

## **Appendix 1**

### **Reliability of GDP Statistics**

“China is growing by leaps and bounds and I have never seen an economy like China,”<sup>1</sup> says Simon Ortiz, a member of the House of Representatives. Yes, and neither has anyone else. For a leaping and bounding economy, everything seems out of kilter. “Unless China has embarked upon an unprecedented economic trajectory that combines high-speed growth with rising unemployment, sluggish demand, massive excess capacity, glutted commodity markets, mild deflation and low expectations, we cannot avoid concluding that something is seriously amiss with Beijing’s growth claims for the past four years,” writes academic Thomas Rawski of the University of Pittsburgh.<sup>2</sup>

The People’s Republic brooks no criticism of its numbers, however. “Holding a skeptical attitude toward China’s economic growth statistics is groundless,” says Qiu Xiaohua,<sup>3</sup> the deputy director of the National Bureau of Statistics, formerly the State Statistics Bureau.

Although Beijing denounces critics, more and more analysts these days ask a simple question: How reliable are China’s gross domestic product numbers? The issue is important because GDP is the broadest and most widely watched measure of economic strength. These days, debate is heating up around the world due to increasing concern about the health of the Chinese economy.

Everyone agrees, however, that, over the course of decades, progress is being made: today’s statistics are a definite improvement over those of the Great Leap Forward. During that era, numbers measuring agricultural production were simply astounding. The result of gross statistical distortion was a horrible loss of life as tens of millions of peasants starved. Cadres could not obtain permission to use grain stored from past harvests to feed a dying populace because statistics said that current production was bountiful. Today, China’s statisticians are more sober minded. As a result, many analysts, perhaps a majority of them, think that China’s statistics, however terrible, at least show trends.<sup>4</sup>

Despite general progress in the quest for statistical accuracy, the last five years has been especially difficult for those who insist on honesty in economic measurement. A small but growing chorus, led by Professor Rawski, say that the problems of statistical inaccuracy over the past half decade are getting worse, not better.<sup>5</sup> Albert Keidel, formerly a World Bank official in Beijing, notes: “It is virtually certain that official growth data overstate actual growth by varying degrees and that the overstatement became more serious in the later 1990s.”<sup>6</sup> In

1998 and 1999, when the economy was reported to have grown at a fast pace, Rawski thinks that there may have even been a contraction.<sup>7</sup>

It is not hard to trace the origins of the recent backsliding in the cause of honest reporting. Zhu Rongji is generally credited with highlighting statistical problems at a senior level when he assumed the premiership in 1998. Acting fearlessly, he let statisticians report growth for 1998 below 8.0 percent (the state announced 7.8 percent). At that time 8.0 percent was considered the magic figure--the minimum growth thought to be necessary to create jobs for the unemployed and new entrants to the workforce.

Yet his demands on the cadres to produce results had unintended consequences. Zhu set specific targets, and that act put statisticians, managers of state-owned enterprises, and local government officials under tremendous pressure to report numbers that met those goals. In the words of Professor Lester Thurow of the Massachusetts Institute of Technology, "Would you want to be the first mayor who writes to Beijing to say, 'My economy is shrinking?'"<sup>8</sup>

To Zhu's credit, in later years he avoided setting such specific goals to minimize the incentive for fabrication. And to avoid the problem Thurow identifies, central government statisticians started in 1998 to collect data independent of local and provincial governments. Unfortunately, Beijing has not had the time to fully develop channels to independently gather data<sup>9</sup> and it has not yet devoted sufficient resources for this purpose.

It will be a hard task even with unlimited resources. Central government statisticians have a problem that is probably unique in today's world: China has two largely separate economies, a declining state sector and a vibrant private one. Worse, the service sector is emerging, so statistical methods have not caught up to a fast-changing reality. It may take years before Beijing can devise methods that adequately describe what is happening in its economy.

The consensus today is that the statisticians in Beijing are at least trying to improve their methods and are the victim of fabrication at lower levels of government. That is indeed true, and Lester Thurow may be right when he says: "Now I don't think anybody is lying in Beijing, I think they don't know."<sup>10</sup> As this well-known economist suggests, everyone is a victim of bad numbers.

