The Future Structure of International Capital Flows
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Kobayashi:: Good morning Ladies and Gentlemen. Has everybody found his or her seat to sit? I guess we still miss a couple of persons, participants yet. But before…President Ujiie is going to give opening remarks in a few moments and before he does, I would like to give you some information about the surrounding, the set-up of the conference.

And well, to start with, the microphone system. I would like to explain the microphone system. You have a very simple system in front of you. When you'd like to speak just press the button, the rectangular button in front. One press will hook you on, and when you finish, press another, another press will hook you off. If you, during the time you're on, you can see the red light on.

And each session, I mean each presentation a paper is allocated with about 70 minutes. But we haven't really decided yet how long is allocated to the presentation and how long for discussion so what do you think is 20 to 30 minutes for presentation is good enough for you? Everybody? I probably, if you have two commentators, I think each commentator will consume about 10 minutes and that so that will leave you about half an hour, 30 minutes for the free discussion at the end of this presentation. So, I think if you comfortable, please make your presentation somewhere between 20 to 30 minutes. The longest 30 minutes please. And we have a let's say, we leave the management to the moderator during the discussion during the conference, so the moderator will give you the signs that you are speaking too long or change subject.

And we have session for Asia in the morning and we have lunch right next to this room. Actually, it's in the same room and in the afternoon we have a session for Europe. And in the morning, Fukao-sensei, Mr. Fukao you will be the moderator for us and in the afternoon, Barry Bosworth will be the moderator for the European session. So, now that we have everybody here, yes, let's have President Ujiie make starting comments, please.

President Ujiie: Thank you very much. Good morning Ladies and Gentlemen. And welcome to Tokyo Club Foundation for Global Studies Academic conference. And I thank you all for coming such a great distance to be here and I especially thank American friends who squeezed in this trip before their Thanksgiving holidays.

I also welcome everyone to Kyoto. I hope you appreciate the effort we expended to ensure that this city's legendary fall foliage would reach its peak during your stay here. Now, if only the market would comply as agreeably with our efforts. We will have a chance to enjoy the foliage at the close of our formal session tomorrow afternoon when we move to the Nomura Villa.

For now, we have to turn to the work at hand. That work is to examine the future direction of international capital flows. Capital flows like water, when it is unimpeded by manmade or natural barriers it flows easily across national boundaries like water. If the national capital flows are like life-giving water nurturing businesses and consumers around the world. Capital from economies with excess savings flows to finance projects in countries where returns are higher. Those in recipient countries benefit from economic growth and higher standard of living. And those in source countries enjoy greater consumption based on the higher returns their savings earned abroad. And the globalization of production and consumption as well as the liberalization of international regulations, the international capital, the international flow of capital has been increasing.

But just as the floodwaters from hurricane can ravage the physical landscape the global imbalances in capital flow can threaten the stability of the world economy. We have been hearing storm warnings about imbalances in global capital flows and their flip side- current account imbalances for the past years. These global imbalances are problem of global disequilibrium with many causes among many parties, countries and regions. There is no one silver bullet, no single solution but many corrective steps to be taken in many corners.

The focus of the conference is not just the current problems with international capital flows. We are here to discuss the future of international capital flows. Of course, to project the future, it helps to understand the current situation.

Why do some economies persistently consume more than they produce, why do others save more than they invest? To what extent are structural fundamentals responsible and to what extent is it governments interfering with the economic adjustment mechanisms? What is impact of domestic conditions in China's emerging economy, and will the rise of the Indian economy have a similar impact? How much do policy choices reflect cultural, social and political choices of individual countries and regions? And thinking about the future, how important are ongoing demographic, technological and production trends? Together, your papers address all these issues and others as well.

The breadth of issues—from China's savings surplus to the US federal deficit to the lingering economic malaise in all European economies, report for the Japanese household savings, testifies to the truly global nature of capital flows. And it verifies how closely aligned this project is with the mission of the Tokyo Club Foundation which is to support studies of the global economy. Thank you for your effort in writing these papers and I look forward to what more we can learn by exchanging ideas face to face. Now let us move to the work at hand. Thank you.

Moderator: So, good morning Ladies and Gentlemen. In my invitation letter it was indicated as business casual, so I came here in casual wear and I found that it a bit more formal than expected. So I am a bit out of place. I feel like a bit out of place but I'd like to charge this session. First, I'd like to ask Sachiko Miyamoto to make presentation on how household balance sheet affects their asset allocation.

Sachiko Miyamoto: Since I came shortest, I guess I have to go first. As a reporter from Japan on international capital flows, my presentation will focus on the allocation of household balance sheets for future outflows from Japan. This is the outline of today's presentation First of all, I will tell you about some background factors affecting Japanese household balance sheets. Then I will explain the characteristics of asset allocation by Japanese households. And finally, I will talk about the implications for future money flows to risk financial assets and foreign

assets.

To start, let me show you the situation surrounding money flow from Japan. This is the decomposition of Japan's current account balance. You can see net income from portfolio investment, this is the purple bar, has been increasing in recent years. The reasons behind this are, increasing foreign reserves, and increase in private portfolio investment assets.

This chart shows who from Japan invests in foreign securities. You can see the main players are shifting. In recent years, pensions and mutual funds are increasing. These funds originate with households. What Japanese households do with their assets can have a big impact because Japan is world leader in financial assets accumulation Japan ranks the second to the US in household financial assets per capita. And the total is big as well.

Japan also leads the world in population aging. Japan reached the United Nations designation of an Aged Society with an elderly population of 40 percent in 1994. And in 2005, almost 20 percent of Japanese population is elderly. Many other advanced countries will follow Japan to become super aged societies in the coming years. The effect of the aging society on money flow is a major global concern for the future. With population aging, some people think that in Japan, the household sector's balance will fall to zero soon. The government sector is already in deficit. So, with a shift towards deficit in the household sector there is a risk of rapid decline in the current account balance. Many people view that the decrease in savings with population aging is a decrease in risk asset holdings. Consequently, they take the view that the supply of funds from Japan households looking for risk assets, including foreign assets will dwindle.

Some people also claim that Japanese households fundamentally prefer safe assets Japanese households do hold their financial assets mostly in relatively safe deposits and currency. But when we look at total assets including long financial assets, then the share of risky assets does not appear that different from other advanced countries if we assume that most long financial assets are risk assets. Among the risk assets of Japanese households the share of real assets is large.

These data for 2003 show the relation of house price to income. It's highest in Japan compared to the US and the UK. It is also high in the UK but Japanese also have the highest ratio of housing loan to income. And 2003 was the year when housing assets were performing poorly in Japan while they were appreciating in many other countries.

For Japanese in 2003 the ratio of house price to income fell to its lowest level in 20 years. This means that housing was even more important in the past.

Even on macro level we can confirm the important role real assets have played in the balance sheets of Japanese households. Household balance sheets have seen a dramatic change since the beginning of the 1990s. On one hand, land price, which represents most of the asset value of houses in Japan, fell significantly. On the other hand, the level of liabilities outstanding from previous house purchases remains high. Given this impact on the balance sheet, why have Japanese kept a large share of real assets in their risk assets after the bursting of the bubble? The reason is that it was difficult for them to sell their homes in the environment of foreign land prices. And the difficulty is closely related to the characteristics of the real estate markets in Japan. Japanese have a strong desire to own their own home because of such structure problems as the insufficient supply of quality rental properties and regulatory distortions. For example, you can see in the chart that rental housing has much less space than all occupied housing in Japan. Also, the market for existing homes is much smaller than the

market for new construction. The market value of existing housing is low perhaps because the usable lifespan of the housing stock is short. Accounting rules call for depreciating housing structures by around 5 percent a year which means the value is zero after 22 years. And in Japan, market value follows the same pattern. Also, because of the undeveloped mortgage market in Japan, homeowners can generally not take out equity out of their real property in the way that they do in the US and UK. In this context, spending money on a house is consumption, not value accumulation or investment.

This is to wrap up what we said so far. Japanese households' large holdings of financial assets could have a big impact on capital flows if households changed their allocation. Rather than simply saying, Japanese are risk averse, maybe we should examine the effect of the big place of housing in the asset and liability sides of balance sheets. How do liabilities affect household asset allocation? We chose to use the Sharp Tin allocation model to look at Japanese household portfolio allocation because it does incorporate liabilities. This model is commonly used in asset-liability management for pension funds.

This is the objective function of the Sharpe-Tint model. According to the model, the optimal asset allocation is affected by expected return on assets, risk penalty which is variance of return on assets, risk tolerance, liability ratio L over A and the covariance of return on assets and return on liabilities. I need to estimate expected A., variance of RA over T, and covariance of RA and RA. For T. risk tolerance, we cannot observe so I either assumed a value or used a value implied by actual household allocation at different points in time. I assumed K equal to 1 for reasons explained in the paper that I won't go into here. The good points of this model are it allows us to consider both investors risk tolerance and the liability ratio in the optimal asset allocation decision. And it is easy to estimate as the more familiar traditional asset only allocation model.

The next slide summarizes the data I used. And this is the result, actual allocation verses optimal allocation with constant risk tolerance. Until 1990, estimated optimum proportion going to real assets was greater than the actual, suggesting heavy investments in real assets. From 1995, however, this relationship reversed, suggesting avoidance of investment in real assets. This big change in the relationship between optimal and actual holdings of real assets could have been generated by the assumption of constant risk tolerance. But in general, we cannot observe risk tolerance.

