The Effect Of Covid-19 On Demand And Supply Of Animal Food Of Livestock

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Abstract. The Coronavirus that is present in society in 2020 is attracting attention. The visible impact does not only affect public health but also affects the country's economy. Even today the world economy is under heavy pressure due to this virus. The topic this time will discuss the global impact of the presence of the coronavirus or its scientific name is referred to as COVID-19. The research method used is descriptive qualitative by describing the phenomena and existing literature. The results of this study indicate that seeing economic developments and influences is not limited to the scope of the economy itself. However, the economy can also be affected by culture and health. This is evidenced by the spread of the Coronavirus which has harmed the world economy.

1. Introduction

The year 2020 becomes an emphasis and significant point in navigating the world's economies. The world was shocked by the emergence of a new type of virus known as the Corona Virus or in its scientific designation as COVID-19. 8th of May 2020, COVID-19 coronavirus caused about 4.01 M confirmed cases and 276216 deaths worldwide [1]. This means that death occurrence is about 6.9% of the total confirmed cases. On the other hand, the number of recovered cases on the same date was 1385184 cases, representing about 34.5% of the total positive confirmed cases. The case diagnoses were confirmed in more than 240 countries and territories, outside the mainland China. Reviewing the procedures and experiences of most affected countries (USA, China, Brazil, Spain, Italy, France and Germany) dealing with the pandemic SARS-CoV-2, it was proven that this virus can overcome the healthcare system of well-resourced countries. Due to the nonexistence of treating vaccines at the moment, interferences have focused on social distancing, tracing contact and quarantine [2].

The coronavirus began to spread around the Wuhan area and has now infected more than 100 countries. "The widespread spread of COVID-19 will prolong the period of the economic downturn in the Asia Pacific region. Australia, Hong Kong, Singapore, Japan, South Korea, and Thailand are predicted to be in danger of being dragged into the brink of recession [3]. The increasing spread of the corona outbreak to various parts of the world is a serious threat to the global economy, one of which is Indonesia.

Since President Joko Widodo announced the first positive COVID-19 patient on March 2, 2020, and the appeal for the application of physical distancing, it is slowly starting to have an impact on the national economic sector. The COVID-19 pandemic that occurred in Indonesia reduced the performance of the tourism sector such as hotels and restaurants. Stated that the number of foreign
tourist arrivals to Bali in March 2020 fell 56.89 percent compared to February 2020 [4]. Foreign tourist visits (tourists) in March 2020 decreased by 45.50 percent compared to February 2020. Compared to March 2019, the number of foreign tourist arrivals in March 2020 decreased by 64.11 percent [4]. This has an impact on the livestock sector in the country. This long enough food supply chain for the livestock sector, in the end, has a problem at the end, namely the absorption of livestock products on the market. One of the areas affected by the COVID-19 pandemic is the livestock sector. Farmers are threatened with going out of business because their crops are not selling well in the market. With a fixed level of supply, the price of live chickens fell to Rp. 12,000 / kg while the normal price was between Rp. 30,000 - 35,000 / kg [5].

Currently, farming systems face a wide range of economic, environmental and institutional challenges (MEUWISSEN et al. 2019). The most critical factors that would impact crop production and its quality, as a result of the COVID-19 pandemic, are soil fertility, availability of fertilizers, sowing and harvest dates, water availability, and pests or diseases. These factors in fact depend on agricultural machinery, laborers and international fertilizers and pesticides trade. Delaying the harvest process of forages can reduce the digestibility and crude protein [2].

This social distancing also affects changes in the market-economy system of demand for goods. In this condition, consumers will prefer not to buy goods that are considered less important because their activities are also limited. Currently, the market demand for goods that support this pandemic has increased sharply, such as masks, hand soap, gloves, hand sanitizers, including fast food (fast food) [2].

Demand and supply are fundamental in marketing so that the price of a product is formed. A stable and rational price is born out of a harmonious supply and demand relationship. The law of demand is essentially a hypothesis which states: "The relationship between the goods requested and the price of the goods is inversely proportional to the relationship, namely when the price increases or increases, the number of goods demanded will decrease and vice versa if the price decreases the quantity of goods increases [6].

The market mechanism operates on the basis of mutual need between consumers (demand) and producers (supply) who meet within the scope of buying and selling. This process forms a price for goods and the factors that influence their production [7].

If production is constant while demand increases, then price will certainly go up. In fact, if production remains and demand falls, prices will fall. Price stabilization too of the supply figures [8]. Then how does COVID-19 affect the demand and supply of animal food products from livestock and how the government should anticipate the impact of COVID-19 to protect it availability and accessibility of food as well as affordability (stability) of food prices in Indonesia, start from production to consumption, from upstream to downstream.

