Similar Packs, Dissimilar Prices:

Marlboro Cigarette Pricing Within and Across Countries

Institute for Global Tobacco Control

Joanna Cohen, Kevin Welding, Rajeev Cherukupalli, Carmen Washington, Katherine Smith

Background

- Price is a powerful determinant of cigarette demand
- Little is known about multinational tobacco company pricing strategies
- Marlboro is the world's top-selling cigarette brand
- **PURPOSE:** to investigate the variation in the purchase price of Marlboro Red cigarettes within and between six middle income countries across four WHO regions

Methods

- Marlboro Red hard packs were systematically purchased in six middle income countries in 2015-16: Brazil, Indonesia, Philippines, Russian Federation, Thailand, Viet Nam
- In each country, one vendor in each of 36 low, middle, and high socioeconomic (SES) areas across 3 major cities was sampled; we bought Marlboro in every sampled store it was available; 156 packs were purchased
- Price paid (without any price promotions) was recorded
- Local prices converted to US dollars using exchange rates from the date of collection













Viet Nam Philippines

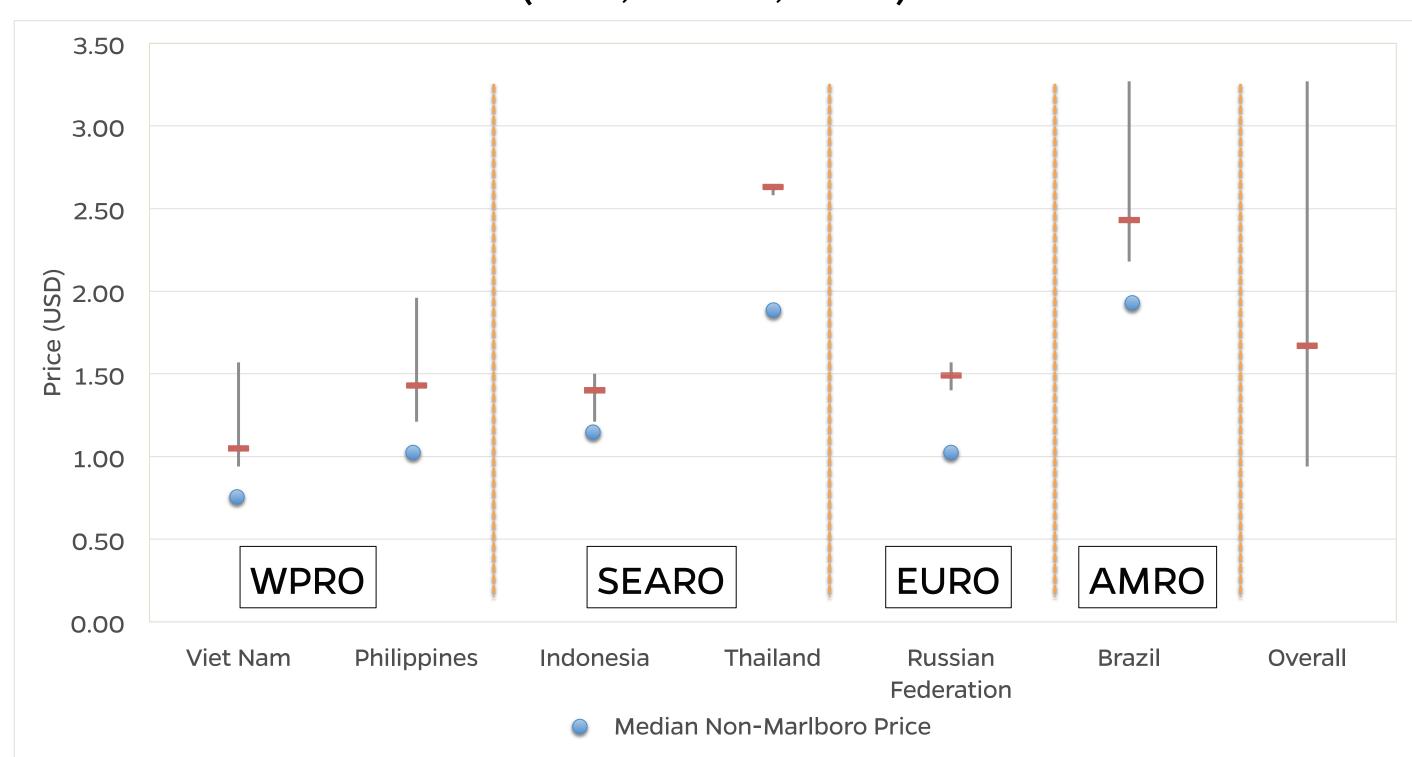
Thailand Russian Federation

Brazil

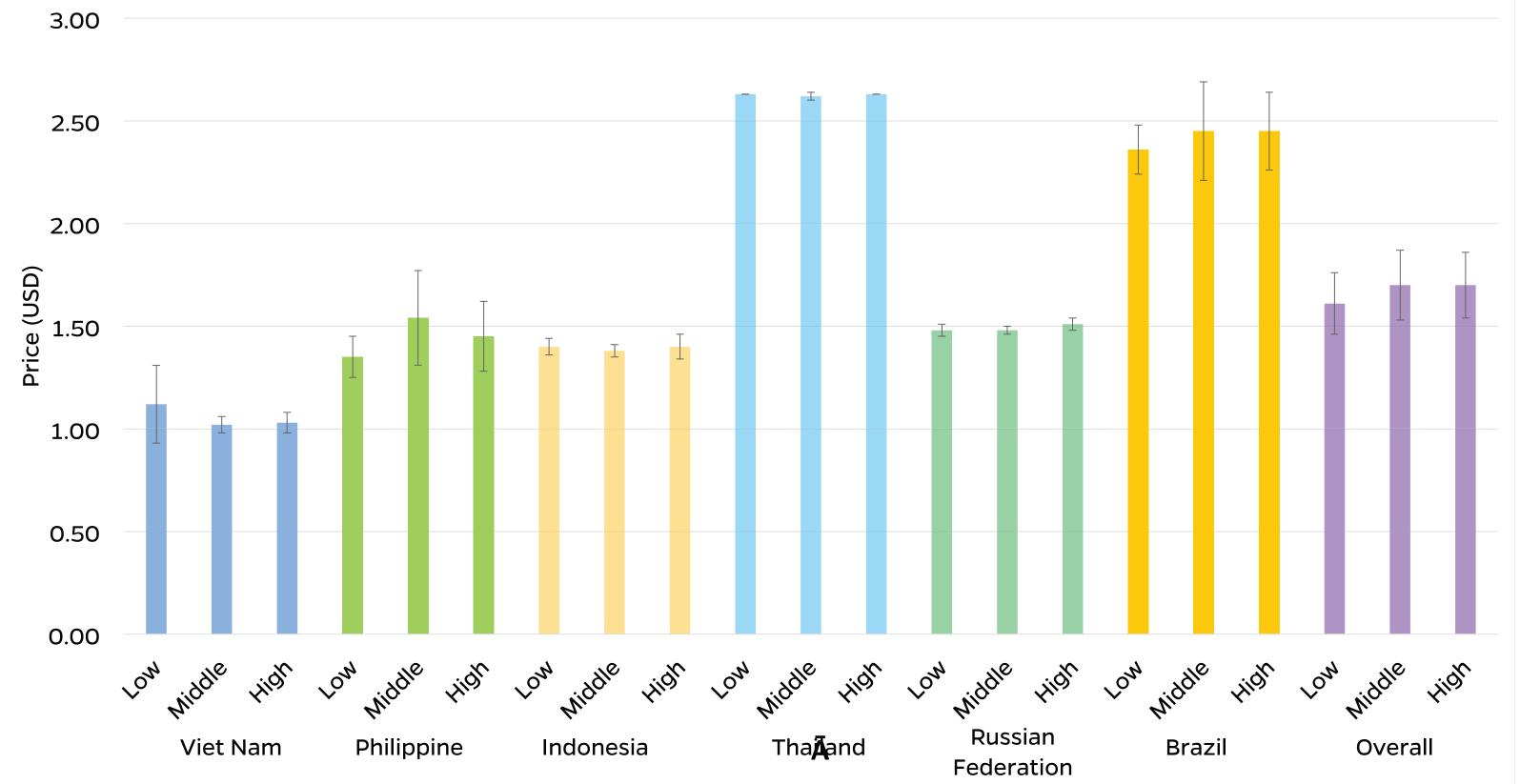
Results

- Mean purchase price was lowest in Viet Nam (\$1.05) and highest in Thailand (\$2.63)
