

## STUDY ON THE WORLDWIDE PORK MARKET FOR THE PERIOD 2015-2021

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### Abstract

*The present research captured a series of aspects related to the global pork market, focusing, above all, on the 2015-2021 interval. The main indicators that had to be analysed are: worldwide pig herds, worldwide pork production, global pork consumption, worldwide imports and exports of pork. Regarding pork, it was found that it is part of the food consumption model for part of the world's population, because it presents several characteristics agreed by consumers. The statistical data that were presented and analyzed in the study were provided by the FAOSTAT website. In order to better capture the evolution of the worldwide pork market, numerous specialized materials were consulted. In 2021, Asia achieved 52.4% of the production share of pig meat with the bone, fresh or chilled obtained worldwide. The top three pork consuming countries in 2021 were: Korea (31.6 kg/inhabitant); Vietnam (25.9 kg/inhabitant) and Chile (25.0 kg/inhabitant).*

**Key words:** pork, pig herds, pork consumption, pork imports and exports

### INTRODUCTION

At the global level, meat production represents an important element in terms of ensuring food security, especially in the conditions of population growth. It is necessary to mention the fact that the world's population consumes various types of meat [14]. According to data provided by the Organization for Economic Cooperation and Development (OECD), pork is in second place in the world's meat consumption list, after poultry, although for a long-time pork was the most consumed meat. Along with the development of human society, essential changes have been observed regarding the structure of food consumption at the global level. In this sense, it is necessary to mention the fact that a significant part of consumers have started to consume, on the one hand, more pork, and on the other hand, to give up other foods, in favor of pork [6, 10, 11]. In the view of specialists, pork is an important source of food because it contains: proteins;

selenium; vitamin B; fats and thiamine. For these reasons, pork is part of the category of products preferred and often purchased by consumers [9, 15]. Worldwide, the health crisis has impacted the global pork market, causing numerous changes. In this context, economic analysts highlighted the fact that, during the mentioned period, the volume of sales of products obtained based on pork decreased. [2, 12, 13].

In perspective, an increase in the global pork market is estimated. A number of factors have been identified that will be the basis for the growth of the pork market. Among them, the most significant are: increasing demand for pork; increasing incomes for certain segments of the population; innovative production methods in correlation with the new requirements regarding sustainability [6, 18]. The upward trend expected in the future by specialists for the pork market will be accompanied by numerous challenges aimed at the sustainability of production. It is

important to mention a series of problems, such as: greenhouse gas emissions produced by pig farms; the emissions related to the production of fodder, respectively to the use of the associated lands; interruption of the supply chain due to certain crises etc. [18].



Photo 1. Pork  
Source: [7].

## MATERIALS AND METHODS

The paper presents a series of aspects related to the pork market worldwide, for the period 2015-2021. In order to carry out this study, it was necessary to analyze the main indicators such as: worldwide pig herds; worldwide pork production; global pork consumption; worldwide pork imports and exports. The statistical data that formed the basis of the study were obtained from the FAOSTAT website, as well as from other sources. The results of the study were presented graphically and tabularly.

## RESULTS AND DISCUSSIONS

According to the studies carried out regarding the biological qualities, the conclusion was reached that pigs represent a species that is massively involved in meeting the meat needs of the world's population. According to official statistical data, it was found that pigs provide 30% of the total meat consumed worldwide [7]. During the analyzed period, a series of changes were noticed at the global level that directly and indirectly influenced the degree of satisfaction of the population's consumption demand. In this context, it was

necessary to specify the fact that the sector of raising and selling pork had to face a series of challenges. The first indicator analyzed in the present study is represented by the pig herds registered worldwide. From the data presented, it is easy to see that, between 2015-2019, pig herds worldwide were in decline. This situation was due to the appearance and spread of the African swine fever. Starting with 2020, the numbers started to grow. The lowest pig herd recorded worldwide was in 2019 (838.4 million heads), and the largest was in 2015 (992.1 million heads). In the year 2021, the number of pigs highlighted worldwide decreased by 1.7% compared to the year 2015 (Fig. 1).

