

RICE



Contract

The Rough Rice futures contract trades at the Chicago Board of Trade (CBOT) which is part of the CME Group. The futures' electronic platform ticker is 'ZR'.

Contract size is **2000 centum weights** (cwt) or approximately 91 metric tons with expiries every second month starting from January (January +2).

Price quotation is in USD per cwt or 100 lbs which leverages the futures contract to a factor of 2000.

Maximum daily price movement is \$1.10 above or below the previous day's settlement price. The daily price limit can subsequently be expanded to \$1.65.

The futures' final settlement is by physical delivery of US long grain rice with a No 2 or better grade.

Dependencies

Rice is the **world's main staple**. In order to assess demand rice production growth will need to be compared to world population growth. Global rough rice production increased on average 1.8% every year during the last 10 years and 1.4% during the last 20 years. The **world population growth** rate of currently 1.2% is lower and even steadily declining. Still, the for rice consumption most relevant regions of Asia (over 85% of consumption) and Africa have significantly above-average population growth.

In future it could be a challenge for rice production to match population growth. Rice farmers in China and India, the by far most important rice producing countries, are tempted to turn to more profitable crops or to take up better paid industrial jobs in cities. **Urban population is on the rise** not only in China and India.

While long-term demand appears solid, the supply side is for more volatile and unpredictable. Weather conditions play a dominant role. Rice farming, especially in the most common form of flooded fields, demands substantial water resources. **Dry weather or even droughts** is therefore the biggest danger. Rice surplus countries might ban exports if home-grown supply proves insufficient. Another danger is **flooding**, as Thailand, the world's biggest rice exporter, witnessed during H2 2011. This natural catastrophe in a sensitive region caused rice prices to peak over USD 18 (see chart 1). The all-time high in 2007 was about USD 25, though.

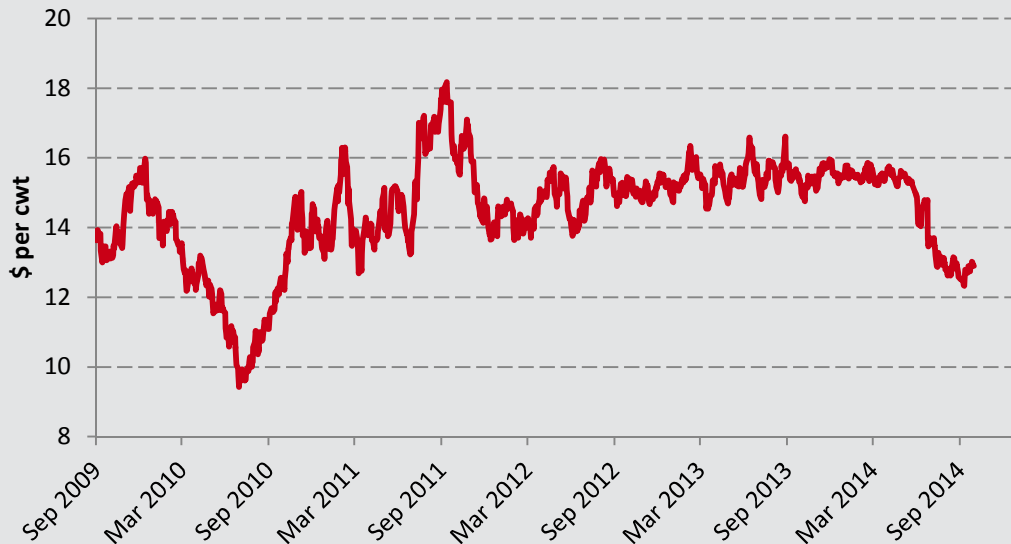


Chart 1: Daily Front Rough Rice Futures Prices since Sep 01st, 2009

Main Exporters

Rice is mainly consumed locally. The portion of rice available for export is less than 10% of the overall world milled rice production and even less than 5% of the rough rice production. The by population largest countries on earth, China and India, produce and consume together more than 50% of the world rice production. But while China is unable to cover its consumption completely, India shows currently still a surplus.

That makes **Thailand, India and Vietnam** the dominant exporters (see chart 2).

