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Rice Policy Reform:
Removing Restrictions on Rice Trade in Indonesia

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Executive Summary

Three policy changes could make rice prices more affordable for the poor. First, the government should remove Minister of Trade (MOT) regulation 27/2017 on price ceiling. This policy has not lowered rice prices, which rose to IDR 10,646.56 per kilogram on average or 12.07% above the price ceiling between September 2016 and May 2017. Rice prices in Indonesia was approximately twice as high compared to the international reference prices in May 2017. The price ceiling unfairly puts the responsibility of lowering domestic rice prices on retailers while the benefits accrue to middlemen, rice millers, and wholesalers.

Secondly, MOT regulation 103/2015 article 9 (1.b), which grants the National Logistics Agency (*Badan Urusan* Logistik/Bulog) a monopoly on rice imports, should be removed and the government should focus on its role as regulator to ensure fairness and transparency in the import process. Since Bulog must consider the government's political and bureaucratic processes, it cannot time its imports based on market needs and conditions. Consequently, it spends more than it should on rice import, unnecessarily wasting up to IDR 303 billion (USD 22.78 million) between 2010 and 2017. Rice importation and distribution should be opened as business opportunities for qualified private companies, especially as the distribution chains of imported rice are shorter than those for domestic rice, so imports can quickly meet the needs of the market.

Thirdly, Bulog should be fully focused on its duty in disaster relief, preparing, managing, and distributing rice to affected areas during emergencies. National Disasters and Management Agency (*Badan Nasional Penanggulangan Bencana*/BPNB) recorded 1,234 emergency situations during the first half of 2017, including floods, landslides, tornadoes, and earthquakes. Disasters are expected to continue to hit the country frequently, making humanitarian relief an important priority.

Current Situation

> Rice price in Indonesia is nearly twice The World Bank reference price during the same period.

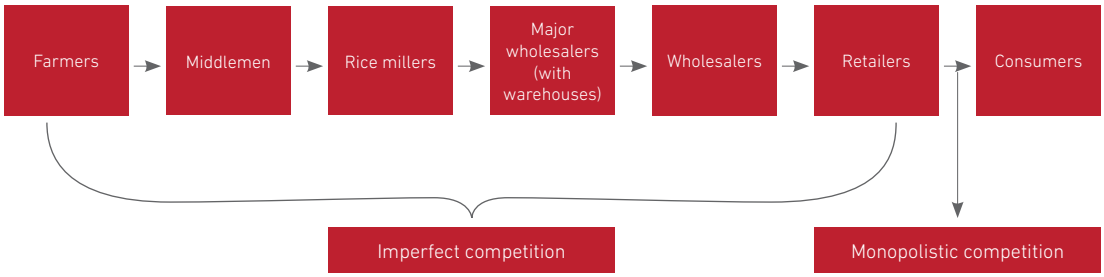
Rice is the staple food for most Indonesian people. National annual rice consumption is estimated to be around 45.7 million tons (OECD & FAO, 2015). According to a 2015 joint report from the Organisation for Economic Co-operation and Development (OECD) and the Food and Agriculture Organisation of the United Nations (FAO), Indonesia's annual per capita rice consumption is 163 kilograms, higher than in Thailand (142.5 kilograms), China (76.4 kilograms), and India (73.4 kilograms). This high consumption means that rice prices have significant impact on the livelihood of Indonesian people, especially those with low income.

There are approximately 28 million poor people in Indonesia with an average monthly income of IDR 300,000 (USD 22.64) (The World Bank, 2015), and the average rice price in early May 2017 reached IDR 10,600 (USD 0.80) per kilogram (Ministry of Trade, 2017). This price is nearly twice the World Bank reference price during the same period (The World Bank, 2017).[1] This suggests that a poor person consuming the national average and paying the average price would spend approximately 47.9% of their monthly income on rice.[2]

The Indonesian government argues that the high price of rice is the result of the long distribution chain for domestic rice (Ariyanti, 2016; Jefriando, 2016). As illustrated in Figure 1, rice from farmers passes through five different actors before it reaches consumers.

Figure 1

Levels of Domestic Rice Distribution in Indonesia



Source: KPPU (2016)

The Indonesian Competition Commission (*Komisi Pengawas Persaingan Usaha*/KPPU) (2016) reports that the domestic rice distribution system in Indonesia is subject to imperfect and monopolistic competition where indicated in Figure 1.

[1] The World Bank reference price in May 2017 was IDR 5,609.28 (USD 0.42) per kg (The World Bank, 2017), and is based on the price of rice in Thailand.

[2] This estimate does not fully apply to poor people who receive subsidized rice through the Raskin/Rastra program or food vouchers from the government, nor to poor people who work as rice farmers, since they could at least partially fulfil their need for rice from their rice fields.

At the level of farmers, middlemen, and rice millers, imperfect competition refers to the situation in which the purchasing actors (e.g. the middlemen) collude and agree among themselves to buy the rice from the selling actors (e.g. the farmers) at a predetermined price rather than the market price. At the level of wholesalers, imperfect competition refers to oligopolistic competition, where only a handful of large corporations control the distribution process (Bhinadi, 2012) and therefore control the prices as well (Pradana, 2015).

KPPU states that there is monopolistic competition at the retailers-consumers level even though there are a number of retailers in the market because there is little to no difference in the price charged by different retailers in the same area, mostly due, they claim, to the oligopolistic competition between the wholesalers mentioned above (KPPU, 2016).

Existing Policies

A. Domestic policies

The government imposed a nationwide price floor for rice in 2002 as part of their procurement price policy (*Harga Pembelian Pemerintah*/HPP) (Food Security Agency, 2013), and a price ceiling since 2016, imposed through their maximum retail price policy for the consumers (*Harga Eceran Tertinggi*/HET) as stipulated in the Regulation of the Minister of Trade (MOT) 27/2017.

The government tasks the National Logistics Agency (*Badan Urusan Logistik*/Bulog) with maintaining the price floor by purchasing rice from farmers at a pre-determined price, in accordance with the existing regulation. Bulog may keep rice in reserve,[3] and distribute this reserve as part of their subsidized rice program (Raskin) for registered low-income households, or as part of relief efforts to regions affected by natural disasters.