2. Research Method
The research method used in this research is to use qualitative descriptive analysis. By describing the phenomena that occur due to the impact of the coronavirus (COVID-19) on the demand and supply of animal food products from livestock in Indonesia. Given the inadequate material and research, the writer will describe the results of the research through several sources and conclude several articles and related journals.

3. Result And Discussion
In a virtual limited meeting on April 13, 2020, President Joko Widodo stated that "a warning from the Food and Agriculture Organization of the United Nations (FAO) to pay close attention, we underline the warning that the COVID-19 pandemic could have an impact on world food scarcity or world food crisis. We really have to confirm this ". During the meeting, the President also asked regional heads to
maintain the availability of basic commodities, given the increasingly widespread COVID-19 pandemic [9].

In accordance with the UNGCP there are 5 consumer needs that must be met, namely (1) access by consumers to important goods and services, (2) protection of vulnerable and disadvantaged consumers, (3) protection of consumers from harm to health and safety, (4) promotion and protection of the economic interests of consumers, (5) access by consumers to adequate information to enable them to make informed choices according to individual wants and needs. In response, BPKN needs to assess the potential for this food crisis [9].

Food is an essential need and an important commodity in human life [10]. Public awareness of the importance of the nutritional value of meat, milk and eggs to meet nutritional balance and food safety has increased from year to year [11]. This has an impact on increasing the production of animal food commodities from livestock. Statistical data from the Central Statistics Agency shows an increasing trend in the production of animal-based food commodities from livestock. Production continues to increase throughout 2009-2019 by 9-12% per year [2].

Several factors affect the demand and supply of animal food products from livestock, including the price of the goods themselves, the price of other / substituted goods, the number of household members, the consumption pattern of the community, the socio-cultural pattern of society and the predictions of the future. which will come [13]. The COVID-19 pandemic causes unstable supply and demand, it is caused by;

3.1. Large-Scale Social Restrictions

Reported by Republika.co.id March 20, 2020 [5], the Ministry of Agriculture ensures that the production of animal-based food from livestock, such as chicken and eggs and beef is safe to meet consumption needs during Ramadan to Lebaran which falls in May yesterday. Eggs are the most common commodity consumed by community households as a source of animal protein [14]. As many as 98.97% of people consume eggs [15]. The Director General of Animal Husbandry and Animal Health said that the consumption of purebred chicken is 12.79 kg / capita / year, based on the results of the 2017 Staple Material Consumption Survey and the 2019 National Socio-Economic Survey conducted by BPS [12].

The demand for broiler meat until May 2020 is estimated at 1,450,715 tonnes. Meanwhile, based on the potential for broiler chicken meat production until May 2020, it is estimated at 1,721,609 tons. "Until May 2020, it is estimated that there will be a surplus of broiler chicken meat of 270,894 tons, or an average surplus of 54,179 tons per month."

Regarding eggs, based on the consumption of eggs of broilers, it is 18.16 kg / capita / year. The need for eggs of broilers until May 2020 is estimated at 2,059,735 tons. Meanwhile, based on the potential for broiler egg production until May 2020, it is estimated at 2,084,641 tons. This means that there is still a surplus of 24,906 tons or 4,981 tons per month. For beef / buffalo, the average consumption is 2.66 kg / capita / year. The need for beef / buffalo until May 2020 is estimated at 302,300 tons. Availability of beef / buffalo until May 2020 based on domestic production of 165,478 tons. Based on these data, an additional 136,822 tons is still needed which will be met through imports of 103,043 tons of beef / buffalo and 252,810 feeder cattle or the equivalent of 56,659 tons of meat. This is based on the conditions of the realization of imports up to March 5, 2020. "This means that until May 2020, we will have an accumulated surplus of 22,880 tons of meat." In general, Indonesia is already independent in the supply of domestic animal protein. For the needs of chicken meat and eggs are fully domestic production, there is even a surplus.

Abundant yields are not matched by market demand. Large-scale social restrictions have an impact on the operational restrictions of markets, supermarkets, restaurants, hotels and restaurants. Farmers have difficulty selling their livestock products, so they are forced to sell to wholesalers who charge low prices. This is due to the remote access to the market location, so there is a fear of losing money. With the conditions of the COVID-19 Pandemic and Large-Scale Social Restrictions (PSBB), the demand for animal food products from livestock has decreased by 25-30%. With the surplus of animal
food products from livestock but decreasing demand for animal products from livestock, breeders will certainly suffer losses.

