



Rice Market Integration in Myanmar

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- In Myanmar, rice is a staple food and major export item. The agricultural marketing system has been under the government control for about a quarter of century.
- Since 1989, a free market economic system has been promoted, for all other crops except rice export, by the government. For these crops, farmers are allowed to undertake by themselves all production and post-production (including marketing) activities.

OBJECTIVE

- To appraise the performance of the domestic rice market by evaluating the spatial market integration.

STUDY AREA

- Yangon (Capital city, surplus region)
- Mandalay (Major market, deficit region)

DATA

- Weekly prices (2001-2004) for Pawsan

PROBLEM STATEMENT

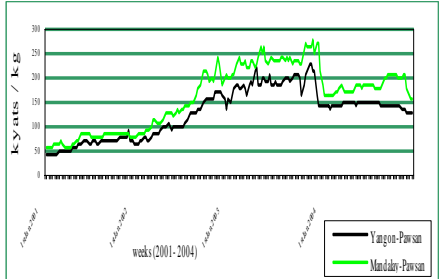
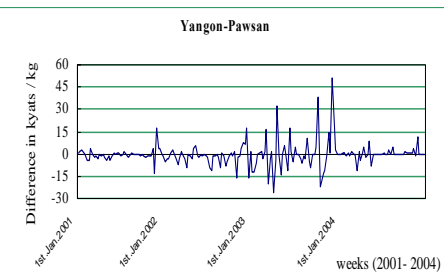
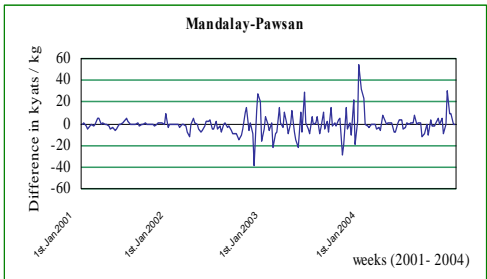
- Proportion of total export earning and agricultural export earning of rice were clearly decreasing trend.
- Government intervention in rice market had led to parallel markets by the paddy procurement system.
- In Myanmar, the agricultural marketing system works within the boundaries and limitations of a halfway liberalized economic system.

METHODOLOGY

- Stationary test
Augmented Dickey-Fuller (ADF) method
 $\Delta P_t = \alpha + \beta P_{t-1} + \gamma t + \sum \delta \Delta P_{t-k} + \xi_t$
- Co-integration test
The two-step, residual-based test (Engle and Granger, 1987)
 $P_{it} = \varphi + \omega P_{jt} + \eta_t + e_t$
 $\Delta e_t = \lambda e_{t-1} + \sum \theta_k \Delta e_{t-k} + \mu_t$

➤ The first difference of the weekly prices of Mandalay and Yangon Pawsan Market

➤ The weekly price trends



➤ Tests for co integration of weekly rice price in 2001-2004

Pairs of market	Lags	ADF-t stat. of residual	R ²
Mandalay - Yangon (Pawsan)	1	-11.14	0.45
	2	-8.92	0.44
	3	-7.49	0.44
	4	-7.04	0.44
n = 238			

Note: Mackinnon critical value: -4.41 (1%), -3.83 (5%) & -3.53 (10%)
Durbin-Watson statistics at one lag: 2.00

➤ CONCLUSION

Rice price in one market is just a translation of the price in the other market, implying that price changes are the same. The presence of co-integration between rice price series is indicative of strong interdependence; its absence indicates market segmentation. However, overall performance of rice market for long run is affected not only by the direct link of marketing system but also the microeconomic policies. It clearly depends on both the macroeconomic environment and the development of infrastructure in Myanmar.

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