Technology Rules

By John Mauldin | June 5, 2021

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Macroeconomic forecasting is too politicized. I don't mean that in a partisan sense, though it may be so. The bigger problem is that forecasters spend most of their time thinking about central bank decisions and government policies. In the long run, those aren't the most important factors. Not even close.

What really drives economic progress is human ingenuity and the innovation it produces. In other words, *technology*. I use that term in its broadest sense: applying knowledge to make life better. Nowadays we associate technology with electronic devices, but it's much older. The wheel was an early technology. We progressed to steam engines, automobiles, telegraphs, radios, airplanes, computers, and more. Each (and a million others) boosted economic growth. Their combined effect brought us to where we are today.

Other forms of innovation improve life just as well. Something as mundane as pizza delivery has morphed into delivery of all types of foods. "Fast food" was an innovation. Home Depot, Walmart, Schwab, and a thousand businesses focus on making life a little easier in small ways, but they multiply to create a society that people living 100 years ago or even 50 years ago couldn't imagine.

Governments and central bankers don't generally invent technologies. At their best, they establish conditions that unleash human talents. At their worst, they suppress those talents. It is no coincidence China began its rise when Deng Xiaoping decided that "getting rich is glorious" and unleashed the population's entrepreneurial bent. (That the country used it to create a panopticon surveillance state is a different matter. A century from now we'll see how that works.)

At the same time, not every human welcomes every technology. The 19th-century Luddites had serious issues with automated looms taking their jobs. This is a classic quandary. Someone's livelihood probably depends on the work your new technology will replace. It may (and should) enable growth that creates new jobs, but that takes time. The transitions can be uncomfortable, and more so when the pace quickens, as it is now.

We always discuss these issues at the Strategic Investment Conference, and the dialogue goes deeper every year. I consider this a critically important part of our mission. Technology develops in the background, often unnoticed amid the more headline-generating policy debates. But I really believe it is far more important.

This week we'll review some of the SIC technology sessions and think about where the latest innovations will take us. (You can still get a Virtual Pass and view the full event, by the way.) It wasn't just pie in the sky, either. We talked about real investment opportunities available right now.

Disruptive Innovation

We will start with Cathie Wood, founder and CIO of ARK Invest. I first brought Cathie to SIC in 2020, when she was already quite famous, but in the last year her fame went exponential along with (and not coincidentally) some of the stocks in her portfolio.

Cathie has come under severe criticism in recent weeks because her ARK Innovation ETF (ARKK) shares dropped about 33% from their February peak. The momentum players say she made bad decisions and has lost her touch. I think that opinion is misplaced, misguided, and pretty stupid (to be blunt about it). They simply do not understand her mission and purpose in the investing ecology.

Most of this criticism is from momentum players who got caught offsides, or people simply jealous of her success. Full disclosure: I have a great deal of my portfolio with managers who trade ETF's. A perfectly rational strategy. But don't complain when you're not good at it. (Further full disclosure: I suck at trading ETF's but I know managers who excel, and give them my money.)

Further, Cathie Wood is an active ETF manager—a very rare breed. Most ETFs are passive indexes. The criticism comes from people who don't understand her process. Bluntly, how many of her critics have taken the time to interview individually each of the members of her investment committee? We have. All 10 portfolio managers, the head of research, and Cathie Wood herself three times. A total of 13 people. Have you done your homework? If not, go sit back on the porch.

Cathie, and each of her portfolio managers, will say the same thing—that they have no idea how well the company will do pricewise over the next 2 to 3 years but they believe within 5 years they will see a 15% compound return. Every one of them. So let's hold her to her own standard. Here is her flagship fund going back five years:

Source: Yahoo! Finance

Five years ago, ARKK shares were $19.57. Now, even after recent losses, they are around $107. That's ~40% annualized growth, and actually a little more if you include dividends. Making those kind of returns means you will endure some drawdowns. She clearly made her five-year 15% annual compound return goal, even after 33% drawdown.

Even more impressive, she is doing this in a fully visible, fully liquid public fund. These aren't early-stage venture capital investments, but the returns would rank it among the best VC funds. Cathie has done this by having a disciplined process and outlook.

Last week I shared some of Cathie's thoughts on deflation. That snippet, while enlightening, was just part of the deeply researched viewpoint that guides her investments. She looks for "disruptive innovation," which is another way of saying "automation." In her view, the labor shortage is a good thing because it accelerates these helpful innovations. Here's a little more from the SIC transcript.

> We think we're going back into a labor shortage, broadly defined. Not having to do with a pandemic, but a labor shortage, given demographics and growth in the economy. I think what we're going to see is the productivity that we're talking about, which is another way of expressing what I did with Wright's Law, is going to accelerate. It already has started to accelerate. I think, on a year-over-year basis, it was 4.2% in the first quarter, and at an annualized rate of change, it was 5.2%. We're already seeing that. That's a powerful antidote to any inflationary pressures that are evolving out there.