3.2. People's Purchasing Power Decreased

Reporting to Detikfinance.com on May 6, 2020 [16], the Indonesian Ministry of Finance estimates that people's purchasing power or household consumption levels will drop sharply in the second quarter of 2020, or weaker than the realization of purchasing power in the first quarter of 2020. BPS noted that the level of household consumption fell to a level of 2.84% in the first quarter of 2020 when compared to 5.02% in the fourth quarter of 2019.

The potential for weakening purchasing power in the second quarter of 2020 is due to the wider social restrictions (PSBB) policy, unlike in the previous quarter which only applied in Jabodetabek. The effect of household consumption levels on Indonesia's economic growth is around Rp. 9,000 trillion per year, of which 56%, or around Rp. 5,000 trillion comes from Java Island. PSBB causes people to only stay at home and there is no activity of circulating money in the community and has an impact on people's purchasing power to decline. Food income and prices are the determining factors for household purchasing power and cousing people’s income decrease. A household will choose food to be consumed according to the purchasing power of the household [10]. The Central Statistics Agency (BPS) noted that people's purchasing power was only 2.84% in the first quarter of 2020. This figure dropped dramatically compared to the first quarter of 2019 which amounted to 5.02%.

During the COVID-19 Pandemic, there were several components of household consumption that still experienced an increase, such as consumption of health, education, housing, and household equipment. However, all of these have failed to keep up with the decline in the consumption of clothing, grooming services, as well as transportation and communication.

To increase people's purchasing power amid the Covid-19 pandemic. The government must provide the facilities and assistance needed by the community so that they are helped to increase its performance and productivity. domestic money circulation becomes the main foundation for the rotation of the domestic economy.

3.3. The Marketing Supply Chain Disconnection

In the midst of the COVID-19 pandemic, all aspects of life tend to lead to normal situations new. The government's appeal to the community to do work from home (working for home) and maintaining physical distance (social / physical distancing) as well as several government policies regions that implement partial regional quarantine and impose restrictions activities in the crowd, has made new situation changes in almost all aspects of life, including changes in food supply chain patterns. Indeed, the system or work pattern in the food sector seems to change very significantly in the midst of this COVID-19 pandemic, starting from the production process to consumption, from upstream to downstream [17].

Assessing the marketing of animal-based food products from livestock is inseparable from a series of marketing from breeders to final consumers. The supply chain for marketing animal-based food products varies from region to region in Indonesia [14]. This variation is due, among others, to the varied availability of market facilities and the role of breeders [18].
Large-scale Social Restrictions have an impact on limiting the operations of markets, supermarkets, restaurants, hotels, and restaurants, thus obstructing the marketing supply chain. The performance of the global livestock industry is highly dependent on supply chain management. Supply chains are a series of products or service flows, information, and processes that are used to distribute products or services from the source of production (supplier) to the destination (customer or buyer). In the context of food, the supply chain can be divided into two types, namely the food supply chain which is different from the supply chain for other products and services. The fundamental difference between the food supply chain and other supply chains is the continuous and significant change in the quality of food products along the supply chain until the product is consumed. Food flows from farmers-breeders to consumers (from farm to table) [6]. Food products originating from livestock are easily damaged or rotten. The potential risk of generating damage/loss at each stage of the supply chain is very high and will further reduce the profitability and quality of products in the food supply chain. Therefore, the success of supply chain management in the livestock industry is highly dependent on strong, efficient, and effective interactions between producers, inputs, transportation, processing plants, shipping, and others.

The mobilization of foodstuffs will also undergo several adjustments where there is a pattern of change more supply lines to modern markets and online based markets. While that is from the consumption side, due to the implementation of social / physical distancing or social restrictions on a scale large numbers (PSBB) in several regions, the pattern of transactions has also begun to change, which is shown increasingly an increase in transactions using digital or online platforms. This condition is in ultimately requires adjustments to food-related policy strategies on all lines (production to consumption and upstream to downstream) so that food security in Indonesia is still guaranteed.

4. Conclusion
As a measure to anticipate the impact of COVID-19 on the availability and stability of food prices in Indonesia. The government must ensure facilities and assistance in all lines of food, starting from production to consumption, proceed as it should. Coordination between all stakeholder and State institutions (K / L) are the key to the success of implementing this food policy strategy.
There are several alternatives that can be done by stakeholders in the livestock sector, not overcoming but minimizing the impact of Covid-19. Especially for small and medium-sized communities, including; 1) Buyback of products from middle to lower breeders is at least at the lower limit of sales to prevent breeders from going out of business, 2) Emphasize operational costs for the community, 3) Maintain people’s purchasing power by providing; Special assistance to the community in order to maintain food availability in the community.

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