

# Rice Price Outlook

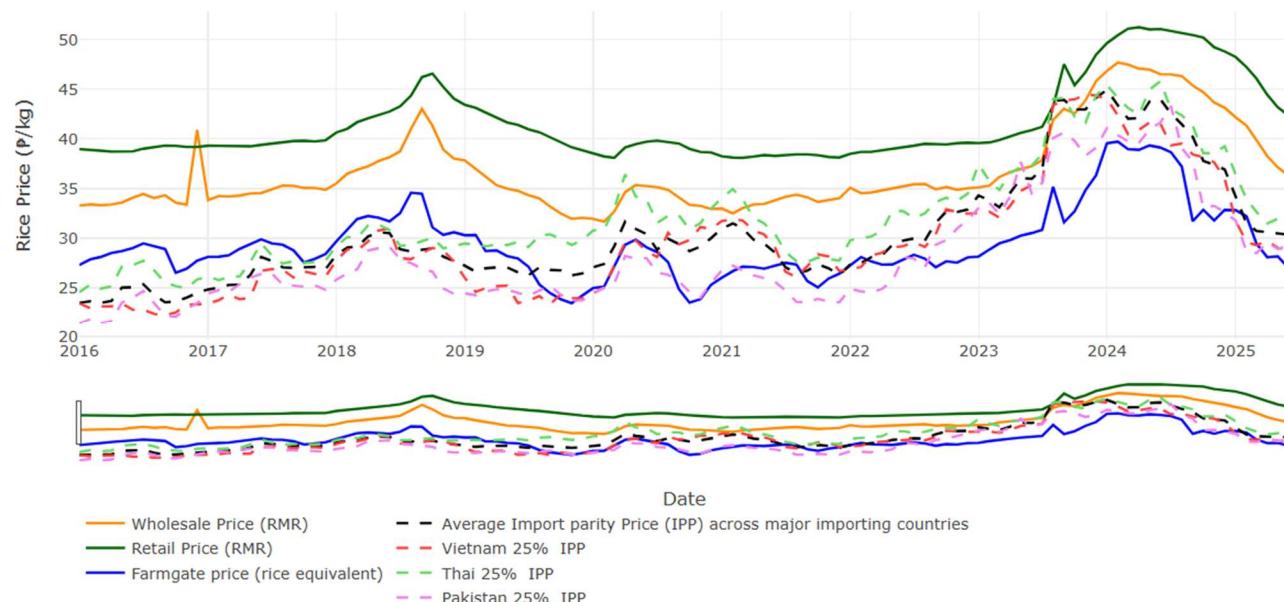
Trends and Implications

Data Analytics Center  
Philippine Rice Research Institute



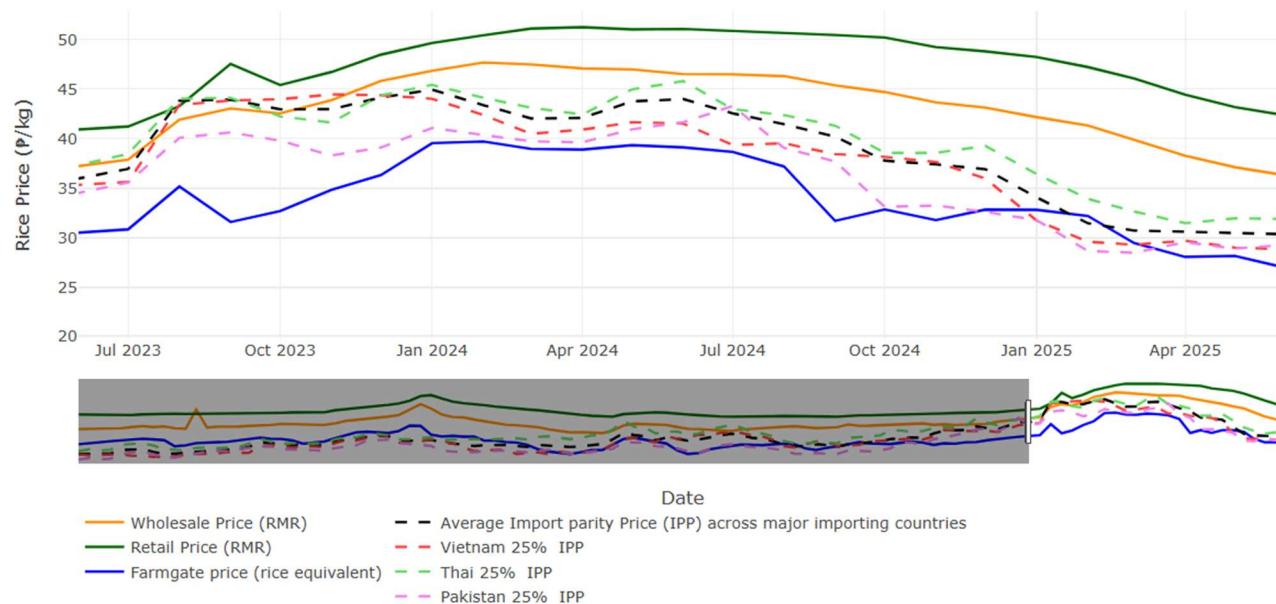
## Global and Local Price Trends

Historical trends (2016-2025) of local rice prices (farmgate, retail and wholesale) and global import parity prices.