> We think productivity is going to skyrocket. We did an analysis, just to give you a sense of how much technology-enabled platforms, how many jobs they can create. That was answering the robotics question. We did a study based on University of Oxford, which, when we started the firm, had just been published. It was about the United States and the labor force. Basically, the headline read, "47% of all the jobs in the United States are going to be lost to automation, including artificial intelligence, during the next 20 years." We took the same study. They left it there, and that's why the robots-are-going-to-kill-jobs worries really developed some momentum.

> We took the same study with the 700 job classifications they used, and given our cost curve declines, figured out when these various job categories would (succumb) to robotics or automation. There's going to be (a lot of) displacement. We need to re-educate, we need to retrain. But at the end of the day, in 2035, we believe that because of automation, GDP in the United States will not be $28 trillion, which was the linear expectation, but it will be $40 trillion. Our job as an investor in innovation, focused only on innovation, is to find out where that $12 trillion is going to be.

> It's going to be in jobs that we cannot even imagine now. In the early '90s, we could not imagine the gig economy, Uber, Lyft, Airbnb. Wouldn't have happened without the internet, and that's going to move into overdrive during the next 15–20 years.

As Cathie notes, we have to do better in helping people retrain and adapt when their occupations disappear. But we shouldn't fear innovation. (Karen Harris of Bain listed job automation as one of her biggest trends as well!)

Cathie has a strict adherence to process. Every stock in her portfolio has a percentage allocated for the fund. If it gets too big, she will sell shares of a company she believes in, in order to maintain balance in her portfolio. She will buy on drawdowns for the same reason. She will replace companies in her portfolio with companies they think have more potential.

She commented that she used the recent drawdown to increase her investments in companies like Palantir, which they thought was expensive. She saw the drop in price as a gift.

Further, I am privately aware of a portfolio of her 11 highest-conviction stock picks. That portfolio is down only 11%, last I looked a week or so ago. Her process works.

The bulk of my personal technology plays are in the private arena hopefully (!) on their way to becoming public. Ironically, I see Cathie as a hedge against me being wrong. I appreciate that she has created multiple innovation ETF's, allowing investors to focus on industries where we have a particularly strong belief.

Frankly, a 30% drawdown is a gift to technology investors, not momentum traders. My bet is five years from now Cathie and her process will be big winners from today, leaving the passive S&P 500 in the dust. I will gladly wager serious money on that statement.

Smart Enterprises

One of my personal SIC highlights was the chance to interview Joe Lonsdale, a very successful venture capitalist who co-founded Palantir with Peter Thiel. He's now running his own firm called 8VC, and also leads tech companies Addepar and OpenGov.

In 1984, Stewart Brand coined the now-common phrase, "Information wants to be free." That's absolutely right but there's a corollary: **Information also wants to *connect*.** Its value multiplies when it finds other information. Yet even now, information often exists in segregated siloes that greatly limit its usefulness, often purposely so, as people in government make money keeping that information private and unconnected.

Joe Lonsdale's great genius is in recognizing the massive opportunities in unleashing and combining information. He did it with Palantir, Addepar, and OpenGov.

He started at PayPal, where one of their problems was that bad guys were using the platform to facilitate illegal transactions. PayPal's genius was getting enough information to limit or eliminate the bad guys, while keeping the process simple enough for the rest of us. Here's a great quote on the impetus behind launching Palantir:

> …we saw the government, frankly, wasting billions of dollars on things that were 20, 30, 40 years behind what we had done at PayPal. Because at PayPal, when we started arresting the bad guys, we got to know these guys in the government. They started asking for our advice. Then after 9/11, they were spending so much money on these wasteful systems that we said, wow, this is a huge opportunity. We have to take the lessons from Silicon Valley and go bring them to the East Coast, where they don't have the same technology culture, and we can help them out.

Now he's doing the same thing in the financial services industry.

Here is a snippet of our SIC conversation:

> A theme we came up with, John, is a theme we've been talking about now for a decade. It's called the smart enterprise theme, which is basically that, if you look at the waves of technology in Silicon Valley, what happens is certain things become possible all at once, and you get a bunch of companies, so we're calling it a wave.