In order to understand what risk tolerance was I recalculated the optimal allocation based on the actual holdings of the household sector. From this exercise I can infer households tolerance for risks at each point in time and compare the actual allocation to real assets with the optimal one. As the table shows, in 1980 and 1985, households could hold real assets as model suggests, with low risk tolerance only 0.16. And their financial allocation was close to optimal. At this time, real assets performed much better than other assets. In 1990, the liability ratio was lower than in 1985 and risk tolerance is high, 3.2. Households could tolerate much more risk because of good performance of both real assets and risk financial assets. For 1995 and 2000, the liability ratio climbed over 15 percent and risk tolerance was also high. From this point, things seem to change. 1995 was after the bubble had burst. The foreign asset value made the liability ratio higher, real asset allocation decreased but was still over 50 percent. As a result, household had to have relatively high risk tolerance in order to maintain their poorly performing real assets. What looks strange is 2000. For 2000, given the liability ratio and asset returns, the model was unable to generate the actual 47 percent allocation to real assets at any level of risk tolerance. The maximum allocation to risk assets from the model was only 90 percent with risk tolerance at 1.7. Any higher level for risk tolerance resulted in more

allocation to risk financial assets and less to real assets.

Next, I try to qualify this situation. The table on the left, which is based on the model calculation for 2000, shows how risk tolerance changes as the liability ratio is changed, assuming other factors do not change. As the liability ratio increases, risk tolerance falls. And as risk tolerance falls, the allocation to risky financial assets also falls. The table on the right, uses survey data on homeowners to compare the financial asset allocations of those that have a housing a loan and those without a housing loan. The liability burden lowers risk tolerance for homeowners with a housing loan and so they allocate less to risk assets.

What are the implications for future asset allocation? Japanese buy a house only once in their lifetime, typically in their 30s or 40s. Since most households try to pay off the housing loan by the time the wage earner retires, liability ratio tends to be lower for households with head in their 50s and 60s. To understand the impact of aging population on financial assets and financial flows, we need to look at how balance sheets age along with households.

This chart just confirms how the liability ratio changes as households age. From the model, I can compare how the risk tolerance and asset allocation change according to the age bracket of the household. You can see older households have higher risk tolerance which implies they can allocate more to risk assets. Statistics confirm that older households do hold risk assets.

With aging population, the number of households in the older age brackets will increase. 10 years in the future, those households in the thirty-year-old age bracket today, will be counted in the 40-year-old age bracket. And the members of each age bracket will move up accordingly. I used this fact along with today's liability ratio for each age bracket, to calculate the difference in risk financial assets as a share of total financial assets from 2000- 2010. That difference is shown in column B in this table. I multiplied the difference in risk asset share by the current level to get the change in risk financial assets per household, which is shown in column C. And then, multiplying by the number of households in each age bracket in 2010, I came up with a grand total of almost 11 trillion additional risk financial assets. Finally, allowing for the fact that these data cover only 47 percent of the total flow of funds data, this calculation suggests that additional holdings of risk assets by Japanese households in 2010 could amount to around 23 trillion yen.

Let me summarize this presentation's implications for the future of Japanese household asset allocation. The model confirmed that Japanese households were forced to tolerate more risk because they also had to keep their poorly performing holdings during the 1990s. So they could not take on more risky financial assets. The keys to thinking about future asset allocation are risk tolerance, return on assets and the liability ratio. As liability burden of housing continues to decline, the model suggests that we can expect Japanese households will have more room for risk taking. The real estate market will become an important factor in household asset allocation because it effects both the return on real assets and the liability burden from home ownership.

For the future private outflows from Japan. In the future, changes in the debt burden as household age will result in increased potential for risk taking in the allocation of Japanese household assets. For Japanese households, aging will not necessarily mean decreasing risk assets along with a declining saving rate. This is the end of my presentation. Thank you very much.

Moderator: Thank you very much Miyamoto-san. So, Mr. Tsutomu Watanabe will

comment on this presentation.

Mr. Watanabe: Good morning. My name is Tsutomu Watanabe. I'm from Hitotsubashi University. I really enjoyed this paper by Sachiko Miyamoto and I'd like to say something about the paper. Because she did a very nice presentation, so I don't have to overview her paper but let me summarize what the paper doing and what they are trying to do. The basic question the paper tried to address is why Japanese households recovers, put differently, why they put most of their money into risk free assets rather than risky assets. This is the basic question addressed by the paper. And answer is probably very simple. The answer is that because, simply because housing costs are too expensive and housing is kind of a risky investment here in Japan. Put differently, Japanese households are exposed to more leveraged risk than households in other countries. This is the basic message the paper trying to deliver.

But the future picture might be quite different because of aging. And because of aging, the average household will become older so that they will have less housing debt and consequently they will be able to increase the share of risky financial investment. So, their conclusion is very, you know, very nice message and particularly to very nice to Nomura I guess, and my comments, I will make several comments about the paper

but the first comment is a very general one. That is the relationship between demographic changes and portfolio choice is a very, very important issue because we face aging society. And but, this issue is very controversial one. Actually this issue was tackled by many academic researchers including Bakshi and Chen and other people. Those people are doing research for US or European countries and on the Japanese side, Iwaisako and Iwaisako, Mitchell, and Piggott. Those people investigated this issue using their own regional data base. However, as far as I know, we have not reached any robust consensus because of the lack of reliable data. Because we are now facing an aging society but now we are not still, you know, very young society so we don't have any nice data to analyze the relationship between aging and portfolio choice.

And um, here I present some methodology. This is kind of consumption all equation used by these papers. And C is consumption and T plus 1 and C_t represents consumption and t. And the point is that here we have a co-efficient of risk aversion and this part should be negative, and the point is that this co-efficient, risk aversion, depends on age. M_t represents age. And many people tried to estimate, theta here, to know that how the co-efficient of relative risk aversion depends on the age. Some people find that theta is positive which means that if people get older, they become less risk averse. And so on. But, exact opposite conclusion was obtained by many other people so in that sense there is no consensus about that

And given this limitation of knowledge, I'd like to address two more questions about this issue. The first one is, does aging indeed decrease the degree of risk aversion and if so to what extent. That's my first question and probably the first comment to Miyamoto's paper. And second one is, is this channel quantitatively important or not. Put differently, will the share of risky financial investment increase significantly in the future? That's the second issue I would like to discuss.

Let me give you some numbers before going to my presentation. Here I compare three areas: Japan, Europe and the US. And you can see that here we have financial wealth per household. And everything is expressed in terms of Euro. And Japan is not number one but still very large number here. And if you compare this financial wealth relative to disposable income you can find that it's very large here in Japan, in that we love saving in this country that is, so we have a

huge amount of wealth relative to disposable income. And another important feature which was emphasized in Miyamoto-san's paper was that we have a very high residential property wealth which is here and actually this is much larger than Europe and also the same number in the United States. And if you compare this in terms of relative to disposable income, again, Japan is very high. Another thing I have to address is that Japanese households prefer risk-free assets like time and saving deposits, this is 40 percent, much higher than the figure in Europe and the United States. On the other hand, we do not prefer shares and other risky assets. If we look at the shares, we can see that this is well below 10 percent although the same figure is much higher than in Europe or the United States. So in some sense, Japanese are very risk averse and so we have to think about why this is so.

And another important information delivered by the paper is the age profile of risky assets. This is equity shares and financial assets by age and this is Japanese data in 1999. And we measure age here starting from 27 till about 70, OK? And as I said, the share of equity in financial assets is not high in Japan but still we have some type of risk profile, sorry, age profile here. If we look at age 20s, 30s something like that, you find that 4 percent of financial assets is held in the form of equity. It's very low but it increases significantly up until say 55 or something like that. It reaches more than 10 percent. And then, because of the limitation of the data, observations, the chart seems to be very volatile but it seems that we have this type of flat part here so in words, we have a very steep curve here and we have a flat part here. So this is kind of age profile of risky assets in Japan.

The paper emphasizes that if the aging society will come we have more part like here less part like here so on average we will be more, we will be less risk averse in the near future because of aging. That is I think the main point of the paper.

And my first comment is this age profile a special feature for Japan? And as I said, this is share of equity and other things in Japan. And you can see that we have a peak here at the age of 50 to 59 and before that we have a very low shares and after that it seems that the share of risky assets stays very high in 60s or probably in 70s. And if we compare this figure for other countries, you still find the similar patterns. I mean if you look at the United States, it starts 44 percent by the way this is a little bit different figures because here we measure equity, here we measure risky assets including equity and other risky assets. So we cannot make a comparison between these two figures. But still we can see age profile of risky assets, that's holding. Starting from 44 percent it reaches almost 60 percent and then declines to 50 percent. And the same pattern can be seen in the UK and or in Italy.

So, I think this hump shaped curve is not a special feature for Japan, but many people say that a slightly different pattern can be observed for the Japanese economy. They say that we have a steep rise here, but we have a kind of flat part here because of the limitation of the data. We don't know much about this part, but some people say that this is very close to 0.09, this is the number presented here. So, it's almost the same as the figure in 50s, although even if people are in 70s or much older. So, we have a flat part here. This is a sharp contrast with declining curve here, here, here. So something must be different between Japan and other industrial countries. So given this age profile of risk asset holding we can calculate, we can evaluate whether this age profile is quantitatively important or not. And will the share of risky financial investment increase significantly in the future.

