

## **A STUDY ON PERSPECTIVES OF ORGANIC FARMING AND ORGANIC FOOD MARKET**

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### **Abstract**

*Both organic farming and organic food market have grown slowly but steadily in recent decades. Thus, if initially they were only subject to scientific debate, later turned into: market niches; important areas of legal regulation; topics of debate among consumers; important links in food chains at national, European or global level. The paper proposes an analysis of significant recent developments in organic farming and organic food markets, analysis results will be used in shaping the development perspectives of the two important components of agricultural and food markets. Research methods used were mainly quantitative, analysis and comparison occupying an important place in the whole work. Comparisons were made both in terms of temporal and geographically. Were analyzed statistics in recent years.*

### **Keywords**

*organic agriculture, organic food market, analysis, perspectives*

### **Introduction**

The opportunity of this research is supported by trends recorded in the agricultural and food markets in general and food consumption particularly. The contemporary consumers are very interested in the quality of products and food safety. In this context, organic farming has seen a consistent growth, both worldwide and in the EU. Research conducted on the premise that organic farming is a step in the road to agriculture more environmentally friendly. The aim of research was the analysis of the current state of development in organic farming sector, organic food market and revealing perspectives on the Romanian market.

The data used were quantitative and the main sources were the following: Romanian, European and world official statistics; Research Institute of Organic Agriculture; International Federation of Organic Agriculture Movements and other.

Food consumption trends consistently support an upward trend for the request and the offer of organic food. It is manifested in recent years, a growing demand for quality products. In the coming years, organic farming and organic food sectors can be a real competitive advantage for Romania.

### **1. Literature review**

Al Gore identifies emerging forces that are reshaping our world: increasing globalization; digital communications; a balance of power (economic power, political power, military power) shifted; a flawed economic compass; biotechnology revolutions that transform agriculture and medicine (Gore, 2013).

Today, the health concern is a decisive factor influencing food consumption behavior. Concerns about the sustainability of consumption are increasingly in the markets for agricultural products and foodstuffs. Researchers estimated that the challenge is to produce

and consume in a manner that harm the environment as little as possible. (Roșca, Ignat, 2014). Numerous studies demonstrate that an important role in increasing the consumption of organic food is held by changing consumer behavior. Obviously, this change is the result of information and education processes (Istudor, 2010).

Food consumption patterns have continuously evolved. Factors that influenced the transformations in the structure of consumption are numerous; food consumption patterns are determined by the elements of economic, social, cultural etc. (Mărginean, I., Precupețu, I., 2011). Research carried out recently (Kaufmann, 2012) highlights a number of factors that can favorably influence the consumption of organic products. Of these, it is noted: information on the environment; consumer altruism; awareness of environmental issues; concerns and attitudes regarding environmental issues; availability of information on healthy products; group membership; transparency; fairness of business practices.

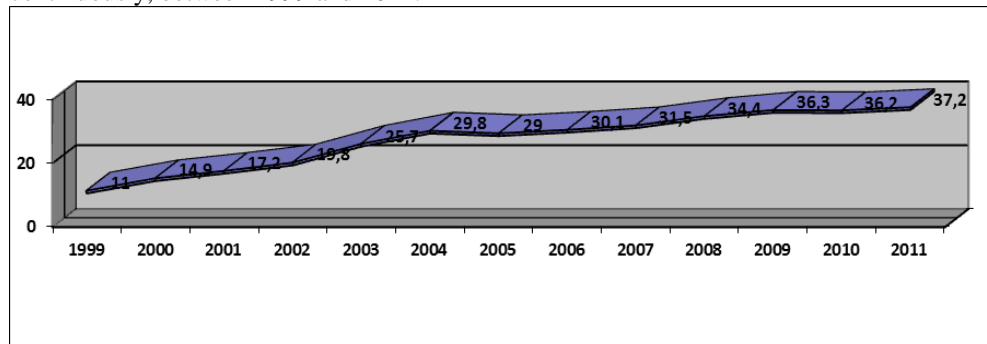
The role of organic farming is to produce cleaner food, more suitable for human metabolism, in full correlation with environmental conservation and development. The organic farming benefits are numerous and complex: environmental, social and economic (Morgera, 2012).

