

Book Talk With Dan Wang: "Breakneck: China's Quest To Engineer The Future" | Hoover Institution

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SUMMARY

Steven Kotkin introduces Dan Wong's book "Breakneck," which explores the complex relationship between the U.S. and China, particularly in the realm of technology and governance. Wong contrasts the "engineering state" of China, characterized by its focus on physical and social engineering, with the "lawyerly society" of the U.S., which he argues is hindered by its legalistic approach.

- Wong describes China as an "engineering state" where the elite are predominantly trained in engineering, leading to rapid infrastructure development and social engineering projects.
- He contrasts this with the U.S. as a "lawyerly society," where legal training dominates the elite, resulting in a focus on litigation and regulation rather than building.
- The book discusses the implications of China's rapid technological advancements and its potential to outpace the U.S. in manufacturing and innovation.
- Wong critiques both countries: China for its oppressive social engineering and the U.S. for its inefficiencies and inability to address broader societal needs.
- He emphasizes the importance of understanding the historical context of both nations, particularly how China's past has shaped its current policies and ambitions.
- Wong calls for a balance where the U.S. becomes more engineering-focused while China adopts more legal and ethical considerations in its governance.
- The discussion highlights the need for a cooperative yet competitive relationship between the two nations to avoid conflict and foster mutual growth.

- Ladies and gentlemen,
 my name is Steven Kotkin. I'm the Klein Hein Senior
 fellow here at the Hoover Institution at Stanford University, and I'm the director of
 the Hoover History Lab. And we are thrilled,
 beyond thrilled to be able to sponsor this book, talk
 today, this breakout book, breakneck by Dan Wong. I could go on passionately about
 all the amazing things I've seen Dan do in the short period of time.

I know him. I met Dan before I met him through his letter, I read Voraciously and there was this guy writing
 this incredible letter, an annual letter, and it was just full of
 firsthand observations, sight and direct knowledge of the subject he was talking about. It was not opinionated, it

wasn't full of the kind of stuff that now
is known as journalism.

It was full of this firsthand experience and trying to process this experience, but really without priors,
letting it come through, absorbing it, trying to figure it out. Not necessarily definitive
right away, but iterative. And I said, you know what? That's our guy. We have to figure out how to get him here
and provide a platform
for him to continue doing what it is that he's doing.

So lightning struck, not me personally, but lightning struck our, our institution here,
the Hoover Institution. And we did manage to bring
Dan in not that long ago. And this breakout book Breakneck has really caught the moment, again, because it's
consequential in
what it deals with, but also because of the style, the method, the way that Dan approaches these
really complicated subjects and the way he allows them to emerge from the firsthand experience and the lived
knowledge
that he's acquired.

And the subtle but important analysis, quite
incisive about the subject. I should say, that there's
nothing bigger than tech than China, than the US and then the futures in the
plural that are gonna come out of that combination. And so, ladies and gentlemen, what a
great pleasure Dan Wong.

- When Steven Kins strikes
one doesn't say no. So he struck me. And now here I am. I should first say that
I have been very pleased that the Hoover History
Lab was an integral part of this part of book writing. Earlier about a year ago
when I was still thinking through a little bit of what
this manuscript was going to be, professor Kotkin
offered very generously to host a manuscript workshop along with so many people here,
Joseph Ledford, Maria Roy.

A lot of folks here were helping
me think through my book, made my book much stronger than it is. And so over the next 30
minutes, what I want to do is to talk very briefly about my book and then, you know,
have as much engagement as we can thinking through
these very big topics of US and China Tech, the futures
of what could emerge. And a lot of what I have
been thinking through with my book Breakneck has
been to try to, you know, think through a little bit of, you

know, this very momentous time of the US and China.

I first moved to China
at the start of 2017 to be the technology analyst
at a global macro research firm called Golf Cow Dragonomics. This was a time when Donald
Trump had just taken office and it felt over the next
six years that I lived there, like a pretty remarkable and momentous time to
actually be spending in China. Yeah, I lived through
the very first trade war, which quickly morphed into a
technology war with all sorts of export control actions.

I lived through more novel forms of repression from Xi Jinping
in order to, you know, achieve the great rejuvenation
of the Chinese nation. And the centerpiece of my
life in China was living through all three years of
the zero COVID pandemic, which felt, which
started very impressively and then ended, I think, pretty disastrously over,
over the three years there. And after, you know,
thinking through everything that had taken place in China and thinking through a lot
about what's going on in the US, one of my decisions was that,
you know, we're reasoning through this very important
relationship between the US and China over the next
few decades using a lot of these 19th century political
science terms like socialist or capitalist or neoliberal, whatever that
means in order to, you know, think about what is going to be pretty important over
the future using these terms that are not necessarily, have not been very necessarily been very stable throughout
time.

And so what I wanna do
is to offer a little bit of what's in the book in
terms of trying to have a, a, a new framework for thinking through these two great
countries, thinking through what works in China, what
absolutely does not work, and then doing the same
exercise with respect to the US as well. And then hopefully have as much engagement over what's going on. So
to begin with, I'll
introduce one of the ideas in this book, which is to try to be a little bit inventive and playful and moving beyond
these terms
of, you know, socialists or capitalists or
neoliberal or autocratic.

And a simple idea I want

to present in the book is that China's a country I call the engineering state at various points in the recent past, the entirety of the standing committee, of the poll bureau, all nine members of the standing committee, the highest ruling echelon in China, all of them had some degree in engineering. And I contrast that with this country, the United States, which I call the Lawyerly Society, because it feels like everyone who needs to, who wants to be president first, has to go through the Yale Law School in order to in, in order to get there.

And so China's a country, I call the engineering state because so many of the elites are, were trained in engineering, and this is engineering of a very Soviet sort. These people are trained in civil engineering and mechanical engineering and thermal engineering and hydro. They were also hydroelectric engineers as well. And you know, one issue with engineers is that they build, build, build. They treat the physical environment as just a big engineering exercise. So I spend a lot of time cataloging all of these different things like roads and bridges and hyperscalers and homes and solar, coal, wind that the Chinese have really built over the past four decades.

And they are sort of treat building yet another mega project is the answer to almost any of their problems. It is yet to build another big bridge if the economy trembles. They are also to some degree economic engineers. One of the other big experiences I lived through in China was in 2021 when Xi Jinping was feeling like he was on top of the world, that China was able to control COVID and the United States was not that Xi Jinping decided that what he would achieve was a controlled demolition of the property sector, which he determined to be over leveraged.

And then also to get a lot of smart young kids, the likes of Chinese kids who graduated from Tsinghua or Peking, the, the, the caliber of kids who graduate from Stanford in China to move them away from cryptocurrencies and then into more strategic technologies like semiconductors or aviation or chemical products or whatever else. There are also fundamentally engineers of the soul, which is a phrase that Stalin first used that Xi Jinping repeated in 2019.

I think one of the facts of China is that they are also social engineers. So I spend a lot of time in my book documenting, you know, different sorts of social engineering projects, whether it was, it's the detention of ethnic religious minorities to try to synthesize their religions or the KO project, which has limited a lot of people's ability to move around. Or I spend a lot of, most

of my time thinking about
the one child policy as well as zero COVID, in which the number's
right there in the name.

There's no ambiguity about what one child or zero COVID could possibly mean. I contrast that system
with the United States, which I call the lawyerly society, because the elites are
very easily conceived, they're very much
dominated by the lawyers. If we take a look at the
first 16 US presidents, everyone from George Washington
to Abraham Lincoln, 13 of them were lawyers. Five last 10 US presidents
went to law school. If we take a look at the US
Senate, 48 US Senators were, had gone to law school only I
believe a single one have had any STEM training.