To examine this issue, I put population shares projected by the National Institute of Population and Social Security Research, and say if you look at the year 2010 and 30 years old, 29 percent and the figure for 30 to 39 years old is now 14 percent and so on. So this is the population

shares projected by this Institute. And you can see that we have more and more older people, say if you look at here or here, you can see that in the year 2050 these shares is higher, significantly higher than the corresponding figure in the year 2005. And given this population shares and also given the age profile of risky asset holding we can compute estimated share of equity. And this is the result. And you can see that here in 2005 our share of equity is 6.5 percent, it increases to 7.2 percent, basically because of aging. But still our, the level of this number is very, very low and the difference between these two is not so exciting I guess. So, my conclusion is that yes, aging is a very important issue and aging must have an important effect on the people's portfolio choice, but as far as if you base our analysis on the data which is available right now we cannot say that the future is not so rosy as discussed by Miyamoto-san.

Moderator: Thank you very much for very nice comment by Mr. Watanabe. So, we'd like to open the floor for comments and discussion. So if you have any comments please, put your name plate upright to show your intention for discussion. So, let me start on the right hand side. Miss Mann then followed by Paola Subacchi.

Mann: Thank you very much. Thank you also to the organizers of the conference. Looks to be like a very interesting two days. This is a really very nice paper and contained quite a bit of new information, at least new to me and I thought it was really very nicely done. I have a couple of questions though. The first one relates to not just your paper, but in general, the question of how do we define a risky asset? Particularly, how do we define risk in real assets when the price of that asset can vary substantially over time, very high price variance, because of the nature of the market place. The ability or inability to buy and sell. So, what really comes out when I look at the information across the different asset classes for the various countries, what comes out that is characteristic of Japan, is that it's very bifurcated between currency and deposits which are highly liquid. Essentially if it's currency it's obviously marketable, you can go use it to buy something, and the real asset, the housing asset which in the Japanese context, I might call a very risky asset, much riskier than stocks or bonds. So that is what I take away most from the comparison of Japan and other countries.

So the first question is how exactly we would want to define a risky asset. Now, the reason why that's important, of course, is because when we get to discussing risk tolerance. You know, what does that really mean when the nature of risk is different across the different kinds of financial assets. Risk tolerance, I usually think of as a parameter, not something that is derived from the observed holdings. And the reason we can't derive risk tolerance from the holdings people have, is because the markets are not liquid. So you can't look at observed holdings to derive from that a risk tolerance.

What is interesting and I think you do get at that a little bit, is to compare what the derived risk profile…. Where your numbers changed from .15 up to 3.74 so that's a derived risk outcome. To compare that with something you might want to call a parameter. Your original 0.15 across all the different classes. I may like to see a little more work to try to get at, what we might think of as a risk parameter, as opposed to sort of assuming that what you're actually holding is a derived risk of tolerance.

The third aspect that I was surprised I didn't see, but maybe it's your next paper, and that is because of course from the United States' viewpoint we find this very interesting, is what might be the implications in the future for international capital flows. As there is an aging of the population, will international capital assets be viewed as more or less risky in comparison to the characteristics of the domestic assets. And again this gets back to the question of how do we define risk really, particularly when the real asset is such a large share.

The last thing was that I was again an interesting exercise I think would be to take all of the model and all of your data and do some policy exercises. For example, what would happen to the profile or what could you think about might happen to the profile of asset holdings if, for example, there was a change in the depreciation rate on housing so that in fact it had a longer lifespan. I mean do people tear their houses down after 30 years, I don't think so, but maybe they do, probably not, so what about the depreciation rate? What about changes in regulations with regard to rental versus owner-occupied size and square footage of the units? And most importantly, what happens to the choice of assets, if in fact there was a change in financial regulations that allowed individuals to own houses to secure a OOO spending using mortgage-backed securities and using home equity loans for example? What home equity loans do in the United States certainly but in other countries as well, is it makes that real asset much more marketable, effectively allows you to turn it into a more liquid asset. And so it would be interesting to do an exercise with that change. Thank you.

Moderator: Miss. Subacchi

Subacchi: I had exactly the same question. How do you define risk assets? And how about a minor comment on the table that Mr. Watanabe showed, I think it was the first table and I was wandering if you're including pensions in your comparison in the breakdown of the allocation. Yes, I think that one.

Moderator: Any other comments? Yes.

Bosworth: I too thought this was a very interesting paper. It had a lot of facts in it that I didn't know. One of my questions was you showed the asset data. What I was missing on the international comparisons is the liabilities is not put in and neither is per household or as a ratio to disposable income. So I was trying to get some idea of where Japan stood net. Like the US is very high on financial assets, I agree, but we've also got very high liabilities.

And I wanted to know what the net was for these different countries because the model that you're using basically just thinks of liabilities as a negative asset. And you just go through the model the same way. And I wandered where these countries stand if you did it that way. Because something that puzzled me about it is everybody thinks the United States doesn't save anything, if Americans don't save anything then how come they're so rich. And that really shows up in this data: that the US is very rich. Partly of course it is that it's the savings out of income and income has been high for a long time. But still I was surprised at the magnitudes of these and I wandered could you do more with what the liability position would be?

And last question I have was did you try to run this out into the future at all, because I looked at your table of figure 4 and then I realized you're calculating the variants of a 20 year moving average. And the last year you've got is 2000. So 2000 goes back to 1980. On average over that period, the return is not so bad. It's held up. But if you had to take it from 1990 to the present, to say 2010, which would be the next 20-year period, it's a disaster. What would your model look like when the return on real assets goes highly negative, as it will if we extend it just 10 years more into the future. And I wandered if you had played around at all with what it would imply over the very near future in the next 10 or 20 years.

My last question that I didn't understand was why, even though it was in a footnote, I still didn't understand the answer, why are bonds a riskless asset? If bonds are a riskless asset then the mortgage is a riskless asset. I don't think the model was assuming that. Maybe it's not that

it's a riskless asset, it's just that it's got the same variants as the mortgage rate. But I wasn't too sure what was going with why that statement or assumption was made.

Moderator: Miss Rossi

Rossi: Thank you. We obviously all found this very fascinating. We're all jumping in here. And I think that out of these groups of comments we shouldn't actually lose sight at the end, that however way we're cutting it, there still seems to be a suggestion if we put aside issues of the housing market, that yes, there could improvements or changes there that might help that side of the equation, if we look at comparisons and so forth, even if we're squeezing at the limit there's still some interesting implication from the idea that these aging populations may actually move into some more riskier assets. I guess, that just raising one sort of issue, back on that, we're all making comparisons here across fairly wealthy countries, and to some extent you're talking about a rather wealthy aging population where your basic needs are already met. You've already paid down your house and so forth. And therefore, you're moving into a wealth segment where you can actually afford to look at taking riskier instruments in there. So, perhaps some of the changes that we're seeing are related to those changes in wealth as well and in that case, in spite of some of these other arguments about housing, risk definitions, and so forth, you can still see this applying and across a range of these countries, since we're all quite, hopefully going to be a wealthier aged population in the future. Thank you.

Moderator: OK. Thank you. Mr. Yamaguchi.

Mr. Yamaguchi: Thank you Mr. Chairman. I also enjoyed this presentation by Ms. Miyamoto. I will not however, go into the question of how Asia could affect households and balance sheet adjustments because that question appears truly risky. Instead, I'd like to provide a sort of brief footnote to other factors, which are, in my view, might well affect the household asset allocation. And to that aim, I'd like to start from the recent facts which I think we have been observing in the Japanese financial markets.

The facts I have in my mind are as follows. The household sectors has at least in some reports, have become much more aggressive in acquiring a foreign assets. They appear to be more willing to take on foreign exchange risks. Why? Second fact is that the same could be observed of the behavior of institutional investors. Until quite recently, they were so afraid of taking on foreign exchange risks, or risks in general. And the risks I am talking about right now are primarily the market risks.

I think that the answers to these questions probably could be found in the recent performance of the Japanese economy itself and the Japanese stock market in particular. With the clear improvement of these two things, the economic growth, as well as some segments of the Japanese asset markets. It appears to me that households in general have much less job insecurity which they so acutely felt during the restructuring period which persisted for many, many years. And with the rebound of the corporate stock market, the institutional investors clearly feel much more comfortable with the state of the balance sheets which in turn have made them possible to take on greater risks in various markets, including the foreign exchange markets. Curiously, interestingly, most of the institutional investors like life insurance are still saying that they do not have any intention to add stocks to their portfolios. I do not have a good answer to that part of the question, but it's being reported so often in the Japanese press.

So, what I'm trying to say is that aging perhaps is a very important element in households'

financial asset allocation but there are other things that might be worth looking at, and they are the state of the balance sheets both of households as well as other market players such as institutional investors, and two, the sense of job security as well as the expectation of future income flows that might turn out to be quite crucial at the household side, to think about how they can best allocate their assets.

Moderator: Thank you. Then as the last comment from Frederique Sachwald. Then a very short comment after Sachwald.

Sachwald: We have a profile of savings and then also allocation within savings by households. We take into account buying the house, and then raising the children et cetera. And so the people arriving at 55, 60 they're supposed to have a different behavior. But then in the future, if we have people aging very much, then they will have new constraints in terms of dependency, in terms of providing for this very old age and maybe that will have an impact on their savings and allocation of income. I just wanted to say this one.
Moderator: Barry?

Eichengreen: If I'm correct, I think today is the first day that the Chicago Mercantile Exchange will trade Schiller securities where you can buy an asset, the return on which will rise as the housing prices fall. So, a question about the paper, could you tell us more, before we get to the issue of capital flows, wouldn't it be helpful to know more about the existence or prospects for reverse mortgages and the development of other financial assets through which the housing risk can be hedged.

