CARNEGIE ENDOWMENT
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CHINA'S ECONOMIC FLUCTUATIONS:
IMPLICATIONS FOR ITS RURAL ECONOMY

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ALBERT KEIDEL: Well, good morning everybody. Why don't we start? I'm Albert Keidel, a senior associate here at the Carnegie Endowment for International Peace. Welcome to all of you. We have a presentation that is going to be short and sweet this morning. We are fortunate to have with us Vikram Nehru of the World Bank who is in charge of its debt and macroeconomic analysis department. I don't think I have the wording quite right. But he's been at the World Bank since the early 1980s, was the chief economist in the China department in the 1990s. Those of you that know the report, *China 2020*, well, Vikram produced that. But he's gone far beyond that, has lived in Indonesia as the chief economist for Indonesia, and now oversees macroanalysis and debt for the whole World Bank.

I am especially looking forward to his tight control of my – perhaps – lax answers to what I hope will be some tough questions. So Vikram, without further ado, if you would put the ground rules down and let us start, I'd appreciate it.

VIKRAM NEHRU: Thank you very much, and welcome to all of you. I suspect that given the hour, the room will fill up gradually as time goes on. Let me suggest that Bert speak initially for 20 minutes. We are delighted that we have Stephen Voth and Fred Gale with us. You have everybody's bios on your chairs, so I'm not going to go through their bios, apart from simply saying that Stephen's bio is predictably short, given where he works. And Fred is from the Economics Research Service of the Department of Agriculture. So welcome to both of you.

So we'll have Bert speak for 20 minutes, and then we'll have the two discussants speak for up to 10 minutes each. We might revert back to Bert for a quick response and then we'll open the floor for discussion. So with that, Bert, please begin. Thank you.

[Open Slide #1 in the slide presentation from this event's web site.]

MR. KEIDEL: Thank you very much, Vikram. This research was begun about 18 months ago with support from the Ford Foundation in collaboration with China's National Development and Reform Commission, which is the new name for its planning commission. It involved statistical work and fieldwork in two counties in China – one in Hunan, Xinhua County, which is an isolated county that I picked from the profile of its agricultural production, which is heavily into grain – 80 percent of its land planted to grain. The second was a suburban, heavily agricultural county in Henan outside Zhengzhou. It is remarkable for its diversification away from grain. But our approach here has really been to look at fluctuations in China's economy since 1978 and the way they have affected the rural economy. We used these field trips to verify and expand our set of hypotheses and our conclusions.

[Open Slide #2] I'm going to do five things in my brief presentation. First, I'm going to introduce the fluctuations that we all are quite familiar with if we work on China, just so that we all are on the same cycle, so to speak. Then, I'm going to mention the causal methodology that we're using, which is not econometric. Instead, it's a sort of more basic Hume-Mill approach to how we can be sure that we haven't left out some aspect of the problem we're trying to explain. I'm then going to comment briefly on our finding that China's growth apparently has not been export-led over the last 25 years, and even in the last five. Then, I'm going to review the domestic demand, which instead in our analysis shows is what is really responsible for China's ups and downs. Finally, I will comment on our third major finding – that the way China has managed its macroeconomic cycles has resulted in a disadvantage to the rural economy on both the fast phase and the slow phase of every cycle, that the way they have stimulated the economy and the way they have tried to suppress overheating have both disadvantaged the rural economy vis-à-vis the urban economy.

[Open slide #3.] We have divided the Chinese economy since 1978 into five cycles. You can find these in your report. I'm going to concentrate on the last two for my presentation today, because it's the one that's the period most relevant for this Washington audience, the 1990s to the present. Each cycle has a fast and a slow phase, and in the report, each of these phases is covered in terms of what has made it fast or made it slow, what kicked it off, what sustained it, and how we can fit that into our broader generalizations.

[Open Slide #4.] This is your first look in the report at the economic cycles. And this is GDP growth. The lower number here [in 2001-05] is official growth rates. The way the world does GDP growth is with the expenditure method, however, which is, from your principles of economics courses, consumption plus investment plus net exports. If you use that methodology, deflating the nominal numbers China gives you, you get a very different profile on the growth that shows some stronger cyclical behavior.

That is a methodology that I have been following and using for roughly the last five or six years. It's curious why they're so different. But Chinese statisticians themselves once said to me, if you want to be sure about the accuracy of your numbers, go for data that rely more on sample surveys than on administratively reported statistics. The official data rely more heavily on officially reported statistics. The expenditure method relies more on sample surveys, including the price deflator calculations. One possibility is that current estimates for the CPI, the consumer price index, are understating inflation. But they couldn't be understating it by that much.

[Open Slide #5.] The major point is that the cyclical patterns are very clear. Inflation, they're even clearer. We see higher and higher inflation, with each successive fast phase. Notice that there are panels here that I've put in – some green panels – those represent fast periods. The white represent slow periods. As you read the report and as you see other statistics, they'll all have that background, so that you can correlate what's happening in that particular variable with whether it's a fast or a slow period, the

beginning of the slow period or the end of the slow period, and similar sort of timing issues—to be looking at causality.

Let me move to the methodology. There are many developments in econometrics and in economics and causality tests, Granger causality tests and others—for use that try to test for lags and leads in the statistical patterns. One of my concerns for a country like China is that when you specify an econometric model or a statistical model, you leave out very important variables that could be explaining what's happening but aren't captured in your statistics.

So in the chapter on methodology – chapter two – we introduce a way of explaining in the old philosophical tradition in which you can never prove anything, but you can only try to disprove things. You can only succeed in disproving a hypothesis. And if you have failed to disprove it, then that hypothesis is somehow still alive. And so, we have been looking at hypotheses that explain these various cycles, and then at statistical evidence that might support or reject that hypothesis.

[Open Slide #6.] The example we use in the report to introduce this methodology is an explanation of the cash in circulation volatility in the Chinese economy from the mid-1980s to the mid-90s. Cash in circulation is purchasing power in the hands of citizens, and it has a volatile influence on purchasing in the 1980s. This 1988-89 spike here is a period of panic buying, bank withdrawals, money taken out of deposits, and emptying shelves in the stores in the summer of 1988, before the crackdown came in terms of credit tightening. Similarly here, in 1992-93, rapid – what is called – disintermediation from the banks as citizens saw that inflation was high – at least this is what our report concludes – and that their deposits were losing value rapidly.

[Open slide #7.] The report has a schema for each cycle and for each phenomenon it wants to explain. And it gives you the hypothesis first, in this case, did lower CPI inflation raise real deposit rates? This is getting into economic jargon. But then, underneath it, you have a couple of statistical questions. Did major drops in the CPI inflation cause deposit rates to rise sharply? Well, yes, okay, that might then help you verify that lower CPI inflation raised real deposit rates and slowed cash growth. But it turns out that critical timing is wrong, so this no, in this statistical finding, results in a vote to reject the hypothesis, which overpowers the yes here.

