



THE POULTRY SECTOR IN HUNGARY: A REPORT UPDATE

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Executive Summary

Poultry meat production of the European Union (28 Member States) totalled 15.3 million tonnes in 2019, with Hungary having a 3 percent share, thereby ranking as the eighth largest poultry meat producer.

In Hungary, backyard poultry farming is negligible. Commercial production of poultry typically takes place on specialized farms, with hybrid breeds. The size of the poultry flock has been around 40 million heads since the 2000's, counting 39.2 million as of 1 December 2019.

The Hungarian poultry industry is organized along vertical and horizontal collaborations. Around 90 percent of the production operates in full integration, with slaughtering and processing typically owned by Hungarian investors. Processors (integrators) control the production of compound feed, breeding, and eggs for hatching, and strive to achieve the fullest possible coordination to further increase efficiency.

The technical conditions of poultry farms are heterogeneous, and this is well reflected in their efficiency indicators and production costs. The average age of buildings used for poultry production in 2018-2019 was around 22 years, and 36 percent of the barns were 20 to 30 years old. Many of these buildings need refurbishing, i.e. thermal insulation, the replacement of floors and roof coverings, as well as of ventilation and lighting systems, and the upgrading of water treatment and water supply systems.

Feed produced for the poultry sector exceeds 50 percent of the total compound feed production in Hungary. In 2018, there were 137 poultry feed producing plants, with a combined output of over 1.9 million tonnes of compound feed for poultry.

Hungarian poultry farmers are in the crossfire of the often-conflicting expectations and requirements concerning animal welfare, environmental protection, and food safety by consumers and legislators. In recent years, emerging new challenges, e.g. Avian Influenza (AI) outbreaks, the increasing eco-consciousness of consumers, animal rights campaigns, etc. have made poultry farming, especially with ducks and geese, more challenging. While producers strive to comply with EU food safety, environmental, animal health and animal welfare standards, they face notably less societal pressure than their counterparts in the western and north-western Member States of the EU.

The age structure of Hungarian poultry farmers is less favourable compared to the whole of the agricultural sector, with 40 percent of them aged 65 years or more in 2016. The proportion of poultry farmers in the younger age groups has been lower than the average. Around 84 percent of the managers of individual poultry farms had only practical experience in 2016, and 8 percent of them had no qualifications or practical experience at all.

Although the price of chicken meat in Hungary is substantially lower than the EU average, both chicken fattening and the production of table eggs were profitable in every year over the period 2014-2019, even with national direct subsidies not considered.

Owing to the intensive production technology, and to their strong integrity, most of the poultry farmers in Hungary are not engaged in land-based agricultural activities. In total, only around 98 thousand hectares of agricultural area can be directly linked to poultry farming.

Poultry slaughtering and processing are highly concentrated: there are 45 slaughterhouses for chicken, 9 for turkeys, 11 for waterfowls and 1 for layers in the country. In 2019, a total of 220 million birds, or 531 thousand tonnes (expressed in carcass weight) were slaughtered at slaughterhouses, of which broiler chicken represented around 62 percent. The Top 3 poultry slaughterhouses had a 26 percent combined market share in 2010, which increased to 46 percent by 2019.

Poultry meat has been the most popular meat in Hungary, with its per capita consumption increasing significantly over the period 2014-2018, reaching 35.4 kilogram in 2018, and thus exceeding the EU average by 37 percent. As of 1 January 2017, the VAT for poultry meat and eggs was lowered from 27 to 5 percent, which has also contributed to the recent growth in consumption.

Exports of poultry products accounted for 8 percent of all Hungarian agricultural exports in 2019 and had a value of EUR 974.6 million, representing a 25 percent increase over 2015. Hungary's poultry meat self-sufficiency was around 130 percent in 2018, which is outstanding among the EU Member States and indicates strong export-orientation. AI epidemics occurred several times in the country (2005, 2017 and 2020), affecting mainly free-range ducks and geese, having a serious impact on exports.

Abbreviations

AKI – Research Institute of Agricultural Economics

AI – Avian influenza

AWU – Annual Work Unit

FADN – Farm Accountancy Data Network

FSS – Farm Structure Survey

HCSO – Hungarian Central Statistical Office

HNB – Hungarian National Bank

HST – Hungarian State Treasury

NTCA – National Tax and Customs Administration of Hungary

RD – Rural Development

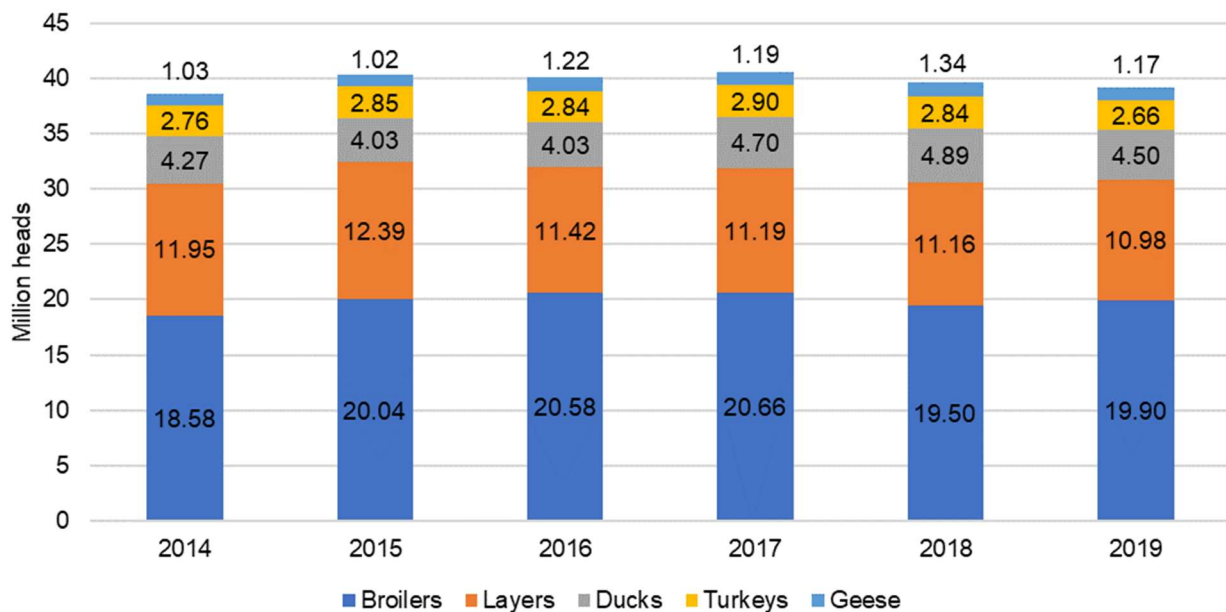
1. Poultry flock

In Hungary, backyard poultry farming¹ is negligible. Commercial production of poultry typically takes place on specialized farms, with hybrid breeds.

The Hungarian poultry sector is characterized by a rich variety of species, including the relatively large flocks of waterfowls. The size of the total poultry population has been around 40 million heads since the 2000's, and it was counting 39.2 million as of 1 December 2019².

The structure of the poultry flock has undergone some changes since the 1990's: the share of broiler chickens has decreased, while the share of turkeys and waterfowls has increased. In the past few years, broilers and layers made up around three-quarters of the poultry flock in Hungary (Figure 1).

Figure 1: **Structure of the poultry flock in Hungary, 2014-2019 (as of 1 December)**



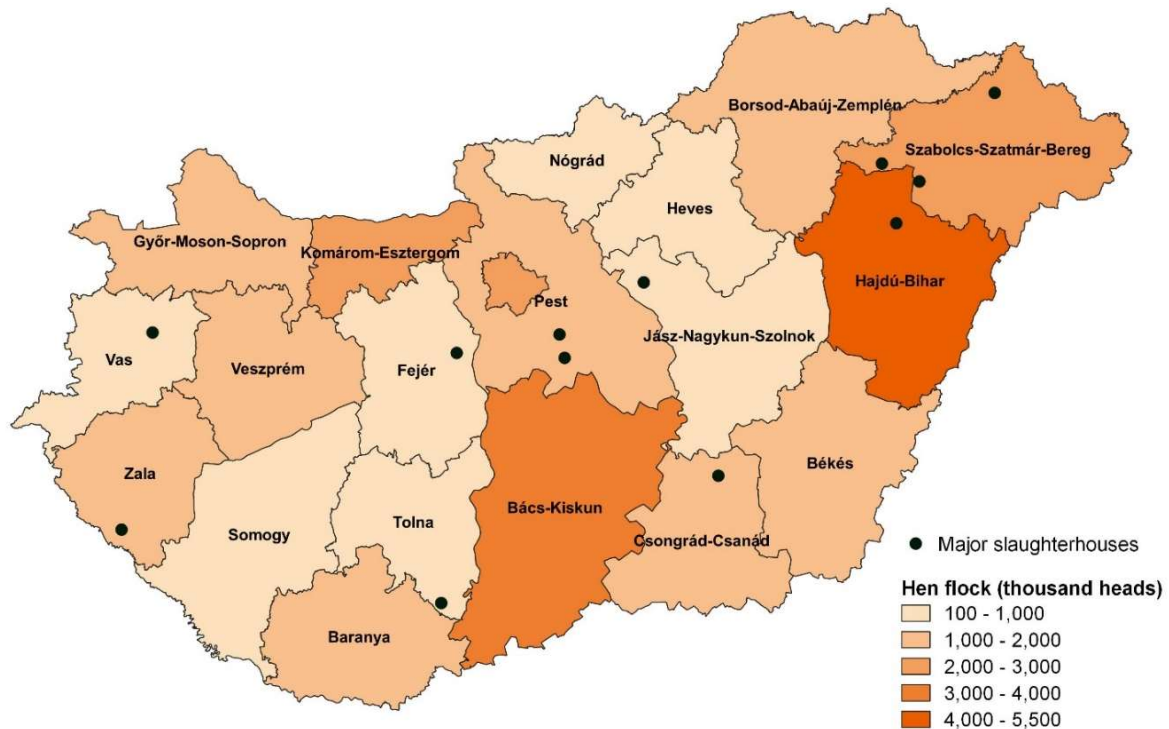
Source: HCSO

The geographical distribution of the flocks of poultry species varies considerably. For hens, detailed characterization of the production structure is difficult due to a methodological shortcoming, namely the Hungarian Central Statistical Office (HCSO) does not publish data for broilers and layers separately. But even so, the geographical differences in the hen flock are clearly visible: in 2019, 27 percent of all hens were kept in Hajdú-Bihar and Bács-Kiskun counties (Figure 2).

¹ Farms where the number of poultry kept is less than 200.

² It should be noted that because of the General Agricultural Census of 2020, the HCSO did not publish headcount data for June 2020.

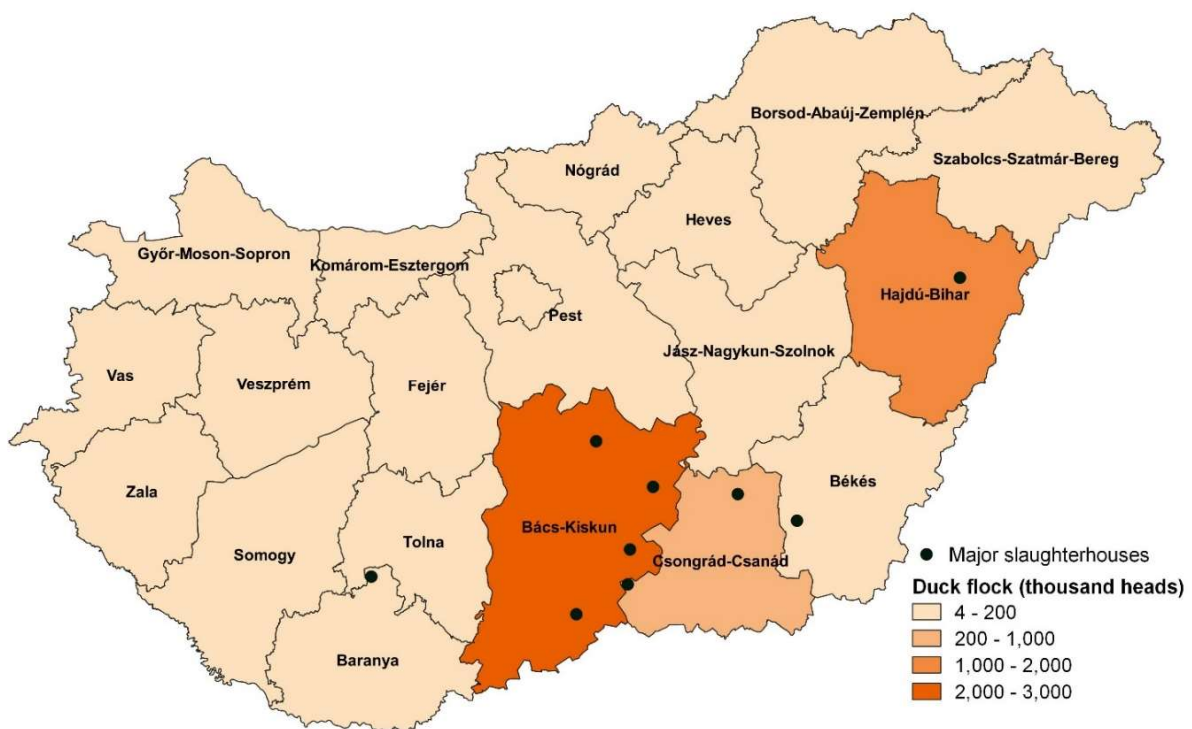
Figure 2: **Geographical distribution of the hen flock by county, and the location of the major slaughterhouses in Hungary, 2019**



Major slaughterhouses: where at least 27,000 tonnes of broilers and hens are slaughtered a month.

