This year, I am ten times more productive than I've ever been, and I'm producing my best work ever. I'm going to show you what I've done and how you can do the same. In this episode, episode 568 of Money for the Rest of Us is a personal finance show on money. How it works, how to invest it, and how to live without worrying about it.

Build on What Won't Change

Now, in April 2012, I left my investment advisory firm after 17 years and I launched some websites. But about six months later, I drove from Idaho down to Las Vegas and I attended the Amazon Web Services re:Invent conference. I, I think was the first one they ever did. And in that conference, Jeffrey Bezos spoke and let me share some notes that I took from November 2012. If you're watching the video, you can see my, my, my handwriting is horrendous. But what did he say?

He talked about a flywheel and that we should focus on things that never change. And he said that innovation takes really a pioneer mentality, a high rate of experimentation. And I've always been one to experiment. In fact, the reason I went to that conference is I wanted to launch a website, a service called 401k Second Opinion where I would analyze or our company would analyze portfolios that people had. They could take their 401(k) and it would break it down and look at their what the valuation is, their allocation, the expected return, just get a really good understanding of, of their investment portfolio.

401k Second Opinion

In fact, here in the notes, I took that schematic, but I never built it. In fact, I worked on some prototypes, but I didn't have the skill set to build that. And I didn't want to go out and hire a developer I was had still wasn't quite sure what I wanted to do after leaving my investment advisor career, but I was. I was doing some programming on the side. It wasn't very good and it was well beyond my skill set. But then eventually I launched a podcast and I, and I did other things.

But this month, in fact, in the past month, starting in October, late September, I built this portfolio analysis tool similar to what I sketched back in 2012. But today I can build it myself. We're currently testing these portfolio tools with our cohort members, as well as some select Plus members, but we plan on rolling this out to Money for the Rest of Us Plus, including it as part of the membership next month. But it allows individuals to upload their portfolio all their accounts, and they can do it through a spreadsheet.

They can do it through statements, they can do it by hand. They can set up different portfolios, it will combine them and then it calculates the expected return, the expected risk, how it would have done in different scenarios such as the 2008 financial crisis. It breaks out the asset mix and calculates its regional weights. How much growth versus value? Various portfolio statistics, like the dividend yield and the price to earnings ratio relative to the market.

The tool allows individuals to figure out, you know, the risk capacity, the risk aversion. They can do analysis of spending in retirement or how much are they? Are they saving and how much will their portfolio grow based on various ways to to look at it. Finally, the portfolio analysis tool compares your portfolio to the overall market so you can get a really good understanding of how your invested in term,

your allocation in terms of your concentration, it will spotlight things you might consider in terms of maybe you're you're too illiquid or too overly concentrated in one holding.

It compares your portfolio to the overall. The broad stock market. How. Where are your overweights relative to the market in terms of value growth, small cap valuation. How concentrated are you in in the top five names or the top ten names of your portfolio? What's your portfolio's duration or interest rate sensitivity relative to the bond market? How credit sensitive is it and what are things you should consider, at least compared to our views, as outlined in the strategy report? What we've been recommending individuals consider as they invest.

The Executive Right Hand

Now, I mentioned I built this over a month and I used AI to do that, but I just didn't turn it over to AI. And this is really important when we think about a a general purpose technology like AI. A general purpose technology is something that can be used in many different ways. Electricity is a general purpose technology and the internet. You think of all the different ways to use the internet. That is a general purpose technology, and that's what AI is.

And as we have seen AI develop over the last four years, it. Sometimes we it gets overhyped. But the key is, is how do we use these general purpose technologies to become more productive, to do better work? The best work we've ever done. There was a recent piece by Walter Isaacson in the New York Times, and he quoted Ada Lovelace and J.C.R. Licklider and Lovelace wrote this back in 1843.

She worked with Charles Babbage on his analytics machine, and she talked about, as she saw these inventions, inventions that humans could work with machines, and Licklider put it as. They could cooperate in making decisions. In other words, how. Instead of turning everything over to AI or to the internet, how can it enhance our creativity? How can we work to. To magnify our impact and to do the best work we've ever done? And the way you do that is you don't just turn it over to AI and say, write this blog post for me.

