

Date: September 22, 2000
S&P 500: 1448.7
Nasdaq Composite: 3803.7
Commentary

THE PROBLEM WITH TECH AND TELECOM STOCKS

We have been saying for some time now that tech and telecom (henceforth, "TT") stocks are wildly overvalued. The fact that the TT-heavy Nasdaq Composite has backed off by almost 30% from its March highs has only altered the magnitude of that index's overvaluation; it has not changed the fact that the Nasdaq is still well above nosebleed territory.

The rationale we hear for buying TT stocks generally revolves around one simple theme: incredible growth opportunities. Perhaps surprisingly, we don't disagree with this general assessment. Clearly, technology and telecommunications are among the fastest-growing sectors of the market, and this is unlikely to change anytime soon. So, we are fully aware of these sectors' principal siren call: growth.

Nevertheless, we have two fundamental problems with the TT sector as a whole – valuation and earnings quality – and another problem with a considerable number of the TT sector's specific leaders – they are in poor businesses.

Where valuation is concerned, the Nasdaq is firmly settled into the nosebleed seats. As of today's close, the Nasdaq is at 3804, representing just shy of \$6 trillion in market capitalization. The 20 biggest Nasdaq stocks (19 of which are technology or telecom stocks) – henceforth, the "Big 20" – which account for 40% of the Nasdaq's total market capitalization (approximately \$2.4 trillion), are trading at 111x 2000 estimated EPS and 85x 2001 estimated EPS.

Now, let's assume that most investors' (totally unrealistic) required rate of return on a "Big 20 Index" is 20% a year, and that the Big 20 actually generates the requisite 20% annual earnings growth to match investor expectations over the next 10 years. Assuming no multiple expansion, this would give the Big 20 a \$15 trillion market cap in 2010. Further assuming that the domestic economy grows by (an amazing) 7% annually in nominal terms over the same period puts U.S. GDP at roughly \$18 trillion in 2010. Is there anyone besides myself that sees a problem with just *twenty companies* being assigned an aggregate valuation that is equivalent to 85% of our entire domestic economy?

But that's not the only problem with this scenario. What about our assumption of 20% annual earnings growth on our Big 20? Is this realistic? I think not. Most companies – even those with *just a few billion dollars* of market cap – have a very difficult time growing earnings at a 20% rate due to competitive pressures and the difficulty of managing enterprises through such high growth rates for long periods of time. But *really* big companies – those with many billions in market cap and revenues – eventually run into the "law of large numbers," which states that it gets harder and harder to grow at high rates as the base – of revenues in this case – gets larger. Warren Buffett has warned investors for many years that it would be more difficult for Berkshire Hathaway to grow at the same previously-high rates going forward due to Berkshire's increasingly large size relative to the overall economy. And over the last few years, he has actually proved this to be true.

So, if the law of large numbers has a profound effect on your run of the mill big companies, think of its effect on the massive Big 20. These companies collectively have a couple a hundred billion dollars in revenue and their aggregate market cap is equal to roughly 27% of U.S. GDP. In order for these companies to provide 20% annual returns to investors over the next 10 years, the Big 20 have to grow revenues at well over 3x the rate the U.S. economy expands over the period, their margins have to remain intact, and their P/E multiples can't contract one iota. Although the Big 20 derive almost half of their revenue from overseas, the odds that they will be able to grow at a multiple of both the domestic and global economies for a decade, given their already bloated sizes, are not materially different from zero.

If history has taught us anything at all, it's that paying astronomical multiples (in this case, 111x earnings) for already huge companies (in this example, \$2.4 trillion of market cap) is a very bad long-term investment strategy. The odds that the math will work in your favor are just too miniscule.

Where earnings quality is concerned, the TT sector is a potential disaster for two principal reasons. First, because GAAP accounting does not require companies to account for options issuances as expenses to be run through the income statement (although GAAP does require a footnote detailing these expenses under SFAS 123), most TT companies' economic earnings have been well below their reported earnings in recent years. We have seen instances in which a company's reported earnings would have been more than 50% lower had option costs been properly accounted for as an expense.

To use a specific big-name example, Cisco Systems reported GAAP earnings of \$0.65 per share for its 1999 fiscal year. After applying SFAS 123, which requires companies to account for the true costs of option grants, Cisco's per share earnings were just \$0.47 per share, or 28% below its reported numbers. We estimate that the Big 20's aggregate per share earnings are at least 15%-20% below GAAP earnings on an SFAS 123 basis. These days, however, most investors spend more time looking at charts than reading the footnotes of financial statements, so many are clearly oblivious to these options-related obfuscations.

The second issue that engenders a murky earnings picture at many TT companies is the prevalence of "non-operating" charges and gains. The charges typically arise from acquisitions. For example, Cisco Systems – to beat up on one of the market's favorite sons once again – has made well over \$10 billion worth of acquisitions over the last few years in umpteen transactions. In each transaction, Cisco takes a "restructuring" charge that can later be bled into net income if such a charge was deemed to be too aggressive at the outset. Non-operating gains, on the other hand, typically arise from gains realized on the sale of investments. Many TT companies have large investment portfolios from which they've been harvesting gains over the last few years, and many of these gains are difficult for the lay investor to ferret out. The bottom line here is that the operating performance of many TT companies, and certainly the Big 20, has been greatly obscured by a seemingly never-ending stream of non-operating items.