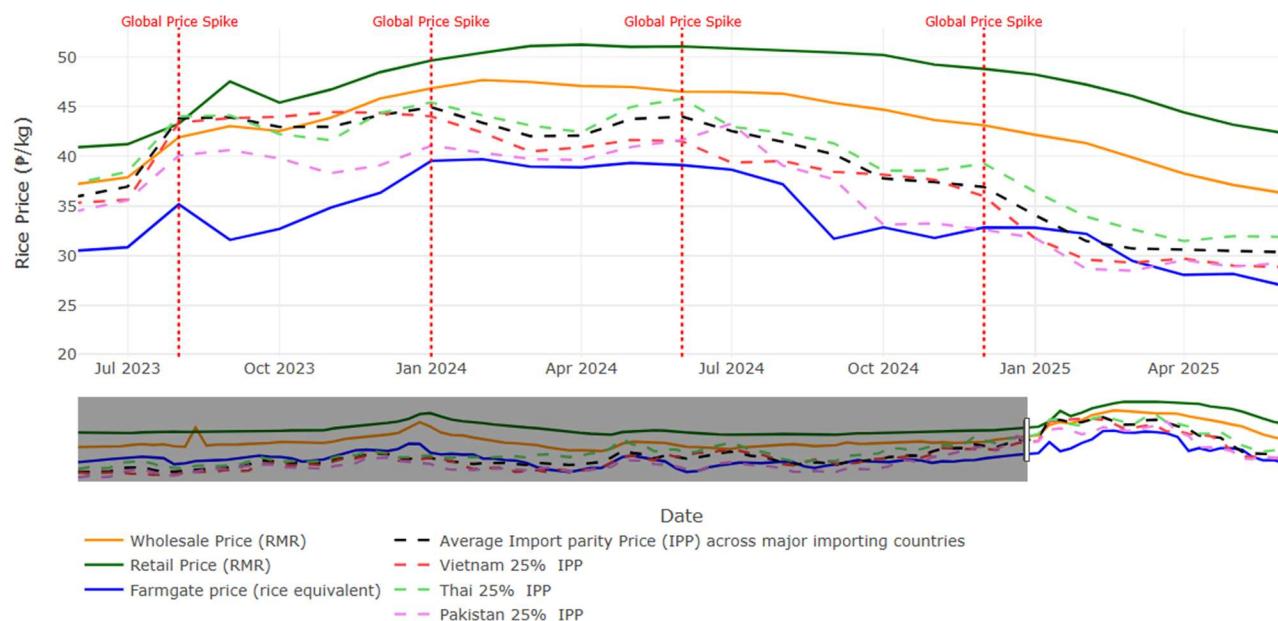
## Global and Local Price Trends

Global and local rice price trends are **synchronized with delayed responses**



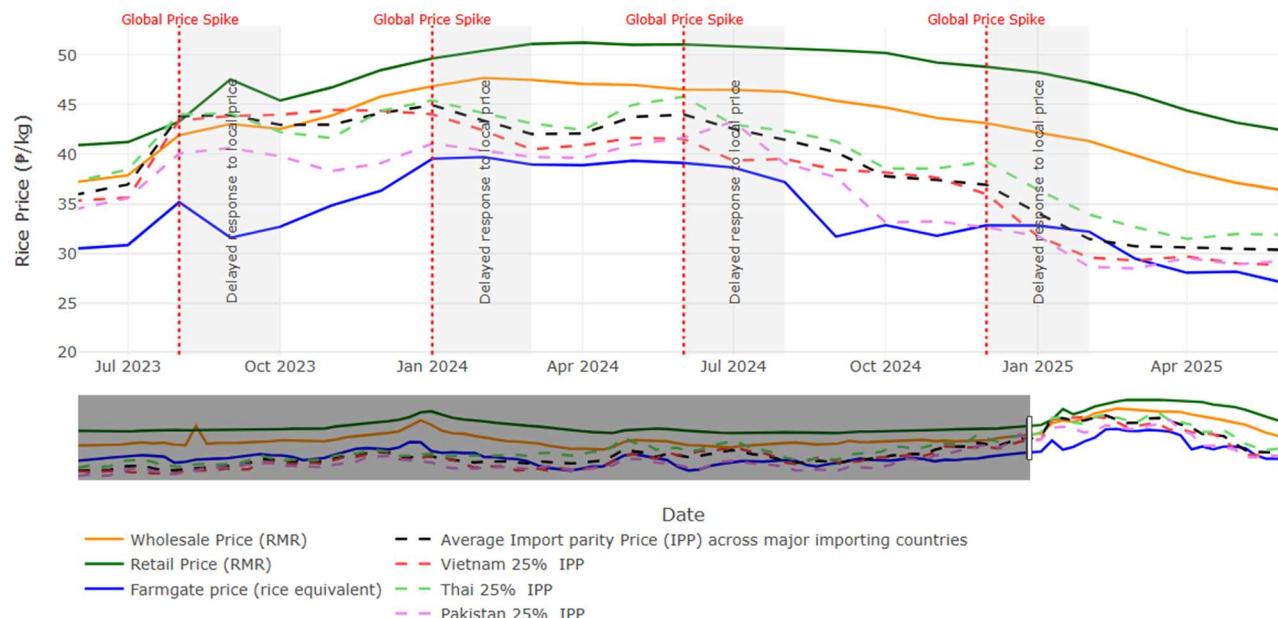
# Global and Local Price Trends

Global and local rice price trends are **synchronized with delayed responses**



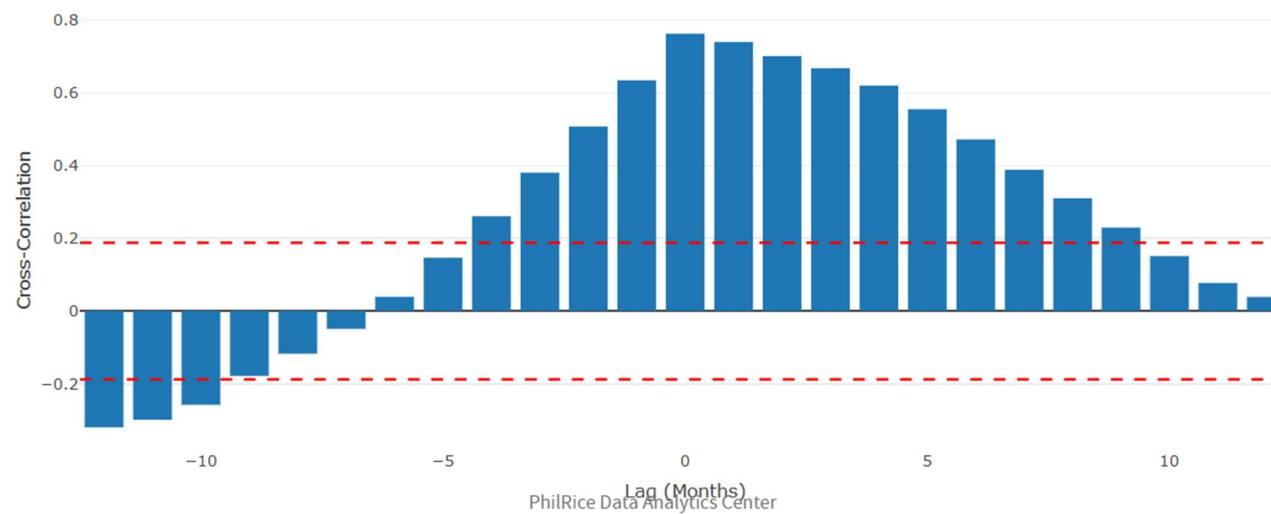
# Global and Local Price Trends

Global price transmission visually noticeable for **two months after the spike**.



