


# Global Food Crisis: Evolution, Impact and Policy Responses

Hassan Zaman  
Lead Economist  
The World Bank

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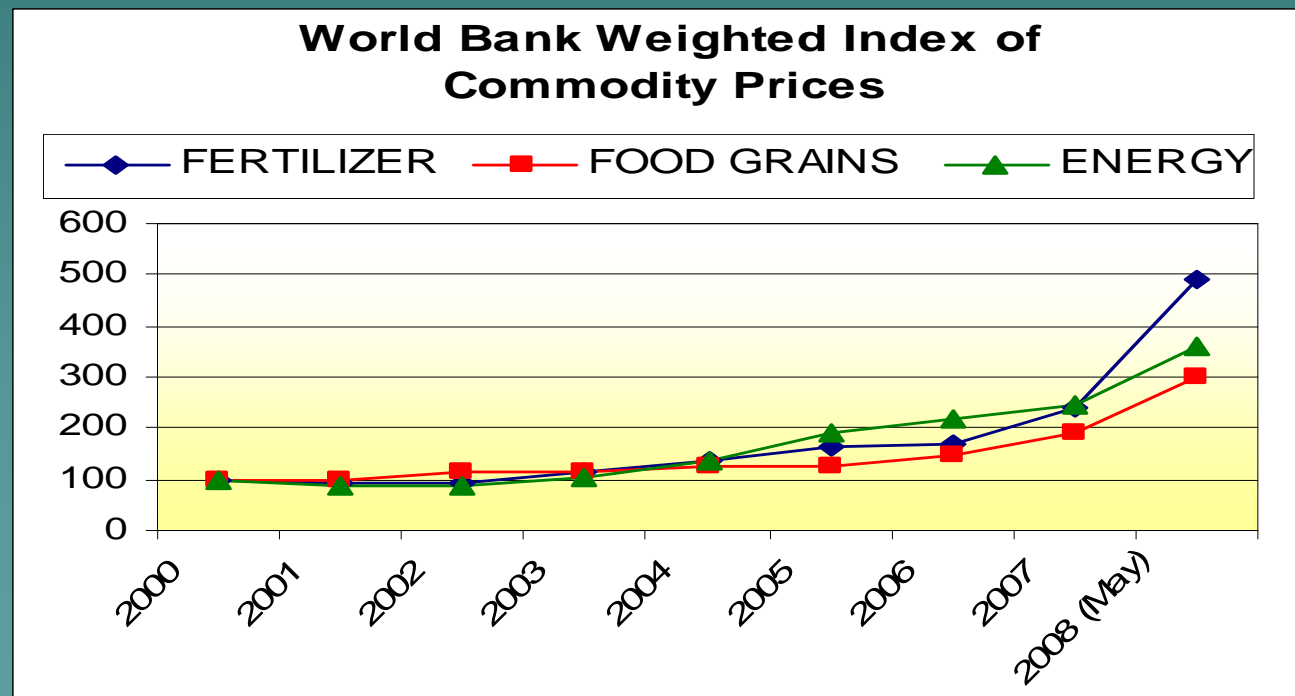
# Presentation Outline

- ◆ Price trends and determinants
  - ◆ Consequences – macro and household level
  - ◆ Policy options and actual policy responses
  - ◆ Concluding thoughts
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# Commodity Price Trends

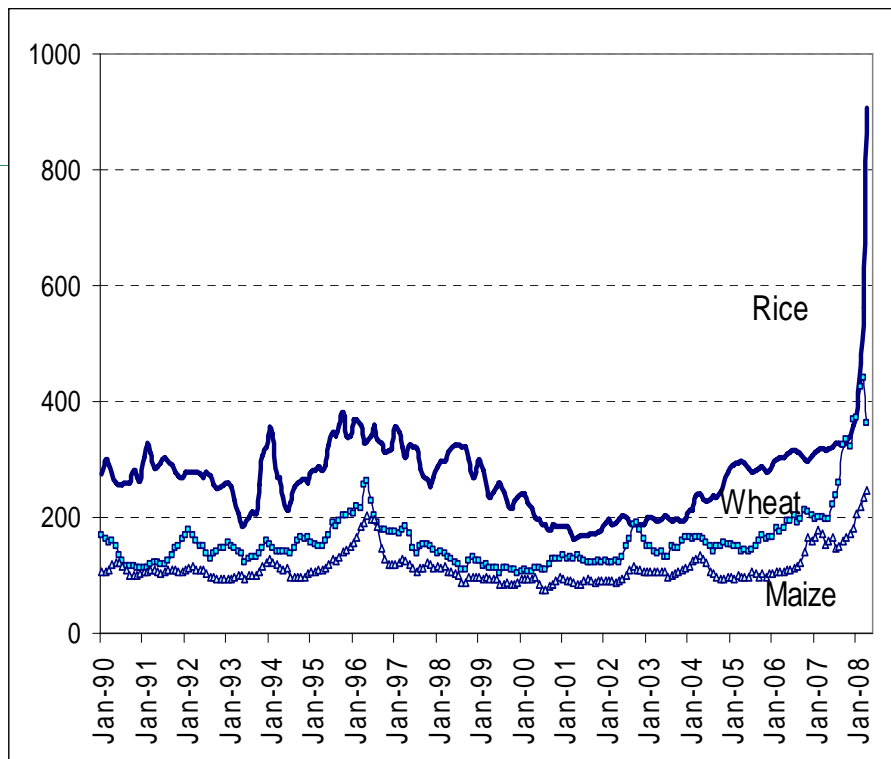
World food prices by May 2008 were three times higher than in 2000;

