



## Global Imbalances and the Chinese Economy

JOHN MAULDIN | September 18, 2015

If we don't understand both sides of China's balance sheet, we understand neither  
– Michael Pettis

The most thought-provoking China analyst I know is Michael Pettis, author and economist, who is a professor at Peking University's Guanghai School of Management as well as a rock music club owner and impresario. Conversations with Michael are always fascinating.

He has a fairly balanced take on China's future, which is significantly different from most of what you read. That's because he comes at understanding China's problems in terms of balance sheets rather than macroeconomics. So five years ago he was telling us there was going to be a real debt problem in China because he understood the nature of balance sheets and China's balance sheet portended further growth.

In his latest blog, which is today's OTB, he ventures rather deep in the weeds in order to understand how of China's balance sheet problems are now going to constrain its potential future growth. Let me quote the first few paragraphs:

With so much happening in China in the past month it seems that there are a number of very specific topics that any essay on China should focus. I worry, however, that we get so caught up staring at strange clumps of trees that we risk losing sight of the forest. What happened in July this year, and again in August, or in June 2013, or a number of other times, were not unexpected shocks and game changers. China is a dynamic and unbalanced economic system entering into something that we might grandly call a "phase shift", or less grandly the rebalancing process, and that it is doing so with a great deal of debt structured in a highly inverted way. Anyone who sees China this way would have been able to predict not so much the specific shocks, panics, and credit crunches that we have experienced, but rather that we would of necessity experience a series of very similar shocks.

These debt-related shocks will occur regularly for many more years, and each shock will advance or retard the rebalancing process so that it affects the way future shocks occur. There are only a few broad paths along which the Chinese economy can rebalance, and if we can get some sense of the China's institutional constraints and balance sheet structures, we can figure what these paths are and how likely we are to slip from one to another.

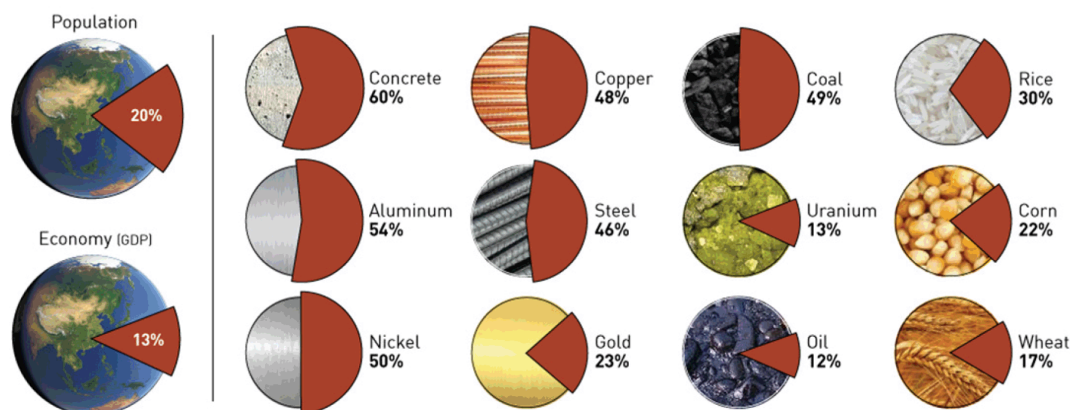
In order to get China right I would argue that above all we must understand the dynamics of debt, and of balance sheet structures more generally.

A China that slows down to “only” 3 to 4% growth is a China that buys materially less resources from around the world. My friend Barry Ritholtz published the following chart, which shows the amounts of raw materials that China buys as a percentage of world production. If debt fueled growth built around infrastructure and increasing capacity slows down, which if Michael is right it must, that is going to have significant impact on the prices of raw materials and on the stocks of those who sell them.

Chart of the Week

## CHINA CONSUMES MIND-BOGGLING AMOUNTS OF RAW MATERIALS

...and that's why slowing growth may continue to cause headaches for commodity producers



visualcapitalist.com



Let me issue a bit of a warning: the last month or so the essays in *Outside the Box* have been relatively brief and pretty easy to grasp, I think. This one is not in that vein. You will need to don your thinking cap on and focus a bit more than is normal for an *Outside the Box*.

While everybody gives lip service to how important China is, if you understand the underlying dynamics, China's significance is even more impressive. My team at Mauldin Economics has created a very professional documentary on China, which you can register to watch for free [right here](#).