Sustainable agriculture that will feed more than 40 years, a world population of 9 billion people or more will have to go through many revolutions interdependent: in plant growth; in soil management; in water use; in the use of fertilizers and landscape management. These processes can result in a doubling or even a tripling of overall benefits (Wijkman, A., Rockström, J., 2013).

## 2. Organic agriculture and organic food market

### 2.1 Global level analysis

Organic farming world, in 2011, can be summarized as: 162 countries report information on organic agriculture; 37.2 million hectare represent the total area (inclusive conversion areas); 10 countries have more than 10% and 15 countries have between 5-10 % organic land; 1.8 million producers were reported (FiBL & IFOAM, 2013). Certified area increased continuously, between 1999 and 2011.



**Fig. 1 Organic agricultural land in the world (million hectares)**

Source: Nic Lampkin, FiBL and AMI

The countries with the largest certified areas are: Australia; Argentina; United States; China; Spain. The rankings reflect the real situation, even if the reporting periods are different.

**Table 1 The largest organic surfaces, by countries (millions hectares) (2011)**

Countries	Surfaces
Australia (2009 values)	12,0
Argentina	3,8
United States (2008 values)	1,9
China	1,9
Spain	1,6
Italy	1,1
India	1,1
Germany	1,0
France	1,0
Uruguay (2006 values)	0,9

Source: FIBL-IFOAM Survey 2013

The region with the largest certified area is Oceania, followed by Europe and Latin America. In Africa are certified many operators in organic coffee production.

**Table 2 Distribution of organic agricultural land (2011)**

Region	Surface (million hectares)	Organic agricultural land (%)	Organic producers (%)
Oceania	12,2	33	1
Europe	10,6	29	16
Latin America	6,8	18	18
Asia	3,7	10	34
Northern America	2,8	7	1
Africa	1,1	3	30

Source: FIBL-IFOAM Survey 2013

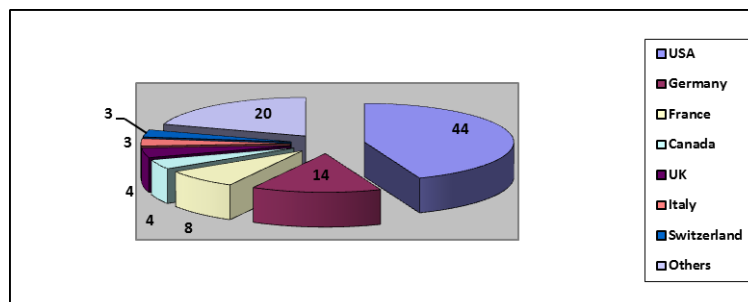
Regarding the organic food market, the largest is the USA and the EU is the second. Japan has a growing market, also Canada. Organic products are attracting increasing interest in the Japanese population.

**Table 3 The largest organic market food (2011) (world) (retail sales) (millions Euros)**

Countries	Values
United States	21038
Germany	6590
France	3756
Canada*	1904
United Kingdom	1882
Italy	1720
Switzerland	1411
Austria	1065
Japan*	1000
Spain	965

Source: FIBL-IFOAM Survey 2013; \* 2010 values

According to data published in the Organic Monitor journal, the organic food market has grown from 23 to 63 billion US dollars during the period 2002-2011. Although it is more expensive than conventional, many consumers are willing to pay a higher price for the organic products.



**Fig. 2 Organic retail sales (2011)**

Source: FiBL-AMI survey 2013

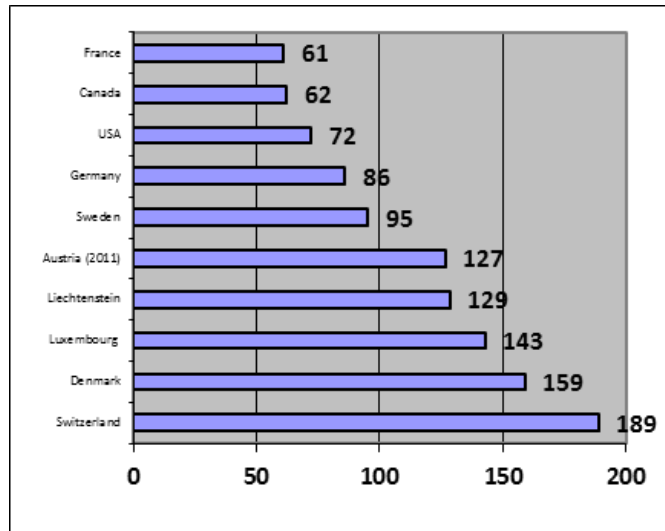
A large number of certified operators are registered in Asia and Africa, the ranking of countries being presented below. In 2011, the number of certified operators approaching 1.800.000. This indicator has registered a slight decrease after 2009.

