Vikram Mansharamani: Post-COVID19 Economic Outlook

June 4th 2020

Erik: Joining me now is Vikram Mansharamani, Harvard University lecturer and author of, first, the book *Boombustology*. But Vikram also has a new book coming out next week called *Think for Yourself*. We'll find out a little bit more about that at the end of the interview.

Vikram, I want to start with what's on everybody's mind. Okay, seems like, at least for the first wave, the worst is behind us in this COVID-19 crisis.

So what does the economic recovery look like? Is it V-shaped, U-shaped, L-shaped, W-shaped, some-other-symbol-shaped? What should we expect in terms of what happens next economically?

Vikram: Well, it's a great question, Erik. And, of course, the alphabet soup of describing economic activity today has become quite the rage. One letter that I've recently heard, which I think is quite fascinating, is a lower-case h – meaning that we went straight down, we're bouncing and sort of rolling over, only to go back down, and no apparent sign of return at that stage.

My sense is that we're probably more towards a W-type trajectory. And the rationale is as follows: We obviously had a big downdraft. And when I start talking to a bunch of people about the fact that consumers are saving money – they haven't had a chance to spend money and the support from the government unemployment, more money in people's pockets without the expenditure rate that they used to have means that they have effectively been saving.

And folks are really chomping at the bit to go out and do something. And so I think that there is some possibility of a bounce.

However, I don't think that it's a sustainable bounce. And the reason I don't think it's sustainable is if you just look at the unemployment numbers. If we look at the unemployment numbers, I think they are massively underestimating true unemployment right now, mainly through this PPP program.

You know, we have basically used the PPP program to funnel unemployment insurance through firms. And therefore the unemployment numbers through the Bureau of Labor statistics would be higher, I think, if we hadn't done it in that way.

Now, some portion of that perhaps might not ultimately lead to unemployment, but some portion of the PPP-funded employees will result in unemployment. So I think there is some upside pressure on unemployment.

That's the quick summary of my thinking.

Erik: Now, just this past weekend we had a major increase in civil unrest all around the United States. Some people are saying, okay, that's because George Floyd was killed by a police officer. It's all a reaction to that event specifically.

Other people are saying wait a minute, it's really more of pent-up anger and frustration over a lot of issues. Some people think it is the fact that people have been cooped up in this lockdown over the crisis that's led to all of this.

How do you interpret the meaning of this increase in civil unrest? What is it telling us? And what signals should investors interpret from it?

Vikram: If you had asked me which of those I was thinking is perhaps the most prevalent cause, I would have said, yes – meaning all of the above are probably true. Yes, there was a catalyst. Yes, people have felt cooped up. Yes, there is an overarching feeling, I believe, among the American population that the system is rigged, that it's not fair, and therefore we need to do something about that.

There are of course very visible signs of systemic racism, which is unacceptable, and all of the above.

I think the way to think this through as an investor or as someone paying more attention to the economic and financial implications of the unrest is this is just another issue that I think will create downside pressure on economic activity.

I think people are getting nervous. I think it will cause perhaps a secular wave of de-urbanization. We've been so excited about living in urban areas. With that comes all sorts of interesting implications, whether it's this mixed-use housing, real estate implications, etc.

Urban living may seem less desirable for some period of time going forward, whether it's the density because of the public health concerns or, now, the urban unrest that's been striking in many cities.

So I think that's one possibly implication to think about.

Another possible implication to think about is we're starting to see companies like Amazon as well as Target say, hey, we're not going to operate in certain jurisdictions while this unrest is rising. So that's also problematic.

But, ultimately, I think it also has an impact on possibly the election cycle. And I haven't thought through enough to be able to comment on where it goes. But I do think this is going to become a more and more prevalent issue on the minds of political candidates at all levels: local, state, and national.

So I think there are some pretty big implications for the unrest. Ultimately, it may even be, to some extent, more than just a public safety and policing concern. I think it has the potential to snowball very dramatically into inequality of all sorts.

And that I think could result in a greater pressure towards socialist-like policies. And what I mean by that is probably more redistribution tendencies on the part of government policies.