So there is this – the right hand column is do we accept this hypothesis or not. The inner column is, are the data that we're looking at to test it turning out to be true or false, and if so, how do we handle that? The problem here is you can see that the real deposit rates went negative and cash in circulation jumped. But if you follow on the pages of the other charts, the real deposit rates stayed negative for a long time. You can't see it on this chart, but cash returned very quickly. And the reason is that the Chinese basically indexed deposits to inflation. They had something called a value protection program. Suddenly, they said you will get the CPI rate of return. So here and here, the effective real interest rate came back to zero, and people put their money back into the banks quickly.

But the purpose of this is to show you the schema. You'll see it coming up again in my later presentations. In the 20 minutes that I have, I'm not going to be able to go into the details of each causal argument, but I just want you to be attuned to the fact that when we say we're testing or proving certain hypotheses, all we're doing is saying we're looking at as many hypotheses as we can think of and we're imagining what data could possibly test whether they're true or not, putting it all out there. The virtue of this in my mind is that the causal analysis data is, in a way, alive, so that if you think of some hypothesis we have forgotten or some test of a particular hypothesis that we haven't done, you can ask about it, add it into the analysis, and change the conclusions.

[Open slide #8.] Let's touch quickly on the idea of, Has China's GDP growth been export-led in looking at the 1990s and early 2000s? If you look at the surge in Chinese growth in 1991, did exports increase that year? Yes. Did the trade surplus increase? No. So net exports – which is the contribution to GDP – didn't increase. In other words, imports increased just as much. Did both exports and trade surplus then decline in '92-93 in the heat of the expansion? Yes. So these are not the sort of cyclical characteristics you might expect to find with export-led growth, if exports are responsible for that sudden expansion.

Now, this growth in the '90s accelerated and continued in '94-96. Did exports cause that? Did they increase in '94? Yes, so that might support the hypothesis. Was the '94 percentage point contribution very large? No, it was quite small. And did either exports or net exports increase in '95 and '96 as this surge continued? The answer is no. So from this close look at the cyclical pattern in the 1990s, we conclude that there is no evidence that exports led those expansions.

[Open slide #9.] Indeed, if we look at other evidence, here are growth contributions. You can see the actual statistics on this on the last page of your handout, where I've given numbers that are not in the report. We don't have a statistical annex in this report. We hope to in a revision that will include 2006 data.

But the red number, the red line here, is the contribution of domestic demand to GDP growth. The blue line is the contribution of net exports. You would add those two together to get total GDP growth by the expenditure method. So, you can see how the contribution in this fast fourth period of exports is rather erratic and actually declines very early, and it stays quite low in the '95-96 period. At the same time, if we want to try to explain this growth period, we don't have to look very far. We can look at the surge in domestic demand, which is consumption and investment, and it is so strong that we can safely conclude that this is really what caused the expansion, not exports.

Similarly, in the more recent years, which is perhaps the most interesting for current policy, the net export contribution is quite minimal until about 1995 and you would also add 1996 in here. But the surge in domestic growth and the scale of the contribution is quite large, so that based on these kinds of comparisons and the added notion that in the late 1990s, the U.S. economy was booming; China was in a growth

slump. There is no correlation there with the behavior of other East Asian economies that surge when the U.S. economy surges and slump when the U.S. economy slumps. China is just the reverse. In fact, when the U.S. went into recession in 2002, China had already started its growth surge in 2001 and just accelerated right through the U.S. slump as if nothing had happened. So both the statistical evidence and the anecdotal correlation of U.S. recession with Chinese rapid growth leads us to conclude that export-led growth really doesn't explain, as a theory, what has happened in China in the last five years.

[Open slide #10.]On the 2001 growth recovery – although there is other evidence here – what you see is that the surge in 2001 really comes from domestic capital formation. Consumption is quite stable in terms of its growth contribution. This is a classic domestic-led growth pattern, where investment is volatile, and the investment, which is the light green line, jumps up and stays high. It went overboard during the SARS epidemic, when the government wanted to make sure the economy didn't slump. So this is additional evidence that the growth is domestic-led.

[Open slide #11.] Now, looking at the domestic pattern, we want to say what has been the contribution of the rural economy. What we see here is total – this is the contribution of urban and rural consumption. The consumption decline – this contribution – has been quite steady since 1984, when they reversed directions, really, in policy on supporting the rural economy's expansion. A lot of this [rural consumption decline through 2005], however, is population migration out of rural areas into urban areas, because the rural population has really been in decline, at least for the last 10 years, and its growth has slowed to a rate much slower than that of the total population.

What interests us, of course, is that in the latter part of this period – and we'll focus on this; I'll say just a little bit more about it – the Chinese rural economy had a big surge in consumption just as the urban economy was tightened. And this shows a degree of independence on the part of the rural economy so that it was able to sustain growth for the economy as a whole when the central authorities were trying desperately to tighten, slow down and reduce inflation.

Similarly here, the bottom fell out of rural consumption as a total figure, and that had a major influence on this slowdown period, even though they were stimulating urban consumption in the heat of urban reforms in the late 1990s. Only in the last year here for our data – 2005 – has rural consumption recovered.

[Open slide #12.] This affects the national economy, perhaps most importantly, by the purchase of durables by rural consumers, which are medium and lower quality durables. These are also the kinds of outputs that were badly hurt by that slowdown of the late 1990s, so that the collapse of rural consumption figured in as a major causal factor.

[Open slide #13.] You can also look at completion of residential buildings. In the early part of this fast cycle, actual housing completions were down quite a bit. Some Chinese specialists commented last week in Beijing this was because in the early years of this rush, when credit was available in the cities, a lot of farmers were building homes in

the towns. But the completions got bigger in terms of scale towards the end of that fast period, and they haven't been very active since. In the slow period, it was rural housing completions that dropped rather dramatically while urban were buoyed up in part by preparations for the housing reforms that we've seen.

[Open slide #14.] Now, the rural economy's independent dynamism – it has several factors that are cyclical in nature. The most important one is the grain cycle. This is planted area to grain in the red line, and blue is other crops. [Open slide #15.] We can see quite clearly – and these are data that are corroborated by various sources for various time periods, some of which are in the report in additional figures –the profitability differences per acre or per hectare, if you will, of different crop categories. Grain is clearly not profitable. Our interviews in the field confirm that this is still the case, in fact, that if you value rural labor at its opportunity cost, what they could do just getting casual labor in the town, by planting grain, they lose money. There is actually not a choice to plant grain. You're not allowed to leave your land fallow.

There have been a series of repeated efforts to pressure farmers to plant grain as the area of planted grain has come down. It's been pushed back up again. The most famous one is here [1996] when the government introduced the governor's grain bag responsibility system, which was a fancy name for saying each governor was personally responsible – their career was on the line – to get enough grain for their own provinces, and so they instituted serious arm twisting and dug up vegetable patches and planted a lot of grain. The price of grain collapsed in here [1997]. When they [farmers] were allowed to get out of grain here [2000], they did. And in 2003, they were forced to plant more grain again – [the decision came] at the end of 2003.