To implement the government's price ceiling, Bulog conducts market monitoring activity called Market Operations (*Operasi Pasar*) (Ministry of Trade, 2016). This activity aims to ensure that all retailers sell their rice at or below the price ceiling, and failure to comply would result in their licenses being revoked (Masa, 2017). According to officials from the Ministry of Trade, this policy serves as an indicator for when the government needs to intervene in the market (Sagala & Adri, Personal Interview, 21 March 2017).

The government aims to control rice prices at both the farmer and consumer levels using these fixed floor and ceiling prices. Past and present regulations regarding the floor and price ceilings are shown in Table 1.

[3] A rice reserve keeps the rice stock at a "safe" level, to be used as a buffer when there is a rice shortage from market failures or natural disasters. The exact amount varies and depends on the rice market situation. This is also referred to as the "iron stock".

Table 1

Government Price Floor and Ceilings Policies on Rice, 2002 – 2015

No.	Regulation	Floor Price (IDR per kg)			Price Ceiling – Rice (IDR per kg)
		Harvested Rice Paddy*	Ready-to-Mill Rice Paddy**	Rice	
1.	Presidential Instruction (Inpres) 09/2002	1,230	1,725	2,790	-
2.	Inpres 02/2005	1,330	1,765	2,790	-
3.	Inpres 13/2005	1,730	2,250	3,550	-
4.	Inpres 03/2007	2,000	2,575	4,000	-
5.	Inpres 01/2008	2,240	2,800	4,300	-
6.	Inpres 08/2008	2,400	2,440	4,600	-
7.	Inpres 07/2009	2,640	3,300	5,060	-
8.	Inpres 03/2012	3,300	4,150	6,600	-
9.	Inpres 05/2015	3,700	4,600	7,300	-
10.	Regulation of the Minister of Trade (MOT) 63/2016	3,700	4,600	7,300	9,500
11.	MOT 27/2017	3,700	4,600	7,300	9,500

'* = Also known as Gabah Kering Panen (GKP), husked rice grains with maximum water level of 25% and foreign materials maximum 10%

** = Also known as Gabah Kering Giling (GKG), husked rice grains with maximum water level of 14% and foreign materials maximum 3%

Sources:

1. Food Security Agency (2012)
2. MOT 63/2016 on Reference for Government Procurement and Maximum Retail Prices
3. MOT 27/2017 on Reference for Government Procurement and Maximum Retail Prices

B. International policies

The government restricts rice imports both to support farmers' income and to push down prices to keep rice affordable for consumers (Presidential Office, 2017). The government expects the price ceiling to keep rice prices sufficiently low (Budiyanti, 2017), while it expects restricted rice imports to ensure that domestic rice dominates the market, eventually benefitting farmers (Bulog, 2012; Hakim, 2016; The Jakarta Post, 2017).

The government allows only Bulog to import rice in order to fulfill its duties to stabilize rice prices, provide disaster relief, and alleviate poverty, as stipulated in MOT 103/2015 article 9 (1.b.). Bulog must receive formal authorization from the Ministry of Trade before importing any rice, and this authorization requires a ministerial coordination meeting on economic affairs (MOT 103/2015 article 9 (2) and article 10 (3)), and may even depend on a direct order from

the President (Faqih, 2015; Melani, 2015). MOT 103/2015 allows private companies to import specific types of rice for industrial purposes (article 12)[4] and special dietary needs (article 18)[5] only. As a result, from the consumer's perspective, there is a government-sanctioned monopoly for rice imports that must also be timed by the government.

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This policy can be traced back to the late 1960s when Bulog was tasked with food stock procurement and rice price stabilization by the newly established New Order (*Orde Baru*) under former President Soeharto. In 1995, the Indonesian government extended Bulog's authority beyond rice to sugar, wheat, wheat flour, soy beans, and livestock feed distribution, but after the Asian financial crisis in 1998, it reverted to rice distribution only (Bulog, 2012b). In this period, Bulog's monopoly right to rice imports was abolished as a part of the International Monetary Fund (IMF) structural reform package (Patunru & Basri, 2012), but in 2002, it was restored by the government.

In 2015, the government, via the Ministry of Trade, gave authorization to Bulog to stabilize the price and supply of not only rice, but also several strategic food items: beef, soy beans, corn, cooking oil, flour, chicken meat, shallots, and peppers (Bulog, 2015; Ministry of Trade, 2015).

In 2016, via Presidential Regulation 48/2016, the President strengthened this authorization by appointing Bulog to stabilize the supply and prices of rice, corn, and soy beans. Furthermore, with the additional mandate from the ministerial coordination meeting on economic affairs, this regulation also enables Bulog to obtain the rights to stabilize the supply and prices of other food items, namely sugar, cooking oil, flour, shallots, chili, beef, chicken meat, and chicken eggs.

[4] Including broken rice and broken sticky rice. These rice types are typically used in the rice flour industry.

[5] Including whole sticky rice, and several rice types such as Japonica, Basmati, and Thai Hom Mali. Each of these varieties can only contain broken grain of maximum 5%, which is considered as first-class quality according to the Indonesian National Standard (SNI 6128-2008).

Analysis

Considering the high consumption of rice in Indonesia and the toll taken by high prices on the living standards of 28 million poor Indonesians, it is worth analyzing whether the government's attempts to control rice prices by imposing restrictive trade policies are effective.

