Demand and supply side policies to address the housing problems for low income households in Indonesia

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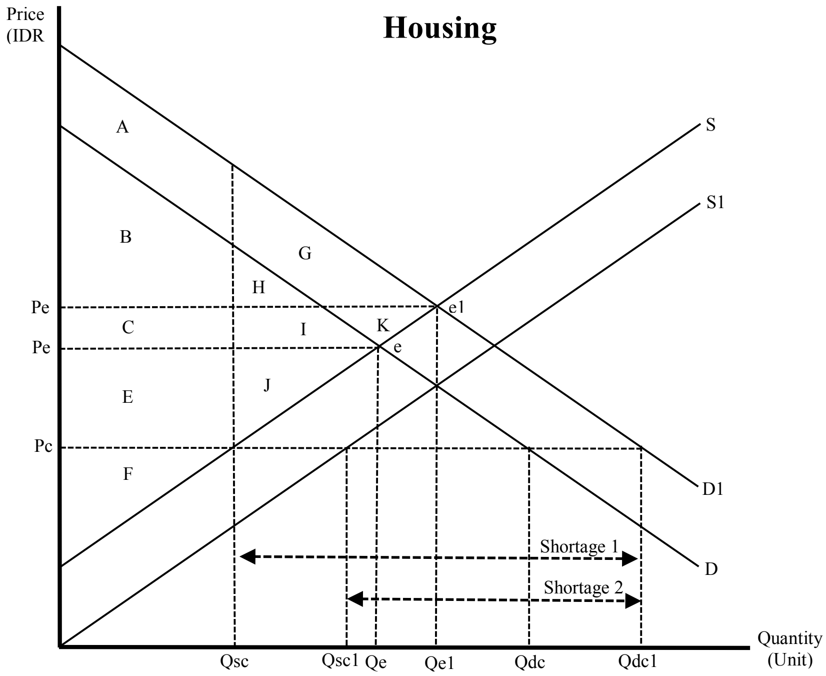
As a developing country, Indonesia has suffered a housing problem because its structure of workforce creates a barrier for low income people to access housing mortgage. According to Utomo (2014), almost 70 percent of the workforce are informal sectors, characterized by low income, have limited access to the banking system, and are deemed non-creditworthy (p. 2). As a response, the government of Indonesia launched a program namely *Fasilitas Likuiditas Pembiayaan Perumahan* or Liquidity Facility for Housing Finance (FLPP, hereafter) in 2010 that was initially designed to increase the demand for low income housing by bringing down the interest rate of housing loans (Kusno 2012, p. 37). Against this background, this paper will examine the FLLP as a form of the government's intervention in the low income housing market from the microeconomics perspective.

The main objective of the FLPP is to increase the demand of low income housing. The Minister of Public Housing Regulations Number 14 Year 2010 defined low income household as a household with income not more than IDR 2,500,000 or equivalent to AU$250 per month. This regulation also set the maximum fixed rate mortgage of 8 percent during the instalment period, and the FLPP will subsidize the difference of interest between this rate and the bank's effective mortgage rate. Compared to the average effective mortgage rate prevailed by banks at the time, which was 14.53 percent (Statistics Indonesia 2016), this subsidized rate was considered adequate to boost households' demand of housing (Khoiriyah 2010). From the supply and demand curve in Figure 1, as demand increases, the demand curve shifts to the right from D to D1. This shift indicates that the quantity of houses demanded is higher at every price.

Even though providing subsidy theoretically could increase the demand of housing, this policy neglects the supply side and possibility of prices to rise. Because supply does not increase as there was no incentive for producer to produce more, therefore the increase in demand will only be responded to by movement along the supply curve from the equilibrium (e) to the new equilibrium (e1) at the higher price (Pe1) and higher quantity demanded (Qe1). This higher price effect is contradictory to the government's initial policy to subsidize the interest in order to encourage the low income households to purchase house. In response to higher price effect, in early 2012, the government issued the Minister of Public Housing Regulations Number 27 Year 2012, which mainly introduced the maximum price of low income housing by AU$10,900 that could be subsidized by the FLPP. At the same time, the regulation has also broadened the targeted beneficiaries by increasing the limit of low income category up to AU$350 per month and decreased the subsidized mortgage rate to 7.25 percent per year. At this stage, the government is still focused on the demand side, since all new introduced policies were intended to benefit the consumer.