The Democratic party
is especially lawyerly. If we take a look at the
presidential nominees, every single presidential
nominee from the Democrats between 1980 to 2024, all of
them had gone to law school. And there, I think there is a
sense in which Donald Trump is actually quite a creature of
the lawyerly society as well. So Donald Trump did not go to law school. He, he went to study business and
finance. But I think there is something
recognizably lawyerly and Trump's governing style
in which you cannot understand the career of Donald Trump without seeing that lawsuits have been absolutely
central to his entire business career.

This man has sued everyone. He has sued his former business partners, he sued his former, his
sued political opponents. He has sued his former lawyers. And so, you know, this is
just a, a, a man who I think, you know, flings accusations left and right, tries to intimidate people. And it's about
establishing guilt in the court of public opinion. So, you know, there are good and bad things about the lawyerly
society that I also wanna get into.

But for most of the rest of
this talk, what I want to do is to present something I call the good, the bad, as well as the ugly. And so let me get
into a, a little bit of what I'm thinking in terms of focus a little bit more on China, but I also wanna discuss
the United States as well. I think, you know, to just as
one more quick precursor on, on all of this, I think that
the engineering state is not, certainly not the only way
to understand what China is.

I think that, you know, we can

also understand it absolutely as an autocratic state. This is a state where politics absolutely does matter. Professor Kotkin, I, I hope we can get a few more of your opinions about China as they're practicing Leninism and you know, the flavors of communism that they are a part of. And so I think this is the engineering is simply one more framework to think about, you know, what exactly that they do.

So what is, what, what is it that engineers do? Well, let me get into first the good, the broadly good stuff with the engineering state is that I think physical dynamism is for the most part a good thing. And this is something that the Chinese have done very well for most of the past four decades. I was living in the city of i I I lived over my six years, two years in Hong Kong, two years in Beijing, and then two years in Shanghai.

And my definite favorite of these was the city of Shanghai. Shanghai was a place that we proudly refer to ourselves as this is Paris of the north and then I, I'm sorry, Paris of the east. And we would often tease our friends who live in Beijing. Why would you live in Western Pyongyang? It is just not very fun at all. So Beijing is a place that I feel like is a, you know, concrete, no fun zone full of these Stalinist buildings place that really celebrates a sense of grandeur.

And Shanghai is just a much more functional city. Instead it has excellent subways. You're never very far from a subway station has these leafy boulevards that the French substantially built. And it is just a place that is getting more and more parks and it is also getting better and better high speed rail connections in the summer of 2021. This is part of how I opened my book. I was feeling cooped up in Shanghai. This was sort of the peak of zero COVID and I scared up two friends with me to take a long bike ride in the southwestern province of Hu Jo.

So Gu Jo is about seven hours by high-speed rail away from Shanghai. It is deep in China's southwestern mountainous interior very far away from the prosperous distant coasts. And Gu jo is a quite poor place in which, you know, it is about China's fourth porous province in which the, one of the sayings is that ou is a place where not three days go by without rain. Not three feet of land is flat and not one family has three silver coins.

But ou now, after I've cycled through about five days

throughout the province in the southwest, you know, was really remarkable after thinking about it, to have really extensive levels of infrastructure, has about 45 of the world's tallest bridges that has many of China's biggest data centers there. It has excellent roads, which were a cyclist stream. So if you're interested, I'll, I'll, I'll send you my cycling route, which was an, an excellent place to cycle through. And you know, I think what is also pretty remarkable is that Cujo had a pretty extensive high speed rail, which, you know, were where villagers were able to get to markets or get to bigger cities like Shanghai and, you know, have slightly different lives there.

And so I think there's all sorts of ways in which physical construction is, is really valuable for a country. If you are living in, in almost anywhere in China, you will have seen your life, the physical environment around you change very, very substantially over the last four decades, maybe over the last past one decade. So a lot of people in Shanghai now are able to have subway stations, they are able to have more parks.

The villagers are able to take these really big bridges into the market. And I contrast that with a lot of the feelings of folks who live maybe in San Francisco, maybe they live in Los Angeles, where maybe your block has a slightly better cafe. Maybe we swap out a McDonald's for a Dunkin Donuts. But that does not feel like a very big sense of progress. And so when you are able to deal with big changes as the Chinese have over the past few decades, you sort of expect the future will be better than the past that you have seen the past be quite a lot better.

And then I think this is, you have a sense of optimism I think, about the future that will always change, that there will always be new opportunities out there, at least in terms of the physical environment. And so I think this is how the Chinese state has not only built so many nuclear plants and so many bridges and so many highways, but they also built a sense of political resiliency into their system because they can very credibly say that they're delivering to people things that they want and things that they need.

There's also another sense in

which the engineering state has been really excellent at pursuing all sorts of manufactured goods. And I'll speak a little bit more at what I'm, where I'm thinking with China's expertise in manufacturing now I wanna acknowledge some costs with the problems of overactive construction, overactive physical dynamism. Certainly it is the case that a lot of these bridges in OU are groaning under the weight of debt. Ou the OU provincial government as well as local governments are barely able to service the debt loads that these very tall bridges have because there simply isn't enough economic activity that's being generated by a lot of these bridges.

Ou there is, you know, probably it's not that great of an idea to pour so much carbon intensive concrete into the ground because, you know, these bridges are not getting very extensive use and there is a very big human displacement cost, especially around something like a hydroelectric dam because, you know, when you build something as big as the three gorgeous dam, there may be something up to almost a million people displaced due to one of these big construction projects.

And so, you know, I acknowledge that these are mostly costs, but I wanna pause it that having a sense of physical dynamism is good for the most part. I wish that more Americans, especially more Californians, are able to access it. Okay, so I've gotten to the good part of the engineering state. Lemme get to the bad part of the engineering state. I think that the problem with China is that they're not only so many physical engineers, the problem with China is that there are also social engineers and they cannot stop themselves from treating the population as if they were yet another building material to be torn down or remolded as they wish.

I think that is one of these, you know, fundamental real issues with what it's like to live in China. I lived in China throughout the entirety of zero COVID, but I wanna spend a little bit of time thinking about a different engineering project, which was the one child policy. Now, I'm not sure if authors are allowed to have a favorite chapter, but if I were able to nominate one, my favorite chapter was writing about one child.

And a lot of this history

was, you know, surfacing a lot of this history was pretty new and remarkable for me. You know, a lot of the one child policy came in the turmoil of the late 1970s in which Deng Xing had inherited via Aua Fang, a country that was deeply riven by Mao. Ms. Raw, by Mao Mayhem. Mao had just died in 1976 after conducting the cultural revolution.

And China was in a pretty disastrous place. And I think, you know, my, in my, in my in my book, I, I read a little bit about, you know, how, you know, I took a look around him and, you know, saw that Deng was first and foremost a poet. He was also a romantic and he was also a warlord that murdered something like, you know, tens of, there's tens of millions of deaths can be laid, Chinese deaths can be laid at his feet and whatever is the opposite of a poet, Deng must have thought, let's do the opposite of that.

And therefore he promoted a lot of engineers into the politburo as well as the central committee. It was during this time that one of China's top military scientists, a missile engineer by the name of Song Jian, got into the halls of leadership and started talking about some of his ideas. Song was one of China's top mathematicians. He wrote a book on cybernetics. He was a, a totally brilliant mind when it came to math.

And one of the big challenges that Deng Xiaoping as well as Chen, the head of the economy was really dealing with at the time, was they were trying to loosen the shackles of the economy. They were thinking very much about how to develop the, the economy and how to achieve economic development. And they were very concerned that China's population was going to defeat a lot of development. China's population had crossed over a billion people roughly by the year 1980.

They didn't quite realize it at the time because Song had made a, a mess of the census. There was no organized state activity by the time that Deng Xiaoping took over. But the leadership was very glum about the prospect of having to feed so many mouths. Along comes this brilliant military scientist who was in a prize because these people delivered to China the bomb. They had access to the halls of power, they had excellent mathematical ability, they were able to convince the leadership

to do some drastic actions.

