a third look. Our preparation in the form of research done now is predicated on the belief that one never knows when the proverbial 'FOR SALE' sign will be posted for some of those businesses at stock prices worth paying.

We maintain that we will find something sensible to buy in the technology arena, and that the concept of a rationally priced tech stock will not remain an oxymoron forever. In fact, with the benefit of hindsight, there may have been times when even now overpriced issues were valued sensibly, even reasonably given what they have since been able to achieve. We believe that the work we are doing now will allow us to find and recognize similar value plays in tech at some future date.

The last page of this document (after the glossary, before the disclosures) provides a list of companies we've looked at in technology. It has been our pleasant experience to find that many tech companies offer the compelling business economics we are attracted to (high return on equity, low capital requirements, organic growth opportunities, excess cash generation, etc.). Our investigations have led us to conclude that several of the companies we have seen are run by savvy, assertive management teams focused on creating value for shareholders and taking no prisoners in their competitive landscape. Lots of the newer entrants are businesses "only a mother could love," but a select few are reminiscent of the kinds of companies even Warren Buffett

might find persuasive. Price remains the primary challenge for us.

Many technology companies have been busy creating competitive advantages by:

- fostering a culture of constant innovation (funded by their huge cash flows),
- building solid strategic relationships with other successful companies,
- capitalizing on constantly falling product costs and,
- fostering their own entrenchment, enabled by the switching costs some of them can embed through expanding their installed user bases and "addicting" customers to their standards.

One downside of this business nirvana is reduced clarity about long term market and industry conditions, with even established firms like Microsoft having times when substantial change needed to be wrought to maintain sway in an ever-changing competitive landscape. Moreover, if our evaluations reveal that a particular technology company in fact possesses a <u>sustainable</u> competitive advantage that it can exploit, we don't expect that fact to be such a secret that we pick up shares for a song. But we will require an additional margin of safety for technology purchases relative to, say, a Coke or a Gillette, where we have great confidence in the long-term sustainability of the business ahead of all competitors over a decade. Recent short-term issues for both of those companies notwithstanding, they simply dominate their primary industries and are unlikely to lose that advantage any time soon.

The lower level of clarity in technology is a challenge we need to factor into our analysis and one that, along with the question of extended valuations for even very good businesses, has helped to keep us largely inactive in the pure tech areas. While we're not necessarily expecting to pick them up as bargains in the current environment, an eventual shift in market psychology might help us get better pricing at some point. And we feel more comfortable waiting for that possibility versus paying prices that we almost <u>know</u> won't work. That others have been successful paying overly full prices (and riding them higher) isn't relevant to us. It wouldn't work for us because we're wired to be very careful about a margin of safety in making investments.

However, we are aware that many tech firms operate within markets that are growing much faster than, say, traditional consumer goods, and where unit volume often explodes as the costs of production and product prices fall. Those are business characteristics to drool over. We fully expect that the "how much is too much to pay?" question that has kept us out of the tech area will likely be alleviated over time, in some set of market conditions. When it is, we believe that we will have adequately prepared so that we will know enough to act. We have done the work and the research to understand certain tech businesses and don't feel the effort to have been a vain exercise. We understand some of these businesses and would be pleased to own a select few of them <u>at the right price</u>.

Price remains important to us. There were instances over the past year where we came close to taking a position in a company, but backed away because either our confidence level in the company was too low and/or pricing of the stock got away from us on the upside. Some company stock prices simply ran too high on companies we had analyzed and understood well enough to value. That those prices have in certain cases continued to run up higher without our participation frustrates us. But when prices do go beyond our buy targets before we establish a position, <u>our analysis indicates that we should let them go rather than chase them</u>. The tables below (an actual example based on a company we looked at) indicate our rationale in two examples of the same company and the different matrices of their going-forward prospects – one based on a higher and one on a lower price of entry.

