[00:00:00.00]Well welcome to this 2007 lecture series of Alfred Marshall. I'm sure he would have agreed, and we would all agree that economic development is one of the most important contributors to human welfare and of course one of the extraordinary features of our time has been the remarkable growth of the Chinese economy.
[00:00:31.16]It is thus a great honour to have a very distinguished Chinese economist to give the 2007 Marshall lectures, Professor Justin Yifu Lin is professor of economics at Peking University.
[00:00:48.08]He's director of the China centre for Economic Research after an unusual and distinguished military career, he went to study political economy at Peking University
[00:01:00.09]He then moved on to do a doctorate in Economics at the Faculty of Economics in Chicago, a faculty not noted for it's expertise in market socialism.
[00:01:13.25]He's got a very distinguished record of publication in top journals and a substantial number of books.
[00:01:22.27]Professor Lin is a senior adviser to the Chinese government and to a number of Chinese cities and a number of Chinese provinces, as well as the World Bank.
[00:01:32.06]One of his books has the title 'China Miracle' and we couldn't have a more authoritative person to talk to us about it. Professor Lin's title today is "Development and Transition, Idea, Strategy and Viability" and it's a great privilege to introduce Professor Lin to you.
[00:01:59.22]Thank you very much for the introduction and I'd like to say it is a great honour not only so, it's a surprise for me to be invited to give the Marshall lecture here today because more than 20 years ago I was a student at the University of Chicago and at that time Bob Lucas was invited to give the 1985 Marshall Lectures and I had the opportunity to observe him making the preparation for these lectures.
[00:02:36.27]At that time I did not expect myself to follow in his shoes to give this lecture
[00:02:43.10] I got my Phd from the University in Chicago and I returned to China in 1987, so that was 20 years ago and the main reason I returned to China was because I wanted to make a contribution to the economic growth and the economic transition in China.
[00:03:06.04]So in the past twenty years I had the opportunity to observe economic development and economic transition in person and also to do research on these two areas.
[00:03:22.29]So today i'd like to use this opportunity to share with you my understanding of economic development and transition.
[00:03:33.10]There are two lectures and so the first lecture will mainly focus on economic development and the lecture tomorrow will focus on economic transitions.
[00:03:47.00]And I think that we all know it's a fact before the modern time all nations were in relatively backward stages and in most of the countries their production was mainly agriculture and the income difference between the rich countries of that time and the poor countries at that time was not so large.
[00:04:12.24]You know it was estimated to be about 30 to 40% in per capita terms at most, but also at that time when countries like China and India that they were considered as a developing country, were considered to be more wealthier than many countries in Western Europe
[00:04:37.06] and after the Industrial Revolution in the 18th century things happened very quickly, because we can see that the income gap started to emerge and today the rich country's per capita income was about 30 or 40 times higher than the per capita income in

the poor countries and so catching up with the developed country is some kind of dream for people in the developing world.
[00:05:08.06]and after the Second World War a lot of nations in the developing areas became politically and economically independent so under their revolutionary leaders they started to adopt certain kinds of policy to pursue the modernisation and economic development.
[00:05:30.09]Certainly a few countries did suceed for example Japan in 1980s the per capita income exceeded that of Britain
[00:05:41.27]and the new industrialised economies like Taiwan, Korea, Hong Kong and Singapore, they caught up very quickly and especially like Singapore and Hong Kong their per capita income exceeeds that of Britain in the 1980s; but most other countries failed, including China as you can see the gap becomes larger and larger.
[00:06:06.23]So in the 1980s the developing countries in the Socialist group and non-Socialist group started to have some kind of reform and transitions and China and Vietnam were extremely successful
[00:06:22.15]After they started the transition in the early 1980s they maintained rapid economic growth for example, in the past almost 30 years the GDP gross rate in China was about 9.8% per year, continuously for thirty years and we now maintain about 8 GDP gross rate in the past thirty years also
[00:06:46.27]And in the early 90s the Eastern European countries in the former Soviet Union started to have their transition
[00:06:56.02]At that time most people had a lot of expectation, thinking that they could have similar rapid economic growth as in China and Vietnam.
[00:07:05.14]However as you can see they encountered economic collapse and stagnation.
[00:07:11.06]And recently the European bank held surveys of 29 countries including 29,000 households and about 70% of the responses think that their living was worse than 15 years ago before the transition started.
[00:07:33.16]And so the question I'd like to ask in these lectures is why did Japan and East Asian NIEs succeed in their economic development to ctach up with the developed countries and most other countries failed?
[00:07:52.02]And the second question I'd like to ask was why did China and Vietnam have this economic growth but most other countries in their reform and transition process do so poorly?
[00:08:07.11]And certainly this is a question that has been asked in economics; like why are some countires so rich and other countries so poor?
[00:08:18.02]And it actually is a question asked by Adam Smith about 200 years ago, and then so like Bob Lucas has said in his Marshall lectures, he said that the consequence for human welfare, involved in questions like this are simply staggering
[00:08:36.26]And there was one I think economist who started to think each like this, it's hard to think anything else and I think I have a similar position like Bob Lucas.
[00:08:49.23]And so if we want to understand how come the country has different performance in development introduction certainly we need to understand what determined the economic development the success and failure
[00:09:05.23]And economists at first certainly proposed that natural resources are very important
[00:09:12.17]if you are rich in natural resources you can be in a (?) development something like that and that is one reason why China

has a one child policy because we think we are a resource poor country and that if our population is so large then we cannot be rich.
[00:09:26.16]However nowadays people think that natural resources are not important because in the rich countries, in the developed country, the natural resources contribute at most about 5% of their national GDPs.
[00:09:41.25]And so economists think that more important things are like physical capitals, human capitals and technologies, however to say that physical capitals, human capitals and technology are the cause of economic development is just like saying rich people have a lot of money.
[00:10:04.29]Certainly they have a lot of money but that's a consequence of their richness, it's not a cause of their richness.
[00:10:12.24]And so that's just approximate the causes we need to look into something more fundamental and according to the literature you know there are certain competing hypothesis and one is luck.
[00:10:28.17]In one to have some sort of multiple equilibriums and maybe some countries have luck to be in a good equilibrium and other country maybe they have bad luck so they are trapped in the bad equilibrium, so that's one explanation.
[00:10:46.15]And the other explanation is geography, if you are in a landlocked country then your transportation costs will be higher and you may lag behind
[00:10:57.20]If you are in tropical areas then you know, it's easy to have some kind of disease and life expectancy is short and under that kind of situation people may not invest in education to accumulate human capital so they are poor, that's another explanation.
[00:11:14.10]And the thrid explanation is institutional because the institution determines the incentive or investment of work in a country.
[00:11:25.00]So if you have good institutions then people work harder, accumulate human capital, physical capital and acquire technology so they become rich.
[00:11:33.19]And vice versa, if you have bad institutions then people do not have the incentive to work and so they are poor, that's one explanation.
[00:11:41.22]And the fourth explanation is culture. You know in some countries, if they have some kind of long culture, long civilisation so they have good social capacities to organise things, and some economists think that is the reason why some countries do better than other countries.
[00:12:00.14]And also some cultures encourage trust so it's easier to have some kind of business transaction and so on.
[00:12:07.27]So that's another cause maybe, for some countries doing better than the other countries
[00:12:12.04]And the fifth hypothesis is openess. If you look at all the developed countries they are more open, and if a country is inward looking they are generally poor.
[00:12:25.04]So some economists think that trade, globalisation is the key for the success of a nation.
[00:12:32.07]Well nowadays most economists think that institution is the most important determinant because if you have some kind of multiple equilbrium situation then it's hard to imagine that people in the nation will not try to do a little bit of changes in order to jump from the bad equilbrium to the good equilibrium.
[00:12:55.19]And also geography may have some impact but we can also find some kind of exception. like Switzerland is a land-locked country but it's one of the richest countries in the world, and also