## Evidence of Price transmission

Using Cross-Correlation function (CCF) to detect time lag effects of global rice prices or delayed response of local rice prices

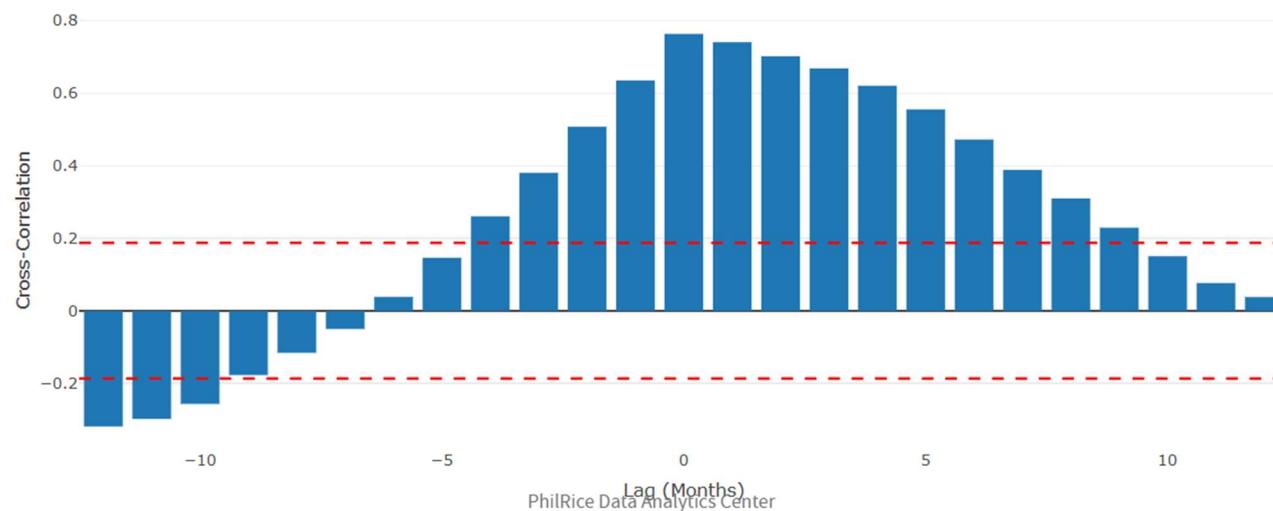


## Evidence of Price transmission

Average IPP price (Global) → Local Retail price

CCF plot shows that the Average IPP prices significantly leads (*affect*) local rice retail price by up to 9 months, with the strongest effect at lag 0 to +4, and still meaningful influence up to lag 6-9.

No substantial correlation observed on negative lags, ruling out local retail prices driving global trends.

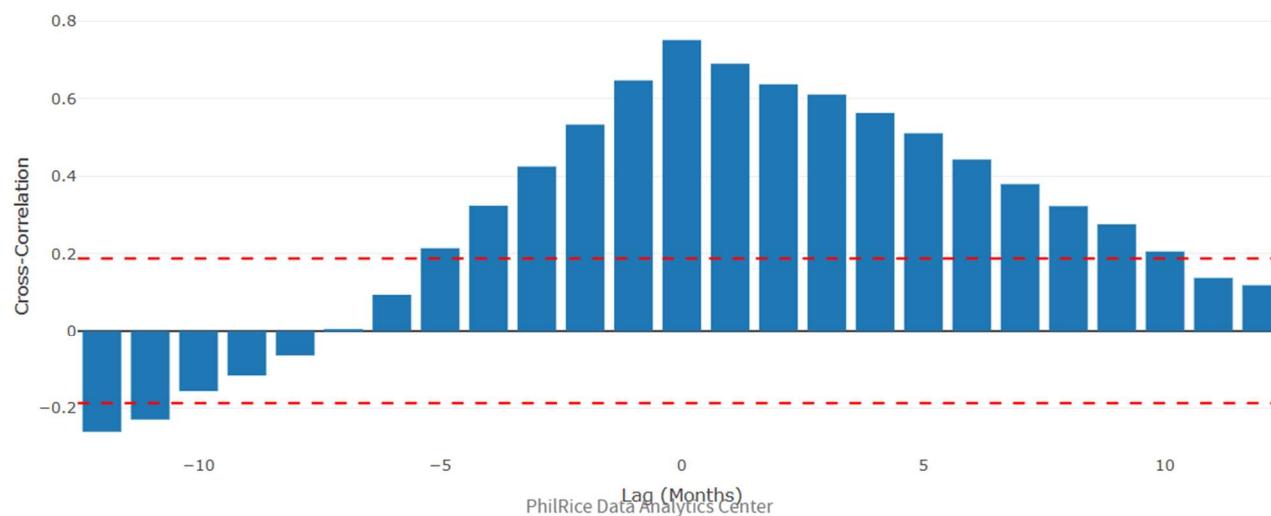


## Evidence of Price transmission

Average IPP price (Global) → Local Farmgate price

CCF plot shows that the Average IPP prices significantly leads (*indirectly affect*) local farmgate price by up to 10 months, with the strongest effect at lag 0 to +3, and still meaningful influence up to lag 6 with fading impact from 8 - 10 months.

No reason to believe that farmgate prices leads IPP prices, since it's economical implausible (Philippines being a price taker). Therefore, substantial correlation observed on negative lags can be ignored and might just be a result of shared long-term trend and/or spurious correlation.



