

Eggs in Poland

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Agenda

1. **Egg production in Poland – Overview of eggs supply in Poland**
2. **Egg consumption – Characteristics of eggs demand in Poland**
3. **Export**
4. **Prices**
5. **Egg industry analysis**
6. **Challenges**
7. **Opportunities and threats**

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Overview of egg production in Poland

Let's start with the first point



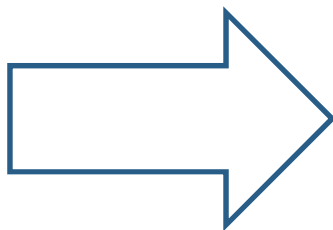
Poland's economy factsheet

Population
37,2 mln's
6th in the EU

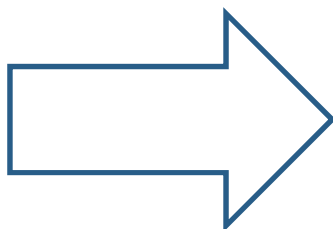
GDP per capita
(2018 by IMF, in PPS)
31,647 USD
22th in EU,
73% of EU average

Agriculture
12,7% of workforce
3,8% of GDP

Total egg production in EU (mln tones)



7.34



0.62

Total egg production in EU (mln tones)

EU - 7.34

PL - 0.62



Eggs production in 2018 in EU distribution by country

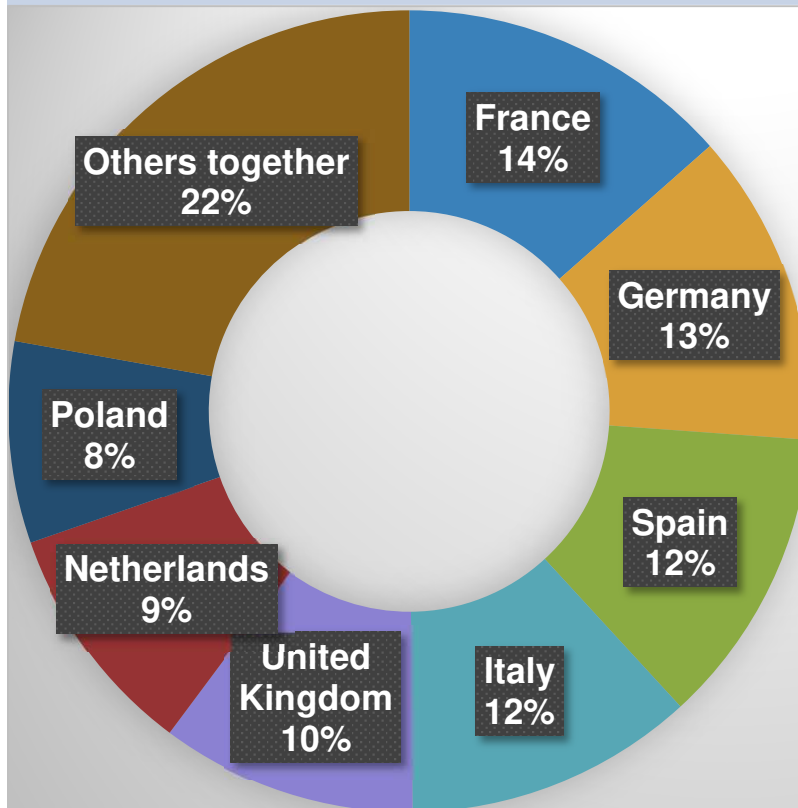
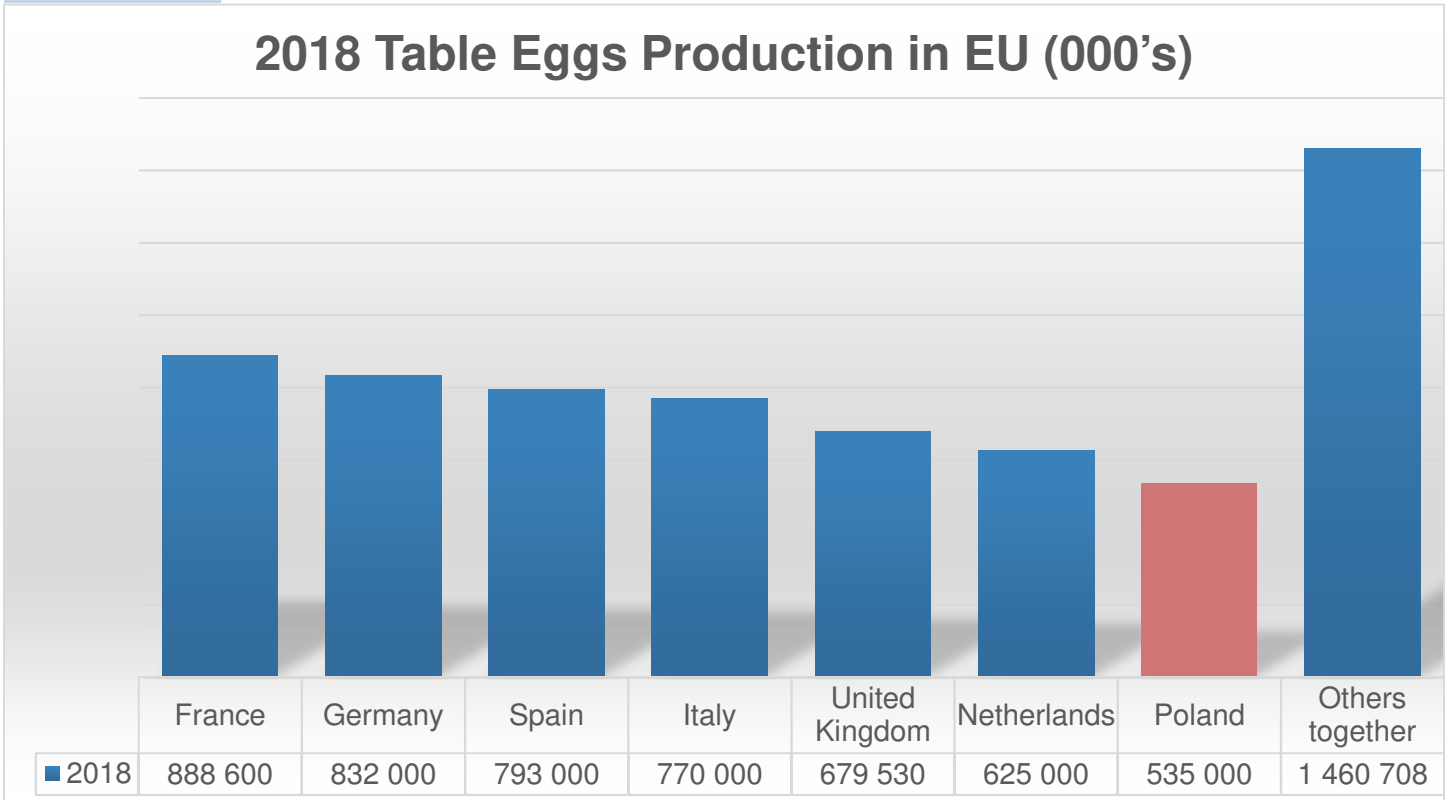


