

**GENERAL DISCUSSION**  
**Asiaphoria Meets Regression to the Mean**

**Chair: Reuven Glick**

**Mr. Glick:** So let's take questions from the floor. Please keep your questions on point. We'll start with Martin Wolf.

**Mr. Wolf:** I'd like to talk about corruption and growth, because it seems to me that, Lant, you and your two discussants have all brought it up. First, Lant, you talked about how corruption and GDP are related, but surely there's another interpretation for this relationship. Developing countries can grow at 10 percent and occasionally they do, and developed countries can't grow at 10 percent and they never do. If corruption tends to be higher in developing countries, corruption will appear to be correlated with GDP. But this result need not have anything to do with corruption. For as long as rich countries never grow at 10 percent and emerging countries which have high corruption occasionally can, you'll find a correlation. This point also relates to Professor Hsieh's discussion, and perhaps Rob Feenstra's comment. You're presuming there are competing rent extractors in developing economies. It sort of reminds me of Mancur Olson's stationary bandits and roving bandits. You're saying that they're all stationary enough to do things that will raise the GDP level rather than just extract. But why aren't they just exploitative rent extractors in the way that so many Indian local bosses are? They don't develop anything. There's something in the system that forces the exploitative bandits to be productive, but what? That wasn't clear to me from your story.

**Mr. Hooper:** Well I thought this was a very interesting statistical analysis that came to a relatively negative conclusion that China's growth will revert to the mean. China's growth over the last two decades of course has been 9 percent plus. My question is, what is the mean in China's case? And as an observation, you noted that this was a statistical analysis. And you admit you aren't taking into account much of the specifics of what is going on in China's economy. Absent that knowledge, you make a very appealing argument for an inevitable slow-down in China. But we do know some things about China. For example, coming up is a potentially seminal event, the third party plenum. And the sorts of things we're hearing out of China that could come up suggest a dramatic move towards

privatization of the economy, including financial liberalization, including awarding thousands of new banking licenses to deal with this shadow banking system. Chang-Tai Hsieh mentioned this. Certainly, freeing up interest rates and allocating credit away from the state-owned enterprises, which Rob Feenstra mentioned, tends to be a drag on the economy, but encouraging credit expansion in 70 percent of the economy could potentially add substantially to growth. Other items up for consideration include demographic shifts, like moving from a one-child to two-child policy over time, which could add significantly to growth for the next two decades. And perhaps most important, there is the potential for major land reform, such as giving farmers title to their land. This would create a dramatic shift, a massive reallocation of wealth, moving agriculture to a more privatized system into the hands of folks who could then begin to invest and increase the productivity in a sector that is way behind. As Rob notes, the reason per capita income is so low in China is that it has an agricultural system that is way behind the times. We've seen many civil unrest events in China in recent years caused by the corruption that Martin talks about. But I think maybe your point would be moot if, indeed, we get this land transfer. The bottom line is that there is the potential for privatization giving us another decade of near double-digit growth in China. So reverting to the mean might be the case if there weren't something going on, but we know that things are happening.

**Mr. Glick:** Okay, one more question for this round. David Dollar.

**Mr. Dollar:** Thank you very much. I enjoyed all the discussion. Actually, this is really more of a comment. Chang-Tai and Rob, I actually thought you helped Lant make his case very nicely because I really took his main point as being that there's tremendous uncertainty looking ahead to any country's future growth, China and India included. And Chang-Tai and Rob, I thought both of you had good stories that helped us understand that uncertainty. Chang-Tai, I like your model of growth in China in terms of 3,000 Suharto-like crony-capitalist bosses competing for business and success. It may answer part of Martin's question, but what you didn't add is that local officials are promoted based on the growth performance of the economy. That's the mechanism Deng Xiaoping set up, to start as a local head of a little fief and then move up to be in charge of a provincial fief by generating growth. So they've created a system where there are powerful incentives for local governments to make things grow and lots of rent-seeking opportunities. But you didn't have enough time to get into how that all ends. You could easily imagine this mechanism eventually winding down with some very messy political transformation, which would fit in nicely with some of Lant's negative outcomes.

Rob, I take your point about Chinese students coming to the United States. I think there are 200,000 Chinese students now studying in the U.S., and that reflects a tremendous sacrifice for parents who desire that their children get a great education at places like UC Davis. But it also, frankly, represents hedging on the part of middle class, upper middle class, and wealthy families in China. They want their children to come to the United States, get educated here, buy property here, maybe have a baby here, and maybe get a U.S. passport. If you get the kind of political event that might come out of Chang-Tai's story, you could very well have a lot of the more well-off people leaving China. So it's easy to see how you could get some very negative scenarios of the sort Lant has suggested that we had better be aware of. The fact that China grew well for a long time does not at all ensure that it's going to continue to grow well.