Source: compilation by the Sectoral Economics Research Department of AKI

Figure 3: **Geographical distribution of the duck flock by county, and the location of the major slaughterhouses in Hungary, 2019**



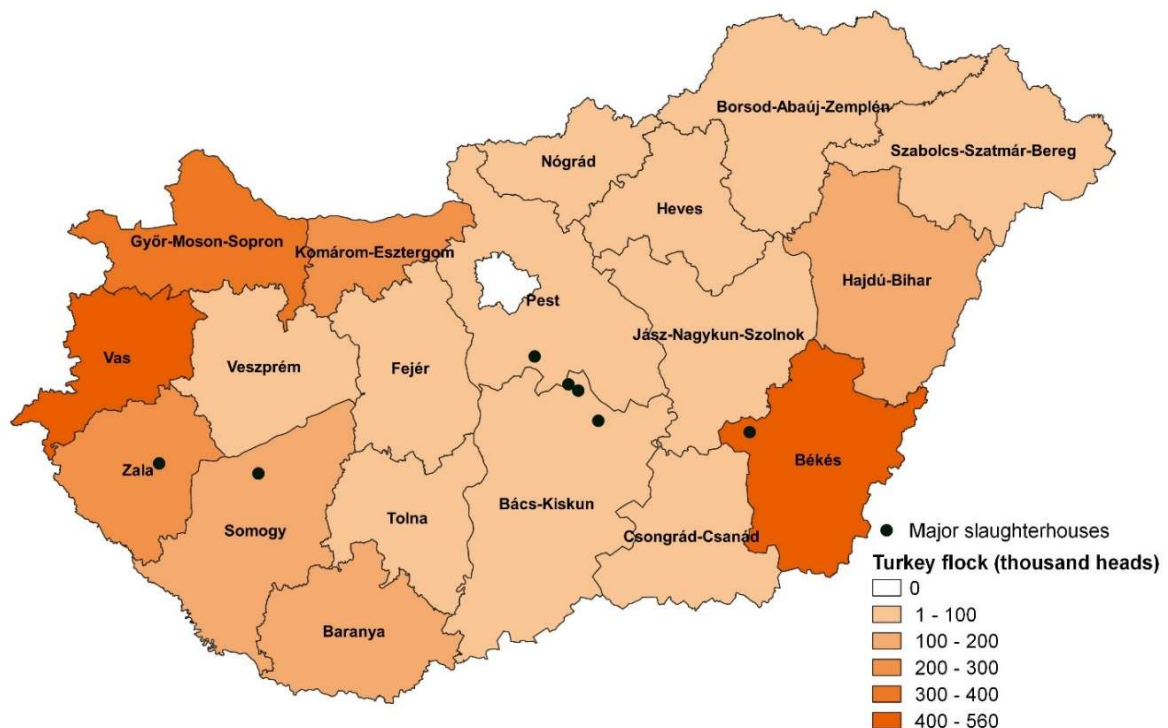
Major slaughterhouses: where at least 27,000 tonnes of broilers and hens are slaughtered a month.

Source: compilation by the Sectoral Economics Research Department of AKI

The duck flock is concentrated in Bács-Kiskun and Hajdú-Bihar counties, with shares of around 62 and 25 percent, respectively (Figure 3).

Around 21 percent of the turkeys are kept in Vas county, but a significant number of turkeys are farmed also in Békés, Győr-Moson-Sopron and Komárom-Esztergom counties, each of these having a share of around 15 percent (Figure 4). Until 2012, a slaughtering and processing plant (Sága Foods) for turkeys was operating in Vas county, which explains the large turkey flock in that area.

Figure 4: **Geographical distribution of the turkey flock by county, and the location of the major slaughterhouses in Hungary, 2019**

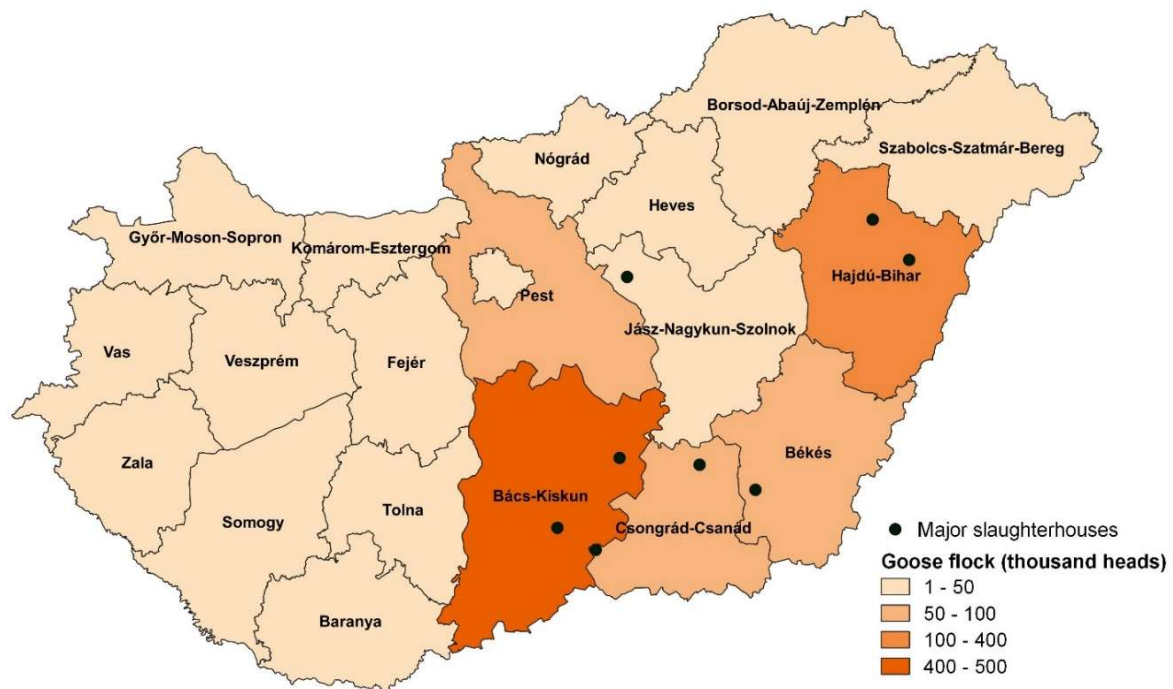


Major slaughterhouses: where at least 27,000 tonnes of broilers and hens are slaughtered a month.

Source: compilation by the Sectoral Economics Research Department of AKI

The geese flock is concentrated in Bács-Kiskun and Hajdú-Bihar counties, with shares of around 42 and 31 percent, respectively (Figure 5).

Figure 5: **Geographical distribution of the geese flock by county, and the location of the major slaughterhouses in Hungary, 2019**



Major slaughterhouses: where at least 27,000 tonnes of broilers and hens are slaughtered a month.

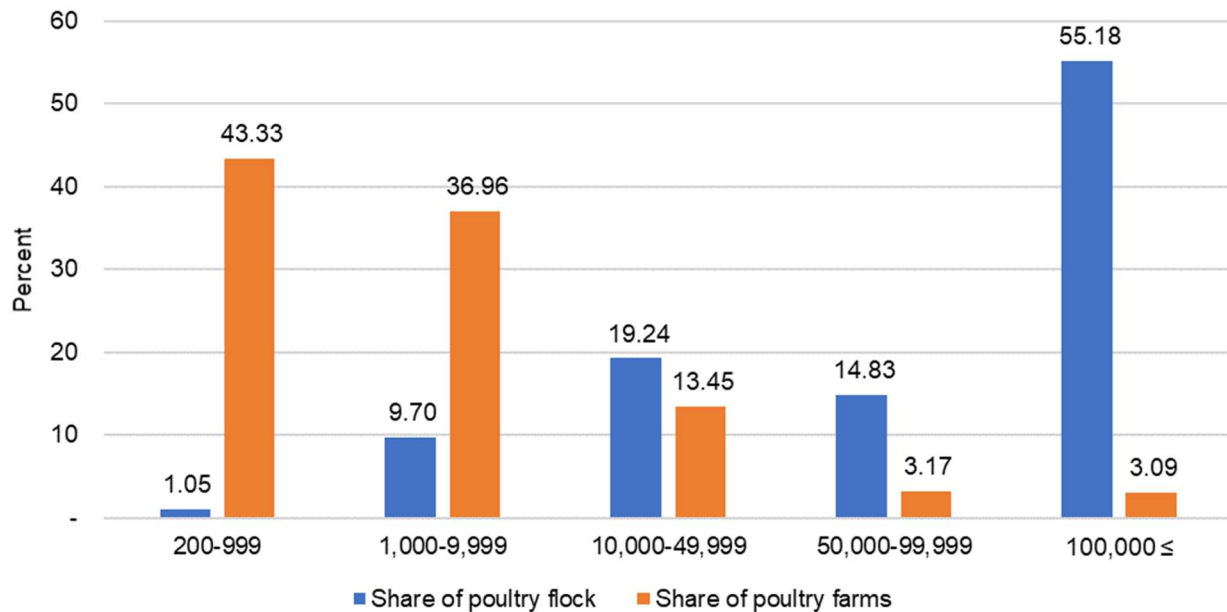
Source: compilation by the Sectoral Economics Research Department of AKI

2. Production structure

In the poultry sector, production is organized along vertical and horizontal collaborations. In line with international trends, the Hungarian poultry industry has become vertically well-coordinated through the past decades. Around 90 percent of the production operates now in full integration, with slaughtering and processing typically owned by Hungarian investors. Processors (integrators) control the production of compound feed, breeding, and eggs for hatching, and strive to achieve the fullest possible coordination to further increase efficiency. Coordination also offers a full oversight of the breeding lines, as well as of feeding and veterinary programs.

The structure of poultry farming is rather fragmented: 94 percent of the farms have less than 10,000 heads of stocking capacity (places). In contrast, around 90 percent of the poultry flock is kept on farms with over 10,000 places (Figure 6).

Figure 6: **Distribution of the poultry flock by farm size in Hungary, 2016**



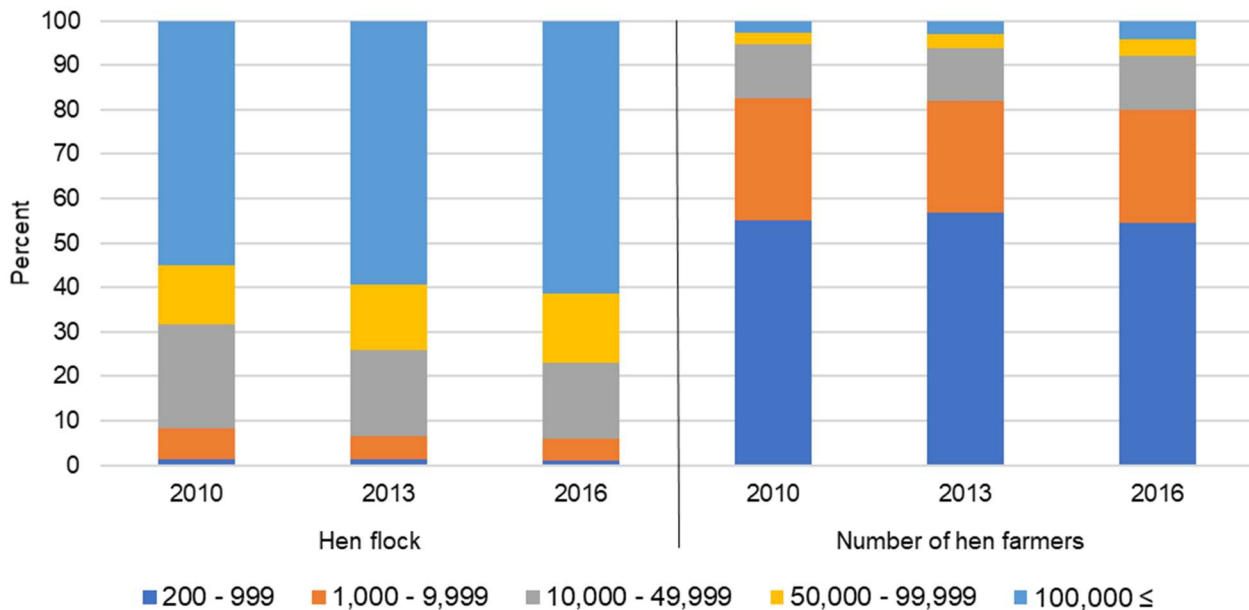
Note: backyard farms with less than 200 heads of poultry excluded.

Source: HCSO

A clear disadvantage of maintaining small flocks is that the utilization of modern technologies is not feasible, while obsolete technologies often lead to poor performance, i.e. low feed efficiency, long fattening periods and low average selling weights. Therefore, most of the poultry farms with small capacities are expected to exit production in the coming decade. The aging of farmers also points toward further concentration in the sector.

In 2016, 61 percent of the hens were kept on farms with over 10,000 places, representing an increase of 6 percentage-points since 2010. The share of farms with less than 50,000 places was 23 percent in 2016, 9 percentage-points less than in 2010 (Figure 7).

Figure 7: **Distribution of the hen flock by farm size in Hungary, 2010-2016**

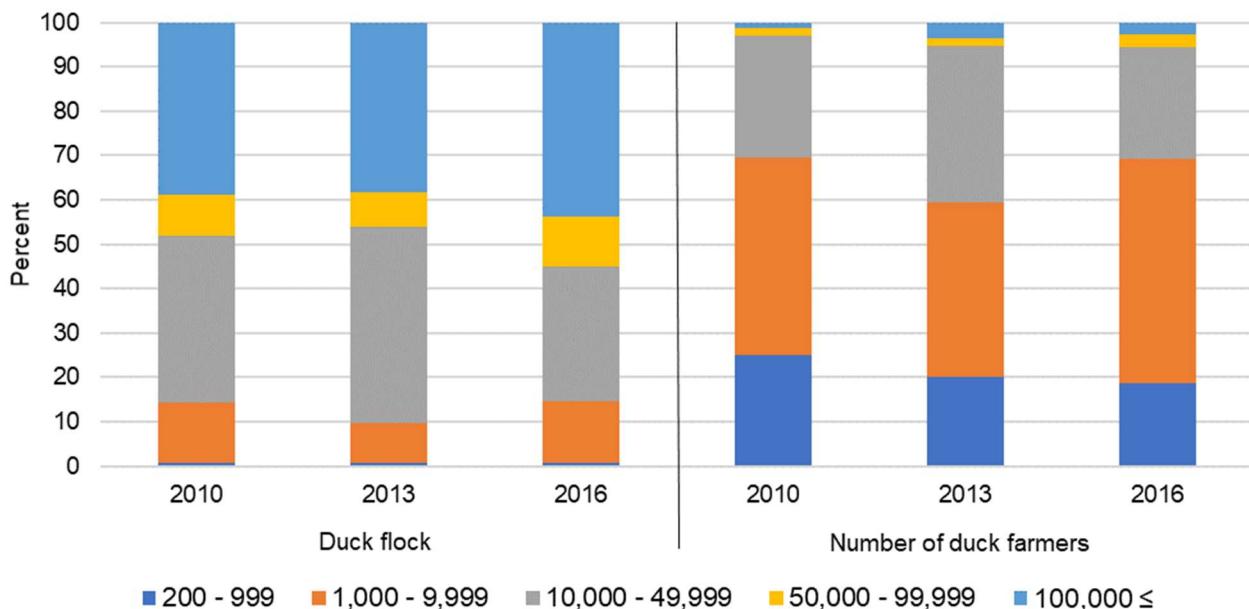


Note: backyard farms with less than 200 heads of poultry excluded.

