How to Finance China's Farmers' Income and Consumer Food Price Stability

by **JOHN & DAI MIN MILLIGAN-WHYTE**

China's Farmers' Income and Consumer Food Price Stability can Only Be Achieved Using Capital Markets Financing and Commodity Markets' Hedging

This is the third article in our series recommending how China can create the catastrophe and agriculture protection financing industries that the State Council is seeking to develop. The series' thesis is that in order to protect China's social harmony, economic growth and national security, China could become the world's largest consumer, provider and investor in catastrophe and agriculture loss recovery financing. China can fill these roles in the reinsurance, capital and commodity markets due to the huge financing costs of the catastrophe and agriculture loss protection it needs, its control of the world's largest catastrophe and agriculture insurance market and the huge amount of capital required to finance its agriculture and catastrophe risks. China is the only entity in the world with the required combination of massive need, market and capital.

China has US$ 3.83 trillion of foreign debt and currency reserves that require profitable investment and recirculation internationally. Reliable sources of capital are required to finance China's farmers' income and consumer food price stability. The capital required is larger than all the capital in the international reinsurance market. The international capital markets are larger but too unstable for China to safely entrust with providing its farmers' income and consumer food price stability.

Global food prices increased 74% from 2005 to 2012. From 1990 to 2005 they increased only 2.3%. Protecting China's social stability and national security requires its governments to subsidize consumer food prices. China's agriculture losses have averaged 6% to 10% annually. But worldwide climate change is having major effects on the frequency, severity and locations of temperature, droughts and floods impacting farmers' incomes and consumer food price stability. State Council has approved farmer's income stability programs. China also needs to create programs to protect its 1.5 billion consumers food price stability.

A New Scientifically Managed Model with Chinese Characteristics is Needed to Protect China's farmers' Income and Consumer Food Price Stability

This article recommends that China create a new model with Chinese characteristics for financing farmers' income and consumer food price stability. China's innovative model can use a fully integrated combination of weather-based insurance, reinsurance, insurance linked securities (ILS) financing in the capital markets, and hedging strategies in the commodity markets to make the costs of protecting China's farmers' income and consumer price stability affordable.

It is unrealistic for foreigners to expect and misguided for China to design its regulatory system using foreign models not suited to the legal, economic and cultural conditions in China. Foreign models and products also have features that are not working well according to the World Bank's 2010 Report on *Government Support to Agriculture Insurance*, "Overall, government sponsored Multi-Peril Crop Insurance programs have been disappointing. Limited insurance penetration despite high premium subsidies; consistent underestimation of the catastrophic risks involved in agriculture; poor financial performance; inappropriate pricing; uncontrolled moral hazard; and adverse selection are among the key endemic problems underlying agricultural insurance programs worldwide, in both developed and developing countries."

Reinsurance companies' business models are currently in crisis. Climate change is making losses harder to model. The financial crisis is resulting in low investment income. Competition within the reinsurance market and from the ILS industry is contributing to the pricing of some risks being inadequate. Reinsurers may have to risk their capital accepting actuarially inadequate premiums, give up market share or increasingly become managers of ILS investors rather than their own capital. All of these put pressure on their profitability.

Nonetheless, many Chinese may feel a lack of confidence because they do not have as much experience with insurance and reinsurance as their foreign counterparts. China can mitigate the risk of it spending this decade trying to adapt agriculture insurance and reinsurance products used in developed countries to China's realities. It can use new and better strategies to transfer and finance its risks. It can develop an innovative regulatory system using capital and commodity market financing to fill deficiencies in insurance and reinsurance protection strategies.

An innovative new insurance linked securities or "ILS" industry is growing rapidly because catastrophe and agriculture risks are increasingly too large and expensive for the reinsurance market to finance. ILS protection is often cheaper and fully collateralized at inception reducing default risk. ILS is revolutionizing how such risks are commercially transferred and financed. In 2012 ILS investors' capital of US$48 billion was competing successfully for customers with the world's 200 reinsurers that had US$ 480 billion in total assets. In 2013 ILS's role grew to 15% of the world's catastrophe and agriculture risk financing. It is expected to reach 30% or more. ILS solutions should be focused on as a key part of China's development of its new risk financing model and financial service industries that use the unique advantages of its "socialist market economy with Chinese characteristics."