Fertilizer prices doubled over the past year as have crude oil prices



# Trends and Determinants

**Figure 1. Grain Prices**  
\$/Ton; January 1990 - April 2008

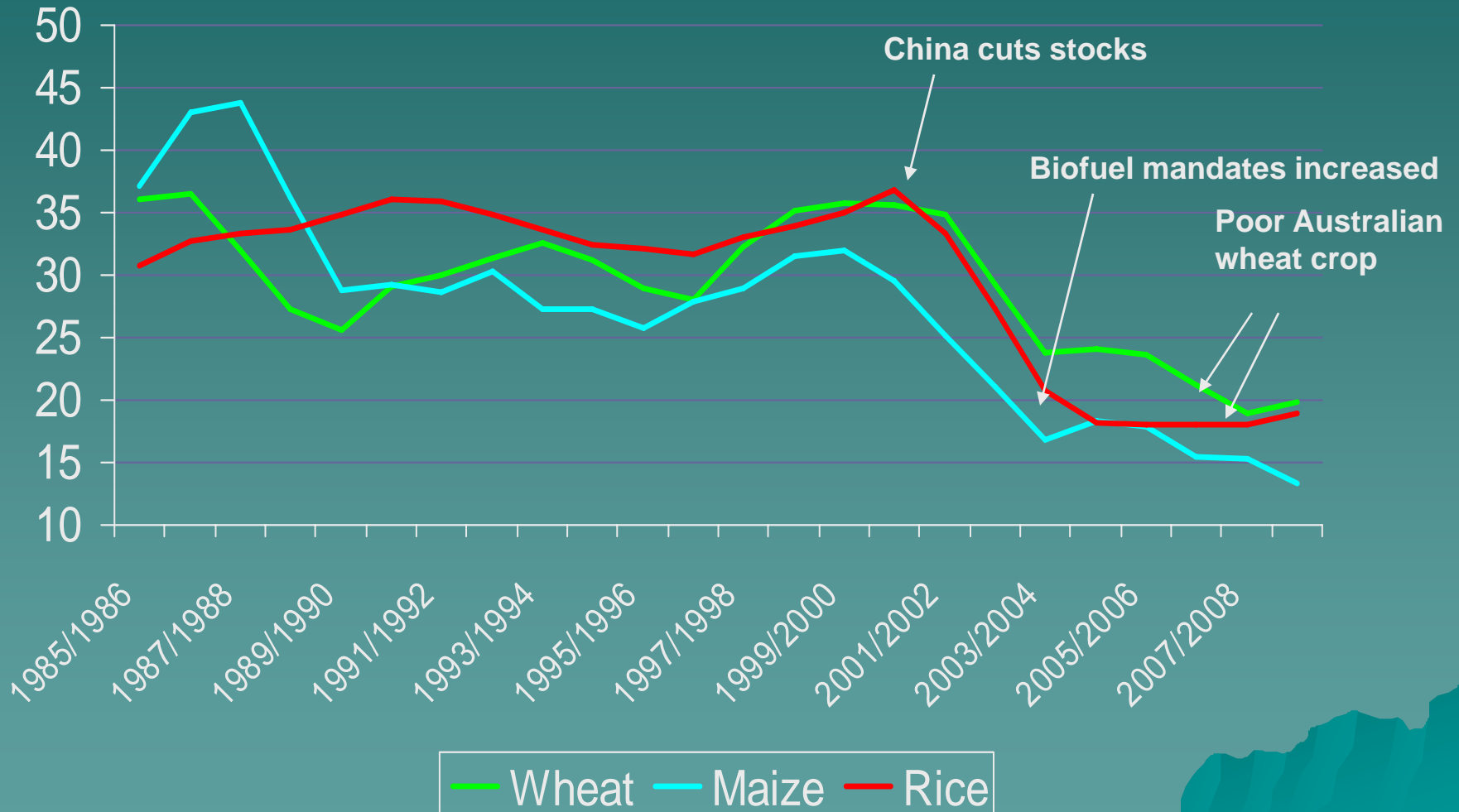


Source: World Bank data and staff estimates.

- ◆ Price rises are a result of:
  - Rising **energy costs** & the **falling dollar**
  - The demand for **biofuels**
  - Decline in food stocks
  - **Export restrictions** by key exporters
  - Financial speculation

# Policy changes and weather contributed to a fall in grain stocks

Global stocks as a percent of annual production



Source: DEC Prospects Group, USDA

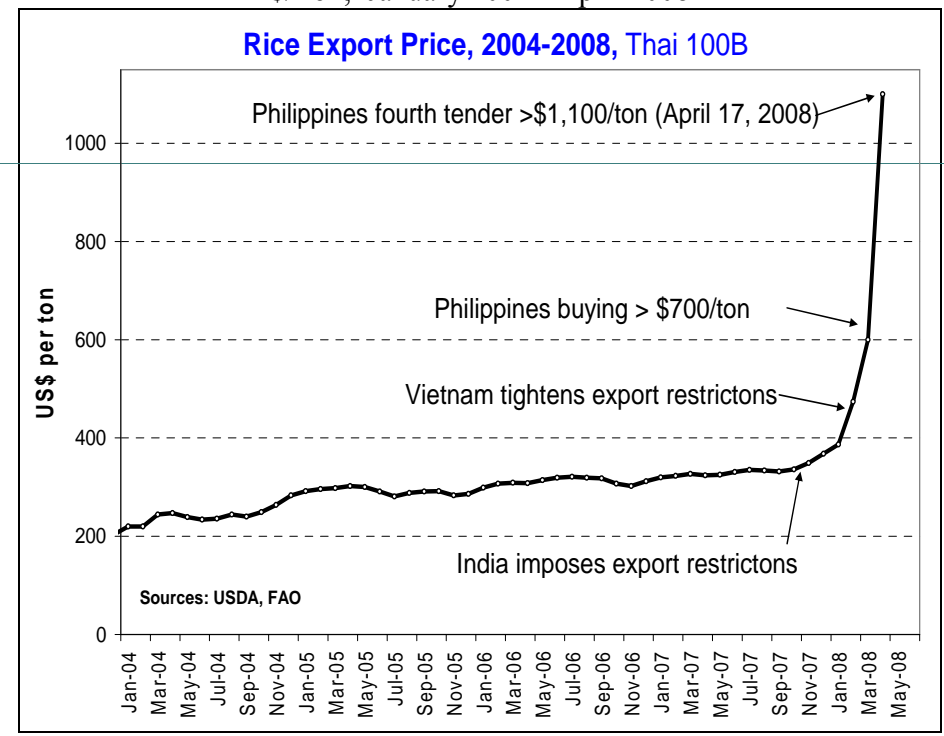
# Role of Bio-fuels

- ◆ Concerns over oil prices, energy security and climate change have prompted governments to encourage production and use of bio-fuels.
- ◆ This has led to increased demand for bio-fuel crops, such as maize, soybeans and palm oil.
- ◆ Almost all of the increase in global maize production from 2004 to 2007 went for bio-fuels production in the U.S., while existing stocks were depleted by an increase in global consumption for other uses.
- ◆ Land use changes due to increased use of maize and oilseeds for biofuels led to reduced plantings of wheat, the subsequent depletion of world wheat stocks to record lows, and a surge in wheat prices.
- ◆ Surge in wheat prices reflected in rice prices

# The Run on Rice

- ◆ Preemptive trade policies to ensure domestic food security have had a snowball effect
- ◆ Wheat and rice exporting countries have banned or restricted exports:  
→ price spikes → 'panic buying' and further price rises (see chart)
- ◆ Farmers, traders, exporters held stocks given price rises. Contributed to broken contracts and a virtual collapse of normal market mechanisms