**Mr. Pritchett:** In response to Martin's question, I did not mean to say anything about corruption per se. I could have used any number of other indicators of institutional strength and would have gotten the same result, that good institutions are not necessarily associated with higher growth. The difficulty is that a lot of the dominant discourse suggests that having good institutions is a major driver of long-run prosperity. That's a great story, and I think it helps explain why you're rich or poor, but it doesn't explain growth, that is, how fast you're headed towards being richer or poorer. I view corruption as a symptom of a weak institutional environment and don't put a lot of weight on it as a barrier to growth. What we see is a huge upside for poor countries, which means they can grow at 10 percent, whereas if you're at the frontier of total factor productivity, you can't catch up as rapidly. My point is that the dynamics we see are not the result of any advantages of economic backwardness. Gerschenkron told the story that, if you're behind and you're poor, that means you're going to catch up very quickly because it's easy to import productivity that exists in the world into your domestic economy. But what we've learned is that for very extended periods there has been zero convergence in per capita incomes. In fact, there's been massive absolute and some relative divergence in incomes, which means if you have weak institutions then you tend to persist in having weak institutions. And so what I am arguing is that countries with weak institutions have very volatile growth, which means having rapid growth is less predictive of better future growth if your institutions are weak. So I'm taking off the table this natural convergence argument, that because you're poor you're likely to grow fast.

Which moves to my response to Peter's argument. It is possible that China will do the right thing and so continue its super rapid growth for another 10

years. But we should center our expectations on the experience of lots of other countries that have had extended periods of growth. Keeping a period of rapid growth going requires active motion forward, which very few countries have been able to sustain. So I'm not discounting the possibility that the third plenum will go well and they will initiate reforms. To make an analogy, consider the path a thrown baseball follows, but you didn't see who threw it. If I threw it, the baseball would have a gravity trajectory that would tail off embarrassingly quickly, but if it were thrown by a professional baseball player, its trajectory might continue much longer than mine. But it would have to go a long ways before you would say that the law of gravity has been repealed. So I'm just saying the gravity trajectory of China should be our default trajectory. They may be stronger and better and more clever in keeping it going than we think, but that's just one scenario. In my mind, it shouldn't be the default scenario, given how hard it's been in so many other countries to keep that going.

Finally, let me go back to David's comment on the view of Chinese growth based on competition of 3,000 Suharto-like bosses. I have a paper where I look at the World Bank's Doing Business indicator, which shows how hard it would be for you to start a new firm if you followed the law. Well, that may or may not be relevant to how long it would take you to start a business in China, right? We use firm-level new activity data and the Doing Business indicators, and find that they're completely uncorrelated across countries. So the environment for doing business in China is, in fact, terrific. People want to do business in China, they just don't do business following the law, and that's the tension that creates measures of corruption. But corruption is not the primary phenomenon. The primary phenomenon is, why is it good to do business in China when you don't, in fact, have any assurance from the rule of law that will continue. That's what creates the tricky transition that China has to confront sometime. Maybe not this year, maybe not in two years, but sometime in the coming decade things will come to a head politically.

**Mr. Hsieh:** I'll say two things in response to Martin and David. In thinking about corruption in China, I would say it's the major source of social tension in China. In Chinese blogs it is one of the main things that people talk about. If you think about the Suharto model of growth, it has also been the engine that has made the system work. In many places of the world, corruption is what I call inefficient in the sense that these places have grown the fastest. Shanghai, for example, is massively corrupt, but in a way that basically turns the local party secretary into the residual claimant. In fact, there's been a dramatic transformation in the city of Shanghai in the last 15 or 20 years. All of the

transformation was driven by land expropriation. All of the Pudong area was expropriated from the farmers. Two-thirds of the people who used to live in the traditional downtown business district were expropriated and moved out to the suburbs. What are the consequences for efficiency, that is, what was the marginal product of land in Pudong 20 years ago relative to now? It seems clear that it's higher. Now who got the rents from that? In other societies it's the people who formerly owned the land. In the case of China, it's not.

Regarding David's comment, I think he's right in some cases, that the desire by officials to pursue policies that help growth often depends on the probability of promotion. But my sense is that this is something that only works for the people at the very top tier. The guys in these obscure Chinese cities of 200,000 people, they know they have no chance of getting promoted. In places like that, it's all about wealth, and future growth depends on enhancing efficiency and redistributing assets acquired by wealth creation practices. In other places, there has been wealth redistribution with very little efficiency consequences. Where China's overall wealth distribution is going to go, I just don't know.