Moderator: So, as the chair, I just want to add one question on top of the first questions. The institutional changes have been very important. I mean, So a few years ago, banks started to sell mutual funds, fairly risky insurance policies. And because of the fairly hefty upfront fee, up to 5 to 8 percent in some cases, it's upfront, their sales pitch is very strong. So those institutional changes in distribution channels may be important in changing the asset allocation of Japanese household sector.

So, I'd like to ask Miyamoto-san to respond probably, not all but let's say some questions with say 5, 6 minutes.

Miyamoto: First of all, thank you very much for your questions. Let me start from the definition of risk assets and definition of risk-less assets. In my paper, on page, the appendix page 14, I guess, table 2, there is the profile of estimated risk return and correlation among assets and liabilities. According to table 2, equities have higher return and higher risk while short-term assets and bonds have rather lower returns and lower risks. So, that's why I decided to categorize equities as a risky assets and short-term and bonds as risk-less assets.

And also, as I mentioned in the footnote, in this model I am thinking about the liability side. If you look at the correlation between liabilities and bonds you can find the correlation is big and in that case, in this model, households with long-term liabilities can partially offset this risk by holding long-term bonds. So, I understand bonds can be considered a risk-less asset.

And the second question, I understand is how to calculate risk tolerance. This model generates many sets of optimal asset allocation, and then I choose one of them. As I focus on the portion of real assets which is the same with the actual holdings by households, there are many choices, but one of them is the same as the actual holding of real assets. So I chose that one. And if I have two similar results, then I chose the higher utility sets among the choices. This is what I

did here. So, this risk tolerance is a derived risk tolerance, and I agree that the definition of "risk" is an important issue to be considered.

And the third question is the implication for capital flows. As many of you mentioned, currency risk is one of the big risks for Japanese households for having foreign securities so it makes a kind of double risk asset. The amount of capital flows depends on the performance of foreign securities. So I cannot say among which or what portion will go to foreign countries from the risky financial assets. But in 2003, households had 14 percent of risky financial assets in foreign currency. And as for the future, the regulation will affect a lot. In fact, as for the last 5 or 7 years, many regulations have been changed, such as banks can sell mutual funds over the counter directly to customers. And in Japan the interest rate is very low and many people will soon enter age of retirement. Many factors affect to the holdings of risky assets including foreign assets. So it is hard for me to focus how much the money in risky assets will go to foreign countries.

As for the liability ratio per disposable income, the macro-statistics show that Japan is not the only country which has high liabilities per disposable income. But most of Japanese household liability is for buying a house. So maybe that's the big difference from other countries, I guess.

And as for 2005, the result of the allocation is almost 30 percent for financial risk-less assets and 30 percent for financial assets and the rest for real assets. So with the current situation included here I will have more financial risk assets in the allocation.

Moderator: Could you finish it in 1 minute? We are already running out of time.

Miyamoto: Oh, I'm sorry. Lastly, Prof. Eichengreen asked me about re-mortgaging but I think.

Nishizawa: On behalf of her, actually, Japanese real estate hedging is quite difficult still because unfortunately, Japanese land price is not clear for the market. But still commercial real estate now gradually housing, so still hedging for that private housing is limited. So that those kinds of system is definitely to fixed the Japanese household sector assets on financial market and real estate. Because for a long time, even from 1970s and 1990s, Japanese people continued to believe land is a safe asset because land prices continued to go up. But after the collapse of the bubble, it's quite hard for the household to adjust such a change in the concept. Land is a risk asset or safe asset. I think that in 2010 and 2015 other generations will enter into their 30s and 40s and those people have already realized that land is not a safe asset. From that time, Japanese asset allocation per household will be changed drastically maybe. That's what she'd like to say. Thank you very much.

Moderator: Mr. Watanabe, do you have any further comments on general discussion? OK. Then I'd like to go into the next session, Yu Yongding on the Chinese question.

Woman: This is the old one. Can you find? I don't have my glasses.

Moderator: So, if you want coffee so we can wait a few minutes we can get a cup of coffee for everybody. In the meantime, Mr. Yu will prepare for presentation. We would like to start the next session by Mr. Yu Yongding on China's twin surpluses. And so, Mr. Yu, please.

Yu: Thank you. Good morning, Ladies and Gentlemen. It's a great pleasure to be here to give

a presentation on China's adjustment of development strategy and China's twin surpluses. Due to time constraints, I will concentrate just on China's twin surpluses.

As you know, since the 1990s, the China has been running, so called twin surpluses, that is, account surplus and current account surplus consistently as shown by this graph. And sorry, I think I use the wrong version of my presentation still, it doesn't matter. Anyway, actually my question is, whether this kind of twin surpluses are sustainable. Secondly, what are welfare effects of this twin surpluses and what will be the measures taken to reduce these twin surpluses and what is the relationship between these twin surpluses and the fraction of global imbalances. Actually, the list of the questions is very long, I cannot discuss them in detail So, I just give a very brief introduction about some major points. And here I use a very simple analytical framework-the Harrod-Domar model. It's already old-fashioned, but I think it's still relevant to China's reality, because in China we still have a limited supply of labor. So labor side is not OOO of economic development. So I can use the first formula here and with regard to the second, then if I treat the capital output ratio as the variable then we have a set. And basically, we are using these to analyze China's growth strategy and China's twin surpluses.

Anyway, one new, not invention, I mean novel point in this paper is the introduction of investment in the saving balances in the general framework of how to do a model. This formula is very simple. It simply means that total investment should be equal to total savings if foreign sectors are taken into consideration. And to capture China's economic feature, we separated the total of bonds into sectoral balances. For the economy as a whole, the total investment must be equal to total savings, but there are some structures that is here shown here.

The first terms are relatively simple. That is domestic investment minus domestic savings. And the important thing, the last item, you review- that is S_r minus S_f. This is foreign direct investment minus foreign savings in form of reinvestment and new inflow of foreign savings. So we can now rearrange the equation to express saving investment gaps. This gap can be expressed by foreign identities. And I think I don't need to explain that to you, you know this very well. And inflows in the account balance and actually can be, in China's case, we need to highlight the nature of China's twin surpluses by using this very, very simple formula. We actually assume that domestic savings equal to investment by domestic firms. That's just for simplicity. Then if we make this assumption we can get this very simple. The implication of this formula is if there are inflows should cause current account deficit in other words without running current account deficits a country cannot really utilize FDI in this true sense, namely utilizing foreign resources.

This is very key point of twin surplus. The OOO increasing in price excessive in savings is enough in China for financing FDI. In China, when foreign investors obtain equity assets, China obtains an equal amount of foreign debt assets in the form of exchange reserves, which implies that FDI calls out an equal amount of investment by domestic enterprises in good sense and bad senses. I'm not trying to make any judgments. I'm just trying to say the fact. And in the excess domestic savings cannot be used in China for physical investment and have to be used to buy TBs in China. FDI does not force just one OOO imports, which means utilizing foreign resources. This is the case we are facing in China.

So China's twin surpluses can be described as following. Actually, I just assume a way the government sector to simplify analysis. The relationship implies that domestic savings is not only sufficient for the financing of all investment but also for the creation of certain amount of current account surplus. Running a current account surplus means China is a capital exporting country. Even though everyone knows China is the second biggest capital inflow income, FDI

attraction country. Actually, China is exporting capital. The capital exported by China is equal to minus C. C here is the current account deficit. Minus means a current account surplus. The current account surplus also leads to the increase in the holding of US exchange reserves. Hence, the increase in foreign exchange reserves equals to the left hand side of the OOO.

The FDI inflows and the current account surpluses. These two items consist China's increase in foreign exchange reserves. So a complete picture of China's savings investment gap can be described by this equation. The sum of the positive household and government savings-investment gaps, plus reinvested profit by foreign funded enterprises equals to the increase in foreign exchange reserves. It can be said that minus *c* represents the proportion of increase in foreign exchange reserves created by the hosting country's exporting capital. And i_f represents that created by the country's debt-equity asset swaps. This is the concept I raised in this paper.

And sorry. This is complete picture but my focus here in the following will be the C. So here. C. The dis-aggregation of the current account that is the C is consisting of trade balance plus investment incomes. In your discussion people you ignore the discussion investment of incomes. But this is very important in China. This is some very important formula I will be using in the following discussions.

Here what I'm trying to emphasize is that this i_f representing foreign firm's profits. You can check my derivation in my paper so I don't take time to explain it. But the key thing is that this is a variable, it will increase following passage of time. You see this is the last item in this equation, i_f. And 1 minus s_r means, I mean s_r representing the ratio of the retained profit. So these four items, the third item represents the outflow of the investment income. And in this item the most important factor is i_f. As I just mentioned, i_f is a variable which will change; it will increase following the passage of time. So, this is a key result of the revision. For given parameters, following the passage of time, the higher is the reinvestment rate, the higher the profit, the profitability of the foreign funded enterprises, the higher the outflow of investment income will be. And following the passage of time, this phenomenon will become more and more obvious, more significant. In short run, if all foreign investors reinvest all their profits, then it will not cause any invested income outflows, which will not create any pressures on China's current account. But following the passage of time, sooner or later they will limit a great proportion of the profit which will cause more and more heavy burden on China's current account, current account balance. In order to counterbalance this burden, China has to run more and more trade deficit so that China can maintain the current account balance. This is a huge task China is facing in the future.

As I mentioned, as a result, trade surplus must increase OOO to offset the increase in outflow of capital investment incomes. But that's also a possibility because foreign FDI is, I mean foreign funded enterprise will have a higher productivity, higher profitability, so on and so forth. And also they may have a very positive impact on China's ability to export. So, my argument just mentioned, may not hold water.