We want to avoid a situation like that demonstrated in the first table, where the higher purchase price virtually locks in all sorts of negative scenarios unless a whole collection of things goes very, very right for a long period of time. That's too much "if" for our taste in a world where we have found that whatever can happen, will happen. We are comforted by the fact that the potential outcomes look a lot better at lower prices. The second table shown below is an example of the return prospects when a much lower acquisition price is assumed; both the higher and lower price were available for the same company inside of a twelve month time horizon. Given the undesirable risk/reward demonstrated by paying lots more, we prefer to wait and hopefully pay a lot less.

If not, it's not worth it to us to pay a lot more. We prefer the frustration of opportunity cost to the possibility of permanent capital loss by taking undue risk with shareholders' money and buying anything at prices we can't justify by crunching the numbers. **Hoping that someone else will pay more than too much when we've already paid too much is not what we do**. (A colleague of epicurean bent once opined that hot food + cold plate = cold food. We analogize the calculus to investments by observing that a good company + a too high price paid to own it ultimately = an indigestive investment experience.)

Points to Ponder

- We are applying the thought process and discipline we have always maintained to a slightly broader universe of investment opportunities, *i.e.*, a universe that includes investment alternatives broadly and fashionably labeled as technology companies.

- The research we have been doing, and are in fact doing as we figuratively speak, is likely to manifest itself in evolution in our client portfolios over some period of time, defined as "*whenever we can find sensibly priced businesses to buy that happen to be labeled by the rest of the world as technology companies of one kind or another*."

- For us to own companies with growth characteristics, purchased at value prices is not a new concept; the label of those businesses as "technology companies" will be a continuation of the evolutionary thought process we hope to always continue in order to remain fresh and relevant.

- Our investment process has always been just that, a process, not a math equation or a computer screen. We are guided by independent thinking and research, not formula investing.

- We remain steadfast in our commitment to leave money on the table if necessary rather than participate in "irrationally exuberant" investment behavior.

- Our company research efforts have made it clear that there is actually much that is, in fact, highly rational about the underlying drivers of the tech boom. Even if many of the prices ultimately achieved reach unfounded and unjustifiable levels - levels we have shunned for the sake of margin of safety - in select cases the business economics that drive investor attention are real, and in some ways new and different. These are often growth and profitability performance heretofore unseen, driven by highly scalable business economics. Some are worth looking at. We are.

- We recognize the tightrope we are walking in communicating our view of the technology investing landscape based on our prior level of participation, or rather our arguable lack thereof. Our purpose is to speak to those who, inappropriately we would argue, view us as stodgy, unimaginative, technophobic investors missing out on the historic opportunities presented in the technology area. At the same time, we want to communicate our measured approach without being branded as simply "jumping on the tech bandwagon." **Many investors have simply capitulated to irrationality. We will avoid that, not only in our actions, but also hopefully in appearance.**

In summation, we will apply the same rational thought process we have always used about understanding businesses to a wider investment universe. We of course retain our primary criteria that we understand the business - the basic product or service, the company's competitive environment, what it represents in terms of value for its consumers, its market potential and business economics – in order to determine rational purchase prices that suggest a return on capital invested over a reasonable time frame. We expect that our long established propensity to "pay up" for selected businesses that are truly superior relative to competitors will fare well in technology as it has for us in other areas. We view none of this as revolutionary, but rather evolutionary in terms of areas to which we are willing to commit research resources, applying the same logical, rational methods we always have. We are neither attracted nor repelled by the label of a company as technology or any other moniker; we simply want *good businesses*, with *good management*, at *attractive prices*.

Stock Price = $92 Initial P/E = 119	Ending p/e Ratio (3 Years Out)				
	10	20	30	50	100
EPS Growth Rate	*Price Change (Compounded Return Excluding Dividends)*				
5%	-54%	-42%	-34%	-21%	-1%
10%	-52%	-39%	-31%	-18%	4%
15%	-50%	-37%	-27%	-14%	8%
20%	-48%	-34%	-24%	-10%	13%
25%	-45%	-31%	-21%	-7%	18%
30%	-43%	-28%	-18%	-3%	23%
35%	-41%	-26%	-15%	1%	27%
40%	-39%	-23%	-12%	5%	32%

