Politicization of Rice Price: Who Gain and Who Lose from the Populist Policies to Intervene Rice Price in Thailand?

Kittisak Jermsittiparsert
Social Research Institute, Chulalongkorn University, Thailand
Email: kittisak.j@chula.ac.th

Thanaporn Sriyakul*
Faculty of Business Administration, Mahanakorn University of Technology, Thailand
Corresponding author: Email: ajbamut@gmail.com

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Abstract
This research aims to (1) analyze the effectiveness of populist policies, particularly the scheme of rice mortgage and the scheme of income guarantee for rice farmers, in mitigating the impact of the global market on the domestic rice price and (2) analyze the politicization of rice price with regards to the sharing within the rice-trading sector, including the exporters, the rice millers, and the farmers, of benefits and risks arising from the fluctuation of rice price. The research utilizes time-series data of export rice prices, domestic rice prices, and domestic paddy rice prices in two time periods, including (1) the pre-populist policy period from January 2000 to March 2008 and (2) during the populist policies from April 2008 to April 2014, upon which regression analyses and statistical tests are conducted. First, the results show that adopting the populist policies is effective in mitigating the influence of the global market on the domestic rice price by about 13.33 percent. It also mitigates the influence of the export price pass-through to the paddy rice price by about 35.99 percent. Second, the benefit- and the risk-sharing structures arising from the fluctuation of rice price between the exporters, the rice millers, and the farmers are 1.8305: 0.2232: 97.9463 and 14.9140: 30.7461: 54.3399 before the adoption of the populist policies and during the adoption of the populist policies, respectively. Moreover, different populist policies also result in different benefit- and risk-sharing structures. The different structures are 9.9003: 27.15753: 62.9422, 13.5071: 6.1679: 80.3250 and 5.0864: 15.0578: 79:8558 for the first rice mortgage scheme, the income-guarantee scheme, and the second rice mortgage scheme, respectively.
Keywords: Populist Policies, Rice Price, Politicization

Significance of Rice as a Political Good
In "*A Comparative Study of Food Policy in Rice Countries -- Taiwan, Thailand, and Japan*" (1982), Professor Hiroshi Tsujii of Kyoto University, Japan, explains the significance of rice on the economic and the political stability in Asian countries that more than 90 percent of rice in the world (at the time) were grown and consumed in Asia, and that rice remains the food crop that the working class consumes, which makes for a relationship between the rice price and the cost of living, especially the relationship with wages in Asian countries. Rice can, therefore, be considered as a political good, and with such economic and political sensitivity, governments in Asian countries, both developed and developing countries (Jantapong and

Sirikanchanarak, 2012: 3) have attempted to prevent their rice prices from being affected by the global market. They have chosen to implement several measures, including tax measures, subsidies, and various market operations, to intervene their domestic markets (Kajisa & Akiyama, 2004: 3).

As for Thailand, rice is an important strategic good (Isawilanon, 2009: 2) as the staple food for the domestic population, and is the number-one export among agricultural produces (Jermsittiparsert, Sriyakul and Pamornmast, 2012: 97) as Thai rice owns the top market share in the world's rice market since the World War II[1] (Forssell, 2009: 7). Moreover, thanks to the signing of the Bowring Treaty, which marked the relationship between England and Siam in 1855, the country began to increasingly open for international trade. With the increasing openness, production was no longer simply for subsistence but for a commercial purpose. Production expanded both in terms of areas and product volumes (Isawilanon, 2010: 57) so as to respond to the foreign market demand (Isawilanon, 2009: 2), and rice farming became the occupation for most households in the rural area. A survey in 1954 showed that 88 percent of the working-age population was farmers (Chuchart and Tongpan, 1960: 9). Rice exports became one of the country's most important issues as the country's economic well-being depended on the rice trade. The years when rice exports did not do well, the impacts were felt on the national income and the income of the farmers; the domestic rice price fell; the farmers earned low income; and the economy and the commerce were then faced with a slowdown (Chuchart and Tongpan, 1960: 219).