Singapore is in the tropics, however Singapore is also one of the richest countries.
[00:13:12.29]So geography is not a destiny. And the culture well we can find soem countries that have identical culture, but some are very rich, some are very poor, and one good example is South Korea and North Korea.
[00:13:28.08]And openess, certainly we observe the rich countries are more open than the poor countries, however openess may be a consequence instead of a cause of their development
[00:13:41.22]And so now people think institution is the key, but institution is (?) some countries have good institutions and other countries have bad institutions, we need to explain that.
[00:13:58.22]And there are some hypothesis. In some of the literature on this hypothesis many focus on the conflict between the vestid interest group.
[00:14:10.13]In one hypothesis, the first one is proposed by Olsen, he said that if a society, if a nation has a very long term of stability then under this kind of society it's very easy to form some kind of institutional coalition and then the institution will work towards how to distribute the wealth instead of how to produce more wealth.
[00:14:37.01]And that is the reason according to him why some countries decline, why some countries become poor.
[00:14:43.22]And the second hypothesis that is also very influential is based on the Grossman and Harperman(?) study of trade policies.
[00:14:53.14]They think that the trade policy is determined by the lobby or some kind of interest group to buy the protection or buy the benefit from the national government.
[00:15:06.23]And the politician will decide what kind of policy that you will introduce depending on the lobbying of this special interest group and he also extends that to say, 'Oh this bad institution can be explained in this kind of interaction or equilibrium between the vestid interest group and the politician'
[00:15:30.11]In the third hypothesis which in recent years became very influential is based on the Acemoglu, Johnson and Robinson study of the experiences in the new world, in America
[00:15:46.26]And according to him, according to their studies the quality of institution is based on some kind of historical experiences.
[00:15:55.22]They argue that when they started to colonise the Americas, the New World. If a process had a high death rate then those kind of colonial elites, they could not stay there and under that kind situation they are going to introduce some kind of attractive institution and to protect the elite's power and position.
[00:16:23.00]And due to the past dependence and so on, then in those areas they are going to have bad institutions
[00:16:28.24]And in the North of America, like US and Canada well because their death rate at that time was lower and a settler could you know live there, and so they brought the European institution to there.
[00:16:44.03]And those kind of institutions continue to now, so they have good institutions and they use those kinds of historical roots as an explanation why the North of America become developed, become rich and Latin America become poor
[00:17:00.03]Based on the same observation in Latin America and North America another hypothesis was proposed by Engerman and (Sackler?) according to Engerman and (Sackler?) it was not because of death rates it was because in the Latin America, Central and South America the production - due to their environment, like soil

type, weather was good for coffee and sugar cane and those kind of plantations have a large economy of scale and can induce slave labour.
[00:17:37.22]And because of that they have some kind of powerful elite and the slave, and the human capital and political power were different and if the powerful elite will introduce some kind of institution to protect their power and so you know they are socially diversified and classified and those kind of bad institutions continue to this day.
[00:18:02.11]And in North America according to them, the weather was not good for plantation, the weather,the soil was good for small farming and because of the small farm the society was more equal, power was more equally distributed.
[00:18:18.05]And so they gradually formed some kind of more cooperative institution andthey used that to explain why North America performed better than South America.
[00:18:26.12]So you know according to these studies, if we want to understand the institution you need to look from the vestid interest groups point of view.
[00:18:37.08]However my question is that we see that Asian NIE's started to take off, Chile in the 1970s also started to have dramatic changes in their performance.
[00:18:52.06]China and Vietnam in the 1980's also started to have dramatic changes in their economic development performance.
[00:18:59.04]However we did not observe important or significant changes in the factor affecting the vestid interest groups contributions in those economies.
[00:19:09.28]So from this I think maybe the vestid interest group may be able to explain some phenomena, but may not be the key to determine good institutions or bad institutions, the policy or bad policy that changes the fate of a nation or an economy and from that I think Keynes may have a better observation than most of the other economists
[00:19:35.04]According to Keynes ideas it's the most important, in the concluding chapter, concluding sentence of his general theory it says 'but sooner or later it is ideas not vestid interest which are dangerous for good or for evil' and I share the same conclusion.
[00:19:55.28]Why are ideas so important? according to Ted Schwartz, he is the person who brought me to Chicago he said that the social institution and so on in our society in shaped by the dominant social thought at any time,in any nation.
[00:20:18.29]And social thought consists or different political, social and economic ideas. So ideas are the core of the social thought and social thought shapes the institutions and institutions effect the economic performance in a nation.
[00:20:39.12]And so that is(?) of my explanation of why ideas, social thought are so important.
[00:20:49.11]For this we need to look into the government, because the government is the most important institution in a country and why is it the most important institution? Because the membership in a nation is universal and people have no choice, and secondly the government has some kind of compulsory power on institutions. So under this kind of situation the other institutions whether it's good or bad actually is determined by the government, and I think that is the reason why Arthur (Louis?) you know had one observation.
[00:21:27.03]He said that 'No country has made economic progress without positive stimulus from the intelligent government, ut on the other hand there are so many examples of the mischief done to economic life by governments and that its easy to fill ones pages with warnings against goverment participation in economic life'.

[00:21:50.15]So intelligent government or bad government is important to determine the economic performance of a nation.
[00:21:59.24]But governement is a black box. Government is run by politicians, by political leaders, so if we want to understand how the government perfoms, we need to understand what is the motivation? what is the choice of the political leaders?
[00:22:17.15]And for the political leaders what is their motivation? I think that their motivations, just like Alfred Marshall said 'Economic models are not exclusively selfish and may be some arise from noble motives', and I think that this is a very good description of the motivation of political leaders in a nation.
[00:22:43.26]For the political leaders I think that they certainly worry about the internal security but they also want to be viewed as a hero in history and for that the best way for them to secure their tenure and also historical position is to bring prosperity to the nation.
[00:23:08.28]So they have those kinds of desire to do good for the nation, and to do good for the nation is not so easy, because we economists today still do not know what exactly will make a good policy that will make a country grow and so on.
[00:23:27.11]So under that kind of situation the political leader they have some kind of (grounded?) rationalities so they couldn't undertsand how to make things right and also in this kind of situation the dominant social thought tells people what is good, will make one country become strong, become developed.
[00:23:46.10]So under that kind of situation certainly it's easy for the political leader to follow the dominant social thought because they don't know how to do that(?)
[00:23:57.00]And secondly if you follow the dominant social thought it will be easier to motivate people to support your policies.
[00:24:05.16]And I think that is the reason why, you know, dominant social thought will have some kind of impact on the policy choice and institutional choice in a country.
[00:24:17.10]So built on this my hyopthesis to explain why some countries are successful in their attempt for economic development and some other countries fail in those kind of attempt, my study points that if the institution is right a developing country can exploit the advantage of backwardness and catch up the developed country very quickly, because for a long term economic development, continuous technological changes is the key and for a developing country they can beneift from the gap with the developed country by importing, by borrowing technologies, and if they have those kinds of institution to do that certainly they can perform better.
[00:25:05.07]However we shouldn't allow these countries to do that because they have bad institutions they cannot benefit from that advantage of backwardness and why do they have those kind of bad institutions those kinds of distortions and so on, because their institution was shaped by inadequate ideas about - to give the development of an advanced capital intensive industries is a priority.
[00:25:32.05]When their countries were in a poor status, capital is very scarce in the economy and due to those kind of bad ideas they need to introduce all kinds of distortions
[00:25:43.19]And then my explanation of why some countries are successful in transition but most other countries they fail to have a good performance in transition, it's also because of ideas wrong.
[00:25:58.06]Because in a transition you can observe all those countries had a lot of non viable firms they were created by the government in the past and certainly we see a lot of distortions in these countries but those kind of distortions were some kind of