And so Jan's super elegant solution was the one child policy in which he convinced the leadership that, you know, the simplest thing to do is to permit families to have one child per couple. And this made a lot of sense to leadership concern with overpopulation. This may have made a lot of sense to people who, you know, thought that there should be simple bureaucratic incentives really to try to organize a, a lot of the enforcement. But what enforcement actually entailed was something I describe in my book as a campaign of rural terror meted out against overwhelmingly female bodies.

And over the course of the one child policy, I documented that according to China's official statistics, China conducted about over 300 million abortions over the course of the 35 years of the one child policy. The Chinese state sterilized about 100 million women, sterilized about 25 million men. And we get these really wrenching accounts of families having to give up their child. When the state enforcers came that many of these babies, mostly baby girls, were thrown into trash heaps and many children were allowed to die from exposure.

And so, you know, thinking about, you know, this very strange program reacting against Western concerns of overpopulation, trying to, with de pen, trying to loosen the shackles of the economy while he was imposing what I thought was a humanitarian disaster, conducting murder in the words of some commentators in China conducting murders as a matter of national policy against mostly a, a female population distorting all of these market incentives such that many baby girls by official counts, about 120,000 baby Chinese girls were sent to the United States and tens of thousands more to other countries where there would be mostly women about my age, now I'm, I'm 33, who would be growing up here because their parents were sometimes most of the time forced to give them up, in some cases, a few documented cases abducted by the state and given to foreign nationals.

You know, writing through a little bit of this social engineering exercise made me realize that something like the one child policy could only be conceived of in the engineering state because there are these

people who are just so willing to treat the population as a math optimization problem to be, to be fixed. And then it could only be implemented by the engineering state because according to the Family Planning Commission, there were at some points, tens of millions of essentially posses of men enforcing this policy, trying to get women to give up their births.

And having that degree of seriousness is something that made me question about, you know, how how much state capacity ought we have living in China for six years made me realize that maybe there is such a thing as too much state capacity, maybe it a little bit better to have a little bit less. Okay, so I've gotten to the good and the bad, let me get to the ugly, which I conceptualize as California as well as the Lawyerly Society.

So let's get to some of the problems of the Lawyerly Society, which I have written pre pretty extensively about as a, a place where some things work quite well and other things work quite badly. Well, I think the first thing that I think, you know, I want to praise the lawyerly society, the, the United States a little bit first by acknowledging that no, here we are in the heart of Silicon Valley, this corner of California plus a a little bit more of the West Coast in the North has been the only region in the world that has produced companies not worth, worth only \$1 trillion, but worth several trillions of dollars.

So Nvidia is a company that is now worth north of \$4 trillion meta Google and Apple, I believe are all worth north of \$3 trillion. And that is a really remarkable achievement. But I think there is an aspect, the, the part of the lawyerly society that I do wanna criticize is that I feel like America, after having spent six years living in China and moving back here, this is now my, I've been back to the US now for, for three years.

You know, one problem I have with the United States is that I feel like the United States is a country that works really well for the wealthy and not necessarily very well for the broader masses. So I think there's nowhere better in the world for you to be a member of the super rich. If you are a member of the super rich in the United States, you can transmute your wealth pretty easily. And to some degree of political influence, which has become quite apparent over the last couple of months.

If you are a member of the wealthy in China, your life is often pretty precarious. And I think this is one of these features of autocratic states, which Professor Kin helped illuminate for me. So if you're a living, if you're an elite in China, imagine if you are, you know, working in, say, the technology industry, well, you better hope that Cxi Jin Ping didn't smash one of your companies in 2021 when they were delivering engineering, when they were dealing with economic engineering.

Maybe you work in the finance industry and Cxi Jinping announced in 2024 that there was going to be a cap of \$300,000 for finance salaries. If you earn more than that, some of them had to give back some of their back pay. Imagine if you are in the party elite or if you're in the military elite. Well, just over this past few months, she has sent something like 23 flag officers of the people celebration Army into, you know, some sort of detention that's been a pretty radical purge.

And he has purged a sitting member of the poll bureau, which is quite surprising. And if you are purged, the entire network falls. And so I think there is some sense in which living in China, living in, in Beijing, even when you're an elite, there is a sense of precarity, which nothing feels very stable around you. And perhaps that's not surprising that so many communist party officials send their kids and daughters to American schools. They would like to have the option of spending a little bit more time in the us If you're a member of the rich, you feel comfortable creating amazing businesses in the United States.

And that is absolutely an asset. But I think the problem with the US is that, you know, I think the US ought to work a lot better for a broader masses of folks. If you are a member of the rich, you don't really have to worry about high housing costs. You have a nice mansion in Atherton, or you have a one of these skinny skyscraper units in overlooking Central Park in New York City. You don't have to deal with this screeching loud subway that really bugs me about the New York City subway.

New York City at least has a subway, but it's a boy is allowed. And the BART system here is also super loud. I I find that quite strange and I blame quite a lot of this at the feet of lawyers because, you know, it

is the lawyers that are for the most part the, the
handmaidens of the rich that have been very, very
successful at blocking a lot of different, a lot of
different important projects. I love trains. Trains love me back, but I don't always love
the American trains.

Last month I took the
train from New York City to Washington DC to speak
at the Abundance Conference. This is the Acela train. It's
basically works pretty well. It's a very shaky machine. And while I was on the
train, I read through this, I saw this news headline,
Excel is getting an upgrade, we're getting a new class of trains. And then I actually read the article and it, the
article
said that the new class of trains will be 11 minutes
slower than the past, than the present class of trains.

And so, you know, we're
getting better foam seeds, but the trains are
moving slower and slower and just out of first
approximation, it does not look good that the United States
is able to move slower and slower every year and
slower and slower every decade. I substantially wrote
this book about at the Yale Law School where I
sometimes took the metro North trains from New Haven,
downtown New York City, the New Haven trains, new Haven, New York Metro North
trains are quite reliable.

It is quite fine, just a little bit slow. And I was quite fine
with the state of affairs until I saw a, a train timetable from the year 1914, which it was slightly faster
getting from New York City to New Haven about a century
ago than it is today. And it's not quite an
apples to apples comparison because the trains now are much
safer, they make more stops. And so all of that is fine and good, but again, at a first approximation, the lawyers
are not
moving faster than they were a decade ago.

I could get into the
California high speed rail, but I think you know the story there. And so, you know, we don't
have to, you know, think so much about the
trains, but I think here, especially in San Francisco, we have a giant housing shortage. We have homeless folks
who are wandering distressingly

throughout the streets, and there are all sorts of ways in which the city simply does not function very well. And when Shanghai needs come to New York City and complain about JFK as a, you know, totally decre airport, they're absolutely right.

And it is absolutely right that it is really difficult to get from airports into the cities. And I would really like for the lawyers not to have such a grip upon the state of public works because I think they have a lot to answer for in terms of the extent to which they have really blocked a lot of progress. And I think, you know, one of the issues with the US is that I think the lawyers have a place in doing some pretty important things.

But I think the, you know, one of these very strange things is that a housing crisis in China refers to a collapse in prices after overbuilding and a housing crisis in the United States refers to, you know, soaring costs. And I think, you know, this is something that we need to get a, a little bit of a better handle on because I ponder a lot about the broken state of American in industry as well as American manufacturing as well.

So I think I've, you know, been pretty deeply pessimistic about what the state of California as well as the United States. But you know, in this, you know, final couple of minutes, what I want to do is to end on a slightly more apocalyptic note, I think that, you know, if we're taking a look, we're think reasoning through the present moment, what is going on with the trade war right now. You know, there will be some talks between Xi Jinping and Donald Trump at the sidelines of the Apex Summit later this week in South Korea.