The most recent census of the agricultural sector in 2013 by the National Statistics Office indicated that 3,777,470 farmers own land that cultivates rice, which can be categorized by regions as follows: 344,996 in the central region (9.1 percent), 883,635 in the northern region (23.4 percent), 2,437,146 in the northeastern region (64.5 percent) and 111,639 in the southern region (3.0 percent). When considering the household members, in 2010, the population engaging in rice-farming activities could be as high as 17 million people (Isawilanon, 2010: 1) or a quarter of the country's entire population, which makes the rice-farmers the largest voting bloc in the society (Jantapong and Sirikanchanarak, 2012: 2) and the rice policy inevitably influential to the election result (Poramacom, 2014: 201). This also explains why rice farmers strongly support the political party whose campaign involves the mortgage of every grain of rice (Ineichen, 2014: 2) and why rice can turn into a political problem that is strong enough to bring down a cabinet member or even a government (Siamwalla and Na Ranong, 1990: 1).

Politicization and Rice Price

As mentioned above, it has been more than a century that much of the Thai rice is exported (Agricultural Economics Research Bureau, Office of Agricultural Economics, Ministry of Agriculture and Cooperatives, 1994: 104). With the increasing connectedness between Thailand and the world (Isawilanon, 2007: 8), the movement of rice price in the global market has a great influence on the movement of the paddy rice price in Thailand via the price mechanism (Isawilanon, 2009: 37). The study on "Thailand's Rice Market Model" (1986) by the Agricultural Economics Research Bureau posits that:

> "The price of five-percent broken paddy white rice that the farmers received, the wholesale price of five-percent broken white rice in the Bangkok market, and the export price of five-percent broken white rice all trend upwards or downwards along the same line. This is because the domestic rice price, which

[1] This is in exception of 1967-1970, 1973-1976, 1978, and 1980-1981, during which Thailand was the second-ranked rice exporting country (Jantapong and Sirikanchanarak, 2012: 3).

> is the price at which farmers can sell, and the wholesale price in the Bangkok market follow the export price. Rice exporters are the most powerful when it comes to determining the export price, which also moves according to the price in the global market."

This is consistent with the explanations on the price pass-through mechanism among the exported agricultural produces by Prayong Netayarak (2007: 211-212) and on the determining factors of the price of rice used for domestic consumption by Wattana Na Ranong and Tamrong Chormaitong (1987: 18-19). Other relevant research includes *"Statistical Analysis to Establish the Relationship Level among the Factors Influencing the Movement of Domestic Rice Price"* (1984) by Tongsuk Tiyachaipanich, *"The Study of Demand and Supply Structures of Thai Rice"* (1986) by the Land Development Department, and *"Power(lessness) of the State in the Globalization Era: Empirical Proposals on Determination of Domestic Paddy Price in Thailand"* (2013) by Kittisak Jermsittiparsert, Thanaporn Sriyakul and Sudarat Rodboonsong, which, in addition, points to the facts that the domestic paddy rice price has no relationship with its production cost.

However, rice is the product that is closely related to politics, whereby Wanna Liaowarin (1981: 13, 15) states that the rice price and the export volume have the impacts not only on the national income and the amount of rice for domestic consumption, but they also affect the government's stability. The government, therefore, has to implement commercial policies and measures that are consistent with the economic and political situations at the time, which makes Thailand's rice exportation become the shared responsibility between the private sector and the government, instead of letting it be solely in the hand of the private sector as it would have been all along in the free trade regime. The purposes of the government policies are to prevent the middlemen or the rice millers from suppressing the price faced by rice farmers (Siamwalla and Puapongsakorn, 2009: 3), to enable rice to be traded at the highest possible price, to manage the rice volume so that it is adequate for domestic consumption, and to export rice as much as possible (The Land Development Department, 1986: 12). Siamwalla (1975: 233) also elaborated on this complication that because the policy-makers must be confident that the rice exports are traded at prices deemed suitable for producers, consumers, government, and foreign buyers, balancing these benefits cannot be managed with simply economic instruments but can be possible only with political instruments.