TABLE EGGS

Poland is **7th** largest supplier in the EU with yearly production of 535 mln's



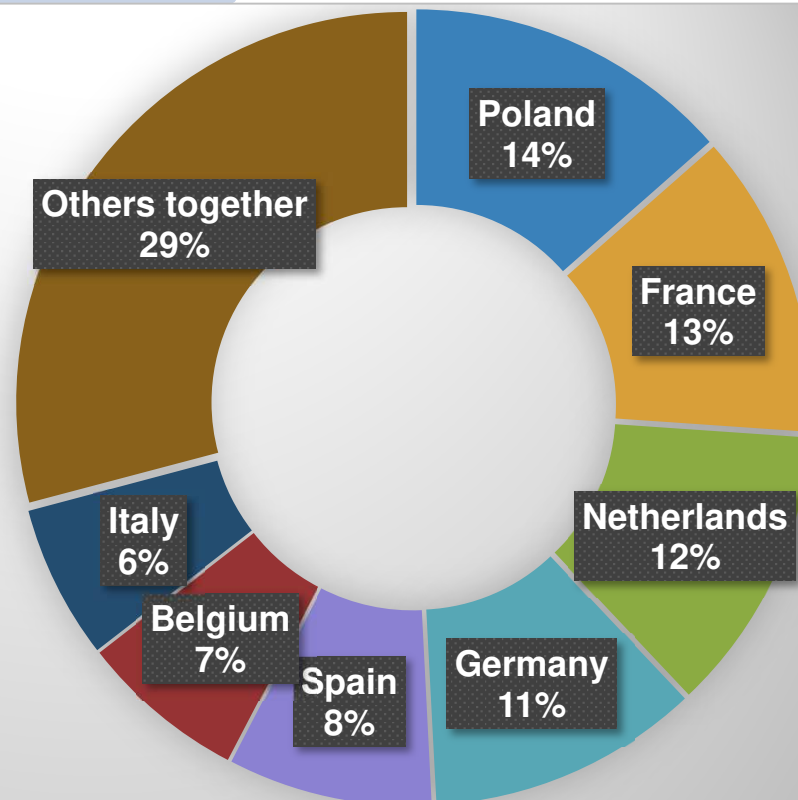
2018 Table Eggs Production in EU (000's)