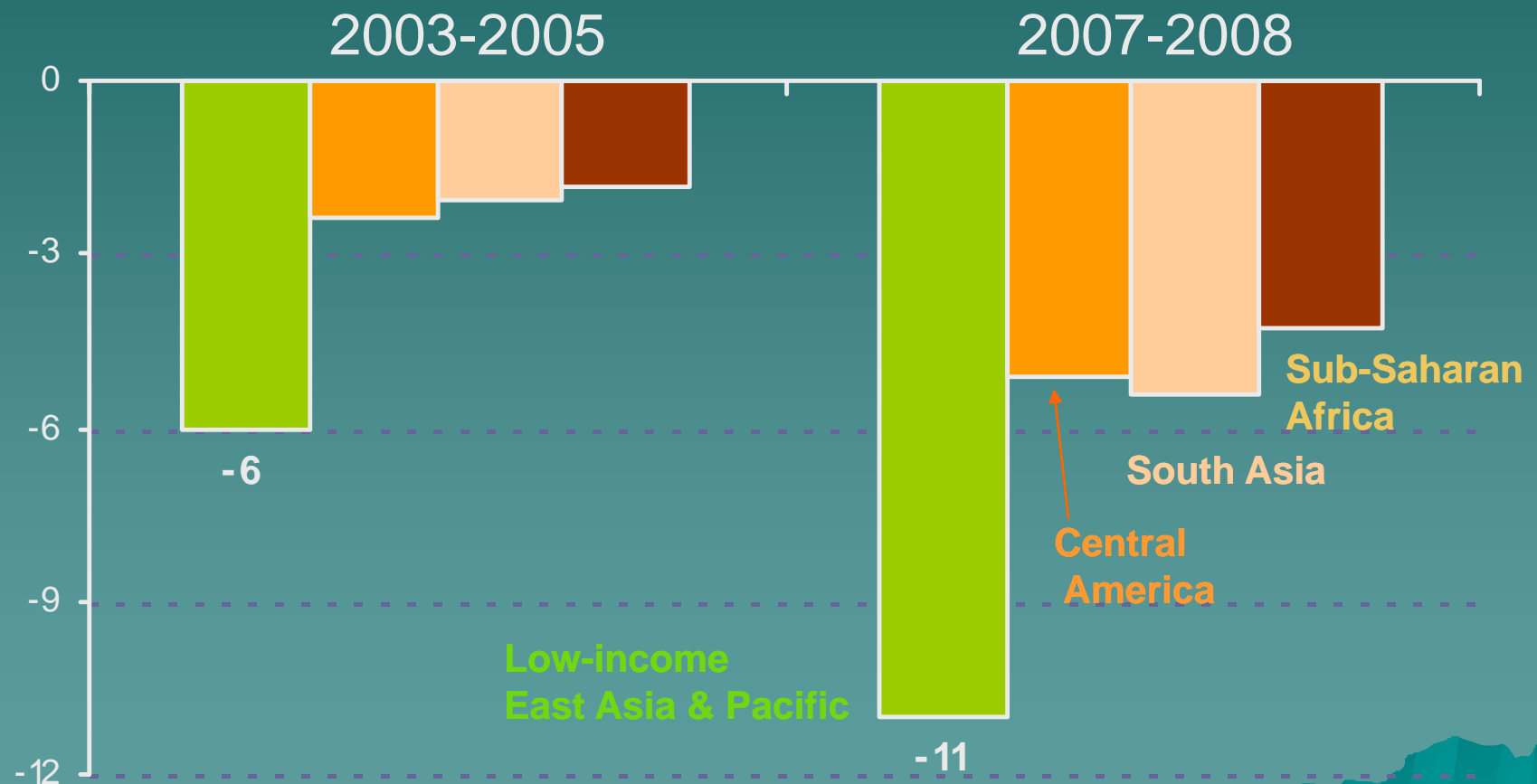
**Figure 3. Rice Prices and Recent Policy Responses**  
\$/Ton; January 2004 - April 2008



Source: Brahmabhatt, M. & Christiaensen, L.  
*Rising Food Prices in East Asia: Challenges and Policy Options*, 2008

# Balance of Payments Impacts

Terms of-trade impact (% of GDP)



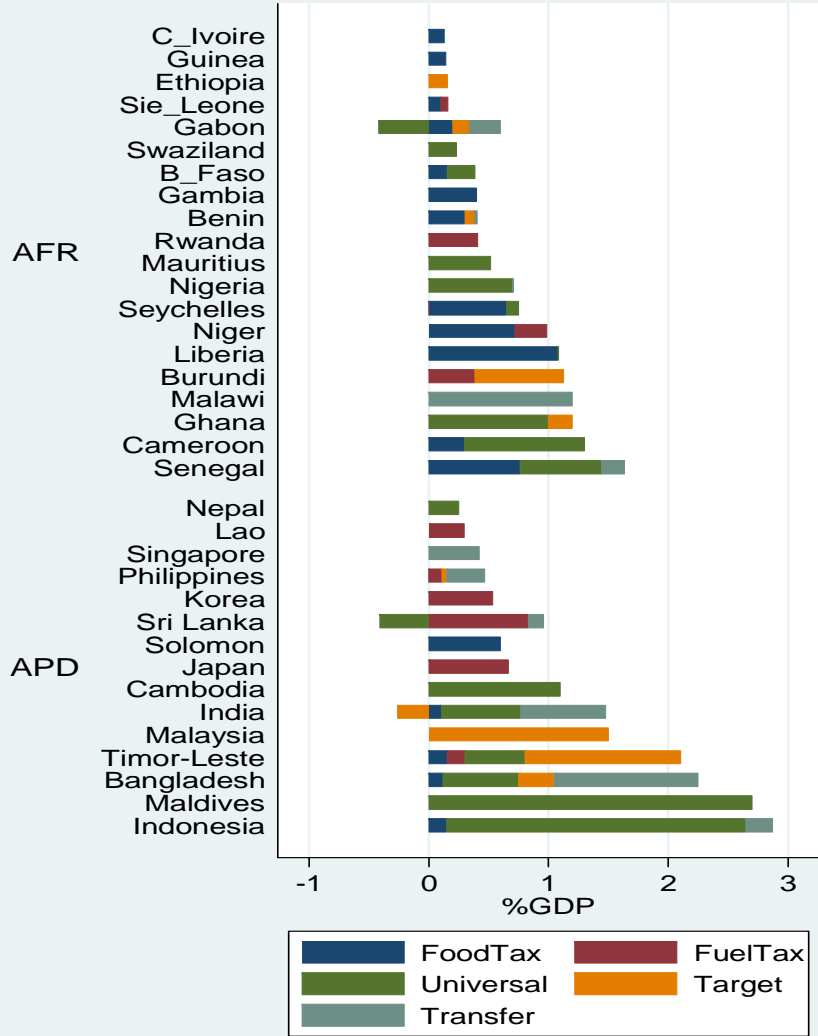
Source: DEC Prospects Group

# Fiscal Impacts

- ◆ Recent IMF survey suggests median fiscal impact of policy responses to rising food prices is around 0.6% of GDP – this is likely to rise as some responses, especially in safety net programs are being rolled out, and does not include civil servant wage rises
- ◆ There is wide variation – for instance Indonesia's total response bill close to 3% of GDP and Bangladesh just over 2% (includes large expansion in social protection allocations in FY09 Budget)

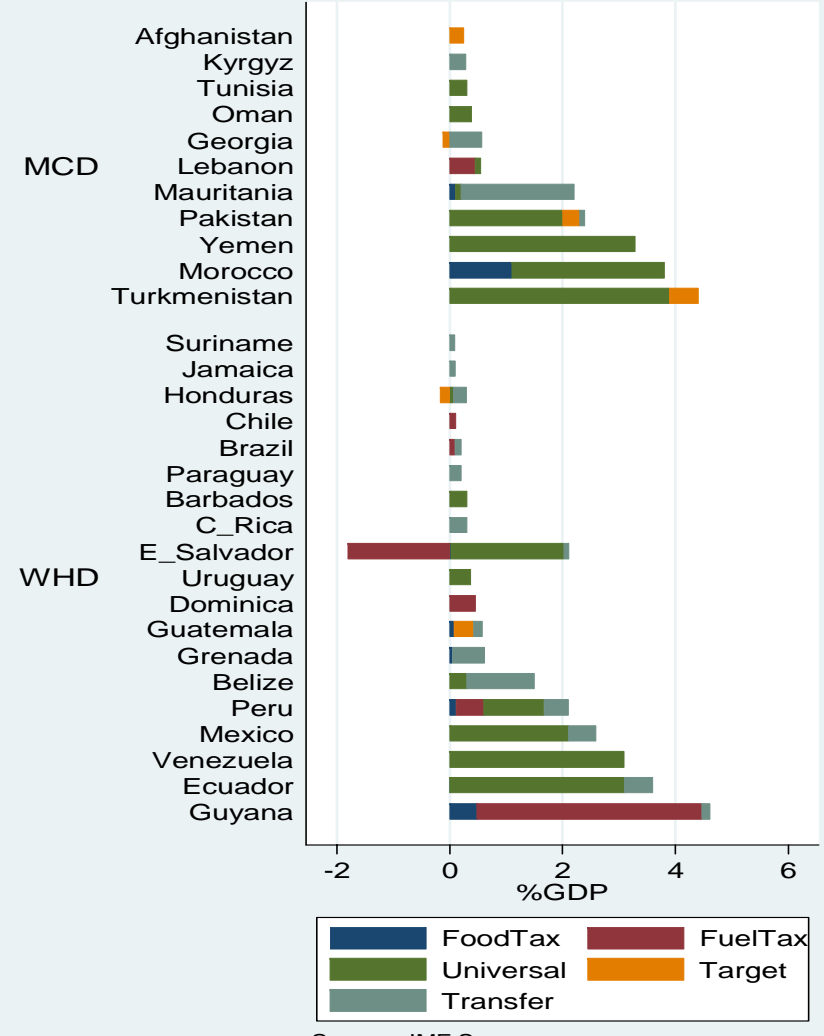
# Total fiscal cost of food and fuel policy responses