You use it to do the background research. You use it to to code like I've been doing. But then we have to go back and forth all the time and say, well, that's not really what I was after. That's not what that really wasn't what we're trying to convey. And this is what's what's different is we have these experiences we've had over time. I've been investing for 30 years as an institutional asset manager. I've been teaching individuals.

And so I have a point of view that I can work with AI to convey in terms of what we built with these portfolio tools, we leverage all the work we did on Asset Camp. And in my approach to investing is very different to, to someone else's. And so the tools we built are based on, you know, it's not focused on stock picking, it's focused on asset allocation. It's based on expected returns for the stock market using our building blocks approach. And so it's unique to us, but we leverage AI to do it.

And I think of all the other ways that I've been leveraging AI in terms of putting this podcast together, in terms of just researching what's going on with with asset classes, the history, because we built Asset Camp, we have 50 years of stock and bond data from MSCI and Bloomberg that we can leverage to

really understand the fundamentals of, of markets. And so that's kind of how we're using AI and leveraging it based on my personal experience. And so you need to think about what path have you taken and how can you leverage AI and leverage other general purpose technologies to, to enhance your work, to focus on you, not to focus on, on AI.

Fading Into the Background

And that's when it comes to new technologies. One of the things that we do is we tend to, to put them on a pedestal like this is just so amazing. And we bow down to it rather than letting it fade into the background as we use it more. So here's some examples. So back when electricity came out, it was it was an amazing invention and the terms used were electric light. And the term electric light, at least based on on writings peaked in 1895. Now no one says electric light.

We don't emphasize well, that runs by electricity. It just happens. Same for the internet. When the World Wide Web came out, the terms information superhighway that peaked in 1997. We don't use that term anymore. Now we just say online and to differentiate from being in person and it's the internet has faded into the background. We use it, but we don't put it on a pedestal. Same for websites. When technology first comes out, we tend to capitalize it.

So website initially was two words and it was capitalized. Internet was capitalized with a capital I. We don't do that anymore. It's just it's a lowercase, just a general purpose technology. The cell phones the same way when it came out, it was a cellular telephone. And then for a while it was a smartphone. But now it's a phone. And maybe we differentiate between cell phone, but it fades into the background. That's what AI needs to do in our lives.

When when I think about these these portfolio tools, they were built with the help of AI, but they're not run on AI. They're run on deterministic formulas based in the browser. The only time AI is used is if it if a particular investment isn't in our database. And then AI in the background will search for and categorize it. That's it. This is not an AI first tool. And it fades into the background. And that's how we put ourselves in front our work. What makes us unique? We use the general purpose technologies to enhance our humanity. And that's what we need to do with all these general purpose technologies, including AI.

My AI Week, in Tokens

One of our ongoing themes in the podcast and in our strategy report is trying to figure out, well, is there overcapacity in the AI build out and will this AI bubble burst impacting our investment in terms of a falling stock market or or other areas we're investing? And one way I did that is like, okay, I'm a heavy AI user. How many tokens am I using per week? So I have the Claude Max 5x Max plan. I think it's $100 a month. I use about 40% of my capacity. So that's 640 million tokens per week.

And a token is just sort of the base unit of, of inference that's used for, for AI. And so when we think about it, I'm paying $100 a month, but if we actually priced out these tokens using Claude's API, it'd be about 4 to $500 per week. So I'm, I'm using upwards of $2,000 of AI inference as I do research, as we develop new tools, as I research and do anything I can to allow myself more time for deep work.

And so I have, I have Claude can take over my computer and do manual tasks such as organizing these slides for this video recording or formatting a page on our website. And so not giving away our humanity, but we where's the drudgery and have AI do that. So again, we're focusing on doing better, deeper work that features our humanity.

$100 Buys $2,000 of Compute

Now Anthropic is going to do an IPO. And so we have actually got insight into their business. And when you think about it, I'm paying $100 a month for access to AI. Anthropic is losing money on me. So it probably costs 250 to $450. For what, in terms of the number of tokens I'm using yet at the API price, if I ran it all through the back end, it would be about $2,200 a month. And so Anthropic is making a lot of money when you're running AI through the API, which is why we don't want to use too much AI in terms of our tools.