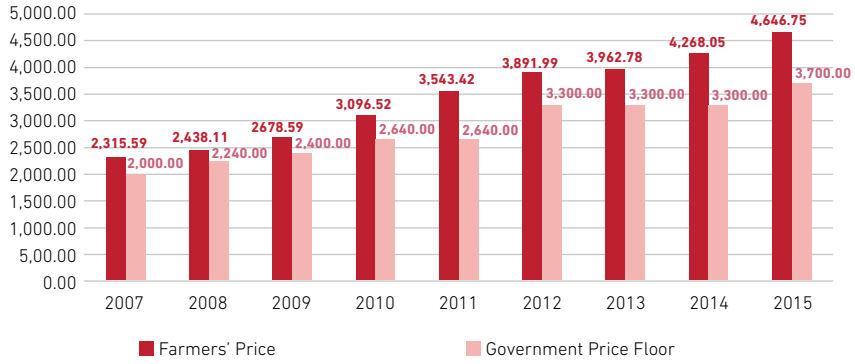
> Rice monthly average price from September 2016 to May 2017 were 12.07% above the price ceiling

A. Price floor and price ceiling policies

Price floor and ceiling policies have had mixed results. From 2007 to 2015, the yearly average prices at the farmer's level was above the floor prices by 20.89% (Figure 2), but the monthly average price at the consumer market from September 2016 (when the price ceiling was introduced) to May 2017 were 12.07% above than the price ceiling (Figure 3).

Figure 2

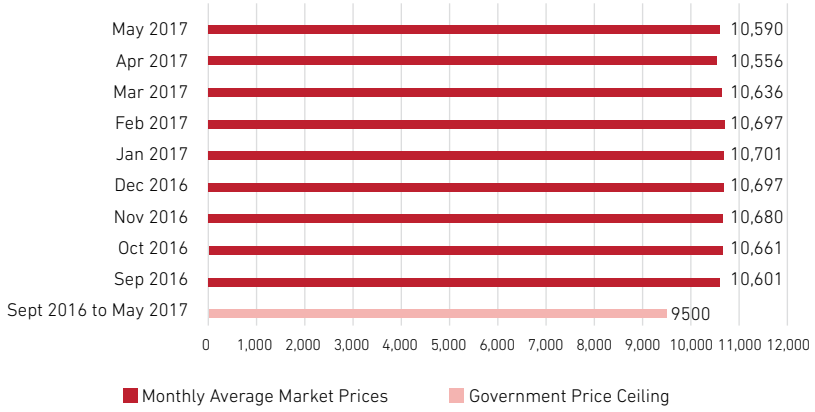
Yearly Average Prices of Harvested Rice Paddy (GKP) at the Farmers Level and Government Price Floor, 2007 – 2015



Sources are collated from Statistics Indonesia (2016) and Food Security Agency (2013)

Figure 3

Monthly Average Rice Prices in the Consumers Market and Government Price Ceiling



Sources are collated from:

1. Ministry of Trade (2017)
2. MOT 63/2016 on Reference for Government Procurement and Maximum Retail Prices
3. MOT 27/2017 on Reference for Government Procurement and Maximum Retail Prices

Rice retailers in several traditional markets in Jakarta were concerned that they would not be able to turn a profit if they sold their products at the price ceiling because the wholesaler prices were already higher than the price ceiling (Interviews, June 15-16, 2017). If retailers are forced to sell at the price ceiling, there is a risk that retailers will blend high quality rice with low quality rice (such as Bulog's subsidized rice) to avoid losses.

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The Indonesian Traditional Market Retailers Association (*Asosiasi Pedagang Pasar Seluruh Indonesia*/APPSI) reports that its members cannot comply with price ceiling policy because they must deal with various surcharges, such as transportation and labor costs, in their transactions with the wholesalers (Medianti, 2017) that are not accounted for when setting the price ceiling. In addition, traditional market retailers must pay wholesalers up front, and wholesalers may sell their products to the retailers above the price ceiling. Under these conditions, traditional market retailers must sell above the price ceiling or go out of business. In contrast, modern retailers are able to pay wholesalers at a later date, improving their position when negotiating selling prices and enabling them to comply with the price ceiling (M. Maulana, Personal Interview, May 25, 2017).

The problem faced by traditional market retailers illustrates how price ceilings can interfere with the ability of retailers to find a market-clearing price, at which the quantity demanded by the consumers is in balance with the quantity supplied by the producers (Morton, 2001). This market intervention by the government has distorted supply and demand in the market, increasing the chance of rice shortages. This is what economic theory predicts will follow from such policies (Investopedia, 2003; Vogel, 2004).

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The recent experience of Venezuela (Gupta, 2015; Wilson, 2016; Wu, 2016) illustrates how serious the potential risk of forcing small grocery stores to sell their products at government-mandated prices can be. Since 2003, the Venezuelan government has imposed price controls on essential consumer products, including food, household appliances, and hygiene products. Instead of lowering prices, this policy triggered black market activity and increased shortages from an average of 5% in 2003 to 22.2% in 2013, and in 2016 it even reached 41.3% (Wu, 2016). These shortages have contributed to the sharp increase in the prices of maize flour, a staple food in Venezuela. Its prices have risen tenfold from VEF 19 (USD 1.9) per kilogram in February 2015 to VEF 190 (USD 19) in May 2016 as stated by Venezuelan National Superintendency of Fair Costs and Prices (SUNDECOP) and as reported by various media (Charner & Clarke, 2016; DataMark Brazil, 2016; The Straits Times, 2016). The price of of maize in the black market was even higher, reaching up to VEF 1,500 (USD 150) per kilogram (Wilson, 2016).

B. Rice distribution system in Indonesia

Retailers report that they cannot comply with HET because prices are already high when they buy the rice from wholesalers, and the government claims that the long distribution chain is problematic and even the major factor increasing rice prices in Indonesia. To address these arguments, it is important to determine who gains the most from the current system.