A lot there. I'm happy to dive deeper in any of those if you'd like. That's my quick high-level thinking.

Erik: Let's start with the things that might change as a result of this pandemic crisis, the changes that have been forced that might become permanent.

The one I've been thinking about quite a bit is people have been forced, companies have been forced to learn to deal with most workers working at home. And it's going better than expected for a lot of them.

Is this going to lead to a new trend where people just say, hey, wait a minute. This whole business of there having to be the overhead of an office and everybody works in an office and most people are not allowed to work at home needs to change? Or do we go back to the pre-crisis normal?

Vikram: Erik, I think it's a great question. I think absolutely we're going to see more people working remotely. We saw that with Facebook indicating that half – we've seen it with other companies saying that that's true. It's a greater form of efficiency.

I think we will have some office space that companies will retain because having in-person gatherings and the fortuitous interactions that come from social mingling will still be desirable. But you don't need it five days a week for 100% of your staff.

So I think office space probably does see a headwind against it for that reason.

And I do think the technology has improved tremendously for virtual work and virtual collaboration and virtual communication.

And folks are finding that, you know what, I don't really enjoy spending an hour getting into some mass transit system to get downtown into an urban setting to go to an office where I work for a while and then I do the same thing in reverse.

So I do think that's probably a more permanent pressure. And I say "pressure" because it's not binary, obviously. Some percentage will work from home, some percentage will work in the offices. And I think the percentage working from home is going to be rising. And that will be more of a structural tailwind towards remote work.

And that has implications for a lot of things, including education and how people educate and remote education and all of the above. So, yes, I do think that's right, that specific point.

And if we play through that point, Erik, and think about some of the second-order effects of more remote work, you might say, okay, well what does that do for demand for transportation and mass transit in certain urban areas? Well, probably less demand on the margin.

Add on top of that the density of mass transit and you say, okay, well does that mean there is more demand for vehicles if people drive? Well, on the margin, yes, more demand for vehicles because people would prefer a vehicle over mass transit.

But also on the margin less demand for vehicles because fewer people are going to be driving into urban areas. So maybe vehicles are a push.

But probably also less corporate gathers, less flying around the country to get together for a three- or four-hour meeting. And that means there is probably downside pressure on hotels, probably downside pressure on airlines, probably downside pressure on transportation, probably downside pressure on rental cars, etc., and the whole ecosystem that supports this movement of business people around the country.

Erik: Vikram, I know you're good at thinking out of the box, so I want to take this just a little farther. We've talked about work at home and the first- and second-order implications of that.

What if we go much broader to just what else could change? What are the least obvious implications of this crisis? What are we going to look back on five years from now and say nobody saw this change coming?

Vikram: That's an interesting question, Erik. One area I have been spending a lot of time thinking about, mainly because of my role as a faculty member at Harvard, is the future of education and thinking about in-person education versus remote education.

Harvard is the kind of university that I would humbly suggest would never, never have tried a 100% online education experiment. They just wouldn't have done it. The faculty is very proud of their accomplishments and think that their form of teaching is probably among the more effective.

And so this forced experiment resulted in things like classes actually performing as well if not better – I would argue that my class, which is a discussion-oriented class, had some real positive benefits and surprises in being taught remotely.

We were able to have discussion groups that were separate within the class, have segmentation of groups to be able to poll them differently, get honest assessments etc.

Now, of course, the surprise may be that the belief is you can't do that with physical lab-oriented classes. Well, I've had colleagues of mine that have actually prepared kits and sent them home, mailed them to students. And so you could do a physical experiment in front of a Zoom camera with your colleagues and peers all over.

So I think there is a massive shift in higher education that is likely to happen. I think a large number of universities will probably fold. I think the residential education model may be shifting so that – you will have students in person, because there is some educational value for educational interaction outside of the classroom with peers, but there is a tailwind here that the cost of education is going to be tapped down.

And one way to think about it is we're unbundling. We're unbundling the social end, residential experience from the educational experience. And residential liberal arts colleges will tell you those are intermingled and you can't separate them. But I think in some places you probably can.