Chinese statisticians at least deserve credit for trying. They have just signed onto the International Monetary Fund's General Data Dissemination System, which for them is like joining the World Trade Organization<sup>11</sup> or the United Nations. Yet technical problems are not the primary cause of distortion. It is politics, which has plagued statistics from the beginning of the People's Republic.

And those problems are bound to get worse in the near future: the next few years will be of special political significance. Today, the reformist camp, which is in control of the reins of government, is under attack for forcing China into the World Trade Organization. In a politically-charged year such as this one, they

must feel some pressure not to release bad numbers. So today, just like in the past, the central government's politicized system intentionally produces distorted data. There is progress, but we have to remember that the system that caused statistical distortions in the past has not been substantially changed.

At least over the next few years, statistical accuracy will be under more pressure. The balance of the current five-year plan will witness the transition from the "Third Generation" of leaders to the Fourth.<sup>12</sup> Beginning later this year and continuing into next, almost all the top posts in the Communist Party and central government will change hands. At the Sixteenth Party Congress, which is to be scheduled for later this year, the most important job in China will probably see a new holder. According to today's understanding, Jiang Zemin will relinquish his post as Party general secretary in favor of the enigmatic Hu Jintao, who was selected by Deng Xiaoping as Jiang's replacement. Also slated for retirement are Li Peng and Zhu Rongji, respectively the second- and third-ranked leaders, who are to leave the Politburo Standing Committee, the most powerful ruling body in the Party and the country. Five of the seven members of the Standing Committee will be replaced as will half of the entire 22-member Politburo. Finally, about 60 percent of the Central Committee, the large body that nominally runs the Party, will retire.

Changes in the Party will be mirrored by changes in the central government. Early 2003 will undoubtedly see all three top government officials of today leaving their posts. There will be a new president as Jiang Zemin steps down. Moreover, Zhu Rongji and Li Peng will probably leave their posts as premier and chairman of the National People's Congress, respectively.

Current reports and rumors indicate that the personal infighting in Beijing is, and will remain, intense. Yet political struggle will not end with next year's annual meeting of the National People's Congress, which formally marks the end of the formal transfer of power. There have been two previous political transitions in the history of the People's Republic (Mao Zedong to Deng Xiaoping and Deng to Jiang Zemin). Neither went according to script, and both of them took years to resolve (Deng Xiaoping spent two years ousting Hua Guofeng, Mao Zedong's chosen successor, and Jiang Zemin needed more time than that to consolidate his position as Deng's). Tomorrow's transition looks like it will be particularly messy because Jiang does not want to give way and is bound to cause trouble for Hu. Moreover, there is, unlike the last transition, no strong leader to referee the bitter struggles that are bound to take place.

Those who will end up in charge of the National Bureau of Statistics will also be in charge of the economy as well. Therefore, the statisticians will be under pressure not to report bad news for fear of injuring their political patrons during a period of special sensitivity.

**And what is the real GDP growth now?<sup>13</sup> As an initial matter, this report acknowledges the special difficulties in making any comments about growth in China. The situation is so bad that some observers don't say anything at all. Credit Lyonnais Securities Asia, known for the high quality of its China analysis,**

now refuses to release estimates of Chinese economic growth because of the problem with official statistics: “We do not intend to present a forecast for China’s GDP growth in 2002 and 2003. We lack the basic statistical information to be able to construct even a rudimentary model.”<sup>14</sup> Indeed, much information is not available; China is “an excellent example of a low information environment.”<sup>15</sup>

Despite all the problems, some do not refuse the challenge of defending Chinese claims. Stephen Roach of Morgan Stanley, now famous for his glowing assessments of the Chinese economy, has pronounced that Beijing’s numbers are fine. “On this past visit I had [sic] a fascinating meeting with a high official from China’s National Bureau of Statistics,” the investment bank’s chief economist wrote in December of last year. “After questioning him at length on methodology and sampling, I saw no major holes in the statistical gathering system.”<sup>16</sup> Roach’s view is definitely a minority position outside the government of the People’s Republic (and probably inside that government as well). If there is any inaccuracy in the figures, Roach, not surprisingly, believes that real growth could be higher than that reported by the state.<sup>17</sup>

A related school of thought says that overreporting of growth is essentially balanced by underreporting of the private and service sectors. In the case of the private sector, underreporting is due to the cheating of entrepreneurs who seek to minimize taxation, and in the case of the service sector China’s statistical methods do not give proper weight to this emerging part of the economy.

