Beware of Industrial Policy

Episode 89 | Everything is Everything

Ajay Shah, Amit Varma

Transcript

7th March 2025

Shah, Ajay, and Amit Varma. "Beware of Industrial Policy." Episode 89 of Everything is Everything. XKDR Forum, 7th March 2025. Podcast, video, 1:26:51. https://www.xkdr.org/viewpoints/beware-of-industrial-policy-episode-89-everything-is-everything

Abstract

A fan email suggesting that Ajay and Amit should run the country's economy sparks a sharp rebuttal that becomes the spine of this episode. Amit explains why planning a nation is an act of hubris, invoking Friedrich Hayek's "fatal conceit" to argue that no government, however smart, can substitute for the decentralized decision-making of millions of firms and individuals. Ajay grounds this in his own experience at the Ministry of Finance, recalling how quickly he learned there are no easy five-hundred-dollar bills lying around in policy, and how absurd it is for a Ministry of Commerce to set export targets when exports are decisions made by individual firms, not the state.

The conversation builds a full taxonomy of industrial policy: the deliberate government practice of picking winners among industries, technologies, firms, or locations. Ajay identifies four levers governments use to do this: subsidies, coercive power, ethno-nationalism, and government monopolies. Each is examined in detail, from the absurdity of nano-chickens under RBI's external commercial borrowing rules to the coercive push behind UPI, from the mixed bag of Apple's PLI-driven India operations to the slow-motion tragedy of Air India's nationalization and eventual return to the Tatas. China's EV and solar successes are addressed too, but placed against the backdrop of a property market with 50% excess inventory and a shrinking population, a caution against cherry-picking success stories while ignoring the wider cost of state control.

The episode closes on a constructive note. Rather than picking winners, Ajay argues the state's job is to enable them, through funding basic research, fostering competition, enabling bankruptcy, and opening the doors to internationalization and immigration. The story of SEEPZ, a customs enclosure meant for radio assembly that accidentally birthed India's diamond polishing and software industries, becomes the episode's parting lesson: freedom produces surprises that no planner could have designed.

Supplementary Resources

- **Industrial Policy for Development: Approaches in the 21st Century** (Book) [1]

- **Ajay Shah On 4 Pillars Of Industrial Policy, And Why They're All Bad** by Ajay Shah and Rahul Ahluwalia (Resource) [3]
- **The Political Economy of the Rent-Seeking Society** by Anne O. Krueger (Journal article) [4]
- **India: Planning for Industrialization: Industrialization and Trade Policies Since 1951** by Jagdish N. Bhagwati and Padma Desai (Book) [5]
- **The World Bank Group and Industrial Strategy** by Charles Kenny (Resource) [6]
- **The Return of Industrial Policy** by Douglas Irwin (Resource) [7]
- **The Changing Nature of International Trade and its Implications for Development** by Pinelopi Goldberg and Michele Ruta (Working paper) [8]
- **The Use of Knowledge in Society** by F. A. Hayek (Journal article) [9]
- **What Is Industrial Policy? What Is It for?** by Pierre Lemieux (Resource) [10]
- **Industrial Policy in an Era of Globalization: Lessons from Asia** by Marcus Noland and Howard Pack (Book) [11]
- **Economic Calculation in the Socialist Commonwealth** by Ludwig von Mises (Book chapter) [12]
- **Is There a Case for Industrial Policy? A Critical Survey** by H. Pack (Journal article) [13]
- **Designing Industrial Policy for Development** by Vishnu Venugopalan (Resource) [15]

Contents

Introduction: The 500 Dollar Bill **4**

Chapter 1: What is Industrial Policy? **8**

Chapter 2: How Industrial Policy Works **12**

Chapter 3: Subsidies **17**

Chapter 4: The Folly of PLI **25**

Chapter 5: Coercive Power **30**

Chapter 6: Ethno-Nationalism **32**

Chapter 7: Government Monopolies **37**

Chapter 8: The China Question **40**

Chapter 9: What Should the State Do? **41**

Introduction: The 500 Dollar Bill

[00:00:15] Amit Varma: Welcome to Everything is Everything. I'm Amit, and this is my good friend Ajay. Thank you for watching the show. Thank you for loving the show.

[00:00:15] Amit Varma: Ajay, I got to tell you about this awesome email I got from a fan who essentially gushed and gushed and gushed about many things about us. But then ended with two lines that I found deeply disturbing.

[00:00:32] Amit Varma: The two lines were that, "You guys are so smart. I wish you were running the country. You should plan our economy." To which I replied back saying, "Thank you for all your kind words. If you saw us in person, you would not find us so sexy and appealing and all of those things." Let's not go into that part of the email.

[00:00:32] Amit Varma: But there are three problems with your last two sentences.

[00:00:52] Amit Varma: One of those problems is, to do a play on the title of one of our previous episodes, you can't run a country like a YouTube show. We are good at running this YouTube show. I hope by now, gentle readers, you would admit that we do an okay job. But does that mean we can run a country?

[00:00:52] Amit Varma: Not quite. Though I fancy you see yourself as much more than a YouTuber, but we'll get to that later.

[00:01:13] Ajay Shah: My official occupation was YouTuber.

[00:01:16] Amit Varma: Your official occupation is a YouTuber, right? It wasn't until you started the show.

[00:01:21] Ajay Shah: No, I mean on the show I publicly announced.

[00:01:23] Amit Varma: There we go. So you are henceforth not an economist. You're a card carrying YouTuber.

[00:01:28] Amit Varma: Number two is that power corrupts. I would like to believe that whatever there is good in our nature, especially the humility that we wear with so much pride, would not exist if not for the many setbacks we have respectively suffered in our lives. And I think power could have taken us in the opposite direction. Power corrupts, absolute power corrupts absolutely.

[00:01:28] Amit Varma: More than just corrupting, it corrodes character.

[00:01:50] Amit Varma: So in a sense, I'm glad that I didn't get too successful too fast, and I've never really been in a position of power of any sort per se. And my third reason, which actually in a sense is an extension of the first reason or would be an elaboration of the first reason, is that I don't like the word plan. You can plan at an individual level, what am I going to do with my day today? Though even in that regard, I fail miserably often, as you would know.

[00:02:14] Amit Varma: Or we can plan that, okay, these are the episodes we are shooting in this particular schedule, here's how to do it. Planning a country is just a conception of great hubris. Our hero Friedrich Hayek called it the fatal conceit. It simply cannot be done.

[00:02:14] Amit Varma: A nation is too complex. And that kind of top-down thinking leads us to ruin again and again.

[00:02:35] Amit Varma: And a classic example of that kind of top-down thinking is the subject of this episode, industrial policy. You've had a great episode with our friend Rahul Ahluwalia when you were a guest on his excellent chat show. We'll link it from the show notes, where you spoke for about an hour on industrial policy, etcetera, etcetera. Lovely chat.

[00:02:35] Amit Varma: Rahul's a great guy. Please do check out his channel as well. Support free thinkers.

[00:02:58] Amit Varma: And today we are going to talk about the same thing. I know that industrial policy is a great passion of yours in the sense that you oppose it with a fervent passion, as do I. I remember there was a recent book written by a very famous economist and a young economist I absolutely love. I don't love the famous one so much.

[00:02:58] Amit Varma: And I did an episode with the younger guy, and he was also uncomfortable when I said that, "Look, in your book, you've spoken about industrial policy, but you haven't said that it is flat-out wrong."

[00:03:25] Amit Varma: You have said instead of doing it like ABC, you should do XYZ. And I'm like, no, I think you're wrong. I think we should not do it at all. That hubris, that planning mindset will lead you to ruin, no matter what enlightened approach you think you would take.

[00:03:25] Amit Varma: And the smartest people tend to think, "Ya, arey koi economy chalayega toh hum chalayenge." But no, you can't think about it like that. So that's our subject for today.

[00:03:47] Ajay Shah: I have two stories.

[00:03:48] Amit Varma: Tell.

[00:03:49] Ajay Shah: First, I was a callow youth. I was stupid, like all young people are. And as a growing early stage economist, I used to think there's so many stupid things going on in the world of policy, and surely I will do better. And I just vividly remember my collision with reality.

[00:04:11] Ajay Shah: As a callow thirty-five year old, I showed up at the Ministry of Finance. I was hired by Yashwant Sinha, a person that I admire enormously. I just consider him one of the great people of this country. And I was working closely with him.

[00:04:11] Ajay Shah: I was working intensively with him. And in a few days, I got the message that, my God, this job is tough. It is very, very hard to be a finance minister and there are no obvious mistakes.

[00:04:38] Ajay Shah: It's like, there are no low-hanging fruit. There are no five hundred dollar bills lying on the ground. This stuff is truly hard. My second funny story is I was at the Ministry of Finance in a meeting run by Ashok Lahiri, who was Chief Economic Advisor.

[00:04:38] Ajay Shah: And there was some routine thing that used to happen, which is that the Ministry of Commerce would establish a target for India's exports.

[00:05:04] Ajay Shah: And I was the chota fellow in the room saying, "Excuse me, what does the Ministry of Commerce or any of us have to do with what India exports?" And there again, the word India is key. India is a collection of people, and those people export. And the Indian state has essentially nothing to do with the exporting decisions or the exporting success of individual firms.

[00:05:33] Ajay Shah: So what can the government do to control exports? Create enabling conditions. What exports will actually materialize? Who knows?

[00:05:33] Ajay Shah: That is something that happens in the society. It's not something for a government to plan or control or set a target for, because the word target is also semi-offensive, because maybe if you didn't get to your target, then in the mid year, some urgent meeting will take place and we will think of policy measures to boost exports. That kind of thing.

[00:06:01] Ajay Shah: And this episode is just questioning a whole bunch of these kinds of notions of control.

[00:06:07] Amit Varma: You spoke of the five hundred dollar bill. I want to tell you a little story. Have you heard the story about the Bengali economist who believed in rational markets and the Gujarati podcaster? Here's how it unfolds.

[00:06:07] Amit Varma: The Bengali economist who believes in rational markets was walking along the street when he sees a five hundred rupee bill, let us say, on the street, but he doesn't pick it up.