Domestic rice

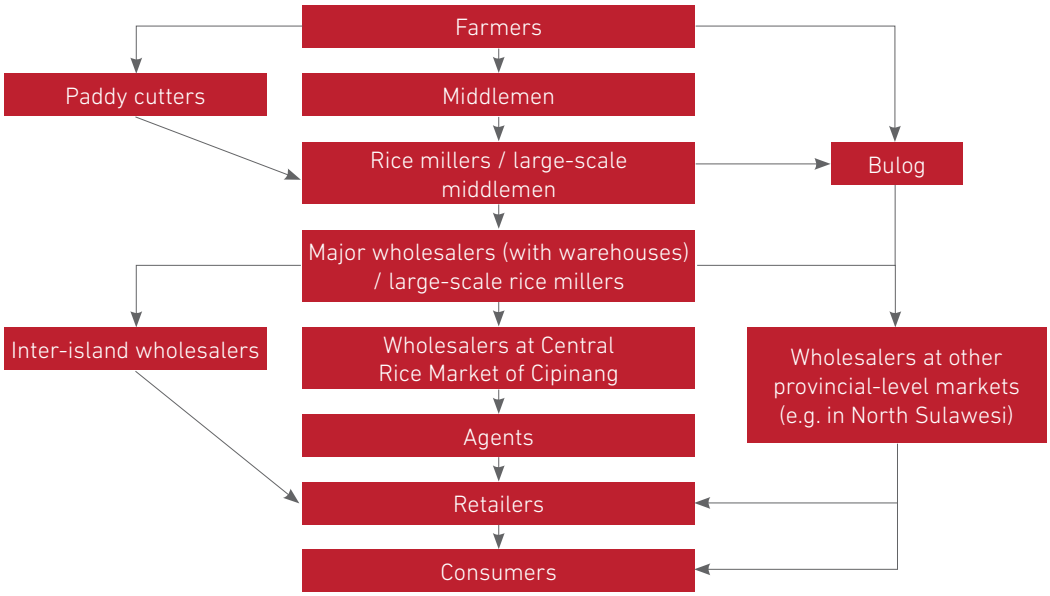
"Due to the inefficiency of rice distribution system, it is common to find huge price disparity between the producers and the consumers level"

– Mahardika (2013) –[6]

Domestic rice from the farmers goes through four to six distribution actors before it reaches the consumers. First, farmers sell their harvested rice paddy to the middlemen or to the paddy cutters, who dry the rice and sell it to the rice millers. After the rice is milled, the millers sell to the major wholesalers who own storage warehouses. Major wholesalers then sell the rice to the smaller scale wholesalers in the provincial-level markets (such as Central Rice Market of Cipinang in DKI Jakarta Province), or to those who sell the rice to the different islands in Indonesia. These smaller wholesalers bring the rice to the retailers, or, in the case of Central Rice Market of Cipinang, the rice must go through the selling agents before they could reach the retailers. Only then, the consumers can purchase the rice in the market. The distribution process is shown in Figure 4.

Figure 4

Distribution Supply Chain of Domestic Rice in Indonesia



Sources are collated from:

1. Indonesian Chamber of Commerce, as cited in Tambunan (2008)
2. Mardianto, Supriatna, and Agustin (2005), as cited in Ariwibowo (2013)
3. Mahardika (2013)

[6] Mahardika, T.K.S. (2013). *Kajian Distribusi Beras di Wilayah DKI Jakarta Melalui Pasar Induk Beras Cipinang [A Study on Rice Distribution in DKI Jakarta Through Central Rice Market of Cipinang].* Bogor: Institut Pertanian Bogor [Bogor Agricultural Institute], p.4

In each distribution chain, either the middlemen, the rice millers, or the wholesalers have the largest profit margin (Table 2). On the island of Java, these profit margins ranged around 60% to 80% per kilogram. In contrast, retailers gained a profit margin of only 1.8% to 9.1% per kilogram. This situation shows that those who gain the largest benefit are involved in the distribution system before the rice gets into the retail market. In these circumstances, price ceiling would be ineffective since it only pushes the retailers to lower their rice prices while they are not the ones setting the price high.

“In each distribution chain, either the middlemen, the rice millers, or the wholesalers have the largest profit margin”

Both the high prices charged along the supply chain and the length of the supply chain reduce the rice farmers' share[7] (Azzaino 1981, as cited in Mahardika, 2013). There are four distribution actors in East Java, and five actors in West Java. DKI Jakarta also has five distribution actors, to which around 71% of the rice supply comes from the farmers in West Java, and the rest are from Banten, Central Java, East Java, Lampung, South Sumatera, and South Sulawesi. The farmers' share in East Java, West Java, and the rice-supplying regions for DKI Jakarta only reached between 38% and 45%.

In North Sulawesi, where there are only three rice distribution actors, the farmers' share reached 73.68%. This might be due to the scale of landowners in this province, in which 120,899 or 47.7% of its landholding agricultural households are medium and large-scale farmers[8] (Statistics Indonesia, 2013b). Compared to the small-scale farmers, medium and large-scale farmers have better position when negotiating their selling prices to the rice millers as they may not have to rely on the middlemen to do so. Unfortunately, since nearly 56% of agricultural households in the country are small-scale farmers, the rice distribution system harms most of the farmers (Statistics Indonesia, 2013a).[9]

Table 2 illustrates the margin of rice distribution and the farmers' share in the provinces mentioned above in more detail.

[7] Farmers' share is calculated by dividing farmers' selling prices with the retailers' selling prices. The longer the distribution process, the smaller their share would be.

[8] Each medium-scale farmer controls between 1.0 and 1.99 hectares of land, and each large-scale farmer controls more than 2 hectares (Ambarwati, Harahap, Sadoko, & White, 2016).

[9] Of 26,135,469 agricultural households in Indonesia, 14,622,396 (55.94%) of them control only a small plot of land, under 0.5 ha.

Table 2

Profit Margin of Rice Distribution in the Provinces of West Java, East Java, North Sulawesi, and DKI Jakarta

Level of Distribution	West Java*				East Java**				North Sulawesi***				DKI Jakarta****			
	Selling Prices (IDR/ kg)	Cost (IDR/ kg)	Profit Margin+		Selling Prices (IDR/ kg)	Cost (IDR/ kg)	Profit Margin		Selling Prices (IDR/ kg)	Cost (IDR/ kg)	Profit Margin		Selling Prices (IDR/ kg)	Cost (IDR/ kg)	Profit Margin	
			(IDR/ kg)	(%)			(IDR/ kg)	(%)			(IDR/ kg)	(%)			(IDR/ kg)	(%)
Farmers	3,700				3,147				7,000				4,110			
Middlemen	3,800	63.5	36.5	0.9%	3,720	380	193	6.13%	8,167	67	1,100	**15.7%**	7,318	260	2,948	**78%**
Rice millers / large-scale middlemen	4,000	67.5	132.5	3.5%	7,115	405	2,290	**80.4%**								
Wholesalers (with warehouses) / large -scale rice millers	8,700	2,255	2,445	**61.1%**	7,393	150	128	1.7%	8,500	117	217	2.6%	7,681	125	238	3.2%
Wholesalers	9,400	82.5	617.5	7.1%									7,985	125	179	2.3%
Agents	9,700	100	200	2.1%	7,650	120	137	1.8%	9,500	229	771	9.1%	8,546	385	176	2.2%
Retailers													8,950	55	349	4.1%
Farmers' share	**38.14%**				**41.14%**				**73.68%**				**45.92%**			