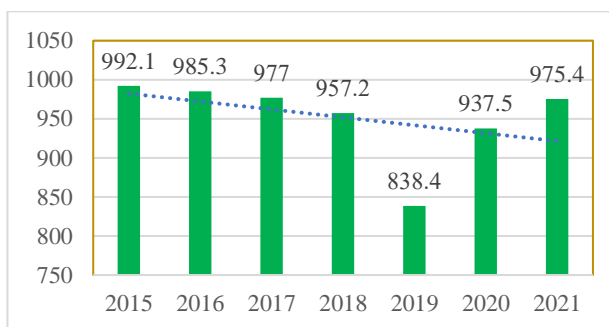


Fig. 1. Pig herds worldwide, in the period 2015-2021 (millions of heads)

Source: [3].

Globally, in the period 2015-2021, pork production recorded changes from one period to another. From the statistical data presented, it can be seen that the lowest pork production was recorded in 2020 (108,341 thousand tons), and the highest production was 120,095 thousand tons (2021). Pork production recorded worldwide increased in 2021, by 1.47% compared to 2015 (Fig. 2) [17].

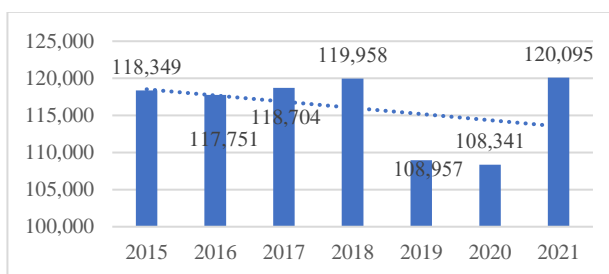


Fig. 2. Pork production worldwide, in the period 2015-2021 (thousands of tons)

Source: Own processing based on FAOSTAT 2024 data [4].

In this context, it is necessary to specify that the production of pork obtained worldwide has registered several changes mainly due to: pig herds; African swine fever; the 2020-2021 health crisis; the price of fodder, as well as prices for pork worldwide.

At the regional level, in 2021, Asia was the largest producer of pig meat with the bone, fresh or chilled, achieving 52.4% of the production obtained worldwide.

Table 1. of meat of pig with the bone, fresh or chilled, in 2021

Nr. crt.	Region	Production in absolute value (tons)	% of world production
1.	Asia	63,071,327.03	52.4
2.	Europe	30,788,805.18	25.6
3.	Americas	23,916,954.92	19.9
4.	Africa	2,014,684.64	1.7
5.	Oceania	580,355.25	0.5

Source: [3].

In 2021, Oceania obtained the lowest production of pig meat with the bone, fresh or chilled, making only 0.5% of the production recorded worldwide and 0.9% of the production obtained by Asia.

In 2021, according to statistical data published by Faostat, the three largest producers of fresh or chilled pork registered worldwide are: China (52,959,300 tons); USA (12,559,837 tons) and Spain (5,180,060 tons) [4].

China has become the largest producer of pork because, here, special emphasis has been placed on the development of pig farms in accordance with the real market requirements.

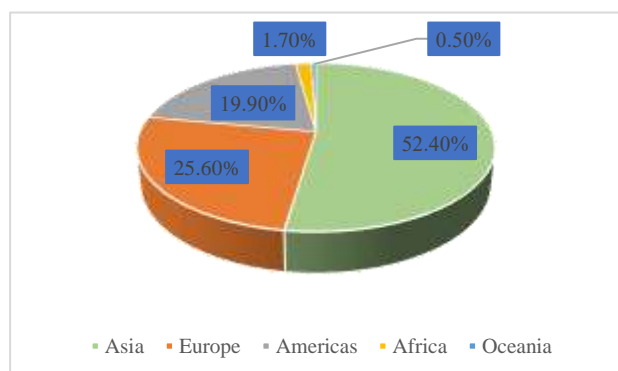


Fig. 3. Production share for pig meat with the bone, fresh or chilled at regional level, in 2021

Source: Own design based on FAOSTAT database 2023 [3].