[00:06:31] Amit Varma: And the reason he doesn't pick it up, he assumes that if that bill was real, any rational person would have picked it up by now. And since nobody has picked it up, it can't possibly be real. And therefore, I'm just going to walk past. So he walks past.

[00:06:31] Amit Varma: Then the Gujarati YouTuber, hint hint, wink wink, comes along and he sees a bill, and he says, what does he say? He doesn't say money. He says content.

[00:06:54] Amit Varma: And then he turns around and he puts on whatever selfie stick on his camera or whatever, and he tries to shoot himself discovering the five hundred dollar bill. When, from behind, Amit Varma comes and quickly takes it and goes away. So the story doesn't end well for either of our two protagonists, but one could argue that it is their fault.

[00:07:12] Ajay Shah: The storyline running in my head was that the bill is superglued to the ground and there is another crew of a whiskey triceps show, which is there to make fun of people trying to pick up the five hundred dollar bill.

[00:07:28] Amit Varma: Nahin, nahin. You have to alliterate. Beer, biceps. You can say tequila triceps, or hamburger hamstrings.

[00:07:28] Amit Varma: I couldn't think of a drink with H. Think of some drinks.

[00:07:44] Amit Varma: Um...

[00:07:45] Ajay Shah: Nimbu paani.

[00:07:46] Amit Varma: One word drink so we can alliterate with it. Brandy balls. [laughter]

Chapter 1: What is Industrial Policy?

[00:08:07] Amit Varma: So Ajay, on a serious note, what is industrial policy? Let's break that down.

[00:08:11] Ajay Shah: So when you grow up as a child in this country, you see this entire firmament. There is a Ministry of Industry, which sounds like industrial policy to you. And no, there are very important things called textiles. So there's a Ministry of Textiles.

[00:08:11] Ajay Shah: There's a Ministry of Chemicals. There's a Ministry of Steel. There's a Ministry of IT. No, handlooms are very important, so that also needs special attention, and so on.

[00:08:36] Ajay Shah: So there are government activities in many, many industries and they are all over the landscape. And all kinds of government power is used to try to influence these industries. And a lot of this is a dubious project. So let's put a terminology on it and then let's put a conceptual framework on it.

[00:08:59] Ajay Shah: Right now, I want to use some clear words. Industrial policy is the game of a government that picks winners. So the government looks at the world and thinks that this industry is good, this industry is bad. This technology is good, this technology is bad.

[00:08:59] Ajay Shah: This firm is good, this firm is bad. This place of production is good, this place of production is bad.

[00:09:26] Ajay Shah: All these kinds of allocative decisions about how the economy works, when these are placed in the hands of the government, it's called industrial policy. And here is an element in which you will see this quite vividly. In the world of business, in the world of the market economy, there are inevitably clusters. Clusters develop.

[00:09:52] Ajay Shah: There is a cluster called Silicon Valley. There is a cluster called Tirupur. Tirupur is a garment manufacturing paradise. Gujarat is a chemicals paradise.

[00:09:52] Ajay Shah: And that's very, very convenient, that there is all kinds of skills, expertise, labor market, contractors, vendors. There's a whole ecosystem there and that has a network effect and that sucks in more garment people to Tirupur and so on.

[00:10:17] Ajay Shah: Many people look at that cluster and then they start thinking, "Could I make it happen?" So the government starts saying that we will have a cluster on XXX at location YYY. And that is crossing the line into industrial policy. Clusters do evolve, they evolve organically. With the benefit of hindsight, in every cluster you will see some elements of public policy.

[00:10:44] Ajay Shah: And in the last chapter today, I am going to come back to those kinds of inputs. But for the rest, there are many, many government attempts that go wrong. There are many, many government attempts that make absolutely no sense. Do you think you should have a drug manufacturing cluster in Himachal Pradesh?

[00:10:44] Ajay Shah: Because then this becomes equity, that oh, every state in India, every district in India should get some largesse. So this equality consideration of the government starts contaminating these kinds of decisions.

[00:11:12] Ajay Shah: Or there's a powerful politician who has a constituency who will announce that no, I want a garment cluster. So the government will start saying, "Yeah, we will make a garment cluster happen." And again, we should be very skeptical about all this. So it is true that clusters develop, clusters matter, clusters shape productivity. It is not true that you can will these into existence.

[00:11:12] Ajay Shah: They emerge organically.

[00:11:35] Amit Varma: There's a foundational principle behind this that I want you to illustrate as we go ahead with this. And this is something that you've spoken about many, many times on this show. We've done a whole bunch of episodes on firms, which I am very proud of having produced with you, because I think that you've shared tremendous insights through all of them. And one fundamental insight people don't really get is that growth, which is the only way to get rid of poverty and for a country to advance, growth happens through firms.

[00:12:04] Amit Varma: Because what firms do represents the needs of the people being fulfilled, the dynamism of the entrepreneurs within society who are scrambling to fulfill each other's needs to mutual benefit. That dynamism is what makes a country grow. It is not an action by a government. Too many people will have the false impression that oh, you need a government, and there are resources in the nation, and some smart people on top will decide what to do with these resources.

[00:12:04] Amit Varma: No.

[00:12:30] Amit Varma: Fundamentally, the job of a government for me is that you provide a rule of law so that these firms can operate in a competitive marketplace without coercion, and you do things like contract and make contract enforcements and all of those matters. You make sure there's a rule of law that takes care of all of that. But on the whole, your job is to enable people within society to solve each other's problems in this process of many, many, many, many double thank you moments.

[00:13:00] Amit Varma: I want you to talk a little bit about the centrality of firms in this and how you came to this understanding through the course of your life and career.

[00:13:08] Ajay Shah: So it's arithmetic that the GDP of a country is the sum total of the value added of all the firms. And a rich country is one that is filled up with firms that make a lot of GDP. And how do they do that? Because they have high productivity.

[00:13:08] Ajay Shah: Your people are fixed, and the game is how do you get better firms that produce more per person?

[00:13:29] Ajay Shah: In a poor country, the GDP is low, the sum total of the value added of all the firms is low. The same people are working. So what's happening is the people are producing at low levels of productivity. So this is just arithmetic, that to succeed as a country, we need high GDP, i.e.

[00:13:29] Ajay Shah: the firms have to produce more, i.e. the firms have to be high productivity. So everything about economic development is how do you create the conditions under which the firms achieve high productivity?

[00:13:56] Ajay Shah: A successful, prosperous country is one where the firms are great, the firms are high productivity. A poor country is one where the firms are weak, where the firms have low productivity. And so the story of economic development is centrally a story of firms. We have to understand what are the incentives of firms.

[00:13:56] Ajay Shah: And again, there is nothing about the color of your skin, there's nothing about your latitude that enforces low productivity upon firms.

[00:14:26] Ajay Shah: We are the same human beings everywhere. Every human being on this planet, every firm on this planet has a shot at improving themselves and achieving high productivity. So then the next question, why are some firms low productivity? Why are so many firms low productivity?

[00:14:26] Ajay Shah: Indians are not inferior. Sundar Pichai is an Indian, Satya Nadella is an Indian. So there's nothing wrong with Indians. What is wrong is with the incentive structure.

[00:14:55] Ajay Shah: That the operating environment of the firm creates incentives that keep productivity down. And our story as a country is learning how to build those complex firms through the intellectual development of people inside firms and improvements in the operating environment. And all this comes together and you get to high productivity firms, i.e. GDP growth.

[00:14:55] Ajay Shah: So this is the centrality that the firms are the story, and our conversation today about industrial policy is sort of related, because there is an old socialist concept that the path to a great steel industry runs through a government operating a Ministry of Steel. And we just like to say, not really, but let's discuss.

Chapter 2: How Industrial Policy Works

[00:15:47] Amit Varma: So Ajay, you've explained what industrial policy is. I want to know more about the mechanics of it. How does a government actually try to influence industries, build industries, pick favorites, etcetera, etcetera? What are the mechanics?

[00:15:58] Ajay Shah: So there are four levers that are used by governments in their attempt at doing industrial policy. I earlier began saying that you want to pick winners, and it may be a technology, it may be a firm, it may be an industry. And how is it done? There are four pathways.

[00:15:58] Ajay Shah: Case one, subsidies. Now a subsidy can be done in many different ways. It can be a tax break. It can be an explicit subsidy.

[00:15:58] Ajay Shah: It can be an indirect payment.

[00:16:27] Ajay Shah: You subsidize an input, you pay money directly. It all boils down to using public money. So a subsidy is using public money. So government decides that we're going to have a beef export cluster that will work in XYZ district.

[00:16:27] Ajay Shah: And then we will subsidize the firms that will stand there and produce beef and export beef. It's a subsidy. Or the government decides that software is a good industry, software is an important industry. So we'll give you an income tax break.

[00:16:27] Ajay Shah: That's a subsidy. So that's lever one.

[00:17:00] **Ajay Shah:** All through the Indian state, there are many, many special cases. Case two, the use of coercive power in a variety of ways. The coercive power of the state is used to favor some industries and disfavor others, or favor some technologies and disfavor others. So, as an example, our friend Suyash has observed that the government chose UPI as the technology, and the coercive power of the state was used where income tax law was used and income tax inspectors are given the authority to find any shop that does not accept UPI and inflict a fine on them.

[00:17:38] **Ajay Shah:** So this is coercive resources being thrown behind a technology, namely UPI. So this is an example. Again, this is all over the place. There are all kinds of uses of coercion in India.

[00:17:38] **Ajay Shah:** In this show, Everything is Everything, we have very many times talked about a fundamental idea. When you use government money, ultimately it is reined in by budget considerations.

[00:18:04] **Ajay Shah:** You have some tax revenues, you'll run some deficit, and then many people are clamoring for that money, and there's a budget constraint, it's got to add up to hundred. In contrast, there is no limit to coercive power. There's no budget constraint of coercive power. Every day, the Indian state shackles you some more.

[00:18:04] **Ajay Shah:** And there's no limit. Every day, more coercive restrictions are initiated by the government. So coercion is literally all over the landscape and it is merrily used in industrial policy.