second best arrangement to protect those kind of non viable firms.
[00:26:22.23]But in the transition process, like the Washington Concensus and so on, they did not understand those kind of distortions are enlargements to protect those kind of non viable firms and they try to get rid of those kind of distortions immediately then certainly you are going to cause a lot of economic chaos and so on so that's also due to the wrong ideas.
[00:26:45.13]And let me explain now step by step, well because the great divergence occured in the west and in the east or in the north and the south only after the industrial revolution and industrialisation, so because of that industrialisation especially the development of big heavy industry was viewed as a key or a foundation for economic prosperity and political independence in a country
[00:27:21.11]and also the historical experiences of Germany in the late 19th centruy and the Soviet Union before the Second World War to provide certain kinds of evidence for this kind of you know, observations.
[00:27:37.22]So if you look into you know modern history in all the developing countries you will find their national leaders are all you know have some kind of fascination about the big heavy industries, for example Dr Sun Yefang he was considered as the national father of modern China and in his book about the development of China he said 'The development of key (?) industries is the priority in China's modernisation and industrialisation' and he wrote that book in 1919.
[00:28:13.25]and Mao Zedong, the Chairman Mao he has similar conclusion he said 'Without industry there can be no solid national defence, no well being for the people, no prosperity and strength for the nation'
[00:28:27.08]and Chairman Mao was quoted by (?) in 1953 he said' If the industry is not developed a country may become other countries vassal even after the country has a obtained independence'
[00:28:43.09]and so they see that heavy industry, big industry is the foundation for people's well being for the national defence, for the political independence
[00:28:55.18]and a similar position was also shared in India, like Nehru in one of his talks he said ' Big industry must be encouraged and developed as rapidly as possible and it should be heavy in the best industries in which is the foundation of a nations economic strength and on which other industries can gradually be built up'.
[00:29:17.16]On another occasion Nehru also sadi 'No country can be politically and economically independent unless it is highly industrialised and has developed it's (power?) resources to the utmost'
[00:29:31.26]So that's some kind of common aspiration for the modernisation for the nation building, you know, after the Second World War.
[00:29:40.13]And not only aspiration but how to fufil those kind of aspirations through your policy, you need to have other ideas to build up and academically we know according to Marx in his Das Kapital, he has a two sector economy he showed that the production of needs should grow faster than the production of consumer goods. That means that heavy industry shoudl you know grow faster than light industry and agriculture
[00:30:11.12]And not only so, according to the publish of a single thesis, if a developing country that focuses on the production and export of commodities like agricultural product or mineral product and so on will be exploited by the developed country that focuses on production and export of manufactured goods.

[00:30:29.24]So again you need to develop heavy industry in order to be, to avoid yourself being exploited by the developed countries. That was the understanding in the academic circle at that time.
[00:30:42.22]And not only that you need to develop the heavy industries you need to have governement support for the heavy industries, and the first one to argue that is you know, List he said that if a country wanted to develop a heavy industry on it's own the government need to protect certain kind of, to adopt certain kind of protection like trade restriction and so on and in order to you know to help those industries to grow.
[00:31:09.06]And the development economics in the 1950's also supported those kinds of ideas because they think that there is some kind of market failures, there's some kind of (?) in the market and so heavy industry without government support cannot be developed.
[00:31:25.17]And the government need to, you know overcome those kind of market failures in order to create an enabling environment for the development fo heavy industry.
[00:31:34.15]That is the understanding in development economics in the 1950s.
[00:31:39.02]And based on that the World Bank, IMF and other international agencies also promoted the governments intervention for industrialisation in the 1950s and 1960s.
[00:31:52.14]But the political leaders aspiration for developing an advanced heavy industry is normal and that should be the end result for a developing country to become developed but their understanding of the diagnosis of the market failure is wrong.
[00:32:09.29]Because why in a developing country they don't have those kind of big advanced capital intensive industry? It is because those kinds of industries are against their competitive advantages.
[00:32:23.07]Firms in those kinds of industries are not viable in that market situation, so in fact it was not because of market failure it was because the market is very efficient so those kinds of big heavy industry could not develop.
[00:32:37.08]Let me explain.
[00:32:41.04]Supposedly we have a very simple economy, only have two factor production, capital and labour and under this kind of situation what kind of industrial structure should this economy have?
[00:32:54.18]In effect determined by their economic structures, supposedly we have three industries, I J and K and you can, you know that this is iso-value curve. K industry is most capital intensive. I industry is most labour intensive industries and whether a country, which industry a country should go?
[00:33:17.15]Well certainly it depends on the iso-cost curve? and the slope of the iso-cost curve reflected the relative abundance of capital and labour.
[00:33:29.19]So if a country which is rich in labour their iso-costs curve will be something like this and under this kind of situation this country should have I industry and J industry and produce I1 goods and J1 goods.
[00:33:43.21]And if the other country they are more abundant in capital their iso-costs curve will be like, you know this steeper one and they should go into J industry and the K industry, producing J2 Goods and K1 goods.
[00:33:58.26]However we know that the more steeper one means that the country is, has more capital per person. They are richer, they are developed.
[00:34:09.27]And the developing country they see that the developed country produces the capital intensive K1 good, they also want to produce that kind of K1 good.

[00:34:19.17]But if they go to those kind of industries their costs of production will be higher, firms in that industry will not do well, because they go against their competitive advantages
[00:34:29.15]But if the government adopts a certain kind of strategy I call competeitive advantage defying strategies to encourage firms to go into K industries to produce K1 goods and under the kind of situation in an open competitive economy this firm wil not be well unless they receive certain kind of support they cannot be well.
[00:34:52.07]So I say in the developed country they didn't have those kind of big modern capital intensive industries it was not the result of market failure it was a result that the market worked quite well.
[00:35:05.24]But at that time the government thought it was market failure. They wanted to encourage firms into, to go into those kind of capital intensive industries and the firm is not vaiable. So a firm following those kind of government policy is some kind of burden on them, and unless the government give their support otherwise they will not go.
[00:35:27.23]And how can the goverment give the support? Well certainly there are choices.
[00:35:31.16]One is to give direct subsidies, economically we can say it's not efficient in the way of subsidising some kind of firm however direct subsidy will be visible, only when the number of firms involved is very small.
[00:35:49.20]But when a developing country, when they wanted to develop this kind of capital intensive heavy industries there are too many firms to protect so direct subsidy will be you know, invisible
[00:36:01.11]So the government now give them some kind of tax preference and also create some kind of trade barrier to give them some panopoly and so they can charge a higher price for their good and so on.
[00:36:13.20]But in the developing country those kinds of support very often are not enough, the goverment need to do further things, artificially supress interest rates and (?) financial depression and also artifically overvalue domestic currrencies in order to enable some, or impose some equipment capital and so on at a cheaper cost.
[00:36:37.16]Those are distortions for the purpose of supporting the non-viable firm, but we know that interest rate, foreign exchange rate, raw material price and so on, they are prices.
[00:36:49.11]Once you have that kind of price distortion you're going to cause some kind of shortages in those kind of factory productions and the government need to have some kind of national plan and use administrative measures according to the national plan to allocate those kind of capital changes, raw materials and so on.
[00:37:07.29]So they have to plan their economy I think that's the reason why the socialist country in many developing countries have the state planning you know commission or something like that.
[00:37:19.16]And this kind of price distortion certainly is going to cause some kind of ransacking or some kind of directly unproductive profit seeking and also cause some kind of (?) countries and the economy will be very inefficient.
[00:37:36.26]and what is the other alternative?
[00:37:39.15]The alternative, the other alternative I call the 'Competitive Advantage Following Strategy'.
[00:37:45.08]And these kind of strategies will encourage firms to choose their industries according to the competitive advantage of their economy, determined by their (endowment??) structures and under these kind of strategies the firm will be viable.
[00:38:03.23]And so the government does not have to give them