In our view, the combination of options issuances and non-operating shenanigans at many TT firms, and the Big 20 in particular, has led to a quality of earnings that can only be described as abysmal.

Finally, what many investors don't seem to realize is that many TT companies – and several members of the beloved Big 20 – operate in poor businesses. That is, many of these companies operate in businesses that are extremely competitive, have extraordinarily high capital requirements, and suffer high rates of product obsolescence. Most companies outside of the TT sector that operate under such conditions boast earnings multiples that are the opposite of high.

In our opinion, Intel and Motorola are examples of good companies operating in fundamentally poor businesses. Both companies operate in businesses that are hyper-competitive, capital intensive, and experience very high rates of product obsolescence. Neither Intel nor Motorola generates much in the way of true free cash flow. That is, after accounting for the R&D and capital expenditures necessary to keep them ahead of the pack, there isn't much cash left over for share repurchases or dividends.

While it's wonderful that Intel, for its part, has a high return on capital, at the end of the day the company must provide a return to shareholders in the form of share repurchases or dividends. After all, every stock price in theory reflects the estimated discounted present value of future cash streams to investors. Although Intel's stock has a paltry 0.1% dividend yield and its ability to repurchase shares is limited (for the reasons mentioned above), the company's market price reflects investors' expectations that one day the company will have a substantial dividend and/or substantial share repurchase ability. Frankly, we have our doubts whether either will ever be the case, which is why we find the company's valuation so astounding.

In Figure 1 (on the following page) we display the underlying cash flow economics of a few of today's TT favorites. As you can see, capital expenditures as a percentage of cash flow are quite high for all of these companies. And aside from Intel, free cash flow as a percentage of average capital is quite low. The reason for these pitiful results is that these companies do not operate in good businesses. They are forced to reinvest huge amounts of capital every year simply to remain competitive. To my way of thinking, the companies in Figure 1 are like people running on treadmills; they have to keep running just to stay in place. A few periods of underinvestment and each would be left in the dust. Consequently, in a rational market, all of these companies would trade at relatively modest multiples of earnings and book value despite their above-average growth characteristics.

Figure 1
Do These Look Like Good Businesses?

	1996	1997	1998	1999	2000E
Intel					
Cap-ex/Cash Flow	43%	49%	40%	30%	48%
FCF/Avg. Capital	27%	25%	25%	27%	19%
Motorola					
Cap-ex/Cash Flow	84%	78%	126%	77%	67%
FCF/Avg. Capital	4%	6%	NMF	5%	7%
Worldcom					
Cap-ex/Cash Flow	89%	206%	168%	105%	53%
FCF/Avg. Capital	1%	NMF	NMF	NMF	7%
Ciena					
Cap-ex/Cash Flow	73%	54%	79%	79%	86%
FCF/Avg. Capital	84%	28%	6%	2%	4%

Source: Value Line Investment Survey

* "FCF" is free cash flow, which we define here as earnings + depreciation + amortization - cap-ex

** Average Capital is defined as average total equity + average long-term debt

Figure 2
Now, These Look Like Good Businesses...

	1996	1997	1998	1999	2000E
Microsoft					
Cap-ex/Cash Flow	20%	12%	11%	7%	5%
FCF/Avg. Capital	35%	42%	40%	37%	30%
Oracle					
Cap-ex/Cash Flow	34%	34%	25%	21%	10%
FCF/Avg. Capital	37%	32%	31%	37%	42%
Coca-Cola					
Cap-ex/Cash Flow	25%	23%	21%	26%	25%
FCF/Avg. Capital	43%	48%	39%	52%	32%
Merck					
Cap-ex/Cash Flow	26%	27%	32%	36%	30%
FCF/Avg. Capital	26%	30%	29%	28%	33%

Source: Value Line Investment Survey

* "FCF" is free cash flow, which we define here as earnings + depreciation + amortization - cap-ex

** Average Capital is defined as average total equity + average long-term debt

For comparative purposes, we have provided in Figure 2 a few examples, both tech and non-tech, of what good companies operating in good businesses look like: low ratios of capital expenditures to cash flow and a high level of free cash flow relative to capital employed. All of the companies in Figure 2 have huge amounts of excess free cash flow that they can return to shareholders in the form of dividends or share repurchases if they choose to do so. Now, whether or not these companies deserve to trade at the exalted multiples at which they currently trade is another issue entirely.

Importantly, we don't want people to get the impression that the only characteristic of a company that matters is how much free cash flow it throws off over a five-year time span. Nevertheless, the concept of free cash flow is extremely important in determining a company's intrinsic value, and by this measure the businesses presented in Figure 2 are far superior to the businesses in Figure 1.

Which begs the question: If Microsoft's business is that much better than Intel's business, why does Intel trade at 28x earnings versus Microsoft's 32x? In our opinion, any rational evaluation of the facts leads to the conclusion that this gap should be considerably wider. And, for the record, we don't think that Microsoft's stock is undervalued, which gives you some indication of where we think Intel should be trading.

In the final analysis, we think that any sentient being should come to the inescapable conclusion that both the TT sector in general, and the Big 20 in particular, are significantly overvalued from merely a superficial valuation standpoint, despite the 30% decline in the Nasdaq since April. If, however, we further take into account the complete lack of earnings quality (an oxymoron in this case) in the group, the Big 20 look like a massive bubble waiting to burst. Consequently, in our view, we're likely to see the Nasdaq at 1500 again long before it gets back to 5000.

David B. Moore

Additional information is available upon request.