Eggs production in 2018 in EU distribution by country

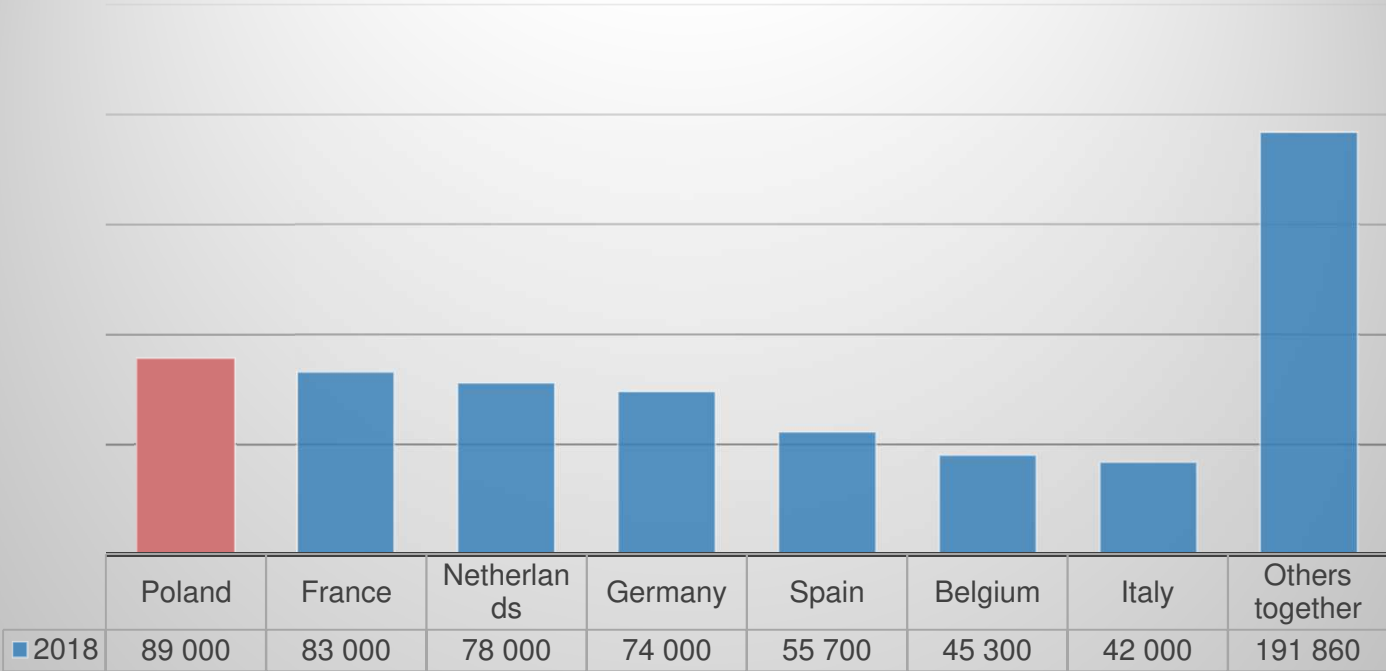
HATCHING EGGS

Poland is **the largest** supplier
in the EU with yearly production
of 89 mln's





2018 Hatching Eggs Production in EU (000's)



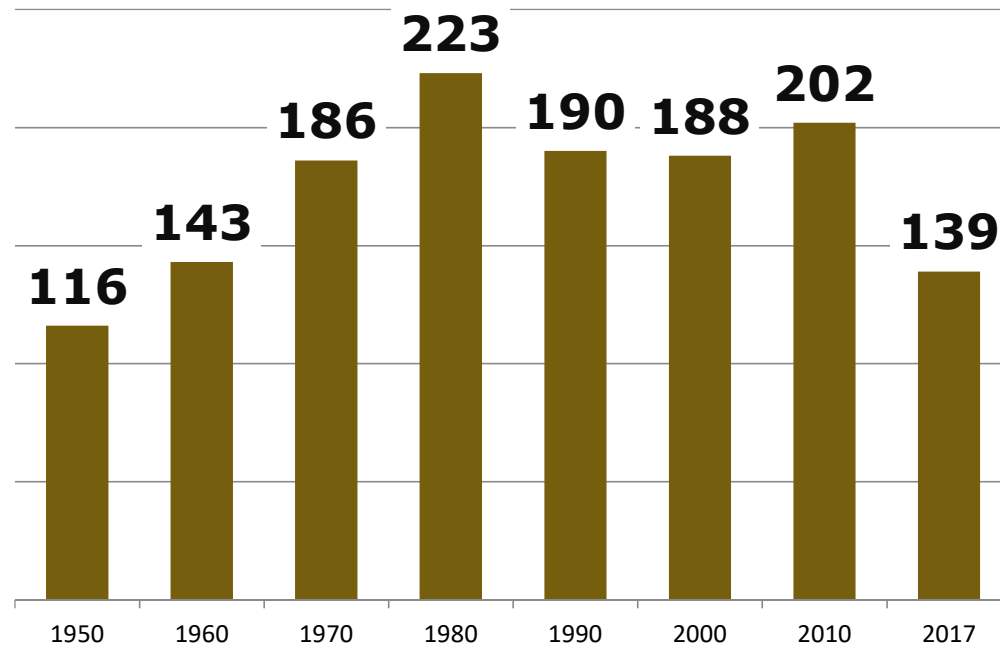
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Egg consumption in Poland

Second point



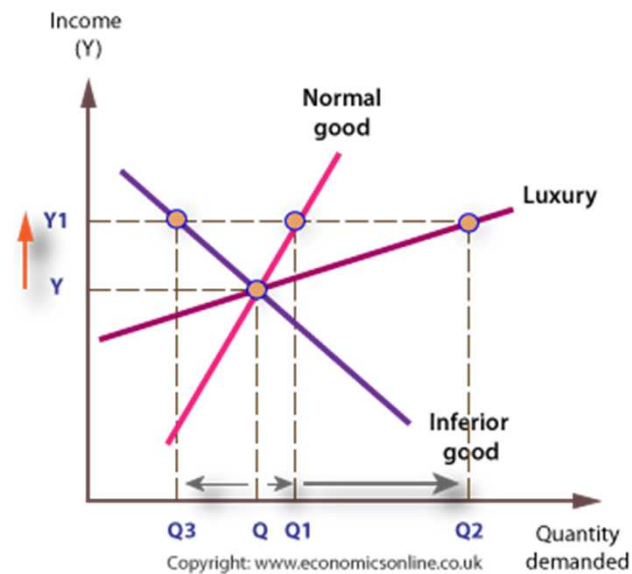
Egg consumption in Poland (1950-2017; units per capita)



Egg as an example of inferior goods

In economics, an inferior good is a good whose **demand decreases when consumer income rises.**

Unlike normal goods, for which the opposite is observed. Normal goods are those goods for which the demand rises as consumer income rises.



Key consumption level drivers

- **Income**

As stated before – egg is a good which gets substituted by more luxury product when a customer reaches certain level of income.

- **Fashion/diets**

Diet w/o eggs i.e. vegan; perish of traditional model of free time spending (less bakery); more attention to breakfast substitutes

- **Customs**

Several elements of the traditional polish way of living were driving egg consumption i.e. Easter celebration, significance of home made food

- **Knowledge level/social campaigns**

One of the common waya of perceiving eggs is that those are not healthy due to level of cholesterol they contain

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Export

Third point



Poland's international egg trade



205 999 eggs send to
EU countries in 2018

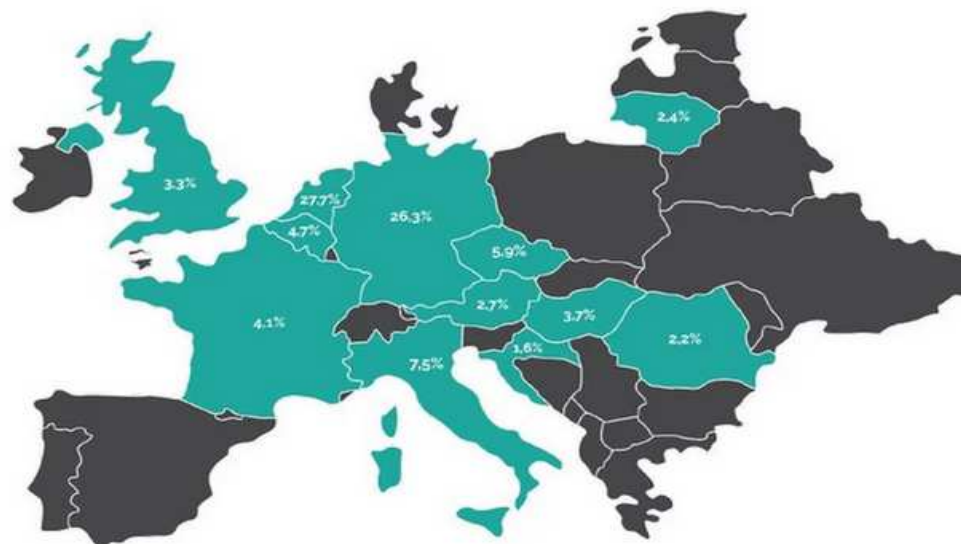


23% decrease vs 2017

Export to EU countries, target markets

Eksport jaj z Polski do krajów Unii Europejskiej

Holandia	- 27,7%
Niemcy	- 26,3%
Włochy	- 7,5%
Czechy	- 5,9%
Belgia	- 4,7%
Francja	- 4,1%
Węgry	- 3,7%
Wielka Brytania	- 3,3%
Austria	- 2,7%
Litwa	- 2,4%
Rumunia	- 2,2%
Bułgaria	- 1,6%
Pozostałe kraje	- 7,9%