[00:18:34] **Ajay Shah:** Let me show you one of the more amusing ones that I stumbled upon some years ago, and Lord knows it might still be around. There was a time when the Reserve Bank of India was doing capital controls about foreign borrowing. They've always had this idea that if you are Italian and I am Indian and I borrow from you, no, RBI will come interfere between us and put all kinds of restrictions that this is allowed, this is not allowed, you have to take this permission and so on.

[00:19:03] Ajay Shah: I've never seen an economic reason for this. So one day there came up a restriction that external commercial borrowing shall be for nine industries only. The government was saying that if you're a steel industry, you can't borrow, but if you're an aluminium industry, you can borrow. So they're choosing which industries are good, because they will get access to foreign borrowing at a lower rate and others will not.

[00:19:28] Ajay Shah: Well, because I am bloody minded and masochistic, I actually read these kinds of documents. And gentle reader, promise, you have to laugh your head off and tell all your friends about this. The chosen industries were nanotechnology, poultry farms. Poultry farms are very important.

[00:19:28] Ajay Shah: Amit, you're not eating enough chicken. Chicken needs cheap credit. So we will give exclusive access to external commercial borrowing to poultry farms. That is the use of the coercive power of the Indian state.

[00:19:58] Amit Varma: Picking chickens and nanotechnology and resulting in really tiny chickens. You can go to a poultry farm and say, "Aapko subsidy diya, chicken kahan hai?" And the guy will say, "Mera nanotech company bhi hai, nano chickens hai, aapko dikh nahi rahe hai, inspector sahab." No, but what you just told me is actually a TIL for me, about the income tax using its powers to make sure that every shopkeeper has to use UPI. Which is just absolutely crazy, because the ideal way in which the world was functioning, and gentle readers, we have an episode on digital public goods, allegedly digital public goods as well. Do check that out.

[00:20:34] Amit Varma: The way the world should function is there should be many competing ways of paying, many competing ways of taking payment, and it is every individual shopkeeper's right to decide what he feels comfortable with and take payment in multiple ways if he has to, and not take payment in a particular way if he doesn't want to, if he finds it costly for him. And it is in that freedom that best practices come to the fore, that excellence is created as people compete for the best payment systems and the shopkeeper finds the most efficient way to proceed. And you just cut all of that down.

[00:21:05] Amit Varma: And it doesn't really matter whether UPI is great or not. I think as a technology it's outstanding. But the point is there should not be a freaking monopoly on the thing, and there should be no coercive power used in mandating it the way that it is.

[00:21:19] Ajay Shah: For example, in the United States, the government released GPS for public use. Meaning there was a coarse GPS that had always been available for public use. I think in 1993, Bill Clinton signed on delivering the high resolution GPS data to the whole world. And people ran, not walked, and took to GPS.

[00:21:19] Ajay Shah: But there was no coercive power. The government didn't say that every phone shall have a GPS. Phone makers aspired for the day when GPS will be in every phone.

[00:21:50] Ajay Shah: So it is a very Indian malaise, the low trigger point for the use of coercive power, and we should watch out for it. So that is lever number two, that the government decides that certain technologies are good and certain technologies are bad, certain industries are good, certain industries are bad, and you start rolling out a variety of uses of coercive power because the government knows best and they are trying to channel the fate of the country.

[00:22:18] Ajay Shah: Pathway number three is around nationalism. So you will decide that we're going to pick winners and the winners are Indian firms. Foreigner bad, Indian good. So this is a standard pathway which shows up many, many times.

[00:22:18] Ajay Shah: And of course in this you run into a problem of defining what is an Indian firm. Is an Indian firm a firm that is owned by Indians? Very well, ICICI Bank is ninety percent owned by foreigners. Is an Indian firm one which has an Indian CEO?

[00:22:18] Ajay Shah: Very well, Microsoft has an Indian CEO.

[00:22:53] Ajay Shah: And so on. So these things are slippery. In the modern world of globalization, these things have very little meaning anymore, and it's just an archaic approach to look at this. It is important to underline the importance of foreign firms.

[00:22:53] Ajay Shah: I'm going to be explicitly favoring a role for foreign firms in India. Why? Because India is a poor country. The global state of the art, high productivity resides inside foreign firms.

[00:22:53] Ajay Shah: And so it's actually important to have foreign firms operate here. If anything, you want it upside down.

[00:23:29] Ajay Shah: You want more foreign firms here because foreign firms command that highest knowledge, and it is good for India's journey if there are more foreign firms operating here, and it is to our benefit to grow the productivity in this country. Now in this, you will get to the national security question. So we'll come to that separately and there will be concerns around Indian firms and national security and all that. But this is pillar three, which is sort of an ethno-nationalism, that something that we will favor Indian firms, foreigners are not welcome.

[00:24:06] Ajay Shah: Finally, lever number four, which is, look, let's just give up on this entire pretense of having a market economy and build a public monopoly. So we'll have Air India as a monopoly, we'll have UPI as a monopoly, we'll have UIDAI as a monopoly, we'll have some Bharat Bill Pay as a monopoly. Various. The government loves to create monopolies.

[00:24:06] Ajay Shah: And then the government is saying, "I am the entrepreneur. I am running the country. I am directly controlling resources. The technological choices are mine, and it's my national champion.

[00:24:06] Ajay Shah: It's my monopoly. And I will use state power to harm anybody else who tries to operate in this space, whether Indian or foreign."

[00:24:44] Ajay Shah: So that's the most extreme lever, where you create a government monopoly. So these are the four tools of industrial policy: subsidies, coercive power, ethno-nationalism, and government monopolies.

[00:25:01] Amit Varma: And it strikes me that what's happening here is that the government is essentially trying to fulfill two roles at once, in two of these different levers. In one, it is saying, "I'm the venture capitalist. I'll decide paisa kahan daalna hai." In the other, it is deciding, "I'm the entrepreneur. I'll build the business." And the fundamental mistake it makes is this: yes, venture capital is great, yes, entrepreneurship is great, but they are great because you have many, many venture capitalists making many, many bets, and many of them will fail, and you can't possibly know in advance, and you need that ferment and that competition for something to emerge.

[00:25:36] Amit Varma: And similarly with entrepreneurship, most entrepreneurs will fail. In fact, all entrepreneurs will fail most of the time. And it is because you have so many of them trying different things, thinking in different ways, responding to different kinds of local information, that you have a flourishing economy. That is a creative destruction of the marketplace.

[00:25:36] Amit Varma: That's where the animal spirits sort of really take shape. And the hubris of the government to decide that, you know, "We have the levers of power, hum Delhi mein baithke decide karenge," that I will decide which are the good places to put money, poultry farming yes, XYZ no, etcetera etcetera. It's surreal.

[00:26:15] Ajay Shah: There is a character trap in socialism. Once the government amasses power, officials and politicians get cut off from knowledge. Everybody will suck up to them. Everybody will say, "Sir, you are so great." And they become more and more confident in their own knowledge.

[00:26:15] Ajay Shah: And that creates a cycle of more and more control. And then when they have more control, they are further victims of being fed bad information by the world around them. And that's the socialist trap.

Chapter 3: Subsidies

[00:26:59] Amit Varma: Ajay, listening deeply about each of these, let's go further into subsidies.

[00:27:04] Ajay Shah: You started already that when you say money, but isn't that finance? So if a government is going to give money to a company, but that's what the financial sector does. And isn't that an alternative way of getting the money in? So if you believe that poultry farms are a great investment, by all means, buy shares in poultry companies.

[00:27:04] Ajay Shah: By all means, give loans to poultry companies. This is what private people will do. Why do you need a government to do it?

[00:27:34] Ajay Shah: There is a very active domestic and global financial system. Every day, what people are looking for is a good investment opportunity, of either equity or debt, investments going into good industries, good companies, and so on. Look around the world, people are stargazing and dreaming and imagining what will be the next great thing. Will it be quantum computing?

[00:27:34] Ajay Shah: Will it be satellites in near earth orbit? Will it be gene technology?

[00:28:04] Ajay Shah: Day and night, that's what finance does. Finance is about constantly looking for a next good investment opportunity. Something has good prospects, there will be investors in it. That's what a financial system does.

[00:28:04] Ajay Shah: Why does a government think that, "No, I need to supplant the brain power of the financial system and put money myself." Now, immediately you will object saying, "No, India is a developing country. India is a very poor country. The Indian financial system works poorly." And we agree. But the solution is to make the Indian financial system work better.

[00:28:38] Ajay Shah: So gentle reader, please send messages to all your friends in the world of public policy. There is an EIE episode called The Beauty of Finance. There is an EIE episode called The Journey of Indian Finance. There's a lot that is known about how to make the Indian financial sector work properly.

[00:28:38] Ajay Shah: So go to the root cause. If there are infirmities of the Indian financial system, solve them. As always, if the Indian steel industry works poorly, there is a low-hanging fruit which is called remove all trade barriers. So you're able to buy South Korean steel.

[00:29:10] Ajay Shah: So if the Indian financial system can't do a good job producing this, remove all the barriers and let foreign financial firms operate freely in India. They will overcome the failures and the deficiencies of the Indian financial firms. So you don't need a government to do finance. Then, precisely as you started saying, the beauty of how finance delivers money is just way superior to how any government delivers money.

[00:29:10] Ajay Shah: Finance works through failure. It is just magical.

[00:29:41] Ajay Shah: The financial system throws money after dozens and dozens and dozens of long shots, and some of them work, most of them fail. That's the glory of finance. It is not about a government choosing one bet, UPI, this is the national champion, we're going to hang on with UPI through thick or thin.

[00:30:00] Ajay Shah: That is absolutely not how finance works. Finance works by betting on many, many, by taking risks and by supporting many diverse ideas. And so you have a much better chance of emerging with a good one. Whereas if there is the hubris of the government that I know the right answer, Bharat Bill Pay is the way bills shall be paid, then you've actually drowned out all the other possibilities for ideas.

[00:30:00] Ajay Shah: And Oliver Cromwell has a line in the bowels of Christ, consider it possible you may be mistaken.

[00:30:32] Ajay Shah: So who are you to know? Let's be humble. Let's respect the richness and the complexity of the world. Nobody knows.

[00:30:32] Ajay Shah: And the glory of how the financial system operates is it places many, many bets.

