provide early warning signals of the recent crises, as well as to those interested in risk management. Because it is a readable account of financial crises that have generated incredibly high economic costs, the book should also be read by policymakers. It conveys the very important lessons that early warning signals can be used to detect the emergence of financial bubbles, and that it is incumbent on policymakers to act on this information. Thanks to Stein, the once common view that financial bubbles should be left to work themselves out—as embodied in the Jackson Hole Consensus—is no longer tenable.

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Sustaining China's Economic Growth after the Global Financial Crisis

Nicholas R. Lardy

Washington: Peterson Institute for International Economics, 2012, 181 pp.

As one of the world's leading experts on China's economic reforms, Nick Lardy has produced two earlier books that have become keys to understanding the challenges China faces in making the transition to a market economy and becoming a full-pledged member of the global liberal economic order. His 1998 volume on China's Unfinished Economic Revolution and his 2002 text on Integrating China into the Global Economy were both published by the Brookings Institution, where he was a senior fellow from 1995 until 2003, at which time he joined the Peterson Institute for International Economics, where he is now Anthony M. Solomon Senior Fellow.

Lardy's new book completes a trilogy by examining China's response to the global financial crisis of 2008–09, and the policy changes that still need to be implemented to sustain future growth. The basic thesis is that fundamental reforms need to be undertaken to rid China's economy of the serious distortions inherent in the present growth model.

The influence of the state in controlling key prices—notably interest rates; the exchange rate; and prices for refined energy products, water, and electricity—politicizes investment decisions, artificially spurs export-led growth, and favors manufacturing.

China's challenge is to expand the scope of private markets and use competitive pricing to allocate resources efficiently. Once prices are right, China's growth path can be rebalanced toward greater domestic consumption.

President Hu Jintao wants to build a "harmonious society" by creating a more extensive growth model that spreads growth to less developed regions and by decreasing income inequality. Yet, as Lardy notes, present leaders have not done much to extend liberalization in the post–Deng Xiaoping era. Modest reforms are not sufficient to free interest rates and other key prices from the hand of the state. The new leadership team that is soon to take over will need to take bolder steps if China is to end financial repression and extend prosperity. Lardy carefully explains the necessary reforms and the obstacles that need to be overcome.

The book consists of five chapters: (1) "China's Response to the Global Crisis," (2) "Imbalances and Their Implications for China's Economy," (3) "Policies for Rebalancing Economic Growth," (4) "China and the Global Economic Rebalancing," and (5) "The Politics of Economic Rebalancing." There is also a brief appendix explaining some of the problems with the official data, especially the understatement of the size of the service sector and the underestimation of household consumption because of the mismeasurement of housing services. Those problems are being addressed, but there is no doubt that without true market prices, a rule of law, and greater transparency many experts will want to scrutinize official pronouncements.

Chapter 1 discusses China's massive RMB4 trillion (\$586 billion) stimulus program launched in 2008 to counter the global financial crisis. Monetary easing and infrastructure investment, financed primarily by loans from state-owned banks, helped keep real GDP growing by more than 9 percent in 2009 and more than 10 percent in 2010, while the United States, Europe, and Japan languished. Critics of that program, such as MIT economist Huang Yasheng, argue that state intervention during the crisis has set back the reform effort and harmed the private sector. In particular, it is claimed that the bulk of bank loans went to state-owned enterprises (SOEs).

Lardy does not accept that verdict. Relying on official data, he concludes that "the stimulus program did not lead to a wholesale advance of the state at the expense of either private firms or individual businesses." In particular, "state-owned firms did not increase their share of bank lending" (p. 40). Nevertheless, he recognizes that

the state continues to retain control over the so-called pillar industries such as banking, finance, telecommunications, and petroleum. He does acknowledge the "stepped-up level of state industrial policy," but thinks it is premature to predict the impact on "the balance between state and market" (p. 41).

The question of balanced growth and the split between state and market could be explored in more depth. It is clear that Lardy favors a less intrusive government in economic affairs, but he never really confronts the problem of how policymakers could ever determine the "optimal" growth path. He contends that the Chinese people save "too much" and consume "too little" because of distorted interest rates. But he could go further and explain why central planners/policymakers can never know the subjective time preferences of individuals and, thus, why only private capital markets can generate real interest rates that reflect the plans of savers and investors—and coordinate those plans so that markets balance.