Source: HCSO

In 2016, 44 percent of the ducks were kept on farms with over 10,000 places, representing an increase of 5 percentage-points since 2010. The share of farms with less than 50,000 places was 45 percent in 2016, 7 percentage-points less than in 2010 (Figure 8).

Figure 8: **Distribution of the duck flock by farm size in Hungary, 2010-2016**

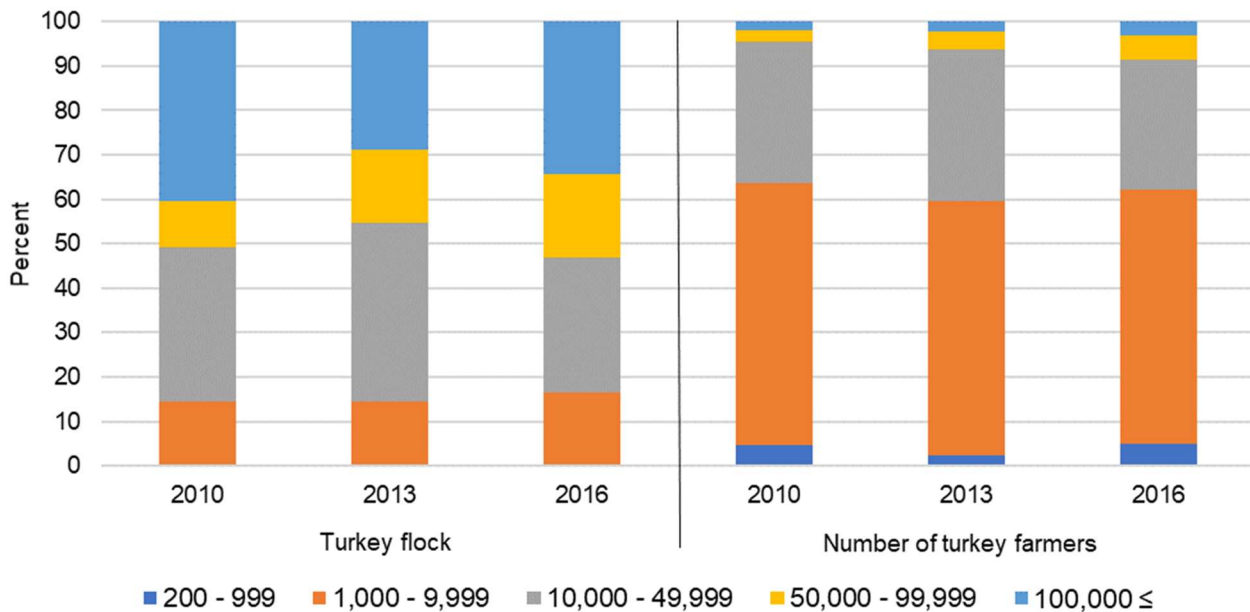


Note: backyard farms with less than 200 heads of poultry excluded.

Source: HCSO

In 2016, 34 percent of the turkeys were kept on farms with over 10,000 places, representing a decrease of 6 percentage-points since 2010. The share of farms with fewer than 50,000 places was 47 percent in 2016, 2 percentage-points less than in 2010 (Figure 9).

Figure 9: **Distribution of the turkey flock by farm size in Hungary, 2010-2016**

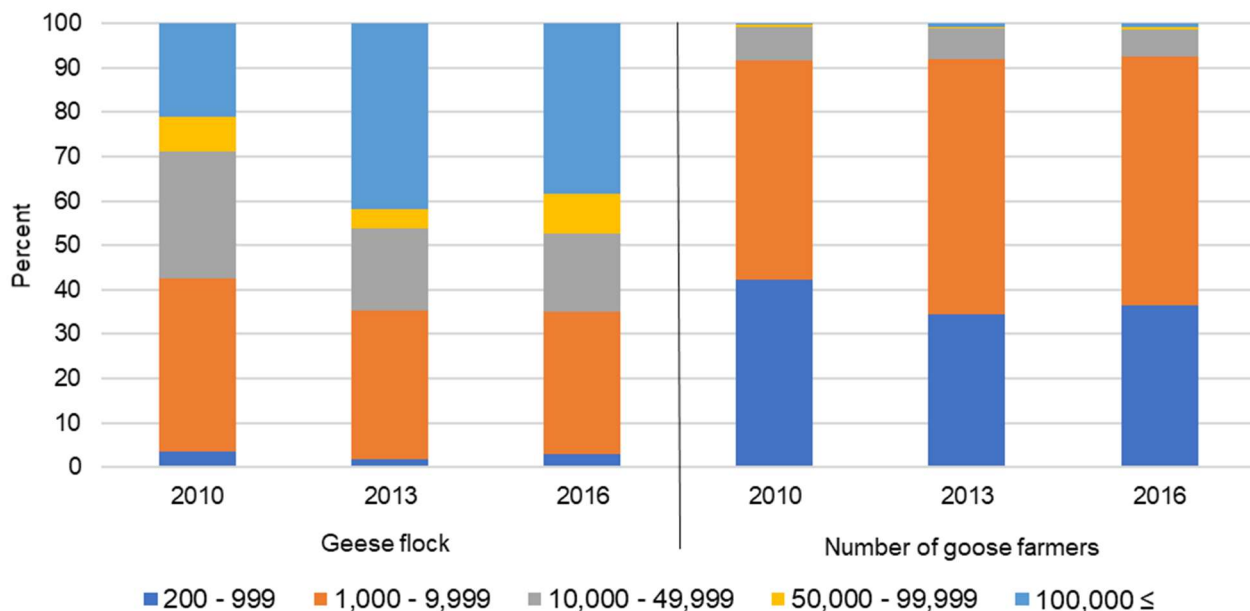


Note: backyard farms with less than 200 heads of poultry excluded.

Source: HCSO

The process of concentration had been the strongest in goose farming. In 2016, 38 percent of the geese were kept on farms with over 10,000 places, representing an increase of 17 percentage-points since 2010. The share of farms with less than 50,000 places was 53 percent in 2016, 18 percentage-points less than in 2010 (Figure 10).

Figure 10: **Distribution of the geese flock by farm size in Hungary, 2010-2016**



Note: backyard farms with less than 200 heads of poultry excluded.

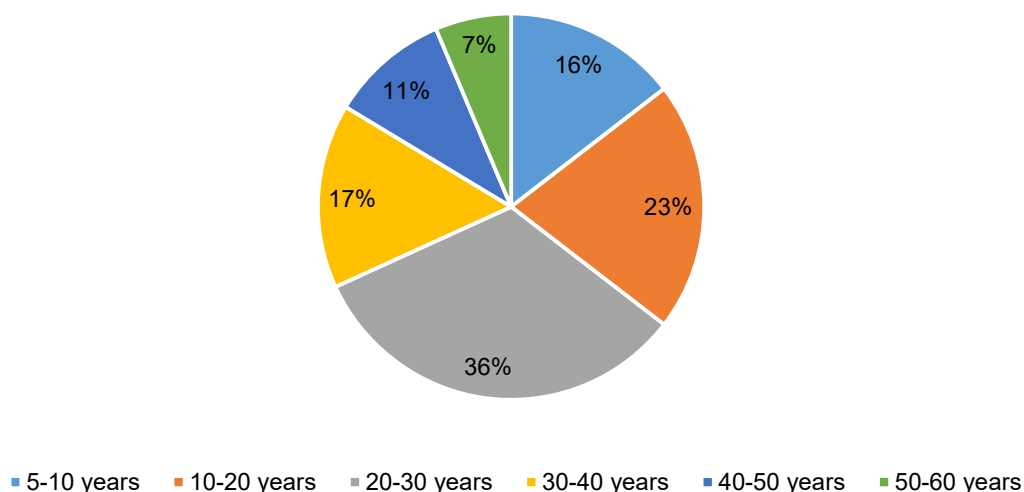
Source: HCSO

3. Housing systems

While there are no significant differences in the genetic performance of the available broiler hybrids, the technical conditions of the farms in Hungary are heterogeneous, and this is well reflected in their efficiency indicators and production costs. The age and the biosecurity level of barns differ to a large extent. New-built, species-specific barns are rare, most of the old buildings in use had been refurbished (insulation, concrete base) only partially. Many of the farms with intensive chicken, turkey, and duck production use modern equipment.

According to the Farm Accountancy Data Network (FADN) data of the Research Institute of Agricultural Economics (AKI), the average age of buildings used for poultry production in 2018-2019 was around 22 years, and 36 percent of the barns were 20 to 30 years old (Figure 11).

Figure 11: **Average age of poultry barns in Hungary, 2018-2019**



Source: AKI

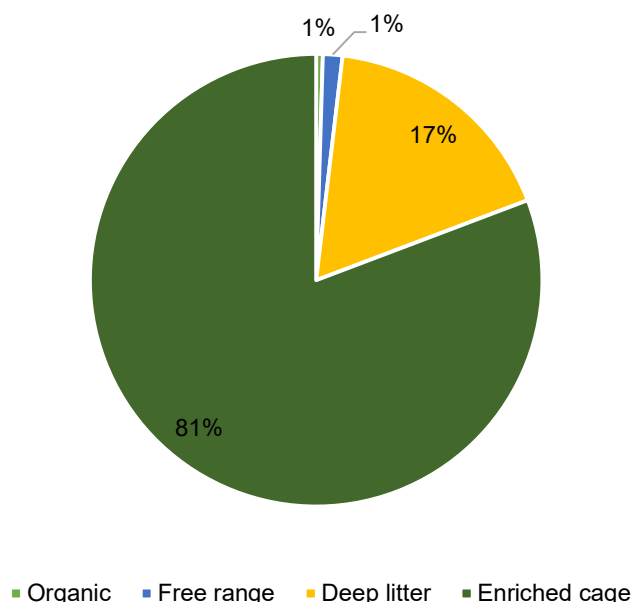
Across the whole poultry sector, many of the buildings need further refurbishing, i.e. thermal insulation, the replacement of floors and roof coverings, as well as of ventilation and lighting systems, and the upgrading of water treatment and water supply systems. Farmers have been able to apply for financial subsidies from Rural Development (RD) funds to accomplish these investments.

In the case of extensive species (i.e. geese and ducks), biosecurity is of vital importance. It is a must to strictly follow the guidelines and protocols for the movement of people, equipment, and birds to and within the farms. In the case of free-range production, closed housing during an Avian Influenza (AI) emergency is mandatory. Outside runways must be protected by bird nets, otherwise birds must be kept indoors. It is also mandatory to comply with the minimum of the applicable disease control measures: poultry must be fed and watered indoors, and feed and litter must be stored indoors.

Directive 1999/74/EC impacted the production of table eggs significantly in the near past by requiring producers to abandon traditional cage farming as of 1 January 2012. The total cost of conversion to enriched cages for larger farms was estimated in the range of HUF 12-14 billion. Several of the retail chains have recently announced that from 2025 they will sell eggs only from free-range, organic, or deep-litter production, not only in Hungary but throughout the whole Central European region. This

will pose new challenges to Hungarian farmers. In Hungary, over 80 percent of the layers (excluding the breeding flock) are currently kept in enriched cages (Figure 12).

Figure 12: **Layer capacities (excluding for breeding) by type of production in Hungary, 2018**



Source: National Food Chain Safety Office

Although eggs from cage-free production are becoming more and more popular in Hungary, most consumers still choose cheaper types of eggs. The presence of free-range products is negligible in retail. Larger holdings do not engage in free-range production because the criteria are very strict and investment costs are high. For example, in free-range poultry farming, the grazing area per hen should be the same 4 square meters as in the case of organic poultry farming, which means that maximum 50,000 hens are allowed being kept on an area of 20 hectares (which is very large for a poultry farm). Although investment costs for deep litter systems are lower than for caged farming, labour use and feed consumption are higher, as well as mortality rates and egg losses.

4. Feeding

The Hungarian poultry sector is characterized by the high dependency on imported protein. Hence upswings in soybean meal prices and transport costs often pose a challenge to farmers and the whole poultry value chain.

Coordinated operations of farm management, animal health management and feed production are essential to maintain the stability and profitability of poultry farming, therefore, the larger integrators have their own compound feed producing plants.

According to an ongoing research survey conducted by AKI, feed produced for the poultry sector exceeds 50 percent of the total compound feed production. In 2018, there were 137 poultry feed producing plants, with a combined output of over 1.9 million tonnes of compound feed. Of that, around 60 percent was produced for broilers and layers, and the rest was almost equally divided between turkeys and waterfowls (Table 1).

Table 1: Production of compound feed for the different poultry species in Hungary, 2018

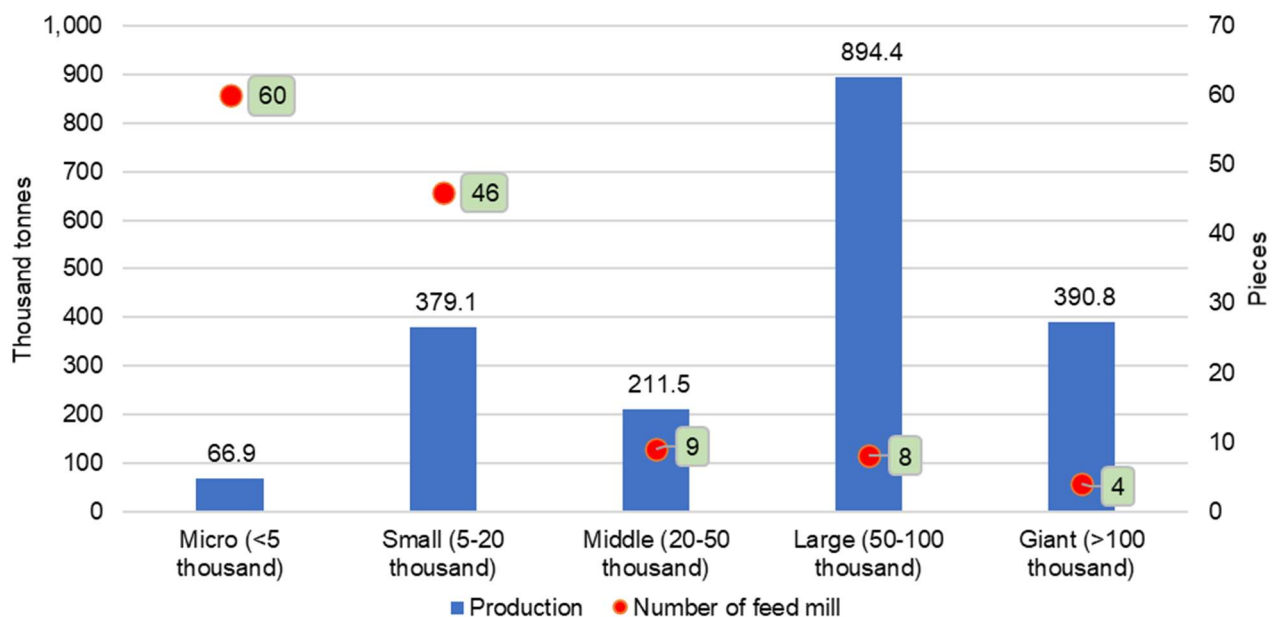
	Production (tonnes)	Share of poultry feed production (%)	Number of plants
Broilers	771,050	40	101
Turkeys	394,948	20	55
Layers	354,560	18	98
Ducks	281,121	14	53
Geese	141,093	7	39
Total	1,942,772	100	137

Note: most feed mixers produce compound feed for several poultry species.