The research *"The "Populism" Policy and Building/Diminishing Economic "Inequality" and "Unfairness": Empirical Suggestion on Pork-Barrel in Thailand's Rice Trading Business"* (2012) by Kittisak Jermsittiparsert, Thanaporn Sriyakul and Chayongkan Pamornmast is the latest effort (previous effort by Nipon Puapongsakorn and Jitrakorn Jarupong, 2009) to increase understandings in the politicization of rice prices. The paper demonstrates the shares of benefits gained by each of the involved parties, which include the rice farmers, the rice millers, and the exporters, from every one-baht change in the rice price in the global market, prior and following the adoption of populist policies, that is, the rice-mortgage scheme in early 2008 and in late 2011 as well as the income-guarantee scheme for rice farmers in late 2009, respectively.

Research Questions

Even though Jermsittiparsert, Sriyakul and Rodboonsong (2013) has pointed out that the rice price in the world market has 4.78 times more impact on the 5-percent broken paddy rice price in the domestic market than the government policy, which means that in the age of globalization, the government power does not truly exist, it must still be considered that rice is a political good that involves the country's largest voting bloc. It is, therefore, necessary for the government to intervene one way or another in order to prevent the world market from

influencing the domestic rice price. This leads to the first research question with regards to the effectiveness of pertinent government policies, including the rice mortgage scheme and the income guarantee scheme for rice farmers, in mitigating the influence of the world market on the domestic rice price.

Second, this research has expanded what is achieved in Jermsittiparsert, Sriyakul and Pamornmast (2012) regarding the politicization of the rice price, particularly the benefit-sharing structure as a result of a price fluctuation between the rice exporters, the rice millers, and the rice farmers. The time period of interest was extended from originally April 2011 to April 2013 to cover the time period during which the administration of Prime Minister Yingluck Shinawatra implemented the highly controversial rice mortgage measure, where farmers could pledge every grain of rice for a return of 15,000 baht per ton (Puapongsakorn, Puntakua, Nantajit, Arunkong, and Janepuengporn, 2014: 1-1; Forssell, 2008: 35; Inoue, Okae and Akashi, 2015: 4). Additionally, a further question is posed on the benefit- and the risk-sharing structure as the rice price fluctuates in the world market, which is another important issue that the rice farmers must face and, therefore, an objective of the government's rice price intervention policy (Chawengnirun, 2011: 1-2; Jantapong and Sirikanchanarak, 2012: 7), particularly whether the different policies result in any differences in the benefit- and the risk-sharing structures within the chain of rice trading in Thailand including the rice exporters, the rice milers, and the rice farmers.

Research Objectives

The objectives of this research are (1) to analyze the effectiveness of the populist policies, particularly on the effectiveness of the rice mortgage scheme and the income guarantee scheme for rice farmers in mitigating the effect of the world market on the rice price in the domestic market and (2) to analyze the politicization of the rice price with regards to the benefit- and the risk-sharing structure within Thailand's rice-trading chain, which includes the rice exporters, the rice millers, and the rice farmers, as a result of price fluctuations.

Research Methodology

Data used in the research are time series of export rice price, domestic rice price, and domestic paddy rice price in two time periods.

(1) The monthly time series for the time period before the implementation of populist policies, encompassing the 99-month period from January 2000 to March 2008, is considered.

(2) The weekly time series for the time period during the implementation of populist policies, encompassing the 302-week period from April 2008 to April 2014, is considered. These 302 weeks can be broken down into three sub-periods according to the type of policy implemented.

(2.1) The first period of the rice mortgage scheme took place over a period of 57 weeks from April 2008 to April 2009.

(2.2) The income guarantee scheme for rice farmers took place over 110 weeks from May 2009 to July 2011.

(2.3) The second period of the rice mortgage scheme took place over 135 weeks from August 2011 to April 2013.