Total Fiscal Cost 2008  
%GDP>0.1



Source: IMF Survey

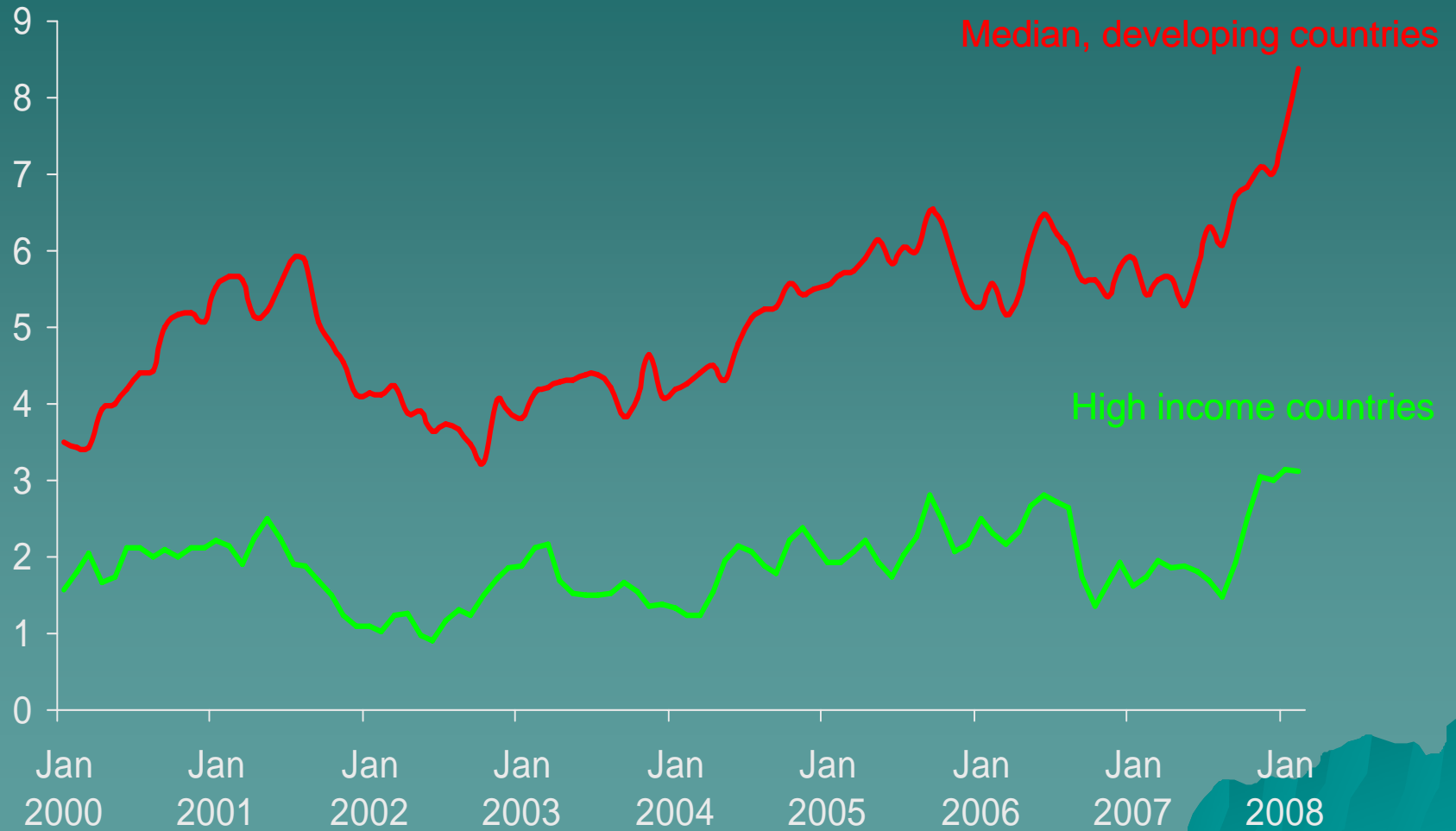
Total Fiscal Cost 2008  
%GDP>0.1



Source: IMF Survey

# Inflationary Impact

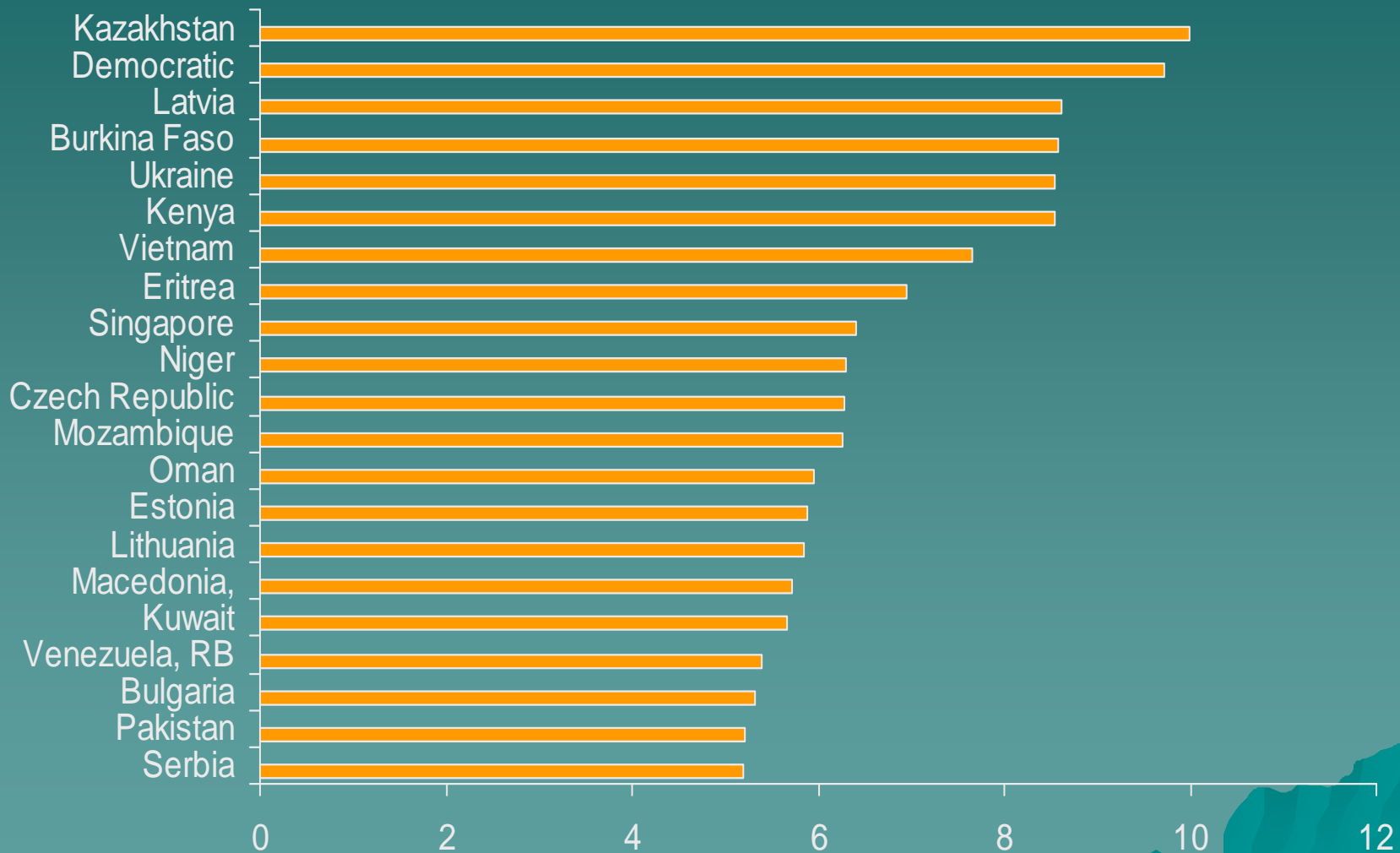
Percent change year-over-year in consumer prices