- Range between the most expensive and the cheapest Marlboro Red packs purchased was the largest in Brazil (US\$1.09) and the smallest in Thailand (US\$0.05)
- Correlation between mean price and country GDP per capita (World Bank, 2015): 0.56
- Correlation between mean price and absolute value of cigarette tax on most sold brand in a country: 0.94
- No significant differences in price by neighborhood type
- Marlboro Red packs were priced similarly across cities (except in Brazil and in one Indonesian city)

Price Distribution by Country (Min, Mean, Max)



Prices by Neighborhood SES



10,000 1.80 9,000 1.60 $R^2 = 0.8833$ 8,000 Correlation=0.94 1.40 🙃 7,000 $R^2 = 0.31631$ Correlation=0.56 6,000 1.00 5,000 0.80 4,000 0.60 3,000 0.40 2,000 0.20 1,000 0.00 2.80 Mean Price by Country (US\$)

■ GDP per Capita (World Bank, 2015)
 ■ Total Tax (WHO report, 2015)
 ■ GDP and Price
 ■ Tax and Price

Correlations with Price

Conclusions

- Marlboro Red hard packs are priced similarly across neighborhoods and in general across cities within a country (the exceptions possibly reflecting cost of living differences)
- Across the six countries, price differences correlated strongly to the absolute value of cigarette tax
- PMI appears to be good at enforcing a single price across neighborhood types and, in 4 of 6 countries, across cities

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