During the analyzed period, China registered a significant economic growth, which determined the increase in the demand for pork at the national level. In this context, the farmers promptly responded to the market, focusing especially on increasing pork production. In order to achieve the proposed objective, farmers in China have adopted the most efficient production methods [5, 16].

The total consumption of pork worldwide, in the period 2015-2021, recorded a series of changes from one year to the next. The most significant consumption was highlighted in 2018 (117,474 thousand tons), and the lowest was 104,421 thousand tons (2020).

Worldwide pork consumption decreased in 2021, by 4.22%, compared to 2015 (Fig. 4).

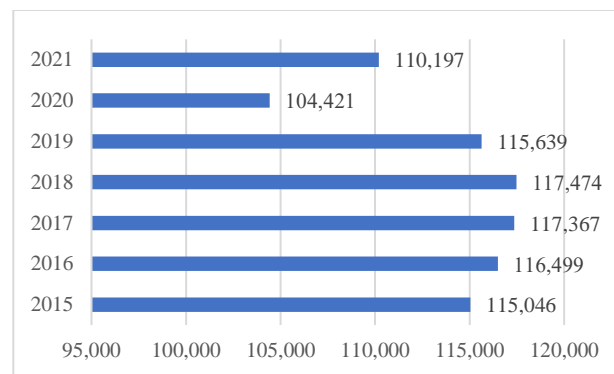


Fig. 4. Total pork consumption worldwide, in the period 2015-2021 (thousands of tons)

Source: Own processing based on FAOSTAT 2024 data [4].

Regarding the annual consumption of pork meat per inhabitant worldwide, it was found that it registered a series of changes during the analyzed period. The lowest consumption of pork per inhabitant worldwide was in 2020 (13.36 kg/capita). This reduced consumption also coincided with the health crisis manifested worldwide when, on the one hand, the supply chain recorded a series of interruptions, and on the other hand, the incomes of the population decreased. The highest consumption per inhabitant was recorded in 2016 (15.45 kilograms/capita). In 2021, the annual consumption of pork per inhabitant recorded worldwide decreased by 9.46%, compared to 2015 (Fig.5).

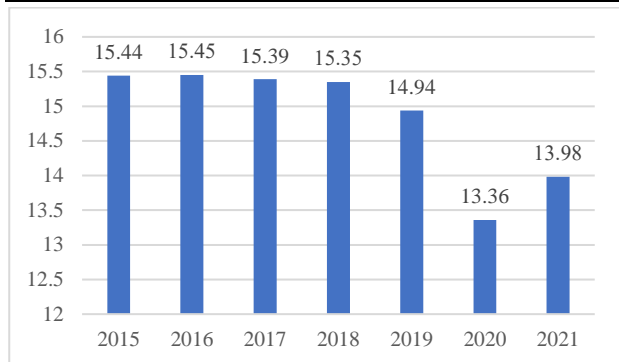


Fig. 5. Pork consumption per inhabitant worldwide, in the period 2015-2021 (kg/ capita)

Source: Own processing based on FAOSTAT 2024 data [4].

In 2021, the most significant per capita consumption of pork was recorded in Korea (31.6 kg/capita). The following four places in the ranking of pork consumption per inhabitant recorded worldwide were occupied by: Viet Nam - 25.9 kg/capita, Chile -25.0 kg/capita, United States -23.9 kg/capita, China 23.7 kg/capita.

According to estimates for the year 2029, the top 5 biggest consumers of pork per inhabitant will be made up of the following countries: Viet Nam (32.7 kg/capita); Korea (32.3 kg/capita); China (31.1 kg/capita); Chile (26.8 kg/capita) and the United States (23.8 kg/capita) [8].