Source: DEC Prospects Group

# Countries where inflation accelerated by 5 percentage points or more in 2007

Change in monthly inflation rate between Jan 2008 and Jan 2007



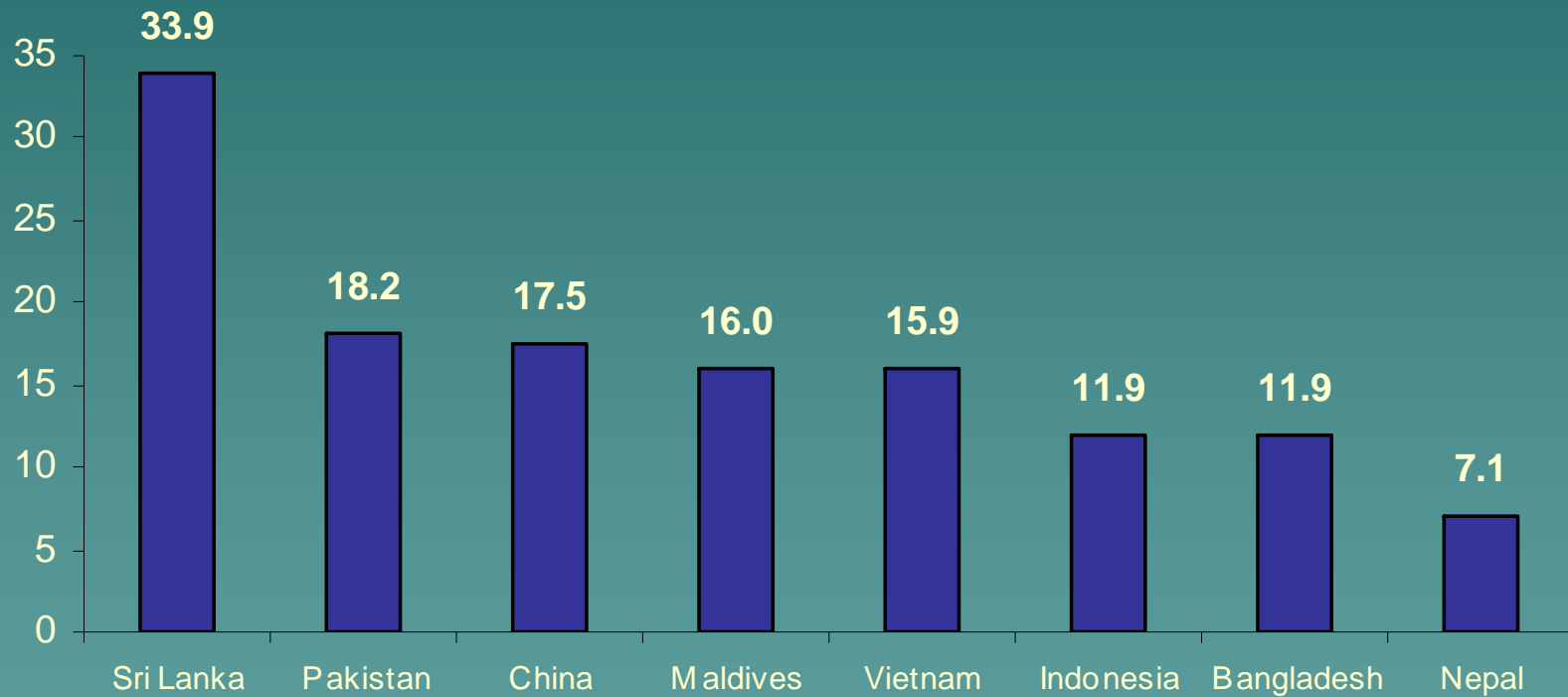
Source: DEC Prospects Group

# High Food Inflation in East Asia

- ◆ The large 2008 increase in international food prices is increasingly being passed on.
- ◆ In East Asia food price inflation in VN (34 %), in CN (22%), in IND (16%)