Data analysis involves a regression analysis with the least-square method in order to test the relationship between the export rice price, the domestic rice price, and the domestic paddy rice price. Stationarity is tested using the Dickey-Fuller unit root test (1979), which finds that the above time series are non-stationary. Series are, therefore, retested using Johansen's cointegration test (1991). In addition, with the Newey-West estimator (1987), the

heteroskedasticity and the autocorrelation problems are taken into account in the computation of the standard deviations of the resulting coefficients, so that t-tests can be conducted properly on the pass-through of the changes in rice price along the rice trading chain, that is, respectively from the export price, to the domestic rice price, and to the domestic paddy rice price.

Research Results

The Effectiveness of the Populist Policies on the Mitigation of the World Market's Influence on the Domestic Rice Price

The regression analysis is conducted between the export rice price and the domestic rice price, as shown in Table 1, and between the domestic rice price and the domestic paddy rice price, as shown in Table 2, for the time period prior to the adoption of populist policies. It is found that the prices are positively correlated. Every one-baht change in the export rice price means a 0.981695-baht change in the domestic rice price in the same direction, and every one-baht change in the domestic rice price means a 0.597441-baht change in the domestic paddy rice price in the same direction.

Table 1 Regression analysis of the export rice price and the domestic rice price, prior to the adoption of populist policies

Dependent Variable: RICE		Method: Least Squares		
Sample: 1 99		Included observations: 99		
HAC standard errors & covariance (Bartlett kernel, Newey-West fixed bandwidth = 4.0000)				
Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
C	-590.1670	259.2731	-2.276236	0.0250
EXPORT	0.981695	0.024741	39.67936	0.0000
R-squared	0.976075	Mean dependent var		9027.677
Adjusted R-squared	0.975828	S.D. dependent var		1871.105
S.E. of regression	290.9075	Akaike info criterion		14.20388
Sum squared resid	8208836.	Schwarz criterion		14.25631
Log likelihood	-701.0922	Hannan-Quinn criter.		14.22509
F-statistic	3957.269	Durbin-Watson stat		0.882387
Prob(F-statistic)	0.000000			

Table 2 Regression analysis of the domestic rice price and the domestic paddy rice price, prior to the adoption of populist policies

Dependent Variable: PADDY		Method: Least Squares		
Sample: 1 99		Included observations: 99		
HAC standard errors & covariance (Bartlett kernel, Newey-West fixed bandwidth = 4.0000)				
Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
C	39.32253	104.9029	0.374847	0.7086
RICE	0.597441	0.011408	52.37062	0.0000
R-squared	0.981479	Mean dependent var		5432.828
Adjusted R-squared	0.981288	S.D. dependent var		1128.373
S.E. of regression	154.3525	Akaike info criterion		12.93635
Sum squared resid	2310995.	Schwarz criterion		12.98878
Log likelihood	-638.3493	Hannan-Quinn criter.		12.95756
F-statistic	5140.265	Durbin-Watson stat		0.902043
Prob(F-statistic)	0.000000			

For the period during which populist policies were adopted, Tables 3 and 4 show the regression results between the export rice price and the domestic rice price and between the domestic rice price and the domestic paddy rice price, respectively. The results indicate that the prices are positively correlated. Ever one-baht change in the export rice price means a 0.850860-baht change in the domestic rice price in the same direction, and every one-baht change in the domestic rice price means a 0.382423-baht in the domestic paddy rice price in the same direction. It can be said that after the adoption of the populist policies, the influence of the export rice price on the domestic rice price decreases from 0.981695 to 0.850860, or a decrease by about 13.33 percent. The influence of the domestic rice price on the domestic paddy rice price also decreases from 0.597441 to 0.382423, or a decrease by approximately 35.99 percent.

Politicization of Rice Price in the Benefit- and the Risk-sharing Structures Resulting from Price Fluctuations in Thailand's Rice-trading Chain

The politicization of rice price is considered in terms of the benefit- and the risk-sharing structures along Thailand's Rice-trading chain resulting from the rice price fluctuations, provided that milling 1.67 portions paddy rice would result in one portion of rice. The assumption of this paddy rice to rice ratio holds throughout the analysis.