But still there are some problems. That is the gap between GDP and GNP will widen. That's very simple. As long as the first step, the equation holds. Generally speaking, people will assume that these conditions will hold because foreign funded enterprise have a higher capital efficiency and we assume that they will invest quite big proportion of their profit. So this holds as long as this condition holds, the gap between GDP and GNP will widen. This means that over-reliance on FDIs is not sustainable. Of course, unless domestic firms efficiency is comparable to those foreign funded enterprises.

There's a short summary. From the above equation it can be seen that the influence of the reinvestment rate of profits by foreign funded enterprises on the current account balance is complicated. Other things being equal in the short term the higher the investment the rate, the smaller the output of investment income. In contrast, in the long run the higher the reinvestment rate, the larger is the outflow of investment income. This means that, other things being equal, following the passage of time, the negative impact of FDI inflows on the current account balance will become bigger and bigger. In the long run, more and more trade surplus will be required to balance the ever increasing investment income outflows. Even after having taken into consideration the positive impact of reserves held by China on the investment income flows, the conclusion will not be influenced because the exchange reserves use much smaller than the profitability of FDI. Furthermore, for in the slowing down of the growth rate, the current account balance problem will become increasingly serious. This is a some possibility, not necessity or inevitability.

Another point is the gap between GDP and GNP will widen in China. And certainly the external condition may not allow trade surplus to increase to offset the increase in investment income. As I just mentioned, because China attracts so much FDI and because the reinvestment rate by foreign investors are quite high. So in the future the outflow of investment would be very great. Even though due to the attraction of FDI China's ability to export become greater and greater. But external conditions will not allow China to export in such a big way. So, eventually China still has to face with the current account balance problem.

So this is some basic conclusion, but there are some other elements we can take into consideration in the future. The outside points which include FDI-lead export drive will help to maintain the current account balance, but as I mentioned, the limitation of this is great because external conditions will not allow China to export in such a big way. Not allow China to increase its gross rate of export in such a high speed.

Then I think we can discuss a little about the welfare effect of the twin surpluses. While a significant amount of China's investment is financed by FDI, a larger amount of foreign consumption and investment is financed by China's savings, via China's purchasing of TBs. In this sense, US direct investment in China is the recycled Chinese savings. During this process, China earns a low return on TBs and US investors earn a much higher return on his direct investment in China. So, during this kind of change I think China suffering some losses. Maybe theses losses are inevitable at this moment.

Then, what are the causes of the twin surpluses I just give a short list actually. This list can be much longer: mainly market distortion, discrimination of banks against small and mid-sized enterprises. In China it's very difficult for small and mid-sized enterprises to borrow from commercial banks. So what can they do? Because there are lots of preferential policies towards FDI, so it's relatively easy for those small and mid-sized enterprises to attract FDI, to establish a joint venture. In this way, they got foreign exchanges. But actually they don't need these foreign exchanges, they sell these foreign exchanges to Peoples Bank of China in exchange for renminbi, then they use renminbi to buy capital goods and services within China. So this process ends up with increase in foreign exchange reserves without actually any OOO enterprises using foreign resources. Actually as mentioned by Professor Williamson, China failed to translate its attraction of capital into current account deficit. So, Chinese actually failed to utilize foreign resources in a very effective way.

End of TAPE 1

Asia tape 2

Mr.Yu: Williamson, China failed to translate its attraction of capital into current account deficit. So Chinese actually failed to utilize foreign resources in a very effective, efficient way.

And the second very important factor contributing to market distortion is so called preferential policy towards FDI. I think as long as we are discussing a strategy somehow there must be some distortions and it's inevitable. And in the initial stage of China's opening up and the reform I think preferential policy towards FDI is necessary. But now, the situation has changed and China should eliminate this kind of preferential policies.

And thirdly, China has adopted kind of an export promotion policy and China's currency, I will not say undervalued, I'll say weak currency. There are lots of rules and regulations on tax rebates so to produce for the external markets is much more profitable than to produce for domestic markets. Of course the incentive for enterprise to produce aim at external market is tremendous.

And the fourth very important factor which is of China's characteristic, is the role of local governments. Actually now in each local region in each province, one of the most important criteria for the promotion of a local account officials, the governors of a provinces, governors of a counties is whether they can attract huge FDI. If they can attract a big amount then the chance for them to be promoted is much greater. So, whenever there is an opportunity for them, they will utilize all sorts of policies to attract FDI into the locality against the rules of the central government. Even though I mentioned there are lots of preferential policies towards FDI, enacted by the central government. But actually in localities there are much more preferential policies and these policies are formulated by the local governments without reporting to the central government or against the view of central government.

And of course attracting FDI is a very good channel for those kind of officials who are doing asset stripping. Also, there are other important factors which I will not mention here.

Anyway, the two surpluses to a very large extent is the result of market distortion, but on the other hand there are some factors which are positive. For example, the chance for growth potential is very great and so on and so forth. So foreign investors OOO grows potential even though they could not earn a very large profit. They still want to invest. I think these are also important factors but on the whole, I think that at this stage, the most important factors contributing to China's huge accumulation of foreign exchange reserves, China's continuous running twin surpluses are market distortion.

So what are the more, imminent impact of China's twin surpluses. I think there are several very important points. I think I should mention. I just discussed the long-erm impact. That is a remote possibility. But the more relevant is the pressure on Chinese economy, market economy revolution. Number one. Pressure on Ambee relations is tremendous. Second, pressure on OOO is tremendous. Actually, People's Bank of China, in order to maintain account stability already sold out all current accounts held by them. Now they create central bank debt that is central government OOO, They sell central government OOO, says within four years or something, the amount of central bank OOO sold is more or less equivalent to the total amount of government bonds(?) sold over the past 10 years. And thirdly, the constraint on interest rate policies is very great. If interest rates are high, then speculative inflows will be great. But if interest rates are not that high, then I mean, actually for example, the Chinese economy tries to control the money supply, to control the growth rate of credit, but it's very difficult for them to do so. Because if they raise interest rates, then capital inflow will increase. If they try to

reduce interest rates, then the OOO will be to abandon which will create pressure for inflation, so on and so forth. China is losing to a certain extent, independence on monetary policy. The key element is fixed assets and twin surpluses and evaluation of RMB.

And lastly, I think we are worried, very worried about the devaluation of the US dollar because we already have 800 billion US dollars, foreign exchange reserve, a huge amount. I think we are catching up with Japan very quickly. Next year, China may be the number one foreign exchange reserve holder in the world, surpassing I think 1,000 billion US dollars. But if the US dollar devalues, the capital losses will be tremendous for China. But what can we do? I don't know. Anyway, we are discussing how to reduce China's foreign exchange reserves, or at least reduce its growth rate. Now it's a serious problem.

In terms of the framework I've put forward, there are several ways. For example, reducing government savings by increasing current expenditures and cutting taxes. Increasing current investment by increasing government investment in infrastructure. and government-supported R&D. Reducing household savings, by increasing provision of public expenditure, for example, government should provide a better security system, better, more decent medical care system, and better education system and so on and so forth, so households will have less incentive to save. They will be more confident in their future so they can spend more.

Then there are other measures which we can consider. For example, reduce reinvestment rate by foreign investment enterprises by canceling preferential policy towards FDI. Increase household, sorry, increase domestic investment at the expense of foreign investment. I'm not saying increase total investment. I mean we should change the structure of investment by canceling preferential policy towards FDI. Actually, in China we had a very big debate on this issue but so far because the rejection and opposition by commerce we postponed the decision of scrapping those preferential policies towards FDI. Maybe in the next year or the year after next year some measures will be taken. And we also can reduce trade surplus by reevaluation and canceling export policies so on and so forth.

Lastly, I will say something about implications. It is extremely unlikely that China will take any drastic action to reduce its foreign exchange reserves so as to produce a big impact on international finance markets. I don't think the Chinese government authorities are so stupid to create some problem for themselves. And we are worried about the devaluation of the US dollar and hence the evacuation of our hard earned value of our foreign exchange reserves.

But what can we do? We will not sell. If we sell we cause problems. And we will create a disaster for ourselves. And the sheer amount of money involved will constitute an insurmountable psychological barrier to deter any decision makers to take drastic actions. I once test myself, if you sit on that position to make that decision, are you dare to make the decision to sell a big proportion of foreign exchange reserves to cause a devaluation of the US dollar so that you hit yourself. I don't think any decision maker will be brave enough to take any drastic action. Therefore, a drastic devaluation is not in the interest of any party in the process of global adjustment.

The ideal solution is the tightening of US fiscal policy and to a certain extent, monetary policy. To slow down the global economy will be a lesser evil compared to the drastic devaluation of the US dollar. Hopefully, the process of adjustment will be carried out smoothly and gradually. This is my hope. For China, it may take a decade, or shorter I hope, to complete its structural adjustment. Because first they need to reduce the growth rate of those variable which will cause, which will worsen the imbalances for China's economy. The first thing is to reduce the

growth rate, the shares will be very, very imbalanced for a long time, after reducing this and then we can have the opportunity to reduce those variables, to reduce those shares. So it will take a long time. At this stage, there is little China can do to protect itself from being hit by a drastic devaluation of the US dollar and other serious external shocks.

What can we do? We try our best to do something while praying for God. OK. To avoid the collapse of the global economy caused by chaotic individual actions taken by individual governments dealing with the global imbalances, international coordination is essential. The coordination should be conducted at the various levels- IMF, G7, G20, regional coordination and so on. Without such coordination, no country in the world will be able to save its skin. Thank you.