Notes:

- This table focuses on the rice distribution actors, and does not show the cost and profit margins of farmers (producers).
- Rice in DKI Jakarta mostly come from the Central Rice Market in Cipinang. Around 71% of their supply comes from the farmers in West Java, and the rest are from Banten, Central Java, East Java, Lampung, South Sumatera, and South Sulawesi.
- Rice at the farmers' level are husked rice grains (GKP).
- Rice at the retailers' level are non-packaging rice sold in traditional markets.
- Costs are including the expenses for drying, milling, transporting, and delivery.

+ = Profit margin is what proportion of the selling price, for each distribution actor, is profit. The profit is calculated by deducting purchasing prices and costs from selling prices, while profit margin is calculated by dividing their selling prices by their profit.

Sources:

* = Saragih (2014)

** = Ariwibowo (2013)

*** = Ruauw (2015)

**** = Mahardika (2013)

Imported Rice

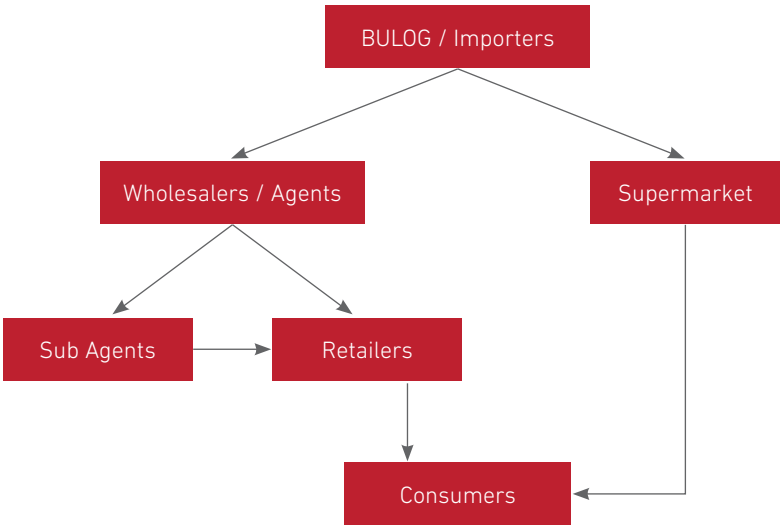
Compared to domestic rice, imported rice has a shorter distribution system. While domestic rice goes through between four to six distribution actors (Figure 4), imported rice goes through at most three to reach the consumers (Figure 5). From importers, rice goes to either the wholesalers/agents or the supermarkets. From wholesalers, rice is sold to the sub agents and then retailers, or it may pass straight from the wholesalers to the retailers. Afterwards, consumers purchase rice from retailers or supermarkets. This short distribution system is possible because the imported rice is a processed, ready-to-cook product that does not require paddy cutters, middlemen, or rice millers.

> This short distribution system is possible because the imported rice is a processed, ready-to-cook product that does not require paddy cutters, middlemen, or rice millers.

While reliable data for analyzing the profit margins of distribution actors for imported rice are not available yet, the short length of imported rice distribution system provides fewer opportunities for distribution actors to take advantage of the system. Therefore, providing better access to imported rice may allow the consumers to purchase at more affordable prices.

Figure 5

Distribution Supply Chain of Imported Rice in Indonesia



Sources are collated from:

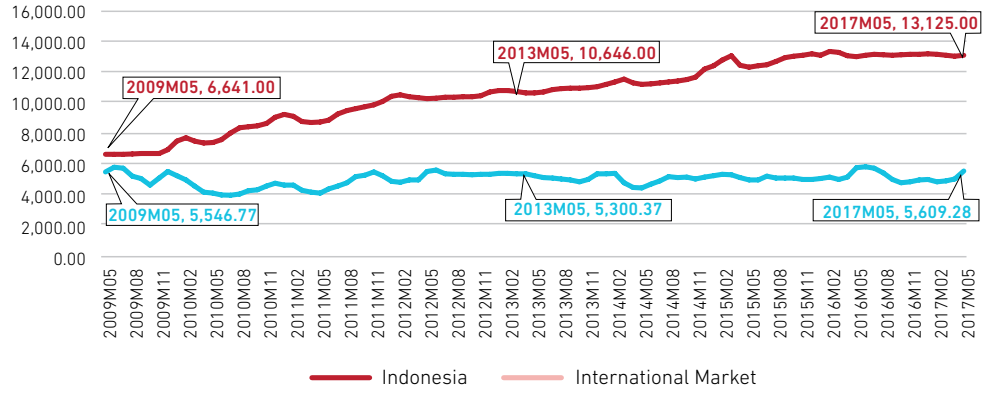
1. Statistics Indonesia (2009), as cited in Surjasa, Gumbira-Sa'id, Arifin, Sukardi, & Jie (2013)
2. Kitano, Ariga, & Shimato (1999)

C. Rice prices in Indonesia and the international market

From May 2009 to May 2017, rice prices in Indonesia had a different trajectory from international rice prices even though in May 2009 they were comparable at IDR 6,641 and IDR 5,546.77 respectively (Figure 6). By May 2013, Indonesian rice prices increased by around 60.3% to IDR 10,646 per kilogram, while the international market decreased by 4.4% to IDR 5,300.37 per kilogram. By May 2017, rice prices in Indonesia had risen even further, to IDR 13,125 per kilogram, or nearly twice its price in May 2009. In contrast, the international market price increased by just 1.12% to IDR 5,609.28 per kilogram, less than half the rice prices in Indonesia.