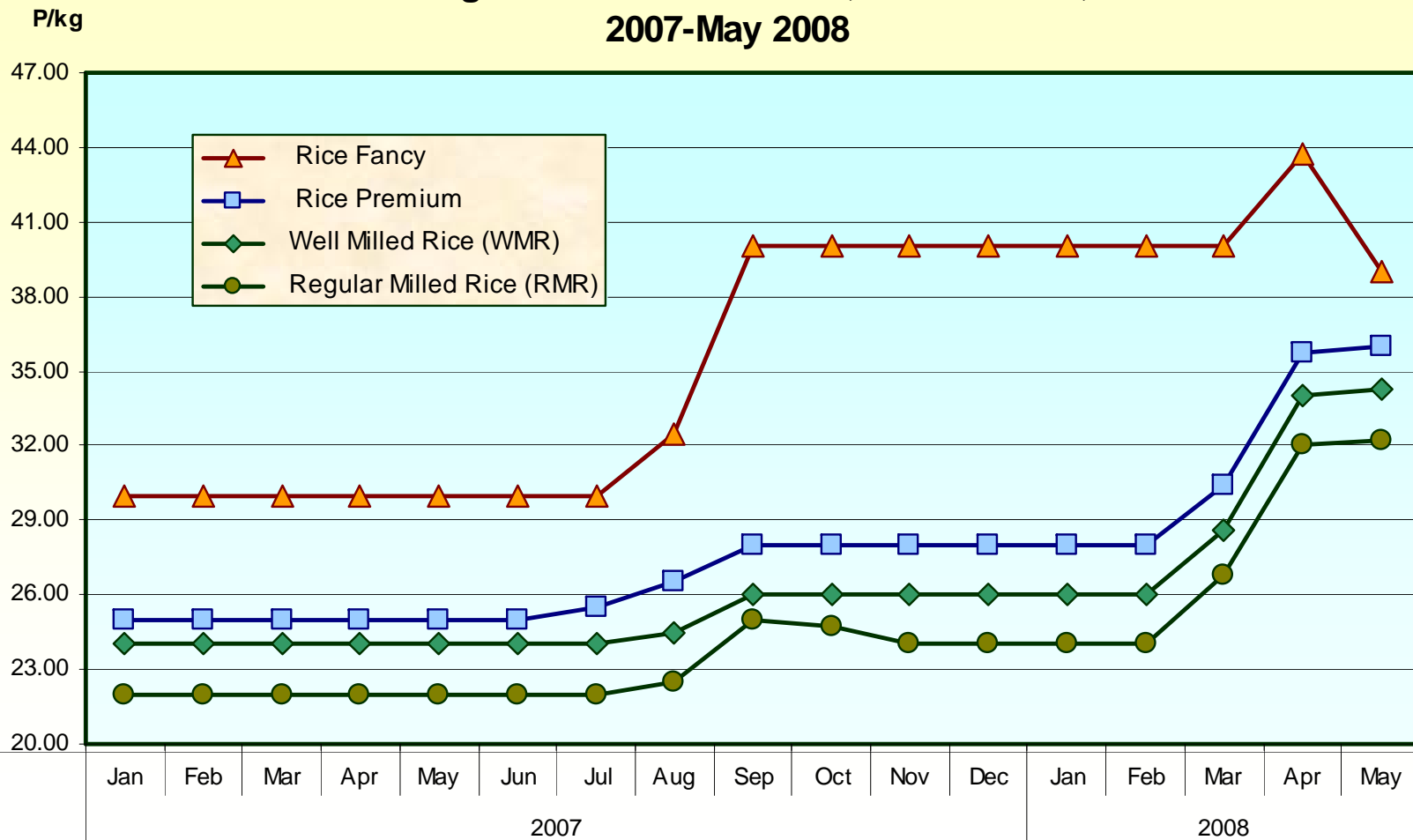
	2006	2007 Q4	2008 Q1	2008 April
"Headline" consumer price inflation				
China	1.5	6.7	8.1	8.5
Indonesia	13.1	6.7	7.6	9
Philippines	6.2	3.3	5.5	8.3
Thailand	4.6	2.9	5	6.2
Vietnam	7.4	10.7	16.4	21.4
"Food" Consumer Price Inflation				
China	2.3	17.5	21	22.1
Indonesia	14.7	11.9	12.4	15.7
Philippines	5.5	4.1	7	11.4
Thailand	4.6	2.7	6.8	9.8
Vietnam	8.7	15.9	26	34.2

# Selected Asian Countries Food Inflation- 2007/08



# Philippines rice price increases similar to Bangladesh

**Average Retail Prices of Rice, Metro Manila,  
2007-May 2008**



# Poverty and Distributional Impacts

- ◆ Poverty impacts of food price rises are complex and large:
  - ◆ Effects vary significantly between countries and commodities
  - ◆ Estimated increase in global \$1/day poverty headcount is 4.5 percentage points (or 105 million additional poor world-wide)
- ◆ West and Central Africa
  - ◆ Simulations suggest 50% increase in food prices raises poverty rates by 2.5 to 4.4 percentage points (possibly 30 million additional poor in Africa alone).

**Table 3 Potential Impact on Poverty Headcount Index of Higher Food Prices in Africa**

			Upper bound	Upper bound	Lower Bound	Lower Bound
Country	Consumption Share of Selected Items	Baseline Headcount Ratio	Impact (Consumption) 25% increase	Impact (Consumption) 50% increase	Impact (Cons. & Production) 25% increase	Impact (Cons. & Production) 50% increase
Burkina Faso	6.8	<b>46.4</b>	1.1	2.0	-	-
Ghana	7.7	<b>28.5</b>	1.1	1.9	0.7	1.2
Liberia	22.8	<b>63.8</b>	3.3	6.0	2.8	5.6
Senegal	20.5	<b>50.8</b>	5.1	9.6	-	-
Sierra Leone	11.7	<b>66.4</b>	1.4	3.2	0.8	2.1
Togo	6.5	<b>61.6</b>	1.1	2.1	0.9	1.4
DRC	28.3	<b>71.3</b>	2.6	4.9	1.3	2.4
Guinea	13.0	<b>49.1</b>	1.6	3.0	0.9	1.6
Gabon	10.7	<b>32.7</b>	1.8	4.0	1.6	3.5
Mali	13.4	<b>47.5</b>	2.6	5.3	1.7	3.4
Niger	41.0	<b>62.1</b>	4.0	7.9	3.8	7.5
Nigeria	9.8	<b>54.7</b>	1.5	3.1	0.5	0.9

*Source:* Wodon Q et al (2008) 'Potential Impact on Poverty of Higher Food Prices: Summary Evidence from West and Central Africa' Africa Region (mimeo)

# Vulnerability to Food Price Shocks: Poverty and Distributional Impacts

## ◆ Latin America

- ◆ Food inflation in 2007 potentially leads to a range of increases in headcount poverty rates from 3.4 percentage points in Jamaica to .3 in Peru.

## ◆ East Asia

- ◆ Recent estimates for Vietnam highlight the complexity of impacts: 10% increase in food prices *reduces* poverty as significant share of poor households are net sellers of rice - but a large number of households are worse off and so inequality worsens

# Vulnerability to Food Price Shocks

## ◆ Inequality

- Larger farmers accrue greater benefit relative to smaller farmers and relative to the urban poor.
- Rich-poor gaps widening in Latin America.

## ◆ Gender

- Empirical evidence that females are worse off during economic hardships
- However in some parts (e.g. West Africa) women retain income from food crops and therefore higher food prices can favor them