**Table 4 The numbers of organic producers (2011)**

Countries	Number of producers
India	547591
Uganda (2010 values)	188625
Mexico	169570
Tanzania	145430
Ethiopia	122359
Turkey	43716
Peru	43661
Italy	42041
Spain	32195
Dominican Republic	24161

Source: FIBL-IFOAM Survey 2013

Average consumption is still low, maximum amount not exceeding 200 euros/year/capita.

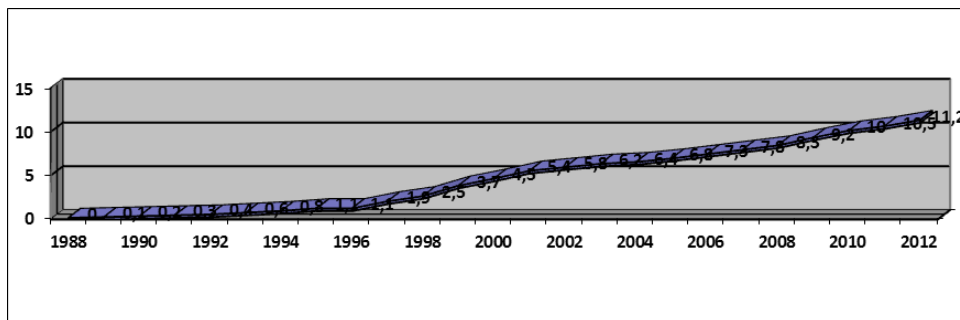


**Fig. 3 The capita consumption (2012) (euros)**  
 Source: FiBL AMI Organic Data Network Survey 2014

While organic food represents 1–2% of total food production, at global level, the organic food sales market is growing rapidly: it holds between 5 and 10 % of the food market share in the United States (Organic Trade Association), significantly outpacing sales growth volume in dollars of conventional food products.

### 2.2 European level analysis

In the last decade, the number of organic food producers and the organic area grew at a rapid rate. Each year, in EU 500.000 hectares of farmland are converted to organic production. Between 2000 and 2012, the total organic area increased by 6, 7% per year on average, reaching approximately 9, 6 million hectares (from 5, 7 million ha in 2002), ie 5, 4% of the total utilized agricultural area in the EU and upwards of 186000 organic farms.



**Fig. 4 Organic agricultural land in Europe (million hectares)**  
 Source: Nic Lampkin, FiBL and AMI

In the EU, the organic area represents about 5 % of the total utilized agricultural area. All data are contained in the latest European Commission report on organic farming in the EU, published in late July 2014.

**Table 5 Organic agricultural land (Europe) (2012) (%)**

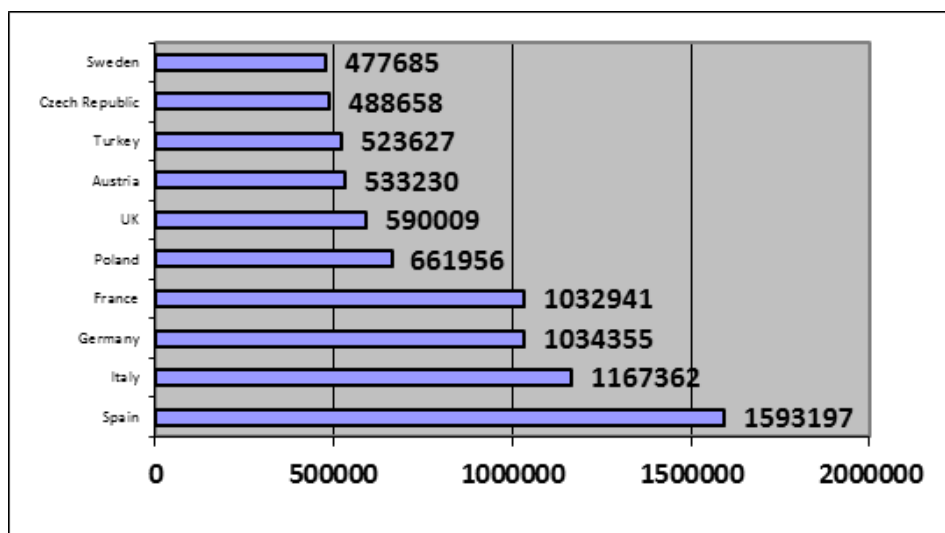
Countries	Share of total agricultural land (%)
Liechtenstein	29,6
Austria	19,7
Sweden	15,6
Estonia	15,3
Switzerland	12
Czech Republic	11,5
Latvia	10,8
Italy	9,1
Slovakia	8,8
Finland	8,7