Export of eggs to EU countries - totals

Poland's export destination	Year		Variance rate; 2017 = 100%
	2017	2018	
Total	267 377	205 999	77,0
Germany	96 703	52 746	54,5
Netherlands	73 040	56 326	77,1
Italy	16 322	14 835	90,9
Romania	13 123	6 017	45,9
Hungary	12 326	8 007	65,0
Czech Republic	10 461	12 715	121,5
France	9 129	8 453	92,6
Belgium	7 054	9 357	132,6
United Kingdom	4 260	6 608	155,1
Other countries	24 959	30 935	123,9

Export of eggs – Key Drivers & Background

- Unsatisfying **unit price** on local market
- **Overproduction** – producers supply more than could be ever locally
- Destination markets **periodical deficit** – i.e. Fronpil issue in Germany and Netherlands in 2017

Export of eggs – growing markets for Polish producers



Q2 2019 growth Year over Year

Lithuania	+113,6%
Iraq	+54,9%
Czech Republic	+45,9%
Romania	+44,6%
Hungary	+43,6%

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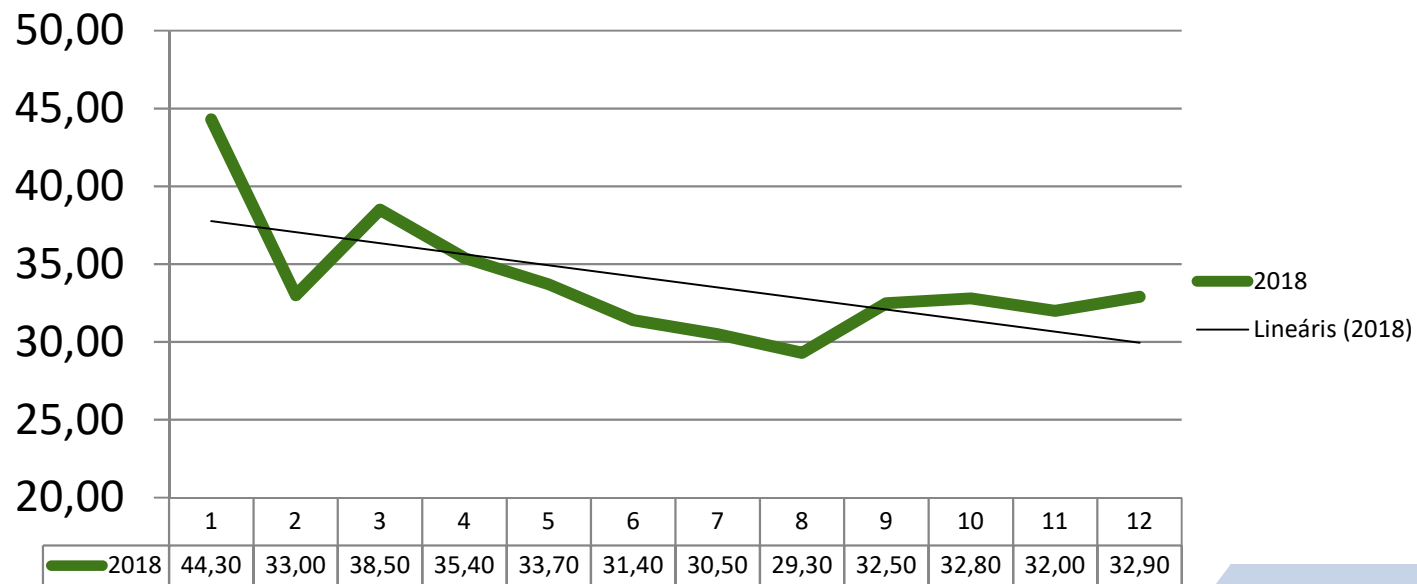
Egg price in Poland