## ◆ Schooling – risk of lower enrolments

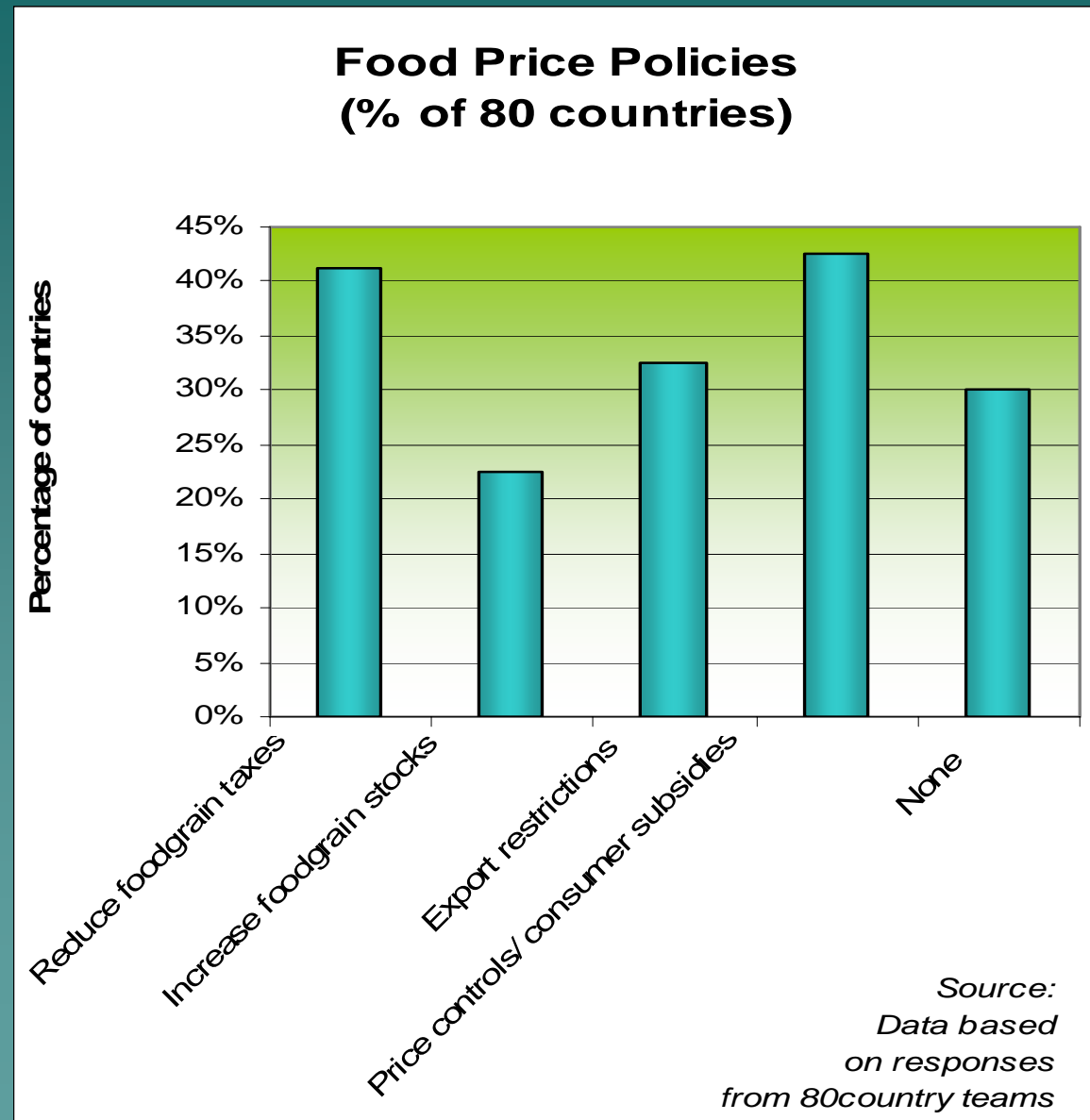
## ◆ Nutrition

- Potentially serious effects for infants and pregnant women especially in conflict countries (e.g. UNICEF Somalia appeal)

# Policy Option 1: Lower Domestic Food Prices

- ◆ Reduction in grain import tariffs, VAT and other taxes
  - *Recommended for all countries with significant taxes and tariffs on food grains; but fiscal implications*
- ◆ Selective grain / bread subsidies targeted to poor consumers e.g. Bangladesh
  - *Reasonable option in countries where targeted safety net programs cannot be scaled up sufficiently during crises*
- ◆ Strategic grain reserves (buffer stocks)
  - *Used in low/middle income countries which have the capacity to manage food stocks. Uses are food based safety net programs, price stabilization and emergency reserves*
- ◆ Price controls for “strategic” staples or on trader margins, e.g. several countries in Eastern Europe and Middle East
  - Risks of serious producer disincentives
- ◆ Grain export bans or taxes,
  - *Negative externalities and disincentives for future production*

# Policy Responses to Curb Domestic Food Prices



## Policy Option 2: Addressing rising food prices using safety nets

### Cash based transfers

- *Ideal if adequate coverage and reasonable benefit levels can be disbursed efficiently – requires capacity for targeting, payment systems.*
  - *Increasing pensions where old age poverty is a serious issue.*
  - *Conditional cash transfers may help reduce school dropouts.*
- ◆ Near cash (food stamps, vouchers)
- *Appropriate for countries with institutional capacity to target but not necessarily the mechanisms to disburse cash / countries transitioning from in-kind to cash transfers. Requires dealer system and can be hard to set up quickly*

## Policy Option 2: Addressing rising food prices using safety nets (cont)

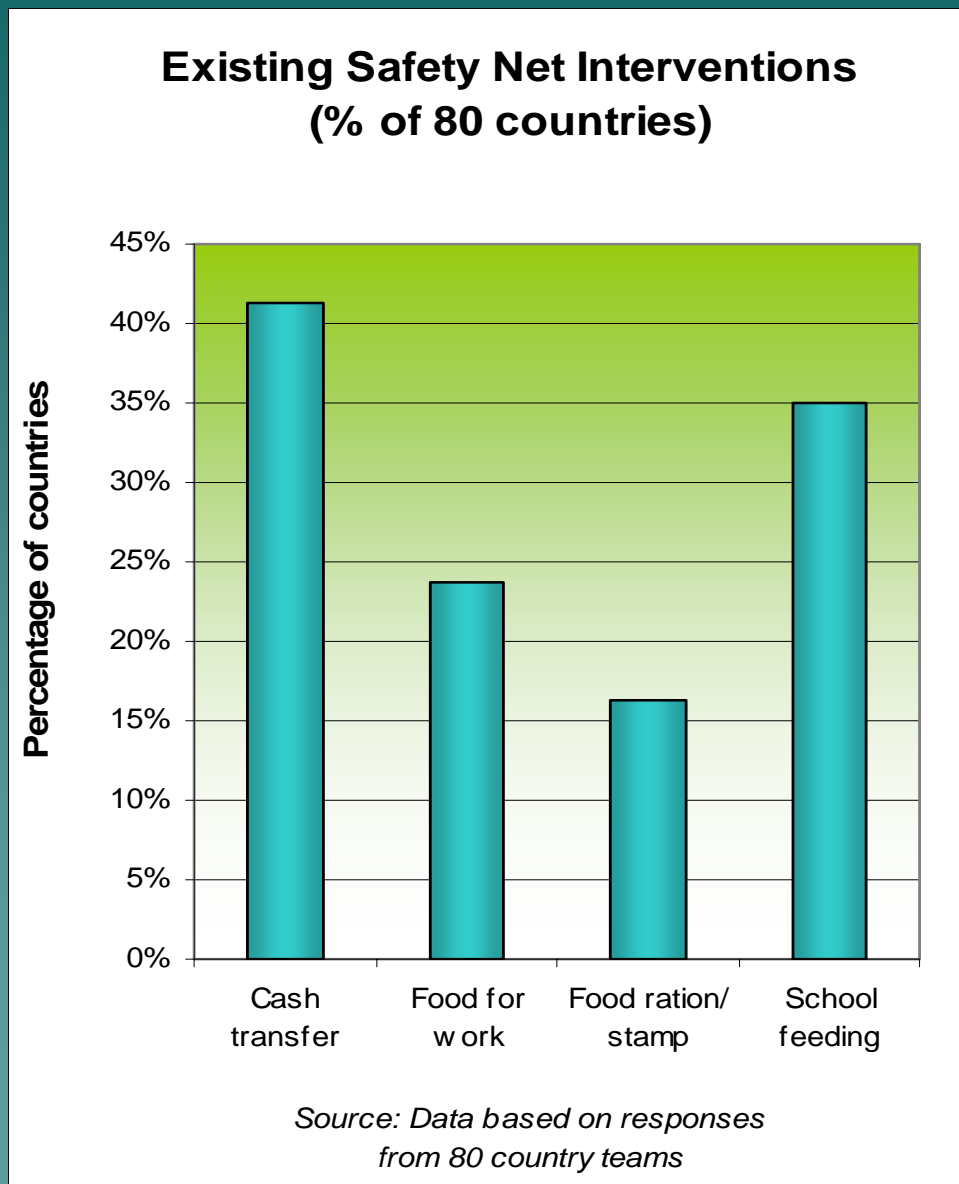
- ◆ Public works programs

- *Recommended for low income countries where targeting cash transfers via means or proxy means testing is difficult. Where they exist increasing benefit levels can be done quickly though increased coverage takes time. Additional capital costs for public works need to be factored in*