Depending on where you are in the email queue (it does take a while to send out almost one million emails), you may or may not get this before this evening. I, along with a sizable portion of the American electorate, spent Wednesday evening watching the Republican primary debate, to see who would be the next candidate voted off the island. Who knew primary debates would morph into reality TV? I am absolutely fascinated by the process. And while the Republican Party holds my focus, I have to admit that what is developing for the Democratic Party is almost as intriguing. Next year's presidential election is shaping up to be a surprise.

The biggest surprise so far is that 60% of Republican voters favor an outsider candidate with no real political experience. I thought that Ben Carson did well in the previous debate but wasn't all that boffo. However, he has been climbing up the leaderboard, and I wouldn't be surprised to see him atop it at some point in the cycle. Remember, however, that we saw a lot of people at the top during the last primary runs. It seemed everybody had their moment in the sun. An interesting thing about Carson is that so far the really big money hasn't gotten behind him – it's a lot of small donors who are carrying his campaign.


To the political junkies among my readers let me offer a link to a video conversation between Bill Kristol and Newt Gingrich on what these two seasoned political hands see in the presidential race on both sides. Newt is a friend, and I value our times together. I know this may seem strange, but I actually enjoy talking technology in history with Newt more than I do politics, although we can never avoid the latter topic. I have had a few discussions with him in the past month or so about the race, and it's fun to watch him talk dispassionately about the process (now that the pain from four years ago is past, and he's not running now). He is surprisingly more sanguine about Trump than I would have thought. I will admit that I am not.

One of the things that few people bring to the table like Newt does is that he not only understands the process of running for president, he knows all the candidates. I would be willing to take the over on the bet that he personally knows all of the Democratic candidates as well as the Republicans. For all the contrary press about him, he is a remarkably amiable and thoughtful man and a fascinating dinner guest. You can watch Kristol (whom I have never met) and Gingrich discuss the race [here](#).

And speaking of conversations, I just got off the phone with George Friedman. We were talking over the immigration crisis in Europe, which will be the topic of my letter this weekend. George and Meredith will be staying with me next Monday night after they get back from Europe. (He was walking around Vienna in the evening as we talked). I am sure we'll share another fascinating dinner. George is nothing if not entertaining. I enjoy watching Meredith try to keep him on track. They make a remarkable team, whether writing about geopolitical events or working for the CIA in Africa back in the day. Great stories that I wish I could write about. You'll just have to track him down one night and agree to an off-the-record conversation.

It's time to hit the send button. Buckle in for some serious think time with Michael Pettis.

Your trying to get a handle on information overload analyst,



John Mauldin, Editor  
*Outside the Box*

# Global Imbalances and the Chinese Economy

By Michael Pettis

September 1, 2015

*If we don't understand both sides of China's balance sheet, we understand neither*

With so much happening in China in the past month it seems that there are a number of very specific topics that any essay on China should focus. I worry, however, that we get so caught up staring at strange clumps of trees that we risk losing sight of the forest. What happened in July this year, and again in August, or in June 2013, or a number of other times, were not unexpected shocks and game changers. China is a dynamic and unbalanced economic system entering into something that we might grandly call a “phase shift”, or less grandly the rebalancing process, and that it is doing so with a great deal of debt structured in a highly inverted way. Anyone who sees China this way would have been able to predict not so much the specific shocks, panics, and credit crunches that we have experienced, but rather that we would of necessity experience a series of very similar shocks.

These debt-related shocks will occur regularly for many more years, and each shock will advance or retard the rebalancing process so that it affects the way future shocks occur. There are only a few broad paths along which the Chinese economy can rebalance, and if we can get some sense of the China's institutional constraints and balance sheet structures, we can figure what these paths are and how likely we are to slip from one to another.

In order to get China's right I would argue that above all we must understand the dynamics of debt, and of balance sheet structures more generally. Four years ago one of my clients sent me a research report by Standard Chartered in which their China analyst warned that while Chinese debt levels were still negligible, there was a chance, small but no longer insignificant, that credit growth could speed up sharply and debt eventually become a significant constraint for policymakers. Things were fine for now, the analyst seemed to suggest, but it was possible that Beijing could mismanage its way into a debt problem.

The overwhelming consensus at the time was that China's growth model was healthy and sustainable, and would generate GDP growth rates for the rest of the decade that were not much lower than the roughly 10% we had seen during the previous three decades. My client sent me the report along with the comment that the sell-side was finally recognizing that the Chinese economy was at risk. A leading analyst who had long been part of the overwhelming bull consensus was, he said, finally beginning to understand the Chinese economy and the problems it faced.