Source: AKI

The geographical distribution of poultry feed producing plants is closely related to the regional distribution of the flocks. Poultry feed production is most concentrated in the large production plant size category (with up to 100 thousand tonnes of compound feed output a year), representing 46 percent of the total production in 2018 (Figure 13).

Figure 13: Structure of poultry feed production in Hungary, 2018

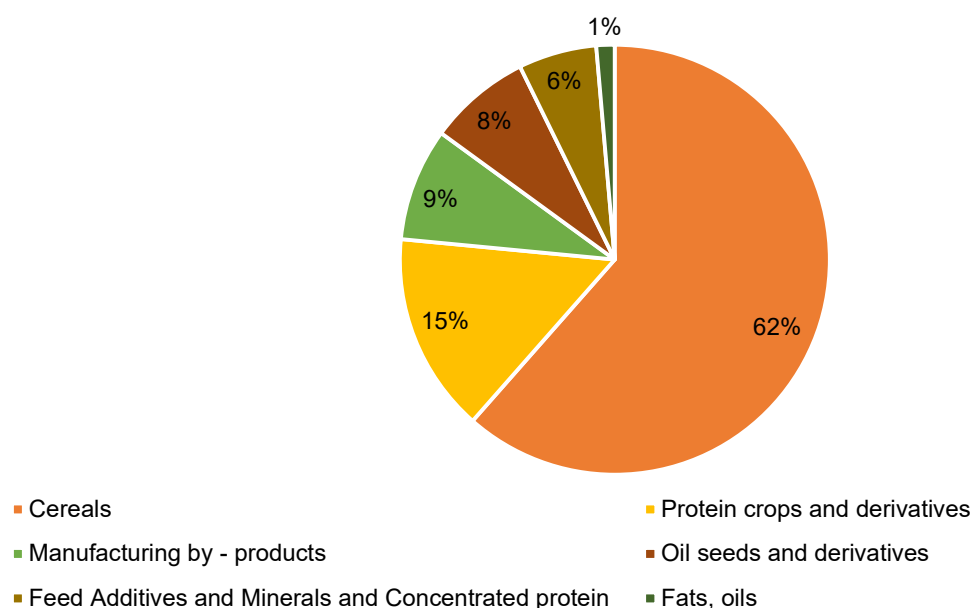


Source: AKI

The largest poultry feed producers in Hungary include, strictly in alphabetic order, Bács-Tak Kft., Bonafarm-Bábolna Takarmány Kft., Cargill Takarmány Zrt., MA-KA Takarmánykeverő és Forgalmazó Kft., Monortáp Takarmányozási Kft., Nagysz Mezőgazdasági Termelő és Szolgáltató Zrt., Napsugár Trade Kft., Palotabozsoki Mezőgazdasági Zrt., Tranzit-Ker Kereskedelmi Zrt., and UBM Agro Zrt.

On average, poultry feed in Hungary consisted of 62 percent of cereals, and 24 percent of protein crops and oilseeds, and the derivatives of these, i.e. hi-pro meals, in 2018 (Figure 14).

Figure 14: **Share of the main raw materials in poultry feed in Hungary, 2018**



Source: AKI

In Hungary, broiler feeding systems with four and five phases are the ones most widely used. The feed efficiency of Hungarian broiler production lags the main European competitors, although it has been improving in recent years. In Hungary, poultry farmers use 1.63 kilogram of feed on average to produce 1 kilogram (live weight) of chicken meat, 3 percent more than, for instance, their Dutch counterparts (Table 2).

Table 2: **Efficiency of broiler production in the main broiler producing EU Member States, 2017**

	Live weight (kg)	Feed conversion (kg/kg)	Feed use/head (kg)	Feed efficiency compared to Hungary (1.63 kg/kg = 100%)
Denmark	2.20	1.55	3.41	0.95
Netherlands	2.35	1.58	3.71	0.97
Germany	2.35	1.58	3.71	0.97
Poland	2.30	1.62	3.73	0.99
Hungary	2.30	1.63	3.75	1.00
France	1.90	1.67	3.17	1.02
Italy	2.40	1.68	4.03	1.03
Spain	2.60	1.72	4.47	1.06

Source: Van Horne (2018)

Poor feed efficiency is, to a large extent, explained by poor housing conditions (obsolete buildings, technologies, and infrastructures), already referred to, which make it difficult to fully exploit the genetic potential of the breeds.

5. Animal health & welfare, and environmental protection

Pathogens and viruses (red mites, avian influenza) for which there are no adequate veterinary solutions (e.g. vaccines) have been a recurring problem in the poultry sector. Minimizing the risk of epidemics requires education, and investments. Owing to the indoor production systems applied most widely, the animal health status in the sector is satisfactory. However, the system for monitoring the use of veterinary drugs (e.g. antibiotics) is currently ineffective.

Farmers are in the crossfire of the often-conflicting expectations and requirements concerning animal welfare, environmental protection, and food safety by consumers and legislators. In recent years, emerging new challenges, e.g. AI outbreaks, the increasing eco-consciousness of consumers, animal rights campaigns, etc. have made poultry farming, especially with ducks and geese, more challenging in Hungary.

Hungarian poultry farmers must comply with EU regulations. The additional costs of compliance were estimated at around 6 percent of the total production cost in 2017, on average. These were related to environmental protection (Nitrate Directive and ammonia emission mitigation), to food safety (Salmonella control, ban on the use of meat and bone meal, and of antibiotic growth promoters, as well as of some GM crops in feeding), and to animal welfare (minimum standards on space allowance) (LEI, 2018)³.

5.1. Animal health

Based on the EU's forthcoming Common Agricultural Policy (CAP), as well as on growing consumer preferences and the opinion of human health professionals, in the future, there will be a greater emphasis on the responsible use of antibiotics in the poultry sector, also in Hungary. In poultry, the most common multidrug resistant bacteria are Salmonella, Campylobacter and E. coli. But beside these resistant bacteria, future AI outbreaks will continue to pose a major challenge in respect of maintaining the animal health status. On the one hand, consumers demand safe food, while on the other, intensive livestock farmers struggle to improve animal welfare and veterinary practices, amidst the expected global spreading of new animal diseases in the future. The extra costs of hygiene measures, and of frequent sampling, testing, and vaccinating, substantially increase the financial burdens of poultry farmers.

The University of Veterinary Medicine in Budapest is well-known in Europe. Around two-third of its students come from abroad, and most of the graduating veterinarians specialize in pets, or leave the country. The lack of farm veterinarians is a growing problem in agriculture.

As of 2013, each farm with above a certain number of livestock⁴ shall employ a designated person responsible for animal welfare. These animal welfare officers participate in animal welfare and veterinary trainings.

5.1.1. Avian Influenza

Highly pathogenic AI (bird flu) epidemics occurred several times in Hungary (2005, 2017 and 2020) and mainly affected free-range ducks and geese. AI had a serious impact on exports. Over January-

³ Horne, P.L.M. van, 2018. Competitiveness of the EU poultry meat sector, base year 2017; International comparison of production costs. Wageningen, Wageningen Economic Research Report 2018-116. 40 pp.; 14 fig.; 16 tab.; 19 ref.

⁴ According 32/1999 rules for the protection of animals kept for farming purposes. (III. 31.) of the Ministry of Agriculture: 500 chickens, 30 horses, 50 cattle, 100 pigs, 350 layers, 200 sheep

March 2020, infection was detected in 269 poultry flocks in the country, and more than 5 million birds had to be slaughtered. The last territorial restriction introduced due to AI was lifted by the veterinary authority 10 July 2020. According to the World Organization for Animal Health (OIE), the whole territory of Hungary was declared free of AI 8 September 2020. The Hungarian Chief Veterinarian ordered that feeding, watering, and storing of all poultry should continue indoors in 2020.

5.1.2. Salmonella Control Programme

To fight against zoonotic diseases, including Salmonella, the EU launched an extended control programme in 2007. Between 2007 and 2014, the EU financed 50 percent of the costs of Salmonella control programmes. Since 2015, if certain conditions are met by a Member State, it can apply for 75 percent co-financing. This is applicable for measures such as controls and testing, compensation for animals being slaughtered or culled after testing positive, and for products destroyed, vaccines, cleaning and disinfection of the holding areas and equipment.

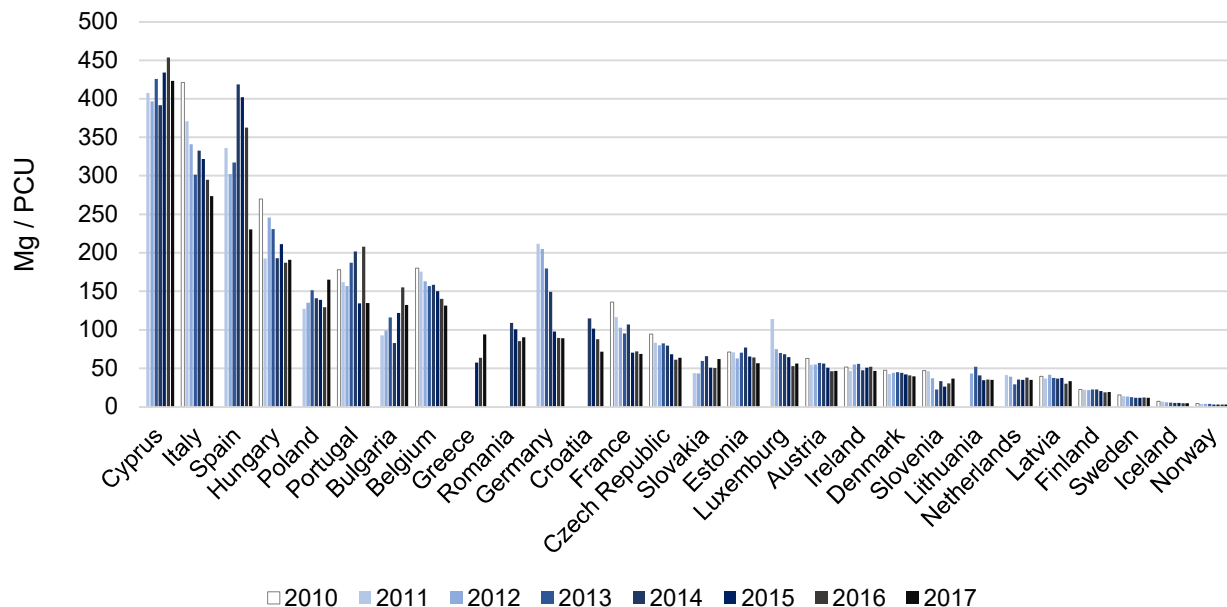
The cost-effectiveness of this programme has not been examined at EU level, but a recent analysis found the Salmonella Control Programme to be cost effective in Hungary⁵. The aim of this programme is to keep the number of infections below 1 percent in breeding flocks, broiler chickens, breeding turkeys and fattening turkeys, and below 2 percent in laying flocks. Hungarian data show a decreasing incidence of Salmonella Enteritidis and Typhimurium in flocks and human infections. In total, 4,722 cases were reported in 2016, with 1,745 hospitalizations and 12 deaths, compared to 5,953 infections in 2010, with 2,168 hospitalizations and 9 deaths. Preventing illness and deaths justifies the programme costs. The results of the analysis indicated that the Salmonella Control Programme in Hungary prevented more than 700 thousand illnesses, at least 5,416 hospitalizations, and 29 fatal cases over the period 2007-2017, at a public cost of EUR 97.2 million, including EU co-funding.

5.1.3. Antibiotics use

For the time being, data on the use of antibiotics are reported to the European Medicines Agency in an aggregated form, broken down by active substance and not by animal species. Sectoral data are thus currently not available – it is likely that most medicines are used by pig and poultry farmers, as the share of these two sectors in Hungarian livestock farming is higher than the EU average (Figure 15). For broiler farming, which dominates the poultry sector, the use of antibiotics can often be reduced by more thorough disinfection and strict disease control measures. Hygiene considerations are the most critical, so in intensive livestock production, farmers have been paying careful attention to disinfection and disease control, and the minimization of stress factors during the whole production period.

⁵ Erika O. *et al.*: Retrospective cost-utility analysis of the Non-typhoidal Salmonella control programme in Hungary, In: Food Control, Volume 120, 2021, 107529, ISSN 0956-7135, (<http://www.sciencedirect.com/science/article/pii/S095671352030445X>)

Figure 15: **Sales of veterinary antimicrobials in mg/PCU for food-producing species in European countries, 2010-2017**



Source: ESVAC (2020)

Two new regulations in the EU will also support the responsible use of antibiotics in the future, Regulation (EU) 2019/4 on the placing on the market and use of medicated feed, and Regulation (EU) 2019/6 on veterinary medicinal products, both expected come into effect from 28 January 2022.

5.2. Animal welfare

Welfare issues associated with poultry farming are of increasing legal, financial, and social reputation risk relevance. Keepers of poultry are responsible for ensuring that the welfare needs of their animals are met.

There are EU legal requirements and minimum welfare standards in place for poultry together with national requirements and codes of practice within many jurisdictions. In Hungary, a non-refundable subsidy can be applied for by poultry farmers to compensate for animal welfare commitments that go beyond EU standards, under the following headings:

- ensuring the absence of undesirable materials in the feed
- use of fishmeal free feed
- protection from pain, suffering during transport
- protection from injury during transport
- provision of fresh water of drinking water quality.

5.3. Environmental protection

In Hungary, poultry farmers strive to comply with EU food safety, environmental, animal health and animal welfare standards, but at the same time, they face notably less societal pressure than farmers in the western and north-western Member States of the EU. Poultry farmers will, in the future, burden additional costs associated with the non-productive investments required for compliance in the

future. Expectations concerning environmental protection and animal welfare often require opposite measures, confusing farmers about the directions for development. Non-professional animal welfare requirements could run counter to climate goals and unfavourably impact on production efficiency and competitiveness.