- ◆ Feeding programs

- *Recommended for countries in parallel with above option as the primary focus is on protecting the most vulnerable (infants).*
- *Micro-nutrient supplements and fortification*
- *Take home rations preferable to school feeding programs as lower admin and disruption costs*

# Distribution of Social Protection Programs



# Country Responses

Country	Economy wide policies					Existing social protection programs			
	Reduce import tariffs	Export restrictions/ export tax	Reduce food grain taxes	Price controls/ consumer subsidies	Increase supply using stocks	Cash transfer	Food for work	Food ration/ stamp	School feeding
Cambodia		X	X		X		X		X
China	X	X	X	X	X	X			X
Fiji	X		X	X					
Indonesia	X	X	X	X	X			X	
Lao PDR									
Malaysia				X	X				
Mongolia			X	X	X				
Papua NG									
Philippines				X	X				X
Solomon Isl.	X			X					
Thailand				X					
Timor Leste				X	X		X		X
Vietnam		X							

# Country Responses (cont)

COUNTRY	ECONOMY-WIDE POLICIES				EXISTING SOCIAL PROTECTION PROGRAMMES			
	Reduce taxes on	Increase supply	Export restriction	Price Controls/	Cash transfer	Food for work	Food ration/sta	School feeding
<b>South Asia Region</b>								
Afghanistan*	√					√		
Bangladesh*	√	√	√	√	√	√	√	√
Bhutan	√	√		√	√			√
India	√	√	√			√	√	√
Maldives	√	√		√	√			√
Nepal*			√			√		√
Pakistan*		√	√	√	√			√
Sri Lanka*	√		√	√	√		√	√
<b>Middle East and North Africa</b>								
Egypt			√	√	√		√	
Iraq*	√	√	√	√	√		√	
Jordan	√			√	√			√
Lebanon	√			√				√
Morocco	√	√		√				√
Syria	√	√	√	√	√		√	√
Tunisia	√	√		√	√			
W. Bank and Gaza	√				√		√	√
Yemen		√	√	√	√			

# Country Examples

## ◆ Ethiopia

- *increased wage rate of main cash transfer program by 1/3, lifted VAT on foodgrains and subsidized wheat distribution to urban poor*

## ◆ Philippines

- *exploring Government to Government deals with Japan/Vietnam for rice imports and not market tenders*

## ◆ Egypt

- *food subsidies increased from 1.6% of GDP to 2.2% of GDP in FY08 and increase in civil servant wages*

# Country Examples (cont)

## ◆ Indonesia

- *expanded cash transfer program for the poor being developed*

## ◆ Central and Eastern Europe

- *several countries have 'informal agreements' between Govt and producers to limit prices and producer profits e.g. Macedonia, Bosnia, Azerbaijan, Moldova, Kyrgyzstan*
- *Romania – limited time cash increment to pensioners following price liberalization in 1990s*

## ◆ Latin America

- *Reduction of tariffs, expanding Conditional Cash Transfers (e.g. Jamaica), export bans (e.g. Argentina)*

## Policy Option 3: Boosting Food Production

- ◆ Higher levels of public & private investment in agricultural support services (research, extension, market information) and reduction of post harvest losses.

e.g. Philippines following National Food Summit in April 2008 President rolled out their food self-sufficiency target for 2010 to be achieved by:

- Subsidizing organic fertilizer due to high price of urea and need to rebalance fertilizer mix
- Sizeable allocation for irrigation rehabilitation
- Funding increase for agriculture extension and research in collaboration with State colleges
- Matching grants to private sector for setting up post-harvest facilities (losses are 25% of output in EAsia)
- Increased support to certified and hybrid rice seed growers

## There is significant scope for rapid *intensification* through increased yields,...

- Average paddy yields (boro) in Bangladesh are 25% and 40% below average yields in Vietnam and China
- Increasing adoption of hybrid rice, improving crop management practices and access to high quality seed are essential. Strengthening extension system, deepening fertilizer dealer network to improve timely access and focusing on high quality seed availability crucial
- Considerable scope for better water management e.g better leveling to retain wet season water has raised rice yields by 27% in Cambodia

## Policy Option 4: Longer-term Food Security

- ◆ Forward contracts for international grain procurement  
– *Data/capacity required*
- ◆ Access to finance and market based risk management instruments (e.g. Malawi weather based insurance)
- ◆ Promoting diet diversification (e.g. cassava in Africa and wheat in Asia)
- ◆ Stock management – most countries now have less faith in international markets and hence are trying to raise security stocks.
- ◆ Raising household incomes – (crucial but beyond scope of this presentation!)

# Concluding Thoughts: Pricking the Global Price Bubble

## International consensus/dialogue on

- Releasing stocks on market in country's where it'll make little difference to their own food security (e.g. if China/Japan released 2-3 million tons from current rice stocks)
- Discussions of export bans as part of the 'global common good' (e.g. Ukraine and wheat prices)
- Avoiding large panic purchases – govt to govt agreements such as Philippines to avoid price spikes from large tenders

## Biofuels

- Remove tariffs in US and EU to allow cheaper bio-fuel products (e.g. sugar-cane based Brazilian ethanol)
- Amend mandates/targets to attain bio-fuel targets
- Accelerate switch to 2<sup>nd</sup> generation bio-fuels which do not compete with food products

# Concluding Thoughts: Domestic Responses

- ◆ Careful macro-management now even more critical especially on real exchange rate, reserves management and fiscal policy. Trade-offs in public spending choices given cost of responses.
- ◆ Households and traders holding stocks in many countries due to concerns of future price rises or shortfalls. However history shows that prices can also tumble. International rice prices likely to be lower than current values in the 2<sup>nd</sup> half of this year and this will likely affect domestic prices.

# Concluding Thoughts: Domestic Responses (cont.)

- ◆ Identifying types of groups who are most affected, where they are located, occupations, gender more important for type of policy intervention than exact estimation of increase in poverty
- ◆ Nutritional supplementation / feeding programs required to avoid irreversible damage esp to infants
- ◆ While cash based safety net programs preferable pragmatism and speed of response even more important – ie scale up what works now; new programs take time to develop.

# Concluding Thoughts – Domestic Food Security

- Countries are considering food self sufficiency; for some it is feasible by raising yields; for others the costs (environmental, financial), will be very high
- Bilateral trade arrangements are being made to ensure national food supply  
(e.g. Saudi Arabia discussing direct production by Saudi private producers in several wheat producing countries)
- ◆ Importance of economic growth and broad based household income increases to counter external commodity price surges.

# References / links (for more details on content of this presentation)

“Double Jeopardy: Responding to High Food and Fuel Prices”

[www.worldbank.org/html/extdr/foodprices/](http://www.worldbank.org/html/extdr/foodprices/)

Fiscal impacts:

[www.imf.org/external/np/exr/foodfuel/index.htm](http://www.imf.org/external/np/exr/foodfuel/index.htm)