Moderator: Thank you, Mr. Yu. It reminded me of the Japanese experience in 1970s. Japan had a reserve amounting to 15 billion dollars. That's about 5 percent of Japanese GDP. And the government lost a bit more than 1 percent of our GDP by depreciation of the yen. So, 50 percent problem and 50 percent OOO problem is a big issue. So, Catherine Mann could you comment?

Mann: I appreciate very much the opportunity to discuss this paper. Now, in the presentation that Mr. Yu just gave, he had a lot more to say about a key relative price, than he did in fact in the paper. And so that's why I entitled my comments "a Hamlet without the Prince or Getting the Relative price right." And I noted that Hamlet, which means the appropriate relative price, actually only appears in this play, or this paper, on page 24 of the 26 page paper. And so what I'd like to do in my comments is talk a lot about getting the relative price right and having Hamlet, the Prince, enter the play much earlier in the discussion.

So let me first start by recapitulating the paper, which about which actually Mr. Yu said very little. First, he goes through the sources of the very great performance of China, he talks about the investment rate in infrastructure in particular, in having an educated labor and he spends a fair amount of time talking about efficiency and total factor productivity in China although I note that there were several pages missing from my paper that I think did not transfer to my printer. I would comment on the efficiency and total factor productivity calculations because I don't think they're right, but since I didn't actually get them in my paper, my copy of the paper, I'm not sure exactly what they said. Then, he argues that in fact, global integration, which he had very negative things to say in his presentation today, at least at the beginning of his paper he talks about them in very good terms. That foreign direct investment inflows and allocations were important and that the technology transfer was also important. But then he also talks about, and I would like to comment on, problems with the development strategy which again he points out in his paper. With respect to the investment rate, it's currently too high, it is inefficient, it is energy intensive, it is not mindful of other consequences such as pollution which will be very expensive to correct in the future. He also notes that this kind of investment strategy has been focused to a very great degree on manufacturing rather than on the service sector. Now, he argues that rural urban migration is not particularly a problem. I'm going to comment on that. So that there are problems with this strategy, even if perhaps it has been a very effective one for some time.

He also points out that the global integration, that component of the strategy also has problems. He sees China as being more of a workshop as opposed to its own R&D. It doesn't develop its own R&D and that in fact the global integration has perhaps gone too far and exposed China to the global cycles to too great a degree. So, on the one hand the development strategy very successful, on the other hand developing some problems with that strategy. I might point out

that both the development strategy and the performance itself in the context of China and problems associated with that strategy are ones that we have seen before. So in some sense, China is not exhibiting completely new challenges with respect to its development strategy. I think things we have seen before. In particular, one of our challenges that have been developed out of this strategy in the context of China is the current accounts surplus and the foreign exchange reserves. These are the twin surpluses.

What I'd like to do now is go through some of these aspects and add a little data to this paper, and also talk about these problems and in the end I'm going to talk about a solution, or an important ingredient to the solution for the twin surpluses that focuses on this relative price, the Hamlet, the Prince in the play.

What I have here is talking about the real side of the twin surpluses, the trade and the current account. In this table we can see that China's foreign account as a share of GDP is increasing over time. It's not the only example of one that has this characteristic; it is very large current account to GDP so in fact, the twin surplus, the current account surplus side of it that we see in China is very real. Now, that twin surplus in the global context OOO is reflected in the bilateral trade balance with the United States.

Here in Red is China's going back to the beginning of the 1990s up to present quarter of 2005. But it is notable that it is not just China that is the bilateral deficit, that has a problem with the bilateral deficit with the United States. It's not just China, but it is China, that has the largest current account surplus with the whole world. So, this notion that China and the United States have a problem, in and in themselves that nobody kind of gets involved, is just a US-China problem, that is not correct. This current account surplus is with the world. So, if there's a problem with this development strategy, there's a problem with the world. But overall, everyone does have an increasing dependency on exports for GDP growth rather than its own domestic demand.

Now when I said that this development strategy and the issues related to it and the challenges are not just vis a vis China and the US, this is the picture that I go to look at that. The imbalances in trade are evident throughout Asia. The two colored lines, the red and the pink, are China's trade imbalance with the United States and with Europe, so it's a surplus with those two regions. Where's the workshop really coming from? Well, the workshop is coming from the other Asian economies. Try the imports from the other Asian economies, exports to the industrial world.

Now, I know that in his comments, Mr. Yu pointed out the foreign direct investment from the United States was a real major player. In fact, the US share of foreign direct investment in China is only 4 percent. So we are not a big player, the United States is not a big player when it comes to foreign direct investment in China. We are big buyer, but we are not a big player. In addition, he points out that China earns a low return on US treasury bills and the US earns very high returns on US direct investment in China. Once again this is not true. Very few US corporations make any money on their investment, foreign investment enterprises in China. It still is a loss making operation for most of those operations. So, the question, the reason why I put up this chart is that the key point: to what extent is China's strategy on balancing the whole region? It's a different question than about the global economy, but I think it's relevant in the regional context, particularly as we discuss Asia more generally in this session.

Now of course on the other side, the other twin surplus, is the financial twin surplus, that build-up of US treasury securities, you know, and indeed it's there. China used to own 17

percent of US official holdings of US treasury securities, so 17 percent in March 2000 of the 636 billion dollars of official holdings. It now holds 22 percent of the estimated holdings of 1.3 trillion of US treasury securities. Yes, there has been a significant build up, but China was a big player even five years ago, in terms of its holdings of US treasury securities. So that has been, that feature of the twin surplus has been around for quite some time.

Now we get to the Prince, or the price. What is a key relative price that is important for many parts of this story? Not just the external part of the story and I'll get to why in a minute, but the key relative price is the real exchange rate. Now we can measure the real exchange rate in a couple of different ways. This one in this chart, this is a set of real exchange rates for different members of the Asian region starting with the time that they presumed to start their domestic economic reform process. So it was in 1973 for the ASEAN countries, T equals 0 is the start of the reform process and the blue for ASEAN, for the newly industrializing economies (do we remember who those were?) Hong Kong, Singapore, Taiwan and Korea, started in 1970 so that's the red line. And then China, we could argue about the date to pick, the IMF, who's reproducing here, started in 1980. So, the thing to take away from this chart is that usually the industrialization process usually is associated with a real exchange rate appreciation. The Ballassa-Samuelson Effect.

But for everybody in this region, not just China, but everybody in this region, there has been real exchange rate depreciation over their entire period of economic reforms, which in some cases are a full generation, 30 years. Now, the real exchange rate is also the relative price of traded and non traded sectors in the economy. And that's the key one that I want to focus on now. We can measure it in a number of different ways. They move in the same direction, the PT over PNT can be measured using the real affective exchange rate. So we're looking at a situation where the real exchange rate for all the countries in the region has been following a path of depreciation in real terms or excessive lower price of traded goods relative to the non-trade sectors.

So what are the consequences of persistent undervaluation of the non-traded goods sector. Not undervaluation vis a vis the rest of the world or undervaluation vis a vis the dollar but it's undervaluation vis a vis the non traded sectors of the economy. And again we used to think of non traded sectors as being services, since I work on trade and services I can't say that any more, but that's a good way of thinking about the difference between PT., traded goods, PNT, non traded services.

The first consequence of this persistent undervaluation of the non traded sectors leads to more foreign direct investment into the same export sectors. What does that do? It reduces profitability in those sectors, it leads to inefficiencies in resource use because you've got too much FDI going into it and it limits technology upgrading. So persistent undervaluation, or shall we say undervaluation of the non traded sectors leads to too much FDI, this is exactly what Mr. Yu pointed to.

Secondly, something that he didn't note but that I think is very important, it leads to too much complimentary investment in related structures, plant and equipment, housing et cetera, that are all glommed into the same geographical area. You've got all the export factories, you've got everything to go with those export factories. That leads to a real estate bubble which I'm sure we've got.

Most importantly, this persistent undervaluation in non traded sectors undermines the financial system. We've seen in before, Japan understands it very well, the rest of the Asian economies

ought to be able to tell you stories. It is clear that persistent undervaluation of the non traded sectors undermines the financial system. The pricing and the credit signals are wrong, or unused. And it should be no surprise that allocations are incorrect, leading to non performing loans by the way. I believe that this persistent undervaluation leads to an important problem in the geography of China. I believe it leads to rural and urban disparities, in rates of growth in standards of living. This encourages more migration to the cities which do not have the infrastructure or social services to handle that, and the potential disparities, I think, have an underpinning in potential unrest.
Lastly, this persistent undervaluation generates current account surpluses and a build up of foreign exchange reserves. And indeed exposes the central bank to capital losses and the country overall to protectionism. But I don't think that's the most important thing. I think all of these other things are far more important because these other factors, the financial system, rural urban disparities, real estate bubbles, excessive investment, improper allocation, those are critical for getting development right in a country. This stuff is just the end of the day.

My key point is that the longer this goes on the more challenging the adjustment path becomes because the capital losses get bigger, because protectionism is stronger, but most importantly because you have too much migration. You have too much incorrect allocation of investment. You have insufficient attention to services infrastructures. So the longer that this goes on, the longer that the relative price is wrong, the more challenging the adjustment path for China, but also, and this is why I went back to that original picture showing you the exchange rates in the region, not just China's adjustment path is more challenging, but so too is everyone else's adjustment path. Everybody who does business with China. Now, I get to talk about the United States later, so for all of those of you who sort of pointed out that there are some problems in the United States, you're absolutely right and I will talk about them tomorrow. Thanks.

Moderator: Thank you very much. Then, we got the next comment from Mr. Anwar Nasution.