Some American academics believe that no one has conclusively proved that the numbers are wrong, and that assessment is correct. Only thousands of Chinese bureaucrats collectively have the information that can authoritatively demonstrate the true state of affairs. Foreigners can only try to guess based on economic indicators and fragments of news.

That is why defenders of the numbers often fall back on the “seeing is believing” argument that so impresses Representative Ortiz. Premier Zhu even uses this line of thought as his primary defense. “I wonder if the professor has ever been to China,” Zhu said this March, referring to Rawski. “If he had, he would see that had there not been such rapid growth, China would not be what it is today.”<sup>18</sup> The great cities of the coastal regions are living proof of fabulous development during the reform era. They dazzle foreigners, especially those who want to believe. “If you go and see, you’ll know that the rapid growth is an obvious fact,” says the president of the Asian Development Bank, Tadao Chino. “Nobody can deny it.”<sup>19</sup>

Yet many can. And Chino, with a small army of analysts at his disposal, should know better than to say things like that. From all accounts, the head of the ADB leads a sheltered life, and so he probably has not ventured many times into the inland areas of China, where the only thing that is obvious is the failure of central government policies. Even these days most of Chinese society is agricultural, and that sector has been especially hard hit in recent years. The

central government claims that peasant incomes are rising, but many say that they are in fact going the other way.<sup>20</sup> It is hard to weigh growing prosperity in the city with grinding poverty in the village and come up with an overall assessment based on anecdotal evidence alone.

Fortunately, we do not have to do so. It is possible to get some insight by just examining official figures. Rawski bases his conclusion on Chinese statistics that are less politically sensitive, and, therefore, less likely to be manipulated.<sup>21</sup> He focuses on the fall of energy usage, which should be a good indicator of overall economic performance. Thurow, building upon Rawski's work, points to the volatility in export growth as being inconsistent with the consistently high economic growth reported by Beijing.<sup>22</sup>

Some academics can make technical arguments why all the figures can be consistent with each other. Yet they forget that the point of the exercise is not to develop theories as to how all these unusual circumstances can be possible under certain conditions. The point is to determine what is the real growth rate in a real country. There are simply too many anomalies that must be explained away to come to the conclusion that China's economy is growing at claimed rates.

The contradiction that cannot be reconciled is the simultaneous existence of high GDP growth with deflation, a situation that is certainly unusual and just may be unique. Some analysts believe that these two mutually exclusive phenomena can occur at the same time because China's growth is fueled by labor, not capital. That's an interesting theory, especially because the country is blessed with a large population and so many low-end sweatshops.

Yet the concept does not hold up. When the People's Republic really did have high growth it is true that there was a massive shift of labor from the countryside to the city, but the country at that time was also inflicted with high inflation. Moreover, the central government itself believes that capital is one of the main engines of growth. After all, its program to jump start the economy is centered on fiscal stimulus (and, as previously noted, last month it issued statistics to show the amount of growth that was the result of this program). Additionally, analysts, both domestic and foreign, have written that China's growth is capital-intensive and employment-adverse.<sup>23</sup> Noted economist Hu Angang talks about "a model of growth without employment."<sup>24</sup> "China is mysterious," says the head of a think tank in Beijing.<sup>25</sup> Yes, it is, but it is not that strange. The People's Republic suffers from deflation because it does not have high growth.

Rawski believes that the economy in recent years grew at around half the reported rate although it could have been lower than that.<sup>26</sup> Standard & Poor's thinks five percent is about right.<sup>27</sup> Considering all the factors, it appears that Aberdeen Asset Management is closest to the target when it says 3.5 to 5 percent.<sup>28</sup> This report concludes that the real number is somewhere in the lower half of that range at this time.

We will not hear statistics of that sort from the central government, however.