Very important point



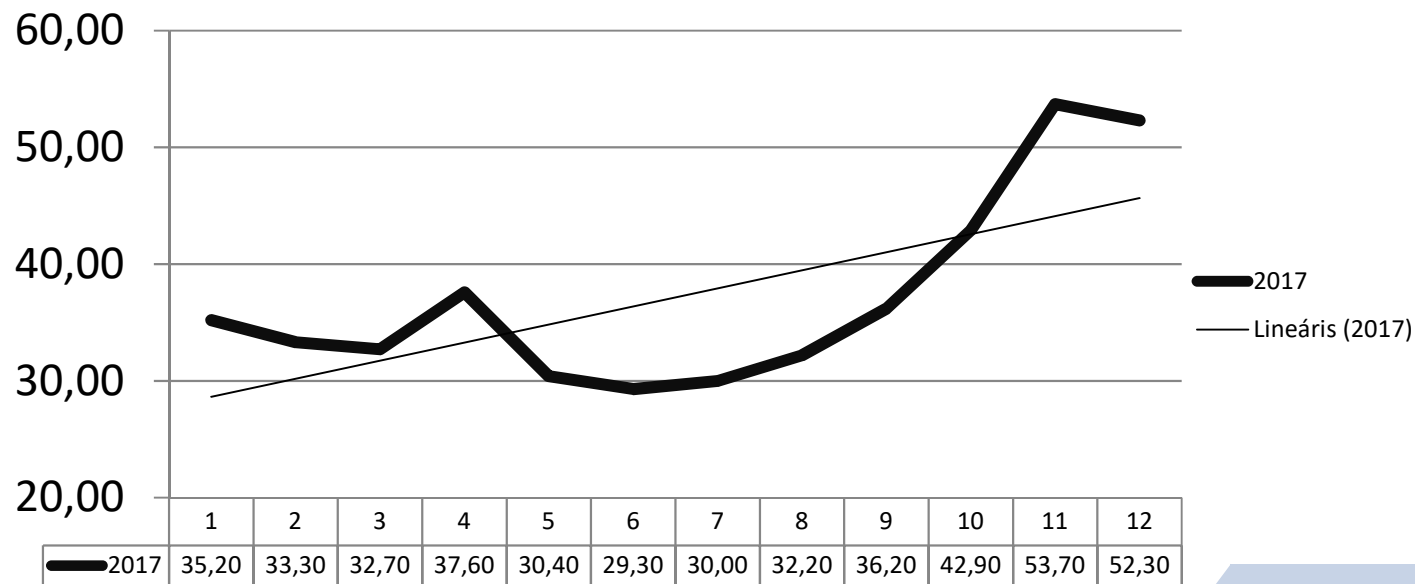
Egg price in Poland 2018 exclusively

Average monthly purchase prices of eggs classes L and M
in 2016-2019 (PLN per 100 eggs)

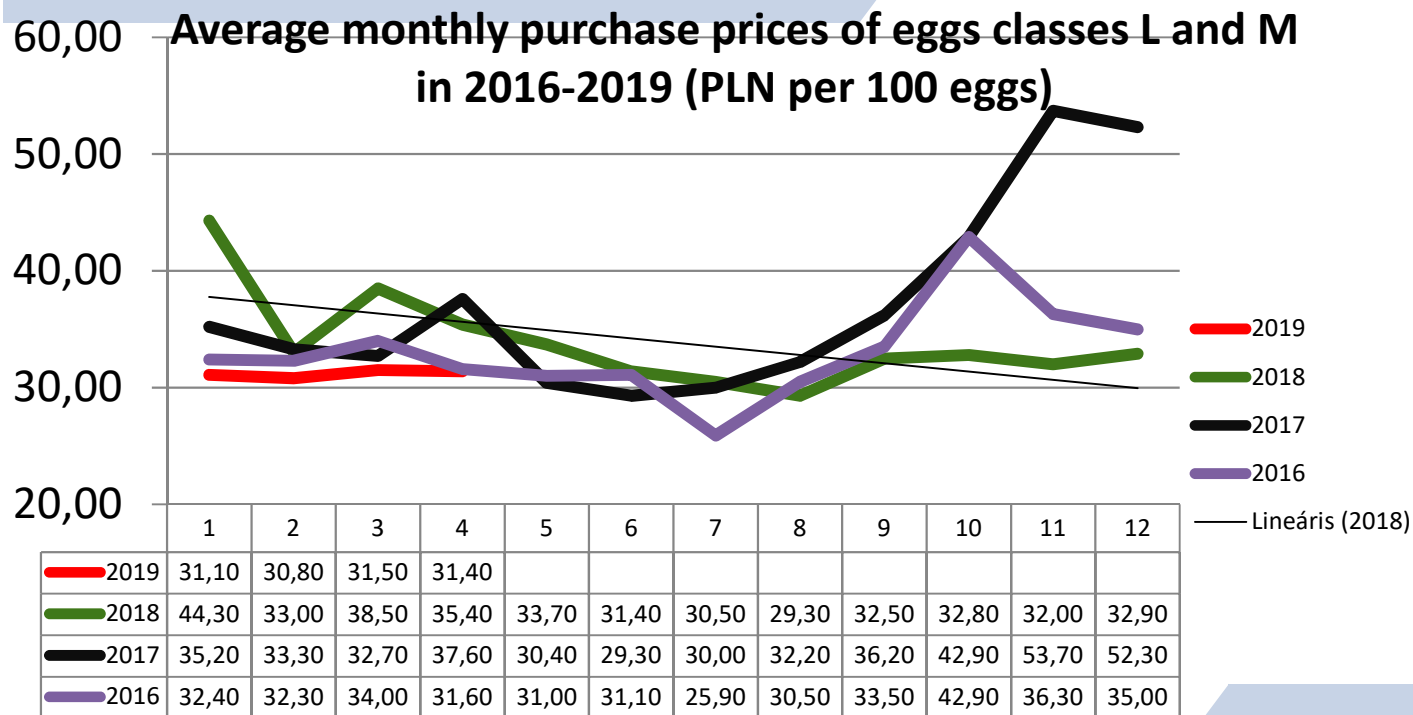


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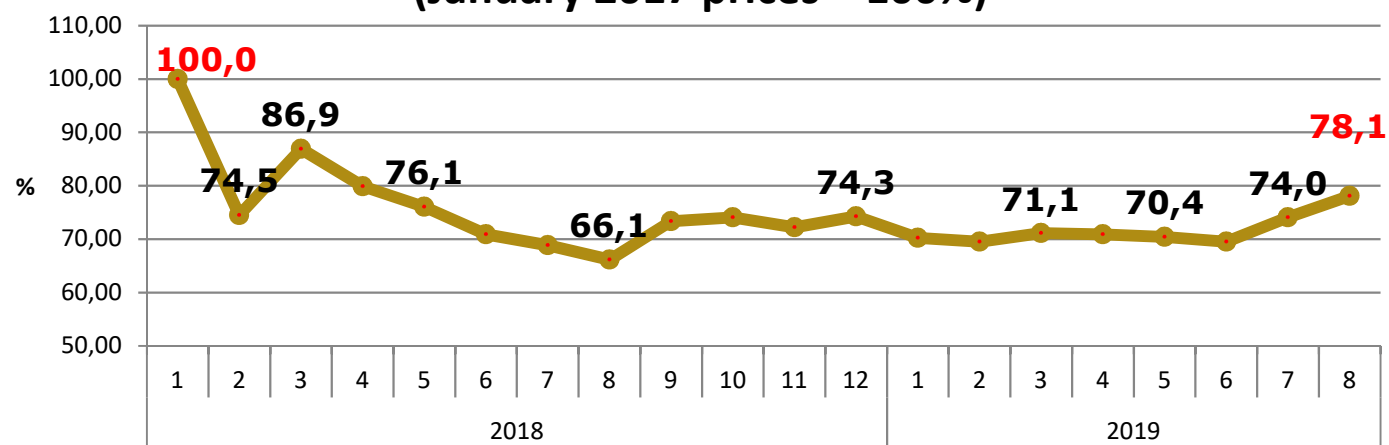