Nasution: Thank you very much Mr. Chairman. Before I start, let me express my thanks to the organizers of Nomura, for inviting me to this very important conference. I enjoyed the paper prepared by Mr. Yu. But as he said it is a preliminary draft, the paper is a simple straightforward application of Harrod-Domar Model, but hardly any discussion on how the economy works and then how will be the institution change in China, particularly after the accession of the country to WTO. I think this is very important. So I expect the paper to provide information on how the economy works including the financial system. As just discussed by Catherine Mann, I think it's very crucial.

And second, how the state-owned enterprises interact with the state run banks. Also, this is very crucial because, we have to remember that China is still a half open economy and then China is a still a socialist country. The third issue I think that people in the future should give the composition is the current account balance, investment by ownership and public debt is shown in his equation number 7. He has the equation but no information on how, no figures, no data, on the equation. And again you see that I'd like to see the paper in the future, in the final revision, what are the implications again, on China accession to WTO agreement, that among others, allow penetration of foreign banks into the country, starting from next year.

Now we know that a number of foreign banks are allowed to enter the country. Without those information, it is rather difficult for a layman like me to understand the interaction between policies and structural change characteristics of the economy of China. Then, the implication to macro-economic record. The WTO accession must have an impact, in my opinion, on the

structural characteristics of the economy, that subsequently affect the policies and future economic growth. To my understanding the effect of China at present, China again is still a transition economy with close capital accounts and significant enterprise sector, both state-owned enterprise, non financial state enterprise as well as state-owned banks.

Second, quantative targets are still widely used and enforced by administrative mechanisms. So, market mechanism doesn't work in China particularly in the financial sector. As we recall that market decision of the economy in China introduced by Deng Xiaoping in 1978, I think started with decent reform rather than promotion of private economic activities, the role of private sector in China I think is still minimal Traditionally, state-run enterprises are highly leveraged as their investments are mainly financed by loans from state-owned banks. State-run banks receive guidance from the government both at central level as well as local level, the local authorities also give guidance to branch manager, I don't know, about setting the interest rate. They also have to make contribution to economic development in the region. The greater operational authority given to state and enterprises in 1978 were somewhat reduced control of the state that allowed state and enterprise to increase investment. When state-owned enterprise making losses, the state simply asked the state-owned banks to give them more credit or permit rollover of non-performing loans to make this NPL to become evergreen again. As a result, NPL of state-owned banks in reality are no more than quasi-fiscal deficit.

This sort of thing has implication on government savings and investment savings as described in Professor Yu's equation. The current account balance of equation 6 of professor Yu can be simplified by using a standard textbook identity, namely the capital account is the T minus G plus S minus I.

Moderator: His comment is distributed so you have handouts.

Nasution: And then, this can be decomposed into current account surplus plus government budget surplus, plus savings of state-owned enterprises minus their investment, plus savings of private sector minus investment of this private sector. Again, as I said in the beginning, the role of private sector is still insignificant in a country like China so because of this, we can ignore investment of private sector.
This equation that indicates the increase in a), investment of state-owned enterprises b), the realization of state-run bank, and c), losses of both state-run banks and state-run enterprises including transfer of NPLs to state-run asset management companies or to use the surpluses of both government budget and capital accounts. So, therefore, all of these have affected that system fiscal ability and probably the dynamic of public debt in the future. I think it's very crucial.

And then this was happened back in 1978- 79 when the authority in China injected new capital into state-owned enterprise, I think at that time the government injected using the external reserve amounted to 280 billion US dollars injected to state-owned banks and then transferred the large portion of the NPL of the state-owned bank to again, state-owned asset management corporations. These policies have reduced NPL ratio of state-owned banks to 8.7 percent in July of this year, from 19. 6 percent, two years before. And then the appreciation of R and D are recently reduced debt and revalue of state-owned banks of the dollar asset.

The important role of quantative targets enforced by administrative mechanisms in China was demonstrated by the economic policy introduced in 1983-84 to control the overheating of the economy by then Vice-minister Zhu Rongji imposed strict credit quotas on state-owned banks enforced by strict administrative mechanisms. He fired officers and officials from office when

they allowed overexpansion of credit or increase in NPLs. I never see that the government of Japan can fire. The state bank of Japan when they expand the credit for example. But again this is happening in China because everything is owned by the state.

The impact of this stabilization policy was immediately felt in the following year, 1994, the slow growth of bank credits in that year brought about by the policies raised national savings, (both of state-owned enterprises and the private sector) as shown in the table of Professor Yu and increased surplus of the current account balance. The increase in savings of the private sector in my judgment, was also due to the loss in the worker pension and social securities of the privatized state-owned enterprises because, starting from the Prime Minister Zhu Rongji's administration, I think there was a speed up OOO of debt and enterprise in many areas.

To me, it's not very clear how Professor makes a prediction about the future. As mentioned in Professor Bosworth's paper which I think will be discussed tomorrow, I quote "the comfort of history is not a good guide to the future." Again Professor Yu's paper provides no information on the likely impact of the WTO accession on economic institution or development strategy of China. Is this WTO accession going to a) liberalize the closed capital account, or b) increase the role of private sector, and allow the establishment of private banks of domestic origin, is not very clear. And then all we know, from price report, the government allows banks to operate in more cities and serving much wider customer. And then also, c) will the WTO accession increase the use of market mechanism, particularly in financial sector, particularly in allocating credit, in setting interest rate. And it's not very clear to me what are the new economic policy instruments are available to the authorities in the future. Aside from this target and the administrative reform. Thank you.

Moderator: Since we are running out of time, I ask the organizer to extend this session by 10 minutes. So we are moving to lunch at 12:40. So please make your comments short so first Mr. Kwan and then Ms. Rossi.

Kwan: Professor Yu has not put it explicitly but as I understand it, the direct reason why China is running a twin debt surplus is that the government has been intervening in the foreign exchange market to keep the renminbi from appreciating. If China stops intervening and allows the exchange rate to be determined by the market at this moment it would mean allowing the renminbi to appreciate. Then any surplus in China's current account would be accompanied by a deficit of the same amount in China's capital account and also vice versa. This is exactly the situation we observe in the Euro area and Japan now.

Professor, you suggest that the twin surplus has led to upward pressure on the RMB, but rather I think the causality runs the other way around. That is, upward pressure on the RMB has led to the twin surplus as the government tries to maintain an undervalued exchange rate. In this sense, I agree with Catherine Mann in that the price is wrong. And despite the demerit of the current system, which professor Yu also pointed out in this paper, my question is why the Chinese government has hesitated to move a more flexible system at a faster pace. What kinds of reform need to be implemented in order to transit to a truly floating system and how long would it take to realize that?

As the first step in this direction, China has moved recently from the traditional dollar peg system to what Professor Yu has described elsewhere as a BPC system consisting of a band for fluctuation a basket and crow. Movements of the RMB for the last four months has shown that the range of fluctuation of the RMB on a daily basis has been kept within a plus minus 0.1 percent rather than the official number of plus/minus 3 percent. In terms of the currency

basket we don't see any strong synchronization between the RMB rate and any other currency…. So it's safe to say at this moment, that the weight of the dollar in the basket is still close to 100 percent. And in terms of the rate of crawling if you add the time trend to the regression analysis you find out that it's now, the RMB is appreciating at annual rate of about 1.5 percent. So my final question what would be China's next step in RMB reform? Would the band be widened? Would the weight of the Euro and yen in the basket be increased? And would the speed of trawling/crawling? be accelerated in the short term? Thank you.

Rossi???: Thank you. I do think that in this context of discussions about the Chinese exchange rates as I've frequently put it in talks over several years, won't you be extremely careful what one wishes for in life. What must be clear is that for exchange rate reform to do very much, you're going to have to more capital account liberalization as well. Now, we did hear the point already that one should be slightly careful about assuming that current account surpluses will stretch on and on forevermore, we might be slightly skeptical about some of the immediate prospects of turnaround. But it is clear that some of the trade surplus this year, is probably unusual and probably would disappear, or at least would reverse to some extent.

But what's much more important here is the capital account. And I think we should, since this conference is focusing on capital flows, mention or perhaps comment on the fact that capital in and outflows from China under a closed capital account have been as high as plus or minus some 100 billion dollars. That's putting aside the FDI, take that out of the equation. So we have in the past seen sizable capital outflows, in the last few years we've seen sizable capital inflows. If you liberalize China's capital account one has to be careful about what may possibly happen over the future years. I think it's almost unimaginable at the moment, looking at the reserves bill to think that balance of payments problems could occur. But with the scale of these flows, it's not impossible and we should be extremely careful about these prospects and of course, in what would be likely to happen with those flows.

We've already mentioned before the fact that in Japan you held very high proportion of assets in liquid instruments. In China, you have almost 200 percent of GDP held in highly liquid deposit accounts in the banking system. I think this is something currently like 3 trillion dollars. What proportion of this actually might start to move if you open up these accounts. I think that we've already understood by now that China is a very large beast in the world economy, it functions, it's big in trade, it's likely to be the number one in for ex reserves, it's the number one in other things too. And if we look at these capital flows, we have to be careful what way we think this is going to go to. And just remember this could also be a very sizable beast. And I think a few more comments along these lines might be extremely useful. Thank you.

Moderator: So, Mr. Aglietta.