Source: Organic Data Network Survey 2013; FibL AMI Survey 2014

The three countries with the largest organic area are: Spain, Italy and Germany. Permanent grassland represents 45% of the EU organic. 15% of the organic area is cultivated with cereals and 13% with permanent crops. The livestock sector accounts for only 1% of EU organic agriculture.

According to the document cited above, 83% of the organic farms that existed in the EU 27 in 2010 and 78% of the organic area are EU-15 countries. In these countries the European and national legislation have stimulated the growth of the organic sector.

Due to the constantly increasing demand in the EU, organic market has grown significantly in recent years. European market for organic food is estimated at 22 billion euros (2012, according to data published by Eurostat).



**Fig. 5 The organic area in Europe (2012) (hectares)**

Source: Organic Data Network Survey 2013; FibL AMI Survey 2014

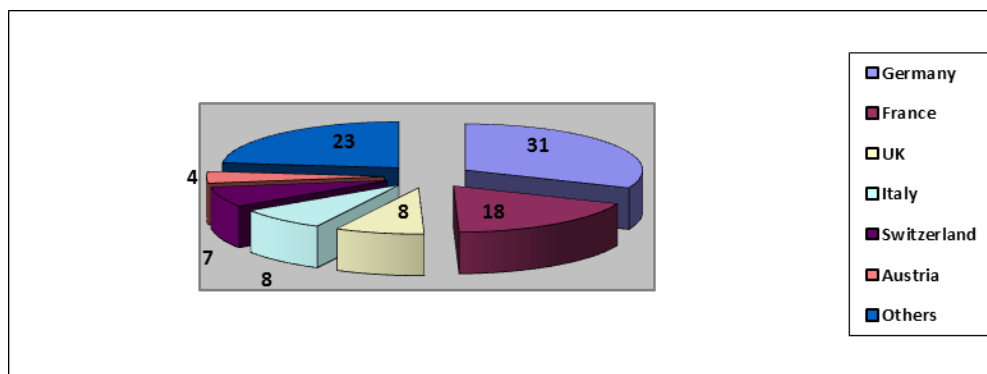
**Table 6 Organic market, by countries (Europe) (2012) (billion Euro)**

Countries	2011	2012 (estimated values)
Germany	6,6	7
France	3,6	3,8
Italy	2,0	2,1
United Kingdom	1,8	1,7
Holland	0,8	0,9
Belgium	0,4	0,5

Source: Eurostat

The EU has an important role in food trade, especially in terms of high quality products. With annual imports and exports worth 196 billion (averages for 2010-2012), the EU is the main trading partner of world agricultural products. The strength of the EU in terms of export is the final products that are ready for consumption, both processed and unprocessed, EU recorded a net trade balance of 6.7 billion (average for the period 2010-2012). These products include wine, spirits, cheeses and processed meats that produce significant added value in the food chain.

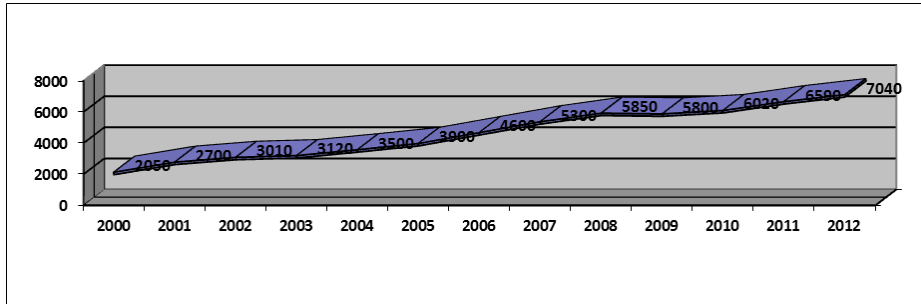
The main challenges for the organic sector are to ensure steady growth of supply and demand, but at the same time, consumer confidence. It is essential to ensure system reliability and added value in a long-term perspective. Besides increasing trade, EU organic food production system should ensure that imported products meet the strict definition of the EU on food and farming.