**Mr. Hope:** I'm Nick Hope, from the Stanford Center for National Development. I've heard a lot of provocative stuff. Lant, you couldn't make a safer bet than that Chinese growth will slow despite the massive investment they continue to indulge in. I think you're right, we're all waiting with bated breath until November 9 to see whether they'll put the reforms in place that will allow future growth to be higher rather than lower. But you can take it to the bank that growth this year will be 7½ percent. President Xi guaranteed it. It might be 7.6 percent. It'll be a brave statistician who would say only 7.2 or 7.3 percent.

I want to take on Chang-Tai because I simply think that Suharto is being libeled. The model that Suharto supported was not everything for his family and friends and nothing for anybody else, it was actually something for everybody and more for his family and friends. Suharto remained in power for many years because he paid great attention to the fact that all boats should rise. He came from a poor farming family in Central Java, and he conducted policies that we didn't really think too much of. He subsidized pesticides. He subsidized irrigation. He subsidized seeds. He subsidized fertilizer. But when he lost power, it was largely because incomes that had been going up at 5 percent a year for virtually everybody suddenly went down by close to 10 percent a year during the East Asian crisis. There was a 15 percent change in income among the poorest, and people not unreasonably objected. Why do I raise this issue? I think this is the situation in China. I think the Communist party rules because it's got this explicit social contract that we do what we want, and we get away with

it because everybody's material well-being is increasing. So the central government sweats all the time about rising inequality and that, if growth slows too much, they can't provide rising incomes. They're trying their best to do it through wage increases, which seem to be extending now from formal wage increases that we can measure into the informal sector, such as the construction industry, where for a long time the Lewis growth model was more appropriate than it was in the big state enterprises or the government. This is a major distinction between China and India. India doesn't seem to have the constraint that they have to do something for the very poor, but China does. And this is where we could run into a Suharto problem in China. If something goes badly wrong and that social contract is broken, then I look for the Chinese growth rate to slow dramatically and quickly.

**Mr. Williams:** I have a question on one of your tables. The way you set up the analysis, is to look at an episode of high growth and then see what happened when that episode ended. It seems the question people really are asking is a little different. That is, if you have had an episode of high growth of, say, eight years, what will your growth rate be on average for the next 10 years? Another way to put it is, what's happened in China so far is eight standard deviations from what your analysis predicts because it's essentially a third of a century when you put the two episodes together. That would actually get at the question of, if you've been having high growth, what is the probability for high growth in the future. That would also include all the amazing stories of China, Taiwan, Korea, and others that obviously did have decade-after-decade episodes of ongoing growth.

**Mr. Ostry:** Lant, I think development economists and growth economists owe you a great debt for having focused on the discontinuities in developing countries' growth performance and how they differ fundamentally from the smooth performance of industrial countries. I was wondering what you thought about an approach that focused primarily on the duration of growth episodes. I say that not only for self-serving reasons but also because I want you to comment on something that hasn't come up much in the discussion so far. If you look at growth duration you highlight the quality of institutions and a number of Washington consensus variables as being very important, like openness to trade. But what comes out clearly as very important for developing and emerging market countries as well as industrial countries is inequality. We don't yet fully understand what all the channels are, but they probably relate to the environment for investment, both of physical and human capital, political instability, and so on. Do you think the rise of equality in China might undercut longer-term growth

prospects, as others like Rajan and Stiglitz have argued has been the case for industrial countries?

**Mr. Glick:** Two more questions and I'll have to close the list.

**Mr. Choi:** This is Woon Gyu Choi from the Bank of Korea. I have a comment associated with the case of Korea. Korea's real GDP is now 65 percent of U.S. GDP and is expected to stay around the same level through 2030 if the population aging problem is not well addressed. But if labor market issues and the population aging problems are tackled appropriately then we could rise to 85 percent of U.S. GDP by 2025. This suggests that there is still room for progress by strong emerging markets to move towards the frontier.

**Mr. Glick:** And the last question goes to Kei-Mu Yi.

**Mr. Yi:** Kei-Mu Yi from the Minneapolis Fed. This is a question for Lant but it also bears on the first part of Chang-Tai's discussion. As you know, there's a widely used empirical framework for thinking about long-run growth, starting with Barro and Mankiw, Romer, and Weil and refined over the years. That framework is grounded in economic theory, the Solow growth model adjusted and refined to include things like institutions and policies. That framework basically implies conditional convergence controlling for institutions and policies. All else equal, countries that have higher per capita income grow slower in the future. There's been a lot of empirical work in the 1990s and part of the 2000s using aggregate data that is fairly consistent with this theory. I personally consider it one of the successes in macro in terms of empirical work and theory working together. So why didn't you take the state-of-the-art conditional convergence framework and plug in China's numbers? That framework, of course, would predict that China's growth rate will slow down over time. That's the main lesson, that as China gets richer, all else equal, if its institutions and policies don't change it should slow down. As a benchmark, you can get a prediction of what its growth rate will be 10 years from now, 20 years from now, et cetera, and maybe compare it with the work that you've done.

