EconoFact Chat: Should you Care about the Stock Market?

John Y. Campbell, Harvard University

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Michael Klein:

I'm Michael Klein, Executive Editor of Econofact, a non-partisan, web-based publication of the Fletcher School at Tufts University. At Econofact, we bring key facts and incisive analysis to the national debate on economic and social policies, publishing work from leading economists across the country. You can learn more about us and see our work at www.econofact.org.

Michael Klein:

News about the stock market is ubiquitous. In a way, this makes sense, and not just because news organizations are pandering to the wealthy. Many people have some part of their retirement nest eggs invested in the stock market. But if you're years away from retirement, does it make sense to follow every up and down of the market? Or is that only a practice that will cause useless anxiety? What determines stock prices anyway? How does this inform how to, or even whether to invest? And do people know what they don't know about managing their own finances?

Michael Klein:

To address these questions, I'm very pleased to be speaking today with Professor John Campbell of Harvard University. John is widely recognized as one of the foremost academic experts on financial markets. His newest book, Financial Decisions in Markets, draws on his decades of teaching graduate level finance. And he puts into practice what he teaches. John is a founding partner of Arrow Street Capital. It has over $134 billion under management for institutional investors. John, welcome to Econofact Chats.

John Campbell:

Thank you, Michael. It's nice to be with you.

Michael Klein:

Well it's great to have you on. John if you were to explain in the simplest way possible, what a company stock price reflects, how would you do so?

John Campbell:

Well, I think I'd start by saying that the stock price looks forward into the future. It reflects the value today of all the expected dividends that the company will pay in the future. Now, dividends are just the part of profits that are paid to shareholders after the company reinvests in its business. So stock prices reflect what investors expect about future company profits. And this future orientation helps to explain why the stock market did so well in the middle of 2020, even while the COVID-19 pandemic was raging. Stock market investors were looking at the progress, in fact, seeing development and thinking about the future.

John Campbell:

Now, an important point is that the value of expected dividends in the future, is not the same as the value of actual dividends today. Investors apply what we call a discount rate. They knock something off the value of company stock to reflect both the delay of dividend payments and the uncertainty about what those payments will actually turn out to be.

John Campbell:

So when interest rates go down, as they've done in recent years, the discount for delay also goes down, so stock prices go up. And that also helps to explain why the market did so well in 2020 as the federal reserve lowered interest rates. Then finally you have to think about the discount for uncertainty and that moves around a lot. It tends to be high in recession, when investors feel scared, they feel cautious. And it seems to have been particularly high in March 2020, when COVID first locked down the US economy. Well, since then, investors have recovered that confidence and stock prices have risen as a result.

Michael Klein:

So John, when investors are trying to predict stock prices, they're actually making their own guesses about the future of the company, but they're also making guesses about other people's guesses. In his general theory, John Maynard Keynes, the great economist of the first half of the 20th century, compares this to the beauty contest that British papers used to have in the 1920s.

John Campbell:

That's right. It's sometimes referred to as cascading expectations. So Keynes compared stock prices to a beauty contest, where people voted on who was the most attractive out of a lineup. But the way you won the contest was to pick the person that most other people thought was attractive. So in that contest, you shouldn't vote for your own beliefs, but you should try to guess what other people think and find out who's the average choice of all the players of the game. And that's a little bit like the stock market, people guessing about other people's guesses about the fortunes of various companies.

Michael Klein:

So does that explain the high stock market valuation of companies like Tesla or Google, that had high valuations even before they were profitable?

John Campbell:

Yes. Tesla, that's a great example of a company that has a small chance of extreme success, which for Tesla would be taking over the entire automotive sector, or maybe even the entire transportation sector. And in that situation, the stock is a little bit like a lottery ticket that may win big. Investors are trying to figure out the chance of winning the lottery, and also what other people think that chance is. So this has a couple of consequences. One is, price of a stock like that is going to be very volatile, its movements will be very hard to predict. Because those movements are driven by new information that comes in about the prospects of the firm, but also by changes in people's guesses about other people's beliefs.

John Campbell:

Secondly, with a stock like Tesla, if investors disagree about the chance of winning the lottery, you can get a situation where the most extreme optimists are the ones who hold the stock. There may be many other people who are pessimists, but what do they do? They sell a stock, but once they've sold what they owned, the only way they can express their negative view would be to sell a stock short. That's a strategy of borrowing stock that you don't own in order to sell it. And that can be very expensive and indeed risky. So short sellers have discovered both with Tesla and with some of the other very fashionable stocks like

GameStop, that short selling is risky. So with stocks like this, pessimists may be forced to the sidelines and their views are not expressed, and in this situation, you can get a very extreme overvaluation.

Michael Klein:

So the optimist, as you call them, are willing to pay a lot, and then they bid up the price and they're the ones who are willing to buy at that price. Does that sound at all like today after the big dip in March, as the COVID-19 pandemic took hold and it's economics effects were first being realized later. Well, now the market's back to record highs. Are these warranted? Sometimes people point to the price to earnings ratio. Is that a good indicator of whether or not stocks are overvalued? What do these indicators say now about the possible overvaluation of the stock market?

