



Simulating Policy Responses to the Food Security Crisis:
Nature and Relative Impacts of Various Instruments
by
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Power Point Presentation for the
International Agricultural Trade Research Consortium
Analytic Symposium
*“Confronting Food Price Inflation:
Implications for Agricultural Trade and Policies”*

June 22-23, 2009
Seattle, Washington



**Simulating policy responses to the
food security crisis: Nature and
relative impacts of various
instruments**



**IATRC Symposium
Confronting Food Price Inflation: Implications
for Agricultural Trade and Policies**

Seattle, 23 June, 2009

Trade and Markets Division

OUTLINE



1. Policies



2. Simulation

3. Results and Conclusions

Study background



- End of 25 year downward trend of real food prices in 2006
- Escalation into a surge of price inflation in 2007 and 2008 - rice and vegetable oil prices doubled between January and May 2008.

“The steep rise in global food prices, coupled with availability problems in a number of developing countries, is threatening global food security.” *G8 Summit, July 2008*

How were increasing prices addressed?



- Trade policy
 - reducing tariffs
 - exports restrictions
- Consumer policy
 - direct support to vulnerable consumers
- Producer policy
 - support farmers to increase production
- Stock policy
 - building and releasing of public stocks

OUTLINE



1. Policies

2. Simulation



3. Results and Conclusions

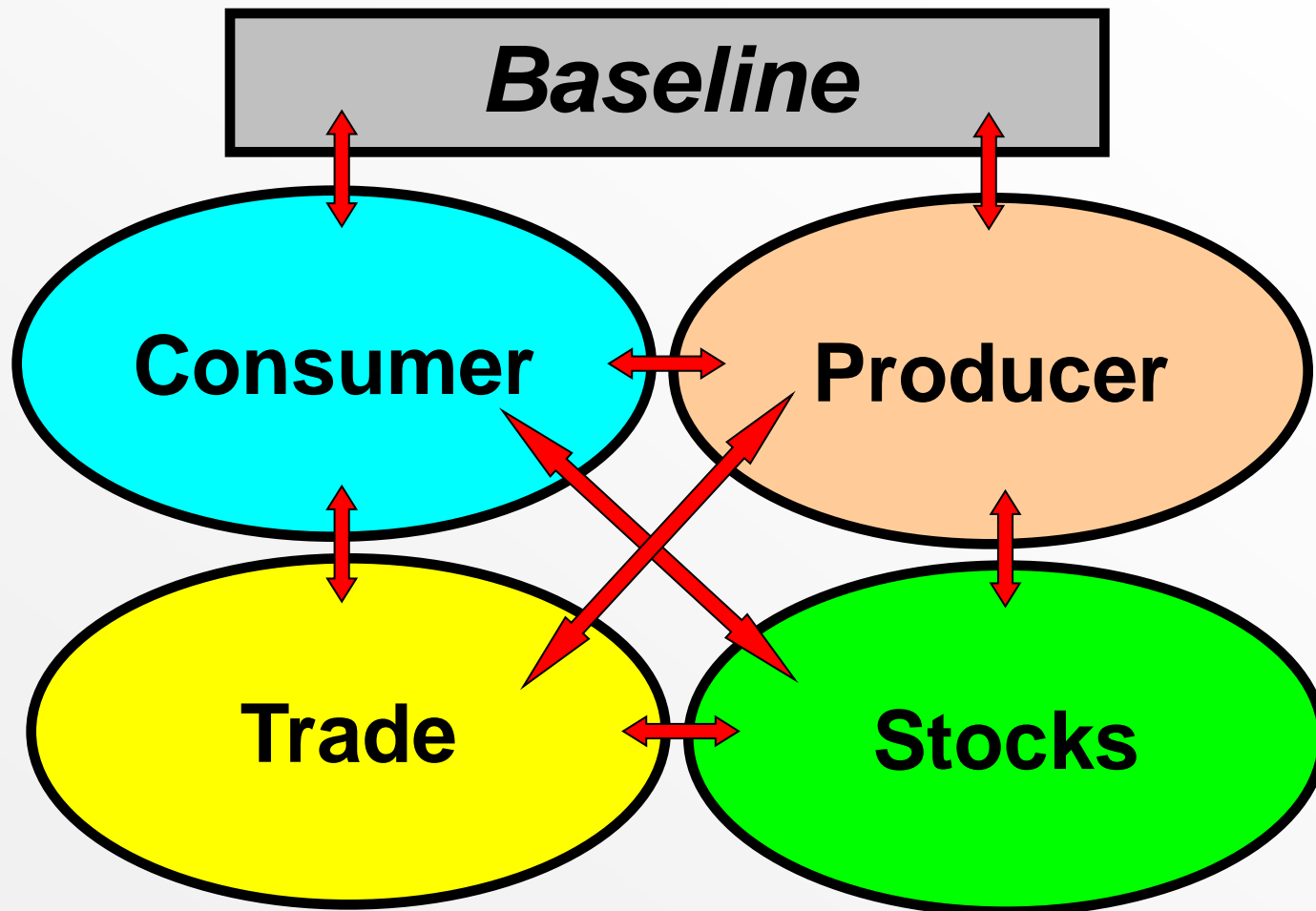
Study Design



- Quantify the impact of the 2007-2008 uncoordinated policy actions around the world
- by using the OECD-FAO Aglink-Cosimo model
- to simulate policies discussed in:
 - “Country responses to the food security crisis: Nature and preliminary implications of the policies pursued” (FAO 2008)
 - “Policy responses to higher food prices” (FAO 2009).
- Contribute to analytical publications and draw conclusions to support FAO normative work.



Simulation Scenarios





Challenges

- Accurate representation of the wide range of measures and their time frames in the model
- Not all instruments are quantifiable in the model framework
- Model mechanics are built for medium term outlook, drastic short-term swings and ex-post simulations stretch its capabilities