So the cyclical process involved these factors: the price collapses when there is a lot of grain being planted, government introduces subsidies to put a floor on the grain price for farmers, but that becomes too expensive for the government to maintain. And so then, they release farmers to plant other crops, and farmers get out of grain in a hurry. This cyclical pattern has repeated itself four times at least since the beginning of the reform period, and it has a major effect on both the income of the rural economy and on inflation in urban areas, because when farmers don't plant enough grain – and China doesn't import grain because it has a grain security strategy [then grain shortages cause higher prices]. China will not import much grain. This combination of requirements results in a cyclical pattern for grain production.

[Open slide #15.] The other pattern in the rural areas that give it some independence is the township and village enterprise movement, which burgeoned in the 1980s. A lot of employment was created that was off-farm, so that it is no longer – since the 1980s – correct to think of China's rural economy as an agricultural economy only. Instead, various enterprises – both services and manufacturing – have expanded quite rapidly. You can see in the slow and rapid periods that when the economy is booming and you get off-farm employment booming, the growth in agricultural employment is negative. When the economy slows and you get a slump in township and village enterprise employment, then the labor force returns to agriculture. Then, in the most

recent rapid growth period, we've seen a rapid decline in the growth of labor force actually working in agriculture.

So those two dynamics worked very clearly in the 1990s, and the report describes how the Chinese rural economy – because grain prices and grain price reforms in the early 1990s allowed prices to go up, farmers were quite wealthy in '94, '95, '96. When the Chinese Premier Zhu Rongji was trying to control credit desperately to defeat inflation, the rural economy could go its own way. Then, when the effort to make them plant more grain helped consumption collapse in rural areas, despite efforts after that point to stimulate the economy, the slump in the rural economy governed the pattern of growth in the national economy.

[Open slide #17.] You can see these results here in investment data – and particularly this slide shows funds that are raised within the economic community. It's not bank loans or credit union loans. These are funds from family donations, from contributions of retained earnings by enterprises. In the early part in this fast period here, the urban self-funding mechanisms worked well, but after the crackdown, they slumped. But the rural self-funding took off, so that you get financing for investment in the rural area that lasted and extended that rapid growth period and then collapsed, of course, into this slow period here.

There are a number of hypotheses about that slump, one of which was that the Asian financial crisis caused it. The report shows, with its methodology, that [this explanation] just doesn't really work if you look at detailed movements in the patterns of growth.

[Open slide #18.] Here, we asked the question, did the rural areas have a more extreme experience in the cyclical process? The answer is, only in prices – the prices of agricultural output spiked higher than prices of industrial goods, which are mainly urban, and dipped lower, so that the cycles were harsher on the rural economy, which was what our anticipated finding was for all variables. It turns out, however, not to be the case for consumption. This is one of the major findings that leads us to conclude that the rural economy was disadvantaged by these cycles because, as you move into each of these periods – the fast period here – the urban economy did better than the rural economy until quite at the end. In the slump, the rural economy really did more poorly. As this took off, the urban economy did better as well. This is something we want to confirm in '06 whether the rural household growth actually is that strong.

[Open slide #19.] But what we see here is that the top part shows the urban-rural ratio. In the 1980 reforms, with land reform and the expansion of township and village enterprises, rural consumption as a ratio to urban consumption was the highest that it ever was. It began to decline with concerns about grain planning, and it now is back to levels close to 1978 before reforms began. That surge in that late fast period, '94, '95, '96, corrected it for a while. But the slump in this terrible slow period in the late '90s really hurt the rural economy and rural consumption levels and brought it down. So this is the

per capita trend and helps lead us to the conclusion that the cyclical process disadvantaged the rural economy.

I'll just conclude with some policy recommendations for the Chinese. There are some technical monetary ones. They need to allow nominal interest rates to move up with inflation in a hurry. Otherwise, you get the disintermediation that you find, because interest rates are administratively controlled in China. This is a failure that they have repeated in the past. We don't know whether we're heading for another inflationary bout coming up in the next few years, but if they don't allow nominal interest rates to rise with inflation, they'll run into similar problems that they had in the '80s and the '90s.

A second major policy recommendation for the Chinese is to prepare to import more grain. The national security arguments for this [restriction on grain imports] are very weak, because China relies on fertilizer imports anyway, and other petroleum imports, so that they are vulnerable to embargoes. What I think the restrictions on grain imports reflect is an age-old Chinese bias against spending foreign exchange for the benefit of consumers, and in particular rural consumers. But China now has plenty of foreign exchange, and this is an outdated way of thinking that harms the rural economy and also weakens the Chinese consumption response to its overall demand requirements.

For the United States, two related policy recommendations. One is that the Untied States should do what it can internationally or bilaterally to ensure that China feels comfortable about the risk of having grain embargoes used against it in the case of a national security crisis, such as a series of events around the Taiwan Strait. Secondly, the United States should recognize that China's growth is not export-led. China's growth is not somehow dependent on the U.S. economy. We don't have the leverage some people think we have over Chinese behavior, and that instead, we should recognize the Chinese ascendancy in economic terms as a natural and legitimate ascendancy and that we need to turn to ourselves to look at our foundations for competitiveness as we move ahead.

So with that, I will turn the podium over to our next commenter.

MR. NEHRU: Thank you very much, Bert. I must say that listening to you and also reading the paper, you've marshaled a huge amount of data. And as I had expected, of course, the way you've put it together also reflects a very deep understanding of the Chinese economy. Let's move over to Fred. Fred, you have 10 minutes.

FRED GALE: Thank you. I'm honored to be here to comment on this interesting report. And let me first start off by saying that my comments are just my personal comments. They don't reflect the views of the United States Department of Agriculture or the U.S. government. This report is very ambitious and very interesting. We rarely take the time to look at the historical record of China's growth, and we tend to think in terms of trends in growth and we forget about the cycles, partly because this most recent cycle has been in an expansion phase for such a long period of time that we forget that China does have a history of booms and busts. So it's very instructive and interesting to

go back and look at the history of China's economic growth over the last couple of decades.

So as I think we've seen here, a couple of the interesting conclusions that maybe are probably controversial are that China's economy is less dependent on foreign trade than is widely thought. And I think I even saw an article from the World Bank that just came out urging China to rely less on exports and more on domestic consumption for its economic growth. So this is obviously a controversial conclusion that a lot of us are still a little dubious about; I don't know if we can disprove the hypothesis yet. Another surprising conclusion is that the rural economy itself is also a little more autonomous and maybe self-driven than we widely think. So there are some very interesting and controversial results here.