And I think one of these really surprising things is how hard China has been able to hit and strike back against the United States. So, you know, at the start of this trade war, a couple of months ago, Scott Bessant, the, the Treasury Secretary, said that the United States is playing with a pair of ACEs and China is playing with a pair of twos. So, you know, China, the US was holding all the cards, mostly because the US is the China market.

China's an export dependent economy, and the economy might be really weak if China's economy might be

very

weak if they can't access the Chinese market. But there's a symmetrical relationship here, which China is producing so many different goods there ahead in so many manufactured goods. And in the early days of the trade war, they withheld rare earth magnets, which made it really difficult for a lot of American manufacturers of automotives, defense goods, electronics to maintain production where earth magnets are really small pieces of magnets which are pretty important for all sorts of electric magnetic properties.

And at least, you know,

weeks into the trade war, the news reported that Ford Motors had to stop production in one of their factory lines to Chicago because they lacked access to the magnets. And pretty quickly I would say that Trump folded and had to have had to have a truce with China before he reached any trade deals with putative American allies like European Union or Canada or Japan. And what was striking to me was not only that China played this card of the rare earth magnets was they're relative restraint because they have a lot of other cards that they're able to play.

If we take a look at some of these pretty critical

components in a lot of electronics, a lot of electronics

goods, a lot of batteries, Chinese firms are kind of the

only supplier in town for a, a lot of different important goods. If we take a look at a lot of active pharmaceutical ingredients, nearly all antibiotics are made in China. A lot of ibuprofen is also made in China. You know, imagine what Americans

will do without antibiotics or ibuprofen, who's gonna

be happy in that scenario?

Only RFK junior, right? So I think this is, you

know, one of these, you know, strange things where

they flexed only a finger and if they pressed a little

bit harder than, you know, I think they could have

strangled many more parts of the American economy. And so this is where having a large producer

really, really matters. And I am quite concerned

with what is happening with the American industrial base. If we take a look at a lot of these big apex manufacturers

in the United States, names like Intel and Boeing and Detroit automakers

as well as Tesla, all of them have really fallen on hard times.

Mostly not due to

anything to do with China, but out of their own strategic missteps. If we take a look at the early days of the pandemic, American manufacturers had

a hard time making items as simple as masks and cotton swabs. And that was, did not distinguish themselves very well. And if we take a look at the defense industrial base, it is according to the government accountability office, every class of us naval ships is behind schedule.

By 18 months to five years, a lot of the American munition stockpile was shipped to Ukraine in itself, defense against Russia. But they have not really been able to replenish a, a lot of these stockpiles very quickly because of production challenges in the US. US isn't making quite enough drones quickly enough. And so, you know, a lot of parts of the American industrial base looks broken and why, what I'll, I'll conclude on is that I think the United States has always been a lawyerly society, but at various points, it used to be an engineering state too.

There was a proto engineering state between roughly 1950, the, I'm sorry, the, the mid of the middle of the 19th century to the middle of the 20th century in which American engineers built amazing projects like canal systems and train systems as well as skyscrapers in Chicago and Manhattan Highway system, the Manhattan Project, the Apollo missions. These were extraordinary achievements by American engineers. And then more or less throughout the 1960s, people reacted, Americans reacted against the American proto engineering state in which people complained about all of the pollution in the air.

People complained about the spraying of DDT as well as other pesticides by the Department of Agriculture. People complained about Robert Moses for tearing up too many dense neighborhoods in New York City. And they were right to complain. And I think they absolutely had to check Robert Moses as well as the Department of Agriculture, as well as the Army Corps of Engineers, which dammed essentially every river in the American West. I think there was, it was correct to have a reaction against the American engineering state, but then the lawyers took over and all of these lawyers who used to be more creative deal maker types, people who worked on behalf of robber barons to expropriate the land of people so that they could give it to railroad tycoons, they were raising bonds for the railroad tycoons.

They were replaced by a set of lawyers, mostly out of elite law schools,

whether this was Harvard law or Yale Law, or Chicago, which we're much more interested in litigation as well as regulation. And so still today, I think the calling of most law students is to do some sort of social impact litigation, to stop projects rather than trying to be creative to build projects. And what I wanna conclude on is that I think it is really important for the United States to build just a little bit more.

What I would love is for the US to have to be, let's say 20% more engineering. I think there, you know, there should be a few more engineers, there should be a few more manufacturers that are interested in building more housing, building more solar and wind, building more infrastructure to places that really need it. And what I would really love is for China to be 50% more lawyerly. I would, I think it would be fantastic if the Communist party learned to respect individual rights such that they don't have to strangle all of the creative impulses from young creative Chinese who I think are incredible at creating memes.

They're really funny people. They can meme with the best of them here in California. And I think, you know, they are systematically being strangled with their creative impulses. And fundamentally what I would really love is for the Communist Party to learn to leave people alone with that. Thank you very much. - So you, you're a little bit anti lawyerly, but not completely, you're mostly antisocial social engineering.

It's very interesting to get out of the categories, capitalism, socialism, neoliberal, and to examine without those categories, the comparison on what's going on. Let's talk a little bit about how you decided to write a book. Let's talk a little bit about Dan Wong before we get back to the substance a little bit.

What impelled you, what where'd the idea come from to write this book and what impelled you to deliver a book and, and looking back on the process of writing a book, how did it feel and what do you think? And - Writing is a little bit more, writing is a little bit in my family. My grandfather, whom I write about in my book, who passed away sadly a month before publication of the book, was an army officer who served in the propaganda corps.

And I think he had probably one of the more useless jobs in the Sino Vietnamese war in 1979, in which his job was to drop propaganda leaflets on

the Vietnamese, urging them not to resist the Chinese invasion. And the Vietnamese who just defeated the Americans are not going to be persuaded by a, a, a little leaflet here. His daughter, my mother was a, a radio news anchor as well as a television news anchor.

She was a reporter who was part of the system of news reporting in China. She studied thermal engineering, which would've set her up very well to be a coal miner. She didn't like that. And so instead she transferred to write the news bulletin inside the, the, the thermal factory. She enjoyed writing and she and her father, my grandfather, passed on an interest in books to me. And so I've been reading a lot of books on my life.

I have, you know, I enjoy thinking about this process of writing. The hard part of writing a book as an author like Steve or anyone else would be able to tell you is hard. Part of book writing is the beginning, the middle, and the end. And there is the beginning which involves conceptualizing the sort of an idea, deciding that you want to do it in the first place. I've written quite a lot of annual letters in the past and I feel like, you know, having these sort of long slightly digressive essays is kind of my comfort zone.

And this book is made up of seven of my annual letters thinking about, you know, what's going on in China, trying to be future looking not to be too necessarily caught up in the details. And again, just to be as, as Steve said, to be iterative and not, not to be too caught up by any of these frameworks. And I think that, I mean, a lot of what I'm trying to do is to move beyond these old framings, just to be playful and inventive.

Not to take these frameworks of the lawyers and engineers too seriously too literally, but just, you know, try to give up people a sense of what's going on. And a lot of what I was trying to do was to, you know, give a sense to Americans, many of whom will never travel to China. You know, people who would dream of traveling to Japan or South Korea or Taiwan, but would never put this, you know, China on their list to give them a little bit of a sense of how densely textured the country is.

So, you know, I think any of us sitting here in Palo Alto have a very keen sense that San Francisco is pretty darn different from Washington dc which is yet pretty

different from Dallas, Texas, which is different from Los Angeles, Boston, whatever else. And what I wanted to give people a sense of was that Shanghai is a splendidly comfortable city. Shenzhen is a very dynamic capitalist zone. Beijing is a Stalinist no fun zone, completely made up of concrete and on and on.

