



ISIS International Affairs Forum

Managing Food Price Volatility





ABOUT ISIS MALAYSIA

The Institute of Strategic and International Studies (ISIS) Malaysia was established on 8 April 1983, in realization of a decision made by the Malaysian Government to set up an autonomous, not-for-profit research organization, to act as the nation's think-tank. ISIS Malaysia was envisioned to contribute towards sound public policy formulation and discourse.

The research mandate of ISIS therefore spans a wide area. It includes economics, foreign policy, strategic studies, nation building, social policy, technology, innovation and the environment.

ISIS Malaysia today fosters dialogue and promotes the exchange of views and opinions at both national and international levels. It undertakes research in collaboration with national and international organizations, in important areas such as national development and international affairs.

ISIS Malaysia also engages actively in Track Two diplomacy, fostering high-level dialogues at national, bilateral and regional levels, through discussions with influential policymakers and thought leaders.

RESEARCH

Economics

Research in this area is generally aimed at promoting rapid and sustained economic growth and equitable development in the nation. We study specific (rather than generic) issues that concern the nation's competitiveness, productivity, growth and income. Areas of research include macroeconomic policy, trade and investment, banking and finance, industrial and infrastructure development and human capital and labour market development. The objective of all our research is to develop actionable policies and to spur institutional change.

Foreign Policy and Security Studies

The primary aim of this programme is to provide relevant policy analyses on matters pertaining to Malaysia's strategic interests as well as regional and international issues, with a focus on the Asia-Pacific Region. These include security studies, foreign policy, Southeast Asian politics and military affairs.

Social policy

Demographic and socio-cultural trends are changing Malaysian society and the social policy programme was established to respond to these developments. Research in this area is concerned with effective nation building, and fostering greater national unity. In particular, we look at issues involving the youth, women and underprivileged communities. In conducting its research, ISIS Malaysia networks with non-governmental organizations and civil society groups.

Technology, Innovation, Environment & Sustainability (TIES)

The TIES programme provides strategic foresight, collaborative research and policy advice to the public sector, businesses and policy audiences, on technology, innovation, environment and sustainable development. Its focus includes green growth as well as energy, water and food security. Towards this end, TIES has been active in organizing dialogues, forums, policy briefs and consultancies.

HIGHLIGHTS

ISIS Malaysia has, among others, researched and provided concrete policy recommendations for:

- Greater empowerment and revitalization of a national investment promotion agency;
- A strategic plan of action to capitalize on the rapid growth and development of a vibrant Southeast Asian emerging economy;
- A Master Plan to move the Malaysian economy towards knowledge-based sources of output growth;
- The conceptualization of a national vision statement;
- Effective management and right-sizing of the public sector; and
- Strengthening of ASEAN institutions and co-operation processes.

ISIS Malaysia has organized the highly regarded Asia-Pacific Roundtable, an annual conference of high-level security policymakers, implementers and thinkers, since 1986.

INTERNATIONAL NETWORKING

As a member of the Track Two community, ISIS Malaysia participates in the following networks:

- ASEAN-ISIS network of policy research institutes;
- Council for Security and Cooperation in Asia and the Pacific (CSCAP);
- Network of East Asian Think Tanks (NEAT); and
- Pacific Economic Cooperation Council (PECC).

It is also a partner institute of the World Economic Forum (WEF).

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Managing Food Price Volatility

Professor *C Peter Timmer* spoke on the topic of managing food price volatility at an International Affairs Forum, co-organised by ISIS Malaysia and Yayasan DiRaja Sultan Mizan. The forum was held in Kuala Lumpur Malaysia, on October 3, 2011. Professor Timmer is the Thomas D Cabot Professor of Development Studies, emeritus, at Harvard University. ISIS Analyst **Shahnaz Sharifuddin** reports.

Two-thirds of the people in the world, who are living on less than USD1 per day, are primarily rice consumers. Therefore, to manage rice price volatility is also to manage poverty and hunger. Prof Timmer said that for a period of twenty years, that is, from the mid-1980s to 2004/5, food prices, including and especially rice were stable or declining. Stabilizing the rice economy contributes greatly towards stabilizing the lives of world's poor, he said. The basic question is: What is the right price of food? Low prices will lead to farmers losing their livelihood; high prices will lead to consumers losing purchasing power. The next basic question is: How do we keep food prices as close as possible to the 'right' price?

To answer these basic questions, we need a basic framework for understanding food security issues.

The objective is to achieve a situation where all households have sustainable access to adequate amounts of nutritious food, on a reliable basis i.e. the long-run micro-level box.