During the current five-year plan announced growth will not slip so low that the average would fall below 7.0 percent, the target for this period.<sup>29</sup>

Why? Chinese statisticians suffer from paralysis below the waist--they can talk the talk but can't walk the walk. In February of this year the National Bureau of Statistics went one step beyond past admissions of the existence of fabrication of statistics by local government cadres. Zhu Zhixin, the chief statistician in the People's Republic, said that growth reports for past years may have to be revised.<sup>30</sup>

Zhu's admission was refreshing. Nonetheless, these important words had no practical effect. The bureau did not adjust the gross domestic product figure for 2001 when it made the admission. High officials confirmed that such figure was absolutely correct, but they supplied no substantiation for their assessment.<sup>31</sup> An explanation was due because the bureau, by releasing the full year 2001 GDP number before the end of that year, continued its ridiculous tradition of issuing figures prematurely. In developed countries it takes months to produce a final statistic measuring the output of an entire economy, but in China officials can arrive at a number before the year is over. Beijing's statisticians are able to not only measure the past but also foresee the future.

Deng Xiaoping would not be surprised, however. Lucian Pye, the well known China scholar, accompanied Senator Henry Jackson on a visit to Beijing in the 1970s. Pye asked Deng, who was not yet then China's paramount leader, what China's population was. Deng replied, "We don't know." The scholar asked how that could be true because the government had just completed a census but had not yet released the figures. Deng looked at Pye as if he were, in Pye's words "a bit stupid." Deng then explained: "Some places think it is good to have a big number, others think it is good to have a small number, so how are we to know?" Then Deng looked Pye in the eye and said, "You are a scholar, a professor, you should never believe Chinese statistics."<sup>32</sup>

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<sup>1</sup> "China is growing by leaps and bounds": "US Congress Members Call for Enhancing Understanding of China," People's Daily Online, April 5, 2002.

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- 2       **“Unless China has embarked upon an unprecedented economic trajectory”**: Thomas G. Rawski, “Where’s the Growth?,” *wsj.com*, April 19, 2002.
- 3       **“groundless”**: “Skeptical Attitude Toward China’s Statistics Groundless, Says Official,” *People’s Daily Online*, April 19, 2002. The quotation in the text is *People’s Daily’s* paraphrase of the comments of Qui Xiaohua.
- 4       **at least show trends: Leslie Chang and Owen Brown, “GDP Growth in China Slowed in 2001 on Difficult 4<sup>th</sup> Quarter, ”** *wsj.com*, February 28, 2002.
- 5       Professor Rawski: *See* Thomas G. Rawski, “China’s GDP Statistics: A Case of Caveat Lector?,” 2001 (available at *www.pit.edu*).
- 6       **“the overstatement became more serious in the later 1990s”**: James Kyngé, “Report Casts Doubt over Chinese Data,” *ft.com*, February 28, 2002.
- 7       **there may have even been a contraction**: *See* James Kyngé, “Pyramid of Power Behind Numbers Game,” *ft.com*, February 28, 2002. These views are more fully expressed in Thomas G. Rawski, “What’s Happening to China’s GDP Statistics?,” September 12, 2001. For a short survey of the views of economists on statistical accuracy in China, see Economist Intelligence Unit, “Grossly Distorted Product,” February 13, 2002.
- 8       **“the first mayor who writes to Beijing”**: Vanessa Gould, “China Growth Rates ‘Not True’ Says Leading Economist,” *scmp.com*, March 19, 2002.
- 9       **Beijing has not had the time to fully develop channels**: Thomas G. Rawski, “What’s Happening to China’s GDP Statistics?,” September 12, 2001.
- 10      **“I think they don’t know”**: Vanessa Gould, “China Growth Rates ‘Not True’ Says Leading Economist,” *scmp.com*, March 19, 2002.
- 11      **General Data Dissemination System**: Bill Savadove, “Mainland has Extensive Room to Improve in Numbers Game,” *scmp.com*, April 25, 2002.
- 12      **balance of the current five-year plan will witness the transition**: For additional material about the upcoming transition period, see “Ready for the Fourth Generation,” *Economist*, October 28, 2000, p. 25.
- 13      **real GDP growth: Statistical inaccuracy is not the only cause of distortion of GDP numbers. Shoddy and unsalable goods and unusable or underutilized infrastructure contribute a percentage point or two to GDP growth, but they are economically useless and make this important statistic less valuable, especially if we try to use it as a tool to gauge the**

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ability of the country to, say, continue deficit spending.