And so that is what was, what was I was excited to do. - All right. Let's ask a little bit about the paradoxes that go through course through your book, right? So California is the fourth largest economy in the world now, larger than Japan. The governance side could potentially be characterized as dysfunctional, and not just the urban governance, but the governance of the state.

And so how it, can it be that you can have the fourth largest economy in the world at the same time as you have this morally state, not necessarily society? Is that paradox something which is specific to our era? Is it a longer timeframe? Is it something that we should understand as a strength, or is it need to come into sync again?

What is it that's working over here that makes you want China to be a little bit more like this at the same time as you want America to be able to do some of the engineering things China does? - Yeah, I think that, and after spending six years in China, including all three years of zero COVID in which I felt very cooped up there, you know, I, there was one thing that I really craved about the United States, which was the sense of pluralism, which was a sense of debate.

And I love being able to tap into various conversations through Hoover, which as bringing together all sorts of folks from Washington dc from New York, from Texas over here to congregate and share ideas. And so through Hoover, I found exactly what I am looking for. And you know, I think that, you know, that is a pretty important thing that I miss. You know, when I was living in China, it became really difficult for me to buy books.

And so buying, you know, English language books of the sort that, you know, if there, there's some really exciting book talks coming down at Hoover tomorrow I'll be here for the talk hosted by professor Phil Zko McNamara at War. Soon there will be a, a book about how the Germans viewed the Soviets helped by President Stephen Kin. These were the sort of books that I couldn't really get in China. And so my parents would, you know, I would place an Amazon order

to my folks in Pennsylvania and they would mail these 20 kilogram boxes of books to me at a time.

And I never knew which book that the sensors might pluck and not return to me. One time they took a biography from of Mozart, which I found really weird. What was so, what was so subversive about this musician from Salzburg, - Maybe they just wanted it for themselves, maybe they - Wanted it for - Themselves, an act of self dealing rather than an act of - You never know these authoritarians. So this is, this is what something I, I miss about the United States, but I also think that, you know, there's definitely something that the United States and California in particular has gotten right to be bigger than the economy of Japan is absolutely an achievement.

That doesn't mean everything in the US is perfect. That doesn't mean that California is perfect, that the US has done really great projects in the past when it wasn't so inflected by a somewhat elite, a monoculture within the elites is what I would say. That they have built a lot of great projects, things like the Hoover Dam and the Manhattan Project, as well as the Apollo missions, as well as the highways. And I think there should be a little bit more of a growth mentality.

And I hope that if California manages to fix some of its urban dysfunctions as well as government governance on the state level, people start getting more homes. They get more neighbors, they have a few more subway stations or muni stations that our va, they're able to connect to that Caltrain comes more than once an hour in the most economically dynamic zone in the world. You know, that, you know, they feel more optimistic about the future, which is something that the Chinese have experienced that, you know, the level of traumas that the Communist party has visited upon the Chinese people at a rate of almost once a decade over the last few decades from the great leap forward to the cultural revolution, various, you know, anti-US campaigns, the struggles against the landlords earlier, one child policy under Deng Zing 1989 with Ang Men.

Things were rosy and peachy for a while, but there was these incredible traumas that were visited upon the population. But they have still some degree of resilience in part because economic growth has been extensive and they feel a little bit more

optimistic about the future. - The book is on sale just outside this room. The Stanford bookstore representatives are here and Dan will sign books of course, if you've already brought your copy here and you wanna stick around after we're done, of course Dan will be glad to sign the book.

So here we have this China story that was not foreseeable. You have \$200 per capita income under Mao. That is to say you have just people talk about the Chinese Communist Party bringing 700 million people out of poverty. Well, somebody put them into poverty in the first place and it was the Communist Party. And so yeah, this just under the cultural revolution, you've got this now looks like a Nader, but we weren't sure at the time that that was a low point because everything seemed like another low point.

Another low point. So that's an engineering state in some ways. Those people also come from worship of the Soviet Union. They come from this developmentalism building at scale building large factories, investing in production, right? So they've got a certain DNA and they're taking that down as it were at the expense of the population. And then you blink your eye in historical terms, okay, it's a full two generations, it's longer than you've been on the earth, but nonetheless it's a small amount of time in historical terms, especially in the way Chinese calculate history.

So it's, it's quite a stunning move in some ways from this engineering state that's looking like it's, the plane is gonna crash if it hasn't crashed already, or it's crashing multiple times to the skyrocketing thing, which has the downsides that you saw eloquently elucidated. But really, I'm not sure that they knew that it was gonna happen this good so fast, right this fast that this scale, when they embarked on this pivot from the Mao cultural revolution to however you want to characterize it, did something remarkable happen within the developmentalism, within the engineering state that was not the original trajectory.

How did we get this version of China out of that version of China when it's the same communist party ruling in both cases? - Yeah, I think that there is an element of engineering that played a part of it, but I think, you know, the crucial thing that saved China was a

degree of cosmopolitanism in which the de Xing took a look at the United States and realized that those countries that were with the United States, especially Japan and South Korea were able to grow.

And those countries that were against the United States generally were stuck in some sort of a communist morass that I think the Den Xiaoping decided. And Ching thought hard about being an East Asian development state, and they made a series of pretty crucial decisions that proved quite good and right. You know, I spent a lot of time under the tutelage of the head of research at Gof Cal Dragonomics. This is the firm I used to work with in China.

My, my rabbi there was Arthur Kroger who wrote a book called China's Economy, what everyone Needs to Know. And working with Arthur for so many years, you know, made me realize how many, you know, extremely difficult decisions that the Chinese Communist Party made. There were broadly right, that they engaged in some degree of, you know, financial technocracy in order to, you know, move a lot of debt around throughout the 1990s that relieved a lot of balance sheets, that they really were able to grow their way out of a debt problem, that they made a series of good decisions to match their labor supply to light industry and things that make a lot of good sense.

They were able to pull themselves outta the Asian financial crisis when other Asian countries were not. And so, you know, having this sort of, they, they did get a lot of things right and I think that speaks a little bit to the long-term robustness of the regime. And so one of my priors with China is consistently that, you know, they've gotten a lot of things correct in the, you know, in the past they made a series of horrific mistakes.

Namely, I think that something like the One Child Policy was a mistake from the beginning. I really don't think that de xiaoping that this, you know, anything as horrific as this should have even been attempted because they solved, they dissolved a lot of their production problems pretty immediately by loosening economic shackles upon the, the, the, the strictures that they place themselves on the economy. And so I think that, you know, engineering is a part of Chinese legitimacy.

I think we have more

and more documentation that throughout the 1990s, the Communist party did not want to be referred to as the butchers of Beijing. And so they engaged in these big engineering projects like the three gorgeous dam, which, you know, they thought would be a demonstration of China's commitment to building, you know, monumental list engineering projects in the pursuit of electrical power as well as economic growth. They really focused on delivering economic growth to the people in that that was right through some degree of engineering.

But I think what saved China was a degree of cosmopolitanism from the outside and a sense that they really needed to catch up that they were far behind and that they, they were going to do everything by, by ko, by crook to become more modern. - Yeah. So in some ways the engineering capacity is married to the exper learning from the experience of Japan, which is to say Japan goes from ashes literally defeated in the second World war firebombing of its cities, let alone the atomic bombing.

And by 69, 19 69, as China's in the cultural revolution, Japan is the second largest economy in the world. So how do you go from ashes to the second largest economy in the world in a little bit more than a single generation, but almost just one generation. Whereas China was on the winning side in the war and was not the second largest economy in the world in the sixties or the seventies, right? So there's that piece, and then there's the piece where your partner who's gonna help you do this and pull you out of the cultural revolution, a self-inflicted three quarters of a century of humiliation is gonna be the us.