Table 3: Specific CO₂ emissions, water demand and forage growing area per 1 kg of egg produced in different types of housing systems

Housing system	CO₂ equivalent (kg)	Water demand (m³)	Forage growing area (m²)
Cage (conventional)	2.7	3.3	5.7
Enriched cages	2.8	3.5	6.1
Aviary, multi-storey	2.9	3.6	6.2
Aviary, single storey	3.1	3.7	6.5
Free-range	3.4	4.0	7.0

Source: Bessei (2011)⁶

Research clearly shows that the concentration of CO₂ and ammonia in the air is much higher in aviary-type and litter-laying than in conventional caged housing (Table 3), with air and dust contamination being also higher.

EU regulations on poultry welfare have led to a decrease in the level of barn occupancy by setting the maximum poultry weight per square metre of barn. Council Directive 1999/74/EC (laying down minimum standards for the protection of laying hens) required the enlargement and replacement of poultry cages. Instead of 500 cm², as of 1 January 2012, at least 750 cm² of living space shall be provided per hen, and perches shall be placed in each cage. In Hungary, these changes cost on average HUF 5,000 (EUR 14, calculated with the current exchange rate) per hen. The production cost of eggs in new cages has ever since been 10 to 20 percent higher compared to that in old ones, in some cases – depending on the production system – it increased by 30 percent.

According to the Industrial Emissions Directive 2010/75/EU (Integrated Pollution Prevention and Control), poultry flocks above 40,000 heads require an IPPC permit. These farms receive authorization only when complying with the Best Available Techniques (BAT⁷) guidelines in all respect. These cover the buildings, the service facilities, and the manure storage systems of livestock farms, as well as the design of the road networks and rainwater drainage systems.

The share of the poultry sector in total ammonia emissions from livestock farming in Hungary was 28 percent in 2017, including ammonia emissions from the storage and application of manure. One of the major challenges faced by concentrated livestock farms is the storage and application of large quantities of manure.

Depending on the housing system, the following types of poultry manure are formed:

- wet manure (with 5 to 20 percent dry matter) for caged laying hens and ducks
- dry manure (with over 45 percent dry matter) for caged laying hens

⁶ Bessei, W. (2011): Probleme bei der Umstellung der Legehennenhaltung von konventioneller Käfighaltung auf alternative Systeme. Proceedings of the 10th International Conference on Poultry Production, Kaposvár, 2011. április 6. pp. 31-40

⁷ Germán G. S. *et al.*: Best Available Techniques (BAT) Reference Document for the Intensive Rearing of Poultry or Pigs; https://eippcb.jrc.ec.europa.eu/sites/default/files/2019-11/JRC107189_

- litter (with 50 to 80 percent dry matter) for laying hens, broilers, turkeys, ducks.

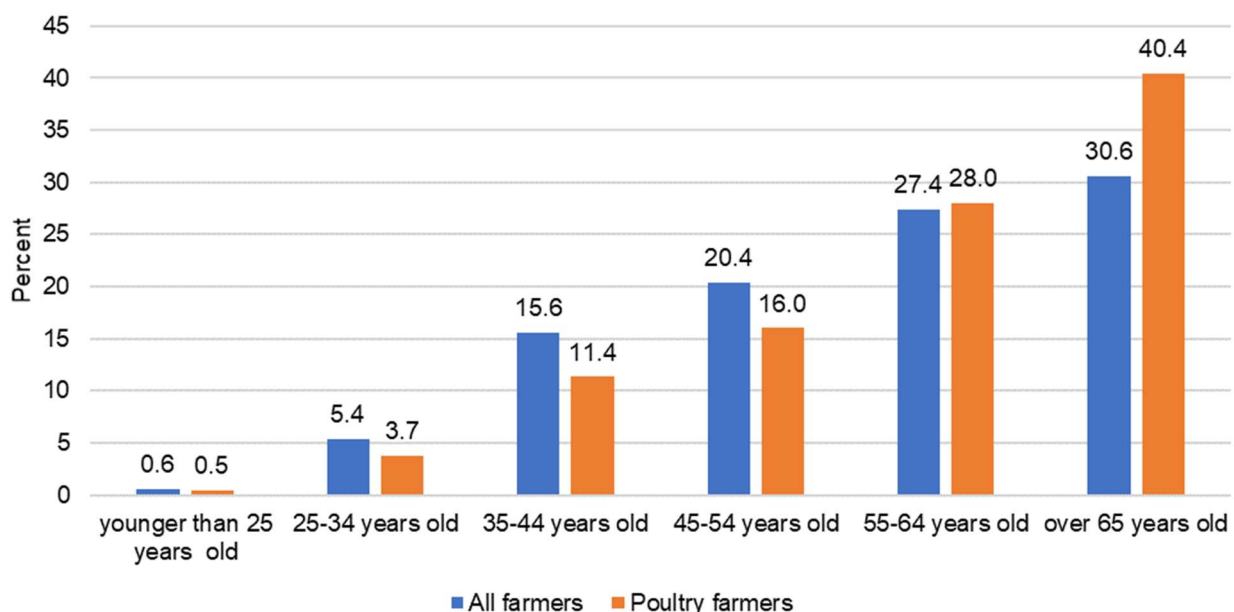
Government Decrees No. 49/2001 (IV.3.) on the protection of waters against pollution caused by nitrates from agricultural sources, and No. 219/2004 (VII. 21.) on the protection of groundwater, specify the technical requirements for the storage of manure, depending on the type of manure. Environmental regulations burden farmers with further addition costs, especially by restricting the location of manure stores.

6. Human capital

According to the latest Farm Structure Survey⁸ (FSS) data, in 2016, there were 56,360 specialized poultry farms in Hungary. Their number decreased by 13,830, or around 20 percent over the period 2013-2016. In contrast, the total number of all agricultural farms declined by 12 percent during the same period.

In line with the general situation in the EU, the proportion of elder people working in Hungarian agriculture is very high: 58 percent of the farmers were 55 years of age or over in 2016. The age structure of poultry farmers is less favourable, with 40 percent of them aged 65 years or more in 2016. The proportion of poultry farmers in the younger age groups is lower than the average. In 2016, those under 45 years of age represented just slightly more than 14 percent (Figure 16).

Figure 16: **Age structure of specialized poultry farmers versus all farmers in Hungary, 2016**

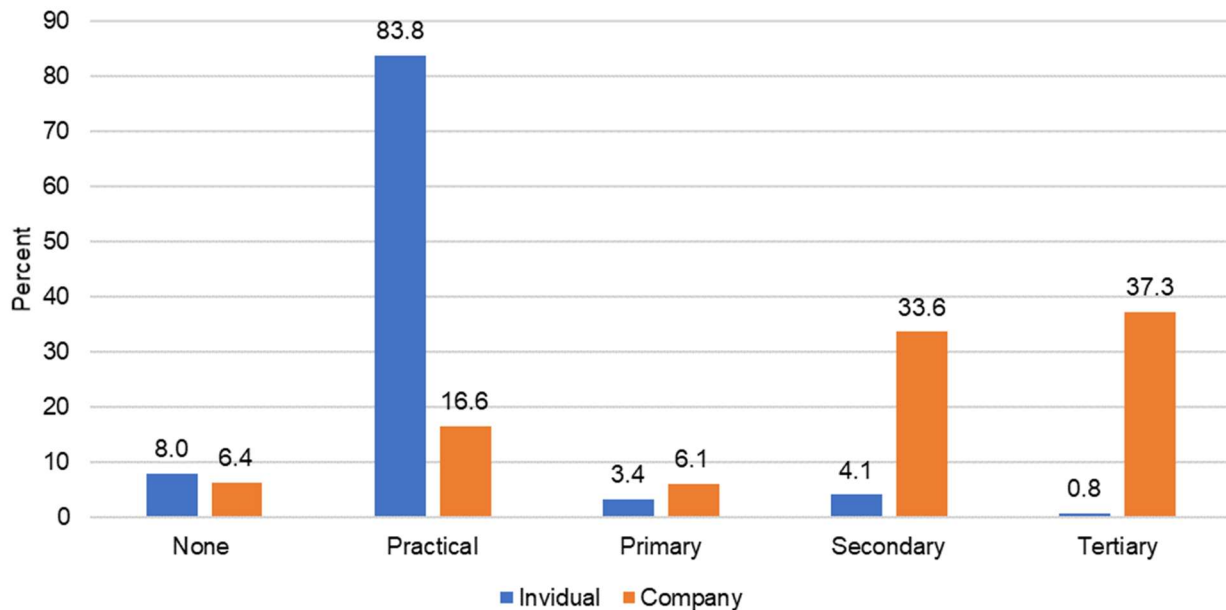


Source: HCSO, FSS

According to FSS data, around 84 percent of the managers of individual poultry farms had only practical experience in 2016, and 8 percent of them had no qualifications or practical experience at all. While only 0.8 percent of the managers of individual poultry farms had higher education, over 37 percent of the managers of legal entities engaged in poultry farming graduated from tertiary education, and around one-third of those had a high-school diploma (Figure 17).

⁸ Note that the next census is carried out in 2020, therefore no FSS data is available for the years after 2016.

Figure 17: **Distribution of farms specialized in poultry production according to the highest agricultural qualification or experience of the farm manager, 2016**



Source: HCSO, FSS

The lack of professional knowledge has an influence on production efficiency, and this is a clear competitive disadvantage of the Hungarian poultry sector. Agricultural higher education in the country is currently not capable to emit agricultural specialists with state-of-the-art knowledge and skills. Therefore, the largest market players provide vocational trainings and offer employment opportunities for those successfully completing the courses. The practical and theoretical trainings are combined for semi-skilled workers to high-level farm executives.

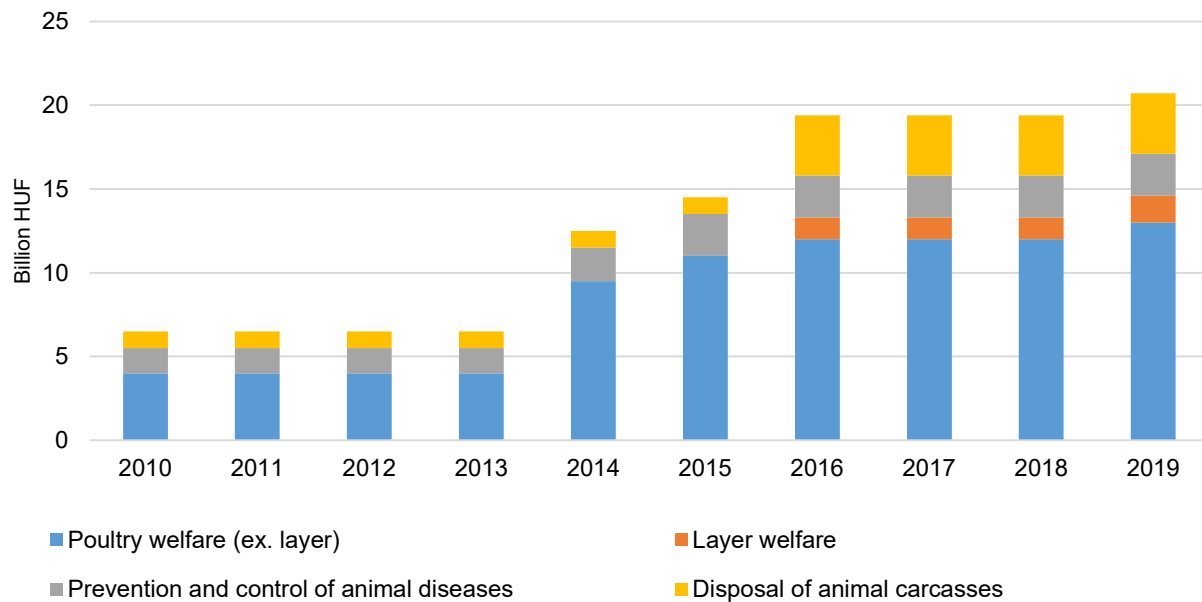
7. Subsidies

7.1. National aids

Under the EU's Common Agricultural Policy (CAP) legislation, the poultry sector is exempt from CAP direct support. In terms of agricultural land use by poultry farms in Hungary, only a fraction of the area-based EU direct payments reaches the sector. Poultry farmers, just like pig farmers, are granted direct subsidies mainly to compensate for the extra costs of animal welfare improvements beyond EU requirements, financed entirely from the national budget. In addition, poultry farmers can apply for support for the prevention and control of animal diseases, i.e. for the monitoring of certain animal diseases, and for the prevention of certain zoonoses via subsidized veterinary services; as well as for the disposal of dead animals.

In 2019, HUF 13.2 billion was granted to poultry farmers in the form of animal welfare subsidies, with an additional HUF 1.6 billion granted to producers of table eggs, and to breeders (Figure 18).

Figure 18: **National subsidies for the poultry sector in Hungary, 2010-2019**



Source: HST

7.2. Support from EU funds

For the 2014-2020 RD programming period, based on the medium-term priorities and in consistency with the thematic objectives of the EU, and with the objectives of the Europe 2020 Strategy, Hungary has set economic growth as the overarching national development goal, resulting from sustainable, higher value-adding production, and employment expansion. To improve efficiency in the poultry sector, the modernization of poultry farms (RD measure M04: Investments), as part of the national development programme, has been launched.

- Under the measure VP2-4.1.1.2-16 (modernization of poultry farms), a total support of HUF 28.9 billion was granted to 220 applicants, with a total production capacity of around 40 million birds a year, until the end of 2018, of which 33 applicants were young farmers.
- Under the measure VP 6.1.1 (aid for young farmers), a total of support of HUF 856 million was granted to 69 young poultry farmers.

According to the decision of the European Commission, the EU's financial contribution (from the EAGF Market Support budget) to the control of salmonellosis in Hungary, in the framework of the co-financed support programme for the eradication and control of certain animal diseases and zoonoses, was EUR 2.995 million in 2018. The amount available with the national co-financing totalled EUR 3.993 million.

8. External financing

Outstanding loans in the Hungarian agri-food sector totalled HUF 1,273 billion in 2019. Of this, HUF 203 billion were accounted for by the livestock sectors, with HUF 60 billion held by poultry farmers. Outstanding loans in poultry meat processing and preservation totalled HUF 42.5 billion, held mainly by legal entities (Table 4).