Lots of negative outcomes, even for optimistic growth and p/e combinations – very little margin of safety

Implausible Results (Low/Normal Growth and Very High P/E)

Healthy (> 13%) Positive Results

Negative Outcome

The two tables demonstrate the potential effects of paying a higher (top table) versus a lower (bottom table) initial price, by computing a matrix of possible outcomes. Calculations are based on various combinations of compound growth rates in earnings (along the left side) and ending price earning ratios (across the top) over a three year holding period. The computations take the recent earnings, compounds them at the assumed growth rates over three years and applies the various ending p/e ratios to arrive at an assumed price in three years. The assumed three-years-out price is compared to the purchase price, and the implied annualized return is displayed.

For example, a 30% earnings growth rate with a 30 ending p/e implies an annualized three-year **loss** of 18% on the top matrix when the acquisition price is $92, compared to a 13% annualized **gain** for the same circumstances but with a lower acquisition price of $35. The analysis displays a simplified, but we think illustrative, view of the level of good fortune required depending on paying a higher or lower price to acquire a share of a business.

Stock Price = $35 Initial P/E = 45	Ending p/e Ratio (3 Years Out)				
	10	20	30	50	100
EPS Growth Rate	*Price Change (Compounded Return Excluding Dividends)*				
5%	-37%	-20%	-9%	8%	37%
10%	-34%	-16%	-4%	14%	43%
15%	-31%	-13%	0%	19%	50%
20%	-28%	-9%	4%	24%	56%
25%	-25%	-5%	9%	29%	63%
30%	-22%	-1%	13%	34%	69%
35%	-19%	3%	18%	39%	76%
40%	-15%	6%	22%	45%	82%

Not a cheap stock, but available at an entry price where continued historic growth rates and a premium p/e have reasonable return opportunities.

Implausible Results (Low/Normal Growth and Very High P/E)

Healthy (> 13%) Positive Results

Negative Outcome

Glossary of Technology/Internet Terms

Term	Working Definition
24/7	24 hours a day, 7 days a week; implies continuous service, often required for websites, data centers, customer service facilities, etc.
"space"	Operating or business environment or category; as in *"no one else is dominant in the internet haircut space."*
Revenue Model	Method for generating sales dollars.
Stickiness	Sense of ability to retain attention of viewers at a particular internet site.
C2C Or C to C	Consumer to consumer; a business predicated on somehow matching individual consumers with each other and collecting a fee for so doing (e.g., Ebay online auctions).
B2C Or B to C	Business to consumer; a business predicated on selling some product or service directly to consumers, presumably to a great many of them via the internet and sometimes notwithstanding losing money on the items sold (*e.g.*, Amazon.com)
First Mover Advantage	The presumed leg up on the competition that accrues to the brand first able to establish an identity in a particular business or category.
Land Grab	Think "Oklahoma" circa 1880s; the idea is that the *first mover advantage* (see above) will allow an early competitor to stake out a protected niche in a "*space"* (see how easily it rolls off the tongue?) by racing ahead of competition and establishing an advantage that becomes unassailable.
Capturing Eyeballs	The idea that an interesting website, or one that is *sticky* (see above) will keep people on the page long enough to view the advertisements plastered on the screen; often justification for losing money on the core business ("We'll make up the losses on advertising volume by capturing eyeballs.").
Clicks and Bricks	The combination of an online business presence with physical locations where customers can physically view, handle, purchase, inspect, and return merchandise.
"e-"	e-business, e-tailing, e-commerce, e-strategy, etc. Can be attached to virtually (no pun intended) anything to denote a relationship, real or imagined, to the information economy.
Virtual Business	A business with an online presence only and no physical location for conducting commerce.