I think that could actually help address the student loan problem. So that's a big change.

The other thing I think – and we can get into this, this is separate, it's related to the COVID pandemic but it's also part of a much broader trend – I think we are going to see a massive regionalization that accompanies a de-globalization. And that has huge implications for supply chains. And I think that has not been fully thought through.

So those are some quick thoughts. Again, happy to go in whatever direction you think makes sense.

Erik: Well, let's go next to supply chains and what changes in the global economy in the broadest sense. Where are we going in terms of the way we do business changes as a result of this? And how do supply chains fit into that story?

Vikram: The bottom line truth is there has been a massive increase in global economic uncertainty as perceived by corporate boardrooms of the multinational companies of the world. They have said uh-oh, you know what – and, by the way, this is a trend that was started well in advance of COVID-19 and will be accelerated because of COVID-19 and be accelerated because of other dynamics.

So what do I mean by that?

What I mean is we had this trade war start, really 2016-2017 into 2018. And that changed the dynamics of corporate boardrooms by saying, hey, you know what. This one part that was critical for my manufacturing used to cost $7 and now it's $48 because of tariffs and other things. That doesn't make me feel good. Now my profits are at risk. I'm not sure how this is going to work.

Okay, we cannot think about the supply chain shift so I don't have this geo-economic pressure of a trade war that throws my profit projections and stability out the window. I've got to change that. So supply chain started tiptoeing in a different direction.

COVID-19 comes around and, because of the lockdowns, now companies are saying, wait, hold on a second – I think it was Fiat Chrysler in one of their plants in Europe that couldn't get a part, that was essential for production, out of China. And they said, wait, hold on. It's not even now about price. Now it's about security of supply, the availability of it. Wait, we've got to really think about our supply chain shifting.

Throw on top of that some geopolitics and the US-China trade war as being a lot more than a trade war. Think of it as a great power rivalry that comes with military escalation and all of the above.

And now you start saying, you know what. Now there is a reason I just need to get my supply chains out of Asia because I'm a little bit worried. Maybe it's Chinese military modernization that leads to, effectively, a threat to US interests in Asia. And my supply chains run there. Uh-oh, now I really need to move it back.

Add on top of that a couple of other dynamics. One is with technology. Because of automation and automated manufacturing, what we've seen is the labor component of manufactured goods has been plunging. And as it plunges, the labor arbitrage value of producing your goods in a country that has cheap labor has fallen.

And so why should I bother putting my factory where there is lots of cheap labor if labor is not a big component of what I'm doing? So the labor arbitrage value disappeared.

Throw on top of that the rising ESG concerns and you think then that the longer the supply chain the greater the carbon footprint. And so now there is an ESG pressure to make supply chains shorten.

And, lastly, there used to be a tax arbitrage where I added the value that would be taxed there. It turns out now, with the US corporate tax rates a little more competitive on a global basis, the tax arbitrage value disappeared. And so things like freight actually become more important.

And what you find is that these supply chains are going to shorten. As they shorten, you're going to have manufacturing come closer to the end consumer.

And when that happens, I think it creates a lot of pressure towards the emergence of two global ecosystems: a Chinese-led ecosystem and then a US- or Western-led ecosystem. And that has massive implications for corporate boardrooms as well as companies and countries all over the world.

I think that's a real big-picture answer to your question of how I see some of these pressures unfolding. And I think COVID-10 was an accelerant of some of these trends and made it a little more obvious that these other things mattered as well.

Erik: I want to come back to US-China geopolitical relations, because I think that's a very important topic.

But, first, just because you touched on it, I think there is a complacency in the United States. We have an attitude of, look, we took China from being this rinky-dink third-world country to the second biggest economy in the world by outsourcing our manufacturing to them. We got them under our thumb. They need our money in order to grow their economy. They can't exist without us. Therefore we can call all of the shots.

I worry that that attitude of a lot of Americans embodies a lot of complacency and that maybe there is a risk in coming years that China is working very intentionally to get to the point where they can say, you know what, we don't need you guys any more. We've gotten to the point where we can both develop our own internal economy and sell our stuff to other people in the world, and we're ready to part ways.