support or protection, but firms only care about the cost and the price they do not care about competitive advantage as determined by their endowment structure.
[00:38:19.02]So to enable a firm to choose their industries according to their competitive advantages they need to have some kind of relative prices which reflect the relative abundance of their endowment structures, and only a competitive market can do that.
[00:38:36.09]So if a country want to follow their competitive advantages they need to have market institutions.
[00:38:45.05]But for a developing country, in addition to the market institution the government can play a more active role than just keeping the price right. Becuase if a country followed it's competitive advantage in their development they will be so competitive and so their performance is going to be very good and they will accumulate their capital very quickly so their endowment structure will upgrade very quickly and once their endowment structure is upgraded well their industry need to upgrade.
[00:39:20.16]And this kind of industrial upgrading involves certain externailties, both in terms of information, because you need to know which industry to go into, what kind of techonology you need to adopt, and we know that information has the characteristic of public good.
[00:39:37.28]If everyone collected information and processed the information, they would keep those kind of information to themselves; and under that kind of situation all the firm need to do the same things. There is some kind of redundance in the information collecting and process so it would be better for the government to collect the information, process information and release this kind of information in some kind of industrial policies.
[00:40:03.22]Not only information, when you have the industrial upgrading you need to coordinate many kinds of activities you need to change the ducation, you need to change your financial structure, you need to change your legal system and so on and a firm cannot internalise all those kinds of changes.
[00:40:22.19]so you need to have a government to coordinate those kind of changes and also in the upgrading there is certainly some kind of risk involved.
[00:40:33.18]There is no guarantee that upgrading will be successful, but if the first firm to upgrade finds it unsuccessful you provide some kind of information to the other firm not to go there, so the firm needs to incur those kinds of costs to create some useful information for others, so that's externality
[00:40:52.26]And even the if the firm is successful you also provide some information for other firms, to tell other firms that this is the right direction and many firms will follow they are giong to have some competition and so on and under that kind of situation you know the successful firm can reap some kind of monopoly rate.
[00:41:10.06]So you have some kind of symmetry between the success and failure in terms of costs again and to this the government can subsidise the first firm who do the industrial upgrade, so that means that the government can be a help in the way that we call the development of state.
[00:41:28.11]That means the government can have industrial policies to provide information for industrial upgarding to coordinate all those social, economic, legal changes necessary and to provide certain subsidies to the firms in order to overcome the information externality and so on.
[00:41:49.19]Well then I need to explain what's the difference between the industrial policy that follow the competitive advantage

of the economy and the industrial policy that is against the competitive advantage of the nation.
[00:42:06.21]And I can use one example, that is the automobile industries in Japan in India and China and in Korea to show what is the difference.
[00:42:18.25]We know that Japan had automobile industry policies in the mid 1960s and Japan was very successful in their development of the automobile industries.
[00:42:31.22]And you know, automobile industries in the 1960's, 70's even up to now was viewed as a modern industry; was viewed as an important industry for developing country to have to be modernised.
[00:42:46.26]And because of the success for Japanese automobile industry many developing countries followed that, but we see that some other developing countries have similiar automobile industry, like China and India started to have the automobile industry policies in the 1950s but China's and India's was very unsuccessful.
[00:43:08.11]Their automobile industry received a very long period of government protection and they remained an infant industry for a very long time.
[00:43:16.21]In Korea they started to have automobile industries and policies in mid 1970s and the case of Korea was in the middle.
[00:43:26.17]They had three automobile industries, two collapsed after the East Asian Financial Crisis and one now has become very competitive, that is Hyundai. And why has the same policy such a dramatic difference in their performance?
[00:43:41.18]Well I think it's because in some countries the automobile industry policy is consistent with their competitive advantages in other countries it's against their comptetive advantages.
[00:43:52.25]For example in mid 1965, 1960s the per capita income in Japan was about 40% of the per capita income of the US.
[00:44:04.19]So Japan was not a poor, developing country. In mid 1960s they already were developed in the steel industry, shipbuilding industries and they were very successful in the 1950s and the 1960s by doing that.
[00:44:18.24]So by the time of the 1960s to upgrade into the automobile industries I think is industrial upgrading according to their competitive advantages.
[00:44:29.06]In fact I can prove that, because in the mid 1960s, MITI, the Ministry of International Trade and Industry in Japan at the beginning only wanted to have two automobile firms in Japan one is Nissan the other one is Toyota. But in fact more than ten firms entered the automobile industry in Japan including Honda, Mitsubishi, Matsuda and so on.
[00:45:02.27]And those ten firms (?) without the governments support but they were successful internationally.
[00:45:10.18]They were very competitive domestically and internationally, if the upgrading was successful, was competitive without any government support then that means those kinds of upgrading were consistent with their competitive advantages.
[00:45:25.18]So just to show in mid 1960s the Japanese automobile industry in effect was industrial policy along the line of Competitive Advantage Following Strategies.
[00:45:38.14]And why India and China were so unsuccessful. The automobile industry in India and China you know required government support for more than thirty years and still remained an infant.
[00:45:50.21]But the reason is that in 1955, it's not 1965 it should be 1955, the per capita income in China and India was only about 5% of the per capita income of the US.
[00:46:05.23]And so to go into the automobile industry at that time

was too early. It's against their competitive advantages.
[00:46:14.00]So those kinds of firm are not viable, so they require a long term protection from the governement and even with the government protections their product cannot be competitive internationally.
[00:46:26.19]And why Korea, you know their performance was in the middle, you know three firms, two collapsed, one was very successful.
[00:46:35.07]The reason why, the reason was that in the 1970s the per capita income in Korea was about 20% of the US per capita income, 30% of the Japanese per capita income.
[00:46:50.04]So when Korea went into the automobile industries there was not, you know, Korea was not as ready as Japan in the mid 1960s but the situation was much better than India and China in the 1950s.
[00:47:12.08]So similar policies have different performance and the different performance could be explained by whether this policy is consistent with their competitive advantage or against their competitive advantages.
[00:47:28.11]And unfortunately, you know, in the 1950s most national leaders with the good intentions to make their nation become a modern industrial nation and they jumped into the capital intensive heavy industries as shown here like India and China in the 1950s
[00:47:50.16]But those kind of industries, although they were successful in the developed country to make them strong, make them modern, but they are not viable. They go against their competitive advantages, so they became a failure and to make that failure they had to restore all kind of institutions and that's the reason why they had such a poor performance in the process of their development
[00:48:16.04]That is basically the first message I'd like to give today.

[00:04:35.14]Ok then we need to compare, how come the comparitive advantage defying strategies perform worse than comparitive advantage following strategies and here i'd like to discuss in four areas.
[00:04:53.22]The first one is that if you follow a CAD strategy, try to defy your comparitive advantages under that kind of situation you cannot tap into the advantage of backwardness, for several reasons.
[00:05:08.05]The first one is that because your technological gap is so large, your human capital is not prepared, so even though those kind of technologies are there you may not be able to command those kinds of technologies.
[00:05:23.24]And then if you follow comparitive following strategies you know, then later the gap is very small, your technologies are quite close to the technologies you are using now so it's easier to learn, that's why it's different.
[00:05:39.11]And secondly if you want to go directly into those kinds of industry or technology that are the technology used by developed countries today they have some kind of patent protection, they may not want to transfer those kinds of technologies to you.
[00:05:59.23]Either you have to pay a very high cost to acquire those kinds of technology or you need to do, to develop by yourself.

You need to reinvent wheel by yourself so the cost will be very high.
[00:06:13.12]But if you go into borrow mature technology you know, it's very inexpensive, sometimes you don't even have to pay anything because the patent protection has expired.
[00:06:24.03]So that means that if you go for the CAD strategies it will be much harder to tap into the advantage of backwardness and will be much easier if you follow the CAF strategies.
[00:06:37.13]Secondly if you follow some kind of CAD strategies at the beginning with the government help certainly if they invest a lot in those kind of priority sectors then during that period of time you're going to have some kind of investment like growth at the beginning period for a few years and certainly you are going to have a high growth rate during that period.
[00:07:02.17]But that kind of growth cannot be sustained because the sector you have invested in is not to your comparitive advantage so they are not competitive they cannot create real economic success.
[00:07:15.20]At the same time the sector within comparitive advantages they would not get any resources to get investment and so they could not create economic success either and the result economic success you cannot accumulate and you cannot sustain those kinds of investment forever.
[00:07:34.16]So eventually the economic growth rate is going to slow down because the resources for investment are going to dry up.
[00:07:42.03]And so you are going to have, you know, more volatility in your growth rate, sometime you have growth rate but sometimes you are going to stagnate and so on.
[00:07:52.01]But if you follow your comparitive advantages the sector you invest in it's your comparitive advantage you can turn it into competitive advantages and so you can create a lot of profit, economic success, you can sustain the economic growth with resources created by your profit so you can continue to make investment and sustained investment and so it's going to be more dynamic in growth.
[00:08:19.17]and now so, if you follow CAD strategies you are goin to be inward looking because sectors which do not have comparitive advantages, you are supposed to import, but you don't want to import so you want to produce by yourself and then you reduce the imports.
[00:08:37.27]at the same time you're going to reduce your export because you resource is limited if you transfer resources from those kinds of sector which have comparitive advantge which you can export to the sector which you cannot export, which you are supposed to import then under this kind of situation you also reduce your export. So your import you export are both reduced.
[00:09:00.04]But if you follow your comparitive advantages it's going to be outward looking because sectors which do not have comparitive advantage you import, sectors which have comparitive advantages you allocate your resources to there and so certainly they are going to grow, they are going to export more, so comparitively, certainly if you follow the CAF strategy they will look much more outward looking
[00:09:24.24]However how large is the trade dependent? How large is openess? actually it's in balance to your comparitive advantages
[00:09:35.20]And last one, not only the country which follow CAD strategies is going to be inward looking. They are going to have some kind of very unequal income distribution especially if it was implimented in some kind of private property, market based economy.
[00:09:56.22]the reason is that only those rich people, or well connected people would be able to invest in the capital intensive priority sectors and those kind of sectors need to be protected, need to be subsidised and where are the resources for those kind of