# Evidence of Price transmission

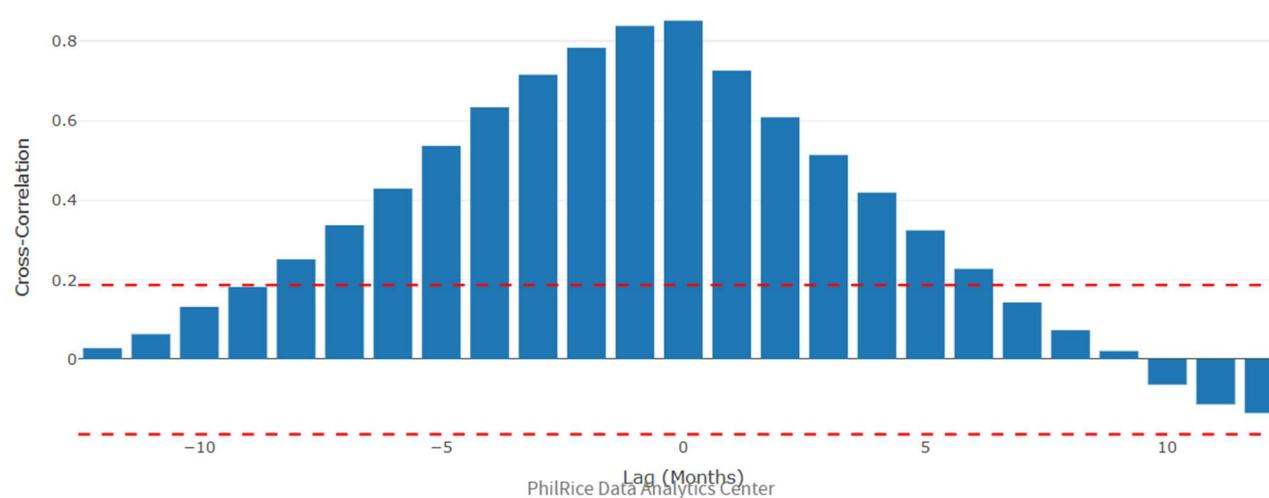
## Local Retail price ↔ Local Farmgate price

The CCF plot reveals a **two-way relationship** between local retail and farmgate rice prices, with both series responding rapidly to each other's changes.

However, retail prices appear to lead farmgate prices more strongly, with the highest correlations observed at lag **0 to +2**, and a meaningful influence extending up to **6 months**.

In contrast, farmgate prices show a weaker and shorter lead, potentially influencing retail prices by only up to **1 month**.

This asymmetry, combined with the strong correlation between global prices (IPP) and retail prices, supports the conclusion that **global price movements primarily influence farmgate prices indirectly—through their immediate impact on retail markets**.



## Evidence of Price transmission

Results from the Granger causality test provide sufficient evidence that global rice prices (as estimated by the average Import Parity Price or IPP) Granger-cause local retail prices, indicating that global price movements have a statistically significant influence on retail markets within a 2-month window.

Similarly, local retail prices Granger-cause farmgate prices, with effects unfolding over a 6-month period, suggesting that price changes at the consumer level gradually influence prices received by farmers.

< Granger Causality Summary table at maximum lags with significant granger causality >

Relationship	Lag_Order	F_Statistic	p_Value	Significant
Global (IPP) → Local Retail	2	3.944	0.0223	Yes
Global (IPP) → Local Farmgate	2	0.364	0.6958	No
Local Retail → Local Farmgate	6	2.273	0.0429	Yes



## Evidence of Price transmission

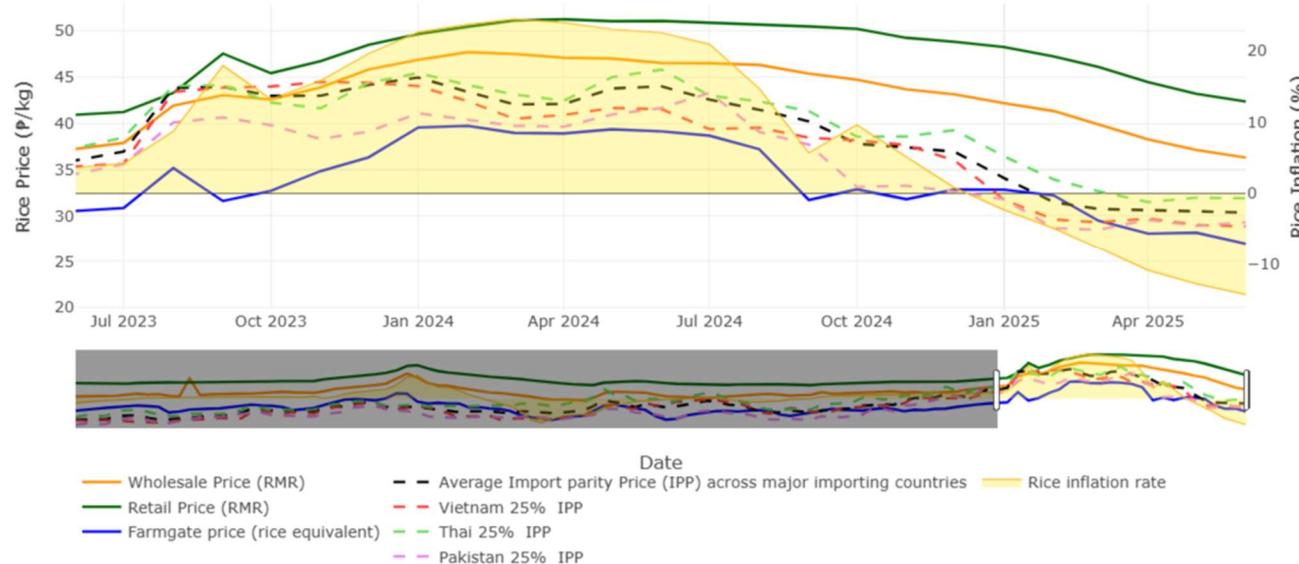
In contrast, while the cross-correlation function (CCF) reveals a strong association between global and farmgate prices, the Granger causality test does not detect a direct predictive relationship.

This divergence suggests that the observed correlation may result from indirect transmission, where global prices influence farmgate prices only through their effect on retail prices.