I'd like to try to emphasize that at least in agriculture, the rural economy in China is linked to world markets. And there is a pretty strong influence in both directions – both the world markets to China and China on world markets, especially in the last five years since China has been a WTO member. Agricultural prices in particular are linked to world market conditions with varying degrees of strength for different commodities. Probably the most extreme commodities are soybeans and cotton, which are mostly imported now in China, and that's because demand is growing just much faster than domestic production can meet. So the domestic prices of soybeans and cotton are clearly linked very closely to world markets.

Even corn, which China doesn't import at all – corn prices you can also see – and I'll show you in a second – are also linked to U.S. prices even though China doesn't import any corn. That's because China times its export sales so that they compete with U.S. prices in third-country markets. China has also become very dependent in coastal areas, especially on vegetable and fruit exports. Those commodities also have an influence on the rural economy. Then, this year, it's become a major issue in China that farm input prices have been going up, and that's linked largely to the petroleum price rise. That's become a major concern for Chinese agricultural policymakers.

This is an example of the concerns in China. This is an article that came out in the *Beijing Review* in December, which is called "Infertile Farms," which you can't see from up here very well. But it goes on about how Chinese soybean farmers are being driven out of business, can't make any money because of imports from the United States. This is really alarmist journalism, but I'm just putting this – and I could pick this apart, in fact – but this is an example of some of the undercurrent of discomfort that is felt in rural China, especially in the soybean and cotton sectors with this relationship to the world markets.

Here is an example. I didn't do any Granger causality tests or anything, but this is Chinese soybean prices. The dark blue one is the soybean price in Shandong Province, which is on the coast where a lot of the crushing mills are located. The pink line is the price at the border of imported soybeans, which follows the world price. We can see pretty clearly those follow very, very similar trends. The dotted line is in Heilongjiang,

which is several hundred miles inland from the coast. So even the inland farmers, hundreds of miles from the coast, are linked to world markets through these price fluctuations.

Here is the corn prices I promised to show you. The blue one is the corn price in Guangdong Province, and the pink one is the price of corn at the U.S. Gulf. And we have a very interesting situation now where the sharp increase in U.S. prices of corn that is linked to the ethanol boom have been transmitted into the Chinese market arguably, and the U.S. corn market is influencing the Chinese corn market.

Now, another thing I wanted to talk about is whether the current cycle in China is different, or is there really – is it the same as things that have happened in the past. This is the record of GDP growth rates. And this is China's official growth rate, based on the production approach. The average since 1978 is 9.75 percent. We can see that there has been a lot of fluctuation in the past, as the report shows. But we've got four years – see, 2006 is the last year; probably it's supposed to be around 10.5 percent this year. That's going to be five years of pretty sustained growth at fairly steady rates. So that is historically unusual, looking at the fluctuations in past years.

This is showing how China's growth is investment-driven – and this is in the report – but I want to emphasize. What I find interesting is that the share of the GDP coming from investment is very high by world standards and by historical standards. This is the gross capital formation rate, which is a measure of investment as a share of GDP. China's average since '78 is 37 percent. And it's been well above that for three years. I don't have the number for 2006, but I'm sure it was above that, the average last year, as well. So we've got a big share of GDP coming from investment, and a good question is where does that money come from and can China keep on building?

One thing I would quibble with. I think Figure 1.2 has a similar graph showing, I think, fixed asset investment as a share of GDP. There is an upward trend fitted to that. The logical conclusion is that if you have a trend in the share of GDP coming from fixed asset investment, then eventually, all of your GDP is going to come from investment, from building things. So I would expect, if anything, that share to come down as the economy grows, and we've seen historically that's what happens [in other countries].

This is comparing China's growth in the capital formation rate to other countries. The world average is – this is from World Bank indicators data – the average for the world is 20 percent. China is 43 percent. If you look at the other countries that have similar rates, they're all pretty tiny countries. There are no large countries that have such a huge growth capital formation rate. So we've got a huge amount of investment, a huge amount of capital being created in China.

This is what it looks like in levels. The pink line is the gross capital formation, so investment is just really taking off and consumption is growing fairly steadily. So just a lot of investment going on; and is this investment-driven economy creating a rural-urban divergence or disparity, if you will? Basically, what we're doing with investment is

adding to the capital stock, so you're raising the capital-labor ratio; that's how you raise people's productivity in their earnings. I don't know what share; I haven't been able to dig that out – but most of this capital is going into urban areas. The labor is still tied to the rural economy. There are still restrictions on moving to cities, and there is still a ban [on selling farmland] that people – the land tenure system keeps the rural labor force fixed or tied to the land.

So you've got, I think, a big disparity in capital-labor ratios between the rural and the urban populations. And so, what's happening – another thing that China is just wringing its hands over – is the growing divergence between rural and urban incomes. The blue line up there is the ratio of urban to rural household incomes, per capita incomes. It was rising fast, and they managed to stop it at about 3.3 – and it was also 3.3 last year in 2006, e ven though they had a very good year for rural income growth of 7.4 percent. But urban income grew something like 9 percent. So even in a very good year for the rural economy, they couldn't bring that ratio down. That's a big issue that China is trying to deal with is how do you keep a balanced economy.

One other thing – I'm out of time here – but I would just mention that China is subsidizing the rural economy. They have been giving actual direct farm subsidies. I'd be interested to find out more about what they told you in Hunan. They said that they were only getting rid of the tax; that was easier than giving out money. But supposedly, they've eliminated all agricultural taxes, and they're also giving direct subsidies as well. They've gone subsidy crazy; they're giving out cotton subsidies this year for the first time. Input subsidies this year, they are supporting prices for wheat and rice in the last two years. They're talking about soybean subsidies and pork subsidies now with the pork prices – giving out free school tuition, subsidized health insurance, and training migrant workers, and then a whole host of other things.

I would just leave you with a question. Thinking forward, what happens in the next slowdown? Will there be a slowdown? Well, there has to be at some point. How will it happen? I don't know. What happens? Will the migrants all just go back to their villages and wait it out for the next boom? That's just some food for thought. Thank you for the chance to comment here.

MR. NEHRU: Thank you very much, Fred. Stephen?

STEPHEN VOTH: I don't have a PowerPoint presentation, so I'll remain in my seat. First, I'll repeat the standard caveat that these are my personal views and not those of my employer. I'm also not a specialist in rural economic issues, so I'll focus my comments on the macroeconomic cycles discussion in Bert's paper.

Let me begin by saying there are many aspects of this paper that I like very much. I like the overall approach. As someone whose job is to analyze East Asian economic trends, policy decisions, and their potential effects on U.S. interests, I struggle with finding the right balance between exposition and quantitative analysis, and between a view of the world that focuses on longer-term trends and unchanging economic

relationships and a competing view that focuses on discrete decisions by individual policymakers. I appreciate the fact that Bert in his paper is trying to bridge the gap between these two worldviews.