I wasn't so sure. It seemed to me that those who understood the Chinese growth model would have also understood that its overreliance on investment to fuel growth, combined with the structure of its credit markets, extremely low interest rates, and wide-spread moral hazard, made soaring debt almost inevitable, and that debt was already constraining policymaking.

To suggest that this might happen only if the new administration – that of Xi Jinping – mismanaged the process suggested to me that the analyst did not really understand the self-reinforcing relationship between rising debt and slowing growth, and was underestimating how difficult it would be for the new administration to break out of this process. It was going to happen almost no matter what Xi's administration did, and his administration would be very unfairly blamed for incompetence. At the time the research report was written there was an aura of invincibility about policymaking in China, so that warning about possible future policy mismanagement seemed like perfunctory prudence. But every “growth miracle” ends up follow the same credibility path, with what once seemed an unending stream of sophisticated and dedicated leaders at every level of policymaking suddenly and unexpectedly becoming an administration of clunky, incompetent bureaucrats, as foolish as the rest of us. When the miracle country outperforms expectations year after year during the expansion phase, we assume that brilliant policymaking is the cause, rather than– more appropriately, as I will explain– [inverted balance sheets](#). When this same balance sheet inversion subsequently causes the economy sharply to underperform expectations during the contraction period, our admiration for policymakers quickly turns [into contempt](#) for their [incompetence](#), usually tinged with bitterness that our forecasts turned out so magnificently wrong.

There is a very big difference between acknowledging that China has a lot of debt and understanding how debt and debt creation are embedded within the financial system, but the Standard Chartered economist, like most, assumed that the former implied the latter. In June the NBR's [journal](#) for Asian economic research, *Asia Policy*, put together a roundtable to review Nicholas Lardy's book, *Markets over Mao*. I was one of the five analysts who were asked to participate. Lardy is one of the best informed and most knowledgeable of the economists covering China. In my [review](#) I praised his book for the quality of its analysis, and it well deserves that praise.

But there was a fundamental disagreement in how he and I interpreted the data, and this disagreement extends to the majority of analysts covering China. Lardy believes China is in reasonably good shape economically and concludes with optimistic growth forecasts. Based on the same data and absorbing much of his analysis and interpretation of that data (I have been reading Lardy for many years) I expect growth to slow sharply. The current consensus for China's long-term growth, I think, is around 6-7%. Lardy has said “China could grow at roughly 8% a year for another 5 or 10 years.” I believe, however, that without a massive and fairly unlikely transfer of wealth from the state sector to the household sector, the average Chinese GDP growth rate under Xi Jinping cannot exceed 3-4%.

So why do we disagree? I suspect that we disagree for the same reason I disagreed with the Standard Chartered analyst, who saw an unsustainable debt burden simply as an unlikely but possible result of policy mismanagement. We disagree, in other words, not on the fundamental data but rather in our understanding of debt dynamics and the constraints the balance sheet can place on an economy's “fundamental” operations.

As I see it there are at least two important disagreements here. The first is about the impact of balance sheet structures on exacerbating volatility. Neither Lardy nor the Standard Chartered analyst spent much time discussing how the balance sheet might affect growth. For me, however, this has been and continues to be a key component of the Chinese economic “miracle”, and indeed also of every previous growth miracle. As I said in my review:

*Rebalancing is often harder than expected, in other words, not just because of opposition by vested interests, but more importantly because highly inverted balance sheets cause policymakers to overestimate potential growth during the miracle years. But when growth during the rebalancing phase contracts more than expected, the same balance sheet inversion that exacerbated the expansion phase will also exacerbate the slowdown, especially as declining credit quality reinforces, and is reinforced by, slower growth.*

I made a [similar argument](#) two weeks ago in a *Wall Street Journal* OpEd about why it is so important that Beijing maintain its credibility, which is the only way of ensuring that China's substantial balance sheet mismatches can be managed and rolled over:

*History suggests that developing countries that have experienced growth “miracles” tend to develop risky financial systems and unstable national balance sheets. The longer the miracle, the greater the tendency. That's because in periods of rapid growth, riskier institutions do well. Soon balance sheets across the economy incorporate similar types of risk.*