Table 3 Regression analysis of the export rice price and the domestic rice price, during the adoption of populist policies

Dependent Variable: RICE		Method: Least Squares		
Sample: 1 302		Included observations: 302		
HAC standard errors & covariance (Bartlett kernel, Newey-West fixed bandwidth = 6.0000)				
Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
C	1259.900	503.2252	2.503651	0.0128
EXPORT	0.850860	0.030286	28.09411	0.0000
R-squared	0.960657	Mean dependent var		16502.78
Adjusted R-squared	0.960526	S.D. dependent var		3137.128
S.E. of regression	623.2861	Akaike info criterion		15.71449
Sum squared resid	1.17E+08	Schwarz criterion		15.73906
Log likelihood	-2370.888	Hannan-Quinn criter.		15.72432
F-statistic	7325.283	Durbin-Watson stat		0.435574
Prob(F-statistic)	0.000000			

Table 4 Regression analysis of the domestic rice price and the domestic paddy rice price, during the adoption of populist policies

Dependent Variable: PADDY		Method: Least Squares		
Sample: 1 302		Included observations: 302		
HAC standard errors & covariance (Bartlett kernel, Newey-West fixed bandwidth = 6.0000)				
Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
C	3506.965	417.4315	8.401295	0.0000
RICE	0.382423	0.024725	15.46712	0.0000
R-squared	0.735617	Mean dependent var		9818.016
Adjusted R-squared	0.734736	S.D. dependent var		1398.784
S.E. of regression	720.4270	Akaike info criterion		16.00417
Sum squared resid	1.56E+08	Schwarz criterion		16.02874
Log likelihood	-2414.629	Hannan-Quinn criter.		16.01400
F-statistic	834.7182	Durbin-Watson stat		0.300292

Prob(F-statistic)	0.000000

Prior to the adoption of the populist policies, the rice exporters' share of earnings is 1.8305 percent ((1-0.981695) x 100) whereas the shares received by the rice millers and the rice farmers are 0.2232 percent ((0.981695-0.979463) x 100) and 97.9493 percent (0.981695 x 0.597441 x 1.67 x 100), respectively (Tables 1 and 2).

During the adoption of the populist policies, the rice exporters' share of earnings is 14.9140 percent ((1-0.850860) x 100) whereas the shares received by the rice millers and the rice farmers are 30.7461 percent ((0.850860-0.543399) x 100) and 54.3399 percent (0.850860 x 0.382423 x 1.67 x 100), respectively (Tables 3 and 4).

The analysis can be further broken down into three sub-periods.

For the first period of the rice mortgage scheme, it is found that the rice exporters' share of earnings is 9.9003 percent ((1-0.900997) x 100), whereas the shares received by the rice millers and the rice farmers are 27.1575 percent ((0.900997-0.629422) x 100) and 62.9422 percent (0.900997 x 0.418314 x 1.67 x 100), respectively (Tables 5 and 6).

Table 5 Regression analysis of the export rice price and the domestic rice price during the first period of the rice mortgage scheme

Dependent Variable: RICE		Method: Least Squares		
Sample: 1 57		Included observations: 57		
HAC standard errors & covariance (Bartlett kernel, Newey-West fixed bandwidth = 4.0000)				
Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
C	-188.6648	1155.703	-0.163247	0.8709
EXPORT	0.900997	0.053447	16.85783	0.0000
R-squared	0.913166	Mean dependent var		21093.86
Adjusted R-squared	0.911588	S.D. dependent var		3686.966
S.E. of regression	1096.291	Akaike info criterion		16.87171
Sum squared resid	66101994	Schwarz criterion		16.94340
Log likelihood	-478.8438	Hannan-Quinn criter.		16.89957
F-statistic	578.3948	Durbin-Watson stat		0.523964
Prob(F-statistic)	0.000000			

Table 6 Regression analysis of the domestic rice price and the domestic paddy rice price during the first period of the rice mortgage scheme