And so in so many ways, the US is, is the partner in China's engineering state, ironically. So as the lawyers are running our society and the engineers are running that society, there is some way in which they come together for a project which is supposed to be mutually benefici beneficial, a kind of win-win, right? And here you are concluding with China should become 50% more lawyerly and the US should become 20% more engineering, right?

And so in a way you are, you are arguing for a, a new or a better version of that bargain or of that partnership or of that interaction that in fact was central to producing the situ. Did I get that wrong or is, am I right on - That? No, no. I think, and this is where I wanna credit Steve kin for thinking about, you know, how, what the future relationship ought to be. I, you know, as the, as the final part of reading of writing this book, I, I reread George Kennan's GRA Telegram, which, and is people, people ought to read it.

This is a, this is a good document, but you know, thinking a little bit about how Kennan said that the US didn't have to be like the Soviet Union, that the US has all of these inherent strengths and it should really be promoting a lot of these strengths decided. And I thought I would conclude my book by saying that, you know, the contest between these two countries is not who has the bigger bridge. It is not about, you know, who has a more extensive high speed rail system, although that is nice.

It is about who delivers a better sense of life and fulfillment for their own people. I think that is the most important thing that both countries really need to achieve. And I I I, I have been, you know, I'm struggling a little bit with this framework that Steve, you Mischievously introduced to Arthur and me a couple of months ago when we were chatting with you, which, you know, Steve, I, I, I'll, I'll, I'll paraphrase you a little bit, which is that there's, you know, four modes of interaction between the US and China.

The first and the scenario that we must all think about how to avoid is scenario of hot war in which a few million people died in the first World War, A few tens of millions died in the second World war. We don't wanna have a few hundred million people dead in the third. A second scenario is something like, you know, appeasement of, of the other side in which, you know, the US has, you know, might be, you know, they may be in a state of war and the US doesn't quite realize it in which the US is, you know, appeasing or, or surrendering.

There's a third scenario of Pygmalion in which, you know, we're trying to turn, turn the urchin into a lady. And that was kind of the some parts of the engagement strategy in which the US believed that having markets and capitalism might liberalize democratize China. And we can bury that idea that has not broadly worked, maybe, maybe a little bit around the edges, but not broadly worked. And then in the fourth and fourth scenario is what Steve prefers, what is it that we should get Steve Cold War?

We should get Cold War. And so, you know, I think, you know, what I understand Steve to be saying is that we need to keep the war cold compete on the level of the systems, just as in the previous Cold War, which, you know, produced, you know, a defeat or for the Soviet Union once they realized that they

had a non-functional economy and the non-functional political system too. But I think I, you know, I'm still reluctant to sign onto this idea of a Cold War framing because, you know, cold War was not very cold for Afghanistan and Vietnam in all parts of Latin America.

But Steve, can you convince me how do I, how do I love this Cold War framing? Can we have, can we have a slightly more friendly word for this than, than Cold War? - A Cold War's advantage is that it's not hot war. It doesn't have very many other advantages, but that's a big advantage to have. So you can compete at everything you can cooperate at some things. You can have permanent high tensions, protracted negotiations that go around in circles, name calling, et cetera, but you're not in hot war.

That strikes me as a good option, given what the other options might be. But you're right, the problem with hot war versus Cold War is you get cold war between the major powers, but then you get proxy war in places where they fight, not themselves, but through their client states or their perceived client states. So if Cold War is a superior option where each is trying to outmaneuver, outcompete, outdo the other, but knows that a hot war is a mistake, how do you also prevent proxy war, not just hot war in a Cold War snow?

I think that's a good strategic problem for us to sink our teeth into. But we need to first acknowledge that avoiding hot war is the goal. And then we can talk about how avoiding proxy war might be achievable or not achievable. But you know, my view has been whether, I'm not sure you sign onto this, but my view has been we need to share the planet. They're not going away and we're not going away, but it's the terms of sharing the planet that we need to negotiate better at.

So that is to say, if the terms of sharing the planet are Xinjiang or what happened to Hong Kong, and I could go on the demands that were put on Australia, the demands that were put on South Korea, Australia asked for an investigation into COVID D'S origin so that we could prevent it the next time. And the Chinese imposed very serious demands on Australia, essentially demanding their capitulation. If those are the terms, I have trouble.

So I need better terms than those terms, but I also need to recognize that we have to share the planet, that

I'm not gonna be able to wish them away and they're not gonna wish me away. So that's how I understand Cold War. I share the planet, negotiate the terms, get better terms, avoid the hot war, but also avoid the proxy war. And so if they make us better because they build and we don't build, and we have to figure out how to build, if they make us better because they're very good at material science where we used to be dominant and we can get dominant again, that's actually a good outcome as far as I'm concerned.

If they get technology X today, we'll get it tomorrow. If they get it, if we get it today, they'll get it tomorrow. I can live in that kind of world. I just am really worried about the hot war scenario rather than the coexistence, negotiate the terms and get better terms, terms that bend towards freedom as you elucidated it for Chinese people as well as a good outcome. Again, not naively, not thinking Pygmalion, we're gonna transform them from a street urchin into a lady like George Bernard Shaw's play, but just that we're gonna model a version of the future that lives up to our ideals.

And others can also strive in that situation rather than capitulate or become more like them. Kennan's point was that if you become more like the Soviet Union in competing against the Soviet Union, you've lost, that's actually defeat even if you think you're winning. So, so when you refer to the long telegram, that's the point that I took away. So I'm not sure if you're sharing this view about my understanding of what constitutes Cold War. - I share your understanding, and I think one of these challenges is that, you know, I think the, the Biden administration, you know, had all sorts of issues, but one of the things that they try - To begin with the president - Yes, - Yes, - Yes.

Beginning, beginning there and, and, and flowing, flowing it down from there. But they try to come up with this term, which was, which was a mouthful managed competition. - Yes. - Too many syllables. - They were afraid of using the term Cold War. - And I'm, I'm still a little bit afraid of using the term Cold War, you know, is this really something that we have to live through? I still need a little bit of convincing around that, but where I fully sign on to your point is that I think neither country is going to fade away.

Neither country is going to dissolve. Neither country is going to implode and fail to get back up, as was the case with the Soviet Union. They're not going to gorbachev themselves as you know, so well, and so, you know what my model of, you know, the world is that, you know, it will last a really long time, which is actually kind of an unusual opinion in San Francisco. You know, I, I live in, you know, I, I live between Michigan as well as San Francisco.

When I'm here, I, I often go to these house parties with, you know, 22 year olds in, in SF who are all convinced that, you know, AI is coming in 2027, or maybe it's 2020, A-G-I-A-G-I is coming, the super intelligence is here, and their role, their model of the world really ends in the next couple of years. And here I find this, it's very strange that we have so many nerds who are trying to build God in a box.

They're talking about the end of civilization, the end of human life. Meanwhile, Peter Thiel is giving lectures on the antichrist. And so this is like a great setting for some sort of cosmic horror novel that we're, we're all living through right now, right here. And you know, I think that, you know, often when I'm speaking to these, you know, 20 year olds in sf I'm saying, well, you know, maybe the world will extend beyond 2030. Have you thought about that? And so, you know, maybe we should plan a little bit for the future.

And I also feel like this is, you know, the challenge, the contest between the US and China is going to be dynamic. And as you say, we're gonna get the technology and then they're gonna get the technology. And my model of the race is that, you know, when one country looks really far ahead, they're going to commit sins of hubris and they're going to be overconfident and create a lot of problems. I lived through 2021 when sea destroyed his property sector, a sector that is still deteriorating and that has not quite recovered and smacked around a lot of tech entrepreneurs like Jack Ma, because he thought that the US could not get COVID under control.

And he saw what was happening in January 20th, 2021. And so this was a classic sin of hubris. The further ahead that one country is, the more that that country will make

mistakes, the further behind the other country is
the more motivated they are to patch up their mistakes and do better. - Right. I should just say that if Peter Thiel
finishes
a book on the Antichrist, we will definitely have a book talk here in Schultz auditorium.