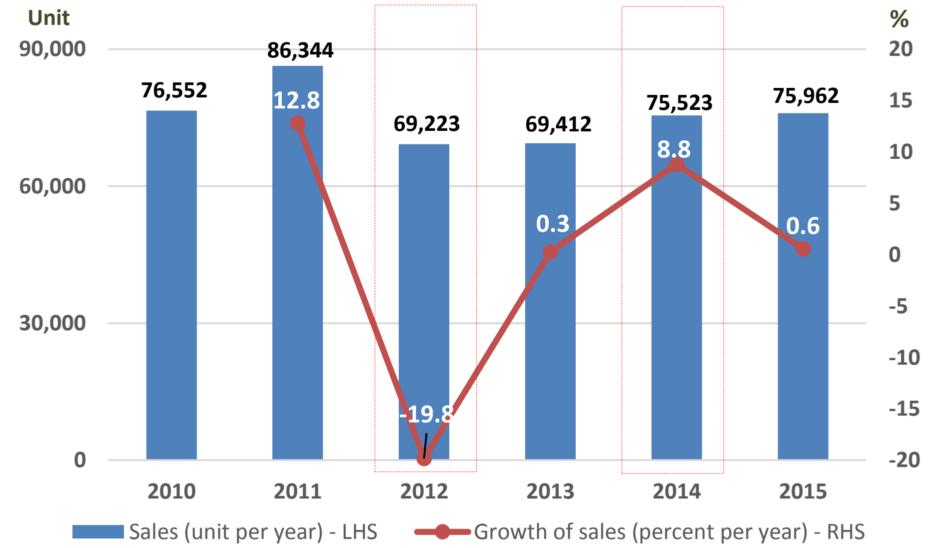
Figure 1: Demand and Supply Curve of Low Income Housing



What the government of Indonesia has done by creating maximum legal price of low income housing to control the price is one of the government's interventions on the market called price ceiling (Pc). This policy benefits more on the consumer side by shifting producer surplus to consumer surplus, therefore price ceiling creates shortage and leads to a reductions in quality. In Figure 1, producer surplus is shown by the area of F, while the consumer surplus is the area of ABCE. The shortage occurs when the quantity demanded (Qdc1) exceeds the quantity supplied (Qsc) at the controlled price, in turns it leads to a reduction in quality. At the shortage condition, the producer can cut the quality and costs and will still be able to sell the products at the controlled price. However, the price ceiling policy could raise an unintended consequence called deadweight loss or loss in economic surplus caused by any interventions that prevent the market to reach its equilibrium (Frank et al. 2013, p. 196). In Figure 1, deadweight loss is represented by area of GHIJK. Again, the government of Indonesia has created contradictory policies within a regulation by enhancing the demand side, and at the same time, preventing the increase in supply by imposing a price ceiling, hence the ‘ceiling equilibrium’ occurred at the quantity supplied (Qsc) which is below the potential equilibrium quantity (Qe1), and leaving shortage that cannot be met by the market.

In early 2014, the government issued the Minister of Public Housing Regulations Number 3 Year 2014 that mainly adjusted the maximum price of low income housing to AU$12,627, increased the limit of low income category up to AU$400 per month and introduced an incentive for producer by abolishing ten percent of value added tax (VAT) from the price, therefore all of the revenue from every sold house will be received by the producer. After four years implementation of the program, this policy was the first policy taken by the government which aimed to support the supply or producer side. By this policy, the supply of house is possible to increase and shifts the supply curve to the right (S1) (see Figure 1). By abolishing the VAT, the government creates an additional revenue by ten percent for producers, thus the policy will attract more real estate developer to enter the market and produce low income house and subsequently, the supply increases. As an effect, the shortage now decreases from between Qdc1 and Qsc (shortage 1) to become Qdc1 and Qsc1 (shortage 2) (see Figure 1).