## Effect on Rice Inflation

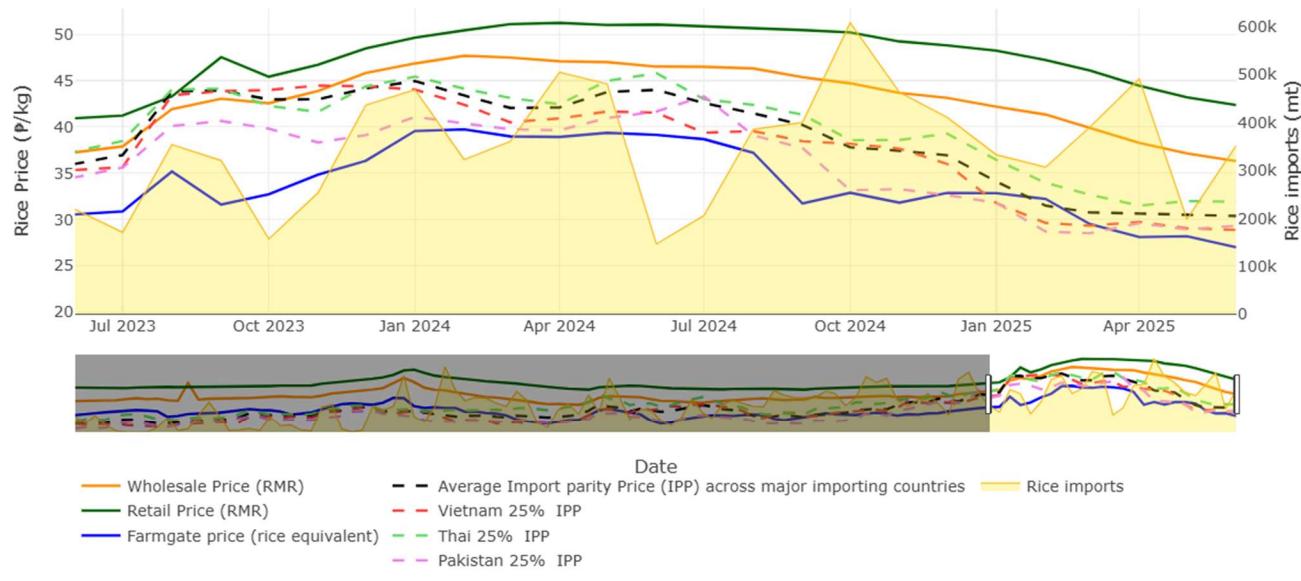
Since the start of 2025, declining global and local rice prices have contributed to negative rice inflation, easing upward pressure on overall prices. Given rice's high weight in the consumer basket, this drop has significantly helped slow down headline inflation.



# Imports and stock levels

## Imports

Since early 2025, both global rice prices and domestic retail and farmgate prices in the Philippines have been on a gradual downward trend, yet import volumes have remained erratic rather than steadily rising. Import volume have oscillated, with notable spikes in April and June. This suggests non-price related factors influencing trade dynamics such as opportunistic buying when import parity margins widened; shifts in government import policies; traders and authorities adjusting to fluctuating demand forecasts or logistical bottlenecks.