*...Over time, this means the entire financial system is built around the same set of optimistic expectations. But when growth slows, balance sheets that did well during expansionary phases will now systematically fall short of expectations, and their disappointing performance will further reinforce the economic deceleration. This is when it suddenly becomes costlier to refinance the gap, and the practice of mismatching assets and liabilities causes debt, not profits, to rise.*

## **Financial distress can be worse than a crisis**

The second misunderstanding is about why “too much” debt matters. For most economists, the main and even only problem with too much debt is that it might lead to a financial crisis, and that the fear of crisis undermines confidence and so can cause spending to drop. But while these are important problems, these analysts are mistaken in limiting their concerns to these two issues. While a financial crisis is certainly a risk, the damage debt does to an economy occurs long before any crisis, and for debt to be terribly damaging to an economy's long-term growth doesn't even require a crisis.

In fact one can easily make a case that while a financial crisis may be spectacular, it nonetheless limits the damage caused by excessive debt by forcing a recognition of the losses, only after which does the system begin to allocate capital efficiently. Until this happens, the adverse impact of debt on growth can persist for decades. A case in point is Japan. Japan never had a financial crisis or a banking sector collapse, but from 1990 to 2010 the amount by which its share of global GDP has declined, substantially more than 50%, far exceeds the damage caused to any other country by a financial crisis. Or consider the heavily indebted countries of Europe, like Spain, Italy and Portugal, who have avoided crises, but only in a way that makes it hard to believe that they are better off economically today than they might have been had they suffered a financial crisis in 2009 or 2010.

In my review of Lardy's book I try to explain why debt constrains growth, whether or not it leads to a crisis:

*The second way liability structures can constrain growth, while often poorly understood by economists, is actually well understood in finance theory. An economic entity will suffer from "financial distress" if debt has risen so much faster than expected, or growth is so much lower than expected, that economic agents become uncertain about how higher debt-servicing costs will be assigned to different sectors of the economy. This uncertainty forces these agents to react in ways that unintentionally but automatically intensify balance sheet fragility and reduce growth. This uncertainty is intensified if the debt burden rises and falls inversely with debt-servicing capacity, which almost always happens when economic growth is highly credit-intensive, and which seems to be happening in China.*

Because this seems so counter-intuitive for many people, it bears repeating. The problem with too much debt is not just that it might cause a crisis. The problem is, first, that debt may be "inverted", i.e. structured in a way that systematically enhances volatility, which means good times become better and bad times worse. This automatic leveraging-up of volatility has seriously adverse impacts on long-term growth. Second, when debt levels are higher than expected and growth lower (one of the nearly inevitable consequences of highly inverted balance sheets), if this divergence causes uncertainty about how the debt servicing will be resolved, the uncertainty itself forces agents to behave in ways that automatically reduce growth and increase balance sheet fragility further.

Lardy's [response](#) to my discussion of debt indicates, I think, just how much disagreement there is here and how easy it is for most economists to misunderstand what I think are the relevant issues – although in fairness it should be noted that he is responding to five separate reviews, and so this is unlikely to be his full response:

*Contrary to Michael Pettis's assertion, the book does give some attention to the liability side of the Chinese economy. I note the huge buildup of debt starting in the fourth quarter of 2008 and analyze the challenges this debt poses for financial stability. But in Markets over Mao I point out that China differs in several critical respects from other countries where rapid debt buildups have precipitated financial crises.*

*To begin with, China's national saving rate, reflecting the combined savings of households, corporations, and the government, approaches 50% of GDP, significantly higher than any other economy in recorded history. Like households, countries that save more can sustain higher debt burdens. Second, the vast majority of this debt is in domestic rather than in foreign currency... Thus, its debt does not involve any significant currency mismatch, a major contributor to many financial crises. Third, the majority of this debt has been extended by banks, and China's systemically important banks are financed entirely by deposits rather than through the wholesale market... Finally, the government has enormous scope to further increase bank liquidity should that become necessary. Other factors, too numerous to list here, also suggest that a banking crisis is far from certain in China.*

Lardy is not actually disagreeing with anything I said. In fact I fully agree with him that a banking crisis is unlikely, and have written many times that while it is possible, and the risk of its happening should not be dismissed out of hand, I do not think China is likely to have a banking collapse, any more than Japan in the late 1980s and early 1990s was ever likely to have a banking collapse. This doesn't mean however that China's debt burden is irrelevant.