Egg price in Poland



Monthly egg unit price trend

Monthly purchase prices - eggs L,M in 2017-2019
(January 2017 prices = 100%)

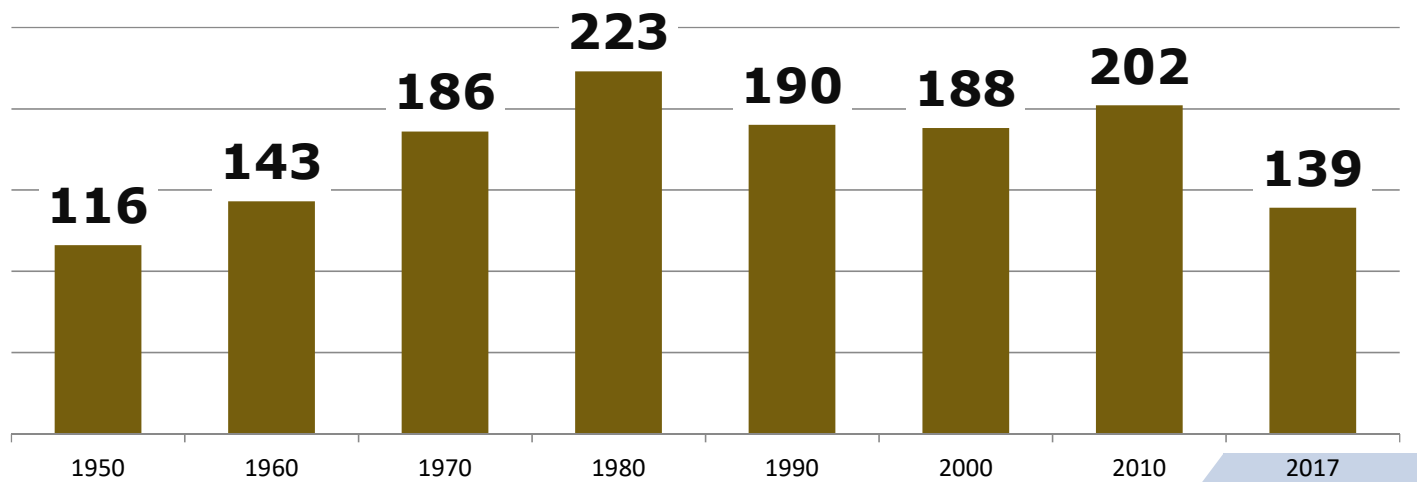


Egg unit price on polish local market Key Drivers & Background

- **Decreasing egg consumption** *per capita* in long term driving the market price down
- **Structural oversupply** – more eggs produced than ever be consumed makes producers compete with price or seek for export opportunities
- **Cobweb theory in practice** - periodical price rise&falls causing producers to overtake investment decisions with long term consequences

Long term consumption trends

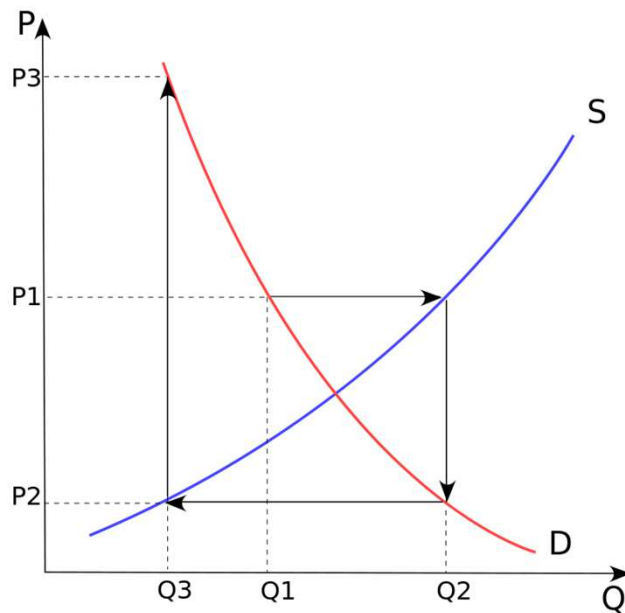
Egg consumption in Poland
(1950-2017; units per capita)



Cobweb Theory

The **cobweb** is an economic model that explains why **prices** might be subject to periodic **fluctuations** in certain types of markets. It describes **cyclical supply and demand** in a market where the amount produced must be chosen before prices are observed.

Cobweb Theory – divergent case



In case of a market where suppliers flexibility to react on price change is much lower than the one demonstrated by the customers a **divergent model** is observed

In **divergent model** of the market each next period brings the market price **further from equilibrium** (up or down)

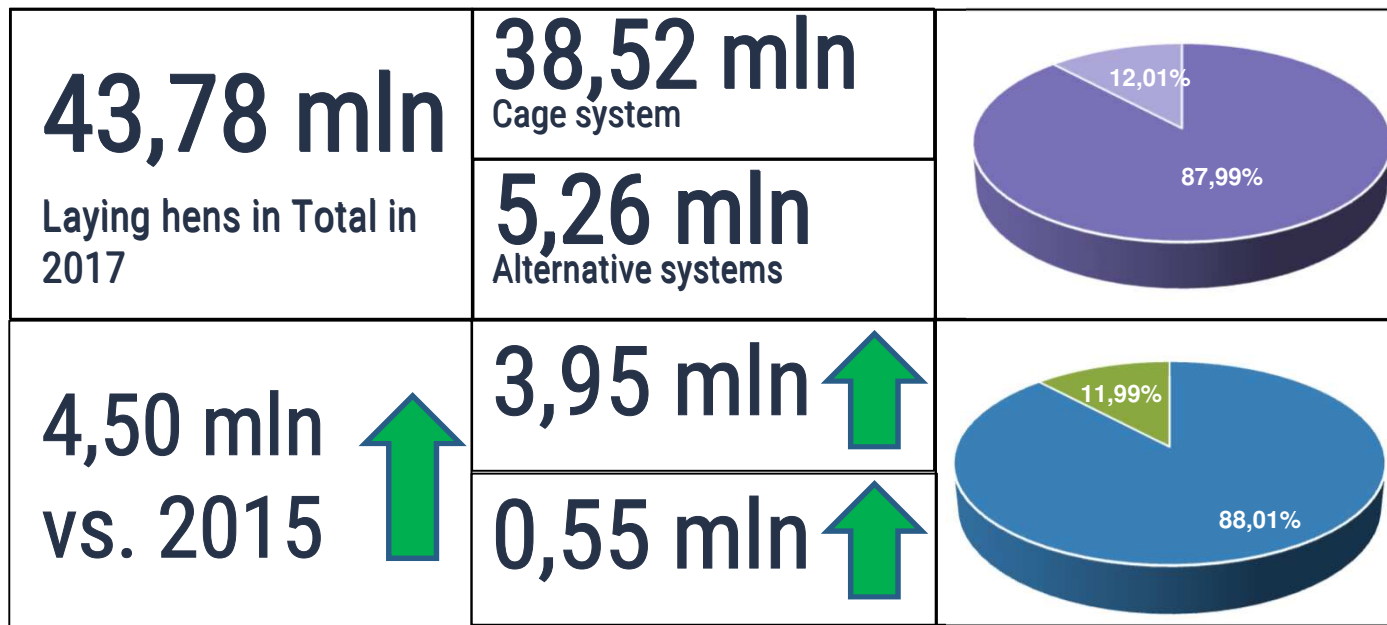
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Egg industry analysis