Sort of the way the Cold War between the US and the Soviet Union led to no trade between Eastern Bloc and Western Bloc countries.

I think that we could be headed toward a China that doesn't want our business as opposed to one that is desperate for our business. And I'm convinced that's what they want. I just don't know how far away it is from being reality.

Are we anywhere close to that? And is it realistic to think that's coming some day?

Vikram: Oh, I think it is coming. I totally agree with your assessment. And I think the fact that I see a world emerging with two economic ecosystems, that the trade between those ecosystems I think is going to plunge. And that's exactly in line with your thesis and what you suggested.

Now, how far along are we on that process? That's a tougher question to answer. And it's a tougher question to answer because of goods moving in intermediate steps etc. So we don't really have, I think, a great understanding of China's ultimate dependency upon US demand.

There is still some dependency, for sure.

But the fact that the Chinese Communist Party took away their GDP projections this year, the fact that they've been emphasizing the Belt and Road to build future markets for their goods and services and they are turning themselves West rather than East, towards us, the fact that they are building out this Asian infrastructure investment banking and co-opting a whole bunch of countries that are not the US, indicates to me that that's absolutely part of their strategic game plan.

And that's the progress that they've been making is in that direction.

Add on top of that, Erik, I think that they had a credit-fueled investment bubble that burst. They overbuilt. But in the process of that overhang, some of us are missing the fact that under the surface of this investment-led slowdown and export-led slowdown is a consumer-led growth.

Now, the COVID dynamics obviously disrupted that. But the Chinese economy was in fact transitioning towards more of a consumer-led society, in which case they needed exports less, they needed investment less, etc.

So they were going in this direction. And I think you are very astute to suggest that that is their game plan.

Erik: Vikram, let's go ahead and get into US-China geopolitical relations. It kind of feels to me like the calm before the storm, like maybe the attitude, at least in the beginning of the US administration was, okay, we've got to have a talk with China. But let's get through this crisis first.

And it seems like that's even changing to, no, we're not going to wait until the crisis is over. We're going to mix it up with China right now.

Where is this all headed? What do you think is coming next for US-China relations? And particularly we negotiated this big trade deal. Is that all forgotten now? Are we going to abide by that? What do you think comes next?

Vikram: Yes, this is a gigantic question. I would argue this is probably the single most important issue facing the global macroeconomic and geopolitical environment for the next (call it) 10 years or so.

This is a gigantic issue.

And this is not just a trade war. This is not just a spat. This is great power rivalry. This is a trade war, this is a currency war, this is an economic war, this is a space race, this is an arms race, this is a geopolitical influence race. This is ultimately a competition of values.

And that suggests to me that we are on the path towards whether it's a cold or cool or warm war, however you want to define it. One hopes it stays peaceful. But it seems destined for issues and conflict in this rivalry.

And, again, one hopes it is not a military or physical war. But that's a risk.

So I would think a couple of things are critical here.

Number one. Hong Kong. Hong Kong's situation is a tinderbox. And, because of the fact that the government of China did agree to treat it differently and are now saying they won't treat it differently, I think that risks generating a geopolitical alliance – led perhaps by the British – to say hold on a second, we had some deal here with Hong Kong and you're not upholding your end of it. And that could create pressure on China.

Secondly, and a huge issue I think, one that's being severely underestimated as a major issue by the world, is Taiwan.

I believe the Chinese are done with this idea of foreign influence on their soil. They view it as part of that century of humiliation, the fact that the foreigners carved us up and Taiwan is this glaring sore thumb that's out there that they feel the need to address.

How and when, I can't comment.

But I do know they want to have Taiwan back in. And they are very upset about the fact that the US sells military equipment to their wayward province. They are highly aware of the fact that the United States signed agreements that said there is one China based in Beijing, etc.

So I think that's another flash point that could emerge to be a potential problem.

And then, ultimately, there is this war of values. Globalization, good or bad. I remember in 2017 listening to Xi Jinping in Davos, and his talk was about globalization, free trade, and how the world can all prosper and we're one big community. And we're going to move forward together.