**Fig. 6 Organic food and drink sales, by country (%), 2012)**

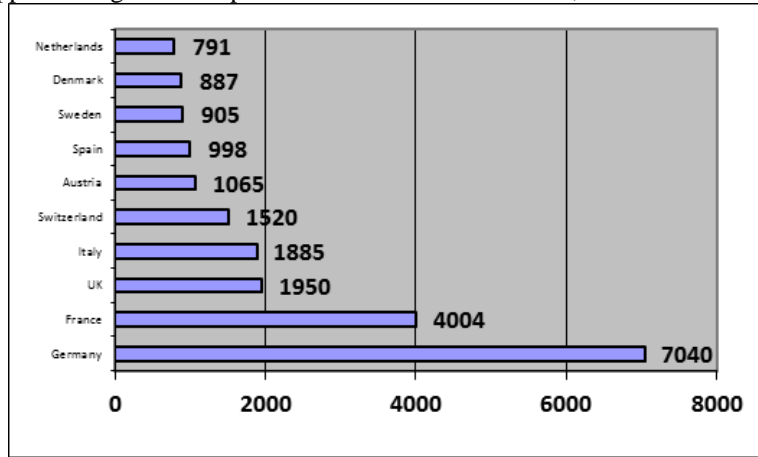
Source: FiBL AMI Surveys; Organic Data Network Survey 2013

European market has remained even in the crisis years 2009-2010 the most developed organic market worldwide, reaching approximately 50% of global consumption. A good example of this is Germany.



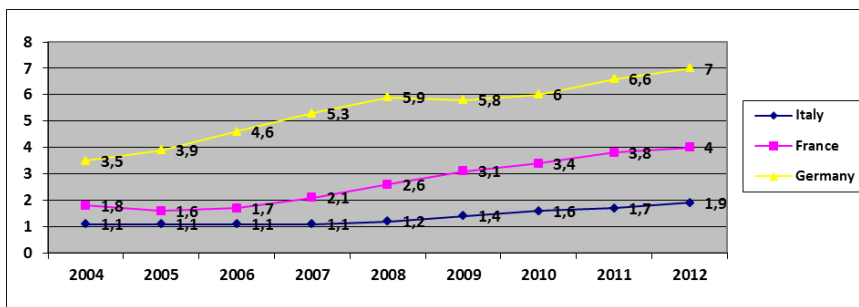
**Fig. 7 Organic food and beverages retail sales in Germany (million euros)**  
 Source: Hamm Rippin 2000-2009; AMI 2010-2014

Germany is the recognized leader of the organic food market in Europe. This reflects the strong support of organic food production and at the same time, consumer health concerns.



**Fig. 8 Organic food and drink sales (2012) (million euros)**  
 Source: FiBL-AMI Survey, OrganicDataNetwork Survey

The highest consumption per capita are recorded in Germany, France and Italy, as shown the graph below.



**Fig. 9 Consumption in European Union (billion euros)**  
 Source: FiBL AMI Organic Data Network Survey 2014



Germany is the largest consumer of organic food in Europe and the second in the world. The German market remains net importer of organic products. The French government supports the development of organic farming as a sustainable component of French agriculture. The development of organic foodstuff in Italy is linked to brands. Sustainability and a healthy lifestyle still booming encourage the sales of organic foods.

### 2.3 National level analysis and perspectives for Romanian market

Organic farming is a dynamic sector in Romania which has seen an upward trend in recent years, both in the plant and animal production sectors. If in 2010 had exports of 1.5 million euro, today we have reached 60 million euro, but unfortunately this refers almost exclusively to raw materials. Also, the number of certified operators exceeded 15.000. Nationally organic products are not expensive; they are really reasonable price that reflects the work of those who operate in this sector.