next point



Polish egg industry in numbers



data by General Veterinary Inspectorate



Household egg production

20%

According to National Chamber of Poultry and Egg Producers, "the number of laying hens in yard production constitutes approx. 20% of the total domestic population and over 20% market share of eggs".



The breeding ratio looks more less like this:

- **20% of all hens - farm yard hens,**
- **80% of all hens - hens in the 0,1,2,3 systems, including:**

0 - organic farming - 0.2% of registered hens,

1 - free range farming - 2.5% of registered hens,

2 - barn farming - 9.3% of registered hens,

3 - cage farming - 88% of registered hens.





In Poland, there were 1,202 farms with laying hens in April 2017, of which 498 uses cage system and 420 barn system.

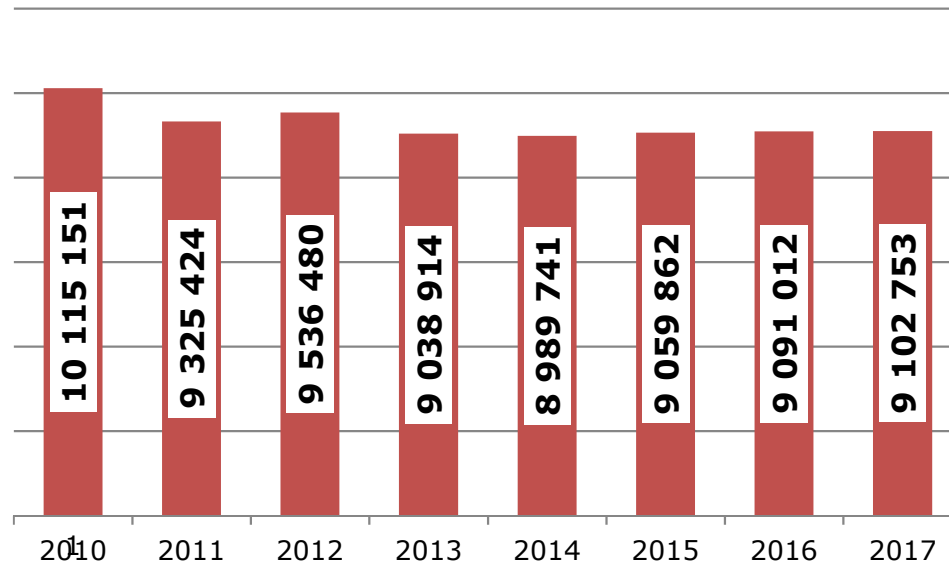
For comparison, in February 2016, there were 1,193 farms, and 491 of them kept hens in a cage system.

Although the number of farms using barn system is similar to the number of farms using the cage system, it is estimated that up to 89% of all eggs produced in Poland come from cage system.





Production of table eggs in 2010-2017 (in the thousands)



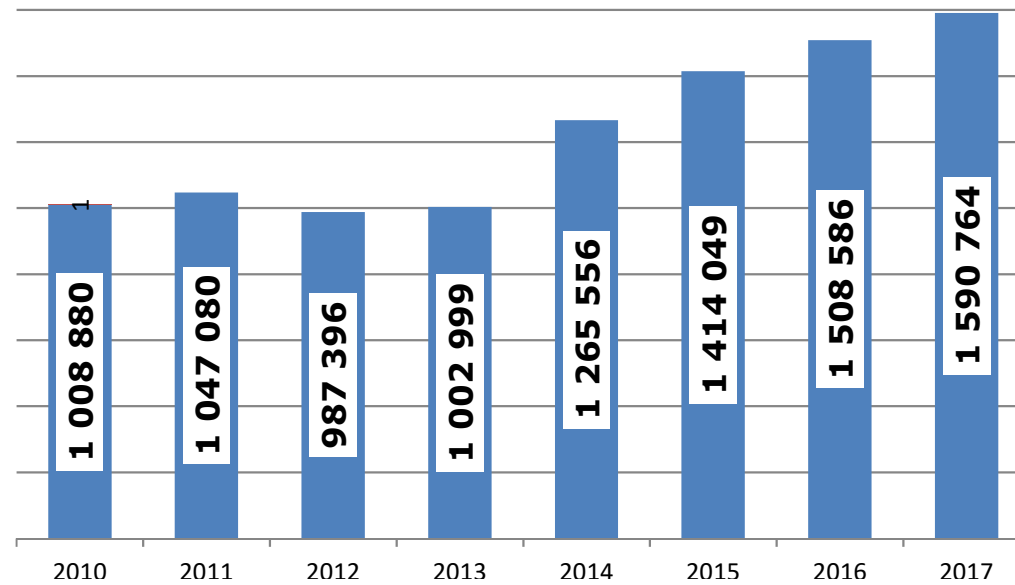
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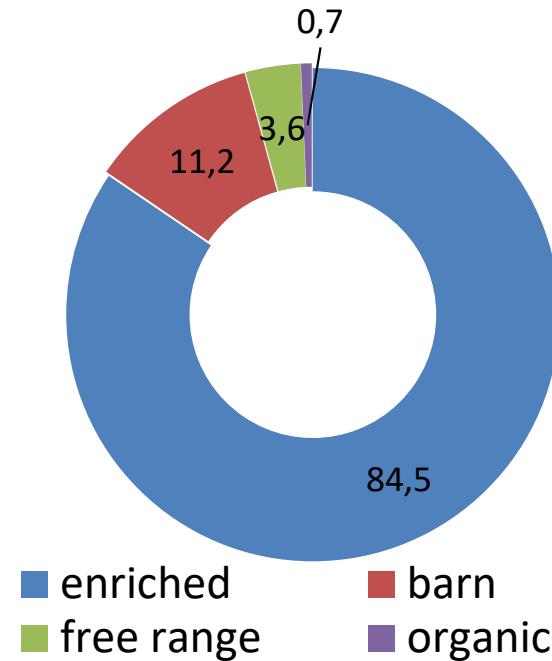
Production of hatching eggs in 2010-2017(in the thousands)