While the US line at that point was we're going to make America great and focus on ourselves first and protectionism, etc.

So I think there are a whole bunch of different crosscurrents here. And that will be played out and affect almost everything.

The big geopolitical implication, I think, of this rivalry – and it goes back to my comments earlier about the supply chain – is that countries around the world are going to have to choose. It's going to be very difficult to be a country and be effectively (quote unquote) friends with both China and the US.

And I think one country that's going to feel really torn is a country like Australia. Politically, definitely in the US camp. Militarily, definitely in the US camp. Economically, uh-oh, now we've got some tensions. The growth of China has supported the growth of Australia. And that creates some real internal tensions in a country like Australia.

So I do think the pressures of the geopolitical rivalry are going to be felt far and wide across many different countries and across many different sectors, obviously. But definitely economically and politically.

Erik: Vikram, let's tie that perspective on foreign relations back into the economic situation and the risks that exist both to China's economy and to the US economy.

Now, something I never knew until this COVID-19 crisis is that the US is completely dependent on China for prescription drugs. Almost all of the antibiotics are made either in China or they are made in India using raw materials sourced from China.

So China has the ability to literally cut us off from prescription drugs, which, if they were to do it in a sudden – and using that as a military tool, if you would – they could literally cut off all of the aging and pharmaceutically dependent American population from the drugs they need to stay alive.

And we don't have a backup plan and we apparently never thought this through.

What else is at risk? And what are the risks to China's as well, if the US-China relations go south, as you and I both seem to think they will?

Vikram: The pharmaceutical ingredients actually is yet another component of the supply chain pressure. And you are 100% right to talk about it.

I mean, some stats I remember – I recently gave a talk on this – but 95% of even non-prescription things like Ibuprofen come from Chinese sources. 90% of vitamin C comes from Chinese sources. And I think it's 91% of hydrocortisones, 70% of acetaminophen. And you're right, I think it's 97% is the stat I remember of antibiotics come from Chinese sources.

So, yes, they have a major stranglehold on a key ingredient for which we are dependent upon them right now. I think that will change over time. Hopefully quicker to remove that vulnerability.

But,, obviously another area and sector that people talk about are things like rare earth materials and rare earth metals. And these are needed for magnets. They have some national security implications. They have some alternative implications, etc.

You know, that's a choke point right now. The benefit is rare earths are not actually that rare. They are actually spread all over the world. But they haven't been developed elsewhere.

There's a couple of projects I'm aware of in North America that are trying to restore rare earth capacity here, given its strategic role in national security as well as alternative energy, etc.

And there’s a lot of other vulnerabilities, some with less significance. I mean, look, I think some large double-digit percentage of footwear comes out of China. Okay, I’m pretty sure we can find other sources for footwear and we can deal with that. But it’s more the strategic ones that I worry about.

The flip side is I think the Chinese are actually dependent on finding sources of food and agricultural inputs. And the US has historically supplied some of those. Obviously, Australia can supply some and Brazil is another meaningful source. But it’s a vulnerability that they think about, I think a little bit.

So I think those are some of the big inter-related supply chain vulnerabilities that one should at least worry about and pay attention to.

But your larger question about the economics, the domestic economic situations, I think China has a lot of internal issues. Their economy has suffered tremendously because of the COVID crisis. They had a credit-fueled bubble – as I talked about earlier – that burst because they overbuilt.

They are seeing an explosion in bad debt, internal to their country, mainly because of that astronomical amount of debt that was issued to fund the build-out. And that also is a toxic combination that could create unrest domestically.

So I worry that the Chinese Communist Party might wag the dog – for anyone that’s seen that movie – but use some sort of distracting event outside the country to stir up nationalism and get people to be a little more oriented towards saying, hey, we’re in this together. It was their fault. It was we need to suffer a little bit but it’s okay because we’re on this long march towards greatness.

And so I think there’s some vulnerabilities domestically in China that are meaningful. And the thing I watch there is bad debt levels.

