

UNCONVENTIONAL WISDOM APPLIED TO TECH STOCK ANALYSIS

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GOAL

To help investors and advisors better understand technology as an investment sector.

BIO

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WHY DOES TECHNOLOGY MATTER?

CONVENTIONAL WISDOM

Tech is a sector like
Energy or Health Care

COUNTERINTUITIVE

Tech is foundational

- Even though tech is the largest (by market cap) of the 10 Standard & Poor's sectors, it is better thought of as the foundation for the other nine
 - Utilities use chemical engineering to clean smokestack emissions
 - Energy exploration and production firms use 'fracking' and horizontal drilling technologies to increase yields
 - Pharmaceutical companies use nanotechnology to deliver drugs inside the human body
- The appeal is that technology innovations are often so new, they are more likely to be unique and monopolistic and can therefore be sold more profitably. Patent law exists to grant monopolies to new inventions. Tech companies are the primary beneficiaries of this legal protection.



SO WHAT IS A TECH STOCK?

CONVENTIONAL WISDOM

Hewlett-Packard

- Hewlett Packard spends 11.1% of revenue on R&D; 3M spends 5.5%^[1]
- 3M's operating cash flow margins are 20%; HP's are 6%
- The lesson is that innovation isn't about what you spend, but about what you make and sell

COUNTERINTUITIVE

3M



DO I HAVE TO BE AN EXPERT IN TECH?

CONVENTIONAL WISDOM

Tech requires domain expertise

COUNTERINTUITIVE

Ignore the technology — it's a distraction

- In the real world, people over-value expertise because they don't know how to value it
- “An expert is somebody who is more than 50 miles from home, has no responsibility for implementing the advice he gives, and shows slides.”
–Former U.S. Attorney Edwin Meese
- This is a good description of a sell-side tech analyst. But as an advisor or investor, you have responsibility and it's your or your client's money, so be wary.
- **Observe:** When a technology expert appears on TV, is their investment track record ever displayed? Why or why not?



SO HOW DO I FIND “GOOD” TECH INVESTMENTS?

CONVENTIONAL WISDOM

Do a deep dive and know a lot about a few companies. Pick most stocks by hand, and a few using screens.

COUNTERINTUITIVE

Know a few things about a lot of companies. Pick most stocks by screen; a few by hand.

- **Remember: investors are competing**
 - Pros are competing against benchmarks and each other
 - Retail investors are competing against their own expectations and other asset classes
- **Doing exhaustive research on a few companies leaves a lot of companies undiscovered...that will beat you**
 - Analogy: Would you “hand fly” a jetliner for eight hours, then have the autopilot do the landing?
- **Tools are free and widely available from Zacks, Fidelity, Yahoo Finance, Google Finance**
- **Goal: Reduce those end-of-year “Uh-oh” moments when you look back at the past year’s winners and say to yourself, “How did I miss that one? And that one? And THAT one?”**



DO I HAVE TO HAVE “HIGH CONVICTION” IN THE TECH STOCKS I OWN?

CONVENTIONAL WISDOM

You have to have high conviction in your tech holdings

COUNTERINTUITIVE

You have to have high conviction in your factors

- Developing high conviction takes a high up-front and ongoing level of research
- Typical buy-side analyst takes two weeks to perform a full company analysis = 26 stocks/year
- With high conviction in certain factors, like free cash flow, owning more companies maximizes my exposure to the important factors while giving me diversification
- Trading costs have never been lower and spreads have never been narrower
- Convince yourself: How can you have high conviction...when your investment process leaves you blind to 95% of the names in your investment universe?



WHAT PRICE SHOULD I PAY?

CONVENTIONAL WISDOM

Buy at a reasonable price

COUNTERINTUITIVE

Buy at the right time

- It seems logical (almost primal) to want to get a bargain. Who could argue with getting more for less?
- But think about it: When you buy a stock, you're not buying a depreciating asset, like a car. You're buying an appreciating asset, like a house. What does price mean in housing? Is a house that costs twice as much designed to last twice as long? Is it by definition twice as big? No.
- For a tech stock, price is
 - a signal of quality
 - a harbinger of the future (remember when Priceline > 3 Airlines?)
 - a determinant of yield (dividend/price)
- My point: "Waiting for a pullback" is nice but stocks reach new highs by going up past old highs. It's always a good time to buy a tech stock with a premium business model.



ONCE YOU'VE BOUGHT A TECH STOCK, HOW DO YOU MANAGE THE POSITION?

CONVENTIONAL WISDOM

More information is always better and you should react to it

COUNTERINTUITIVE

Ignore the news

- Psychologist Paul Andreassen compared the performance of four groups of mock investors:^[2]
 - One group was subjected to constant news reports about a company with a relatively stable stock
 - One group was given no news about the same stable company
 - A third group was given constant news reports about a company with a stock more subject to volatile swings
 - The fourth group was given no news about the same volatile company
- For both groups, investors who received no news performed better. In fact, the group in the dark about the volatile stock earned more than twice as much as their counterparts who received constant information.
- Takeaway: More news can be good, but only in the context of the reason you bought the tech stock in the first place. Bought it for superior cash flow and a proven management? Then only react to news about those specific issues.



ARE THERE “MUST-OWN” TECH STOCKS?

WHAT IF APPLE IS A HUGE PROPORTION OF MY BENCHMARK?

CONVENTIONAL WISDOM

Don't stray from benchmark with must-own stocks

COUNTERINTUITIVE

There are no must-own stocks

- For professionals and retail investors, the allure of “must-own” tech stocks is great
- Pros are reluctant to stray from their benchmarks, but... benchmark constituents aren't chosen because companies are good, but because they are liquid
- Research shows that un-famous stocks with little or no media coverage outperform well-covered stocks by 3 full percentage points per year, after controlling for commonly-recognized risk factors^[3]
- Lesson: The only thing you “must” do is recognize the “amateur's advantage.” Amateurs don't take any career risk by avoiding investments because they are famous or big... or both.



ARE THERE CHARACTERISTICS THAT TECH STOCKS OUGHT TO HAVE?

CONVENTIONAL WISDOM

Emphasize revenue and earnings growth

COUNTERINTUITIVE

Emphasize market share growth

- No one would turn down high revenue growth in general and earnings in particular
- But what good is revenue growth if you're not pulling away from your competitors? See Fitbit in 2015.
- Growth without gaining share is not only not good, it's scary bad.
- Where does Amazon fit? Obviously a retailer...hardly spends anything on R&D but... remember 3M vs. Hewlett-Packard...
- Shared wisdom: Tech companies often sacrifice cash flow for market share (via cost cuts) or vice versa (by positioning themselves as premium brands). But history shows (think Apple in the last decade) when a tech company can increase share and cash flow simultaneously, usually because of breakthrough product, the company's stock price often outperforms.



CONCLUSION

- Think of tech more broadly — don't let others define the category
- Don't be caught up in the buzz and the buzzwords — they are unrelated to the investment outcomes
- Use tools earlier in the investment process
- Growth without taking market share usually ends badly
- Sometimes the conventional wisdom is right... but it often helps to check your assumptions

[1] For 3M, average R&D spending for FY 2012-2014; for HPQ, average for FY 2013-2015. <http://crabtree-am.com/wp-content/themes/crabtree-am/pdf/R&DSpending.pdf>

[2] <http://www.cbsnews.com/news/do-you-confuse-information-with-knowledge>

[3] <http://crabtree-am.com/wp-content/themes/crabtree-am/pdf/Fang%20Peress%20Media%20and%20Returns%20031809.pdf>