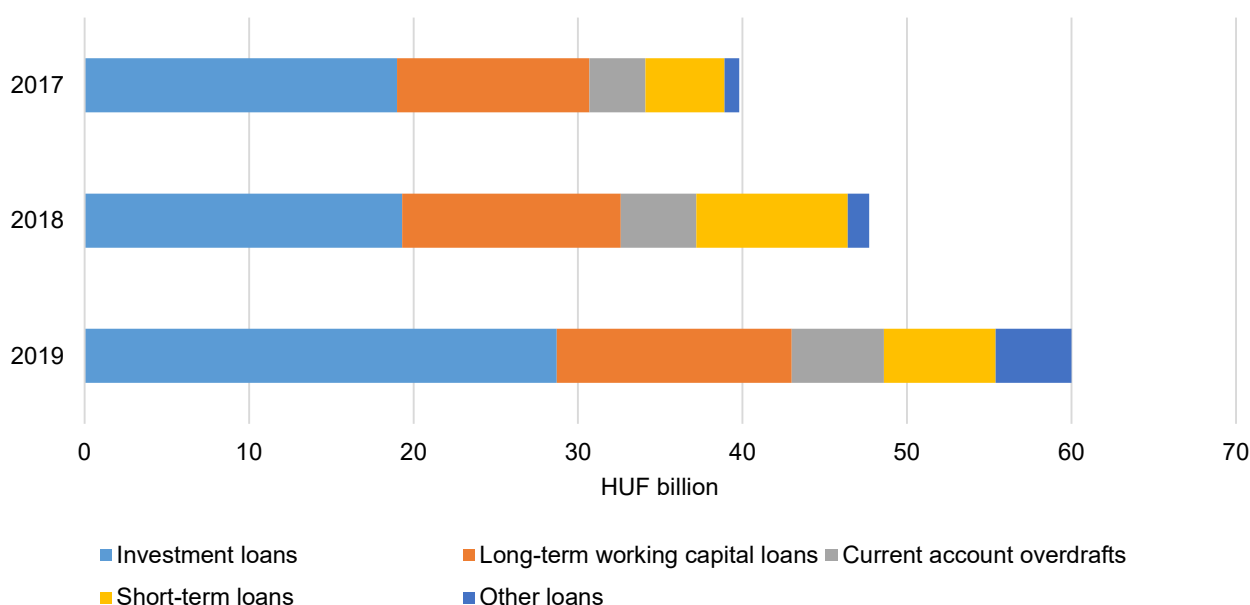
Table 4: Outstanding loans in the Hungarian agri-food sector and livestock farming, 2019

	billion HUF		
	Individuals	Legal entities	Total
Total of the agri-food sector	354.5	919.3	1273.8
Total of food industry	5.6	539.3	544.9
Meat processing, preservation	0.74	62.3	63.1
Poultry meat processing, preservation	0.14	42.4	42.5
Meat and poultry meat products	0.03	6.9	6.9
Total of agricultural production	348.9	380	728.9
Livestock farming	53.7	149.3	203
Poultry	14.3	45.8	60.1
Pigs	10.6	42.8	53.4
Cattle	18	54.2	72.2

Source: Ministry of Agriculture

Over the period 2017-2019, investment loans (around 44 percent) and long-term loans (around 26 percent) accounted for the largest share in poultry farming, while current account overdrafts and short-term loans combined averaged 14 percent. Other loans represent less than 5 percent of the loan portfolio of the poultry sector (Figure 19).

Figure 19: Outstanding loans in the poultry sector, by type of loan, 2017-2019



Source: Ministry of Agriculture

In recent years, the following loan programs have been offered to agri-food businesses in Hungary which the poultry sector also benefitted from:

- the Agricultural Soft Loan Programme by the Hungarian Development Bank (HDB), with a total budget of HUF 179 billion

- the “Funding for Growth Scheme” (FGS) by the Hungarian National Bank (HNB), launched in September 2013, with a total budget of HUF 750 billion
- the FGS+ by the HNB, launched in March 2015, with a total budget of HUF 500 billion
- the “Funding for Growth Programme” (FGP) by the HNB, launched in January 2016, with a total budget of HUF 450 billion
- the FGP Fix by the HNB, launched in January 2019, with a total budget of HUF 1,000 billion.

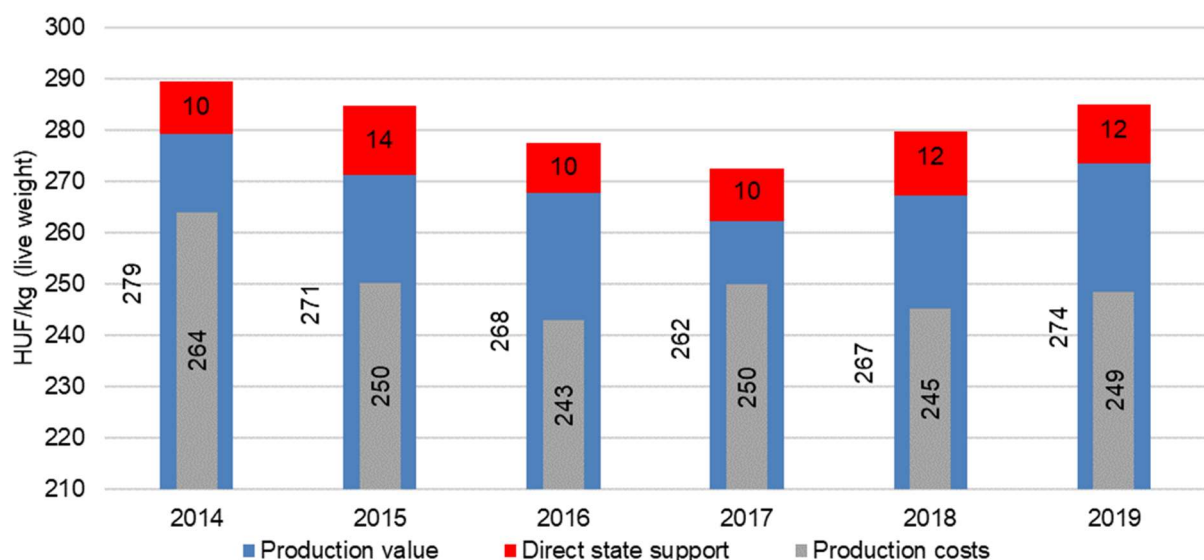
In addition, HUF 29 billion have been made available in the form of working capital loans, targeted, *inter alii*, at

- the improvement of the competitiveness of agricultural production, especially of livestock farming, and
- the improvement of the competitiveness of the food industry.

9. Production costs and incomes

According to FADN data, chicken fattening was profitable in every year over the period 2014-2019, even without direct subsidies. The production value per kilogram of live weight, with national direct subsidies not considered, exceeded production costs by 5 percent in 2019. The share of direct subsidies in the value of production remained relatively stable, averaging at around 4 percent during the six-year period (Figure 20; Annex 7). Production costs decrease in parallel with the increase in farm size, therefore, economies of scale are key to the competitiveness of chicken fattening.

Figure 20: **Production costs and incomes of chicken fattening in Hungary, 2014-2018**



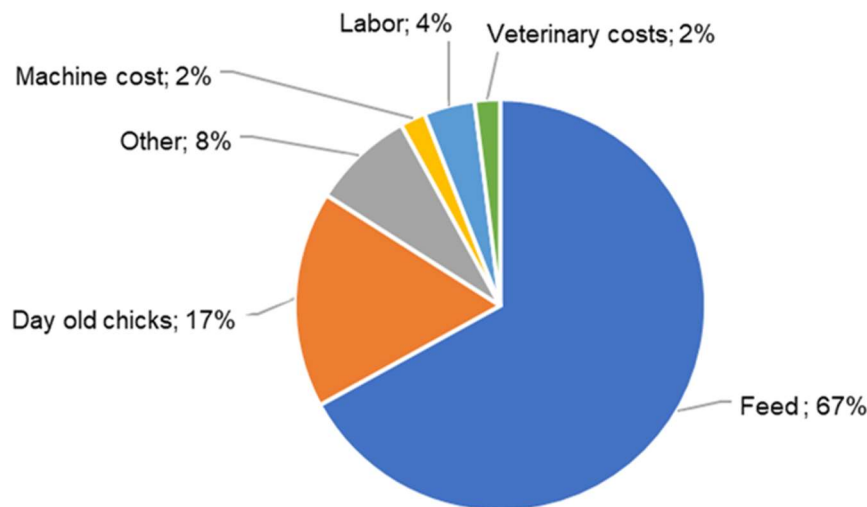
Source: FADN (sector-specific data)

With an average of around 67 percent over the period 2014-2019, feed costs represented the largest share in the total costs of chicken fattening (Figure 21), followed by the depreciation of breeding animals (17 percent), labour costs (4 percent), veterinary costs (2 percent), and machinery costs (2 percent) (Annex 7).

While feed grain prices are relatively low compared to western European Member States, the share of feed costs in total production costs is high, indicating a weakness in the natural efficiency of chicken farming in Hungary.

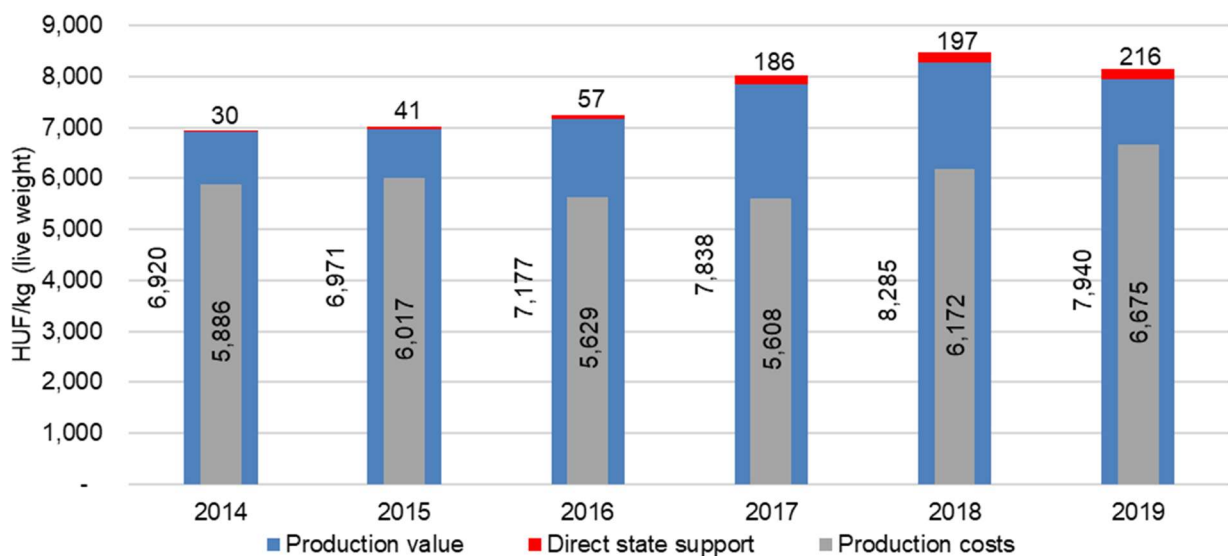
Chicken fattening is characterized by frequent peaks in labour use (e.g. for vaccination, loading for transport, etc.) which makes it increasingly difficult to retain workforce. However, being perhaps the best-mechanized of all livestock sectors, innovation and technological development are expected to further improve labour efficiency in poultry production, as well as in processing, already in the short-term.

Figure 21: Cost structure of chicken fattening in Hungary, 2014-2018



Source: FADN (sector-specific data)

Figure 22: Production costs and incomes of table eggs production in Hungary, 2014-2018

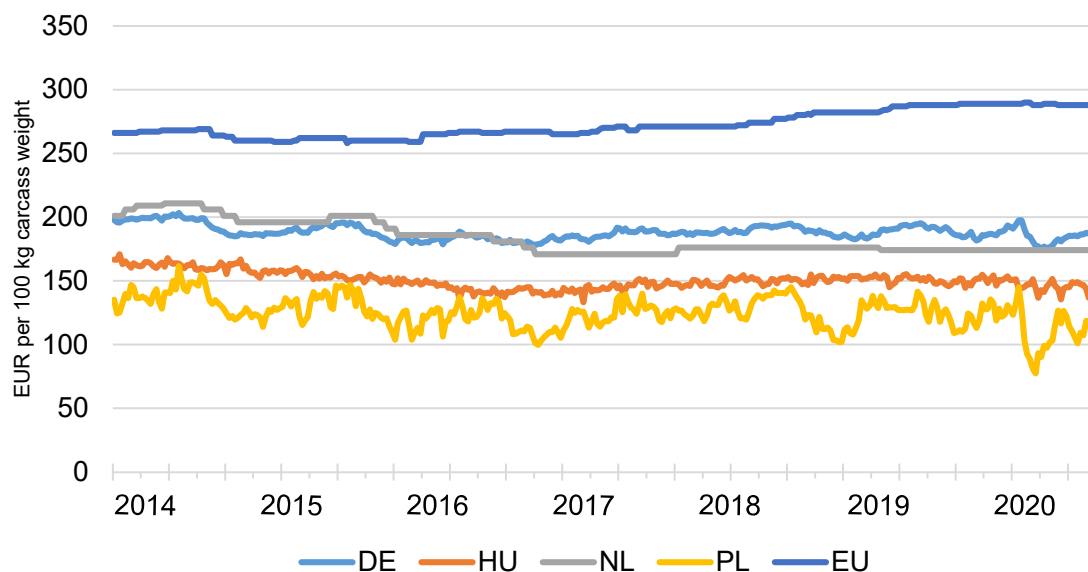


Source: FADN (sector-specific data)

Just like the fattening of chicken, the production of table eggs was profitable in every year over the period 2014-2019 too, even without direct subsidies. But in contrast to fattening, the share of direct subsidies in the value of egg production kept increasing during the six-year period (Figure 22, Annex 8).

The price of chicken meat in Hungary was 20 percent lower than the EU average (EUR 185 per kilogram carcass weight) over the period January-September 2020. In Poland, broiler prices tend to be even lower than in Hungary, signalling very strong competitiveness (Figure 23). According to European Commission data, the price of 'grillfertig' (65 percent) chicken was the lowest in Poland among the EU Member States in the past few years, followed by Hungary, Bulgaria, Romania and Portugal, while it was the highest in Finland and Germany (Annex 1).

Figure 23: Broiler prices in selected EU Member States, from Jan 2014 to Sep 2020



Note: Commission Implementing Regulation (EU) 2017/1185

Source: EU Commission

Total production costs in the poultry value chain increased significantly with the introduction of the E-toll for the use of the public road network⁹. The E-toll must be paid after each transport using certain sections of the public road network, i.e. when moving eggs to the hatcheries, day-old chicken to fattening farms, finished birds to slaughterhouses, meat to processing plants, and feed to the farms. When cold stores are full, and stocks of products need to be transferred to other cold stores, the E-toll must be paid again.