Dependent Variable: PADDY		Method: Least Squares		
Sample: 1 57		Included observations: 57		
HAC standard errors & covariance (Bartlett kernel, Newey-West fixed bandwidth = 4.0000)				
Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
C	2246.326	728.4745	3.083603	0.0032
RICE	0.418314	0.035720	11.71102	0.0000
R-squared	0.859854	Mean dependent var		11070.18
Adjusted R-squared	0.857306	S.D. dependent var		1663.255
S.E. of regression	628.2916	Akaike info criterion		15.75834
Sum squared resid	21711271	Schwarz criterion		15.83003
Log likelihood	-447.1128	Hannan-Quinn criter.		15.78620
F-statistic	337.4488	Durbin-Watson stat		1.110347
Prob (F-statistic)	0.000000			

For the income guarantee scheme for rice farmers, it is found that during its implementation, the rice exporters' share of earnings is 13.5071 percent ((1-0.864929) x 100) whereas the shares received by the rice millers and the rice farmers are 6.1679 percent ((0.864929-0.803250) x 100) and 80.3250 percent (0.864929 x 0.556101 x 1.67 x 100), respectively (Tables 7 and 8).

Table 7 Regression analysis of the export rice price and the domestic rice price during the income guarantee scheme for rice farmers

Dependent Variable: RICE		Method: Least Squares	
Sample: 1 110		Included observations: 110	
HAC standard errors & covariance (Bartlett kernel, Newey-West fixed bandwidth = 5.0000)			
Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
C	800.4778	376.2313	2.127622	0.0356
EXPORT	0.864929	0.022349	38.70089	0.0000
R-squared	0.958639	Mean dependent var		14955.27
Adjusted R-squared	0.958256	S.D. dependent var		1491.858
S.E. of regression	304.8065	Akaike info criterion		14.29525
Sum squared resid	10033959	Schwarz criterion		14.34435
Log likelihood	-784.2385	Hannan-Quinn criter.		14.31516
F-statistic	2503.156	Durbin-Watson stat		0.882097
Prob(F-statistic)	0.000000			

Table 8 Regression analysis of the domestic rice price and the domestic paddy rice price during the income guarantee scheme for rice farmers

Dependent Variable: PADDY		Method: Least Squares	
Sample: 1 110		Included observations: 110	
HAC standard errors & covariance (Bartlett kernel, Newey-West fixed bandwidth = 5.0000)			
Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
C	602.5277	456.7399	1.319192	0.1899
RICE	0.556101	0.030349	18.32329	0.0000
R-squared	0.767297	Mean dependent var		8919.170
Adjusted R-squared	0.765143	S.D. dependent var		947.1075
S.E. of regression	458.9879	Akaike info criterion		15.11394
Sum squared resid	22752348	Schwarz criterion		15.16304
Log likelihood	-829.2667	Hannan-Quinn criter.		15.13385
F-statistic	356.1118	Durbin-Watson stat		0.549374
Prob(F-statistic)	0.000000			

Table 9 Regression analysis of the export rice price and the domestic rice price, during the second period of the rice mortgage scheme

Dependent Variable: RICE		Method: Least Squares	
Sample: 1 135		Included observations: 135	

HAC standard errors & covariance (Bartlett kernel, Newey-West fixed bandwidth = 5.0000)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-89.63559	424.4195	-0.211196	0.8331
EXPORT	0.949136	0.025800	36.78815	0.0000
R-squared	0.972378	Mean dependent var		15825.26
Adjusted R-squared	0.972170	S.D. dependent var		1794.742
S.E. of regression	299.4023	Akaike info criterion		14.25616
Sum squared resid	11922354	Schwarz criterion		14.29920
Log likelihood	-960.2906	Hannan-Quinn criter.		14.27365
F-statistic	4682.023	Durbin-Watson stat		0.766391
Prob(F-statistic)	0.000000			

Table 10 Regression analysis of the domestic rice price and the domestic paddy rice price, during the second period of the rice mortgage scheme