[00:30:46] Ajay Shah: The next thing I want to worry about is public money. When there is a private financial transaction that you will loan me one rupee or you will give me one rupee of equity capital, we're discussing one rupee. But when you discuss public money, it's an entirely different matter. Public money is coerced out of the people.

[00:30:46] Ajay Shah: Taxation has blood on it. Public money is coerced out of the people. You have to be far more respectful around the use of public money.

[00:31:12] Ajay Shah: And in fact, the people don't take kindly to being taxed. The people do everything they can to avoid being taxed. And their behaviors of distorting their life, of distorting the ways in which they organize firms, come at a cost to productivity. So when the government says, "I will tax you in this fashion," the people reorganize their lives in ways that avoid that taxation, and that's a distortion.

[00:31:40] Ajay Shah: Because you are less productive in the tax-saving way of operating as compared to an unrestricted way of operating. And this comes at a cost to the country. And then there are the overheads of the record keeping, of the income tax raids, of putting people in jail, of their lawyers, and the whole mess of companies running vast accounting and legal departments to deal with the taxmen. All this makes public money very, very expensive.

[00:32:07] Ajay Shah: So I want to introduce a technical term here, it's called the marginal cost of public funds, MCPF. It's one of the most important things to think about in economics, that when a government spends one rupee, what's the cost it's imposing upon the economy in terms of its impact on GDP? It's not like a government took one from the economy and gave one to somebody else, which kind of sounds neutral. It turns out that the marginal cost of public funds is three.

[00:32:33] Ajay Shah: For each one the government takes from the economy, it has an adverse impact on GDP of about three. So public money is very expensive, and you have to use it for a few super high-priority things, which basically is like public goods, addressing market failure. You know, buy some F-35 planes. These are public goods, it's non-rival, it's non-excludable, everybody benefits.

[00:32:33] Ajay Shah: You do a smallpox immunization campaign, those are public goods, everybody benefits.

[00:33:01] Ajay Shah: That's the place where by spending one rupee, you get ten. The gains to society from having defense, from having foreign policy, are ten. And that justifies that one. Whereas when you're sending money to poultry farms or to textile companies, really, it's very hard to justify that one is to three problem.

[00:33:01] Ajay Shah: So this is the second problem with subsidies, that you're using government money, and government money is sacred, government money is precious.

[00:33:27] Ajay Shah: It should be used in the rarest of circumstances. For all practical purposes, address market failure, do public goods. Beyond that, it is seldom that you will see a bang for the buck of greater than three. Otherwise you should not be using public money.

[00:33:27] Ajay Shah: And that's a severe problem in the field of industrial policy, because you just don't have the level of certainty that we will use public money here and the gains to society will be so high that it's going to be worth it. We will get this three is to one impact.

[00:33:56] Amit Varma: I often say that every intervention in free markets amounts to a redistribution of wealth from the poor to the rich. And that applies to a lot of these subsidies as well, that when I take one rupee and there's a cost of three rupees to the GDP, it actually hits the poorest of the poor. It's a tax on the poor. Most socialists will think, "Oh, the kind of redistribution we do is from the rich to the poor." It is always the opposite.

[00:33:56] Amit Varma: It's from the poor to the rich. The poor suffer the most, often in unseen and unobvious ways, by remaining poor longer than they would have otherwise.

[00:34:26] Amit Varma: A couple of concepts, one concept to share here really, leading on to an episode recommendation, and that is Milton Friedman's matrix of how we spend our money. We can spend our money on ourselves or on others, or we can spend somebody else's money on ourselves or on others. And what does this mean in terms of economizing and value?

[00:34:46] Amit Varma: When I spend my money on me, I am both economizing and I am seeking the greatest value. When I spend my money on someone else, I am economizing because it's my money, but I'm not seeking so much value because I'm not the beneficiary. If I am spending someone else's money on me, I won't bother to economize, it's not my money, but I'll seek value.

[00:35:07] Amit Varma: What the government does is that it spends somebody else's money on somebody else. And therefore the incentives drive you towards neither economizing nor towards seeking value. It is the worst way to spend money. And the episode I'd like to recommend is of course our episode on Public Choice Theory, where we point out that you should not think of the state as a benevolent beast.

[00:35:07] Amit Varma: The state consists of individuals who are responding to incentives.

[00:35:31] Amit Varma: So when you look at this mechanism of subsidies, you also need to think about who is deciding which industry to favor, how do I give subsidies, what are their incentives in play, what special interest groups have captured them. And inevitably, a lot of what happens is the redistribution of wealth from the poor, perhaps through dispersed taxes or other unseen effects, that redistribution from them to these special interest groups or to the rich.

[00:35:59] Amit Varma: And so on and so forth. And we should be cognizant of how these processes work.

[00:36:04] Ajay Shah: That's absolutely correct. Let's dwell on it for subsidies right now, but it actually afflicts the other three levers as well, and that is public choice theory. So think of the individual inside government. We do wrong to think of these people as selfless, noble, omniscient welfare maximizers for the people.

[00:36:04] Ajay Shah: In fact, they're just regular guys, they're like you and me.

[00:36:30] Ajay Shah: And they're maximizing for themselves. They're not selfless, noble, they're working for themselves. They have their own psychic benefits, their own career benefits, and they have objectives and they pursue these objectives. It's a very quiet, humble, public choice theory view of the world.

[00:36:30] Ajay Shah: Now place this into the resource allocation problem. If I am in finance, I have skin because I am putting my money or my organization's money, and I am judged and evaluated for how successfully I invest or how successfully I give loans.

[00:37:05] Ajay Shah: So I have enormous incentives to invest resources in obtaining information, in doing research, in obtaining research, in finding experts, in speaking with experts, in learning about the world, and then taking the plunge and putting money on the line. In government really, there's very little incentive to develop this expertise. And in fact, there's the power paradox, which is that an industry is always willing to come up to civil servants and say nice things in front of them.

[00:37:37] Ajay Shah: So civil servants and politicians are always being played by every person that comes up to meet them. And they're being told that, "Sir, you are so great. Sir, you have a distinctive and novel insight into the world. Just one small thing, your subsidy scheme should work well for my industry." And it's very difficult to be in government and grok the world.

[00:37:37] Ajay Shah: But in finance, it's a cold, merciless environment of devoting very smart people and resources to obtain information, to buy information, and resources to obtain research, to buy research, to form a view of the world, to put your money where your mouth is and be judged and held accountable for how well those equity and debt investments work.

[00:38:23] Ajay Shah: So from a public choice theory point of view, finance is a fundamentally superior way to channel resources rather than the working of a government bureaucracy. And finally, I want to worry about many people in the Indian private sector, people who are not employees of government, who are very comfortable with an industrial policy view of the world. This is typically an engineer. Sorry, okay, all ye engineers, YouTube promises us that most of our readers tend to be people with an engineering background.

[00:38:58] Amit Varma: Wait, wait, wait. What analytics are you examining? This is nowhere in the analytics.

[00:39:03] Ajay Shah: Young males. And almost all young males in India are engineers.

[00:39:04] Amit Varma: No, no. Many creative women watch our show. Partly, mainly because of me, but you can continue.

[00:39:09] Ajay Shah: Yeah. And people are very quick to jump to industrial policy because you think that I am here, I am operating in the private sector, I am so convinced about the future of lithium-ion batteries that surely that guy in the Ministry of Industry should use state power to grow the Indian lithium-ion battery industry. And this is just wrong, and I would love to plead to everybody that a country is not a company.

[00:39:37] Ajay Shah: Don't bring your intuition of what you see in the private sector into public policy roles and the world of public policy. It's a completely different game. It has its own knowledge, its political economy, its philosophy, it is public administration, it is checks and balances, it is rule of law. Government is an entirely different theater, it's an entirely different arena.

[00:39:37] Ajay Shah: And one important thing I'd always say to any such enthusiast is don't assume that you are the guy who will be that joint secretary.

[00:40:07] Ajay Shah: People make the mistake that I am so smart, I am so good, I know what's right for the world, bracket, you don't. And second, I'm the guy that will be the joint secretary, bracket, you won't. Both stages of this reasoning are wrong. You may be a very smart private investor, a private decision maker committing to lithium-ion batteries, but that doesn't mean that state power should be used in favor of lithium-ion batteries.

[00:40:31] Ajay Shah: And second, you may be a very smart person, you know a lot about lithium batteries, but that doesn't mean that the guys in government who make those decisions are you. So both elements of that proposition are wrong. And in India, all too often, we have these engineering and business types who jump to industrial policy, that the government should do this, the government should do that, and this is wrong and it should not be done.

[00:40:54] Amit Varma: Gentle readers, Ajay Shah is an engineer, an IIT type, so let me kind of tell you. I also think, and I'm thinking aloud here, that there is a mentality problem. The mentality problem is that in India, because of the economy that we've had, if you compare us to the rest of the world, in any good advanced economy, what you have is firms competing to serve customers the best, and all their talent and all their ingenuity goes into that.

[00:41:19] Amit Varma: In India, because it's a protected economy where you're not competing with the world, but you're somehow competing to win your domestic marketplace, and for most of the decades of our independence, we've had a state that wields tremendous power and controls the economy effectively, the way to therefore get ahead in India has always been that you suck up to the state, you use the levers of the state, and either you become a crony directly or you try to influence it in all of these ways and say, "Sir, lithium ion future, lithium ion subsidy dijiye. Us pe aap tariff lagaiye, China se problem hai," etc, etc.

[00:41:53] Amit Varma: And the mentality has become this kind of rent-seeking mentality, whereas most free markets in the rest of the world, you don't do this. I mean, you do do this, America has a huge problem with special interest. Jonathan Rauch has a great book called Government's End on this, of how special interests have kind of taken over the American system. The book was written in the 1990s and still true today.

[00:41:53] Amit Varma: But in general, an entrepreneur in the US begins by thinking of how do I provide enough value to the people, so I make a ton of money and become a billionaire, and that's a good way to think.

[00:42:25] Amit Varma: Whereas in India, it's like, how can I influence a joint secretary or so-and-so to give me some special advantage, so I can beat my local competitors, and global market, who wants to compete? What difference does it make? And we have an episode on firms where you talk about the importance of internationalization and the importance of exports, so gentle readers do check that out. But this also strikes me that there's also a mentality problem here that we have to somehow break through.