**Mr. Pritchett:** Let me comment on that and work backwards. The reason I didn't do what you suggest is that I don't believe that research is very useful. I've written a lot of papers about why, but I actually think it's mostly ad hoc. It's not theoretically well grounded and doesn't, in fact, have a good track record of predicting future growth. If you used the best kind of growth regression model of the 1990s and predicted who was growing fast now, it doesn't work very well, and if you did that for the 1980s it doesn't work very well. So the variables that

are thrown in on the right-hand side morph to fit the current data. I don't like that literature at all. I've been fighting against it for 10 to 15 years and that's why I didn't start with it. That said, lots of people would do that and maybe that would work.

The second problem though is, if I'm going to count on conditional convergence then I have to forecast the conditioning variables. So if I'm going to use a relationship of  $Y = \beta X$  to forecast what happens to  $Y$  in the future, I've got to know  $X$  in the future. Well,  $X$ 's break down into two kinds, those that I can't predict into the future and those that I can predict, usually only because they tend to be stable over time. So it's most useless when we want it to be the most useful. Second, coming back to Korea, it happens to be, along with Taiwan, one of the few countries that has successfully managed this institutional transition from authoritarian and, frankly, guided by networks of relationships that one might call corrupt if one weren't being careful, into more transparent rule of law-based and politically sustainable democratic institutions. But the fact that only two of the 120 countries have managed to go from 5 to 65 percent growth and simultaneously manage the transition to democracy suggests it's really hard. And, hence, we should expect few countries to do it. Again, it's not impossible that India and China could do it, but our default expectation should be they're not going to do it, or they will probably perform more like the average than the outliers Korea and Taiwan. I don't doubt that Korea and Taiwan can continue further growth now that they've made this transition, but are they a good model for what will happen in India and China or not? I don't know, and I don't assume that just because parts of Korea used to touch parts of China they're similar in the relevant dimensions.

Which gets to Nick's question, what really was the Suharto model of development? With weak institutions and no clear rules, the economy depends on being able to make good "deals." Our analysis of the enterprise surveys from the World Bank versus the Doing Business surveys says if you want to know how many days it will take you to get a license to open a factory, it's not where you are, it's who you are. You can create favored firms and investors, but they still have to pay off to be profitable for you. If you can create a favorable environment that provides secure profitability expectations for investors conditioned not on their stealing money from other people but rather by being productive even with protection of the market, that can be a terrific environment for growth. That has nothing to do with having good rules, it's all about fostering good deals.

But the difficulty with deals is making the transition from one set of institutions to another, which gets to Jonathan's point. Jonathan's done great work showing that a lot of the persistent growth differentials we observe over time



reflect how long countries stay in good states versus shifting into bad states. And if we know there's a strong long-run relationship between institutions and GDP levels, then to continue on a growth path your institutions have to be improving. Because if you're not on this kind of dynamic, sooner or later your growth path will be cut short, often in a very dramatic and messy way, resulting in negative growth or long periods of stagnation. Managing this transition is strongly related to reducing inequality—not generic inequality in the sense of the Gini coefficient, but in the sense that can you make attractive, productivity-enhancing deals available to more and more investors in an orderly way. So the important question is whether policy brings more and more people into the favorable growth environment, such as Suharto was able to create for a large number of investors, not just for himself, or do the dynamics of inequality feeding back into the politics and institutions make that circle of investors narrower and narrower. The Suharto development model stopped when, even among the set of the military, largely ethnic Chinese conglomerates, and a few favored others, the set of favored investments began to narrow, inequality kicked back and blew the system up. So is inequality increasing because your cronies are capturing more of the favored deals, garnering the resentment of others outside that can torpedo the institutions? Or, as Peter just suggested, is the set of investors subject to these favorable deals getting wider and wider to the point it can morph into essentially being a new set of rules? This is the key question I've been trying to work on. It's very hard to model, to get data around, and to think about. But the upshot is, this transition is hard, and when inequality starts to spiral as it has in China, and almost as much in India, it's a sign that you're probably not on a sustainable trajectory towards better institutions because fewer other people are capturing more of the gains, rather than more people capturing more of the gains. That's not a path to the kinds of institutions that will sustain the kind of prosperity that Korea was able to achieve.

I do think that is the right point, and in the current paper, we're in-between the two points. Regression to the mean just shows you growth calculated average to decade to average to decade, whereas what you really want to know is, conditional on having a growth episode of a duration as long as China has experienced so far, what's the unconditional forecast that the episode will come to an end. I think doing the calculation you suggested is a good idea.

**Mr. Glick:** Okay, I want to thank Lant, Chang-Tai, and Rob for their presentations.