Allowing individuals capital freedom—that is, the right to acquire and exchange titles to capital assets—would lead to the optimal mix between present and future consumption as determined by individuals directly involved in the free-market process rather than by officials in Beijing who want to maintain their monopoly on power.

Lardy and others argue that one way to increase consumption in China is to extend the social safety net to include rural residents, who now have to pay most of the costs of education, health, and retirement. What is neglected, however, is that reliance on private savings reduces one's dependence on government and thus fosters civil society. In contrast, expanding state welfare would tilt the balance between state and market toward more government power and less individual responsibility.

There is no doubt that liberalizing interest rates and removing capital controls would expand the range of choices open to savers and investors. Ending financial repression, as Lardy recommends, would also improve efficiency.

Private firms, many of which are foreign-funded, have been the most important contributors to growth in manufacturing, primarily in tradable goods. Exporters and import-competing industries have benefited greatly from China's opening to the outside world, beginning in 1978. The existence of widespread shadow banking serving the private sector, however, indicates that SOEs have much easier access to credit.

The recent Wenzhou experiment, which officially recognizes and sanctions the informal banking sector, is an explicit admission of past discrimination. Also, the use of investment platforms (special investment vehicles) to fund local governments steers funds to SOEs involved in development projects, thereby affecting the balance between state and market.

There is also the problem of identifying recipients of loans from state-owned banks by type of ownership. No official data exist on bank credit by ownership type. Thus, Lardy looks at bank loans by firm size, assuming private firms are mostly small enterprises, and finds that their share of new loans made under the 2009–10 stimulus program exceeded credit going to larger enterprises. He also finds that the share of industrial output produced by SOEs has continued to decline—from more than 80 percent in 1978 to less than 28 percent today.

Nevertheless, Lardy is critical of the lack of any significant progress in reforming the state sector by liberalizing factor prices, especially interest rates, during the stimulus program. The government continues to set a ceiling on deposit rates and a floor on lending rates. The positive net interest spread enhances bank profitability and gives state-owned banks an incentive to favor financial repression. Low or negative real interest rates on deposits, including saving accounts, provides a low-cost source of funding for state-owned banks. Households appear to have a target rate of saving in order to meet expected expenditures for housing, education, healthcare, and retirement. Thus, Lardy finds that when interest rates decline, households tend to save more. (In economic jargon, the income effect tends to outweigh the substitution effect.) Meanwhile, relatively low lending rates encourage investment, including in residential housing.

There has been some recent progress in liberalizing interest rates not reported by Lardy. In June 2012, the People's Bank of China (the central bank) announced that benchmark rates on loans and deposits would be more flexible. Banks will be allowed to offer loans at interest rates up to 20 percent *below* the benchmark rate and be free to pay savers a rate up to 10 percent *above* the ceiling set by the PBOC. At present, the benchmark rate for one-year loans is 6 percent and for one-year time deposits 3 percent. With CPI inflation at about 2 percent, real rates on saving deposits are now positive. Wang Tao, chief China economist at UBS in Hong Kong, calls the deposit rate reform "unprecedented" and a "milestone for interest-rate liberalization."

The China Banking Regulatory Commission continues to set quotas on bank lending and sets required reserve ratios, while the PBOC determines benchmark lending rates and uses reserve requirements to help sterilize capital inflows. The PBOC also sells central bank bills to state-owned banks to prevent an excessive growth of base money due to the pegged exchange rate policy—that is, when China runs a current account surplus, the renminbi (also known as the yuan) would appreciate unless the supply of domestic currency is increased, which could lead to inflation unless the excess money stock is drained off by sterilization measures. That process has led the PBOC to accumulate more than \$3 trillion of foreign exchange reserves, the bulk of which are held in dollar-denominated assets, particularly U.S. Treasury and agency debt.