In his introduction to Chapter II, he says that the goal of the paper is to present causal relationships in transparent non-technical ways useful for government policymakers. As a kind of a straphanger on the U.S. policymaking process, I appreciate that effort. As an aside, I do have to say that at 90 pages, I think the paper is a bit long to get much readership among policymakers, at least those currently in office ,occupied with the press of events as they are.

Another element of the approach that I like is the decision to divide China's economic growth over the last 30 years into discreet slow and fast phases, and separately examine possible causes for each cycle. This approach, I think, lends itself to an analysis of the impact of various policy interventions, and even policy mistakes on macroeconomic cycles It thus is arguably more relevant to the world of policymakers, particularly those with relatively short time horizons, than many of the econometric studies you'll find in journals that look at longer-term relationships.

Another aspect of the paper that I like is the use of a recalculation of China's GDP growth series that, on the one hand, does not take the official headline statistics at face value, but on the other hand, is based on fairly standard national growth accounting techniques and it doesn't diverge too far from the official series. Since 1998, various investment banks, private sector analysts, and academics have undertaken to recalculate China's GDP growth series and derive proxies for it. If you look at some of these in detail, particularly those constructed by the private sector, the methodologies are fairly ad hoc. It's a bit like visiting a sausage factory. After you leave, you're not quite sure you really wanted to know that much about the process.

Other attempts to recalculate GDP growth are so far removed from the official headline series that they seem uncorrelated with the economic debate in China, and so they're not really useful for figuring out what's going on in terms of policy decisions in China. So I think this approach is close enough to the headline series that it correlates well with the debate going on in China at various times, but also corrects for some of the shortcomings of the official series.

Finally, and this is my final point of approbation, I generally agree with the paper's conclusions. I agree that China's GDP growth during the last 30 years has been primarily driven by domestic demand, although there are some caveats to that conclusion that I will mention. I also agree that the rural economy, while not generally an independent driver of macroeconomic cycles, did have a significant effect in the '90s, particularly in the run-up in 1994-96 in inflation and in the downturn in GDP growth in 1997 through 2000. I agree that grain prices and Beijing's efforts to control grain supplies have a lot to do with the cycles in the rural economy.

With all that agreement, it's difficult to come up with a sort of alternative controversial thesis to generate a little controversy and spark audience interest, but I do have a number of questions about the paper. First, would the use of different deflators – this is a rather technical point – would the use of different deflators to convert China's nominal expenditure GDP data to constant price data affect the conclusions, particularly the conclusion that China's growth is overwhelmingly domestic in origin? I would agree with the basic point, but I'm not sure I would put it quite that strongly.

By way of explanation, the paper cites a reference that indicates that the deflator used for the trade balance— to convert the nominal data on exports and imports to constant price data— is China's retail price index. Using that index raises the possibility that the data used in the paper generally underestimate the effect of exports on GDP growth. If you look at alternative indicators such as Hong Kong's import price indexes, they suggest that China's export prices in the mid-90s – when China's retail prices were going up 15 to 20 percent – export prices did not rise nearly as rapidly. That seems fairly plausible, given that the retail price index has food prices as a major component, and food is not one of China's major exports.

Similarly, in the late '90s, the evidence suggests that export prices fell more than domestic retail prices, which makes sense, because Chinese exporters were trying to maintain market share in the face of East Asian currency devaluations. So I think that the overestimate of export price inflation implied by the use of the retail price index as a deflator would tend to underestimate the real value of the trade balance and its effect on GDP. Using other deflators for exports and imports would – I think – generally result in a higher estimate of the impact of swings in the trade balance on GDP.

A related point – this is also somewhat technical – is the use of the official fixed investment price index to deflate measures of nominal investment. If you look at the fixed asset investment price index, it's one of the least volatile of China's price indices. From 1998 to 2002, it hovered around zero, rose to 5.6 percent in 2004, and dropped again to 1.5 percent in the last two years. If actual fluctuations in investment prices are larger than the fixed asset investment price index indicates, that would mean that the investment series in the paper would tend to overestimate investment in fast phases and underestimate it in slow phases. This would tend to generally overestimate the effect of swings in investment on swings in GDP and conversely underestimate the impact of other components of GDP, including the trade balance. So those are my most technical points.

A second question: should there be more of a focus in the paper on asset prices? In various parts of the paper, there is great emphasis on changes in real interest rates as a factor in China's macroeconomic cycles. This is appropriate, yet one often hears from both alleged experts on the Chinese economy and non-experts that Chinese firms and households aren't very sensitive to interest rate changes. There is a case to be made that changes in asset prices, such as stock prices, housing prices—particularly in the larger cities—and even building materials prices in earlier cycles, dwarf the effects of interest rate changes on household and enterprise decisions.

The paper argues, for example, that the surge in the growth of cash in circulation in 1999 and 2000 was a result of a large drop in deposit rates and a restructuring of bank loans, that is, the transfer of a large amount of bank loans from the commercial banks to asset management companies. I buy the bank loans argument, but I also note that the surge in cash in circulation coincided with a big run-up in stock prices. And so, I think that is another possible explanation for fluctuations in the ratio of cash in circulation to larger measures of monetary growth.

I also think a closer look at asset prices might shed some light on the current cycle. While it's true that inflation has been fairly subdued so far in the current cycle, asset price inflation has been greater, for example in the housing market where national housing prices according to Chinese official statistics have gone up 5 or 6 percent a year and if you look at municipal price indices, the rises are quite a bit higher than that, particularly in the larger cities and second-tier cities.

Another question – the paper argues that the coincidence of the U.S. dot com boom and China's 1997-2000 slow-growth period support the conclusion that China's growth is not export-led. I'm not so sure. I think one could plausibly argue that the Asian financial crisis and the downturn in Asian growth had something to do with both the dot com boom and the slowdown in China's growth. Similarly, I think the fact that China's growth started to take off in 2000 and 2002 as the U.S. went into a growth slowdown, another argument used to support the conclusion that China's growth is not export-led, I think China's takeoff may have had something to do with the fact that the Asian economies were recovering from the slow growth period during the 1990s. So I'm not quite sure about the timing of that argument.

Another question – should the paper place more emphasis on real exchange rates? The peak of the fast growth phase from 1991 to 1997 in 1994 coincided with the unification of China's dual exchange rate system and a surge in exports. I've seen one recalculation of China's GDP growth series from the demand side that uses different deflators that finds that almost half of China's growth in 1994 was due to the change in the trade balance. I think one could plausibly argue that the rapid growth in the last two years has been increasingly due to the trade balance rather than investment in consumption, although consumption and investment are still probably the dominant factors.

I would add in this context that I think Bert is right to point out that in the discussion of the last fast phase that the surge in China's global trade surplus in the last three years raises questions about a possible paradigm shift, or a new phase in China's expansion. If the current trends continue, exports may very well become the main driver of China's growth. Just in the last week, the National Development and Reform Commission came out with a forecast of the trade balance in 2007 of 250 billion (dollars) to 300 billion (dollars), which means that the contribution of the expansion of the global trade balance to GDP would be roughly on par with that in the last two years. In nominal terms, it's a fifth to a fourth of GDP and appears to be rising.