In the period 2015-2021, quantitative imports of pig meat with the bone, fresh or chilled pork suffered a series of variations. Quantitative imports increased from 5,541,973.15 tons (2015) to 6,145,050.68 tons (2017). In 2018, quantitative imports decreased compared to 2017, reaching 6,126,142.94 tons. Starting with the year 2019, the imports of pig meat with the bone, fresh or chilled, followed an upward trend until the year 2021. The highest quantitative imports were in the year 2021 (7,832,860.35 tons). According to the statistical data published in 2021, quantitative imports increased by 41.33%, compared to 2015 ( Fig. 6).

Worldwide, according to the data provided by Faostat, in 2021, the 5 largest importers for the "Pig meat with the bone, fresh or chilled" category were: China (2,511,999.33 tons); Italy (807,370.40 tons); Mexico (772,599.89

tons); Germany (635,332.30 tons); and Poland (518,061.40 tons) [4] (Fig. 7).

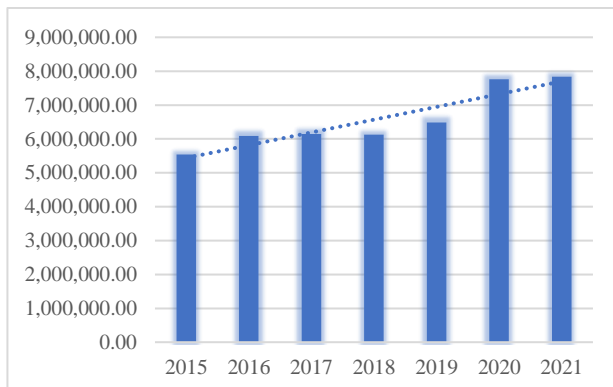


Fig. 6. Quantitative imports of pig meat with the bone, fresh or chilled worldwide, in the period 2015-2021 (tons)

Source: Own graphics based on data taken from Faostat, 2024 [4].

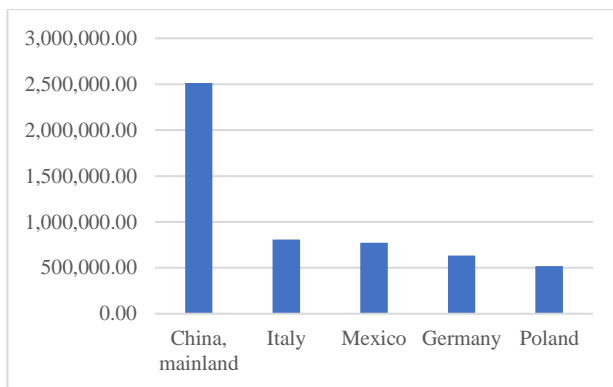


Fig. 7. Ranking of the 5 largest registered importers worldwide for the category "Pig meat with the bone, fresh or chilled" in 2021 (tons)

Source: Own graphics based on data taken from Faostat, 2024 [4].

In the period 2015-2021, quantitative exports of pig meat with the bone, fresh or chilled pork registered changes. The most significant quantitative exports were highlighted in 2021 (7,274,504.34 tons). At the opposite pole, there were the lowest quantitative exports of 5,899,590.57 tons (2015) [4].

In 2021, quantitative exports of pig meat with the bone, fresh or chilled pork increased by 23.30%, compared to 2015 (Fig. 8).

According to the data provided by FAOSTAT for the year 2021, the largest exporters registered worldwide for the category "Pig meat with the bone, fresh or chilled" were: Spain (1,314,515.13 tons); Germany (845,674.37 tons); Denmark (835,673.14 tons); Netherlands (Kingdom of the)

(805,271.67 tons) and United States of America (786,372.25 tons) [1, 4] (Fig. 9).