Now, obviously, the US economy I think has a whole bunch of issues as well – 70% dependent on the consumer, of which 70% are services. Some of those services I don’t think are going to have the pent-up demand that people hope for.

And, talking about a V-shaped recovery, Erik, if I go out to dinner with my family once a week, my wife and I take our kids and we go to a nice restaurant, we sit down and we have a nice meal, well we’ve missed the last 10 of those. Or 15 of those. When are we going to feel comfortable going? I don’t know. Maybe it’s another five, 10 weeks?

When we do, are we going to really go out 25 times in the first month or two? No. That pent-up demand doesn’t exist.

So in some of these services, you have to see a headwind to the US economy, and consumer services being almost 50% of the economy. Throw on top of it bad debt. Throw on top of it unemployment.

And then a major issue, which I'm sure we'll talk about, is the faith in the US dollar, which I think at some point could result in a newfound vulnerability for the US economy. I mean, right now, it's the global reserve currency. We are able to print. We are able to have a budget deficit that's – I can't even guestimate what it's going to be – 27% of GDP in the United States.

As a student of emerging markets and as someone who has paid attention to financial booms and busts and bubbles bursting, when I hear of a budget deficit-to-GDP in double digits, I get concerned. When we're at 20-something percent, oh my god, I am really concerned.

And the US gets away with it because we have the global reserve currency.

Now, if that were called into question, then I think we've got much deeper issues at work that the US economy will have to grapple with.

Erik: Let's talk then about what some of the things are that would bring that into question. Because, as you say, ever since 1944 the US dollar has enjoyed this role of being the world's global reserve currency.

One of the things that I question is whether we need to have just one specific – in the old days you had to choose one so that people didn't have to hold lots of different currencies.

In an environment where you can just do a Forex transaction at the click of a mouse, you don't need to have a single currency for global trade the way you used to. But you still have the question of the network effect of central bank reserve assets.

So what are the factors – obviously there's a lot of frustration around the world – Russia and China have been very outspoken in saying they don't like the fact that the US dollar is the global reserve currency. But there doesn't seem to be a viable alternative either.

So what would happen or what could happen to create that viable alternative that would cause the dollar to lose its hegemony over the global economy?

Vikram: I think you're hitting the nail on the head here, Erik, by saying that it's really the lack of an alternative. It's sort of a TINA logic, if you will? There is no alternative to the dollar, so therefore the dollar will reign supreme.

I think there are a couple of different options that could emerge.

Number one. I do think, as you've highlighted, the Chinese and Russians are very upset about this US dollar reserve status and would love to change it. Now, could you imagine a world where, over time, certain commodities are priced not in dollar terms. Perhaps the reference price for oil moves to being in yuan or the reference price for gold or other commodities moves to being in another currency. So that might be a start and then you might see some dynamics around that.

But, ultimately, I don't think the global community of users of currency, meaning large corporations, individuals, etc., will have the faith in a Chinese currency unless it were gold- or precious-metals-backed in some capacity. And they may do some percentage of backing or what have you. But I think that's one possibility and I think that's a 15- to 20-year type plan.

I think the Belt and Road Initiative was actually part of that strategy. I mean, the US Marshall Plan that took place here post-World-War was to effectively rebuild Europe using our extra capacity – build it, create markets for our goods and services, and ensure trade took place in US dollar terms.

If we drew the analogy to the Belt and Road, well, the Belt and Road is using extra capacity within China to build future markets for goods and services in Central Asia and to Africa, up to Europe, and I think in the Chinese eyes, hopefully have that trade take place in Chinese yuan or renminbi terms.

So I think this is a grander, longer-term plan. And they may chip away at the dollar hegemony in the short run. But I don't think there is any meaningful risk to dollar hegemony anytime soon.

Now, with that said, there are some non-currency currencies (that I refer to them as) which – you can think of gold as a non-currency currency, but trade is not taking place in gold. But from an investment perspective that is one way to protect yourself.

And then of course there are some of these digital and cryptocurrencies – I'm by no means an expert on them, but the idea of something that cannot be politically manipulated or printed gives me great comfort in today's environment.