The food price crisis i.e. (the short-run macro-level box) is the immediate issue facing policy-makers. Policy-makers need to work in two separate directions: at the macro-level, they need to move from the short-run to the long-run by putting in place economic development policies, building infrastructure and attracting investments over the long-term that gradually build up the productive capacity of the economy in which farmers, firms and households can find productive and stable employment.

The long run-macro aspect of food security is rightly the primary focus of policy-makers.

The second concern for policy-makers is to move from short-run macro to short-run micro. They must not only provide safety nets to ensure that households do not slip below the poverty line during a crisis, from which they will find it almost impossible to lift themselves out, but policy-makers must also work on reducing households' vulnerability to future price shocks. That is, a

	SHORT-RUN	LONG-RUN
MACRO-LEVEL	Managing food price crises and budgeting for safety nets	Inclusive economic growth and the management of price stability
MICRO-LEVEL	Vulnerability to shocks, coping mechanisms and resilience	Poverty reduction and access to nutritious food = sustainable food security

	TO STABILIZE PRICES	TO REDUCE EFFECTS OF PRICE INSTABILITY
MARKET-BASED	Category A <i>Storage and transportation</i>	Category B <i>Insurance, hedging, and futures markets</i>
PUBLIC	Category C <i>Buffer stocks</i> <i>Import/export controls</i>	Category D <i>Safety nets</i>

safety net can induce households to improve their own security, such as by investing in their own human capital, improving the productivity of their land and of their labour.

In fact, much of economic development is in households investing in their own higher productivity to achieve sustainable food security i.e. gradually moving themselves from the short-run micro-level box to the long-run micro-level box.

Policy-makers must not lavish too much attention, financial resources and policy energy on short-run issues because their focus is needed for the long-run. Without building up human capital, infrastructure and productive capacity, policy-makers will find themselves trapped dealing with perpetual crises.

... no nation in history has been able to sustain economic development over the long-term without first achieving food price stability at the national level

If we understood food systems and could manage food crises better, policy-makers will have a better opportunity to make long-run decisions which would allow households in turn to make their own long-run decisions that will ultimately lead them to achieving sustainable food security. From the standpoint of economic history, this is the only path to sustainable food security. More importantly, no nation in history has been able to sustain economic development over the long-term without first achieving food price stability at the national level.

An analysis of the history of government interventions produces a categorization of instruments available to governments to manage food price instability:

Market-based instruments are driven by private sector incentives, with the effect of stabilizing prices or reducing the effects of price instability, whereas public instruments require government actions. While the private sector requires some price instability that will open opportunities for profit-making, hence attracting their involvement, it is also in their interest to invest in Category A instruments (storage and transportation) that allows them to capitalize on price instability. Therefore, in the process of pursuing profits, traders actually contribute towards stabilizing

prices; the more traders there are, the more competitive the market, and the more closely food prices are stabilized at their true costs.

Yet there will remain a considerable degree of price volatility – a risk — to manage and the private sector will turn to Category B (financial) instruments. International development institutions and foreign aid donors have been actively pushing these instruments as the economically efficient means of coping with the effects of food price instability. However, most countries do not have the systems or infrastructure to allow farmers, traders, processors and consumers to invest in Category B instruments. It then becomes necessary for governments to invest in Category D instruments (safety nets) so that poor households do not fall into the poverty trap.

Safety nets are difficult to design, to implement efficiently (i.e. to limit coverage to the target groups), they are expensive and often do not fit into the budget cycle. Typically, safety nets take 18 months to be designed and deployed, leaving poor households very vulnerable to food price crises.

Public sector efforts to stabilize prices (Category C) are not part of the received wisdom because government intervention is viewed as an 'evil' which hides the reality as transmitted by price signals, and hinders price discovery. However, in the short-run, markets often do not get the price right: when left to itself, the market will frequently

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Peter Timmer

develop bubbles which contain virtually no information on supply and demand fundamentals; this is a result of herd mentality and hot money chasing the dynamics of price formation; the bubbles will inevitably burst, but a lot of unnecessary price instability occurs in the process.

The question, therefore, is can we intellectually and politically rehabilitate Category C instruments to stabilize prices (buffer stocks and border controls) as a matter of government activity?

A synthesis of the real price of rice from 1900 reveals that:

1. There is a very powerful downward trend, showing that the real price of rice has been falling by more than one per cent per year. This has been of enormous benefit to the world's poor, and is one of the most important reasons for the rapid decline of poverty in Asia in the past 50 to 60 years;
2. There is an enormous variation around the trend line e.g. rice prices fell 15 per cent p.a. in real terms over an eight-year period, beginning in the mid-1990s, with the result

that there was no incentive whatsoever to invest in rice production and less so in rice storage. The fall in prices was the result of India and China de-stocking their enormous rice reserves, which they did because of the increasingly heavy costs of storage. Price variations such as these create problems over the long-term, e.g. the mid-1990s price collapse increased consumption but made it very unattractive for producers to invest, resulting in productivity increases that were averaging less than population growth.