10. Land use

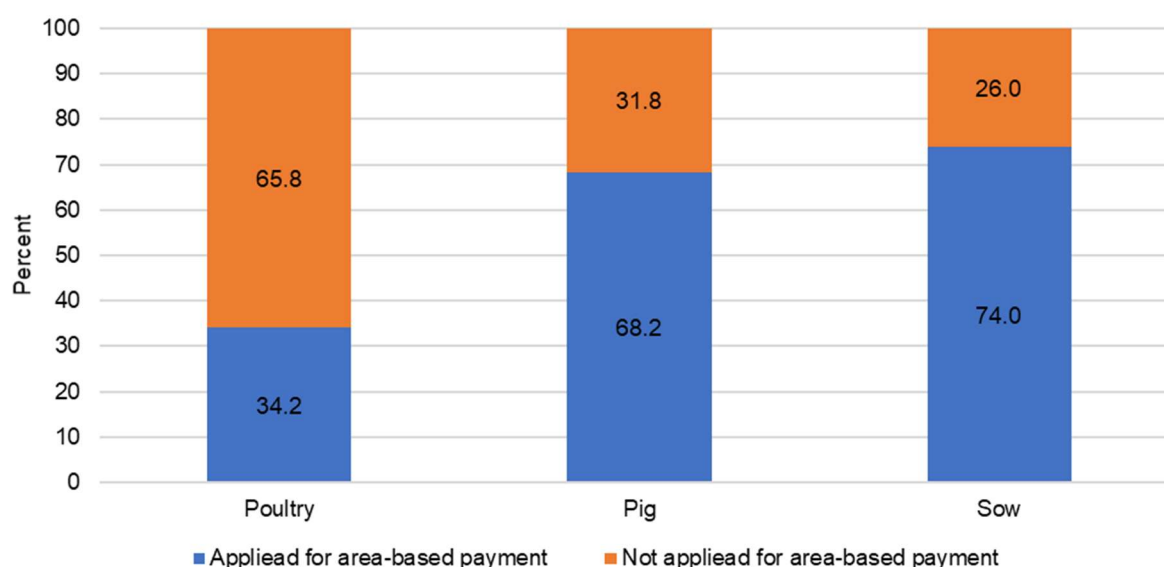
The regulation in Hungary on agricultural land ownership and transfer is restrictive. It imposes a ban on the acquisition of agricultural land by legal entities and an obligation on the buyer of agricultural land to farm it by him/herself. In Hungary, the purchase of agricultural land by family farms and young farmers are preferred, and therefore registered farmers have a pre-emption right for the acquisition

⁹ As of 1 July 2013, the electronic, distance-based toll system was introduced on a total of 7,000 km designated road sections of the Hungarian public road network, including motorways, highways, and main routes.

of agricultural land. The aim of the legislator with the Act on Land transactions (No. 122 of 2013 on the transaction of agricultural and forestry land, effective from 1 May 2014) was to strengthen small and medium-size family farms, to consolidate the properties by the provision of pre-emption rights, to limit speculative land purchases, as well as to assist the transformation and development of the rural economy with the involvement of local communities. In Hungary, land prices are still low compared to the EU-15: e.g. arable land sales prices averaged EUR 4,662 thousand a hectare in 2018.

The European Commission initiated an infringement procedure against Hungary in 2015 (still ongoing), as per the constraints concerning the access of investors to agricultural land. In the Commission's view, some of the provisions contain restrictions which may leave room for discrimination against investors from other Member States.

Figure 24: Share of monogastric livestock farmers applying for area-based direct payments in Hungary, 2018

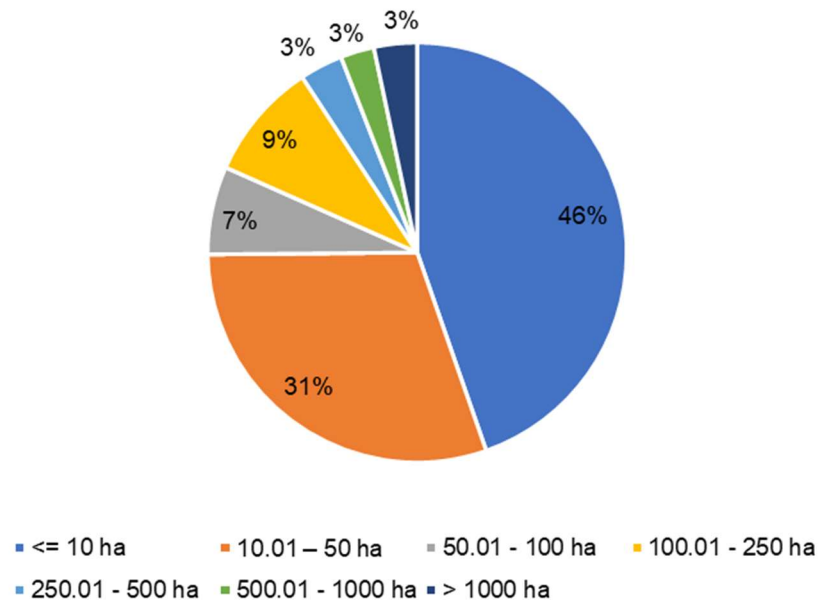


Source: HST

Owing to the intensive production technology, and to their strong integrity, most of the poultry farmers in Hungary are not engaged in land-based agricultural activities. Excluding backyard poultry keepers, around 34 percent of the poultry farmers applied for area-based direct payments in 2018. Looking at the shares, this is approximately the half of those engaged in pig farming (Figure 24).

Only around 98 thousand hectares of the 4.95 million hectares total agricultural area eligible for the single area payment can be directly linked to poultry farming in Hungary. Almost half of the poultry farmers use less than 10 hectares of agricultural area (Figure 25).

Figure 25: **Poultry farmers by size category of utilized agricultural area, 2018**



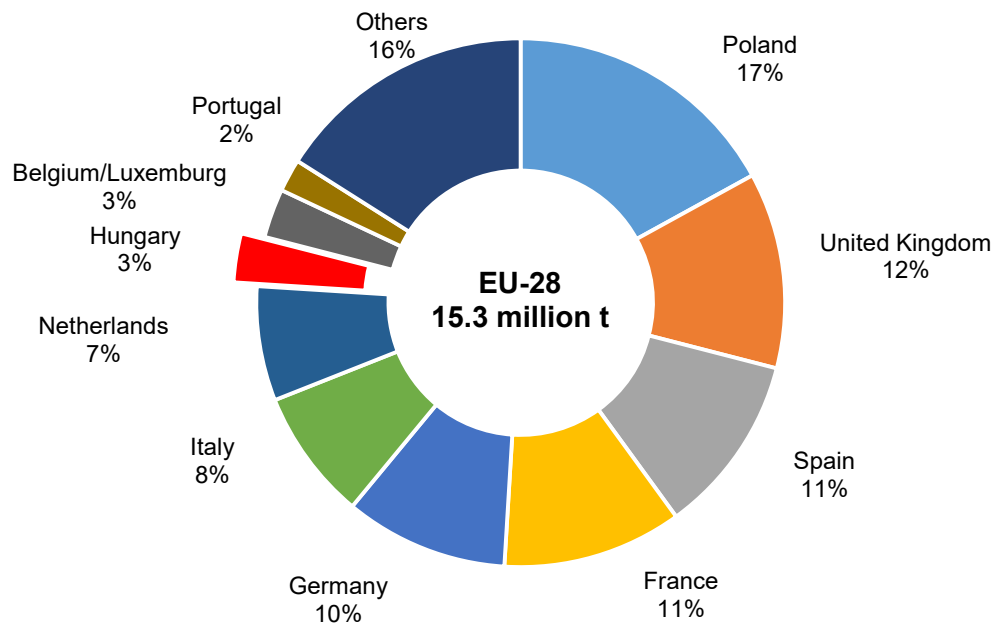
Source: HST

11. Slaughtering and processing

Since accession to the EU, the Hungarian poultry industry has undergone a structural change, partially driven by the strengthening of interrelations between poultry production, slaughtering and processing. Larger processing enterprises have been able to survive and to grow by taking the positions of their smaller competitors over, which were financially more vulnerable to market shocks and could invest less. Although the production of poultry for slaughter is still relatively fragmented, slaughtering and processing are highly concentrated in Hungary. As the latest data from the Hungarian Poultry Product Council (HPPC) shows, there are 45 slaughterhouses for chicken, 9 for turkeys, 11 for waterfowls and 1 for layers in the country.

According to Eurostat data, the EU (28 Member States) produced 15.3 million tonnes of poultry meat in 2019, with Hungary having a 3 percent share. Thus, Hungary ranked as the eighth largest poultry meat producer Member State (Figure 26).

Figure 26: **Poultry meat production in the EU, 2019**

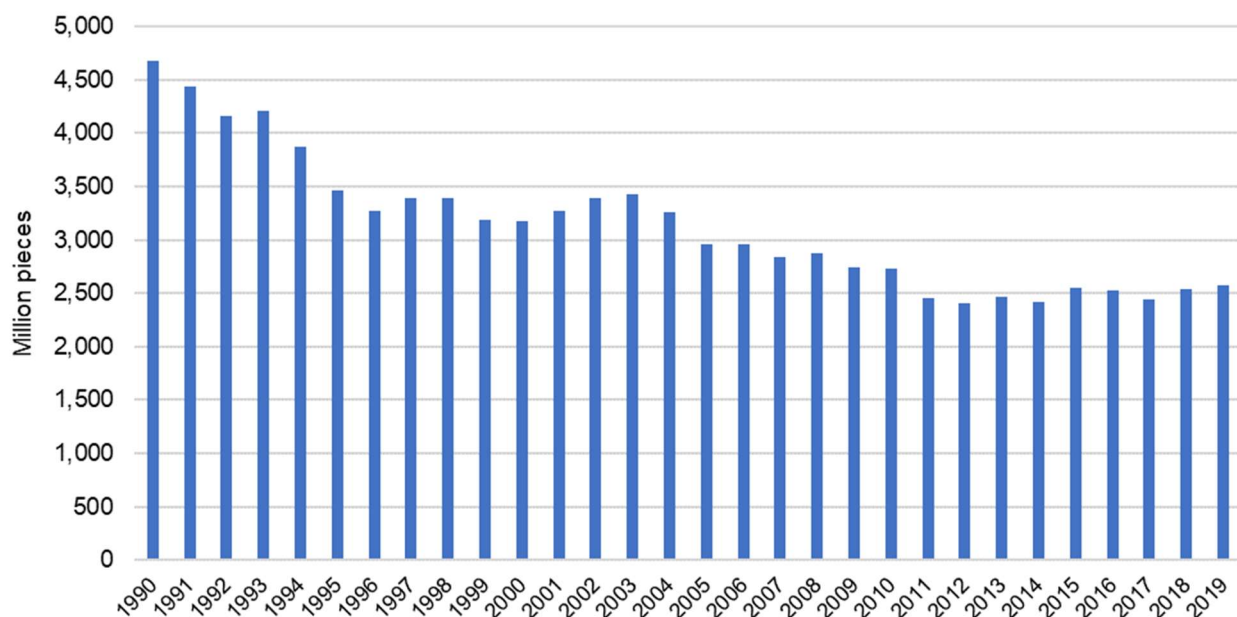


Source: Eurostat

The poultry sector significantly contributes to the national economy of Hungary, in both terms of exports and rural employment. The output value of the sector (production of eggs included) totalled HUF 361 billion in 2018, representing a share of over 13 percent in total agricultural output.

Although the production of table eggs increased by 7 percent over the period 2014-2019, in the long term, since the political and economic transition, it has been showing a dramatic decline (Figure 27). As a result of the overproduction of eggs in Europe, the market share of (relatively cheap) imported eggs (often sourced through illegal channels) in Hungary increased, resulting in an accumulation of surplus at domestic producers and a decrease in the production of pullets.

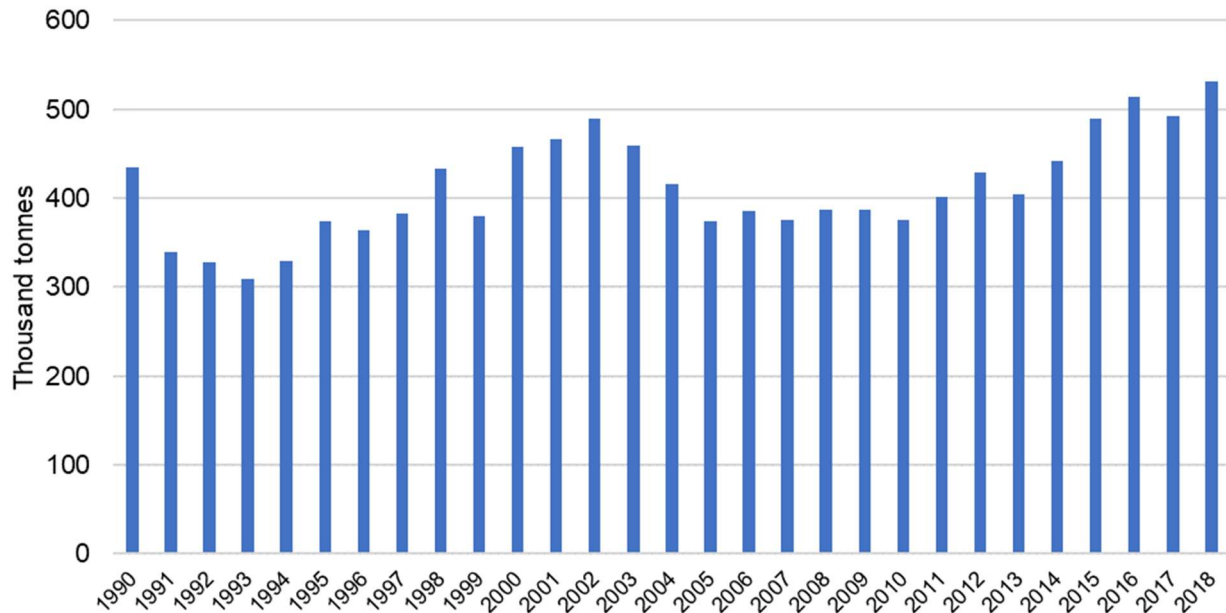
Figure 27: **Production of table eggs in Hungary, 1990-2019**



Source: HCSO

In 2018, poultry meat production in Hungary totalled 532 thousand tonnes, exceeding by almost 24 percent the average of the decade before (Figure 28).