## **A system of interlocking balance sheets**

Japanese GDP growth, after all, did indeed collapse as it was forced to rebalance its debt-laden economy, and this collapse in growth has lasted an astonishing 25 years, with, as I see it, still no end in sight. I would argue that Japan's debt structure explains the 25 years of low growth and will ensure many more years of low growth. During the first wave of excitement over "Abenomics", for example, I wrote on this blog and elsewhere that just trying arithmetically to work through the consequences on the country's debt burden of the success of Abenomics made it hard for me to see how Abenomics could possibly succeed in generating inflation and real growth without an explosion in its current account surplus that the world would not be able to absorb.

It was precisely because of China's debt dynamics that I began arguing in 2006-07, and contrary to consensus, that China's growth model was unsustainable, that its debt was rising too quickly and could not be reined in without a significant drop in growth, and that China had urgently to rebalance. The same logic made me argue in 2008-09 that China's adjustment was going to be brutally difficult and would entail at least a decade of GDP growth that could not exceed 3-4% on average. And yet I have always also argued that China's banking system, because of an implicit guarantee by Beijing, is very unlikely to collapse, and if one excludes things like the credit crunch in June 2013 or this month's stock market panic, we are unlikely to see a financial crisis unless GDP growth – and with it credit growth – remains at current levels for another 3-4 years at most.

This, for some reason, has been very hard for most economists to grasp – for example the most common "refutation" of my argument and that of other skeptics by so-called "China bulls" is nearly always something along the lines of "He has been predicting a crisis for six years and it still hasn't happened". At first I assumed that these bulls were being – perhaps understandably given how poorly their forecasts had performed – defensively dishonest, but I quickly realized that the same argument was being made by people I respected a great deal who were incapable of such a defence.

It wasn't dishonesty, I realized, but a failure to understand the economy as a dynamic system in which a) imbalances could persist and grow for many years before eventually rebalancing, b) the more rigid the institutional structure of the economy, the deeper imbalances were likely to get, c) the longer they persisted, the more disruptive the rebalancing was likely to be, and the less significant the "trigger" that set it off, and d) there are many ways rebalancing can occur, and the way it actually occurs depends on institutional constraints and rigidities. These economists seem to find it difficult to understand that an economy can have a very unbalanced debt structure, with debt growing at an unsustainable rate, so that there will be a significant reduction in future growth, but a crisis is only one of the ways, and not the only way and certainly not imminent, that this reduction in future growth can happen. It is only when debt is subject to a "sudden stop" that a crisis can be inevitable, but in many if not most cases there is no crisis.

Lardy of course is far more sophisticated than most economists covering China, but while he says that he “does give some attention to the liability side of the Chinese economy”, he mostly notes that there is a significant amount of debt, before going on to explain why he thinks a banking crisis is unlikely. He misses what I think are the most important aspects of China’s liability side, however, for example: the extent and nature of the balance sheet inversion and how it will exacerbate the economic contraction and convert refinancing risk into unexpected increases in debt, rather than unexpected increases in profits, as occurred during the expansion phase; or whether the reinforcing relationship between unexpectedly high debt and unexpectedly low growth will create enough uncertainty about how debt servicing costs will be allocated that it forces financial distress costs onto the economy.

These are the reasons debt matters, not just whether or not debt must lead to crisis, and the failure to address these reasons is, I think, typical of the kind of attention most economists give to debt, in China and elsewhere. It perhaps explains why economists have such a poor track record in predicting economic reversals – the models they implicitly use make it hard to understand and quantify a dynamic rebalancing process.

It is neither enough to note the amount of debt a country has or to speculate on the probability of a debt crisis. What matters is the systemic role of debt in generating economic activity, the feedback processes that are embedded in debt structures, and the uncertainty that may arise about the resolution of debt-servicing costs. To summarize, there are at least four important issues to consider:

1. It is possible to structure an economy in such a way that excessive debt creation is not a “choice”, not even a bad choice, but is instead the automatic consequence of institutional constraints within the economy, and in fact it is very rare that a country experiencing many years of “miracle” growth hasn’t created such constraints. This is why it should have been possible to see well over a decade ago that China’s excessive indebtedness was inevitable. Economists who warned of the possibility of a deterioration in the balance sheet, but who thought nonetheless that China could avoid this outcome without a major restructuring of its growth model and a significant reduction of its growth rate, were always fundamentally mistaken. Excessive debt levels were never a “possibility”. They were a necessity as long as the growth model had not been fundamentally transformed.
2. The structure of the balance sheet, by which I mean the types of mismatches between assets and liabilities when debt levels are high enough, can systematically enhance volatility, so that periods of expansion, real productivity growth, or benign global conditions can result in many years of growth that exceed expectations. This comes however at a cost. First, the same balance sheet structures that enhance growth during the expansion phases will cause growth to slow much faster than expected during the contraction phases, and second, enhanced volatility always reduces value, although not always perceptibly at first, because it increases gapping risk. This process is perhaps counterintuitive to those who think all economic activity is driven by fundamentals, but is well understood by traders and investors, who know how it works in margin buying, leveraged positions, and derivatives that directly quantify leverage and gapping risk.