John Campbell:

The price to earnings ratio, which you mentioned, that is a good overall measure of valuation for the stock market. So long as you use an average of earnings over a number of years. In order to smooth out temporary variation in earnings that can occur in particular years caused by the business cycle and other temporary factors, like the pandemic. Earnings in 2020, don't tell you very much about the long run prospects of a company because 2020 was a unique year.

John Campbell:

So the well-known Yale economist, Robert Shiller, and I, have popularized a ratio, which is sometimes known by an acronym CAPE, C-A-P-E, which divides prices by a 10 year average of earnings. So you take earnings over the last decade and you average them. And so C-A-P-E stands for cyclically adjusted price earnings ratio, because you're not looking at any one year's earnings, you're smoothing them out. Now this CAPE ratio today, is very high by historical standards. It's almost 35, that's around the same level as it was in 1929 at the end of the roaring twenties, and just before the great depression. And it's also around the same level it was in the mid 1960s, at the height of the swinging sixties in the stock market. Although it's not as high as it was in the year 2000, at the turn of the millennium.

Michael Klein:

So John, this CAPE ratio that you and Robert Shiller developed at 35, that means if you buy a stock for $100, 100 divided by 35 is about $3. You'd only expect $3 in dividend per year, so that doesn't seem like that great a return.

John Campbell:

Yes, you're quite right. In fact, you'd only expect about $3 in earnings, but not all of those earnings get paid out to you as dividends. You are only going to get in dividends about $2. So it's going to take you many, many years of dividends to unpack the money you paid in. Now, a CAPE ratio that high, suggests that stock returns will be low. And I think that's right, actually, the return you should expect to get on the stock market investing today is somewhat low. However, an important point to keep in mind is that all the alternative investments are also offering very low returns. So interest rates on bonds, which are the obvious, safer alternative to stocks, are extraordinarily low. Plausibly, bond investors will earn negative returns after inflation, over the next 10 to 20 years. So put another way, stocks may be expensive, but bonds are super expensive. And hence, I think there is still a good case for investing in stocks, even at today's prices.

Michael Klein:

Okay, so I'm not going to call my broker right after this interview and tell him to sell all my stocks and buy bonds. John, you're obviously one of the most sophisticated investors around, and I'm sure that people ask you all the time, whether they should buy or sell stocks, but I'm not going to do that. What I would like to ask you is what do you see as some simple, straightforward ideas about personal and household finance, that do you think many people don't know about? I was struck by the statistics that you presented in an Econofact memo you wrote a few years ago, about how people are overconfident in their understanding of financial issues. Although I admit to being much less struck by the fact that it tended to be men rather than women, that showed unwarranted confidence in their own knowledge of financial issues.

John Campbell:

I think there are indeed some very simple things that can make a huge difference to people's financial lives. I'll mention three or four of them. Let me start with one that applies to everybody. I think everybody should build and maintain an emergency fund. The COVID crisis has taught all of us, I think, how deeply unpredictable the world is. Now when a crisis like COVID hits everyone at once, the government often steps in, but as we saw last year, that can happen slowly. And if a crisis hits you personally, perhaps a serious health problem or job transition, well, you're more likely to be on your own to handle it, in any case. And having three to six months of income in a safe liquid form, like a bank account can be invaluable in that situation.

Michael Klein:

Yeah. We know that people, in fact don't have that kind of savings. There's another memo by your colleague, Karen Dynan, and she talks about that. And I guess people at the lower end of the income scale, they just don't have the disposable income to sock away that kind of money. But people who can, that's clearly a very important thing. What's another good idea for personal finance, John?

John Campbell:

Well, let me throw out one that I think applies to younger people in particular, and that is, think carefully about student loans. So in general, higher education is a very good investment and student debt is a good way to finance it. However, you need to be reasonably confident that you can graduate on time with a degree that will lead you to a career that you aspire to. And you should be very cautious if you think there is any risk that you will fail to graduate, or need extra time to do so. And the reason I emphasize this is that student debt cannot be escaped through bankruptcy and it can haunt you for the rest of your life, if your college degree doesn't give you the earning power you need to handle it.

Michael Klein:

So we have another memo by Sandy Black, who shows that in fact, borrowing for education is a good idea, but your warnings are really well taken as well. You had a few more as well, John, other advice for people?

John Campbell:

So let me throw out one that relates to the later part of people's lives, and that is, you need to think about retirement, well in advance. You need to start saving for retirement early and you can't do it by keeping your money under the mattress. So particularly in today's world where we all live longer and longer, and interest rates are extraordinarily low, as we just discussed, it's almost impossible to support a reasonable standard of living in retirement without long-term investing in stocks and other risky assets. So I would recommend for many people using target date mutual funds, which are set up for retirement saving, and

you need to pick one with low fees, but with that caveat, I think target date funds are a very suitable strategy.

Michael Klein:

Yeah, I got one of those some time ago where the target retirement date was 2025. When I first got it, it seemed impossibly long in the future, but it's approaching more and more quickly. Any other advice, John?