14 **“We do not intend to present a forecast”**: Credit Lyonnais Securities Asia, “The Janus Place,” January 2002, p. 5. For additional information on this topic, see James Kynge, “Pyramid of Power Behind Numbers Game,” *ft.com*, February 28, 2002.

15 **“an excellent example of a low information environment”**: Swee Sum Lam and Jing Du, “Private Information Production and Voluntary Disclosure with Certification in the Resolution of Information Asymmetry,” November 13, 2001.

16 **Stephen Roach of Morgan Stanley**: Stephen Roach, “China Is Not an Oasis,” *Global Economic Forum*, December 3, 2001 (available at [www.morganstanley.com](http://www.morganstanley.com)).

17 **believes that real growth could be higher**: Stephen Roach, “China Is Not an Oasis,” *Global Economic Forum*, December 3, 2001 (available at [www.morganstanley.com](http://www.morganstanley.com)).

18 **“I wonder if the professor has ever been to China”**: Stephen Roach, “Straight Talk from Zhu,” *Global Economic Forum*, March 27, 2002 (available at [www.morganstanley.com](http://www.morganstanley.com)).

19 **“Nobody can deny it”**: “China’s Rapid Growth Can’t Be Denied: ADB President,” *People’s Daily Online*, April 25, 2002.

20 **going the other way**: *See, e.g.*, Jasper Becker, “Reaping a Harvest of Despair,” *South China Morning Post*, September 24, 2000, p. 11.

21 **less likely to be manipulated**: Thomas G. Rawski, “What’s Happening to China’s GDP Statistics?,” September 12, 2001.

22 **as being inconsistent**: Vanessa Gould, “China Growth Rates ‘Not True’ Says Leading Economist,” *scmp.com*, March 19, 2002.

23 **China’s growth is capital-intensive and employment-adverse**: *See, e.g.*, Carl Riskin, e-mails to author, April 17, 2002; Hu Angang, interview by Laurent Malvezin, “On China Reforms and the Go West Policy” (available at [www.asian-affairs.com](http://www.asian-affairs.com)).

24 **“a model of growth without employment”**: Hu Angang, interview by Laurent Malvezin, “On China Reforms and the Go West Policy” (available at [www.asian-affairs.com](http://www.asian-affairs.com)).

25 **“China is mysterious”**: Andy Xie, “The Numbers Game,” *Global Economic Forum*, April 16, 2002 (available at [www.morganstanley.com](http://www.morganstanley.com)).

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- <sup>26</sup> **Rawski believes:** Alan Patterson, “China’s Economic Growth Half of Official Estimates, Paper Says,” bloomberg.com, March 22, 2002. These views are more fully expressed in Thomas G. Rawski, “What’s Happening to China’s GDP Statistics?,” September 12, 2001.
- <sup>27</sup> **Standard & Poor’s:** Standard & Poor’s, “Research: China (People’s Republic of),” October 22, 2001, p. 2.
- <sup>28</sup> **Aberdeen Asset Management:** Karen Richardson, “China’s Admission of Economic Data Flaws Isn’t Likely to Make Fund-Picking Easier,” wsj.com, November 22, 2001.
- <sup>29</sup> **the target for this period:** See “Premier’s Report on Outline of New 5-Year Plan (Full Text),” Xinhua, March 16, 2001.
- <sup>30</sup> **reports for past years may have to be revised:** Alan Patterson, “China’s Economic Growth Half of Official Estimates, Paper Says,” bloomberg.com, March 22, 2002.
- <sup>31</sup> **absolutely correct:** James Kynge, “Report Casts Doubt over Chinese Data,” ft.com, February 28, 2002.
- <sup>32</sup> **“you should never believe Chinese statistics”:** Lucian Pye, e-mail to author, March 21, 2002.