Chapter 4: The Folly of PLI

[00:43:02] Ajay Shah: Any discussion about subsidies in India takes you to PLI, production-linked incentives. So this is the new government effort at paying out subsidies explicitly to some industries. A little bit of backstory, subsidies to exports are not consistent with the WTO, so you can't have export-linked incentives, so it's got to be production-linked incentives. So that's where we are.

[00:43:29] Ajay Shah: And there are many important firms that are operating in India, most notably Apple. So first, let me just put a bunch of biases on the table. It is a great achievement that Apple is here in India and producing on a meaningful scale. I believe the theory that in time this will make a difference to the vendor ecosystem in India, that Apple will bring the vendors that serve Apple, and then those vendors will work to higher tolerances.

[00:43:55] Ajay Shah: If they used to traditionally be at 100 micron errors, now they will be at one micron errors, and so on. So I get that entire argument and I respect that argument.

[00:44:06] Amit Varma: In fact, as you've pointed out, the Indian IT industry, the genesis of it lay in people like Texas Instruments coming to India, setting up shop here, and in exactly that same way allowing an ecosystem to emerge.

[00:44:17] Ajay Shah: Though there were no subsidies around Texas Instruments.

[00:44:19] Amit Varma: Exactly, exactly.

[00:44:19] Ajay Shah: So now let's debate those subsidies. Here is an optimistic view of the subsidies and then here is a list of concerns. The optimistic view of the subsidies is that there are basic mistakes in indirect taxation in India. The return on equity to many kinds of economic activity gets whipped around by 50% and 100% depending on small mistakes in indirect tax.

[00:44:50] Ajay Shah: This is something that I only started understanding in recent years. Ila Patnaik has been key to improving my knowledge, deeply understanding the investment decision and how sensitive it is to small mistakes. So you may think it's a 50 basis point tax, it's a one percent tax. The conceptual juxtaposition you should have on your mind is that the PAT margin for the average non-financial firm in India, the profit after tax divided by sales, is 6%.

[00:45:21] Ajay Shah: So you do all that huffing and puffing to make 100, and out of that your PAT, the profit after tax, is six. And then a small half, one, two, 3% of taxation makes a vast difference to the profit after tax, and you divide by equity and you get the return on equity. So from an investment point of view, apparently small or almost negligible errors in indirect taxation loom large, and they make a big difference to the investment decision.

[00:45:51] Ajay Shah: So this is something that really needs much more attention, and Ila and I are working in this field and we'll have some products out. So I get that there are mistakes in Indian indirect taxation, and it is entirely fair for a firm like Apple to say to the Indian state, "Look, you guys are out of line, that in any reasonable world, I should be able to bring raw materials from all around the world into India, produce in India, re-export outside with zero indirect taxation from the Indian state."

[00:46:25] Ajay Shah: If there is any indirect taxation by the Indian state, then that is not on. And in every good country in the world, the principle is you do not tax foreigners. So goods come into the country, they may suffer some indirect taxes, but when exports take place, all the burden of indirect tax is refunded to the exporter. That's how all the countries of the world work, except India.

[00:46:25] Ajay Shah: So there is a bunch of mistakes in indirect tax.

[00:46:53] Ajay Shah: And it is entirely wise and appropriate for Apple to say, "Sorry, why will I ever produce in India? You need to identify these disabilities and refund them to me." And I agree. However, there are a bunch of difficulties and a bunch of concerns. First, how difficult is it to fix these things at the root cause?

[00:46:53] Ajay Shah: This is tax policy, it emanates out of the government. Why should we be at this level of dysfunctionality where the government is making mistakes on indirect tax and then refunding Apple for the indirect taxes that Apple has suffered?

[00:47:32] Ajay Shah: Why should we be there in steady state? Instead, we should fix the indirect tax system. How hard is it? It's a matter of the usual public policy process.

[00:47:32] Ajay Shah: We have an EIE episode on the long road to change, that you need to amass the data, do the research, run a public debate, get some two, three government committee reports, get draft laws, debate them in public, get them done.

[00:47:58] Ajay Shah: I recognize it can't be done in six weeks. Can it be done in six months? And surely it can be done in six years. So I want to disagree with the present Indian approach that we're merely doing PLI, but we are not solving those deeper problems.

[00:47:58] Ajay Shah: Second, if we engage with a firm like Apple and we claim victory saying that Apple is operating in India, I think we're setting our sights too low.

[00:48:24] Ajay Shah: Apple is an enormously powerful firm. They have the resources to hire a high-quality policy team in Delhi, which is able to pound the corridors of power and be able to negotiate and present their bills and get paid. Getting money out of government is non-trivial. Apple has the ability to do that.

[00:48:24] Ajay Shah: Most global firms are either small or are not sufficiently committed to India to bother.

[00:48:50] Ajay Shah: So if you put up this fixed cost that you need to put up a $10 million operation in Delhi to do the government engagement, there are many, many firms in the world who will say, "No, my activities in India are not big enough to justify putting down $10 million a year to run a policy team in Delhi that will dothat government engagement." So for this reason, when we take this deals-based approach where there is a firm like Apple and the PLI comes about and Apple is able to negotiate with the government and actually get paid on time, and that is indeed a win because we get Apple here, it would be even better to fix the underlying frameworks.

[00:49:32] Ajay Shah: Because there are thousands of global firms who would do more with India, who would choose to locate activity in India, if those underlying foundational mistakes were not there. And then that takes you to thinking a little more about the role of PLI. I have given you the theoretically clean way to think about PLI. PLI is a reversal of inappropriate taxation.

[00:49:32] Ajay Shah: A simple dharma of public finance is you don't tax non-residents.

[00:50:02] Ajay Shah: So if somebody in the US buys an asset located in India from somebody in Japan, it has nothing to do with the Indian tax authorities, and you have no business taxing that event. If somebody in Mozambique sends a futures trading instruction to an NSE broker in Bombay, then that activity has nothing to do with the Indian tax authorities and you should not tax that. So I've painted a public finance picture.

[00:50:31] Ajay Shah: Many people in the world of business will often tell a story that there the word disabilities is used. So so far I agree with the use of the word disabilities when it comes to tax policy. But people in the world of business will often use a more expansive notion of disabilities. They will say that I have a disability of expensive transportation in India.

[00:50:31] Ajay Shah: I have a disability of expensive electricity in India. I have a disability of intermittent electricity in India. I have a disability that my workers are not skilled.

[00:51:02] Ajay Shah: And they want the government to compensate them for all that. And here I just want to say this is not on. This is absolutely wrong. No government should pay a shred of attention to all these kinds of claims.

[00:51:02] Ajay Shah: Producing everywhere in the world is a mixed bag. Producing everywhere in the world has some efficient input prices and some expensive inputs. That's part of life. If you're hiring computer programmers in Silicon Valley, you're paying a lot, it's part of life.

[00:51:02] Ajay Shah: You choose.

[00:51:32] Ajay Shah: Don't whine to the government saying, "Oh, it's so difficult to operate in Silicon Valley because the rents are high." Or leave, as many firms are, which is great, this is perfectly fine. There is no role for a government to overcome input prices. And I'd always say to every firm, you're operating in India, some of the lowest wages in the world, you've got a huge negative disability in your pocket. Now, after that, don't whine about the electricity and the transportation and so on.

[00:52:01] Ajay Shah: So again, this is something Rahul Ahluwalia emphasizes, that the surprise in India is not that there is a difficulty in exporting. The surprise in India is that there is not much more exporting, because these labor costs are just drool, they are some of the lowest labor costs in the whole world. And there are very big things that are broken in the Indian environment that are interfering with the process of exporting from India. And the solution is not government subsidies, the solution is you got to go to the root cause.

[00:52:34] Amit Varma: I love the term negative disability. At some point, someday, Ajay Shah, people are going to come and hit on you and they'll say things like, "Ajay, you have so many negative disabilities, let me tell you about some of them." How will you respond if someone does that to you?

[00:52:48] Ajay Shah: Not able to find something snappy.

[00:52:50] Amit Varma: Yeah, we can think about it and tell me in the next episode.

Chapter 5: Coercive Power

[00:53:03] Amit Varma: So Ajay, my favorite subject because it's the one thing I hate most in the world and rant about is coercion. So tell me about the next lever, the lever of government coercion.

[00:53:12] Ajay Shah: We have finished one lever, that is subsidies, including PLI. We now turn to the second lever, which is government coercion around technology, which is like the example I gave you about the coercive resources of the Indian state being applied to force retailers to support UPI. There are many such examples. We have a digital public goods episode which talks more about this.

[00:53:12] Ajay Shah: Here there are basically two things to think about.

[00:53:37] Ajay Shah: The first is that the government does not know. Nobody in the government has the ability to look at the complexity of the world and choose a technology. Further, why choose one? That's not how the market economy works.

[00:53:37] Ajay Shah: The market economy works through the chaos of many, many rival technologies endlessly jostling, with unpredictable technical innovations taking place in one technology or the other. And at every point in time, the appropriate choice of technology is something different.

[00:54:04] Ajay Shah: Standards wars are a great thing. There is an irritated view among some computer engineers that I'm bored and tired dealing with five different standards. Sorry, that is what we the political philosophers know, that multiple rival standards battling it out for supremacy is a very good and healthy thing to have in the world. But I want to go one step further on the links between technology and productivity.

[00:54:32] Ajay Shah: The people who will coerce the private capitalism of a country on certain technologies are often thinking that I know that this is a high-productivity technology, and so I will push for the highest productivity of the country by pushing a certain technology. And here I want to draw a line between the engineer's use of the word technology and the economist's use of the word technology. To an engineer, a technology is a machine.

[00:55:03] Ajay Shah: To an economist, technology is everything about technique. It is everything about how you use the machine. And the best analogy in this comes from military affairs. Just because you give the Pakistani army some great tanks, you don't make them a world class fighting force.

[00:55:03] Ajay Shah: There is way, way, way more to using that hardware than having the hardware.