One last comment – the downturn in the rural economy in the late 1990s and the problems that the rural economy has had underscore the point that decisions by individual policymakers can have significant effects on the broader economy. During the '80s, Chinese leaders received advice from a research institute in Beijing –the Rural Development Research Center– which had a number of fairly liberal-minded rural economists in it. They had a fairly large effect on the Chinese policy process. After Tiananmen, that research institute was disbanded, in part because many of its members signed a letter protesting Tiananmen. That sort of vacuum of good economic advice on rural economic issues, I would argue, had its effect later on in the '90s with the decisions by Zhu Rongji to us administrative measures to encourage grain planting, the squeeze on grassroots financing in the rural areas, the recentralization or strengthening of state control over grain sales. A lot of the decisions that led to that downturn in the late '90s in the rural economy, can be traced to the lack of good advice. So I'll leave it at that.

MR. NEHRU: Thank you very much, Stephen. We'll give Bert a few minutes to quickly respond to these comments, and then we'll open the floor for discussion.

MR. KEIDEL: I'll be very quick. Thank both of you for terrific comments and for taking the time to read the report so carefully. Let me say something quickly in clarification, and this is of course an interesting point. What does export-led mean? It doesn't mean that exports aren't important. In fact, you can argue that a country won't develop rapidly in this day and age if it doesn't have strong engagement with the international economy to be able to solve its own shortage problems, particularly in terms of capital goods.

Export-led implies that the growth process itself is dependent on changes in foreign demand. This whole export-led notion comes out of earlier development thinking about, is growth import substitution-driven or is it export-led, and the literature tends to say, well, economies that grow well are neither, that they balance trade that allows them to specialize in what they do well and buy the things that they don't have, but that their demand is basically domestic-driven. And I think that is the pattern. So I apologize if there is confusion there; I would argue that trade is extremely important, and that the integration of China's economy into the world markets and into world prices is to be expected, and doesn't really contradict the notion that China's economy is not export-led.

I'll just say something quickly about the share of investments. It is high. I would argue that an economy that is as poor as China's has been needs a very high investment rate. There is nothing in economic experience and in theory that says you can't have an investment of 40 percent and sustain it. In the past, problems have arisen in countries that have tried this where they must squeeze consumption, and therefore affect productivity and incentives.

China hasn't done that. It seems to have gradually increased the investment rate. If you want to know whether this is efficient or not, you just need to look at the incremental capital output ratio, the degree at which GDP increases with additional capital output. In this dimension, China actually scores better than India, which is a more

market-based economy, and actually one more reliant on services. So I think the strength of this growth and its domestic component, we can wonder whether investment will stay that high – and I agree, it shouldn't be a linear line; it may flatten out – but that the fastest way to increase consumption, as well, in an economy like China's is to grow fast.

There are some excellent comments also about deflators. I think I even mentioned those in my presentation, that we wonder if the deflators aren't too low. In other words, our assumptions about inflation are important – since we take the Chinese data on GDP growth only in nominal terms, only in terms that includes inflation for this expenditure method. If we're using prices that are too low, then those high numbers stay relatively high. The notion about trade deflators is particularly tricky, but I would wonder, Steve, whether the deflators based on dollar prices are relevant for the impact on the domestic economy, which is in renminbi, which is in yuan. The official trade data that we get on the GDP from the national accounts only give the net trade, the surplus or the deficit, in yuan. And so that, I trust as a yuan number.

What I would wonder is in deflating it, would we deflate exports and imports differently in renminbi? The trade deflators in dollar terms, to me, don't necessarily provide a great deal of information because of, as you mentioned, firms pricing to the world market, particularly on exports. What is happening to their dollar prices need not reflect the impact in terms of actual revenues in yuan domestically.

I'm interested in the interest rate versus stock prices. Even in the United States, when interest rates slump, people put their money into securities. This combination is actually not two different effects, but perhaps linked effects, and where the causal impetus comes from is – in this sequence, I would say – we should look closely at if the administrative drop in interest rates may not have made it easier for people to shift money out of banks, because you saw a little spike in that slow period of M-zero growing rapidly. We should look to see if that cash didn't go into the stock market boom.

Why don't I stop there, and if questions come from the floor, I can then return to some of the other comments. But I really appreciate very much the care with which both of you have read the paper and thought it about. Many thanks.

MR. NEHRU: Thank you very much, Bert. Let's open it up to the floor. Can I ask you to introduce yourselves when you speak? And please keep your comments or questions as short as possible, because we have a limited time.

MR. KEIDEL: And wait for the microphone.

Q: Mathew Shane with Economic Research Service. I've done – actually Fred and I did a study of China's growth. It's not fluctuations, and so, there is a sort of difference between looking at longer-term trends and patterns in fluctuations.

One of the factors we found that was very important was total factor productivity growth, which – depending on how you do it – you can get anywhere from 2 to 4 percent.

When you ask yourself, okay, where does that come from, then you have foreign direct investment and the technological transfer that is associated with that. Where is that going? It's going into the export sector. You would expect the spillover from the export sector into the domestic sector. So while it's true that you may say, yes, this is the growth and the fluctuations domestically-led, yet it's very hard to come away from the conclusions that the opening of China to foreign investment in the trade sector in particular has been really the driving force of Chinese growth. So I think you need to really think about the implications of what you're saying and the impression that that gives that somehow you open this foreign direct investment productivity growth, that whole story, which really seems to be the driving story. You know, it's sort of neglected.

MR. NEHRU: Thank you. I'm glad you made that point, because if you hadn't, I probably would have made it. I think it's a very important point. Anybody else? Neil, can you introduce yourself please?

Q: I'm Neil Hughes. I formerly was with the World Bank working with China. And now, I'm an author about China's economic transformation. I'd like to address this question to Fred. Fred, one of your graphs shows the income disparities between rural and urban incomes. This, of course is one of the great problems that the Chinese government is facing. I'm very interested in the issue of the migrant workers, which now apparently number 150 million or more. I have two questions. One is, is the government statistically able to capture the incomes of these workers? And a second question is, if so, is this income listed as urban or rural income?

MR. NEHRU: Yes, please.

Q: Hi, my name is Zhaojin Ji working for the China Studies at SAIS. Thank you for, Dr. Keidel, give us such a good quantitative describe of the Chinese economic up and the down cycle. But also, I remember a researcher, Hu Angang, at Qinghua University. He indicated that China's Communist Party Congresses [every five years] – that they have a policy impact. Also literature on China's planning economy characterizes the transition from a planning to market economy as having like a go and a stop. Usually, in the first year after the new Communist Party, the economics are going up – then in the third year or the fourth year it slows down. Do you think we can combine the political and economic policy impacts on economic growth and the quantitative growth together?

MR. NEHRU: Thank you very much. Very interesting question. Yes, please.