subsidies?
[00:10:17.18]Certainly from people who cannot invest in those kind of private sectors, in general they are poorer.
[00:10:24.19]So under this kind of situation you ask the poor people to subsidise the rich peoples investment, certainly then the incomes are going to be polarised
[00:10:37.10]And if you follow comparitive advantages then we can see at the beginning stages you are going into the labour intensive sectors in most of the developing countries, which is going to create a lot of jobs.
[00:10:52.04]And we know that poor people, the only resources, the only valuable asset for them to make income is their own labour force and you create a lot of jobs for them so you can enjoy full employment and those poor people they can share the benefit of (?)
[00:11:10.21]Not only so because you follow the comparitive advantage your economy is going to be very competitive, the capital accumulation is going to be very fast.
[00:11:20.14]So endowment upgrading that means you have the ability of capital and workers is going to increase very fast
[00:11:27.09]At the beginning capital is very scarce, so the return to capital is going to be very high, the return to labour is going to be lower but with the economic development capital becomes relatively abundant.
[00:11:42.14]The price of capital declines and with that comes relative skills so the wage rate increases, but we know that rich people have the comparitive advantage in the capital income, poor people have comparitive advantage in the labouR income.
[00:11:57.04]So in the process labour becomes more and more valauble, capital becomes less and less valuable. So the income distribution actually can be improved.
[00:12:07.07]So from this comparison we can see that CAD strategy is not sustainable. CAD stategy is going to polarise the societies and you are going to have some kind of crisis.
[00:12:23.01]but if you follow the CAF strategies you are going to have growth with equity as we observed in the East Asian economy.
[00:12:32.27]And so under that kind of situation because I mentioned only a few economists they know follow this kind of social thought to pursue CAD strategy since the Second World War.
[00:12:45.18]and by the time of the late 1970s, 1980s nobody is in the socialist group or in the non-socialist camp. They all started their transition from the old CAD strategy type of economy to a market economy.
[00:13:03.04]and this is because the failure in the (????)convergence and the poor economic performance and the social problems led to a change in social thought and this kind of social thought is opposite to the market failure hypothesis
[00:13:22.20]Now everyone says there's some kind of government failures and that type strategies or ideology was repressed by the right type ideologies called the Capitalist transformism.
[00:13:38.13]And this kind of social thought is calculated in Washington Concensus. The idea of the Washington Concensus I think it's right, it's goal is good because it wanted to build up the necessary institution for a way of a functioning market economy.
[00:14:01.29]And it had ten recommendations, certainly I'm not going to go through the list. I just want to discuss a short version of this Washington Concensus.
[00:14:09.28]That is called 'Shock Therapy(??)' which was implimented in former Soviet Union, in Eastern European countries.
[00:14:17.25]And this Shock Therapies or (Big ?) approach has three tenets, three main elements.

[00:14:26.08]The first one is the market development (?)isation the argument that you need to allow the market competition to decide the prices and those kind of prices will be the signal for resource allocation and as necessary.
[00:14:43.27]Secondly you need to privatise all the state, all enterprises you have to have the private ownership as the basis. they argued that only if the enterprise is owned by the private owners they will have the incentive to respond to the price signals, otherwise the market will not work.
[00:15:04.01]And the third one is that you need to maintain fiscal discipline if you have high inflation, rampant inflation then price signals would not function as guidance for resource allocation.
[00:15:19.03]So these three arguments seem to be logically consistent. It seeme to be convincing, they are the necessary institutions for our well functioning market economy.
[00:15:31.05]However although the Washington Concensus and the (?) promised to help in the upgrade and rapid economic growth after they implimented these strategies because they say you are going to have an efficient market institution.
[00:15:52.16]So at the beginning period of 6 months to one year you have some kind fo adjustment, so you may have a decline in your GDP. But after that you are going to take off very quickly.
[00:16:04.19]So they said that they are going to have a 'J-curve' in the path of their economic development but in fact countries that followed sho(?) and Washington Concensus I call them to have a (?) curve) a sharp decline in their economy and then stagnate for over ten years and then start to take of, or to recover a little bit.
[00:16:29.13]and not only the socialist country had that kind of problem. The other developing contries followed the Washington Concensus in the 1980s and the 1990s to reform their CAD type, or inward looking (?) type of economy they encountered similar things.
[00:16:50.23]Although they followed the advice from IMF and so on, improved the transparency of the government, reduce government intervention and so on, but two things did not improve, one is their economic growth rate the other one is the stability of their economy.
[00:17:07.16]In fact the norm of the economic grwoth rates in the 1980s and 90s was lower than the low economic grwoth rate in the 1960s and the 1970s for about a hundred, more than a hundred developing countries.
[00:17:28.14]and not only so, the volatilities in fact also increased, and as I mentioned at the beginning there are some exceptions. China and Vietnam are exceptions, but China and Vietnam did not follow the Washington Concensus, did not follow shock therapies.
[00:17:46.00]If China and Vietnam adopted different strategies, then we need to say what's wrong with the Washington Concensus?
[00:17:54.22] again just like the aspiration to develop modern industry it's noble. It's good
[00:18:02.17]And the intentions to establish the market economy certainly is good.
[00:18:08.03]However the Washington Concensus did something wrong.
[00:18:12.21]That is they ignored the existing distortion in the socialist countries, in the developing countries, in fact it's some kind of (?) because as I mentioned last time most distortions in fact are some kind of second best institutional arrangement in order to provide subsidy support to the non viable firms in the CAD industries.
[00:18:42.16]But they treat them as some kind of (?) distortion and so they think that as long as you tear down those kind of

distortions then you are going to jump into a fully functioning market economy.
[00:18:53.12]However because of this you know, this imperfect this you know, weakness in this perception in fact the Shock therapy is impossible and I call that you know traingle of impossibilities, just like ?triangle of impossibility.
[00:19:16.08]There is in fact because privitisation, the hope is to reduce (?)
[00:19:24.04]The hope is to reduce government subsidies.
[00:19:26.20]but in fact if you do not deal with those kind of viability issues as I mentioned and so on, privitisation is going to increase (?) country
[00:19:37.16]The reason is that firms in the priority sector still carry all kinds of policy burdens including they are not viable and also they in general employ a lot of redundancy workers because in the past the government it was a lot but did not create enough jobs, but the government was responsible for the employment in the urban areas.
[00:20:02.24]So the government assigned a lot of redundant workers to these firms and those kinds of burden, I call them policy burdens.
[00:20:11.05]And as long as they are a policy burden the government is responsible for policy support and under the privitisation because you did not eliminate the policy burdens, redundant workers and help them to overcome their viability issues and the governement are reluctant to allow them to go bankrupt for two reasons
[00:20:35.22]One is that of employment, they have a lot of workers if you allow them to go bankrupt you are going to have social riot.
[00:20:41.21]and not only so because they are a sector which is considered as necessity for their modernisation like the heavy industry in Russia today and it's their national pride, it's their power and the government still want to produce.
[00:20:58.13]So under that kind of situation their policy burden is still there and you can imagine it's very easy to write a mathematical amount to show that after privitisation the subsidies towards the former state owned enterprises actually increase instead of reduce and (??) also support them.
[00:21:18.05]But after the privitisation the governments ability to collect tax weakens because in the past the government had claimed to (?) and the state owned firm need to you know give all the profit, everything to the government but after the privtisation the government need to collect tax and you know that it's not so easy to collect tax.
[00:21:40.15]So on the one hand your subsidies increase, on the other hand your tax revenue, our fiscal revenue reduces so you can imagine after the privitisation you are going to have high inflation and that's a problem, after the first five years of transition the inflation rate in some of the eastern European countries in the former Soviet Union, you know the cumulative inflation was more than one hundred thousand in five years, in many countries.
[00:22:13.17]You know even for Russia in five years inflation was more than one thousand percent. So that's a very common phenomenon because there's some kind of impossibily to have mass privitisation and financial discipline, and fiscal discipline at the same time.
[00:22:31.08]And the east Asian economies including Vietnam, Laos and so on they had a different approach to some extent and they also had a different strategy.
[00:22:43.03]These strategies you know, there are some words from (?) that can let us have a better understanding of these strategies. Certainly (?) is very famous for 'No matter it is a white cat, or a