John Campbell:

Well, one last one and this is less often mentioned, but I think it's pretty important actually, which is how should you think about insurance? So there are many types of insurance that you're offered. If you go and you buy a washing machine, they'll offer you an extended warranty, that's a form of insurance. Your employer may also offer you the opportunity to get disability insurance, or some choices about your health insurance. So the principle is, you should insure the larger risks and don't worry so much about the small ones. Many people spend too much money on expensive, extended warranties for cars and washing machines, those are better handled with the emergency fund that I mentioned earlier. But at the same time, people spend too little on health and disability insurance. Small risks, handle that with an emergency fund and focus on insurance to cover the occasional catastrophes that can occur.

Michael Klein:

I'd like to turn now from the personal to broader issues, the broader implications of financial markets. There's a famous mantra that economists tell people to repeat, "The stock market is not the economy. The stock market is not the economy." There's also the well-known quip from the great economist, Paul Samuelson, that the stock market predicted nine of the last five recessions. But we saw in 2008, how financial market distress can create a doom loop for the broader economy, and last year we saw the federal reserve, take some extraordinary steps to keep financial markets from tanking in order to avoid an even worse downturn, than the one we experienced. Your colleague, Jeremy Stein and I, talked about that in a previous podcast. John, what do you see as the linkages between the financial markets and the broader economy -- between Wall Street and Main street?

John Campbell:

I think the strongest linkages between Wall Street and Main street involve debt. So when companies or individuals take on debt, they are making promises to pay fixed amounts of money in the future. The people who buy the debt, trust those promises and make their plans accordingly. But if the borrowers get in trouble and they are unable to pay, that starts a torturous process of negotiation in which borrowers and lenders argue over what will be paid and to who, and it often brings in the legal system with all the delays and costs that that involves.

John Campbell:

A lot of value can be destroyed in this process, whether that involves a bankrupt business that becomes less viable, its customers may flee, its suppliers may cut it off. Or whether it involves foreclosing on houses and selling them at a loss, as happened in the great recession 10 years ago. In my view, the economy can tolerate stock market downturns of the sort that we saw in 2001-02, and again, briefly last year, so long as debt markets keep functioning. The Great Recession in 2008-09, that was much worse in part because it involved a breakdown of debt markets for mortgages and other types of fixed income securities.

Michael Klein:

This suggests another question, what rules and regulations should the government put in place to help keep financial markets more stable, while not choking them off in a way that they cannot perform their really important functions of raising and allocating capital, things that are really important for the dynamism of the economy. You're part of the Squam Lake Group that included some of the country's top economists who came up with recommendations in the wake of the 2008 financial and economic crisis. What lessons did we learn then?

John Campbell:

I think we learned two main things. The first is that banks need to have enough capital to be able to withstand the losses of the sort we saw in 2008. So by capital, I mean the resources that the bank has that are provided by its shareholders, that enable it to handle losses -- people who borrowed from the bank who can't pay and yet the bank still has the resources it needs to pay its depositors and other creditors. So if banks have enough capital, that will choke off the problem that we saw in 2008, where one bank after another tottered, if you like, and fell short of capital and required various forms of government support. The second thing we need to do is to make sure that essential activities of the financial system don't migrate out of the regulated banking system into less regulated parts of the system, what is sometimes referred to as shadow banking.

Michael Klein:

So you don't want things moving to the shadows. Were any of these lessons implemented? Are financial markets today, less likely to be a source of broader disruption, than was the case in 2008?

John Campbell:

I think in the US, we've made very significant progress on bank capital regulation. There are some still some very real problems elsewhere in the world and particularly in the European banking sector, but we have to remain vigilant with regard to shadow banking, looking carefully at things like money market mutual funds and derivatives clearing arrangements. Much of this is technical stuff, it has to do with the plumbing of the financial system. Plumbing is something that's easy to ignore until the pipes get blocked, at which point, you can have a big problem.

Michael Klein:

Things get really messy, really fast.

John Campbell:

Exactly. Exactly.

Michael Klein:

What about interest rates? We'd have another memo by Ken Kutner at Williams College, and he talks about the problem that interest rates are so low today, partly because inflation is so low, but that leaves very little scope to the Federal Reserve to respond to problems because we can't really have negative interest rates, so they can't go very far into negative territory.

John Campbell:

I share that concern. I think that's a real worry that with these extremely low rates, the central bank will have limited ability to stimulate the economy, if we do enter another recession or financial crisis. For this reason, I'm comfortable with the fiscal stimulus that is embodied in the Biden administrations' COVID

response package. First of all, it's an example of using fiscal policy, which I think is what we're going to have to do in the future if downturns occur. But second of all, even if the current stimulus package turns out to be larger than needed, and if it does kick off some inflation, what will occur then, is the federal reserve will raise interest rates in response, and that will take us back into more normal territory, where standard monetary policy will once again be available in the event of another downturn.

Michael Klein:

Well, John, we've covered a lot of different things today. We covered the stock market, personal finances, the link between the financial markets and the macro-economy and the current state of policy. So thank you very much for taking the time to speak with me and for these really good insights on a wide range of issues.

John Campbell:

It's been a pleasure, thank you for having me.

Michael Klein:

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