[00:55:32] Ajay Shah: So it's a completely wrong understanding of military policy to emphasize the toys. Yeah, toys matter, but actually 10x more important is the management complexity. It is the human knowledge, the process knowledge, the tacit knowledge, the intangible knowledge about how we build a firm, how we build the organization where many, many people work together. If any idiot had a Sony Alpha DSLR, they do not become Nomchita.

[00:56:01] Ajay Shah: There is enormous knowledge that has to go into how to use these tools, how multiple people work together, how they do inter-operation. So it is a very crude engineering view of the world that by coercing the people around a technology, I will somehow get to productivity. Actually, productivity is something far more complex. It is something that is learned by doing, and you keep hammering away.

[00:56:28] Ajay Shah: We had an episode on Moore's laws where we talked about Wright's Law, which is the learning process that happens in the better firms. And this also connects to firm internationalization. We need the global firms to operate in India because they have that tacit knowledge. It is the people who have worked in Hindustan Lever who have the global knowledge about how Unilever operates, who then go out to build other consumer goods companies in India and who transfer that knowledge.

[00:56:28] Ajay Shah: It's not in the machines.

[00:56:56] Ajay Shah: So there's a very inadequate understanding of society in the hands of many engineers, which makes them think that the machine is the thing. It's actually much more.

[00:57:05] Amit Varma: And I want to add that technology is actually evolving all the time. Today's cutting edge is passé by midnight and obsolete by noon tomorrow, and you have to be at the cutting edge of the ecosystem to really understand this. It has to be that ferment where you're improvising, you're doing new things, you're figuring stuff out. And often, like you pointed out, just cutting-edge technology doesn't mean nothing.

[00:57:05] Amit Varma: Great creativity even comes out of constraints, as the next episode will really be about. So on that note, we've plugged the next episode. Let's go on to the next chapter.

Chapter 6: Ethno-Nationalism

[00:57:44] Amit Varma: So Ajay, let's move on to the third lever of industrial policy.

[00:57:48] Ajay Shah: Which is ethno-nationalism, a subset of which is protectionism, where somehow your idea is that we will use the coercive power of the state against the activities of foreign firms, and that way somehow something good is going to happen for this country. And it's just all very strange to me, and I'm not even able to imagine the universe in which that could be true.

[00:58:13] Ajay Shah: How will you ever make Indian firms better by reducing the competitive pressure upon them from global firms? And it's kind of obvious that India is a poor country. A poor country is one with low productivity firms. The advanced economies of the world have high productivity firms.

[00:58:13] Ajay Shah: The tacit knowledge, the explicit engineering knowledge is all in those firms. When those firms operate more in India, operate more freely in India, then that kind of knowledge will diffuse all over the Indian landscape.

[00:58:48] Ajay Shah: So it's just an incredible mistake to do protectionism, or to disfavor foreign firms, to have a non-level playing field, and many, many foreign firms feel that India is not a good place to operate, because they will not be given a level playing field, because the Indian state will use its power to favor local actors at the expense of foreign actors. And I just want to say that is not in the interests of the people of India.

[00:59:14] Ajay Shah: It may be in the interests of the owners and the leaders of those Indian firms, but that's not the same as maximizing the interests of the people of India. And the people of India are left prolonging decades of poverty and misery, because we are slowing down the process through which better productivity came into India. Now in this, there is one special case, which is around national security. If you are the Indian army, you want to think very carefully.

[00:59:45] Ajay Shah: So you and I are cavalier in having a variety of Chinese equipment in this. For all you know, they may have back doors in it and they're leaking information, which would not do for an Indian military with a fundamental crisis of dealing with war on the Himalayan border, at Doklam in Bhutan, at Galwan in Ladakh, who knows what comes next. So for the Indian army, it is a very different problem, and so they should solve it, and they should solve it for themselves. But that doesn't mean that you have to distort the entire Indian economy.

[00:59:45] Ajay Shah: You don't have to be anti-foreigner or anti-Chinese technology all over the Indian economy.

[01:00:00] Ajay Shah: You can be cautious about your technology sourcing and have military gear where you have a trusted components supply chain running through and through. And there again, self-reliance may well not be optimal. Are you really going to build an entire fighter plane with all Indian components? It's not going to happen.

[01:00:35] Ajay Shah: So we're going to need the relationships, we're going to need the partnerships whereby these kinds of things can be done. The Europeans are working on how to build millions of drones without Chinese backdoors. The Ukrainians are today one of the world's largest producers of drones, and they can't use many Chinese components because China is partnering with Putin. So they are solving these problems.

[01:00:29] Ajay Shah: And what would be wise is for the Indian state to find these collaborations between like-minded actors who are very focused on our conflict with China, and they are also trying to avoid Chinese parts, and do these deals. So again, self-reliance may not be the most wise policy, you may need to do partnerships. But I just want to say that you have to wall off the military problem from the economy problem.

[01:00:35] Ajay Shah: And in fact, the greatest path to military strength and successful foreign policy lies in 8% GDP growth. Get a country with high GDP and everything becomes easier. In the immediate context, think of the entire mess around Vladimir Putin, etc. Just think how comforting it is that Russia is an Italy-sized GDP.

[01:00:29] Ajay Shah: So all in all, it is small change compared with the economic might of Europe. Meaning there are transition problems, there are critical components controlled by the United States, Europe will have to rebuild them themselves. But fundamentally, it's not a threat. Why?

[01:00:29] Ajay Shah: Because Europe is unimaginably richer than Russia. Whereas if that was not the case, it would be an entirely different situation, as is, for example, with the problem between India and China.

[01:00:24] Ajay Shah: So GDP growth is the key, and we will obtain GDP growth by having deep internationalization of the economy. So any industrial policy that hinders the internationalization of the economic activity in India, and the presence and competition and activities of foreign firms operating in India, is self-destructive.

[01:00:49] Amit Varma: And many, many Italian viewers are at this point deeply disappointed by you saying that Russia is an Italy-sized GDP. They are thinking ki bhai, hamari bezzati kyun ki? Kuch aur bol deta, Moldova-sized GDP. And our good friend Nitin Pai of the Takshashila Institution often says that the best foreign policy is a rising GDP.

[01:01:16] Amit Varma: You have much more leverage, you have much more power, you have much more internal security. So completely agree with that. And I want to avoid committing the curse of knowledge by once again repeating my fundas on something that you and I take for granted, I take almost as axiomatic, which is why protectionism is a problem. And for me, there are two reasons which absolutely stand out.

[01:01:16] Amit Varma: We've spoken about both of them before in past episodes, but I'm going to quickly do that again.

[01:01:44] Amit Varma: One is what happens when, say, there is an Indian company A and there is an Italian company X, kyunki, let's give them some izzat na, Italian company X. Italian company X is delivering better products either in terms of price or in terms of value. And the Indian company A goes to the government and says, "Protect us, national champions, local industry, local entrepreneurs." So the Indian government puts a tariff on the Italian company so that their product becomes too expensive for us, and then we have no option but to buy product A.

[01:02:16] Amit Varma: Now, on the surface, the seen effect of this, if one may invoke the seen and the unseen, the seen effect of this is that this led to something good happening to the Indian company A. But there are two unseen effects, which are deep and very different from each other. One unseen effect is that it is a redistribution of wealth from the poor to the rich.

[01:02:36] Amit Varma: The consumers at large would either have got a lower price or a higher value, but they have lost that. And that has effectively been redistributed to Indian firm A. And no one sees this, because the costs are dispersed and the benefits are concentrated. And then the Indian firm A can lobby the government and have more tariffs put on all the Italian firms out there, which is terrible.

[01:03:01] Amit Varma: But the second effect, which is what you're pointing to, is a deeper effect that even hurts Indian firm A. Indian firm A is no longer competing with the best firms in the globe, and therefore they don't have to lift their standards, they don't have to get best practices from outside, they don't have to give more value at lower prices. They play the same low equilibrium game as it were, and it becomes a vicious cycle, which is terrible.

[01:03:28] Amit Varma: So you're not even helping the Indian company, you're hurting the consumer and you're hurting the Indian company, and protectionism is just so bizarre and stupid. So all of us need to see past the rhetoric. And I know that protectionism is just one part of the problem of ethno-nationalism, as you're pointing out, and we take it for granted that, hey, everyone knows it's bad, but I thought that I should point out why.

[01:03:59] Amit Varma: All right, the last of the four levers, as it were, government monopolies. Tell.

[01:04:03] Ajay Shah: So at this point, the bureaucrat is exasperated. These people are not worthy of us. And we tried, and we tried, we tried to foster a good industry, but it just never happened. So let's just give up on this entire pretense, and I'm going to do it myself.

[01:04:03] Ajay Shah: I'm a joint secretary, I know this game better than any of the firms. So the government just creates a PSU, the government just creates a monopoly.

[01:04:28] Ajay Shah: And this is industrial policy. The government decides that bill payment is so important, there should be a PSU monopoly which shall be the only bill payment company in the country. Yeah, I can't imagine why I would ever make such an argument, but it is there in India and it keeps on happening. And every now and then there is a bureaucrat at her wit's end who decides to create one more PSU.

[01:04:55] Ajay Shah: And it's a sliding scale. First you have a PSU, the PSU does badly, then you start harming the private companies, then you just go to saying this is my monopoly. And this has happened again and again in Indian history. I used to think that it's over, that there was UTI, which was a public sector monopoly mutual fund.

[01:04:55] Ajay Shah: LIC was a public sector monopoly insurance company. Coal India was a public sector monopoly coal company. And I thought these were like silly things that were done because there was poor economics knowledge in India in those years.

[01:05:25] Ajay Shah: No, this stuff is alive and well. Meaning new public sector companies are being created today, and coercive power of the state then gets used to make their life more feasible, and then they turn into national champions. And this curse is upon us, and I cannot imagine any universe in which a public sector company or a public sector monopoly is a useful tool of industrial policy.

Chapter 7: Government Monopolies

[01:05:53] Amit Varma: And I want to share a little story here, and again, I speak about this often, and 70% of this country is born after liberalization, so I almost feel it is my duty to repeat stories of the years before that again and again. And the two sectors I often talk about when I talk about the power of free markets is telecom and airlines. When we were in the 1980s, I mean, we had a telephone, I was born in a privileged household, my dad was a civil servant.