black cat as long as it can catch mouse it is a good cat' everyone knows that but in fact in the transition he has another very famous phrase 'Crossing the river by breaking the stones'. that means that at the beginning of the transition there was no big blueprint, he always used some kind of trial, an experimental approach in a local way and see it's effect.
[00:23:24.13]And it is in fact those kind of programmes that would be carried out nationwide. That is the approach that is used in China and are followed by Vietnam.
[00:23:33.09]And in the spirit the transition in China adopted certain kinds of gradual and dual track approach.
[00:23:42.11]This approach has several characteristics, the first one is to improve incentives by allowing farmers and workers in the state sectors to have partial claim to the (?) and give them some kind of partial autonomy so as to improve the incentives.
[00:24:02.05]That means that originally they are recieiving the protection fund from you because there is such a low incentive, now increasing the incntive so the production can move to the production fund to you and with this kind of improving incentives people respond, productivity improves, new resources are created.
[00:24:21.16]Secondly introduce a kind of dual track system (?) the government still you know, give the number of industries certain kind of protections so to seal them from the market competition.
[00:24:40.25]and on the other hand allow the private sector to go into the sector which was depressed in the past and that is in the labour intensive light industres and service sectors and because I mentioned the private sectors the farmers and the state workers you know they own some resources so they can make investments they have partial autonomy so resources will be increased, channeled to those sectors which were repressed in the past.
[00:25:09.19]And so you see your firsst step is to improve incentives, the second step improve the resource allocation. So we are going to have some kind of dynamic growth in the process.
[00:25:18.16]And then after the market trade becomes bigger and bigger because it's consistent with the comparitive advantages and so on then the state owned trade become smaller and smaller and that creates resources for the government and the conditions for the government to get rid of the viability issues or distortion issues and so on.
[00:25:41.15]And once most of the goods or commodities are transacted by the market the government will remove the distortion in those sectors and that is how we gradually (?)
[00:25:56.23]and this approach results in stability because non viable firms are still protected and on the other hand it provides more incentives to improve the resource allocation and so on so we achieve dynamic economic growth simultaneously
[00:26:13.10]and in fact other countries in the developing world which are successful in their reform period like Mauritius in the 1970s and onward. they started with some kind of inward looking infastructure and strategy also, and their economic performance was very poor, but in the 1970s they started to have some kind of reform, they adopt a (/) strategy also, they give those kind of (?) sectors continuous support but they did (?) the sector which was repressed in the past by opening export, process and (?) and so on, so they were very successful.
[00:26:57.07]In a way Chile did the same thing, you know the governor of Chile came to Peking University to give a talk and at that time we were asking, everyone said you know Chicago boy did so many good things to Chile and he himself was a Chicago boy and actually implimented what we had done in Chicago. He said common

sense is more important than anything you learn at Chicago.
[00:27:23.14]Ok so with this comparison you know, we can make some kind of comparison about the performance of different policy regimes and different approaches to transition and I have come up with some, five testable hypotheses.
[00:27:42.09]The first hypothesis is that the country that adopt CAD strategies will result in various government intervention and distortions.
[00:27:52.21]the more CAD strategies you pursue, the more intervention, or the more serious intervention you are going to have.
[00:28:01.13]And the second is that over an extended period of time the country that adopts the CAD strategies is going to have bad or poor economic growth performance.
[00:28:13.15]The third one is that over an extended period of time the country that adopts CAD strategies is going to be more volatile and so you need an extended period of time otherwise you are going to at the beginning you are going to have some kind of investment growth - right? and then followed by some kind of stagnation and crisis. so you need to have some extended period of time.
[00:28:35.26]And the fourth hypothesis is that over extended period of time the counrty that follows the CAD strategies is going to be less equitable. you know, income disparacy is going to be larger.
[00:28:50.29]And a country that follows the CAF strategies is going to be more equitable and the last one.
[00:28:59.10]In the transition to a market economy, the most important thing is to create enabling conditions to allow the sector which was repressed in the past to grow. That is the very intensive industry and sub-sectors to grow.
[00:29:13.20]So if during the transition process those kind of repressed sectors grow faster then you are going to ave a better economic performance well into the transition period.
[00:29:26.20]Those are five hyopthesis that I tried to test.
[00:29:30.10]And I need to have a project for the development strategy, the project I created is caled technological choice index, and the technological choice index is you know, the denomenate, only numerators is (?0 in the manufacturing industries.
[00:29:53.05]My argument is that if you follow CAD strategies first you are going to give the priority sector a monopoly. They can charge higher prices and you are going to reduce the cost of their input like interest rate for capital and so on, so their volatility is going to be larger
[00:30:17.00]At the same time if you follow CAD strategies you create less jobs and under that kind of situation the numerators for the CAD strategies are going to be bigger than otherwise and so divided by your GDP for workers, the more you follow a CAD strategy the higher will be the TCI - the Technological Choice Index
[00:30:40.25]that is you know, certainly there is some kind of (?) there. i'm not going to argue about that but I think it can be a (proxy?) for the development strategy.
[00:30:51.12]And then I use to you know, show the strategies and institutional distortion, I have several indicators.
[00:31:04.10]For example, black market premium and you can see in the 1960s the higher the TCI the higher black market premiums, that means that you have more distortion in the exchange rate and in the 70s and the 80s, in the 90s all have positive significant corralations.
[00:31:26.05]and then also if follow more TCIs, the government interventions will be larger and the firm will have less freedom in making decisions about the investment and so on and you can also see

that the higher TCI the less economic freedom, and that's the case for the 70s, for the 80s, for the 90s.
[00:31:49.05]and then also if you have higher TCI you have less protection on your property law and it's likely to be nationalised and so on and you can see also there's a very significant corralation between TCI and this risk.
[00:32:07.19]And the less risk, the more likely you are to be nationalised.
[00:32:14.10]And then, the higher TCI the more (?) for you to get registered. That means the government have more intervention again that shows that.
[00:32:27.08 And also it's going to (? your independence yeah? and you can find also the higher TCI the less independence.
[00:32:34.22]So they are all consistent with the hyoptheses, and they are just corralations but they are highly significant in all those areas
[00:32:43.23]And openess you can find that the higher TCI the less openess and that's also consistent with the hypotheses.
[00:32:51.20]And thus in the 60s and 70s, the 80s and the 90s then I tried to test the TCI and the economic growth rate and I have data for over 120 countries for the period from 1960 to 1999 and the (?) showed that the higher TCI the lower average annual per capita GDP gross rate, and that's highly significant, very significant, as you can see.
[00:33:23.08]Also the year by year growth rate of per capita GDP and I used a (?) to (?) again you find it's highly significant, no matter which model I use (?????) and so on.
[00:33:46.00]And also the volatilities, again the higher TCI the higher volatilities and it's positive and significant
[00:33:57.02]And income distribution and you can see from here, the higher TCI, the higher (?) across these 120 countries.
[00:34:06.15]And then integration with other competing hypotheses and so on, and again you can find the higher TCI, the higher income inequality in those countries matching the (coefficient?) and it's highly significant.
[00:34:21.29]The last one is transition to, the transition approach and you can find that the higher the TCI that means we compare the period of the TCI in the 1990s with the TCI in the 1980s and the hypothesis should be negative.
[00:34:39.29]That means that the lower TCI after your transition then the larger you know entry of the labour intensive manufacturing or light industry and so on an again you can find this is highly significant.
[00:34:54.21]So all those hyoptheses are confirmed with this simple new index called TCI and it is consistent with my hypotheses.
[00:35:03.00]Ok so that means that my story seems to hold.
[00:35:08.16]For the developing country, if they want to catch up with the developed country by tapping into the possibility of the advantage of backwardness then they have to have a strategy that basically follow their comparitive advantages.
[00:35:25.14]and if they want to do the transition and if you do something wrong, then you want ot do the transition again you need to understand those kind of distotrions and (?) and you need to create an environment to allow those kind of nonviable firms to gradually you know, move away from those kind of adverse situation.
[00:35:48.12]But you know there are only a few countries in East Asia that really tapped into that potential, in terms of development you only have Japan and (? dragons??) in the 1960s and up to the 1990s and so on become catching up with the developed country.
[00:36:08.23]and in transition also we find only China, Vietnam and