Erik: Well, don't put it past them to come up with digital currencies that can be politically manipulated and printed.

Vikram: That's right.

Erik: There's lots of possibility on the horizon, needless to say.

Let's move on now to another topic that we've been covering quite a bit here on MacroVoices, which is for more than a quarter of a century now the economic backdrop has been either disinflation or outright deflation. A lot of people are starting to anticipate that maybe we're close to a secular shift to inflation or stagflation.

Number one, do you agree with that prognosis? And much more importantly, number two, if so, what does it look like? How would that transition occur? How long would it take? What would the implications be?

Vikram: It's a fabulous question, Erik, because it transitions nicely from our prior discussion here of reserve currency status. So, in the long run, I do think if the US dollar is at risk we would see a massive devaluation of dollars and that would result in a massive importing of inflation.

So we would see, if the dollar depreciated dramatically, that the cost of imports would rise, goods pricing would rise, etc.

I don't want to be alarmist, but if we were to go back and study history, you see, how did Venezuela get hyperinflation? How did Weimar, Germany get hyperinflation?

There's a couple of ingredients that tend to recur.

One of them, for sure, is printing money. So, alright, we'll check that box here in the United States.

Another one is deficit spending of large amounts. Okay, well, I could say with a 20% of budget deficit or even higher than that, you can probably check that box.

And then massive devaluation occurs that results in the inflation getting out of control. We haven't had that here in America. In fact, we've had the opposite, strong dollar in this world. So that would be something to watch.

If you were watching for hyperinflation, I would watch the dollar. That could create the hyperinflationary dynamic.

On the flip side, the shorter term, let's call it a three- to five-year view, if not even shorter than that, the pressures, I think, still show that technology –

Let's talk about the pressures. One is for sure technology. Massive deflationary force on the world, on the economy, on goods and services etc. And, for better or worse, technology seems destined to continue providing that deflationary pressure.

On the flip side, I think we're starting to see more friction in the system. The buildout of a totally new separate economic system, going from one globalized system to two globalized ecosystems. That's friction.

And friction subtracts supply, if you will. And so maybe that's actually a little bit of inflationary pressure by having that frictional introduction in that mix.

But then you have a reduction in demand because of demographics. So when you look through demographics you see the aging of the world's largest populations. That's probably a reduction in demand.

So when I look and put all these in the mix together, what I see is mild inflationary pressure building, if you will, here in the United States. But the things to watch that I'm paying attention to is, number one, friction in the buildout of the supply chains – the higher the cost, the slower the time, the flow-through cost impact – that would change my view to say more inflation sooner.

Secondly, I'm watching technology. If we in fact choose to regulate it, tax the robots, in fact break up big tech, put sand effectively into the gears of productivity that technology has provided, well that would be inflationary. And I would be concerned and watch that.

And then, obviously, the traditional metrics to watch are wages rising. And if we've got this dynamic where wages rise and prices rise, well, of course, that wage price spiral is something to always watch for. And central bankers are good to watch for that.

But, for better or worse I think right now, barring meaningful pressures in those ways that I just highlighted, we're sort of, meh, deflationary into slightly inflationary. But nothing alarming any time soon that I see.

Now I'm watching very cautiously and very alert. And my ears are perked up, my eyes are wide open and I'm paying attention. Because it does feel like there is an imminent change in this deflation to inflationary thinking process in the data.

It hasn't yet come through. So I'm watching it. I'm sort of nervously watching but I don't have strong convictions yet.

Erik: Vikram, I want to go back to 2011 when you wrote a book called *Boombustology*, which was quite popular. For our listeners who may not be familiar with it, please give us the rundown on that book before we move on to your recent book.

Vikram: Thanks for asking, Erik. That book was really a framework for thinking about financial bubbles before they burst. It's actually a fairly straightforward framework which is using five different lenses to gauge whether you're in a bubble and the relative maturity of that bubble.

Obviously it's impossible to precisely time things like a bubble bursting, but you can get yourself in the right neighborhood.

And so what were those five lenses?