[01:06:17] Amit Varma: But you used to have seven, eight-year waiting periods to get a freaking telephone. You had a monopoly in MTNL and you'd have to wait seven, eight years, and it was absolutely horrible. Similarly, with airlines, I remember airline tickets in those days, if I remember correctly, used to cost pretty much the same as they do now, except that 8,000 rupees then was a heck of a lot.

[01:06:39] Amit Varma: So even we, an IAS officer's family, even we simply couldn't afford to take a flight. I am one of those people who remembers the excitement of the first flight, and it was so rare, and all of that. And the moment 1991 happened and those fields opened up, eventually MTNL and BSNL, it's not that they were shut down, it's just that they became completely irrelevant.

[01:07:00] Amit Varma: That you had hazar competitors coming in, everything got cheaper. Even in terms of entertainment, so many TV channels, you no longer needed to watch Doordarshan. All the government monopolies, it was evident that you don't actually need them, that they're not serving a purpose. And we should think of this in terms of all the fields, all the sectors where we did not open up and where the state still plays a really large role.

[01:07:26] **Ajay Shah:** Or even fields that are closing down today. It just blows my mind that we have not finished, we have not learned. We continue to create new PSUs every year, and we continue to lock out private firms from one industry after another every year. And that is just something really harmful.

[01:07:48] **Ajay Shah:** It's heartbreaking thinking of the trajectory of Air India. Air India began as a private company owned by the Tatas. It was expropriated and grabbed by the government. It became a monopoly.

[01:07:48] **Ajay Shah:** Then the greatness of the policy makers, they opened up the airline industry to competition, so we got many, many airlines. And then we got to the state where the public sector Air India, at its peak, was bleeding, I believe, 35,000 crore rupees a year of government subsidy to keep it aloft.

[01:08:16] **Ajay Shah:** It was a zombie firm that only by continuous injection of taxpayer resources...

[01:08:22] **Amit Varma:** Of our money.

[01:08:23] **Ajay Shah:** ...of our money, was Air India kept aloft. And then, in a great achievement of the BJP government, they privatized Air India. It's gone back to the Tatas. That's a very good outcome, but it just makes you wonder, what if Air India had never been nationalized in the first place?

[01:08:23] **Ajay Shah:** What if it had been a private firm all through? What if the Indian airline industry had had multiple global rivals all along?

[01:08:47] **Ajay Shah:** Why does Lufthansa not run Bombay-Delhi flights? And so on. So there is just so much of state coercion that has gone into harming the country every step of the way.

[01:08:59] **Amit Varma:** Before we go to the next chapter, I want to ask you a question, right? Let us see if you can get this right, because you have been intimately familiar with government, you've worked in the Ministry of Finance, you've worked with the Ministry of Finance for many years in an outside role. Here's a question. Let us say that dear leader, some great leader in our country, decides that he will have a secretary for each system of organs in his body.

[01:09:22] Amit Varma: And he says, okay, there is my stomach, there are my intestines, etcetera, etcetera, I will have a secretary to look after that, that person will be called the digestion secretary. And also there is a windpipe, there are my lungs, so there will be a respiration secretary. And there are my elbows, my knees, my ankles. What will that secretary be called?

[01:09:48] Ajay Shah: Joint secretary.

[01:09:55] Amit Varma: Well done. [laughter] I'm so proud of you.

[01:10:23] Amit Varma: So Ajay, I already actually know the answer to my next question, because we have an excellent episode on China. We've discussed it a lot, but I'm going to ask it anyway. A lot of people with the engineering mindset, the grand chess players on the chess board that is society, will say, "But hey, look at China, isn't industrial policy working for them?" So I want you to elaborate on how does one answer that particular question?

[01:10:41] Ajay Shah: So I would put it in two parts, that the people who look at like a China EV or a China solar photovoltaics are undoubtedly seeing some success stories, but you have to see the picture in its entirety. And many, many things were done and many, many things went wrong. And there is a certain element of cherry picking in seeing a few winners. So that is part one of the answer.

[01:11:07] Ajay Shah: And the second is that you have to see this in the largest picture, in the entirety, which is that the Chinese extent of state control, which includes Chinese industrial policy, has actually led to great difficulties in the Chinese economy. So that's the essence of our China model episode. It is Chinese industrial policy that has taken us to a place where for each one Chinese household, there are one point five houses.

[01:11:34] Ajay Shah: There are one point five apartments. So what are you going to do? You're stuck with 50% excess inventory in the number of flats in China. Who is ever going to resolve that mess?

[01:11:34] Ajay Shah: Because they have no hope of ever having 50% more people. They are on a negative population growth trajectory. That is also to be laid on the doorstep of the industrial policy of the central planners.

Chapter 8: The China Question

[01:12:00] Ajay Shah: So I think that we should be cautious about cherry picking. Another way to think about this is that all successful advanced economies look alike. All unhappy poor countries are unhappy in their own way.

[01:12:15] Amit Varma: Leo Tolstoy and Anna Karenina. This is a well-read economist. Continue.

[01:12:20] Ajay Shah: So the Chinese malaise is a Chinese malaise of an underdeveloped country. You don't get this kind of thing in any of the advanced economies. So yeah, many people will try many things, and we tried with nationalizing Air India and so on. We have a PSU banking system.

[01:12:20] Ajay Shah: So there are many, many experiments that are done in many, many poor countries.

[01:12:44] Ajay Shah: And in the overall balance sheet, you have to say that no, but all in all, the Chinese per capita GDP is pretty awful compared to the advanced economies. And the failures of the China model, the loss of dynamism, the difficulties of the Chinese economy from the time Xi Jinping consolidated power, is also to be laid at the doorstep of Chinese state domination and industrial policy.

[01:13:12] Amit Varma: So Ajay, I want to go back to the impertinent suggestion that I mentioned in that fan email I got, that you guys should be running the country. And of course not. But if you were running the country, you would not make any of these mistakes, I am hoping. But then what would you do?

[01:13:28] Ajay Shah: So the words that I think we should focus on are that the job of policy is to enable winners, not pick winners. Just the words enable winners. Hiding inside the private sector are all kinds of geniuses. You don't know who they are, you don't know where they are.

[01:13:28] Ajay Shah: They're all running, they're competing with each other, some of them will become great.

[01:13:51] Ajay Shah: The job of government is to create conditions where winning happens, where some great firms emerge with really high productivities. And the path to a great industrial sector lies in government effort in a series of areas, and let's just run through a few of them. One of them is the entire higher education and R&D sector. We have an episode on innovation policy.

[01:14:17] Ajay Shah: There is a case for some amount of public money to go into fostering extremities of scientific and engineering knowledge in the universities. So that that raw material is sitting around in the country, and those contracts are given to private firms. So private firms are being challenged to do crazy things, like put a craft that manages to land on the surface of Venus.

[01:14:40] Ajay Shah: It's a nonsensical objective. There is no conceivable benefit to humanity, but by challenging those private firms, we're creating knowledge. And then some of those private firms will turn around and say, "Oh, I can make better spectacles for Amit using this technology." You can't predict where knowledge will go. So there are knowledge spillovers.

[01:14:40] Ajay Shah: So a contracting out approach to R&D, where research grants, research contracts go out into the universities and into the private firms, would foster extremities of knowledge in an industry neutral way.

Chapter 9: What Should the State Do?

[01:15:12] Ajay Shah: So you need to do this in many, many industries. Then you should not have the joint secretary saying poultry farms good, nanotechnology bad. You should basically be funding a broad spectrum of things. We should be having research grants on how to double the size of an egg.

[01:15:12] Ajay Shah: We want Wright's law of eggs, where every doubling of egg production, we want the size of an egg to double. And we should be funding nanotechnology research as well. We should not be doing industrial policy, that I will choose which industry is correct and then I will strategically place bets, solar power good, wind power bad.

[01:15:44] Ajay Shah: We should not get into that. Then the next piece is the whole competition environment. Think about firms from startup to bankruptcy. You need the vibrancy of the creative destruction where firms come, firms go.

[01:15:44] Ajay Shah: It is tough, life for the firm should never be easy. Life for the firms should be very difficult.

[01:16:07] Ajay Shah: So that the firms are constantly striving and they're trying hard to get better. So everything you can do to make it easier to start a firm, to have more venture capital, more foreign capital in various stages of the growth of the firm, acute levels of competition. There is a role for government policy to find and break barriers to competition, where cartels develop, where there are difficulties in entry.

[01:16:31] Ajay Shah: Use government policy to make life more competitive, make life more difficult. But never create a UPI monopoly. But if you see there are some things going wrong in terms of some markets being locked up, then are there ways in which government can help increase competitive conditions, and bankruptcy. Walking away, landing on your feet, is very important.

[01:16:31] Ajay Shah: People should make mistakes. Bankruptcy is a healthy, normal part of life. We have an EIE episode on bankruptcy.

[01:16:58] Ajay Shah: And then internationalization. A successful country is one that is deeply, deeply, deeply internationalized. We should be importing more, we should be exporting more. Hiding inside the protectionism thing, when your raw materials are cheap because of free imports, you're able to export more because your cost structure becomes improved.

[01:16:58] Ajay Shah: We should have Indian firms becoming multinationals, organically, of course, not government encouragement, meaning remove government discouragement.

[01:17:25] Ajay Shah: Remove the Enforcement Directorate and all the difficulties of Indian company law and SEBI and all that, through which it becomes very painful for an Indian firm to have activities overseas. Indian firms should have the full economic freedom through which they blossom into multinationals. We should have global firms operating in India in an unrestricted way.

[01:17:47] Ajay Shah: I want to bring up immigration. There are many parts of the world which are a mess, and there are people available all over the world for hire, and there should be much more of immigration into India. We discussed this in our chess episode, that if you want to build a truly great firm, you should be recruiting from all over the world. You don't just say, "I'm going to hire people in India," you should be hiring people from all over the world.

[01:18:11] Ajay Shah: We need to change our immigration procedures, our visa rules, so it becomes easy for Indian firms to hire foreigners, to live in India, to participate in the Indian economy, and participate in building great firms in India.