Figure 6

The Trend of Rice Prices in Indonesia and in International Market



Sources are collated from Statistics Indonesia (2009 - 2017), The World Bank (2009 - 2017), and X-rates.com (2017)

The relationship between rice prices in Indonesia and in the international market in the short term is different than in the long term. In the short term, a 10% price change in the international market corresponds with a 1.09% price change in the same direction in Indonesia. In the long term, changes in the international market do not have a significant impact on rice prices in Indonesia, allowing prices in Indonesia continuously deviate from the international trend and causing disconnection between them.[10]

> Rice prices in Indonesia continuously deviate away from the international trend and causing disconnection between them

D. Bulog in a disadvantaged position

Even though imported rice offers an alternative to provide more affordable rice for the consumers, Bulog, the sole rice importer, is unable to seize this opportunity. The best time to import a product is when its international prices are low, but Bulog must wait for the instruction of the President or of the ministerial coordination meeting in accordance with MOT 103/2015 article 9 (2) and article 10 (3) before it can import the rice. Bulog cannot import solely based on market conditions, but must follow the political consideration and bureaucratic procedures of the government.

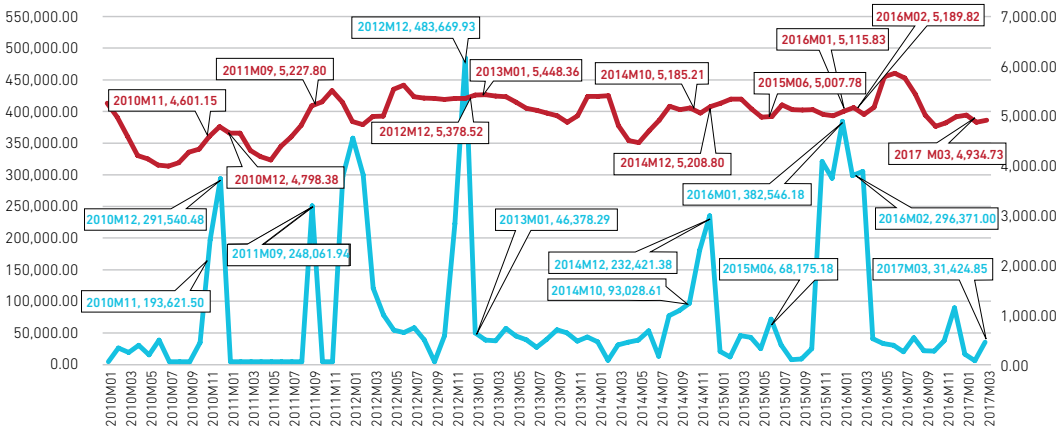
Rice importation by Bulog therefore becomes a high-cost operation. From January 2010 to March 2017, Bulog frequently imported rice in large quantities when the international rice prices were higher than the previous months. This happened in 2010 (November and December), 2011 (September), 2012 (December), 2013 (January), 2014 (October and December), 2015 (June), 2016 (January and February), and 2017 (March), as shown in Figure 7. Bulog could have saved more than IDR 303 billion (Table 3) or around USD 22.78 million had they purchased rice at least a month in advance.

[10] These calculations are explained in more detail in the Annex.

> Bulog cannot import solely based on market conditions, but must follow the political consideration and bureaucratic procedures of the government.

Figure 7

The Trend of Rice Import by Bulog and the International Rice Prices, Jan 2010 to Mar 2017



Sources are collated from:
1. Statistics Indonesia (2010 - 2017)
2. The World Bank (2010 - 2017)
3. x-rates.com (2017)

Table 3

Estimated Cost and Savings from Bulog's Rice Import, Nov 2010 - Mar 2017

Actual Purchase by Bulog					International Prices in the Previous Month (IDR/kg)	Estimated Cost (Million IDR)	Estimated Savings (Million IDR)
Year	Month	Quantity (tons)	International Prices (IDR/kg)	Estimated Cost (Million IDR)*			
2010	November	193,621.50	4,601.15	890,882	4,338.44	840,015	50,866
	December	291,540.48	4,798.38	1,398,922	4,601.15	1,341,421	57,501
2011	September	248,061.94	5,227.80	1,296,818	4,825.92	1,197,127	99,691
2012	December	483,669.93	5,378.52	2,601,428	5,378.40	2,601,370	58
2013	January	46,378.29	5,448.36	252,686	5,378.52	249,447	3,239
2014	October	93,028.61	5,185.21	482,373	5,148.75	478,981	3,392
	December	232,421.38	5,208.80	1,210,636	5,081.26	1,180,993	29,643
2015	June	68,175.17	5,007.78	341,406	4,998.25	340,757	650
2016	January	382,546.18	5,115.83	1,957,041	5,023.94	1,921,889	35,152
	February	296,371.00	5,189.82	1,538,112	5,115.83	1,516,184	21,928
2017	March	31,424.85	4,934.73	155,073	4,893.76	153,786	1,287
TOTAL				12,125,378	TOTAL	11,821,970	303,408

Notes:
* = We did not to use Cost, Insurance, and Freight (CIF) calculation by Statistics Indonesia because the fluctuations between one period and the others are too high, which made the calculation questionable. Instead, we estimated import costs using the quantity imported and the international rice prices reported by The World Bank

Sources are collated from:
1. Statistics Indonesia (2010 - 2017)
2. The World Bank (2010 - 2017)
3. x-rates.com (2017)

The high prices Bulog pays for imported rice endanger its financial health.[11] From the beginning of January 2010 to the end of December 2015, Bulog's debt grew by 74%, from IDR 12.7 million to more than 22.1 million (Table 4), forming more than three quarters of its overall assets as the debts are nearly four times higher than its equity. Bulog's financial situation is at high risk,[12] signifying its inability to generate sufficient business revenues to sustain itself without relying on the government budget.

> "Bulog's financial situation is at high risk, signifying its inability to generate sufficient business revenues to sustain itself without relying on the government budget."