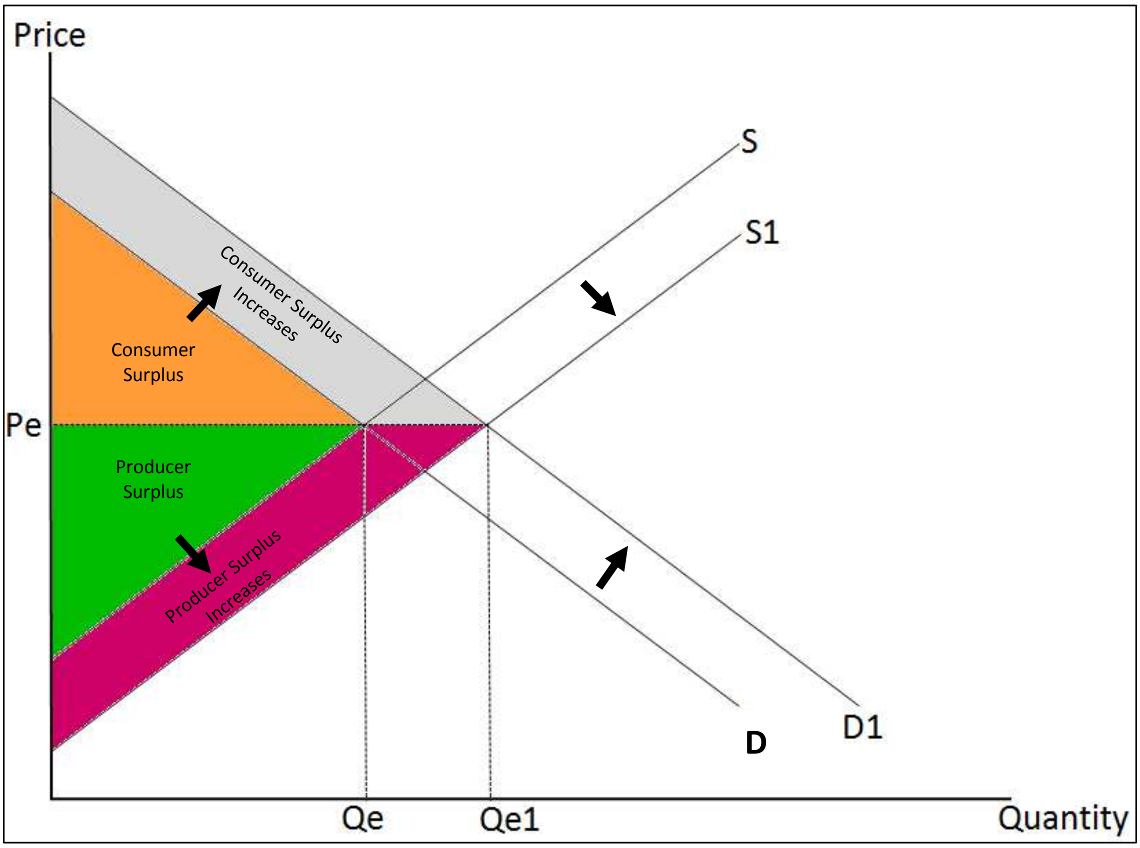
Figure 2: **Sales of Low Income Housing Facilitated by FLPP Program 2010-2015**



Source: Ministry of Finance (2016, p.12)

Furthermore, the data from the Ministry of Finance (2016) as shown in Figure 2 confirms that the supply side policy taken in 2014 has been able to boost the sales of low income housing in 2014 effectively. However, the price ceiling remains a barrier for the market to operate at its optimum. The government of Indonesia has to remove the price ceiling to ensure the market could operate efficiently to reach its equilibrium. Any government policies should be directed for both of supply and demand side, thus the producer and consumer could gain higher surplus as illustrated in Figure 3.

Figure 3: **Demand and Supply Curve of Low Income Housing under Simultaneous Supply Side and Demand Side Interventions**



In conclusion, a combination of policy in demand and the supply side, simultaneously, will be able to develop the market of low income housing in Indonesia. The emphasis on 'simultaneously' here is important to prevent the policy from negating the benefits of one another if the government focusses only on one side. As both of the demand and supply increase, the new equilibrium will share equal additional economic surplus for the producer and consumer while the price remains stable. Any barriers for the market, such as the price ceiling, have to be removed to ensure that the benefits are distributed evenly.

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