Dependent Variable: PADDY — Method: Least Squares
Sample: 1 135 — Included observations: 135
HAC standard errors & covariance (Bartlett kernel, Newey-West fixed bandwidth = 5.0000)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2048.897	873.7336	2.344990	0.0205
RICE	0.503804	0.055800	9.028682	0.0000
R-squared	0.718872	Mean dependent var		10021.72
Adjusted R-squared	0.716758	S.D. dependent var		1066.443
S.E. of regression	567.5663	Akaike info criterion		15.53530
Sum squared resid	42843487	Schwarz criterion		15.57834
Log likelihood	-1046.632	Hannan-Quinn criter.		15.55279
F-statistic	340.0933	Durbin-Watson stat		0.169431
Prob(F-statistic)	0.000000			

For the second period of the rice mortgage scheme, it is found that during its implementation, the rice exporters' share of earnings is 5.0864 percent ((1-0.949136) x 100) whereas the shares received by the rice millers and the rice farmers are 15.0578 percent ((0.949136-0.798558) x 100) and 79.8558 percent (0.949136 x 0.503804 x 1.67 x 100), respectively (Tables 9 and 10).

Discussion and Conclusion

It can be concluded that not only does the relationship found here among the export rice price, the domestic rice price, and the domestic paddy rice price correspond with many other research works. (Chulaphan, Jatuporn, Chen and Jierwiriyapant (2012); John (2013); Poramacom (2014); Pitchayamahut (2015); Sahavacharin and Srinon (2016)), but the populist policies can also be proven to mitigate the influence of the world market on the domestic rice price with some effectiveness. The influence of the export rice price on the domestic rice price is reduced by approximately 13.33 percent, while the price pass-through to the paddy rice price is reduced by about 35.99 percent.

In this regard, rice can be thought of as a political good, unlike any other agricultural products. Jermsittiparsert, Sriyakul and Rodboonsong (2013) once conclude that "the government intervention in rice price is irrational because the government policy is much less influential to the domestic paddy rice price than is the influence of the rice price in the world

market, despite its significant, negative relationship with the rice price in the world market, such that the government-determined price offsets 27 percent of the rice price in the world market". However, such conclusion is drawn without considering the economic and political fragility of rice as a political good, and deserves to be reviewed and again carefully discussed now that it can be established that the populist policies adopted by the government in recent times has successfully served other purposes, including mitigating the influence of the world market and effectively protecting the domestic market.

As for the politicization of rice price, the shares of benefits or risks borne by the rice exporters, the rice millers, and the rice farmers as a result of the price fluctuation in the rice-trading industry differ across time periods. Prior to the adoption of the populist policies, the shares borne by the rice exporters, the rice millers, and the rice farmers are 1.8305: 0.2232: 97.9493, respectively. During the implementation of the populist policies, the corresponding ratio is 14.9140: 30.7461: 54.3399. Different populist policies also produce different sharing structures. Specifically, during the first period of the rice mortgage scheme, the ratio is 9.9003: 27.15753: 62.9422; during the income guarantee scheme for rice farmers, the ratio is 13.5071: 6.1679: 80.3250; during the second period of the rice mortgage scheme, the ratio is 5.0864: 15.0578: 79.8558 (Table 11).

This result is somewhat inconsistent with the work by Chawengnirun (2011: 19-20), which indicates that the government intervention in the form of rice mortgage scheme affects the rice exporters negatively, the rice millers positively and negatively, and particularly the rice farmers positively, because such scheme would raise the rice price. On the contrary, this research finds that the share of benefits borne by the rice farmers decreases during both periods of the rice mortgage scheme, that is, originally from 97.9463 percent down to 62.9422 percent and 79.8558 percent during the first and the second periods of the rice mortgage scheme, respectively. However, this research is consistent with Puapongsakorn (2008 as cited in Hongtaisong and Kamnuansilp, 2013: 1306), which finds that the rice millers benefit from the scheme as their share of benefits increases from 0.2232 percent prior to the adoption of the populist policies to 27.1575 percent and 15.0578 percent during the first and the second periods of the rice mortgage scheme, respectively.