Q: My name is Matt Newill with the Treasury Department. You see daily, if not further, things in the newspaper asking about the trade deficit and the currency exchange rate problem. Fred, you spoke a little bit towards the subsidy changes along with the tax changes. Are there other things that you foresee in the future that might help towards balancing and answering some of the critics in the newspapers towards the exchange rate problems?

MR. NEHRU: I am not sure I understood your question. Could you kindly go over it once again?

Q: Yes, I think you spoke towards subsidizing the agriculture sector. You also spoke towards the taxes that are being changed – the taxing system in the agriculture department in China. So the purchases from the American side tapping into the trade deficit and potentially changing it. Are there other things that you foresee in the future that might also help the American side of that trade deficit?

MR. NEHRU: OK. I think I understand now what is being asked. Could we move to the next question?

Q: Kevin Hall of McClatchy Newspapers. Mine is a less technical question. I was wondering what the panelists use as a reference point, have you looked at a reference point of another country that might serve as an example, either the U.S. in the 1950s – to me, it seems Mexico may be a good indicator or comparison point in terms of the high levels of investment in export-driven, and the degree to which that's led to a burgeoning middle class. I wonder if any of you have done any comparative analysis of what country do you think would be a good comparison point when we're looking at the Chinese rural economy?

MR. NEHRU: Thank you very much. Are there any other interventions? Okay, let me add three questions myself. They are very close to the ones that were raised right at the beginning. Bert, in your major conclusions, you talked about economic growth being driven by domestic demand fluctuations. So my question is, is it really fluctuations that you are pointing to or are you really saying that growth is driven by domestic demand growth, because I'm not sure how fluctuations could drive growth. Perhaps that was just loose wording. But I'd be interested in your reactions.

Secondly, I completely agree with the point that was raised by Mr. Shane. When we talk about export-led growth, I think what is really being referred to is the impact of ideas, technology, and the impact that exports have on other items in the GDP accounts, most importantly investment. So looking at net exports is a very odd way to talk about export-driven growth. One should really look at gross exports. I don't think you'll find in any other export-led growth episode in another country, whether in Mexico or Malaysia that next exports were very large, because that is most unlikely to be the case in any country.

The third point is on the rural-urban issue, which I think Neil also touched on. When I worked in China, I seem to recall that the rural-urban divide in statistics tends to be on the basis of administrative boundaries, whereas in actual fact, you have large peri-urban areas, which are administratively considered part of the rural sector. A lot of the growth that is taking place in production, manufacturing, et cetera, is occurring in these peri-urban areas. So the question is, how certain are you that these rural-urban statistics that you are quoting in fact truly reflect rural areas as opposed to urban and peri-urban areas?

So let me actually start with Fred, because there were a couple of questions to Fred. Then we'll come back, and maybe Stephen, you can perhaps comment if you want to. Then we'll come back to Bert. Fred?

MR. GALE: Let's see. Let me comment on the rural-urban statistics. Historically, there was a very clear rural-urban divide in China between the rural population and the urban population. It is becoming more blurred, but I think the rural versus urban household income statistics are based on large samples of rural-urban households. There is a blurring; there is a middle ground that rural households in peri-urban areas, as you say, and rural households in coastal areas that are actually quite wealthy. But I think the trend expressed by the statistics is accurate, pretty much reflects the kind of divergence that is going on.

There is a question about the migrant workers and whether their incomes or how their incomes are captured in statistics. That's actually a good question. I'm not sure that they really are captured. They, to some extent, are captured by the rural household surveys, which – when the migrants send income home, that income is measured at their home village. But it's not clear whether all their income that they earn while they're in the cities is captured. There was, however, a very interesting national survey of migrants done last year by the National Bureau of Statistics, which asked about income and expenditures and hours worked and wages. And I think that was the first snapshot of the migrant workers in how much they earn and how much they spent.

I think the question about the exchange rate issue was kind of directed to me, I guess. Still a little – not quite clear on what the question really was addressing. You mentioned –

MR. NEHRU: Let me suggest what I think the question was raising. You talked about subsidies as helping the United States, perhaps tax differentials as well. Are there any other policy actions that are likely to be implemented in the future, which could go in the same direction?

MR. KEIDEL: But I also thought he was saying that there are countervailable subsidies in U.S. law that can lead to duties imposed on goods imported in the United States. There is one now on glossy paper. But I'd be happy to answer that question too.

MR. GALE: Yeah, I think I'll pass on that.

MR. VOTH: A couple of comments on the migrant issue, not perhaps providing a definitive answer, but it might be relevant. One is that a lot of the migrant workers in urban areas are captured by, first of all, the decennial censuses, and then, the yearly sample survey of population. And in that, I think migrants who are in urban areas more than six months are counted as urban residents. So there are more migrants, I think, captured in the urban population statistics than one might think, based on a lot of commentary.

Second, I think CASS, the Chinese Academy of Social Sciences, just came out with a rather low estimate of the surplus population in the countryside in which numbers typically batted around are 150 million or something like that, and they came out with a figure somewhere in the 40-50 million range; so that's kind of a change in the assessment of the rural-urban balance of population.

I think I understood the question that referred to Hu Angang as being on what effect the political cycle in China has on macroeconomic cycles. I think there is something to that argument. Hu Angang is a very smart economist, so if he says it, I put some credence in that. I think one can look at the decisions running up to the last couple of Party congresses and you can see the pattern having some impact. For example, after Zhu Rongji became premier in 1998, he introduced a raft of reform programs, many of which had arguably a dampening effect on consumption – housing reforms, medical reforms, education reforms – and he also put more pressure on enterprises and banks to meet performance criteria. The goal was to make two-thirds of loss-making enterprises profitable by the year 2000. The directives coming from the central government were that the bottom line is what counts in terms of enterprise performance.

That changed running up to the Party congress, when the focus shifted to making employment growth just as important as performance. Those sorts of directives, I think, have an impact on bank lending, on enterprise decision making. That's something that you might want to consider in your discussion of possible drivers of cycles, particularly in that time period. I'll leave it at that.

MR. KEIDEL: Thank you all very much again. Let me say a few quick things. We've only got about five minutes before we close this up. On the important question about sources of growth, and in particular the total factor productivity, total factor productivity can either be seen as some sort of magic wand, or it can be seen as mis-specified equations, missing variables in the analysis that one is doing. I think in China's case – and in a lot of this work that compares East Asian economies – there are a couple of things that aren't included and that often get therefore wrapped up in this question mark variable, which is basically a residual.

One would be the degree to which China's economy has reorganized itself along educational lines. In the 1980s, there was no correlation between educational level and income. By the middle 1990s, it was very strong, so that the way that incentives were created and changed, that doesn't show up in the investment levels in capital stock or in the actual growth of labor force. The labor force issues are often very not very well correlated in terms of skill levels, what are these various skill levels are not broken down in these sources of growth studies. So I would argue that there are changes going on in China that have to do with uses of their resources more efficiently and that are an important part of policymaking that aren't influenced so much by export demand, but really by a reorganization of a society under leadership that says, we're going to do things in ways that make sense.