> What was happening right around ‘08, ‘09, ‘10 is we realized there’s just a lot of new things that were possible. It was clear the cloud was just getting going, and so there’s all this software that runs the processes of global finance, that runs how family offices, RIAs, wealth managers work. It’s really clear that data’s not all connected to apps. It’s not at all connected. It’s not allowed to flow freely. If Morgan Stanley wants to spend money using machine learning to figure out what to offer to their clients, that’s very hard to do. There’s no platform, there’s no data, and so we realized there were going to be these new platforms that came in and made that industry run in much better ways. This is true of different parts of logistics. It’s true of different parts of healthcare. It’s true of almost every one of these industries. There’s systems running these industries from 20, 30, 40 years ago that have to get replaced in order to allow innovation into these industries.
>
> Mapping out all of these, we realized this area of finance is not only very broken right now, compared to what’s possible, but it’s also very valuable if you can own a big platform in that industry because of what you can do if you own a platform that these people are using to make decisions. You can have trillions of dollars on it, you can build apps on top of it, you can have an ecosystem, and so we realized that’s a great thing to go after.

When you dig into this, it’s remarkable how many industries and government agencies are *still* operating on ancient (as in 1990s) technology platforms. The Y2K challenge compelled many to upgrade, but others just patched up the date functions and muddled through. Some are just now joining the 21st century.

Quoting Joe:

> ...It’s funny. If you talk to the guys in the intel world, they’re so frustrated. They’re like, “Oh, in the business world, everything must be smart and logical, and not dumb like the government.” If you talk to the people in the RIA world, they say, “Oh, well, the intel world must have all the coolest stuff.” Both of them have a lot of problems, but there are a lot of good lessons about how to handle data, and data integration, and all the workflows. To make a long story short, Addepar’s now the leading private software company in that space.

This is obviously good for technology providers, but the real consequence is what happens when those organizations take off their old-tech handcuffs. They will run better and develop new capabilities they never had before. Customers, workers, and investors will all benefit. Here’s Joe again:

> Humans have a comparative advantage at higher levels of abstraction: creativity, intuition, and holistic judgements. Each is necessary. The best technologies do not automate complex problems, as many assume; they equip people to solve them faster and more effectively.

Ron Baron's Two Biggest Mistakes

The surprise interview (by David Bahnsen) was Ron Baron. I simply don't have the space to give him his due. I think we will cover him for a full letter later, but I will tease out what he said were his two worst mistakes.

First, he made a major investment in Sotheby's. It went up and down but it was going basically nowhere. He spent a year and multiple times pitching Sotheby's to Jeff Bezos. Quoting:

> So I always regarded (Sotheby's) as my biggest error, but a much bigger error than that was sitting next to Bezos for an entire year in that corner conference room where he was all glassed out and hearing his crazy laugh, and not investing in Amazon, trying instead to sell him on my junky stock in Sotheby's, and ignoring the fact that here's this guy changing the world and I wasn't investing in him.

The rest of the story is that he didn't make that mistake when he sat next to Elon Musk. Like Cathie Wood, he and his investors are up big time. He is one of the greatest innovative business investors of all time. Not just in tech. We will unpack that.

Transformed Energy

Louis Gave noted at the SIC that most economic activity is simply "transformed energy." Doing it better generates growth. A few centuries ago, if you wanted to move some book-length information a thousand miles, you needed paper, which meant trees. You needed to carry the paper to its destination, which meant you needed a rider and a horse, who both needed food. And if you had all that, the ride still took weeks.

Now? It takes a fraction of a second. The technologies that let us do that aren't free, and they have their own sometimes-problematic footprints. But we can do things we never could before.

A time will come when even today's technology, impressive though it may be, seems as antiquated as that horse and rider. That time may come sooner than you think, too. Figure out what the next horse will look like and you can make a lot of money.

New York and Writing Frustrations

Later this month I will be in New York for a few days. I'm setting up meetings with friends and partners. I'll meet with the chairman of my largest and favorite personal investment, what I think of as a major technological innovation and disruptive breakthrough. It is private now but will soon be public and I will mention it when it is. (It is available as a private company if you talk to your Team Mauldin representative.) I look forward to traveling again, even if I don't do 200,000 miles a year.

This letter was particularly frustrating in that I couldn't do justice to either Cathie Wood or Joe Lonsdale. I didn't even get around to Karen Harris and barely gave a hat tip to Louis Gave. My current fantasy dinner would be Cathie Wood, Joe Lonsdale, Ron Baron and a few friends, three hours, fabulous food and a great Chardonnay. Or BBQ and margaritas in Austin. Plus cameras so you can join in. I guess we could invite Elon to round it out.

And I didn't even get to mention the juxtaposition between the drag on growth of massive and growing government debt and inflation versus the boost to growth from technology and innovation. Basically the long-humanity versus short-government trade. Which is critical and should have its own letter or two.

And with that I will hit the send button. I am preparing for Shane's birthday and our fourth wedding anniversary. I cleverly arranged them to be on the same day—still two presents but only one day to remember. I asked her to marry me on her birthday in an outdoor Austin barbecue mecca with George and Meredith Friedman watching. We married exactly one year later.

You have a great week! Think about seeing more friends and being less socially distanced!

Your believing in the positive disruptive power of innovation analyst,

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