During the financial crisis, China sought to dramatically increase investment and consumption (including both private and government consumption) to offset a slowdown in exports. Only about 25 percent of the stimulus funds came from the central budget, while bank credit expanded dramatically. In chapter 2, Lardy explains the imbalances that characterize the Chinese economy and that were exacerbated by the stimulus program.

In examining the structure of China's economy, Lardy looks at expenditures, production, income, and saving. It is well known that investment and net exports account for a high share of China's GDP relative to private consumption. Industrial production has been given priority over services. The share of corporate profits in national income is high relative to the wage share, so household disposable income as a share of GDP remains relatively low. Lardy shows that between 1992 and 2008, the share of household disposable income in GDP actually declined by nearly 10 percentage points. That decline was due largely to a decreasing wage share along with lower interest income, as real rates declined, and lower net transfer payments. The fall in the disposable income share of GDP accounted for about 75 percent of the decline in the consumption share; the remainder was due to a higher saving share. In China, the ratio of household saving to disposable income is high relative to other developing countries, and a large share flows into housing.

The sources of the imbalances in China's economy are due to the distortions in the price system and the politicization of investment decisions. Unless those distortions are removed by ending financial repression and allowing a greater scope for private markets, China

will face increasing disharmony. Lardy explains the policies that need to be implemented for rebalancing and achieving sustainable growth in chapter 3.

Four policies are examined: fiscal policy, financial reform, exchange rate policy, and price reform. Lardy also discusses endogenous or "policy light" rebalancing. In terms of fiscal policy, the government could stimulate consumption by cutting tax rates and requiring SOEs to pay out a larger share of their profits in dividends, but only modest changes have been made thus far. On the expenditure side, the social safety net has been expanded in an attempt to reduce the saving share and increase household consumption. But, as Lardy notes, that approach to rebalancing is limited.

The most fruitful reform would be to end financial repression by liberalizing interest rates, which would increase real rates on deposits, thereby decreasing saving if the income effect is strong, and increasing consumption. That process now appears to have begun.

Of course, if interest rates are to be market-determined, there must be fully competitive private capital markets, which would require privatizing state-owned banks and bringing shadow banking into the daylight not just in Wenzhou. In addition, the renminbi needs to be convertible for all transactions, not just for trade in goods and services. Investors need to be free to choose both domestic and international assets for their portfolios. Using credit quotas and interest rate controls to allocate scarce capital leads to corruption and inefficiency. Lardy would like to see more fundamental changes to reduce the scope of the state and increase the role of the market in saving and investment decisions.

When the state plays a dominant role in capital markets, as in China, one control leads to others. Thus, Lardy notes that "adopting a more flexible exchange rate policy is an essential precondition for moving toward market-determined interest rates" (p. 112). In theory, a country could have a fixed exchange rate, a fully convertible currency without any capital controls, and a private capital market with freely determined interest rates. In China, however, tradeoffs have been made to protect an undervalued currency: the capital account is closed and interest rates are set by government to ensure that state-owned banks remain profitable—even after being subject to high reserve requirements and forced to hold central bank bills paying low interest rates.

The PBOC cannot target both inflation and the exchange rate without capital controls and pegged interest rates. An independent monetary policy is a myth in a system in which raising interest rates to counter inflation would lead to capital inflows that would put upward pressure on the exchange rate. The central bank must buy up dollars from current account surpluses and capital inflows to maintain the politically sanctioned exchange rate, and then use reserve requirements and sales of central bank bills to manage the monetary base and prevent inflation. This fine-tuning becomes increasingly difficult as the tradable goods sector expands and as capital controls are circumvented. It also becomes more costly as the interest rate on sterilization bills rises relative to the rates on the PBOC's holdings of U.S. government debt.

Top-level officials and economists in China have recommended moving to a market-determined exchange rate and opening the capital account thereby making the renminbi fully convertible, and also liberalizing interest rates. But the problem remains of how to privatize state banks given their entrenched interest in maintaining the status quo.

Low real interest rates on loans have artificially stimulated the housing market and promoted manufacturing relative to services. Loans for housing have soared and many experts predict that the bursting of the property bubble could have a significant negative impact on China's economy because spending on real estate now accounts for about 25 percent of aggregate demand. Lardy notes that liberalizing interest rates, relaxing capital controls, and imposing property taxes would decrease the attractiveness of housing as a preferred asset class.