3. Apart from enhancing volatility, high debt levels can adversely affect growth any time there is uncertainty about how debt servicing costs will be resolved, i.e. to which sectors or groups they will be explicitly or implicitly allocated. This uncertainty will affect the behavior of any sector of the economy to whom the costs might be allocated, in the form of either direct taxes, indirect taxes (e.g. inflation or depreciation), appropriation or expropriation, or wage and consumption suppression. These sectors, all of whom will alter their behavior in order to protect themselves from bearing the costs of debt, comprise most of the economy, including foreign creditors, small business owners, savers within the banking system or in other forms of monetary assets, workers, wealthy owners of financial and non-financial assets, the agricultural sector, importers and exporters, the mining sector, and many others. The wealthy might take their money out of the country, for example, and creditors might shorten maturities and raise interest rates, business owners might disinvest, the middle class might dis-intermediate savings, workers might organize, local policymakers may engage in protectionist activity, borrowers might invest in riskier projects, banks might reduce the scope of their lending to the most protected sectors, etc. The point is that it is a mistake to assume that the only or main cost of excess indebtedness is a financial crisis.
4. The balance sheet can embed strong feedback mechanisms within the economy that make it almost impossible to predict the growth of debt. The balance sheet mismatches that during the expansion phase could be refinanced in ways that created unexpected profit, can easily lead to rising debt instead as the mismatches become harder to refinance or require government guarantees.

This is why I would argue that once a country's balance sheet reaches a certain critical point, any analysis is fundamentally mistaken if it simply acknowledges the existence of a great deal of debt, or sees a debt buildup as unlikely, or as the consequence of bad policy, when already institutional constraints make it a necessary corollary of growth.

Debt was already a problem in the Chinese growth model more than ten years ago (and is a problem in several advanced economies too, who are going to find it nearly impossible to grow out of their debt burdens without implicit or explicit debt forgiveness). Those analysts who do not understand why this is the case probably do not understand why the balance sheet will continue to be a heavy constraint on Chinese growth and will underestimate the difficulty of the challenge facing Xi Jinping and his administration, which means among other things that they will be too quick to criticize Beijing for failed policies when growth drops below their projections.

But to understand this requires probably a fundamentally different way of understanding economics. The economy is a dynamic system made up, as Minsky said, of interlocking balance sheets, and the way economic growth, exogenous shocks, debt dynamics, income distribution, and every other dynamic process is intermediated from balance sheet to balance sheet depends both on the structures of the balance sheets and on other institutional constraints that characterize each economy. For those doing "empirical" economics, multiple regression and various kinds of multivariate analysis will no longer march down the royal road of mathematics but will rather be relegated to one of the side-streets, for occasions in which the economy is expected to be heavenly, and in which, as David Byrne sang, nothing ever happens.

Instead when we do math we will prefer to think in terms of options, probability theory, and lots of simple algebra, all of which are well suited to understanding both how debt can disrupt an economy in a predictable way and how the threat of that disruption can itself also disrupt the economy in a predictable way. Unfortunately this will make forecasting very difficult – at least the current variety of forecasting, as in: China's GDP will grow by 6.84% in 2016, 5.93% in 2017, 5.77% in 2018, and 5.02% thereafter.

But losing these types of forecasts is not much of a loss. When nothing happens, these forecasts are often quite accurate. When something happens, however, they are always wholly useless, an obvious such case being growth forecasts for China both during the unexpectedly large fiscal stimulus in 2009 and 2010, and later, just as it reached the end of its period of growing imbalances and began the reversal process, around 2011-12.

*This is an abbreviated and much edited version of the newsletter that went out two months ago. Academics, journalists, and government and NGO officials who want to subscribe to the newsletter should write to me at [chinfinpettis@yahoo.com](mailto:chinfinpettis@yahoo.com), stating your affiliation, please. Investors who want to buy a subscription should write to me, also at that address.*

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