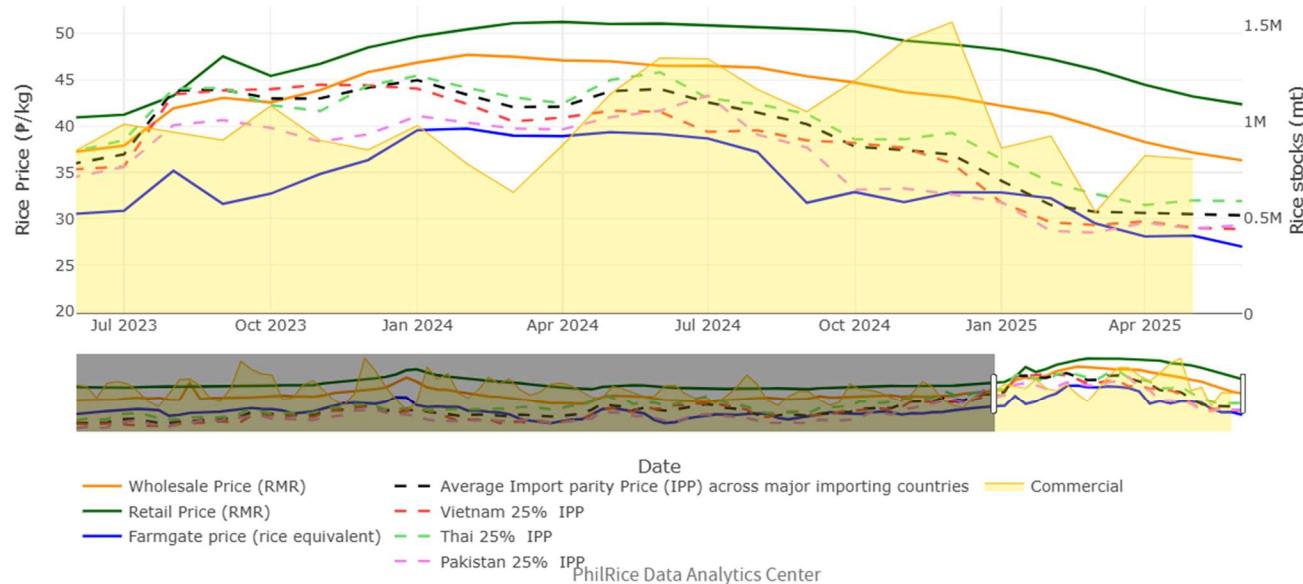


PhilRice Data Analytics Center

# Imports and stock levels

## Commercial Stocks

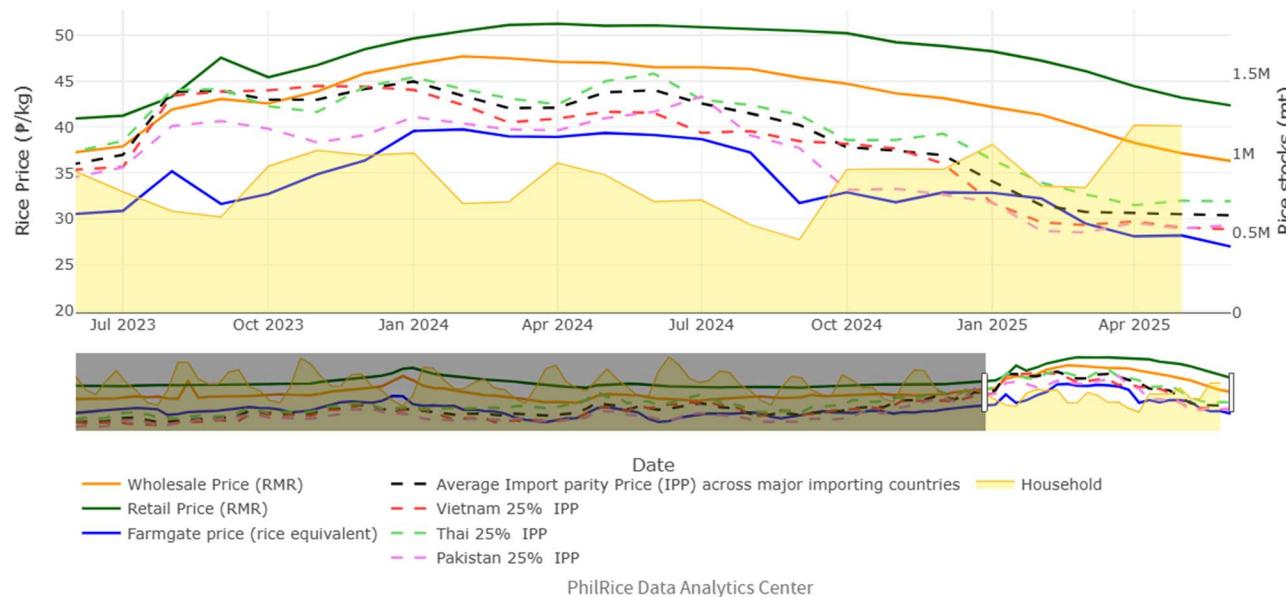
With both global and domestic rice prices on a downward trend, commercial stocks also declined due to reduced incentive for commercial traders to stockpile rice, as holding large inventories in a falling price environment can lead to financial losses. To maintain liquidity, traders are more likely to release existing stock into the market to avoid future losses, and may delay new imports or local purchases, anticipating even lower prices ahead.



# Imports and stock levels

## Household Stocks

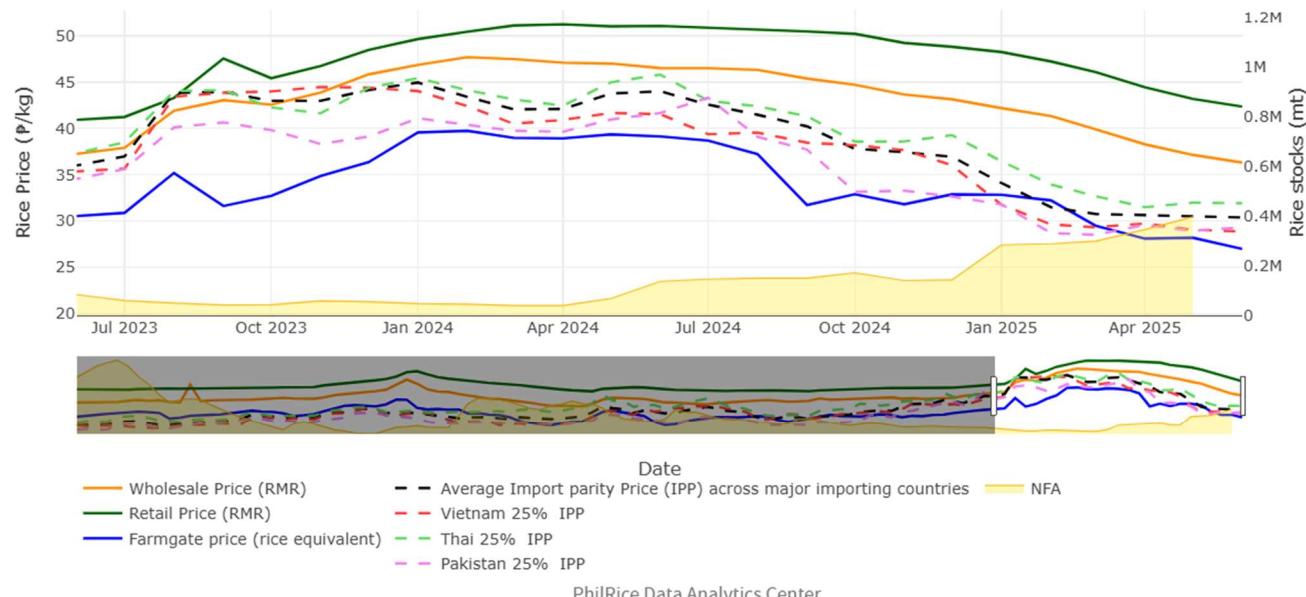
For households, gradually decreasing rice prices led to stable or slightly declining household stocks. Consumers have less urgency to purchase in bulk or hoard supplies, since there is no perceived threat of price spikes or shortages and they may buy only what is needed, anticipating continued or stable affordability in the near term.