In addition to liberalizing macro prices (i.e., interest rates and the exchange rate), China needs to eliminate distortions on relative prices for water, energy, and other inputs by cutting or ending subsidies that have underpriced inputs and led to wasteful production and consumption decisions. Further steps need to be taken to rationalize those relative prices. Lardy notes that land prices also need to be reformed, but he does not give enough attention to the private and social benefits that could be created by establishing fully transferable land rights, so that rural families could capture the net present values of their now collectively owned property. The central government has instituted programs for land reform but there is still much corruption because local officials control

land rights and depend on revenues from land sales. The low payments to farmers from such sales have caused widespread social unrest.

Market-based or endogenous forces could also help rebalance China's economy toward higher private consumption. Lardy examines two possibilities: rising real wages and increasing the availability of consumer credit. Real wages have been rapidly increasing, and the use of household credit is spreading. Wages in the private sector, which produces a high proportion of China's exports, are expected to double over the next several years. But if those wage increases reflect productivity growth, unit labor costs will remain fairly stable and China's competitive advantage will persist. Hence, relying solely on wage increases to rebalance the current account is unlikely to be successful, according to Lardy.

With regard to consumer credit, Lardy notes that consumer borrowing has been rising for some time and increased dramatically during the stimulus program. Outstanding household bank debt as a percentage of disposable income increased from 32 percent in 2007 to 49 percent in 2010. Nevertheless, the consumption share of GDP continues to lag other emerging market countries with similar per capita incomes. Lardy, therefore, does not see the expansion of consumer credit as an effective way to rebalance China's economy.

The essential condition to normalize China's balance of payments, shift to a more service-oriented economy, slow investment growth, and increase consumption is to get relative prices right—especially interest rates and the exchange rate.

In chapter 4, Lardy moves from the question of how to rebalance China's economy to the problem of global imbalances. Slower growth in the United States, Europe, and Japan will adversely affect China's export-led growth model. Meanwhile, excessive investment in China will face diminishing returns. Moving to a new growth model and removing price distortions are in China's long-term interest. Lardy shows that it is also in the interest of the global economy.

Chapter 5 examines the political atmosphere surrounding the economic challenges China faces in making the transition to a new growth model. Beijing uses the guise of "stability" to restrict human rights, control the flow of information, fix key prices, and direct resources to politically favored projects. Lardy steers clear of the

human rights issues, while focusing on economic issues. He recommends that the central government embark on serious reforms to correct distorted prices—particularly interest rates, the exchange rate, and prices of natural resources. The private sector would then spontaneously respond and local officials would have an incentive to follow the market.

The problem is that the existing collective leadership wishes to maintain power and in doing so must take account of special interest groups who have benefited from past policies. Those groups include the "princelings" who have gained extraordinary wealth through their family ties with high-level officials. Economists at the central bank and elsewhere have called for faster liberalization and restructuring, but the pace of reform will depend on political factors in a one-party state.

The United States and others can put pressure on China for further reform, but such pressure is limited and could backfire. It would be better for Western debtor countries to get their own fiscal houses in order than to attack China for an undervalued exchange rate and threaten protectionist measures that would reduce world trade and wealth.

Lardy's main point is that China injures itself by delaying reform. Failure to correct distorted prices and imbalances will prolong and increase the costs of adjustment. A capital-poor country like China should not be a net exporter of capital. By holding trillions of dollars of low-yielding foreign debt, China deprives its citizens of the wealth that could be created by relaxing capital controls and encouraging imports by allowing market-determined exchange rates and freely determined interest rates.

China's long-term trend is toward further liberalization, Lardy believes, but he wants faster progress on the economic front, which will require political and legal reform. Although he says little about the rule of law, there is no doubt he supports greater transparency and a just legal system that protects persons and property, thereby allowing private free markets to expand choices and wealth.

With the coming leadership change, China will have new opportunities to follow Lardy's advice. Beijing would be wise to do so.

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