Table 11 The benefit- and the risk-sharing structure borne by players in Thailand's rice-trading sector as a result of rice price fluctuations

	Benefit- and risk-sharing in Thailand's rice-trading sector		
	Exporters	**Millers**	**Farmers**
Prior to the adoption of populist policies	1.8305	0.2232	97.9463
During the implementation of populist policies	14.9140	30.7461	54.3399
- Rice mortgage scheme, first period	9.9003	27.1575	62.9422
- Income guarantee scheme for rice farmers	13.5071	6.1679	80.3250
- Rice mortgage scheme, second period	5.0864	15.0578	79.8558

Because rice is produced seasonally, the rice price also moves according to seasons (Isawilanon, 2010: 25). When supply rises during the harvest season, the rice price falls, and when supply starts to fall as the harvest season passes, the price gradually rises (Agricultural Economics Research Bureau, Office of Agricultural Economics, 1986: 27; Chawengnirun, 2011: 14). Based on the data analysis, prior to the adoption of the populist policies, it appears that rice farmers may receive the greatest share of benefits. However, it has been a long-standing fact, for at least six decades – as far as history can be traced (Kongrit and Petcharat, 2016: 195), that farmers usually sell rice immediately after harvest. Most or all of

the in-season rice are usually sold from the month of January to the month of April (Chuchart and Tongpan, 1960: 107-108), which is the reason why the government attempted several measures to address the problem. For instance, in 1955, the Public Warehouse Organization was established to purchase and gather rice from the farmers after the harvest season (Isawilanon, 2009: 50) [2]. An implication of the seasonal factor is that even, according to the data analysis, the farmers receive the greatest share from rice sales, the share can also be presented as the risk arising from seasonal price fluctuations. Prior to the adoption of the populist policies, farmers, therefore, have to carry all such risks (97.9463 percent), especially during the period of falling rice price. Rice millers and exports, on the other hand, even though receive much smaller shares, they can sell the rice when the price already goes up.

The adoption of the populist policies to deal with rice may then be politicized as mentioned by Siamwalla (1975: 233). The policies may be employed to re-balance the unequal benefits that are originated from rice-trading. The policies are intended to re-distribute the risks from price fluctuations from originally being passed directly to the farmers[3] to being spread to the millers and the exporters in a greater extent. Since the millers and the exporters can sell their stocks of rice when the price seasonally trends upwards, the shares received by the millers and the exporters should present more benefits than risks, as evidenced by the regression results that during the implementation of these policies as political instruments, the millers and the exporters see an increase in benefit shares. Specifically, the millers' share increased from 0.2232 percent to 27.1575 percent during the first period of the rice mortgage scheme, and the exporters' share from 1.8305 percent to 13.5071 percent during the income guarantee scheme for rice farmers. For this reason, although the adoption of the populist policies aimed at intervening the rice price did increase the farmers' income somewhat, farmers remain one of the poorest occupational groups, because the overall benefit distribution is not enough to help the farmers escape poverty (Jantapong and Sirikanchanarak, 2012: 8-9), and above all, still does not reduce the existing gap nor eliminate the economic inequality (Jermsittiparsert, Sriyakul and Pamornmast, 2012).

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[2]However, the practice was not seriously implemented until 1960, which was when the government set up and tasked the Rice Reserve Committee with responsibilities to purchase paddy rice from farmers in provinces where complaints of low rice price arose. Even then, the implementation was limited in scope as the government lacked the revolving fund to operate such measure (Agricultural Business Research Unit, 2006 as cited in Isawilanon, 2009: 50).

[3] Before the populist policies are implemented, a one-baht change in the export rice price means a 0.981695-baht in the domestic rice price and a 0.597441-baht change in the domestic paddy rice price. After the populist policies are adopted, a one-baht change in the export rice price means a 0.850860-baht change in the domestic rice price (representing a decrease by 13.33 percent) and a 0.382423-baht change in the domestic paddy rice price (representing a decrease by 35.99 percent).

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