# Imports and stock levels

## Government/NFA Stocks

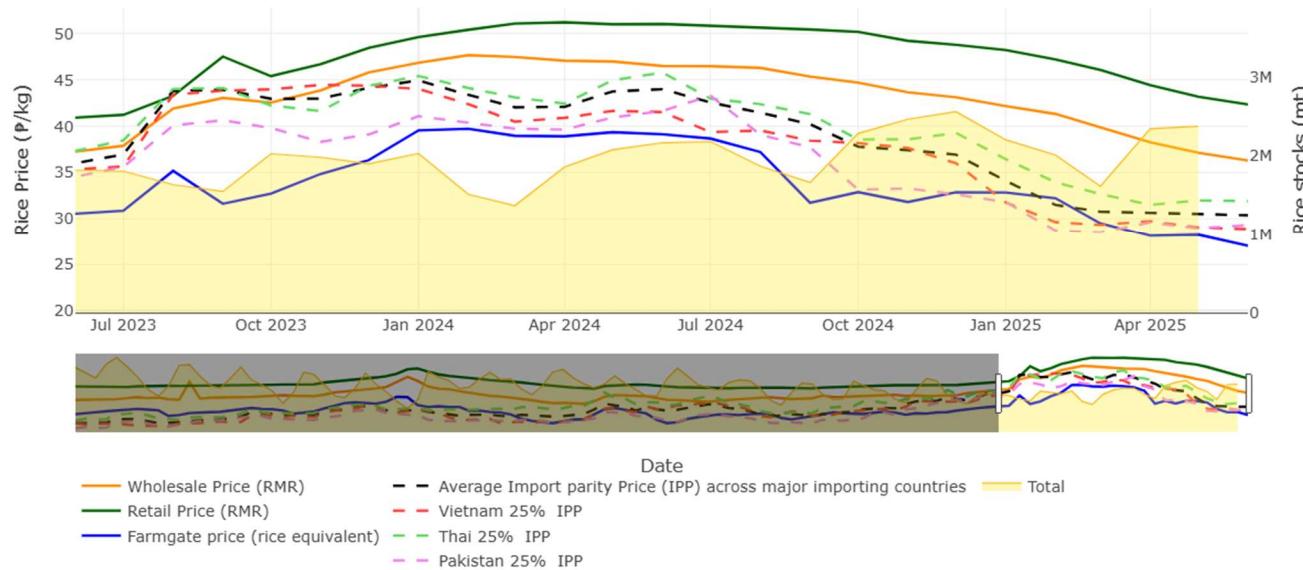
With decreasing prices, buffer stock increases as the government, through NFA, rebuild or augment buffer stocks at a lower cost. With cheaper local procurement or global imports, the government have increased its reserves without putting as much pressure on procurement budgets and storage capacity.



# Imports and stock levels

## Total Stocks

The combined effect of declining commercial and household stocks, offset by increasing government stocks, leads to a mixed but generally stable total stock levels.

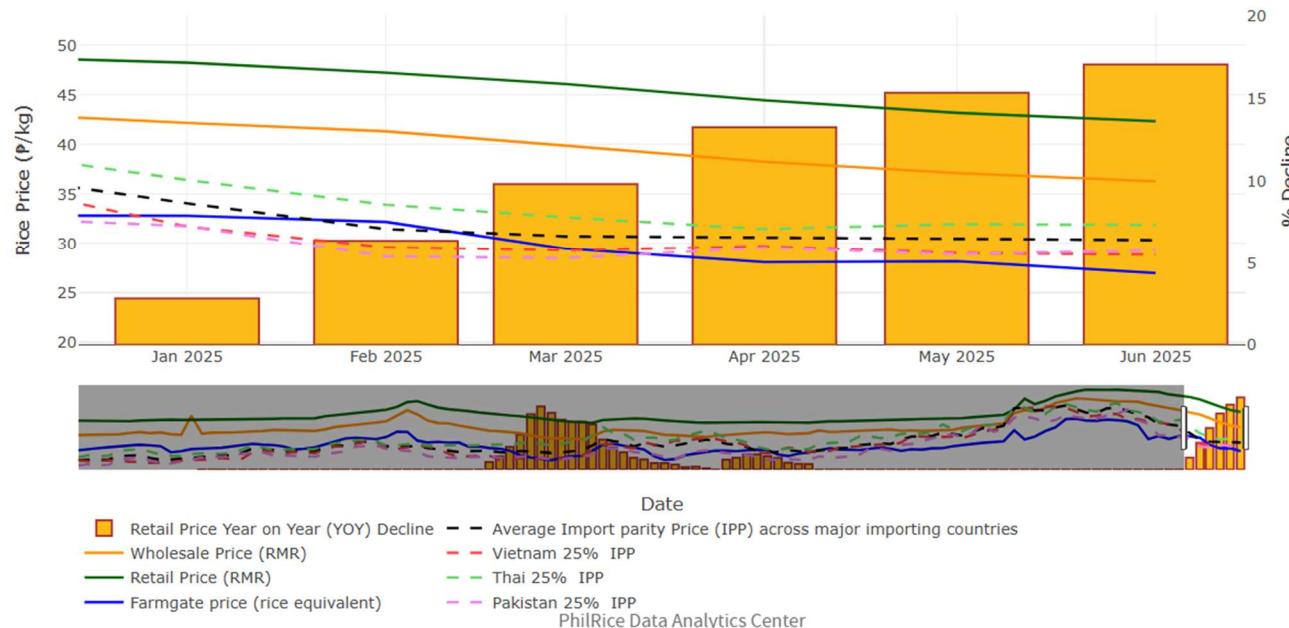


# Year-on-Year comparison (2024v2025)

## Year-on-Year Retail Price change

With the continued decline in global rice prices throughout 2025, domestic retail prices have become significantly lower compared to the same months in 2024. This is reflected in the growing year-on-year (YoY) decline observed from January to June. The drop in international prices reduces import costs, intensifies market competition, and exerts downward pressure on local retail prices. As traders and importers adjust to these lower global benchmarks, the price reductions are gradually passed on to consumers, further accelerating the YoY decline in domestic retail prices.

As of June 2025, the average domestic retail price is 17% lower than in June 2024