[01:18:23] Amit Varma: All wise words. The only places where I would sort of express a tone of caution is, A, in government investing actively in higher education and R&D. And I would say that broadly I agree with you, that if you're going to invest in innovation, the path that we laid out in our innovation episode, where you have private competition and you put good incentives in place, is the way to do so.

[01:18:44] Amit Varma: But nevertheless, how much should we invest, should we invest, these are fundamental philosophical questions that there's no point litigating here. I would also say that as far as breaking up monopoly power is concerned, my belief always has been that pretty much every single monopoly that comes about, comes about with the collusion of the state. When the state gets involved, any seeming monopoly that forms in a competitive marketplace dissolves soon enough if you give it time.

[01:19:10] Amit Varma: And I would also be wary of the government overextending itself and, in a sense, trying to be a social engineer there as well. So I would say, as far as possible, your job is a rule of law, creating a safe environment to conduct business, and that's how you enable good things to happen.

[01:19:26] Ajay Shah: And identifying things like the digital public goods, the APMCs, where the Indian state is an active player in locking up one sector after another.

[01:19:35] Amit Varma: Which is terrible.

[01:19:36] Ajay Shah: Yeah. And that's a constructive project of undoing all these things and opening up to an open, globally competitive landscape, that there is no uniquely weird Indian monopoly way of doing things. All the global firms are welcome to be here, participate, bring all your technologies, bring all your processes, compete in the Indian economy as you like.

[01:19:53] Ajay Shah: I want to end with telling one story of one of the greatest industrial policy successes of world history.

[01:20:00] Amit Varma: Boliye, sir.

[01:20:03] Ajay Shah: This is called SEEPZ, Santa Cruz Electronics Export Processing Zone. In the 70s, some bureaucrats had an idea that in East Asia, they're being so successful making radios and making other electronic parts and exporting them all over the world, why can't we do this in India? And then in their diagnosis, they understood that one of the problems is customs duties.

[01:20:24] Ajay Shah: You would never make a radio in India, because if you import the transistors into India and pay 150% duty and then make the radio in India, you would not be able to re-export it because these raw materials are so expensive. So there was an industrial policy initiative that in Bombay, in north Bombay, in the boondocks, far away from Bombay, there was a chunk of land where they built a boundary wall. It is called Santa Cruz Electronics Export Processing Zone.

[01:20:50] Ajay Shah: There is a gate. Every truck coming in and out, the contents would be inspected. And special pathways were set up from the airport that imported electronic components would come, probably with somebody riding with a shotgun on the truck to make sure nobody steals the transistors and smuggles them into the Indian market. Takes them into SEEPZ where somebody will assemble the radios.

[01:21:15] Ajay Shah: And then again, the armored trucks containing those radios had to go out back to the plane to export them, because those radios could not come into India, that would be smuggling. All this work was done and SEEPZ was built. Now, the genius of the Indian firms saw the opportunity that you've given me some freedom, na? I'm free to import, I'm free to export.

[01:21:15] Ajay Shah: Wow.

[01:21:41] Ajay Shah: And then the organic process of discovery, and not design, started thinking, "Oh, if you allow me to import, what would I do? If you allow me to export, what would I do?" And two great industries emerged out of SEEPZ. The first of them is diamond polishing. The second of them is computer software.

[01:21:41] Ajay Shah: Indian entrepreneurs figured that, "Oh, I could bring diamonds, rough diamonds from South Africa and Antwerp, in these same protected mechanisms into SEEPZ."

[01:22:12] Ajay Shah: I'll hire cheap Indian labor, they'll polish the diamond, we'll take it back, and we'll send it out. Great, I've got a new industry, I'm a diamond polishing industry. India today polishes like 55% of the number of diamonds of the world. And second, oh, I can import computers.

[01:22:12] Ajay Shah: So firms were able to import computer hardware into SEEPZ, hire Indian programmers, which started building software and exporting that software. And that was one of the early sites where the Indian software industry happened.

[01:22:43] Ajay Shah: So what do we learn out of this? That you can't predict, you can't control, but adding freedom is always a good thing. Increasing freedom is always a good thing. The firms will surprise us in what they will do with the freedom.

[01:22:57] Amit Varma: The unintended consequences of freedom, you'll never guess what happened next. And I have a question for you. The great blues band, The Allman Brothers Band, have you heard of them?

[01:23:05] Ajay Shah: A little bit.

[01:23:06] Amit Varma: The Allman Brothers Band once came to SEEPZ to perform, you may not know of this. But as they went in, all of them were allowed to go in, but one band member was examined. Who?

[01:23:16] Ajay Shah: No, I don't know.

[01:23:18] Amit Varma: Derek Trucks. Because they were examining all the trucks, right? And at this point, I'm going to give the recommendation, because we have been getting complaints, Ajay Shah, that we don't give enough recommendations, and I want to tell gentle readers it is this man's fault. I do my best.

[01:23:18] Amit Varma: We have this rigmarole at the end of every episode where I say, "Ajay, let's do a recommendation chapter." And Vaishnav and Nomsuta will break their silence and say, "Yes, yes, yes." And then Ajay Shah will say, "Ugh, uh, ah, forget it, next time." But you have to think of something.

[01:23:47] Amit Varma: But before that, I will quickly recommend Allman Brothers Band, great album called Eat a Peach. Two tracks from that which you can watch on YouTube right now, Little Martha and Blue Sky. Both of them feature the brilliant Duane Allman playing guitar. Absolutely love his guitaring, great feel, great vibe, just incredible.

[01:23:47] Amit Varma: And so you can check those out. And Duane Allman, by the way, also played on which legendary track?

[01:24:10] Ajay Shah: Layla.

[01:24:12] Amit Varma: Brilliant. Layla, by Derek and the Dominos.

[01:24:15] Ajay Shah: It is my recommendation for today. Be sure to find the right version of it.

[01:24:19] Amit Varma: Which is...

[01:24:20] Ajay Shah: Not the lame Eric Clapton unplugged version.

[01:24:23] Amit Varma: Yeah, the lame Eric Clapton unplugged version is very good, but the original Derek and the Dominos, by the way, had nothing to do with Derek Trucks as Nomsuta thought, but Derek and the Dominos was a band formed by Eric Clapton, and Duane Allman came and played on some of the tracks, and Layla is an absolute masterpiece. But no, you cannot do this. I had already named the song. This was going to be my recommendation.

[01:24:23] Amit Varma: You have to name something else.

[01:24:45] Ajay Shah: I promise next step I will have five recommendations.

[01:24:48] Amit Varma: Next episode, five recommendations. People can't wait for next Friday, but thank you for being here. This Friday, bye-bye. Wave.

[01:24:48] Amit Varma: Phone utha raha hai, WhatsApp dekh raha hai.

References

[1] *Industrial Policy for Development: Approaches in the 21st Century.* World Bank, Washington, DC, 2026. https://doi.org/10.1596/978-1-4648-2276-6.

[2] Shah, Ajay, Adam Feibelman, Josh Felman, Renuka Sane, Rajeswari Sengupta, and Anjali Sharma. "The Leap Blog." Blog, 2005. https://blog.theleapjournal.org/.

[3] Shah, Ajay, and Rahul Ahluwalia. "Ajay Shah On 4 Pillars Of Industrial Policy, And Why They're All Bad." FED Dialogues, Episode 8, Foundation for Economic Development (video conversation, embedded via YouTube), November 8, 2024. https://www.fedev.org/focus-areas/ajay-shah-on-4-pillars-of-industrial-policy-and-why-theyre-all-bad-ep-8-fed-dialogues/.

[4] Krueger, Anne O. "The Political Economy of the Rent-Seeking Society." *The American Economic Review* 64, no. 3 (1974): 291-303. https://www.aeaweb.org/aer/top20/64.3.291-303.pdf.

[5] Bhagwati, Jagdish N., and Padma Desai. *India: Planning for Industrialization: Industrialization and Trade Policies Since 1951.* Oxford University Press, 1970. https://books.google.com/books/about/India_Planning_for_Industrialization.html?id=bUCdxQEACAAJ.

[6] Kenny, Charles. "The World Bank Group and Industrial Strategy." Center for Global Development Blog, April 7, 2026. https://www.cgdev.org/blog/world-bank-group-and-industrial-strategy.

[7] Irwin, Douglas. "The Return of Industrial Policy." Finance & Development, International Monetary Fund, June 2023. https://www.imf.org/en/publications/fandd/issues/2023/06/the-return-of-industrial-policy-douglas-irwin.

[8] Goldberg, Pinelopi, and Michele Ruta. "The Changing Nature of International Trade and its Implications for Development." 2025. https://doi.org/10.3386/w34283.

[9] Hayek, F. A. "The Use of Knowledge in Society." *The American Economic Review* 35, no. 4 (1945): 519-530. https://www.jstor.org/stable/1809376.

[10] Lemieux, Pierre. "What Is Industrial Policy? What Is It for?" Regulation (Cato Institute), Spring 2026. https://www.cato.org/regulation/spring-2026/what-industrial-policy-what-it.

[11] Noland, Marcus, and Howard Pack. *Industrial Policy in an Era of Globalization: Lessons from Asia.* Peterson Institute for International Economics, 2003. https://www.piie.com/bookstore/2016/industrial-policy-era-globalization-lessons-asia.

[12] Mises, Ludwig von. "Economic Calculation in the Socialist Commonwealth." In *Collectivist Economic Planning: Critical Studies on the Possibilities of Socialism*, edited by F. A. Hayek. George Routledge & Sons, 1935. https://mises.org/library/book/economic-calculation-socialist-commonwealth.

[13] Pack, H. "Is There a Case for Industrial Policy? A Critical Survey." *The World Bank Research Observer* 21, no. 2 (2006): 267-297. https://doi.org/10.1093/wbro/lkl001.

[14] Aggarwal, Vikram, Ajay Shah, and Viral B. Shah. "Mayin." https://www.mayin.org/, March 7, 2021.

[15] Venugopalan, Vishnu. "Designing Industrial Policy for Development." Reimagining the Economy Blog, Malcolm Wiener Center for Social Policy, Harvard Kennedy School, April 7, 2026. https://www.hks.harvard.edu/centers/wiener/programs/economy/our-work/reimagining-economy-blog/designing-industrial-policy.