The first lens was microeconomics, looking at prices and demand. So historical economic analysis would have you lead to the conclusion that higher prices equal less demand or lower prices equal more demand.

But what happens when you get higher prices resulting in more demand? I would argue to you you've got a bubbly dynamic underway.

And, by the way, you can see this. This is the FOMO trade. Higher prices, oh my God, I'm afraid, I'm going to miss out, let me get in. And so higher prices resulting in more demand is a bubbly dynamic. It doesn't mean you're in a bubble. Just check one out of five.

The second one is – let's go to the macroeconomic lens first, which is mispriced money. Mispriced money is misused money. So when money is allocated in ways that might not make sense if it were priced more normally, then you'd be concerned.

One way to see a difference in the appropriate pricing of money is to look at the delta between real economies, economic activity, and financial market activity. And when you see big divergences, there that may be that money is being channeled towards more speculation rather than investment. And so that's a concern. Mispriced money, misused money.

So investment in the face of overcapacity is a telltale sign. So when I looked at Las Vegas in 2007 and 2008, there was plenty of overcapacity and people were investing a lot in the gaming sector to build out more casino capacity etc., using borrowed money. That's a classic example.

Lens three is overconfidence. The fact that it's (quote unquote) different this time. There is a new technology. It's the new, new thing. And there's lots of ways to see this. But you can watch, honestly, popular sentiment where magazine covers talk about it's different this time. (Insert the technology.)

Back in the 1920s it was the car, radio. 1999-2000 it was the internet. Every time there is something that says it's different, usually.

And then the fourth lens is political manipulation and moral hazard. So when investors believe that there is a *heads I win, tails you lose* trade – or you might think of, hey, I have an embedded put for whatever reason, central-bank oriented or otherwise, then I'm more willing to take risk. And so I don't worry about losses. And when you have that biased risk-reward tradeoff, you see bubbly activity.

And then, finally, I look through a lens of sort of epidemiology to look at thinking about a bubble as a fever running through a population.

And if you draw that analogy, what you start looking to is how many people are still left to infect. And, there, when you have dinner party conversations talking about a particular asset class or your taxicab driver is giving you a stock tip or the bellman at a hotel you visit says, hey, I just bought and flipped this condo or did that, then you know it's too late. That's a late-inning phenomenon, if we stick with the baseball analogy.

And so *Boombustology* was that framework described through historical cases. And again, in

2011 (I think) I applied it to the case of China and suggested that China was in the midst of a credit-fueled investment bubble that was going to slow down, burst, and the result would be a headwind against Chinese economic growth and the implications for commodities, emerging markets, etc.

So that was *Boombustology*. Thanks for asking.

Erik: And you've written a new book called *Think For Yourself*, which will be released on June 16 but is available right now for preorder on Amazon. What's that one about?

Vikram: This is my attempt to take that same multi-lens logic and apply it to navigating all forms of uncertainty. And one of the biggest challenges I think many of us face today is how we interact with experts and the inputs we get into our decision making processes.

So what I'm suggesting in this book is we all need to take ownership of our decision making. We have to stop outsourcing our thinking to experts and we need to reclaim control.

The phrases I use to talk about that – things like we have to keep experts on tap, not on top. That we need to triangulate through multiple expert opinions, not just one. Because every lens is biased and incomplete, so let's use multiple lenses. And that means tapping in to multiple experts.

And, ultimately, it's about trying to think for yourself by imagining the opposite of expert advice, imagining alternative futures, and then owning your own decision by thinking about the big picture.

So realizing, for instance, that experts all live in silos and are structurally unable to see the big picture. And when they're unable to see the big picture, they therefore can't take over your decision making – and you shouldn't let them.

There's other messages in the book. The fact that breadth is undervalued relative to depth and that we should maybe have a healthier balance when thinking about broad versus narrow and deep, and dynamics like that.

But the book is really about navigating uncertainty and a framework for doing so in all walks of life. Medical decision making, financial decision making, education decision making, etc.

Erik: Well, Vikram, I can't thank you enough for a terrific interview.

Patrick Ceresna and I will be back as MacroVoices continues, right here at macrovoices.com.