Table 4

Bulog's Financial Statement, January 2010 – December 2015

Date	Assets (IDR)	Liabilities/Debts (IDR)	Equity (IDR)	Debt-to-Asset Ratio	Debt-to-Equity Ratio
1 Jan 2010	15,339,520,170,928	12,728,776,536,863	2,610,743,634,065	82.98%	487.55%
31 Dec 2010	14,981,238,491,019	10,991,177,954,333	3,990,060,536,686	73.37%	275.46%
31 Dec 2011	18,672,029,209,476	13,745,427,793,835	4,926,601,415,641	73.62%	279.00%
31 Dec 2012	26,839,682,400,613	22,286,427,567,471	4,553,254,833,142	83.04%	489.46%
31 Dec 2013	25,891,624,271,796	21,675,128,996,912	4,216,495,274,884	83.71%	514.06%
31 Dec 2014	20,465,725,129,222	16,708,138,425,138	3,757,586,704,084	81.64%	444.65%
31 Dec 2015	29,831,584,489,092	22,142,745,777,902	7,688,838,711,191	74.23%	287.99%
Average	**21,717,343,451,735**	**17,182,546,150,351**	**4,534,797,301,385**	**79.12%**	**378.90%**

Source: Bulog (2011 - 2015)

Meanwhile, there are private companies—that might include small and medium enterprises (SMEs)—that are capable of importing rice, including the regular rice commonly consumed as staple food. In 2014, the government issued import permits to 13 private companies to import rice for industrial purposes (Agus, 2014; Handoyo and Santosa, 2014; Mohamad, 2014) and to 40 private companies to import rice for special dietary needs (Herlinda, 2014; JituNews.com, 2014; KabarBisnis.com, 2014). These circumstances indicate that there are private companies that have the capacity to import regular rice for the consumers, if only the government allows them to do so.

[11] Bulog's finance comprises assets, liabilities, and equity. Their assets include current assets (such as cash and cash equivalents, trade receivables, and stock inventories) and fixed assets (such as property and vehicles). Most of their liabilities (83.25%) are short-term bank loans. Their equity includes government capital and the equity of its subsidiaries (Bulog, 2011 – 2015).

[12] High debt to equity ratio (D/E ratio) indicates the company has been aggressive in financing its growth with debt (Investopedia, 2016). Since Bulog's business activities are strictly dictated by the government, the cost of debt potentially outweighs the returns, thus put the company under high risk.

Recommendations

The price ceiling introduced by MOT 27/2017 has been unable to lower rice prices for consumers. Instead, Indonesian rice is nearly twice as expensive as Thai rice which the World Bank uses for international market references. Bulog is the only company authorized to import rice for ordinary consumption, in accordance with MOT 103/2015 article 9 (1.b), but its government-directed purchases cause an unnecessary waste of public funds, since they have directed Bulog to buy when prices already increased.

Three recommendations may improve the situation:

A. Remove MOT 27/2017 on ceiling price

The government should remove price ceiling on rice and instead use the international trade to lower consumer prices. The price ceiling has been ineffective as proven by the average market price of rice from September 2016 to May 2017 that reached IDR 10,646.56 per kilogram or 12.07% more expensive than the price ceiling. In May 2017, rice price in Indonesia was around twice higher than the rice price in the international market.

> “Price ceiling policy is unfair for the retailers as they have much slimmer profit margins than other actors in the distribution chain”

The price ceiling policy also places the onus for lowering rice prices on retailers, including the small-scale ones in the traditional markets. This is unfair as these retailers have much slimmer profit margins than other actors in the distribution chain, including the middlemen, the rice millers, and the wholesalers.

B. Remove MOT 103/2015 article 9 (1.b) and allow qualified private companies to import rice

The government should remove article 9 (1.b), which grants a monopoly on rice import to Bulog. The private sector should be allowed to import rice not only for industrial purposes and special dietary needs but also normal rice that is commonly consumed as staple food. The shorter distribution chain for imported rice would provide an alternative to the problematic distribution chains for domestic rice. More importantly, Indonesia would become more integrated into the international rice market with its lower prices, and poor people will be able to fulfil their need for rice more affordably.

Bulog is not positioned to be an efficient rice importer since it is subject to political considerations and bureaucratic procedures of the government. This state-owned enterprise spends more than it should on rice import, and its financial situation deteriorates. Maintaining Bulog as the sole importer risks further waste of public funds and might even lead to rice shortages if Bulog run out of financial means to procure the rice.

> “Maintaining Bulog as the sole importer risks further waste of public funds and might even lead to rice shortages if Bulog run out of financial means to procure the rice.”

Therefore, rice importation must be opened as business opportunities for the qualified private companies. These companies must prove their capability in reading the rice market situation both in Indonesia and in the international market and then make their decision to import rice accordingly. As for the government, rather than trying to control imports directly, it should focus on its role as regulator by setting the criteria, verifying information provided by the private companies regarding their qualifications, and ensuring fairness and transparency in competition between those companies.

C. Bulog should only participate in the rice distribution during emergency situations

Given their hampered ability to import rice efficiently, Bulog should shift all of its focus to disaster relief: preparing, managing, and distributing rice during emergency situations such as natural disasters. In 2015 the National Agency for Disaster Management (*Badan Nasional Penanggulangan* Bencana/BNPB) recorded 1,681 disasters that took 259 lives and displaced more than 1.2 million people (2015). During these emergencies, Bulog distributed only 37.08% (9,271 kilograms) of rice from their 25,000 kilograms of allocated stock to affected areas (Bulog, 2015).

During the first half of 2017, there were 1,234 recorded disasters across the country, including floods, landslides, tornadoes, and earthquakes (BNPB, 2017). BNPB predicts that these disasters will frequently happen again in the future (Natalyn & Nadlir, 2017), and therefore, Bulog must improve its performance in alleviating their impact on the rice supply in affected regions.