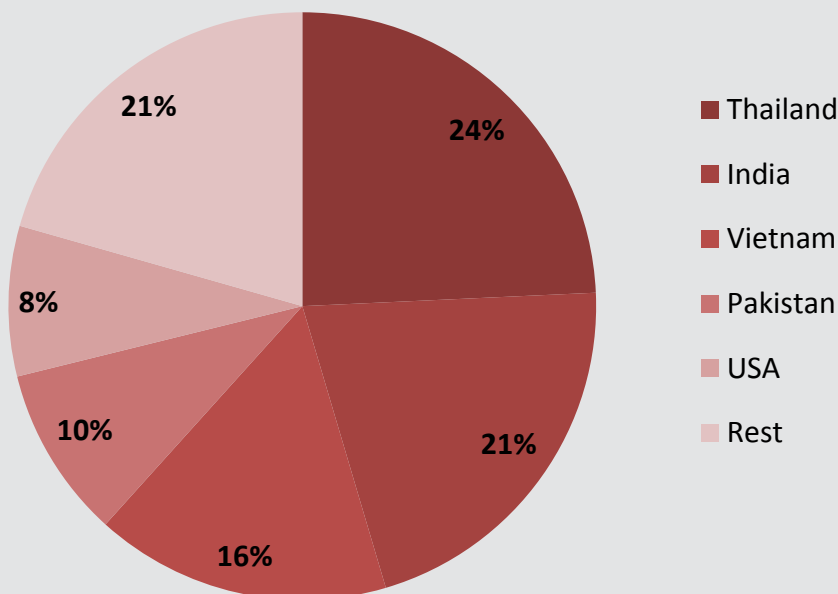


Chart 2: Main rice export countries. Sep 2014 estimates for 2015 totaling 41.2 mill tons.
Source: USDA, Economic Research Service (ERS), 'Rice Outlook' by Nathan Childs

Main Importers

Mainly China, Nigeria and the Iran depend on rice imports to feed their people.

China buys only a tiny fraction (less than 3%) of its huge own rice production. But that relatively small portion translates to a rather big absolute number. In fact, China developed during the last years into the top milled rice buyer position and is forecast to stay there. Not only the absolute quantity increased but China's portion of the world milled rice trades has gone up substantially, too (see chart 3).

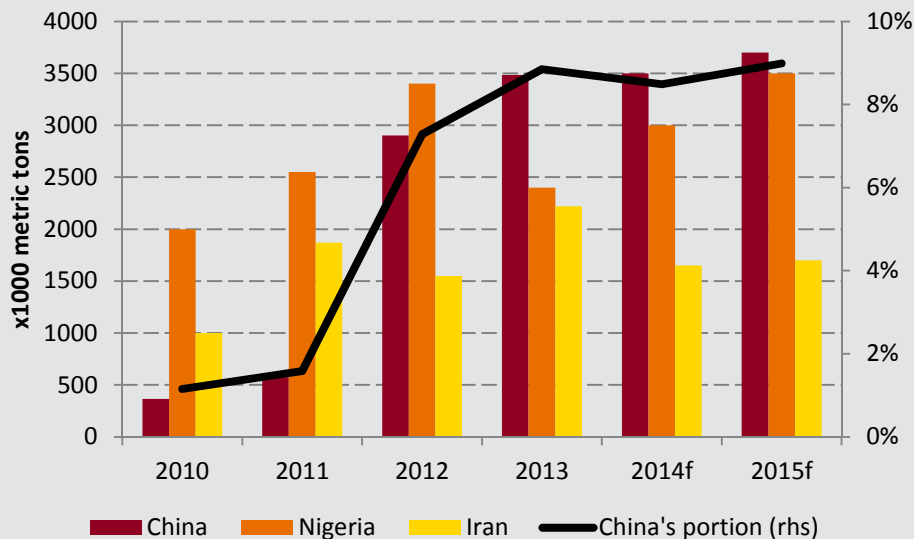


Chart 3: Main rice import countries. Sep 2014 estimates for 2015 totaling 41.2 mill tons. China's percentage of the world's total imported/exported milled rice. Source: USDA, Economic Research Service (ERS), 'Rice Outlook' by Nathan Childs

Like in most other commodities, China's demand compared to exportable world supply would heavily influence the rough rice futures price.

Rice Specification

The exact binomial nomenclature of rice to be delivered into the CBOT futures is **oryza sativa L.** 'Oryza' being the genus and 'sativa' the species within that genus. The 'L' is an abbreviation assigned to Swedish natural scientist Carl Linnaeus, to whom the formal introduction of this system of naming species is credited.

Oryza sativa will contain numerous subspecies. But only the long-grain type (as oppose to medium-grain and short-grain) may be delivered. The quality is categorized into six grades with no 1 being the highest quality. Only no 1 and no 2 are deliverable without discount.

The CBOT futures is for US rice only. **Arkansas** and **California** are the most important rice growing US states. In the US, rice is also used for beer production and pet food.

Flooded Land

Rice is not a water plant by origin. But it adapted to the water-flooded style of paddy fields that proved to be efficient at fighting weeds and pests live in the soil. That is the primary reason for the water use in rice cultivation. Between 3000 and 5000 liters of running water might be needed for just 1 kg rice.

Useful Links

- CME Group, Rough Rice Futures:
<http://www.cmegroup.com/trading/agricultural/grain-and-oilseed/rough-rice.html>
- United States Department of Agriculture (USDA), Foreign Agricultural Service (FAS), Production, Supply and Distribution (PSD):
<http://www.fas.usda.gov/psdonline/>
- USDA Nathan Childs' monthly 'Rice Outlook':
<http://www.ers.usda.gov/publications/rcs-rice-outlook/>
- Oryza Global Rice Prices and News: <http://oryza.com/>

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