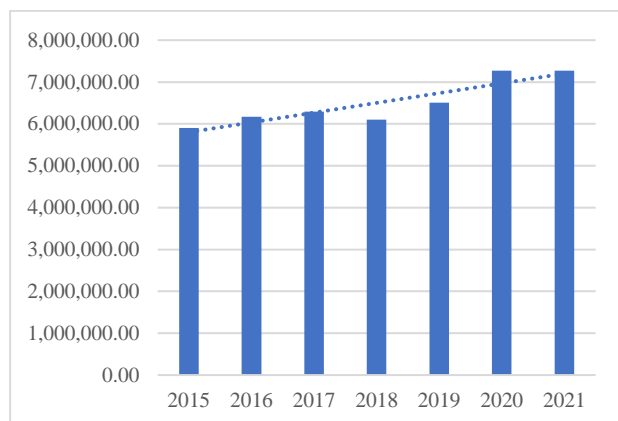


Fig. 8. Quantitative exports of pig meat with the bone, fresh or chilled worldwide, in the period 2015-2021 (tons)

Source: Own graphics based on data taken from Faostat, 2024 [4].

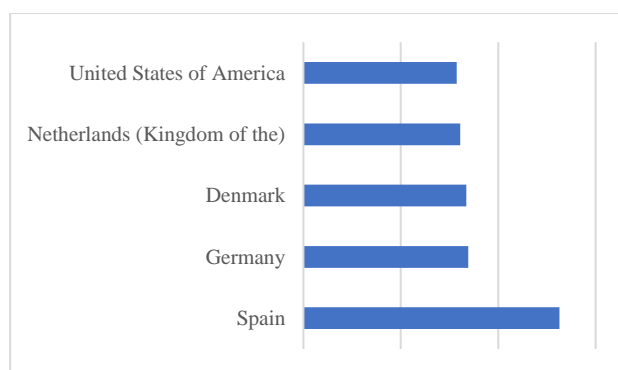


Fig. 9. Ranking of the 5 largest registered exporters worldwide for the category "Pig meat with the bone, fresh or chilled" in 2021 (tons)

Source: Own graphics based on data taken from Faostat, 2024 [4].

From the previously presented data, it can be easily established that the first four registered exporters of pig meat with the bone, fresh or chilled pork are part of the European Union. This situation shows us a high development potential for the future in terms of the pork production and marketing sector.

## CONCLUSIONS

According to the analysis of the specific indicators of the worldwide pork market for the period 2015-2021, the following results were obtained:

-In 2015, the largest herd of pigs was registered, of 992.1 million heads;

-In 2021, the most significant pork production was achieved, of 120,095 thousand tons;

-Worldwide pork production increased by 1.47%, in 2021, compared to 2015;

-Asia, in 2021, occupied the first position in the continental ranking, regarding the production of pig meat with the bone, fresh or chilled, because it obtained 52.4% of the production achieved at the global level;

-In 2021, China was the largest producer of fresh or chilled pork, recording a production of 52,959,300 tons;

-In 2018, the most substantial pork consumption was recorded, of 117,474 thousand tons;

-In 2016, worldwide, the highest consumption of pork per inhabitant was highlighted, at 15.45 kilograms/capita;

-Korea, stood out in 2021, with the highest consumption of pork per inhabitant, with 31.6 kilograms/capita;

-In 2021, worldwide, the most significant quantitative imports of pig meat with the bone, fresh or chilled pork, of 7,832,860.35 tons were recorded;

-China, in 2021 the largest importer of meat in the "Pig meat with the bone, fresh or chilled" category;

-Worldwide, the largest quantitative exports of pig meat with the bone, fresh or chilled pork, were 7,274,504.34 tons (2021);

-Spain, in 2021, was the largest meat exporter in the "Pig meat with the bone, fresh or chilled" category, with 1,314,515.13 tons;

In the future, the specialists in the field expect an increase in the demand for pork worldwide, simultaneously with the increase in the requirements regarding the sustainability of the production.

## ACKNOWLEDGEMENTS

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