We want to use it only where it's necessary because it's expensive, at least using some of their models. Now, other models are coming along, but the point is, and I'm sure OpenAI is the same thing, if you for $100, you can get massive computing capacity to build anything you want. What today feels like is right after I left FEG and I announced I was leaving, and I remember saying, I can I can do anything I want. That's what it feels like today. We can build anything we want.

We're programmers now. I read a recent article by Pragmatic Engineer, and they were talking about how programming is different now because you just you tell AI to do something and then you check the work and you just iterate. But AI will take you step by step. And so if there's something you want to build, you can build it with AI.

How Many People Like Me?

Now, SpaceX recently announced that they wanted to build a new data center, the largest data center ever, six gigawatts. It's in Cochise County. It's just southeast of Tucson. Huge. I mean, six gigawatts is three times the amount of electricity capacity used in all of Cochise County. And so when we think about AI and just people like me, so I'm using 100 to 400W of AI capacity per week. And if we think about, you know, 48 million developers worldwide And one of the questions right now is, is there how much supply is coming online?

How much demand is there? And so if we look at right now in terms of the supply demand, balance is pretty close, and yet there's a lot more demand coming if more people act more like me. So there's about 33GW of AI capacity today. In 2027, it's estimated to be about 65GW of capacity. And then by 2028, 102GW of capacity. Now about two thirds is inference. So the model actually doing like working with individuals or companies versus another third is training.

Chat Won't Fill It. Agents Might.

So when we think about is there overcapacity? If I recently had a call with my sisters, we and my stepfather, we do a Zoom call once a month and we got to talking about AI, and my oldest sister was thrilled because she used it for the first time. And she created a some pumpkin muffin tags, just an image in AI, and she made tags out of it and she was absolutely thrilled. My other sister and her husband used it to build apps. So they're very involved in AI.

And other sisters has used it a little bit in their construction business. And so it varies in terms of individual use. More and more are discovering it all the time. But there were a billion users just kind of chatting or occasionally just casual. That's not enough to fill the capacity. That would only be 1 to 4GW of use, where right now there's 20 to 25GW of AI capacity, now 48 million developers, if they're developing sort of the same level I am, you know that again, there's enough capacity today if we get 100 million heavy users.

So more people developing, just making things, using AI coding because coding is the heaviest use of AI. It really, really is. And so you need agents doing something. And when we look at this, this AI capacity, it is agents. It's it's giving a task and having it do it and work on it and iterating. And if that's the case, that would create that would they would need 40 to 160GW of capacity, double what's forecast for 2028.

But it, it demands heavy use by a lot of people. And we don't know if that's going to work. And it matters because it impacts it's going to impact the return to the stock market. It it really is. But now you can use AI to build anything you want. And it's super cheap because of these all in plans. So use it to learn better your career, better your skills, and figure out what it is that you want to make?

Record Growth Expectations

Now, when we think of the investment implications of this, I just spent a week writing a strategy report that we release monthly to our Plus members explaining what happened. Where are we now? Where are we heading in terms of financial markets? What are the risks and the biggest risk right now? Here's a chart. The bottom up company by company analyst that follow individual companies are forecasting that earnings per share growth over the next three, 3 to 5 years for the global stock market will be 21.6%.

That's four standard deviations higher than the long term average, the average over 3 to 5 years. Now this is expectations. This isn't actually that happened. The actual earnings per share growth is lower than the forecast. But the average forecast going back to 1995 was was 12.4%. We're almost double that. And that is a risk to the portfolio.

Fast Earnings Growth Fades

When you look at this chart, when we've seen super high earnings per share growth like we've seen, so earnings per share over the past ten years for U.S. market's been 12.5%. Global stock market's been over 10%. And so when we've been at these levels, the earnings per share growth over the next ten years has been just over 3%. These are these are nominal returns. And this was this was a study I did with AI based on MSCI data. And we went back and we broke out a bunch of different markets, broke it into fifths.