Agletta: Yes. So, I'd just like to say how much I disagree with Catherine Mann's strong statement about the exchange rate of China. Because it is very easy to say that China's exchange rate is undervalued but if you want to be useful, especially for policy recommendation, you should say how much. And to say how much, you need honesty made it will OOO exchange rate. And what I know about that and studies they range from zero to 45 percent of real devaluation. So, there is absolutely no conclusion that can be drawn upon. And from the best studies we have right now. And the differences between the results depend on the predecessors of the scholars who make the studies in the hypothesis they make. So, in this kind of country where it is very appalling to find out the way to estimate a OOO rate, I think that we should be very careful. And especially the figure.

You mentioned with the graph by the IMF when the basis was 1980, everyone knows that in 1980 the prices in China have nothing to do with market prices. So the devaluation of the 1980s where just to put the prices in a market system and so that the devaluation of the 1980s had absolutely nothing to do with any model we know. If you take the basis in 1995, you find a real appreciation of the Yuan, it is not very large, but a real appreciation.

Finally, final comment about that about when you advocate the Samuelson relative price, everyone knows that it has nothing to do with China. Because for relative price effect, we need an emerging youth, well working labor market for the increase in productivity in the traded sector to be conveyed upon increased prices in the non traded sector. In China, you have 200 million of non-used labor force so there is no labor market that can be conceived as making emerging labor place. So the labor market will be segmented for decades. And there will be no conveyance between the price of the productive sector and the price of the less productive.

So you can't apply, you cannot apply in any way, the teaching we have in macro-economic theory because the teaching is related with full employment and with countries that specialize between different sectors and so on. And China has no way to specialize because if you are a big long term structural unemployment you can produce all around the sectors without any specializing in one sector against one another. And we have to understand that the world economy is now within this challenge of two huge countries, of China and India. That makes a world in underemployment for a long run to go and the relative prices are absolutely, when you don't have the hypothesis of full employment, relative prices do not convey any fruitful information.

Moderator: OK. Barry, Tsutomu and then Frederique, in this order. I would like at least to give 5 or 6 minutes to Mr. Yu.

Eichengreen: I'm tempted to cede my time to Catherine Mann but only the second half of my time. I think this is a fascinating and nuanced discussion, 99 percent of which is beside the point. Understanding how rapidly and I do think as I am about to say there is one important law of macroeconomics that applies directly to China and to this discussion. It's called the savings investment balance and the identity between the savings and investment balance and the current account which was the point of departure of Professor Yu's paper, but I think then the discussion fuzzed up.

What's remarkable about this case, is that we have a rapidly growing economy running an investment rate of what, 45 percent of GNP or some number in that neighborhood, in current account surplus. Seems to me the first thing, or the only thing we should be talking about in the focus of our discussion ought to be these extraordinary savings rates in China today. That a country running an investment rate of 45 percent of GNP can more than finance all of that investment out of domestic savings. There's something really bizarre and or the academic term would be difficult to understand about an economy that is growing so fast and is still relatively poor. That if you believe the statistics, has a savings rate in excess of 50 percent.

Those numbers might be off a little bit, you know, Chinese statistics have their quirks, they tend never to move and it could be, and I think the current account numbers are undisputed, so maybe both the savings and investment numbers are biased upward a little bit but only a little bit. All of these other subsidiary concerns, like what is the real exchange rate, do they have a labor market that works, look at all this FDI, and are they reinvesting the profits or not, is only really relevant to the issue at hand, it seems to me, in so far as it influences these extraordinary savings rates.

So, the question is: Why do the Chinese save so much? Is it slow adjustment of consumption to rapidly rising incomes? Is it financial underdevelopment, is it the absence of a social safety net, is it the insecurity associated with rapid structural changes, is it demographics? And once you tell us why China saves so much, how long is it going to last?

Watanabe: I have a small comment about Balassa-Samuelson. Dr. Mann said that we need appreciation of the currency which means that price of tradables must fall relative to the price of non tradables. Of course, Dr. Mann said that we need the decline in the absolute price of the tradables to achieve this change in the real exchange rate.

In another way of course, we can achieve the same outcome by raising the price of domestic price of non tradables because by doing that we can achieve real exchange rate adjustment even if we keep the price of tradables unchanged. And if you recall the Japanese experience in say the 50s or 60s, we were in an early phase of industrialization of course, and we can observe that the price of tradables fell relative to the price of non tradables, although we were keeping the fixed exchange rate system. And which means that we were allowing the price of non-tradables to rise and by doing that we achieved the relative price adjustment so my point is that, exchange rate adjustment is not indispensable element to achieve necessary relativized changes. We can achieve the same outcome by doing say something like, very expansionary monetary policy. By doing that we can have high wage inflation or high inflation in terms of non tradable goods. That was exactly what we did in the 50s and 60s. So we still have an alternative solution.

Moderator: Ms. Sachwald

Sachwald: I have a short question about FDI. Would you have a comment on round-tripping and how it is evolving?

Moderator: And finally Mr. Ujiie.

Ujiie: It's not question, just comment. There's something which bothers me a little bit. Your comment about strict condition of reinvestment of 100 percent. Since I've been involved in business with your country for over 20 years, it's not easy to invest but it's fairly difficult to repatriate profit. And therefore restricting, putting strong restriction on, reinvestment of 100 percent or something similar to that, it would probably have significant impact on FDI so I just make comment it bothers me.

Mr. Yu: I think 7 minutes is not enough. But I will try my best. First, I would like to express my appreciation of those comments, especially those critics which were thought-provoking. I will try my best to incorporate those criticisms and suggestions into my future paper. And then I got at least 9 questions or comments. I will respond to those one by one very quickly.

Firstly, the exchange rate is a very important issue. I've been talking about this influence for more than three years. So I'm fed up. So, this is very important reason why I mention this in my paper. Besides, I was assigned to certain topics so I have to decide which I will talk more or less and so on. So, unfortunately I may have miscalculated people's interest. So next time I will make some remedy. As for exchange rate I think it's an important element. But I don't think it is Hamlet, the Prince. Maybe at most it is Ophelia, I think that would be a good enough. And I have a great sympathy with Mr. Watanabe and I don't think really in China, exchange rate is the key. But I argue personally for many years, it's a very important element, even indispensable element, OK.

Secondly, about WTO entry, I think this is sort of an omission, personally I lead a research group to study the impact of WTO entry on Chinese industries and so on and because the result is quite controversial at this stage, we are still watching the consequences. At the initial stage it is very good, better than people expected. But what will be the longer term effect, that is still questionable and but next time I will think about it and incorporate the comments on WTO entry into my paper. And Mr. Nasution, you mentioned lots of elements of reform and so on, and actually in my first draft of this paper I have a section on Chinese institutional reforms and so on but in order to sharpen the focus, I deleted all of them, and I think many pages. And if you want me to include them, that's very easy.

Thirdly, the question, I should emphasize I have been talking about this too often, I was quite annoying for lots of people within China. So, anyway, my opinion is that China should further its reform of exchange rate regime and should allow RMB to have a bigger flexibility. For example, we can just copy Singapore's regime and I think Singapore should be a good example for China's further reform or change in regime. And I entirely agree with Ms. Rossi, I think her opinion on China's capital account reprisation so on and so forth, very thoughtful. I think it's very helpful. And by the way, I worked for Oxford Economic Forecasting Center in the late 80s for a while.

And the fifth, I think I forgot the question. There's one thing I think I should emphasize is also related to the role of exchange rate. I think that we must realize that up until 2002, people were expecting RMB to devalue and people changed their minds starting from later 2001 or early 2002. Only after a paper published in the Financial Times by Mr. Kuroda and Kawai, people started to think about undervaluation. But what I'm trying to answer is that even before that China ran a current account surplus and capital account surplus consistently. So you cannot use the exchange rate alone to explain why China has been running twin surpluses consistently for more than one decade. What I'm trying to say is that the whole picture is very complicated. On the stage there is Hamlet, Ophelia, the Father and so on and so forth and the OOO stepfather. OK?

And sixthly, I entirely agree with the various opinions of the importance of savings. I guess you didn't read my paper. In my paper, I actually spend quite a big space on explaining why China has such a high savings rate and so on. And the same comment as made by Mr. Watanabe, I thank you for your support. OK. But of course, my opinion may be milder than yours and I still think it's important to revalue because of course we can make imbalance more balanced by manipulating supply and demand so we can achieve the same kind of results but the costs may be high. So still I think revaluation is still unnecessary.

Then lastly, Ujiie-san, I think you misunderstood me. I just used this as sort of a theoretical assumption to simplify the analysis. Of course there should be no rule on this, you can remit whatever you want, 100 percent and no problem. So don't worry about investment in China you can take away anything. OK. Thank you very much.

Moderator: Thank you very much. We have a very lively discussion and we'd like to thank the organizer of this. Yes, Catherine.

Mann: Since many of the comments were about my real exchange rate.

Moderator: OK. I'm sorry. So I'd like to give one minute.

Mann: OK. One minute. My only comment is I was talking about traded and non traded goods. I wasn't talking necessarily about the, Renminbi-dollar exchange rate. This is about the PT over PNT. It maybe that that's easiest to achieve, a change in that relative price may well be easiest to achieve.

And I disagree completely with your comments that the PT over PNT has no relevance in a market where labor markets are not flexible. I think you're just wrong there. It's an important relative price whether the markets are flexible or not. So, I'm talking about prices of traded and non traded goods here not necessarily about one nominal exchange rate.

Moderator: Further discussion can be carried out over lunch. I'd like to pass my chair to the organizer.

Kobayashi: Well, let's have lunch and although we are about a quarter of an hour, fifteen minutes late, behind schedule, but we would like to resume pace in the afternoon and get back to work as scheduled at 13:40, 1:40. So please be ready to restart the session at that time. Thank you very much for your cooperation.