To avoid the short-run and long-run impacts of price variation, prices must be stabilized; government intervention (Category C instruments) must address the following questions:

1. Where is price instability a problem? It is first and foremost a problem at the household level; it is a problem at the national level because food security at the household level cannot be achieved without first establishing the right conditions at the national level; it is also a problem at the global level because volatile global prices send signals to research

institutions of the value of investing in research and development that provides the technological input for investments in agricultural productivity.

2. Which commodities need more stable prices? The focus should be only on staple foodstuffs; stabilizing other things would only divert attention and resources.
3. What instruments are available to stabilize prices? Whatever the instruments to be used (including Category C instruments), they would need to affect the formation of price expectation before they affect prices. One reason global rice prices are so volatile is the uniqueness of rice in it being storable for six months to a year in its consumable form (milled rice) – farmers, traders and households have the potential to influence the demand and supply of rice, and their decision to store or hoard rice is driven by their expectations on future prices.
4. How are interventions governed? Price stability is a public good and can only be



Farmers harvesting rice in Indonesia

... encourage individual countries to build up their rice reserves, thus reducing their sensitivity to supply shocks

provided by the public sector. However, as Asian supermarkets typically hold 30-80 per cent of rice stocks, they have the opportunity to participate in price stabilization. This will complicate government intervention programmes in the future.

5. How are results evaluated? There are two different ways: One is political evaluation, where the satisfaction of the populace with food prices is the measure of the success of government intervention. However, given the dominance of small farmers in the political process in Asia, political evaluation may be biased towards high prices. The second way is a full-fledged economic evaluation (analyses of costs and benefits, distribution of gains and losses, cost of storage etc.) which is required as a complement to the political evaluation.

Although the impact of food price volatility is felt primarily at the micro level, the only real sustainable solution engages households, but comes out of a macroeconomic environment of inclusive economic growth and higher real wages. There is currently a very real problem at the macro level in that countries do not trust the world rice market, which really is not working effectively, neither for the exporter nor the importer.

Going forward, there should be a discussion somewhere within the Asean+3 structure to encourage individual countries to build up their rice reserves, thus reducing their sensitivity to supply shocks, and giving them confidence in the ability of the world market to provide food security through trade. It is also necessary to understand ways in which countries can utilize

border controls without disrupting trade in the world market. One possibility of this is to announce a schedule of import duties and export taxes which would make the world market more predictable and transparent. It is, however, impossible for any long-term solution to exclude the need to raise agricultural productivity. Research in agricultural productivity has been neglected for over 30 years; resources put into it must be doubled.

At the global level, there is not much that can be done except that data and analyses can be treated as a public good i.e. they should be made available by each country for every country. The G20's Agricultural Marketing Information System (AMIS) publicly announces accurate data on production and stocks. This could have a huge impact on reducing the risk of relying on the world food markets but there is no historical evidence that food prices can be stabilized at the global level.

Therefore, we have to stabilize food prices at the national level, country by country, but in a way that does not destabilize the rest of the world. This requires an entirely new economic approach, different from the prevailing free global trade approach. The entire economics community must rethink its existing basic paradigm of international trade and start to think of stable prices as good rather than bad.

So, what is the right price of food? It is about US\$400 per metric ton for 25% broken rice, fob Bangkok or Saigon. The current price is about US\$440-450 per metric ton.

In Asia, it is politically easier for governments to stabilize prices at a higher level than the world market because of the influence of small farmers in the political process

Amongst the issues discussed during the question and answer session were the following:

- ◆ The private sector cannot be relied upon to hold stocks across the year to stabilize prices from one year to the next – the involvement of the public sector is necessary to fill the gap, not as a monopoly, not as a regulator of the private sector, but as a market player and competitor that influences the formation of price expectation.
- ◆ Most of the large Asian countries need to provide virtually all of their own rice because the world rice market is small and thin. The question then becomes, how much of a premium are the countries willing to pay and charge to their consumers for a marginal increase in self-sufficiency. For example, increasing Indonesia's self-sufficiency in rice from 95 per cent to 100 per cent presents a huge cost to the nation's budget that may force spending reductions in other vital areas.
- ◆ Farmers like high and stable food prices. Consumers like low and stable food prices. In Asia, it is politically easier for governments to stabilize prices at a higher level than the world market because of the influence of small farmers in the political process. The key to achieving food security with prices stabilized at the higher level is to sustain a rate of economic growth that lifts the poor out of poverty and increases their purchasing power.
- ◆ The standard economic model of international trade shows that unstable prices add gains to

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... as Asia develops economically, less acreage needs to be devoted for rice cultivation

trade and increase welfare of both producers and consumers, (averaged over time). This has to be wrong, and the whole approach must be re-looked at.