OUTLINE



1. Policies

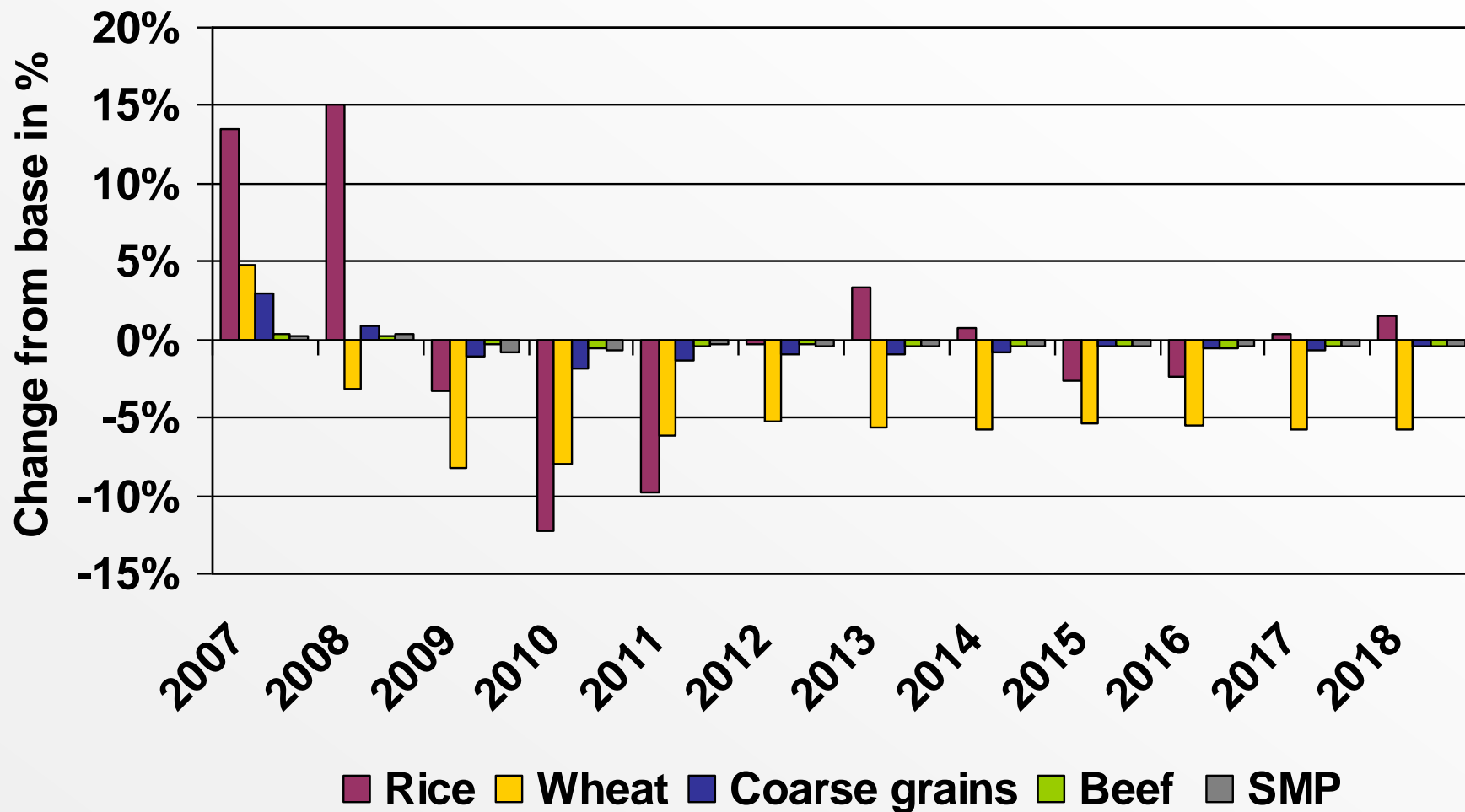
2. Simulation



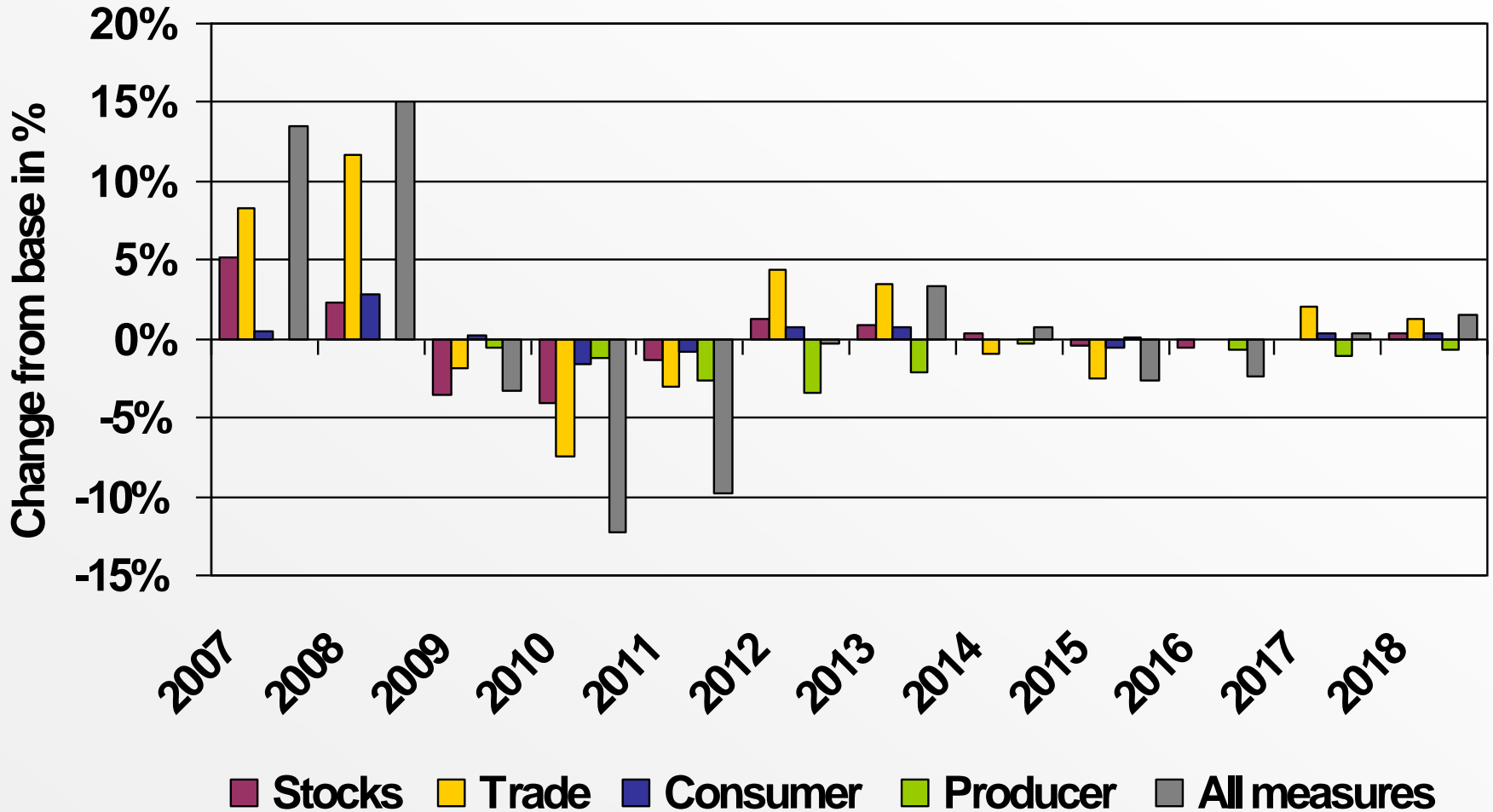
3. Results and Conclusions



International reference price response to all policy measures

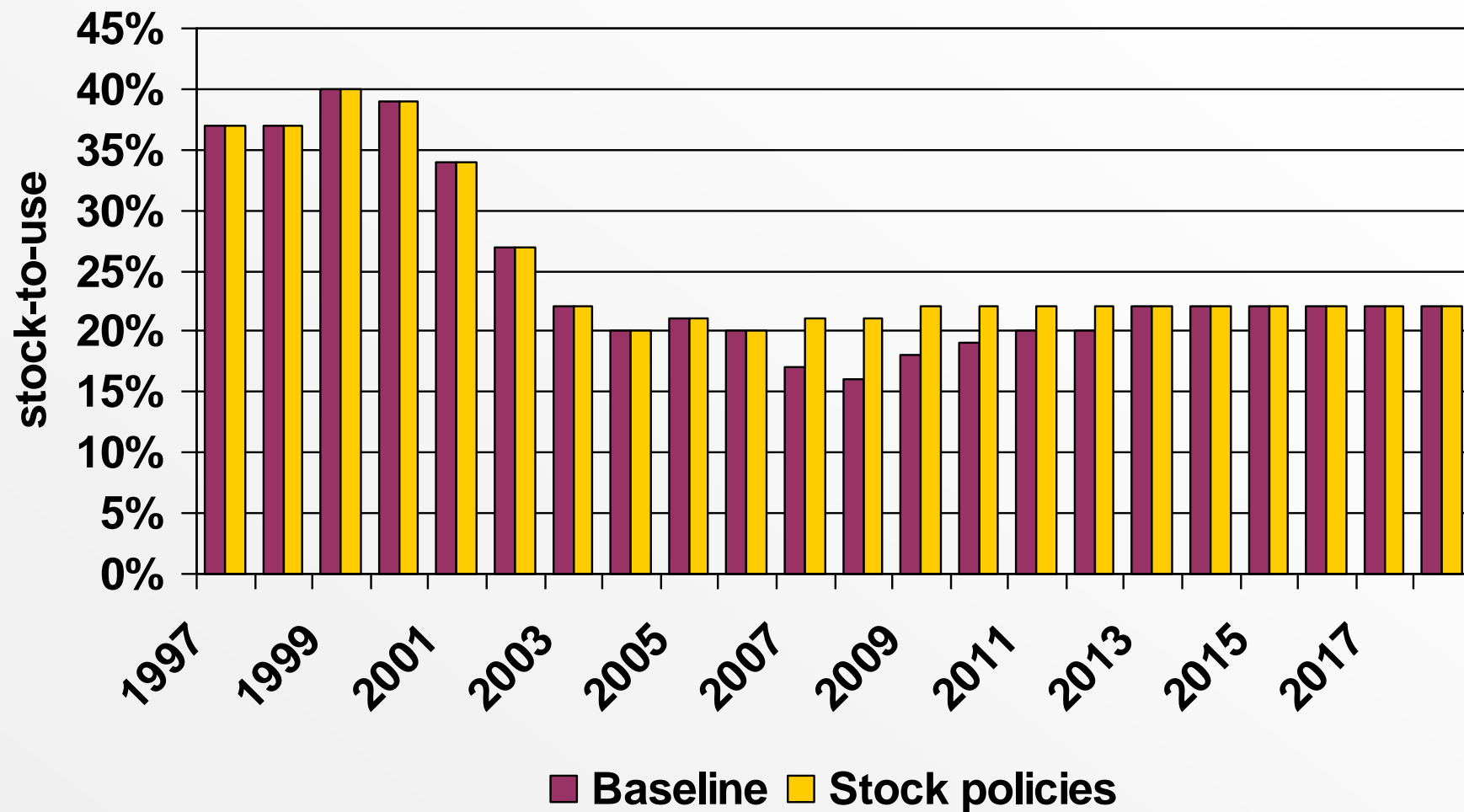


Rice – International reference price

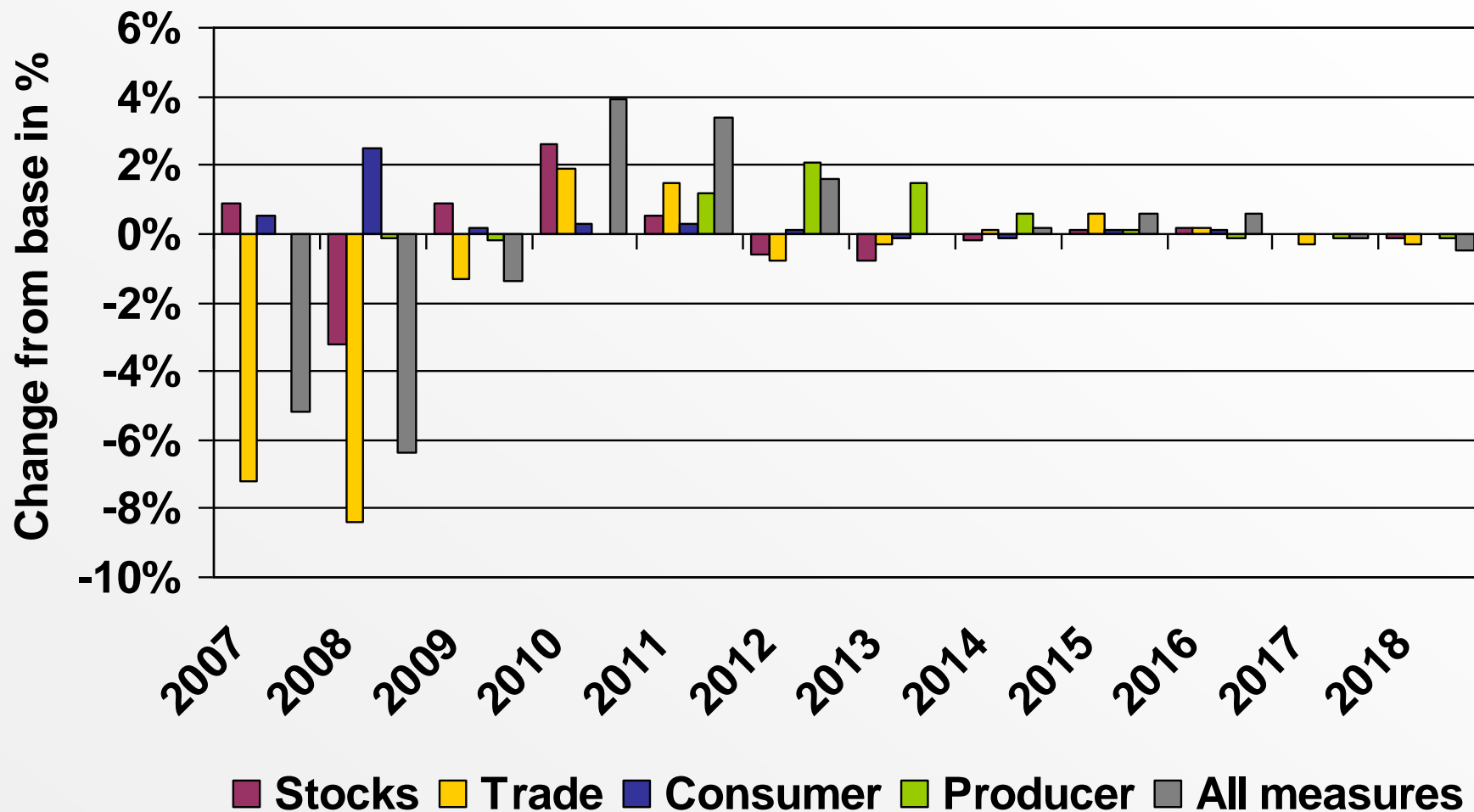