Hedging Risk in Commodities Markets may Ameliorate Affordability Problems

Hedging farmers' income and consumer food price stability risks in the commodity markets is also essential to finance the size of China's catastrophe and agriculture risk transfer and financing needs. Worldwide insurance and reinsurance companies and their regulatory bodies do not yet have the specialized expertise to also use the commodities markets to hedge risks. Developing such expertise should be a major focus for China in designing its risk financing and regulatory systems.

State Council, provincial and municipal governments reportedly spent at least US$ 4.9 billion in 2013 subsidizing 80% of the costs of what farmers view as inadequate coverage for their income losses. The farmers' income insurance coverage that domestic insurers provide is reportedly unprofitable and not as attractive as other lines of business. Both these problems may be ameliorated with better product design. Foreign reinsurers and insurers currently have 1% and 4% market shares respectively in China's insurance and reinsurance markets. One of many reasons for their limited roles is the often actuarially insufficient pricing of risks in China. Relying on trying to transfer actuarially unsoundly priced risks into the insurance, reinsurance and ILS markets will not work and the need for government subsidies will grow with the extent of coverage provided. China's new model must ameliorate the unattractiveness of both the cost for China's governments providing subsidies and unprofitable agriculture insurance and reinsurance market funding.

Hedging China farmers' income and consumer food price instability risks in the commodity markets may ameliorate both problems. For example, the risks of insured, reinsured and ILS covered losses for oranges crops from frost, hurricanes and other damage can be hedged against the future price of orange juice. Solutions provided by the insurance, reinsurance and capital markets alone are going to require premiums in order to attract capital. Hedging risks in the commodity markets may not add to and may reduce such costs. The costs of hedging risk needs to be fully explored in China's pilot projects and compared to insurance, reinsurance and ILS costs.

China's Pilot Projects should Focus on Developing Its Expertise in Using Weather-Index Insurance Products Integrated with ILS Finance and Commodity Market Hedging Strategies

Pilot projects under the State Council's direction should be focused on developing a unique, sustainable and scalable system for commercially financing farmers' income and consumer food price stability. This can be achieved by China using weather-based index insurance products integrated with ILS finance and commodity market hedging strategies. This integrated set of strategies may be the only way to reduce the role of government subsidies. It is how China can increasingly transfer and finance its risks in the international reinsurance, capital and commodity markets. This integrated set of strategies is how China can profitably become the largest consumer, provider and investor in financing agriculture risk solutions. During this decade China can create a financing system scalable nationally in China and internationally to protect China's trading partners.

Indemnity-based and yield-based farmers income protection programs are too cumbersome for quick claims payments and too administratively costly to scale nationally in China. A good model to study is Swiss Re's collaboration with Indian insurers to systematically develop a weather insurance market for agriculture risks.

The products cover deviations from normal rainfall and temperatures measured at weather stations over different crop growth cycles. It is sold to farmers getting loans from government owned banks as compulsory cover. Insurers also sell it to farmers that are not getting loans. Swiss Re describes the benefits as "fast payout following a loss" and "low administration costs."

Sidebar

John & Dai Min Milligan-Whyte

John Milligan-Whyte, author of the Whyte Daimin Reinsurance Finance Center's Plan of Shanghai's Free Trade Zone and China Catastrophe and Agriculture Insurance System Plan, was Chairman of the Committee advising Bermuda's Minister of Finance, member of Bermuda's Law Reform Commission and United States National Association of Insurance Commissioners' Advisory Committee Drafting the US Model Insurance Act and Vice Chairman of the American Bar Association's Tort & Insurance Section. He is a director of Whyte Daimin Investments Limited and was a director of insurance, reinsurance and hedge fund companies, co-recipient of the 2002 Asian M&A Deal of the Year Award and of the 2010 China Business Leaders Summit's Outstanding Business Leaders' Social Responsibility Award.

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