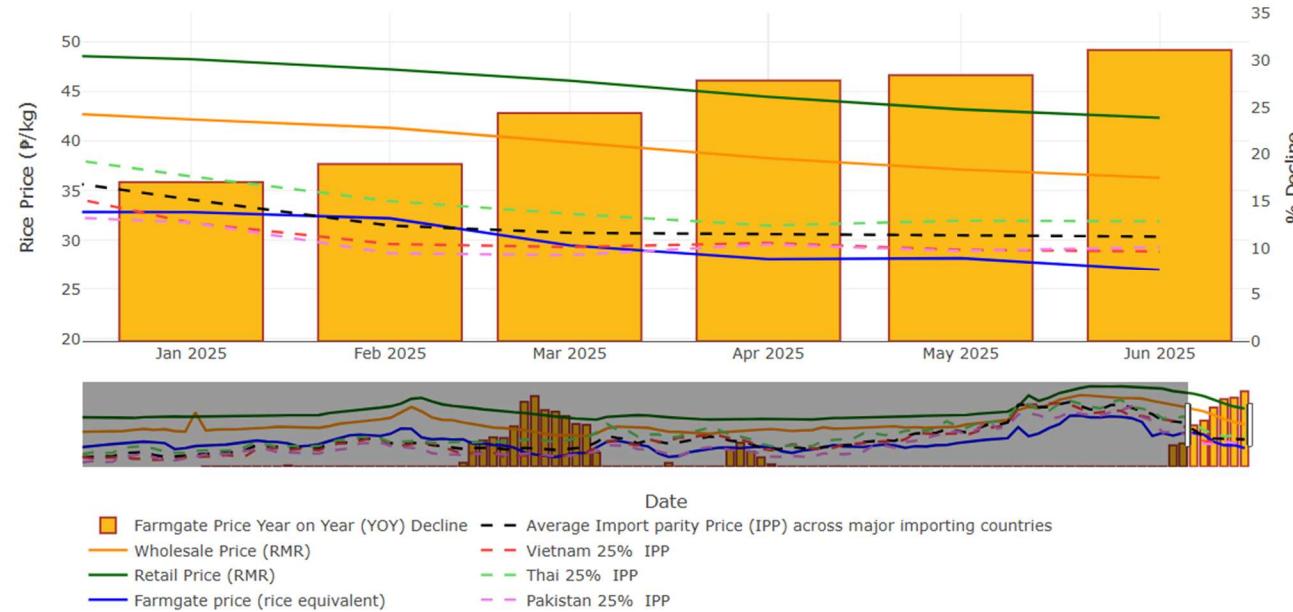


## Year-on-Year comparison (2024v2025)

### Year-on-Year Farmgate Price change

Since we have established that retail prices influence and lead farmgate prices, a similar pattern is expected for farmgate prices—showing an increasing trend in year-on-year (YoY) percentage decline as retail prices continue to fall.

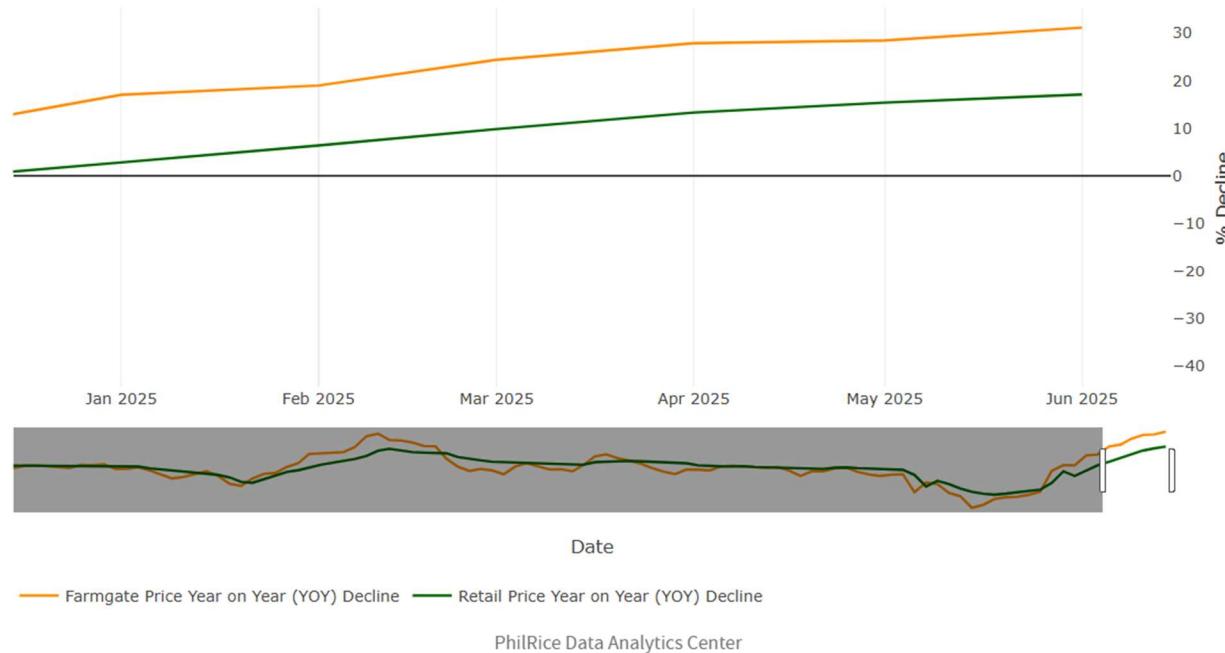
As of June 2025, the average domestic farmgate price is 31% lower than in June 2024



## Year-on-Year comparison (2024v2025)

### Comparing Retail and Farmgate YoY

A sharper increasing trend for YoY % decline in farmgate prices than retail suggests farmers are absorbing more of the price drop, leading to reduced incomes and a widening gap between what consumers pay and what farmers earn.



# Key Takeaways

- Global & Local Price Trends
  - All price series (global IPP, wholesale, retail, farmgate) have been on a gradual downward trajectory since mid-2024, with local markets responding within 2–4 months of global shifts.
- Price Transmission Pathway
  - Global → Retail: Strong Granger causality at lag 2 ( $p = 0.022$ ) and CCF peaks at lags 0–4.
  - Retail → Farmgate: Significant Granger causality at lag 6 ( $p = 0.043$ ) and CCF peaks at lags 0–2.
  - Global → Farmgate: High CCF at lags 0–3 but no direct Granger effect, indicating indirect transmission via retail.
- Inflation Impact
  - Persistent price declines have driven negative rice inflation in 2025, helping to cool headline CPI given rice's large weight in the food basket.
- Import Dynamics
  - Despite falling prices, import volumes remain volatile, with spikes in April and June 2025—suggesting policy shifts, opportunistic buying, or logistical factors outweigh pure price incentives.
- Stock Adjustments
  - Commercial & Household Stocks have eased as traders and consumers release stocks in a falling-price environment.
  - Government/NFA Stocks have been rebuilt at lower cost, stabilizing overall reserve levels.
- Year-on-Year Declines
  - Retail prices: June 2025 are 17% lower than June 2024.
  - Farmgate prices: June 2025 are 31% lower, indicating farmers absorb most of the downturn and signaling a widening farm-retail margin.

# Thank You!!

Questions or feedback?  
[philrice.dataanalytics@gmail.com](mailto:philrice.dataanalytics@gmail.com)