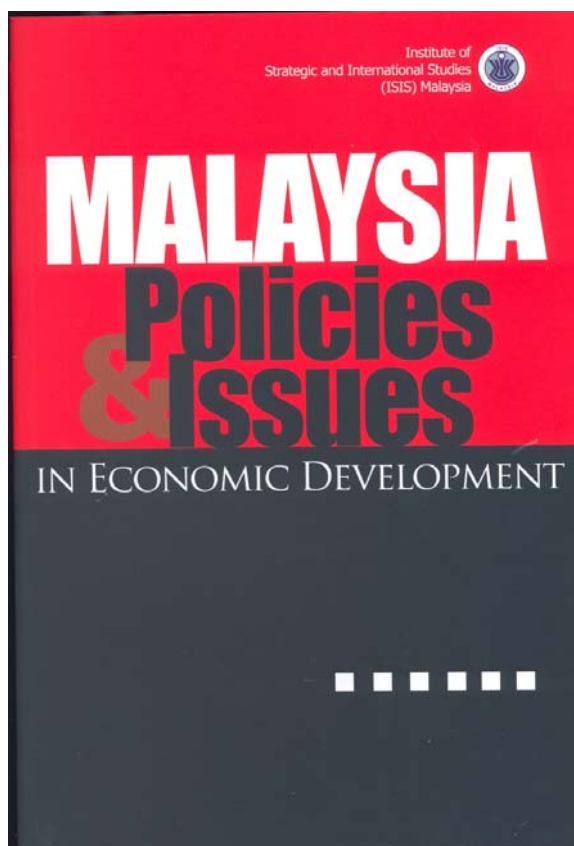
- ◆ Asean holds and controls 85,000 tons of rice in reserve which, under its terms of reference, can only be released during emergencies (in the event of a tsunami, flood, fire or earthquake) but not for the purpose of price stabilization. Asean countries should discuss the option of using this reserve as a stabilizer of regional/world market prices. An example of this is the deployment – or rather the announcement of a deployment – of 1.5 million tons of WTO rice reserves in Japan to affect price expectations and bring world prices back under control in 2008. Asean+3 also controls reserves, with commitments from Japan, China and South Korea totalling 650,000 tons.
- ◆ Currency fluctuations affect international trade in rice, which is traded in the US dollar. However, traders can utilize financial instruments to hedge against currency risks.
- ◆ Establishing a futures market for rice, such as at SIMEX, is faced with the problem of gaining sufficient volume and liquidity such that any individual market player will not be able to affect prices inordinately on his own. Rice is probably the only commodity that is not subjected to financial speculation (it is not included in any of the commodity index funds that can be traded over-the-counter), although it is subjected to panic hoarding by

traders. Therefore, a rice futures market will likely be very thin; it will attract a lot of hot money and it will be easily manipulated by rice traders, leaving a real possibility that we will see more price volatility than less.

- ◆ A more important platform to have is a transparent market for price discovery for the most traded/consumed varieties of rice; with the rice market being fractured, and with deals being concluded behind closed doors or between governments, the price of rice is virtually unknown.
- ◆ The rice yield is driven by fertilizer input. As fertilizers are essentially congealed natural gases, rice yields can be said to be driven by energy subsidies. Current research is focused on making the rice plants more efficient energy users.
- ◆ Rice consumption in Asia is falling, in absolute and per capita terms. This is because the income elasticity of demand for rice is now sharply negative (Asians eat less rice and more of other things as their incomes grow); and also because of urbanization i.e. when a farmer relocates to the city, he eats less rice and more of other things as he is now a wage-earner exposed to a wider set of food choices. Therefore, as Asia develops economically, less acreage needs to be devoted for rice cultivation. This will allow us to retreat from the fringes of the forests and focus on improving the productivity of the traditional rice growing areas e.g. river deltas and flood plains. Falling rice consumption presents an excellent opportunity – including for Malaysia – to diversify away from rice cultivation into higher value fruit and vegetable cultivation and livestock farming.



Participants at the forum



Malaysia: Policies & Issues in Economic
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The book, consisting of more than 20 chapters, covers four main themes: Macroeconomic Management, Economic Growth and Transformation, Management of Growth and Equity, and Enabling Environment and Institutions for Development. The authors are drawn from various sectors, with wide-ranging and rich experience in academia, the public sector and the private sector.

Compared to previous studies which focused mainly on the development process, this book takes a different approach to Malaysian economic development. It traces landmark achievements, and presents challenges and pitfalls faced by the nation over the last five decades after Independence. More importantly, it pays tribute to the role and contributions of various players and protagonists in this development process.

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