**Table 7 Dynamics of operators and areas in organic agriculture (Romania)**

Specification	2006	2008	2010	2012
Registered operators in organic farming (number)	3409	4191	3155	15544
Area under organic farming crops on arable land (ha)	45605	86454	148033,5	174643,95

Source: Communications of inspection and certification bodies

Romanian agriculture affect the environment over the past 50 years, in a manner much lower compared to other countries. It is estimated that Romanian agriculture is more "green" than other countries. Romania uses only half the amount of fertilizer that is applied in Hungary and Poland, or even 25% of what is used in more developed countries such as the Netherlands or Spain. Another indicator that certifies environmentally friendly farming practice in Romania is groundwater. Currently, groundwater is the source of drinking water for rural residents.

Also, in the last years, the farmers, are small or large, have been adopted technologies not harmful to the environment.

A recent example of good practice is the partnership between the Association of Organic Agriculture Operators - Bio-Romania and Carrefour Romania, concluded in 2013. The partnership involves the distribution of organic products from rural producers and processors in the national network of stores. Thus were listed in hypermarkets about 70 Romanian organic products, including: bakery products; dairy products; rice Romanian bio; raspberry honey; green apple; wine; green forest fruit frozen and seeds. Romanian organic vegetables began to be sold in Carrefour stores in Bucharest, starting in April 2014. Vegetables come from Izbiceni, where there is a large area of greenhouses in conversion.

Organic farming shall by allocate an amount of 200 million euros in future National Rural Development Programme 2014-2020 (NRDP). In the future NRDP is provided tools that integrate production and add value to each product. The new RDP were admitted two tracks, one that relies on supporting competitiveness and large farms, and another aimed at small farms, including organic farming.

Food safety is an extremely important issue today. In this context, experts identify several critical points in the food production chains. The most important of these are: animal feed; farm animals; product collection from individual producers or farm; slaughter houses; processors of meat and milk; shelves; human factor; black market (Popa, 2013).

Analysing Romania's potential, we can estimate that crop production, organic farming, and animal husbandry are the areas in which our country could impose on the European market. With an area of 300.000 hectares of arable land certified, 500.000 hectares of meadows and a total of 15.000 operators in the system at the end of 2013, Romania exported 80% of its production. Unfortunately, exports are represented but very few raw materials and processed products.

Increasing the number of processors and exports of finished products are essential for development of organic market. It is estimated that the development of Romanian organic food brands could be one of the most important tools for successful marketing to the EU market (and not only). It also requires better and accurate information to consumers about organic products.

Increasing subsidies for organic farming will contribute to supply development. Thus, small and medium farmers who will register as operators can obtain larger amounts for their activities that could reach over 600 euro / ha in 2015 (to farmers who are in the conversion period).

The Romanian Government adopted the Ordinance on regulating the labeling and traceability of organic products. This Ordinance creates the institutional framework for establishing offenses and penalties for the activity in organic agriculture, given the provisions of Regulation (EC) no. 834/2007 and Regulation (EC) no. 889/2008. The project was motivated, on the one hand, that the fraudulent use of the terms "organic", "biological", "organic" or their abbreviations, such as "organic," "eco" as trademarks or practices operation, including product labeling, advertising and commercial documents may mislead the consumer. On the other hand, were found frequent cases of failure of inspection and certification bodies for organic farming. Accordingly, the European Commission called for Romania to take the necessary measures to ensure traceability of organic products in all stages of production, processing and distribution. It was decided to establish a system of sanctions which do not comply with obligations under the law. Implementation of measures aimed at improving the business of organic farming throughout the chain, from the farmer to the end user.

### **Conclusions**

The organic market is the most dynamic segments within the global food market. Driven by a public better informed, demand for organic food is growing. The statistics of industry sales are impressive. For the entire organic food market (global and EU level or more specifically, in the Romanian economy), trends have been steadily rising. The demand and consumption of organic products is a clear sign of change in the preferences of a growing number of consumers. Consumers participate more actively to create a sustainable global economy, becoming aware of the challenges facing our world. In the next decade, more and more consumers will adopt sustainable behavior, in particular through more careful selection of what you buy, properly reported both financial strength and the principles of sustainable development.

Future research will be directed towards an analytical analysis of the markets. The dimensions will be analyzed, representative products for different countries or regions, the main trade flows etc. In this context, more information is needed to analyze the various markets.

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