to some extent India and so on are tapping into you know, the right strategy and so on and how come all those countries concentrated on the same areas and if we want to know the lesson we need to answer two questions.
[00:36:26.23]Why are East Asians so special? Why they are so special?
[00:36:32.04]The second question is that I talk about the gradual apporach for transition but we know that Russia and Eastern European countries also tried some kind of gradual approaches in the 1980s and they did not work and that's the reason why like (?) and Murphy and so on wrote and article to prove that if you want to have a transition you need to jump across the river in one attempt. You need to (?) out of everything otherwise you're going to be even worse
[00:37:02.23]And why the gradual approach in Eastern European countries and former Soviet Union did not work?
[00:37:07.18]I need to answer those two questions.
[00:37:10.05]Why are East Asians so special?
[00:37:13.16]I think their resource constraint is very important in the important factors because the government in east Asia were influenced by the same social thought. They have the same aspirations they want to be modern industrialised countries
[00:37:35.07]And they are influences by the same social thought. You need to develop heavy industry, modern industry in the right sectors.
[00:37:42.05]However, whether you have ability to carry out those kinds of strategies depends on how much resources you can mobilise, because your arguments show the CAD strategy is very ineffective, very ineffeicient and you need to have enough resources to support these kind of inefficient strategies.
[00:38:07.21]But east Asian economy you know first their economic size is not very large, population size, secondly they are extremely poor in natural resources, and because they are truly poor in natural resources and a small size economy whenever they try to have this kind of CAD strategy, they cannot mobilise resources from the rural sectors, or natural resources sectors to make investment.
[00:38:36.26]They could only support those kind of investments by deficit, fiscal arrangement you know financial, fiscal deficits and immediately the second year, they have hyperinflation.
[00:38:49.24]The advantage that in the 1950s but immediately the second year they have hyperinflation but the reason why the KMT lost their money was KMT was unable to control the hyperinflation (?) in the 1940s so they learned their lesson.
[00:39:07.20]So once they encountered hyperinflation the government immediately stop the preferntial support to those kind of CAD industries and so on.
[00:39:17.29](?) in a document they say we want to develop heavy industry, advanced sectors but they did not give any policy support and under that kind of situation certainly the private sectors wil follow their comparitive advantages because those are the sectors where they can earn their profit.
[00:39:35.24]Similarly in Korea the same thing, in 1973 under the leadership of (?) he got you know the became the president under a military coup in 1960s in the first ten years he followed very close to the labour intensive industry development because he wanted to stabilise the economy. He wanted to improve people's living in order to gain political support.
[00:40:01.19]In 1973 he started to pursue at that time called the heavy machinery and heavy chemical industry drive but 1973 immediately the same year they had hyperinflation.

[00:40:16.23]And in that hyperinflation period, the last year, he was assasinated.
[00:40:21.15]And because of so, you know the governement could not subsidise too much because they are constrained by their resources and without heavy support from the government the private sector certainly will do whatever they can earn money now that it's close to their comparitive advantages.
[00:40:38.01]So I think East Asians they follow this kind of CAF strategies unintentionally. it's not their intention but their resources constraint force their to follow their comparitive advantages.
[00:40:51.14]And this kind of resources constraint also is reflected in Confuscianism. You know because resource constraint, high population density, resource constraint is a fact for a thousand years.
[00:41:06.29]And under that kind of restraint whenever the government try to do something too extreme you are going to immediately have some huge consequence.
[00:41:16.26]One example is that in the 1980 - eh 1959 to 1961 we had a great leap forward. China wanted to become catching up with Britain in ten years and catching up with the US in fifteen years
[00:41:32.24]But as a result of that there was a severe famine with casualties of 30 million extra deaths, and I think that is the largest human manmade disaster in human history.
[00:41:49.12]So with this kind of resources constraint the culture in China actually is the pragmatism and the spirit of the culture we call (?) that is to keep within the means, not to be extreme, to balance and this kind of pragmatism is also reflected in China's political philosophy, for example you must hear Chairman Mao say 'We need to find facts, find and choose from the facts'
[00:42:21.06]You need to have a reality check all the time.
[00:42:24.08]What is the facts? and to decide your policy according to the facts, and that's first
[00:42:28.28]and then (?) came to power he said we need to divorce our minds from dogmatism and dogmatism from the back wing and from the right wing.
[00:42:39.28]Again that is some kind of pragmatic approach, not to pursue a certain ideal but to pursue what can work and then (?) came he said 'Adapting our policies to the changing environment because with the change in the internal/external environment the government policies need to respond to those kind of changes, those kinds of constraint'
[00:43:04.24]So thats a very pragmatic philosophy in the Confucianism culture and that reflects the reality we have, you cannot go to extremes you need to keep the beat and certainly your means are changing all the time.
[00:43:18.03]and in addition to this kind of resource constraint and cultural heritage there are also political constraints on the transition strategy that the government leader in China and Vietnam can adopt because the transition is intitated by the first generation of revolutionary leaders.
[00:43:38.05]They bring socialism, they bring planning systems to China and in an authoritarian society the leadership cannot denounce what they did in the past, otherwise they will lose their authority.
[00:43:51.11]And under this kind of situation they can only do some kind of tinkering approach. They say socialism is good, planning systems good but it did not perform so well, so let's improve it.
[00:44:02.10]and that is the piecemeal, gradual approach that came along.
[00:44:06.15]So another thing, no matter in terms of development or

in terms of transition the success has a very important element of luck.
[00:44:18.01]Because of the resource constraint we don't have the resources curse, we need to be pragamatic. because of the cultural heritage, political realities we can only do certain kinds of piecemeal gradual approach and with this kind of pragmatism and also with high social capacity built on the known you know historical civilisation and so on.
[00:44:45.07]Once they decide something is right they can carry those kinds of policy more effectively in the East Asian.
[00:44:51.10]I think that might be the reason why East Asian economies are so successful after the Second World War in terms of development and economic transition.
[00:45:00.29]The second question I need to analyse is how come the gradual reform in the Soviet Union and Eastern European countries did not work?
[00:45:11.00]Well we can compare, it's not only gradual, you need to have the right approach.
[00:45:17.13]In the Soviet Union and Eastern European countries first firms had to gradually reform the government in the Soviet Union and Eastern European countries would not allow the firms to set their prices.
[00:45:30.18]But in China the firm has the right to set a price after they deliver their quota to the State at the prime price, after they fill that quota they can set the price according to the market demand.
[00:45:44.22]So in fact the margin price to the firm in the transition process in China is the market price, but in Eastern European countries they still (?) artificial seperate price so the incentive for the price will be different.
[00:45:58.27]Secondly in Eastern European countries to enter into the repressed sector in the past was not allowed, but in China and in Vietnam they government encouraged the private sectors to go into the sectors which were repressed in the past. So in China and Vietnam the resources allocations were improved but in the former Soviet Union and Eastern European countries resources allocation were not improved.
[00:46:28.15]The third one, the economy that they had in Eastern European countries and the former Soviet Union was to set their wages and you see that if you allow the firm to set the wages and that wage will be taken up by the government certainly the manager will have the incentive to raise the wages very high. So they cause some kind of wage inflation.
[00:46:55.29]But in China and Vietnam even now they have partial claim to their(?) but which form is control? If you want to increase the wages to certain levels the firm need to pay tax to the government right?
[00:47:13.18]So under that kind of situation the wage infaltion in China and in Vietnam was very low.
[00:47:18.16]Not only so in former Soviet Union and Poland and so on once they have wage inflation setting their transition policy it's so hard to hear about other overhanging demands and the demand is larger than the supply and the government started to import, increase the import of (?) and so on, to satisfy domestic demand and that created a huge imbalance in their trade.
[00:47:45.24]So they have internal imbalance and external imbalance, but in China and Vietnam you know, our productivity improved because of the improvement in incentives, because of the improvement in the resource allocation and the demand is controlled because the wage did not increase so much.