And i, I extend that invitation with the utmost seriousness and sincerity. We'd love to hear from Peter, but let's
go to the audience now. We'll have some questions
from the audience. We'll have a microphone, so wait until you receive the microphone. And let's start at the
younger
end of the actuarial table. - Hi Dan, I'm David Morenci,
I'm a student at the GSB. Thank you for being
here. During your talk, you prescribed 50% more
orderliness for China and 20% more engineering ness for the us.

I'm curious, what do you think are the most plausible mechanisms to do that? And which one's easier in your
opinion, given the societies? Thank - You. - You know, I, before this, I was a fellow at the Yale Law School, one
of these high temples
of the Lawyerly Society. I think the, the law
students have a really unfair advantage, which is that there is this very well
structured pathway for them to get into the federal government, mostly through court clerkships with judges.

You can be, you can be
clerk for a district judge, a federal judge, or a
Supreme Court justice. And you know, one of these
running jokes that, you know, a lot of these folks at Yale
Law will tell you is that, oh, they don't do very much. They don't do much very much
legal study in, at Yale Law. They study everything but the law. And you know, there is, you know, a lot of cases
in which the, you know, graduate, you get a degree from Yale law, be a political speech writer.

Very few of people actually,
you know, practice law as such. And you know, I think that the law students have a
very well established pathway into getting into the White House, either to become president one day or if we
take a look at
the, you know, second, third year staffers of especially
the Biden administration, many of them came from Yale law. And so what I would really like is to have a little
bit more
pluralism in the United States, such as our governing elites
could feature a few more engineering grads from Cal, or you know, a few more
students from Stanford.

I would love to have a few

more economists be in the room in, in terms of governance. Heck, I would love for there to be more dentists in the

American governing elite. But you know, there, you know, right now the law students know what to do. The economists mostly do not. I'd like for there to be more historians in the White House as well, but right now there's not that those easy pathways. And I would like for there to be more easy pathways up - And on the China side, is it gonna be easier for China to move in the direction or is it gonna be easier for the US or easier for neither to move in the directions that you'd like to see - Easier for neither?

I think that there is, there are kind of these tendencies baked in. But let's, let's turn the tweak the dials just a little bit. - Okay. In the back in the middle. - Thank you. Thank you very much. I actually, I burn, I was born in 1974, so I pretty much see, you know, the late Mao. And then this is a question, I dunno where it come from. My brain, I guess this is for Mao, Mao actually used to ask a question, like, do you think the word is built up by mind or built by hand?

I'm not sure it's either or, but mind versus hand. So this is like a lawyer. Sounds like you create a word by mind, but, and then China is most, most by hand. I don't know, I just, this, this question just come up. Thank you, thank you. - You know, I think I thank you for elevating us because part of my scenario since we're here in California, is to cite the words of venture capitalist Mark Andreessen, who had this nice little framework that, you know, the, there are word cells versus shape rotators, whatever these things mean, thank you for elevating us by bringing Edon the poet into it.

So I think that there is, you know, I, I feel like, you know, generally they're in, you know, US policy making, there is a little bit of a preference for strategists who are coming up with policy. And there is a little bit less respect for the implementers who are whom they may call in, in Phil KO's words in a conference here last week, hears of wood and drawers of water. And so the, you know, the policy folks, the lawyers are thinking very hard about, you know, big directions and then, you know, the actual implementers are not given due respect.

And this is also one of these

things that I wish we could, you know, respect a little bit more of the implementers and not, you know, give so much weight to the policy makers. - Okay, let's, let's go right here. This young man with the glasses, - Thanks for talk. So one thing I I'm curious about is sort of the influence of financial markets on both societies. Something that the United States has is Wall Street, which is very powerful, creates trillion dollar market cap companies, but in China it hasn't developed as much.

And I'm curious about your past experience from your research, but also just like where you see the growth of financial markets and in China and how that can serve affect the growth of society in China as a whole. - Thank you. I'm not sure if there, I have a strong view about influence of financial markets. Probably on the margin I would, you know, I think that we should have a little bit more set, move away from a lot of these very, these very efficiency driven financial measures.

So we think about someone like Tim Cook who said, you know, inventory is evil and to have a really lean supply chain. I think everything in America is kind of poised for perfection. And if things go wrong, as they did in the early days of the pandemic, production and manufacturing systems don't have enough capacity to release, respond. And in China, you know, there's a lot of redundancy, there's a lot of extra headcount in state owned enterprises, which it's very easy for Americans to make fun of, look at these low capital ratios, but they have a lot of capacity on hand in order to respond to an emergency, which they did in the early days of the pandemic.

I think a lot about this, you know, valuation question because that is one of these things that do work really well in California. We have, we can acknowledge that that is one of these amazing strengths of California. But let's talk through a tale of two companies. On the one hand is Apple. Last I checked about three and a half trillion dollars in market cap. Another company that we might consider is Sami, which has about \$200 billion in market cap.

What these two companies share is that the, their best known product is their phone. Apple's iPhone, Sami also makes a phone. They have a bewildering

array of other products. Apple also makes a lot of other things. AMI makes rice cookers a whole lot of other fans, all sorts of things. 10 years ago, roughly Apple thought about whether he wanted to build an electric vehicle. It was this nickname Project Titan. This was leaked extensively to the press and then essentially, you know, two years ago Tim Cook threw in the towel and said, no, we're, you know, apple can't make an ev.

Five years ago, AMI founder got up on stage and swore I'm gonna make electric vehicles. This is gonna be my last great entrepreneurial venture. I'm gonna put \$10 billion behind it and we're gonna make EVs. What happened later, four years later, Sami's EVs started rolling off the line. Sami's EVs won this big German race course called Norberg Ring. This is really tough race course. Nicknamed the green hell by the drivers. Usually these cars are, are won by these awards are won by BMW and Porsche, these types of German cars.

Sami in its first year won in one of these categories. And right now Sami keeps raising its production targets because people really like these AMI cars. And so, you know, one of my challenges is I wanna, one of my ways I wanna be slightly provocative is, which is it better? You know, Apple's market cap is about, you know, 20 times higher than Sami's, but it could not deliver the car. It did not have the ecosystems in place.

It did not have, you know, the, you know, pay perseverance really in place. Sami did deliver the car. In that sense, I feel like this is less an indictment of, of Sami and more an indictment of the financial markets which are, are not correctly valuing these - Companies. Apple just didn't have the drive, so to speak, - Didn't have the juice. - Okay, let's go to the woman with the hand underneath the camera. - Hi. Fantastic insights.

My question actually is a kind of twofold. One is, I know it's the focus is on how China's engineering, but that's an execution modality. What's the motive in the way, the aggressive way China is engineering the future and why do they wanna engineer the future in the way they see it? Right? Because approach is engineering. The second part of the question that I have is, it seems too perfect. Is that something that we're really missing in the way that the rest of the world is not seeing or shown by what China is presenting?

Both in terms of narrative, in terms of also the product launches and how things actually go out of China with

controlling their market access to the rest of the world. - Things. I definitely don't want to say that things are too perfect in China. They're facing all sorts of problems. They're facing a debt problem right now. The youth unemployment is very high, consumption is limp. There's a longer term consumption issue in China. My view is that about 50% of China's economy is pretty dysfunctional, but there's 5% that is going spectacularly well.

And that 5% is the 5% that is most dangerous to American interests because this is the electric vehicles, this is, these are the industrial robotics, these are all sorts of things that China is really good at. And so, you know, a lot of what I believe is that I think that China will not replace America as the global superpower at large. The US is a financial superpower. It is a cultural superpower, a diplomatic superpower that China will never supersede the US on us.