> During the 1,681 emergency situations 2015, Bulog only distributed 37.08% from their allocated rice stock to the affected areas

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Annex

Analysis on rice prices in Indonesia and in the international market

A. Data Source and Data Period

We analyze the relationship between the logarithm (log) of domestic retail price (which is the same as the consumer price, ***PD***) of the food items in Indonesia expressed in IDR/kilogram and the log world price for same food items (***PW***) expressed in USD/kilogram, while controlling for movements expressed in rupiah/dollar exchange rates (**ER**) also in logarithm form and all logarithms are natural. The average monthly data on retail prices (***PD***) were obtained from the (Statistics Indonesia, 2017) (BPS) for the period May 2009 until May 2017 (97 observations). World prices (***PW***) were obtained from the (World Bank, 2017) Database (The Pink Sheet) for the same period. The nominal rupiah/dollar exchange rates (**ER**) were obtained from (X-Rates, 2017) Converter Exchange Rates for same period.

This paper combines qualitative and quantitative methods. For the quantitative method, we used error correction models (ECM). An ECM is a dynamic model in which the movement of the variables in any periods is related to the previous period's gap from long-run equilibrium (cointegrated). Furthermore, if the series is cointegrated, and the ECM validated, then it will encompass any other dynamic specification - such as the partial adjustment mechanism.

The first step entails estimating a long-run relationship between domestic prices (**PD**) and world prices (**PW**), while controlling for foreign exchange rates (**ER**) is to use two-step method of (Engle & Granger, 1987), called symmetric ECM test. According to this approach, if the variables are cointegrated of the same order, then for those variables integrated of order one (I(1)) with a cointegration relation of the form as in equation (1):

$$PD_t = \alpha_0 + \beta_1 PW_t + \beta_2 ER_t + \varepsilon_t \qquad (1)$$

would produce a stationary $\hat{\varepsilon}_t$ term (error term/residuals) after estimating this equation with an OLS (ordinary least square) procedure, where α and β are estimated parameters. If the residuals of equation (1) are stationary, then an error correction mechanism exists.

Second, the ECM is specified by using lagged residuals from the co-integrating regression in equation (1) as error correction terms (ECT) and using Δ as the difference indicator (differencing means subtracting from) as follows in equation (2):

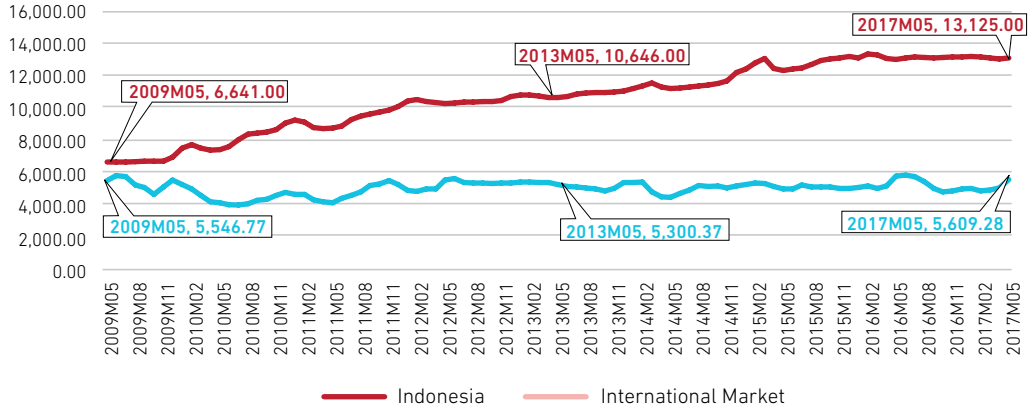
$$\Delta PD_t = \alpha_0 + \beta_1 \Delta PD_{t-1} + \beta_2 \Delta PW_{,} + \beta_3(L)\Delta PW_{t-1} + \beta_4 \Delta ER_t + \beta_5(L)\Delta ER_{t-1} + \beta_6 ECT_{t-1} + v_t \qquad (2)$$

B. Preliminary Findings

As shown in Figure 8, the domestic food price increased every month. The price of rice rose 98% from around Rp 6,641 per kilogram in May 2009 to more than Rp 13,125 per kilogram in May 2017. The world food price increased slightly but was almost stable every month. The price of rice increased just about 1.12% from around Rp 5,547 per kilogram in May 2009 to Rp 5.609 per kilogram in May 2017. We found that at May 2017, domestic rice price was almost 2 times higher compared to world price.

Figure 8

The Trend of Rice Prices in Indonesia and in International Market



Sources are collated from Statistics Indonesia (2009 - 2017), The World Bank (2009 - 2017), and X-rates.com (2017)

As shown in Equation 1 results below, in the long run, changes in world rice price do not affect the domestic rice price changes.

$$\widehat{PDrice}_t = -0.313 + 0.101\ PWrice_t + 1.038^{***}\ ER_t$$

(***): denotes significance at 1% of confident level

And as shown in Equation 2 results below, in the short run a 10% increase in the world rice price over the previous period causes an instantaneous 1.09% increase in the domestic price current period, ceteris paribus and *vice versa*.

$$\Delta\widehat{PDrice}_t = 0.004^{**} + 0.417^{***}\ \Delta PDrice_{t-1} + 0.023\ \Delta PWrice_t + 0.109^{***}\ \Delta PWrice_{t-1} + 0.191^{**}\ \Delta ER_t - 0.033^{**}\ ECT_{t-1}$$

(***): denotes significance at 1% of confident level
(**): denotes significance at 5% of confident level

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ABOUT THE CENTER FOR INDONESIAN POLICY STUDIES

The Center for Indonesian Policy Studies (CIPS) is a strictly non-partisan and non-profit think tank providing policy analysis and practical policy recommendations to decision-makers within Indonesia's legislative and executive branches of government.

CIPS promotes social and economic reforms that are based on the belief that only civil, political, and economic freedom allows Indonesia to prosper. We are financially supported by donors and philanthropists who appreciate the independence of our analysis.

KEY FOCUS AREAS:

Trade and Livelihood: CIPS exposes the adverse effects of economic restrictions and formulates policy options that allow Indonesians to support their own livelihood and their natural environment.

Low-Cost Private Schools: CIPS studies the situation of low-cost private schools and how they contribute to quality education for children of low-income households in Indonesia.

International Labour Migration: CIPS suggests policies that facilitate low-skilled labour migration as it is of critical importance for the income generation and capacity development of marginalized communities in Indonesia.

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