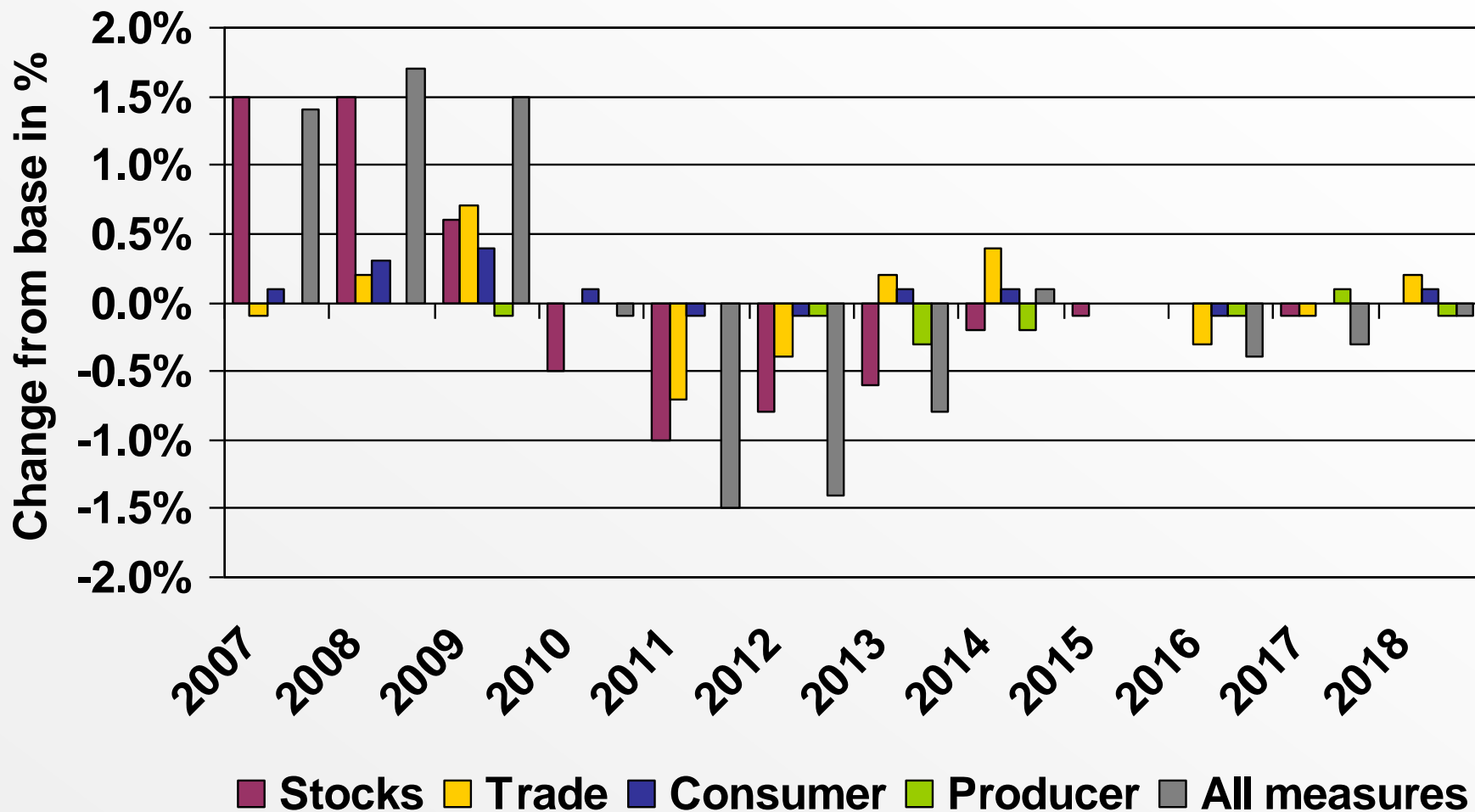
Rice – Global stock-to-use ratio



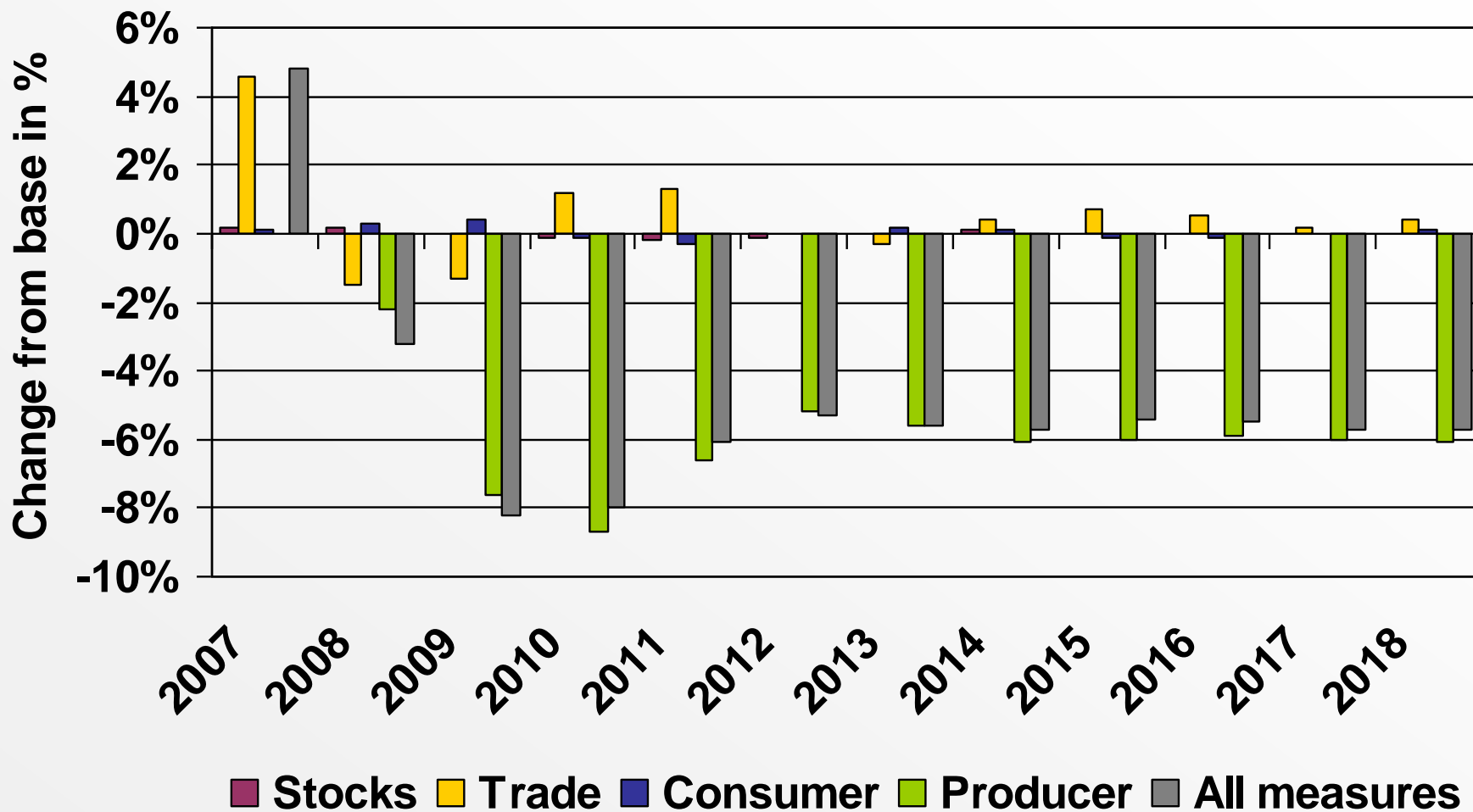
Rice – Global Exports



Rice – Global production

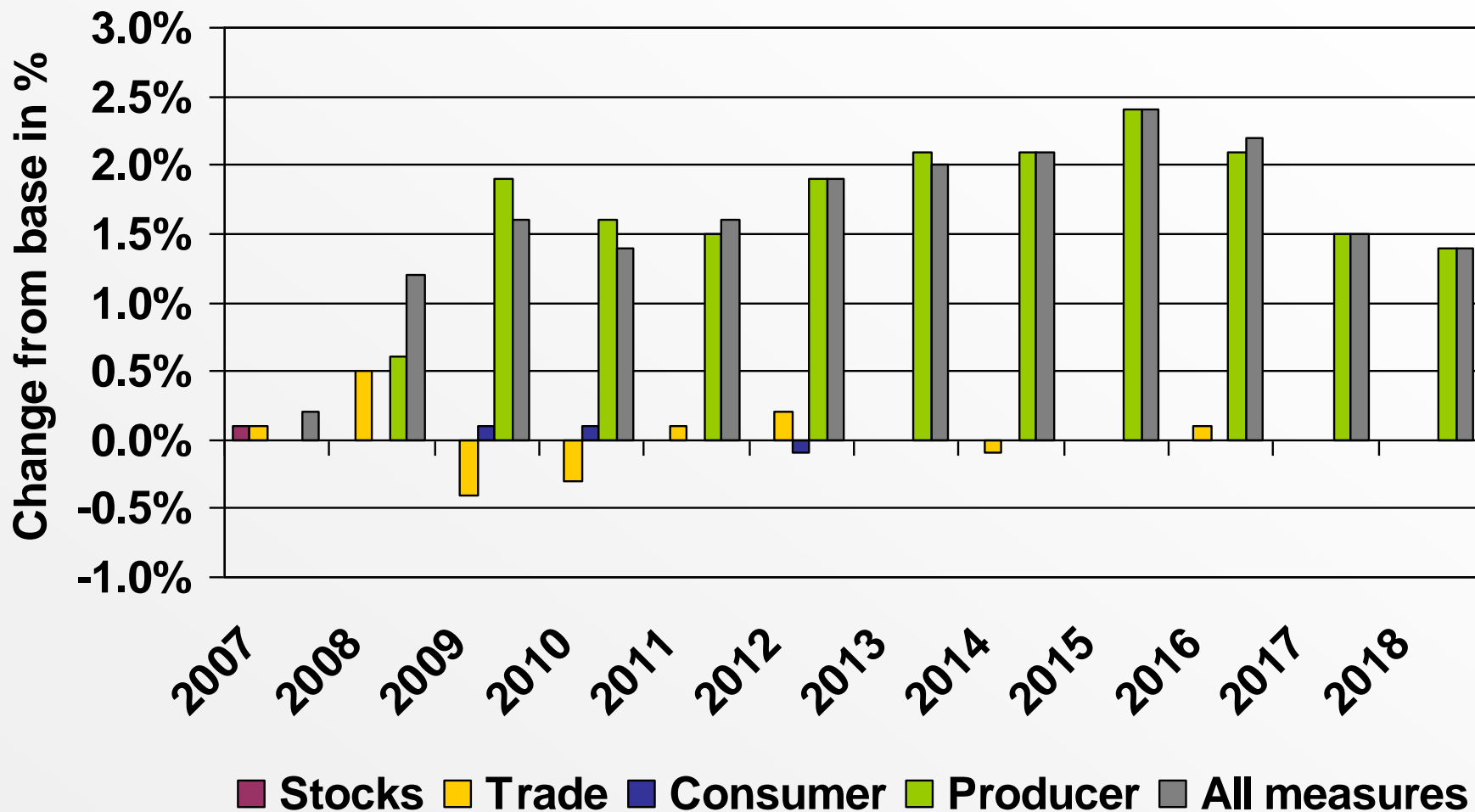


Wheat – International reference price

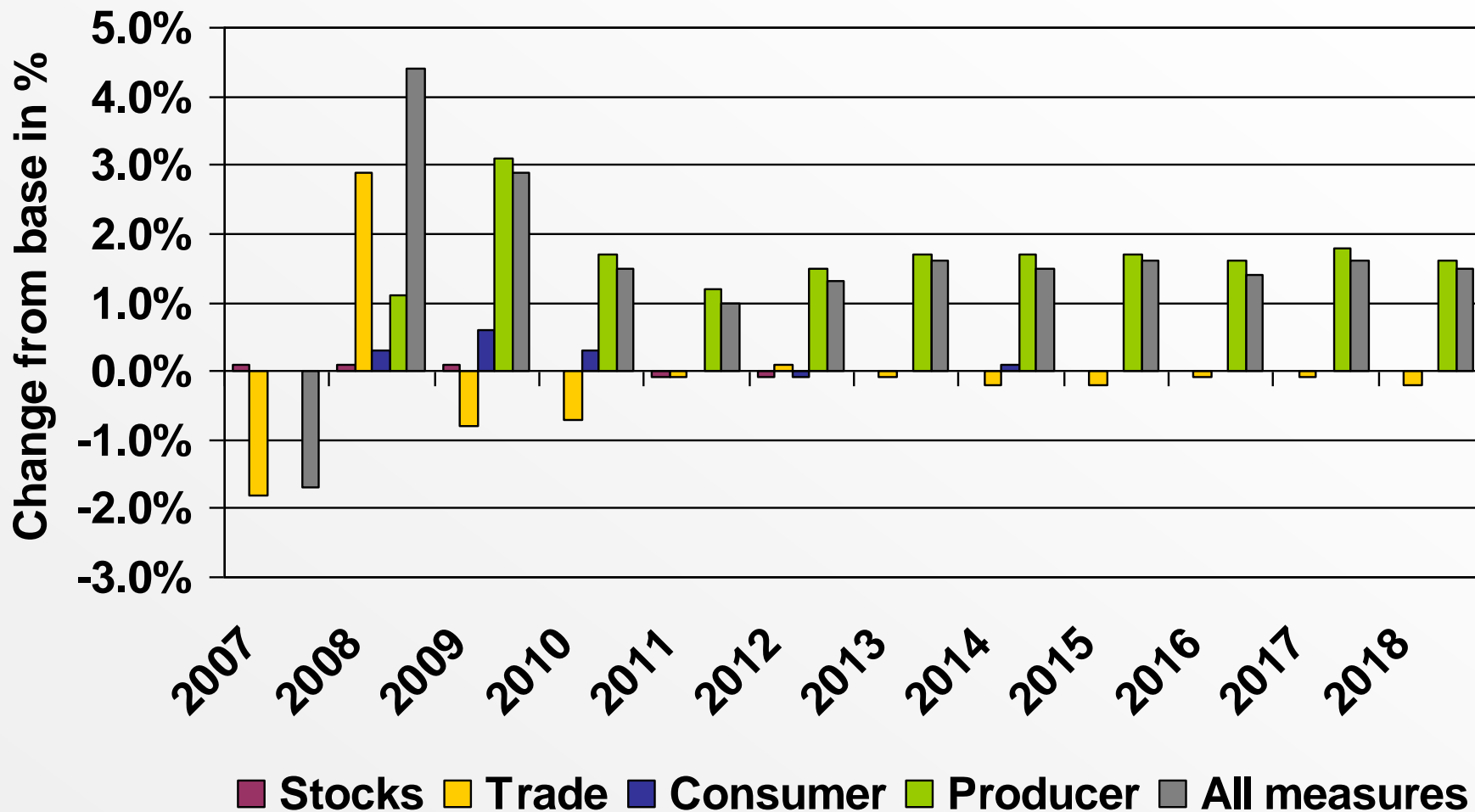




Wheat – Global production



Wheat – Global exports



Summary and Conclusions



- **Rice markets were most affected, the most distortive policies were border policies activated in 2007 and 2008.**
- **In aggregate, policies examined are estimated to have increased global rice production in 2007-08, but decreased global consumption. Global rice production was destabilized, and on average over time, not increased by policy measures.**
- **For wheat markets, effects on world prices are estimated to have been smaller than for rice. With the exception of the initial period, the most significant impact on markets is attributable to production policies, which reduced prices and induced both higher consumption and production.**
- **Border measures are estimated to be lower importance because the prevalence of such measures was less and international wheat markets are not as “thin” as rice .**

Summary and Conclusions (cont.)



- **In conclusion, the analysis suggests that, whereas implemented policy measures increased wheat production and consumption, with lower global reference prices, they destabilized rice markets, without any significant longer-term effect on consumption levels.**
- **Short-term border and stock policies increase global market volatility, but only relatively small share of price spikes has been attributed.**
- **Measuring the impacts of complex policy responses to high food prices in the already volatile market situation in 2007-2008 is difficult. Additional analyses using a different simulation approach are planned.**



Thank you for your attention



More on this study in:
The State of Food and Agriculture 2009
(forthcoming in Sept. 2009)

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