[00:48:02.15]So under this kind of situation fiscal income increased and trade supplies increased also so we are in a very healthy situation.
[00:48:10.11]So this means that, yes, gradual approach is very important but right intervention is very important
[00:48:17.20]I can give another example, in China when we do the reform we started from agricultural sectors we decollectivise to change from the collective farming to individual household based farming, it was very successful.
[00:48:33.00]At that time farmers were given fifteen years of lease of the land and they can decide what they want to plant, although they need to fufil the quota obligation to the government.
[00:48:45.27]It was very effective in improving the incentive, and I do have an article to show that
[00:48:51.04]And Gorbachev wanted to introduce a similar system into Russia, former Soviet Union and had leases of fifty years so it seemed to be the property rights were even more secure than the property rights in China.
[00:49:05.19]But farmers in the Soviet Union did not respond at all and why, you know on the paper it works?
[00:49:12.19]It seemed to be that the system in Russia should be more welcome than the system in China but in fact farmers in Russia would not take those kinds fo reform
[00:49:21.13]The main reason is that in Russia their agriculture is highly mechanised and their farm is so far away from the market so in the little household farm it did not work.
[00:49:33.29]But in China we have a high population density farm and the market is so close and also in China we do not rely so much on mechinisation.
[00:49:43.27]We do not rely so much on personal input in the agricultural production.
[00:49:48.14]So under that kind of situation the reason why this can work in China but cannot work in former Soviet Union.
[00:49:54.09]So that means that if you want to have a, this kind of partial reform or piecemenal reform, you need to have some kind of so called diagnostic approach.
[00:50:07.11]You can not have a blueprint which fits everyone.
[00:50:10.18]And so the lesson learned from the transition is that you have to be pragmatic, you have to be diagnostic.
[00:50:20.12]But there are some generalisms, because in all the countries which follow the CAD strategies they must have some kind of seperational incentive.
[00:50:30.29]They must be within the production frontier.
[00:50:34.04]So you can find some way to increase the incentive and to move the production towards the production frontier, then you are going to create a new stream of resources.
[00:50:43.12]Secondly you can introduce some kind of dual track because you will always have sectors which are against your comparitive advantage, firms in those kinds of sectors are not viable.
[00:50:53.21]You need to continue to give them some support in order to maintain stability, but you can (?) the entry to the sector which were repressed in the past in order to improve the resource allocation.
[00:51:04.24]And then after, you know a market trade becomes dominant then you can eliminate the price and you can liberalise those sectors and you can jump across the river, when the river becomes very small.
[00:51:20.29]And during the process you need to continue, continuously improve your market institution by strengthening the

regulation, and so on.
[00:51:32.23]And by this way I think a gradual approach can work.
[00:51:37.16]So let me summarise what I have said in these lectures.
[00:51:40.05]My first argument is that technological upgradng is the most important driving force for long term dyamic growth in any country after industrial revolution.
[00:51:54.14]It's true for the developed country it's also true for the developing country
[00:51:58.28]and the government is the most important institution in a developing country and it's policy determines the quality of other institutions in the economy and you know institution, besides incentive for work, the incentive for investment, the incentive for accumulation of human capital and so on and those are positive causes for growth.
[00:52:25.08]And idea is the most important determinant of the quailty of a countries policy and institutions
[00:52:32.05]Because as I argued, government is run by the politicians, the politician has some kind of valued ratiionality even if they have good intentions to do good for the nation but they need to you know be guided by the dominant social thought, by the ideas.
[00:52:50.16]And the right idea is very important for a country to have right policy, to have and intelligent government.
[00:52:59.04]And then the enviroment I think is a very important factor in economics which we do not pay enough attention to.
[00:53:10.10]The environment I would say is the most important minding constraint in our countries choice of technology and industries, because the environment at any human time is given.
[00:53:22.02]You cannot change it, even if you have international capital compared to your environemtn it's just marginal.
[00:53:30.08]and environment in effect determines the total budget of a country at any given time, total budget.
[00:53:39.01]Not only does it determine the budget, because environment has relatively abundance or capital or labour or natural resources, because of this kind of structure it can determine the relative price of capital or labour or natural resources.
[00:53:54.27]We economists know that budget and revenue price are the two most important economic you know forces that we consider any kind of things
[00:54:06.17]So environment I think is the most important planning constraint that we need to pay more attention to because it decides the optimal industrial structure, optimal technological structure at any time in any economy and not only so, environment is something that you can change it's not like culture or like death rate in three or four hundred years ago which you cannot change.
[00:54:32.02]Environment through your own effort you can upgrade so you can change your fate either way.
[00:54:37.18]And then the comparative advantage is the most important guiding principle for formulating development policies if you follow your comparitive advantages your economy is going to be very competitive and you can upgrade our environment structure very quickly because you are going to create more profit, more surplus and you are going to have a higher return to your capital and so on. And some people will have more to accumlate and will accumulate more and environment structure will upgrade quickly.
[00:55:13.18]Once your environment structure upgrades quickly your comparitive advantage changes you can you know, you can upgrade to a higher, more industrial industry.
[00:55:22.25]After each step, maybe some more, but cumulatively it can be very fast so following comparitive advanatges is the most

important guiding principle for formulating development policies.
[00:55:34.06]Then the viability is the most important concept for understanding the cause of distortion in economies.
[00:55:42.16]So far I think the literature tried to point to the vestid interest conflict and I think it might be, might explain something in parlimentary you know, modern democratic systems. but in the developing countries from my argument I would say this is the wrong idea because the necessity to protect due to the viability of the firms in the priority sectors is the most important cause for so many distortions we observe in the developing country
[00:56:17.18]And in fact I have a technical appendix to my lecture, and in that appendix I show in a whole framework, a whole category of distortion if you look from the angle of vestid interest group you cannot explain.
[00:56:37.05]For example you can say 'Oh you have a trade distortion in order benefit certain vestid interest groups?' but in countries with trade distortions you know they also have state ownership, and state ownership was not good for those kinds of vestid interest groups and how come you have so many you know different distortions at the same time? If you use the vestid interest group you can explain one distortion but you cannot explain the other distortion. But using viability you can explain all those distortions simultaneously.
[00:57:09.19]And then pragmatism, it's the most important policy guidance for economic transition and economic development also because you need to know what are your constraints and you have to improve upon your constraints instead of some kind of ideologies.
[00:57:27.05]So from this I do share the optimism of others. You know all nations have opportunity which they may grasp if only they can summon up the courage and the will, and certainly to do that you need to have leadership at the right time and the leadership need to have the right knowledge and as (?) say (?) The sucess in East Asia is luck, well it's a necessity because they had no other choice'
[00:58:05.04]But even if the luck is an unintentional consequeence, but if we have enough knowledge then we can make our choice according to our(?) then we can have freedom. So called the freedom of the wheel (?) needs nothing but the (?) to make a decision with the knowledge of the subject. So we can jump from the kingdom of necessity to the kingdom of freedom.
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