A second would be – and I've looked at some of these studies of growth, and even within the capital stock, I don't find very many – and maybe Vikram knows of others – that break out investment in infrastructure, which is kind of a public good enabling investment, and private investment in capital stock. I would argue that China has done an exquisite job of funding and building infrastructure in ways that supports private sector growth. This is structurally critical and is not really captured adequately in most of these studies that I see of sources of growth.

If you take those together, I think they can explain a significant portion of what is racked up as total factor productivity. And of course, it is very hard to measure, very hard to do. But working in China as long as I have and seeing the impact, even in rural areas – say, the investment Fred mentioned was not in rural areas, but these highways that are crisscrossing Hunan, Henan, Hubei that are then linked with feeder roads to villages. This village, this county that I went to was, yes, an hour and a half off the cross-Hunan highway, but you could get to it within a few hours from Changsha; it was a four-hour car ride. That's extraordinary, given the quality of Chinese roads 10 years ago.

So I would argue that let's take a little more careful look at some of our measures of where this productivity comes from and not think that they are all magical transfers from abroad. This was in the discussion of the question, is export-led growth more important than we think because TFP really comes from export-stimulated investments, particularly from foreign direct investment.

On the income disparities, there is a chart on page 77, which I experimented with that points out that if you make the very conservative assumption that China's rural economy would have grown at the national population growth rate – in fact, it's grown more slowly – and that is erring on the wrong side, because the rural population had a more relaxed one-child policy. But if we take that assumption, you come up and you look at the current measures of what the township and village population growth has been or levels have been, and what the rural levels have been, you come up with the fact that there are now 310 million people in urban areas that came from rural families, and they outnumber those that originally came from urban families.

So there is a question here about these migrant orders of magnitude and how we measure that income; yes, there are remittances back to rural areas. But there are several very interesting volumes the National Bureau of Statistics has put out in Chinese of regional studies and of studies of migrant's income – what they earn and what their costs are. You find that most of the income that they earn, they consume themselves in the cities. And so, there is a lot of information about this originally rural economy that is now living in urban areas.

I would just note that the long-term solution to rural poverty is not subsidies or investments in rural areas; it's urbanization. It's moving people out of rural areas into cities. So the key investment for solving rural poverty problems are investments in cities, and transport back and forth between the two of them. Most importantly, the movements of people from rural areas into cities should be voluntary, and that can only happen if

there are gaps, if there is something to really be gained in terms of your standard of living by moving to the city. So I would encourage us not to look at this gap as a loser in terms of a way of thinking about rural-urban gaps, but in fact as a critical and necessary incentive structure to speed up what is the long-term solution to rural poverty.

I agree -- and this came up in our Beijing Chinese-language seminar last week – that the political cycle is important. I think it switches around a lot. When they screw up the management of the cycle, so that you get a lot of inflation and then you have to crunch it down, you will get the slowdown at the end of the five-year Party congress cycle. We're not seeing that now because they've managed M-zero, or cash in circulation, very well. We haven't seen inflation. So it looks to me like the political dimension now says we will maintain this growth and not try to slow it down until after the Party congress, perhaps, to help Hu Jintao strengthen his own people in place. And then, I think all bets are off about what reforms will look like, because he taught a lot of different, interesting reform programs when he was head of the senior party school.

Let me then go to the U.S. Treasury question. Nice to have you all here; thanks very much, my colleagues. And I see Michael Hirson in the back who had actually worked here at Carnegie for a number of years before he went to the Treasury Department; he had a lot to do with early stages of this report research. In the first place, don't look at the bilateral trade relationship and what China might do to U.S. trade if you're interested in the exchange rate, it is China's global surplus that matters. The Treasury reports, of course, all do this correctly – I'm referring to the biannual Treasury reports on currency manipulation.

Secondly, I would just make the point that China clearly has a non-market economy. And so, to try to identify any single subsidy or any set of subsidies within a mesh of both subsidies and burdens, whether they're required to keep employment levels high in the state-owned enterprises or whether they have to pay fees and taxes, or whether they are required to contribute to local infrastructure, or whether they get a break in this or that kind of pricing – that there is such a complex mesh of payments that as a non-market economy – which we still insist that China is – the way to go is to use the anti-dumping methods and try to find comparisons with other countries' prices. You can see discussions of this in a debate we did two weeks ago; you can find at www.CarnegieEndowment.org/ChinaDebates. If you want my testimony before Senate Banking and House Ways and Means Trade Subcommittee, that's also on my website at www.CarnegieEndowment.org/Keidel. It goes into a lot of those questions, that I think that you ask, in rather complete detail.

Looking at other countries, was it Kevin? I would encourage us to look at other East Asian economies. They're the ones that have really had the same organizational structure. I would think, in particular, South Korea. I would look at the economy of Taiwan, which is not a country, as all of us know. You could also look at earlier versions of the Japanese economy. I think Singapore is an extreme at the complete other end of the spectrum, if you want to look at what happens to a country that I would maintain is more closely described as export-led.

I appreciate this issue about what is export-led? If economies' exports are large, do net exports really matter? The report needs to go into a little more of this discussion of what does export-led mean. But I take it to mean that China's economic health depends on the degree to which the United States will buy from it. Therefore, we would have some leverage over China if we would restrict its imports, because we don't think that its exchange rate is somehow fair, which – as you will see on my website is not founded by data so far – that we would base U.S. policy, particularly in focusing on Chinese problems that are alleged to hurt us, rather than saying this is a legitimate competitor. Its growth is really a balanced one of domestic demand relying on trade for technology, and therefore we ought to recognize it as such and look at home for ways that we can restructure our own economy. That's my hope, that China will trigger in America the kind of reforms that it needs to move ahead with globalization.

I think that probably more than exhausts our time. I apologize. I've gone four minutes over. Vikram, if you want to say anything, and then I'll say goodbye to folks.

MR. NEHRU: I just want to thank you very much. Listening to this discussion takes me back to the days when I worked in China. It's an endlessly fascinating topic. A lot of the issues always tend to come back to problems of data and understanding this mesh of restrictions and government regulations, and how they all add up.

But thank you all very much for coming. Thank you for your comments. Thank you to the discussants for their excellent comments. Thank you, Bert, for a very stimulating paper.

(Applause.)

MR. KEIDEL: And Vikram, let me thank you for a superb job as moderator. Thank all of you for coming on behalf of the Carnegie Endowment. I would welcome your comments on this report. We're going to do a revised version that has '06 data in it. So we're looking to update the causal schemata, and these comments have been wonderful. You can also find the pdf version of this report; it will soon appear on our website for those of you that want to steer other readers toward it. Thanks again, and we'll see you again soon I hope.

(END)