1999/ 1Q 2000 Technology/Information Company Research	
Calendar 1999	
America Online*	IBM
DoubleClick, Inc.	Microsoft*
Excite*	priceline.com
24/7 Media, Inc.	Seagate Technology
CDnow, Inc.	Texas Instruments
CMGI, Inc.	Toshiba
CyberCash, Inc.	Ingram Micro
eBay Inc.	Mail.com
Tickmaster Online-CitySearch	Garden.com
autobytel.com	Electronic Data Systems
Broadcast.com	Intel
CyberSource	Oracle
Infoseek	Go.com
Lycos*	Red Hat
Mail.com	DSL.net
Snap	Teleglobe
CareerPath	Nortel Networks
Sun Microsystems*	Qwest Communications
Yahoo*	Wink Communications
DLJdirect	Cisco
Motorola*	Ericsson
SAP AG	Lucent Technologies
Dell Computer*	Next Level Communications
eToys.com	Softbank
Preview Travel	Classified Ventures
Apple Computer*	Bisys Group
Corning	Sabre Group
Nokia	Liberty Media*
Vodaphone	Teligent, Inc.
Level 3 Communications	NEXTLINK Communications
Emanis Communications	Latermedia
Primedia	TiVO
Jetstream	
First Quarter - 2000	
NetZero	First Data
Texas Instruments	Cadence Design
Motorola	Microsoft*
Storage Technology	CMGI
Excite@Home*	Yahoo!
Gilat Satellite Networks	Conexant Systems
National Semiconductor	RF Micro Devices
Actel	Advanced Micro Devices
America Online	Network Appliance
I2 Technologies	Electronic Data Systems
EMC	Intel
Apple Computer	Amdocs
FreeMarkets, Inc.	Oracle
MIPS Technologies	SAP
American Power Conversion	Red Hat
Jabil Circuit	Quantam
RelNetworks	Sieble Systems
Agilent Technologies	Gateway
Open Market, Inc.	Hutchinson Technology
Analog Devices	Photronics
Hewlett Packard	Ariba
Applied Micro Circuits	Seagate Technology
Western Digital	ISS Group
Expedia	DSP Group
CNET	Juno Online Services
autobytel.com	JobsDirect
24/7 Media, Inc.	TMP Worldwide (Monster.com)
Analyst Meetings, Industry Conferences, and Research Visits (*Multiple Meetings)	

Footnotes/Disclosures:

Between the time this document was authored and its publication, we began purchasing a company that will be classified in the technology sector in client accounts.

This commentary seeks to describe our current views related to our research process, specifically in the technology area of the capital markets, as of the date of this document and is not intended to highlight specific activity within or across our client accounts**.** Any discussion of specific securities or companies contained in this commentary, including references to particular companies included on page 6 under the heading "1999/1Q 2000 Technology/Information Company Research," is intended only to help shareholders understand our investment management style and to illustrate the technology-related research efforts being conducted by Oak Value Management, Inc. ("Oak Value"). References to specific securities or companies should not be regarded as a recommendation of any such security or company by Oak Value. Oak Value currently does and may in the future decide to invest in companies for its client accounts that are not identified in the list provided on page 6.

Information concerning the performance of our client accounts and our recommendations over the last year is available on request. Past performance is no indication of future performance. You should not assume that future recommendations will be as profitable or will equal the performance of past recommendations.

Statements referring to future actions or events, such as the future financial performance or ongoing business strategies of the companies in which we invest on behalf of our shareholders **or** issues related to our ongoing research efforts**,** are based on the current expectations and projections about future events provided by various sources, including company management. These statements are not guarantees of future performance, and actual events and results may differ materially from those discussed herein. References to securities purchased or held are only as of the date of this communication. Although we focus on long-term investments, holdings are subject to change.

This portfolio commentary may include statistical and other factual information obtained from third-party sources. We believe those sources to be accurate and reliable; however, we are not responsible for errors by third parties on whom we reasonably rely. In addition, our commentary is influenced by our analysis of information from a wide variety of sources and may contain syntheses, synopses, or excerpts of ideas from written or oral viewpoints provided to us by investment, industry, press and other public sources about various economic, political, central bank, and other suspected influences on investment markets. Nothing contained in this commentary should be construed as a forecast of overall market movements, either in the short or long term**.**

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