China will never become, let's say, a financial superpower because they maintain pretty stiff capital controls because they are paranoid and they wanna control the financial system. And so they're not gonna become a financial superpower. But there is one way in which China is going to be a superpower, which is to be in advanced manufacturing. They're making better and better products. They're living in these extraordinarily competitive environments. You know, the conventional statistic is that it takes about six years for a German automaker or an American automaker or a Japanese automaker to conceive of a new model and bring it out onto the streets for consumers to buy.

In China it's more like 18 months. And so, you know what's going on here? It's not that the Chinese went to Detroit to hypnotize our automakers to move really slowly. It is they just move really quickly themselves. They move at breakneck speed. And so they are working in these really competitive environments, super cutthroat, just trying to, you know, just trying to survive and make a dollar. And that is, you know, a lot of what's been driving China's tech success.

And so I think that China will figure it out, advanced manufacturing and that alone, even though they can't replace the US as the superpower at large,

that alone is pretty dangerous to the west as well as the US. The US right now has about 12 million manufacturing workers. Could I see that going down? Yes. I can see that going down by a couple more million over the next decade. And I fear that as the US economy weakens, our politics will not get better.

We're seeing this also in Europe as well, where Germany is substantially de-industrializing and you know, right-wing populist parties are now outpolling the ruling incumbents and all of those places. And I think this is also where, you know, we can suspect that as the economy weakens, as this politically influential manufacturing lobby loses their jobs, that their politics will not get better. And that is one of these big dangers. And I, you know, just to respond very briefly to an earlier point, I think that every country in the world wants to say that it wants to be a high tech copask any country government and they, they, they'll absolutely say yes.

I think the Chinese really, really mean it, that, you know, they understand that their humiliation since the 18th or the 19th century, it's been driven by European imperialists as well as later on in Japanese fascist invasion because the foreigners had had technology and China did not. And so they're super intent on actually getting the technology. They have a lot of patients they, you know, spend a lot of money on industrial subsidies. They're more risk tolerant, the government as a whole than a lot of, you know, American government officials.

And they are willing to just keep investing until they figure out these technologies such that I believe that made in China right now is a sign of quality. And the way that made in China made in Japan is a sign of quality. And I think in a decade, many more people will realize that and they're gonna get the technology and they're gonna de-industrialize the west. And I quite, I'm fearful of that scenario. - Yeah, it's been a conversation about pluralism and about competition and the Chinese system has a massive amount of competition, a sort of in the space of company competition, right?

And so there's a way in which you are arguing for a values discussion in the book. Sure. It's also about the performance in certain situations, but underlying values are really what I'm hearing from this conversation if I'm getting this right. And there are certain values that you uphold, which you regard as the ones

you'd like to live under or live by, and you'd like to see those values cherished, enhanced, and mis shared.

Am I onto something with the value story? - There absolutely is. And I think that I feel like, you know, I wanted to, you know, I, I was, I studied philosophy, I the humanities mean quite a lot to me. And I feel I would be happy if people took a look, you know, understood the humanist aspect of my book and that, you know, there are greater yearnings that I have than better airports and better subway stations.

Although we should get those too, you know, but you know, it is, it is the values that I think are important, - You know, Caltrain is superior to New Jersey Transit. I'll just put in a small plug for Caltrain. I'm a veteran of both. You talked a lot about trains. I just, I had to get that in somewhere in the conversation that the, anyway, the more could be said about that. But we're gonna take one more, especially if it's about deep seek.

Nobody's asking about deep seek. Alright, z - Thank you for the fascinating talk. You alluded to the clearly paid pathway between Yale Law School to Washington DC I was wondering if you could please comment on the role of the educational system in China. Well, in fact indeed that the, the Alka, the examination system and whether the partiality for engineers and science scientists in general has perpetuated through the civil service recruitment system. Thank you.

- So in deep seek, I think that it is, it is, I don't want to be too literal on, you know, China as an engineering state beyond the recent past of the fact that they, many of them really were all trained in engineering. But you know, if we take a look at, you know, imperial China, how do we understand some of these big elements of them while they built a lot of these, you know, the great walls and grand canals, you know, which are quintessential fortification works and hydraulic works, right?

I think the, the Gau as well as the Koji, the Imperial exam system is totally central to, you know, understanding China. And I'm glad that there is a book coming out, I think or maybe already out the highest exam by other folks across the street at the Freemans Bogley Institute of Professors who are writing about, you know, how the examination system absolutely is central. I understand the examination system as part of the reason that China is not a lawyerly society.

That, you know, part of why I think there has not been much of a liberal tradition within China is that the emperors captured essentially the entirety of the intelligentsia in which, you know, anyone who wanted to get anywhere had to take these exams. And you don't get very far at court by advocating for constraints on the emperor's power. And I think this is part of why China didn't have the liberal tradition of developing a merchant class or an aristocratic class that was able to resist the imperial mandates.

And so it lacks a little bit of this liberal tradition in part because of the exams. But it seems like Steve really wants to hear about the ai. So Steve, we're gonna get the ai, lemme tell, let me say a quick things about the ai. You know, I I I think that it is really clear that the US is ahead on artificial intelligence. This is commonly acknowledged by Chinese as well as some Americans. The US is ahead on reasoning models.

The US is producing more of these reasoning models. They're doing, they have all the compute capacity, they're have better business models to monetize. But I, I think that there's also a chance that the Chinese are able to catch up quite a lot more quickly because as we see that the Chinese are ahead on all of these reasoning models, we can also see that the, when the Americans are ahead, the Chinese are not far behind. They may be far behind by a couple of months, six to eight months according to some of this most recent discussions.

And just to be slightly provocative, I I wrote a, an oped in the Financial Times last week thinking about, you know, will China win on ai? And you know, here's the, the basic idea that I have is that, you know, ai, if AI is going to be pervasive, we all, if HI is in all of our park pockets, it's gonna use a lot of electrical power. And the US is building electrical power at a growth rate of about 2% a year.

And the Chinese is growing much faster. Right now, China has about TWI twice the electrical capacity of the United States. This year China's on track to build 300 gigawatts of solar power alone. They have 33 nuclear power plants under construction. The US is zero power plants under construction. Maybe we're gonna get some sort of small scale solar, but I'm not fully sure. And so, you know, if it's about, if electrical power

becomes the big constraint, well the US is much more constrained than the Chinese are constrained.

If we take a look at a lot of these AI researchers by these publicly disclosed lists from these big labs in Silicon Valley, many of the top researchers of AI attended Chinese universities. I assume almost all of them are Chinese nationals. And among this group, there's some, some wavering about whether they can build a life in the United States. Maybe it's because they don't wanna wander through the streets of San Francisco, which can be full of syringes.

Maybe they are really mad about Donald Trump's visa policy and telling them to go home and, you know, tricking around their status if it's that we're, you know, a simple game, maybe they just really miss mom's noodles. And that is a perfectly reasonable reason to repatriate. It's always a mix of professional and personal reasons to, to move abroad. And I'm not sure if the US will hang onto the, to this very fluid and elite group. Maybe right now we can say that our Chinese are better than their Chinese.

This is a riff about the from the space race when, you know, we said that our Germans were better than the Soviet's, Germans. But you know, the, I'm not sure that this is going to be a permanent state of affairs because they may well find, you know, their model of, you know, their lives in Beijing even though they're getting much smaller pay packages to be superior in some way. And, you know, finally, you know, what are we going to be, you know, what are these, you know, what is AI going to be used for?

The US is much more of a services driven economy, focused much more on consulting, healthcare, legal services. The US is going to use AI to make better PowerPoints and file more lawsuits. The Chinese are going to use AI because they're much more manufacturing driven to make more iPhones, make more drones, make more munitions, make more electronics. How are we gonna use this ai? It's not clear to me that the US is going to win on this front.

- Ladies and gentlemen, Dan Wa.