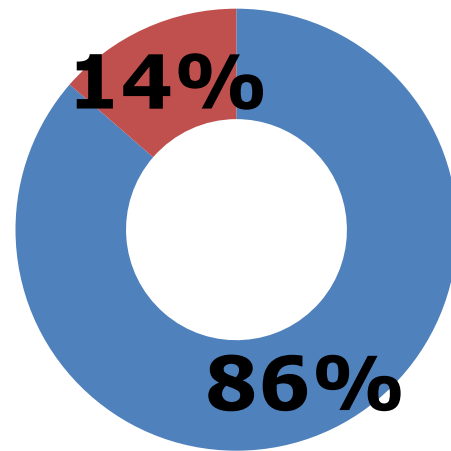


Laying hens in Poland by farming method

Maximum capacity
in 2018, according
to Member States
notifications under
Commission
Regulation
2017/1185, art.
12b- Annex III.10
(%)



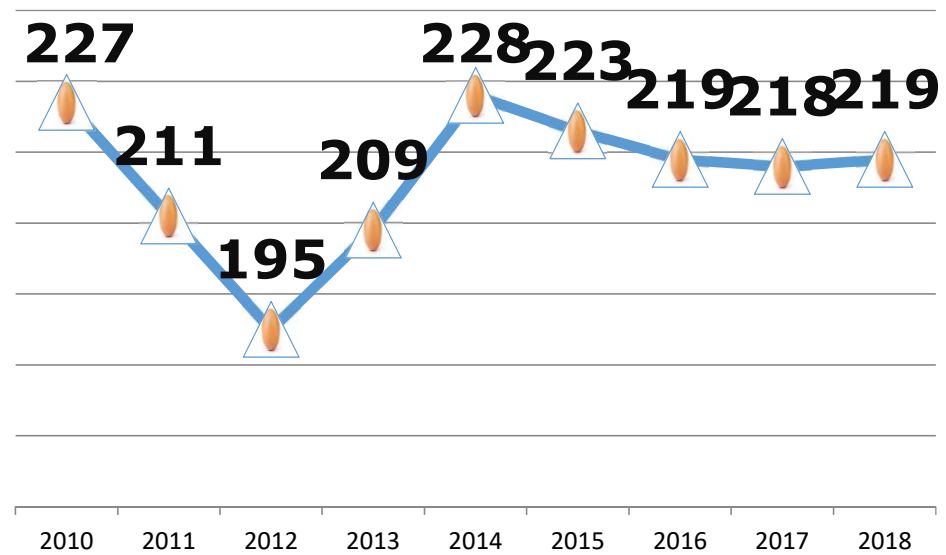
**Eggs production in 2018 according to purpose
(Total production 657 000 Tones)**



■ table eggs

■ hatching
eggs

Average number of eggs per one hen in Poland (2010-2018)



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Challenges

The most important point



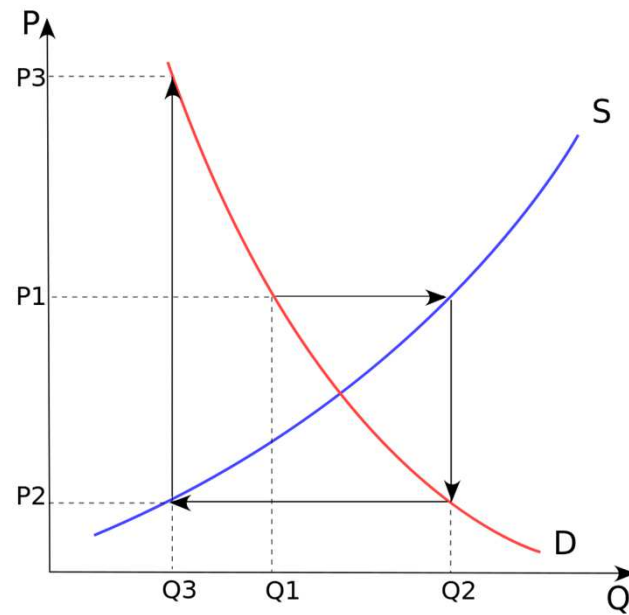
Capital expenditure necessity needed to catch up on consumption trends

The egg industry is facing the need to incur **huge investment outlays**, which is forced by the prevailing fashion among consumers for **organic eggs** or free range chickens, i.e. the exchange of caged eggs for so-called alternative.

The process of changing the egg production method - from cage to barn, or free range is very expensive.

According to estimates of the National Chamber of Poultry and Egg Producers experts, investments in changing chicken housing methods may amount to **over USD 1,2 bilion** in the whole country over the next few years.

Restructuring of supply site to get the market back to equilibrium



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Opportunities and threats

Last point





1. For two years, Poland free from AF (avian influenza) which increases the confidence of consumers.
2. The EC forecast indicates for Poland a total egg production of 657 thousand tones. Such volume, which means a 5.3% increase compared to the previous year. With this size of production, Poland remains 7th in the EU.
3. In the case of egg production for hatching, the forecast indicates 92 thousand tones, which means an increase of 3.4%.
It is expected that Poland will also remain the largest producer of this type of egg in 2019.



THANK YOU!

Any questions?

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