This is a kind of a study that would have taken me hours to do previously. An AI can do it very quickly. And then I just double check the work. But when earnings per share growth has been this fast in the past, about 70% of the time, over the next decade, the earnings per share growth has been less than 5%. Now why does that matter? It matters because the long term returns of stocks are driven by the dividends, the earnings per share growth and what investors are paying for that earnings per share growth as represented by the price to earnings ratio.

And so if earnings are only going to come in at less than 5%, then the price to earnings ratio of stocks is going to fall and the returns for the stock market are going to be much less than they've been in the past decade. And it's all kind of linked to AI. How much will people use it not only to, to, to use the capacity that's being built, but actually to increase the productivity and come up with new and better ideas that people are willing to pay for because the forces that led and we talked about this in the strategy report that led to this big earnings per share growth.

A lot of those are reversing. Interest rates are higher than they were. The earnings per share growth jumped because corporate income tax fell. And now there's pressure to increase it, especially when we think about the Social Security Trust fund running out of money in the U.S., when we look at profit margins for companies are at their highest since 1966. And labor share of of output is the lowest it's ever been. That could also reverse.

And so the reality is we need greater productivity from AI in order to offset the secular forces that could put downward pressure on earnings per share growth. That's going to impact the stock market. Now that's a little aside from what we're talking about today. But when we think about how can I be more productive? How can I leverage what I already have? And let me give you another example.

AI Adds, It Doesn't Replace

First, let me share. We just did a listener survey from our Money for the Rest of Us listeners, and we'll look at how they're using AI. 77% use AI for investing in more than half. They use it on a monthly basis. About 34% are using it to research funds and stocks. 86% check. You know, they check what it tells them. But interestingly, 71% say AI hasn't really changed how they've learned which, which I find fascinating because it's definitely changed how I've learned because I can just synthesize much more data than I ever have to come to conclusion, my own conclusions, using it to leverage what I've done.

Ask the Archive

Now, this trust issue is really important because what do we trust? What AI says? And recently, in the last well, this year we started getting emails from companies wanting to buy our archives to train AI. So they wanted all of our transcripts. They wanted anything we could produce, and they were going to pay upwards of $100,000 for this. And I realize those transcripts and those archives, all the Plus episodes, are premium podcast episodes that have never been made public.

All the strategy reports that we've written, all the trades I've made in my portfolio, our model portfolio, and the changes, every thing I've said in our Money for the Rest of Us Plus forum. That's incredibly valuable. How can we leverage that to help more people? And again, here's a tool I developed in a couple hours. We indexed our entire archive of Money for the Rest of Us content. And now as Plus members and we'll roll this out. We're rolling this out this week.

You can ask it anything. And it's just like a chat bot, but it's linked to things that I have said in the past. And so what was the last trade I made in my portfolio and why? And if you ask it that, it'll say I made. I reduced my small cap value exposure and it. Footnotes everything I've said and you can ask it anything. And it pulls from the archives and it answers in English. In fact, one of our members that was testing it said that the answer Ask the Archive gave was better than the original forum post that was pulled from.

Sources You Trust

And this issue of trust is key. My daughter's a ceramicist and she is a very, very niche area, and if she just asked AI, she's not confident the answer is correct. What she would love is she has the ceramics magazines where that she trusts. If they would put that into make the archive available so she could query ceramics questions, knowing the source is trusted. And that's what we've done with this tool. You can ask investment related questions and it pulls from the archive. And again, that's available to Plus members this week.

Do Your Best Work

So that's what we've been building. And I, I put it out there as really encouragement, start using the general purpose technology that's out there and figure out how you can use it to, to better your life to, to better your career, become more productive and just do your best work because the tools are there and let the tool fade into the background. Don't aggrandize AI, just use it in a way that helps you be a better person, a smarter person, more productive, more creative, and do your best work ever.

This is episode 568. Thanks for listening. Everything I've shared with you in this episode has been for general education. I'm not providing investment advice. This is simply general education on money, investing, and the economy. Have a great week.