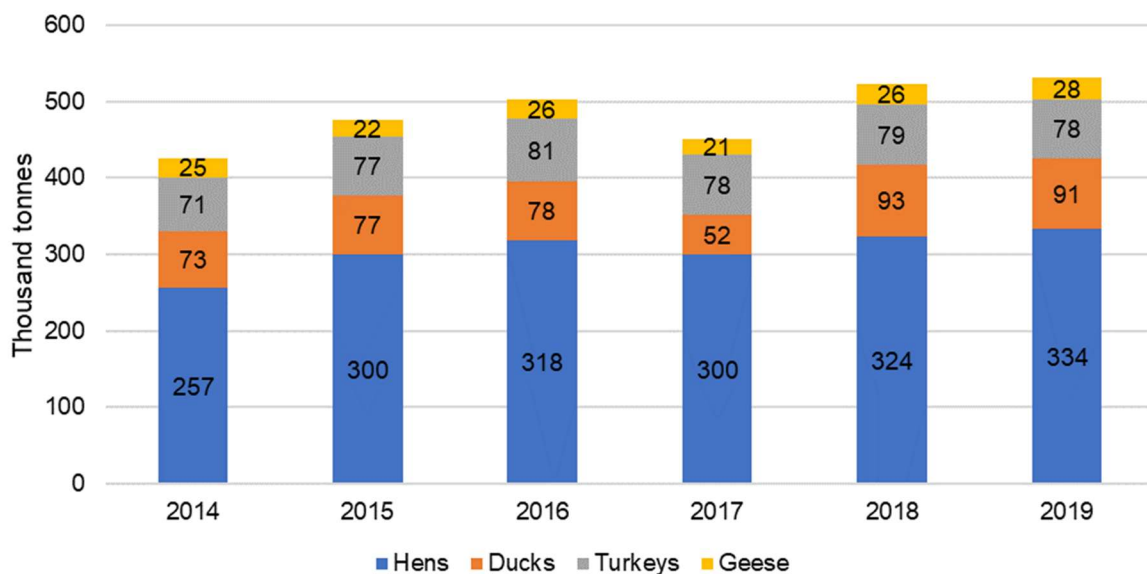
Figure 28: Production of poultry meat in Hungary, 1990-2018



Source: HCSO

In Hungary, the volume of poultry production, slaughtering and processing has been increasing year by year. In 2019, a total of 220 million birds (700 thousand tonnes expressed in live weight, or 531 thousand tonnes expressed in carcass weight) were slaughtered at slaughterhouses, 14 percent more than in 2018. Of this, broilers represented, in carcass weight, around 62 percent, ducks 17 percent, turkeys 15 percent, and geese 5 percent (Figure 29).

Figure 29: Meat production by poultry species in Hungary, 2014-2019

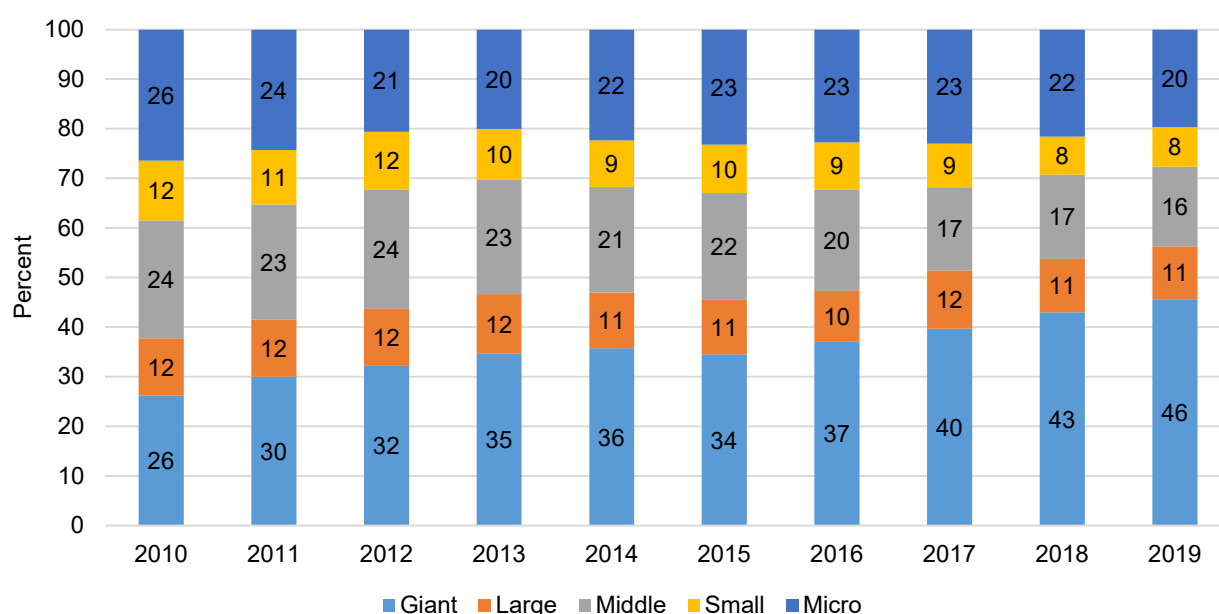


Source: AKI Department of Agricultural Statistics

The largest poultry slaughterhouses in Hungary include, strictly in alphabetic order, B t-Grill Baromfifeldolgoz  Kft., Gallfood Kft., Gallicoop Zrt., Her-Csi-H s Kft., Hunent V zisz rnyas Feldolgoz  Zrt., Hungerit Zrt., Master Good Kft., Mizse Sz rnyas Kft., Taravis Kft., Tranzit-Ker Zrt., and Varga Sz rnyas Kft.

In poultry slaughtering, a continuous concentration has been evident over the past decade (Figure 30). The Top 3 poultry slaughterhouses had a 26 percent combined market share in 2010, which increased to 46 percent by 2019.

Figure 30: Distribution of poultry slaughterhouses by market share in Hungary, 2010-2019



Source: AKI Department of Agricultural Statistics

As the data in Table 5 shows, the concentration process, referred to above, was mainly driven by broiler slaughtering.

Table 5: Concentration in poultry slaughtering by species in Hungary, 2011 versus 2019

	Broilers		Ducks		Turkeys		Geese	
	2010	2019	2011*	2019	2010	2019	2011*	2019
TOP 3	33%	56%	72%	74%	83%	73%	63%	59%
TOP 5	48%	69%	88%	82%	92%	87%	89%	78%
TOP 10	69%	84%	100%	96%	100%	100%	100%	100%

* No data available for 2010.

Source: AKI Department of Agricultural Statistics

According to AVEC data, over the period 2014-2018, the rate of self-sufficiency in poultry meat varied between 140 (2016) and 130 percent (2018), signalling the strong export-orientation of the Hungarian poultry sector (Table 6).

Table 6: Rate of self-sufficiency in poultry meat in selected EU Member States, 2014-2018

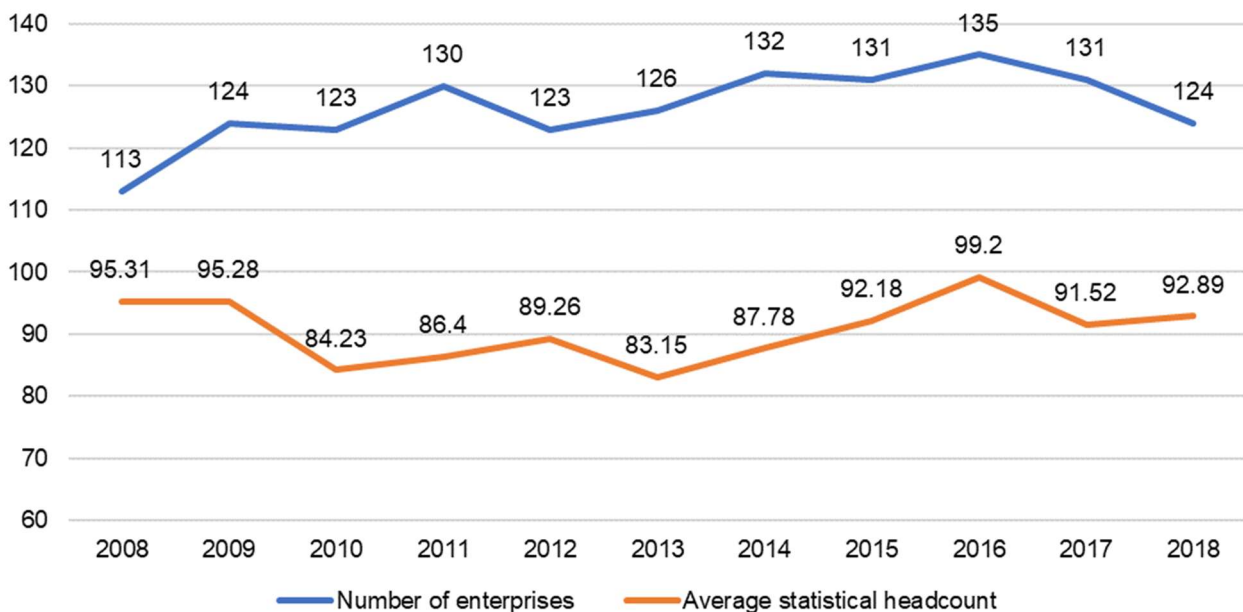
	percent				
	2014	2015	2016	2017	2018
Austria	70	67	68	71	72
Czech	72	72	69	68	67
Finland	105	103	97	95	98
France	107	105	104	99	96
Germany	110	112	106	105	99
Greece	78	79	75	75	76
Hungary	137	139	140	127	130
Ireland	100	99	89	93	91
Italy	107	107	109	108	107
Latvia	62	64	64	70	-
Lithuania	112	115	112	115	11
Netherlands	194	196	188	186	-
Poland	178	189	219	240	255
Slovakia	72	75	73	70	-
Spain	101	105	105	102	105
Sweden	96	98	103	105	-
United Kingdom	97	98	93	95	96
EU	104	104	105	105	106

Source: AVEC Yearly production report (2019)

Primary processing plants are located relatively densely in certain geographical areas of the country, especially in the Southern Great Plain (NUTS2) region, and in Jász-Nagykun-Szolnok (NUTS3) county. Plants specialised in a single poultry are relatively rare, most of them process more species. Most of the slaughterhouses were built and equipped for broiler chicken.

The poultry meat processing and canning industry accounted for around 10 percent in both export revenues, and the number of employees in the whole food processing industry. Based on the latest data of the National Tax and Customs Administration (NTCA) of Hungary, there were 124 legal entities classified as poultry meat processing and canning enterprises in 2018, with almost 93 full-time employees on average (Figure 31).

Figure 31: Number of enterprises and employees in the poultry meat processing and canning industry in Hungary, 2008-2018



Source: NTCA

Several of the processing plants carry out daily nutritional and organoleptic tests on their products in their own laboratories, according to the regulations in effect, and to consumer requirements. In addition, product samples are regularly analysed in accredited laboratories. Compliance with ISO and HACCP standards is essential to meet the needs of both foreign and domestic customers.

Western European markets demand quality assurance certificates which are a prerequisite for exports. The export-orientation of the Hungarian poultry sector has forced most of the coordinators and integrators to have these certificates which, on the other hand, help them in strengthening the vertical organization of the product chains, and in guaranteeing food safety. Two of the most common certificates are the IFS Food Standard (Association of German Retailers) and the BRC Global Standards (British Retailer Consortium), but further special quality assurance certificates are also required, for instance for shipments to Switzerland. As poultry meat can easily be integrated into the gastronomy of any nation, an increasing number of Hungarian poultry processors introduced special religious standards (halal, kosher), which are both important in respect of the access to markets in the East, and of the growing number of religious minorities in western Europe. These certificates increase production costs, but the extra costs are enforceable in the price of these special products.

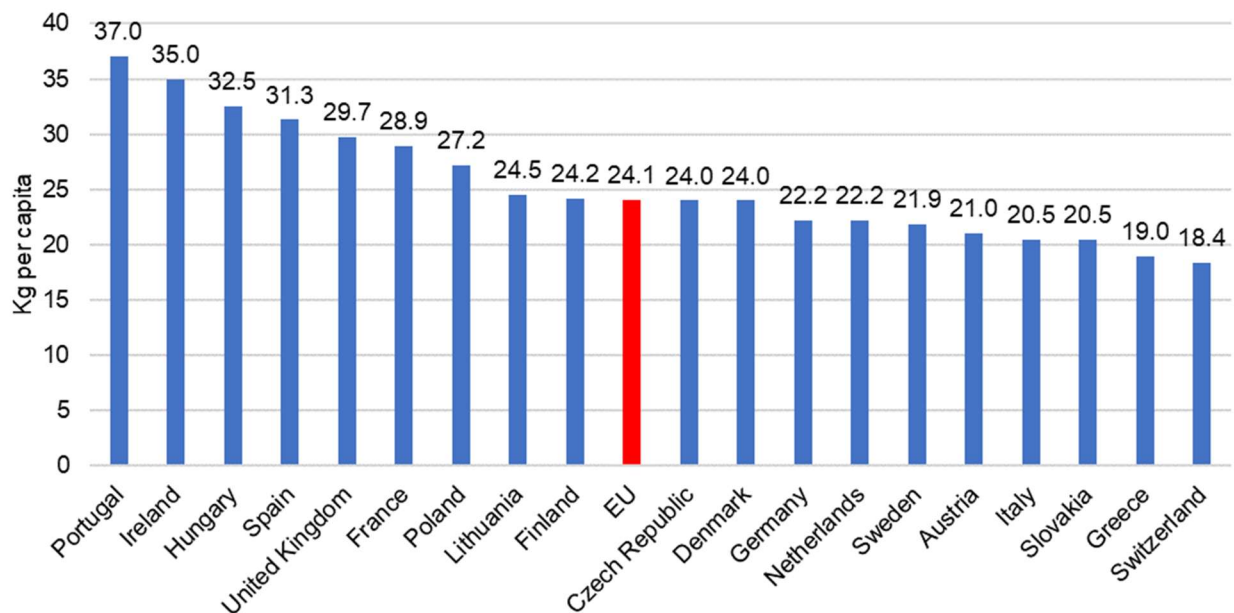
12. Consumption

For the overwhelming majority of Hungarian consumers, price is still the most important factor when making food purchase decisions; notwithstanding, there is an emerging group of consumers paying increasing attention to the origin and quality of products. As in western European countries, the consumption of healthy and convenience products has been rising in Hungary too. In the case of poultry, there had been a growing demand for high value-added products and tasty 'farmyard' chicken meat, as well as for pre-fried/prepared convenience poultry meals. However, the increase in the price of chicken meat before the COVID-19 pandemic, explained by the global meat market

situation and growing EU meat exports, led to fears of a decline in domestic consumption because buying meat and meat products had already become financially challenging for some Hungarian households. As it appears now, the post-COVID-19 economic situation will favour cheap protein sources, and the slowdown of EU poultry meat exports may also help consumption of poultry meat to rise again in 2021.

According to AVEC data, in 2018, the per capita consumption of poultry meat in Hungary was 37 percent higher than the EU average (Figure 32).

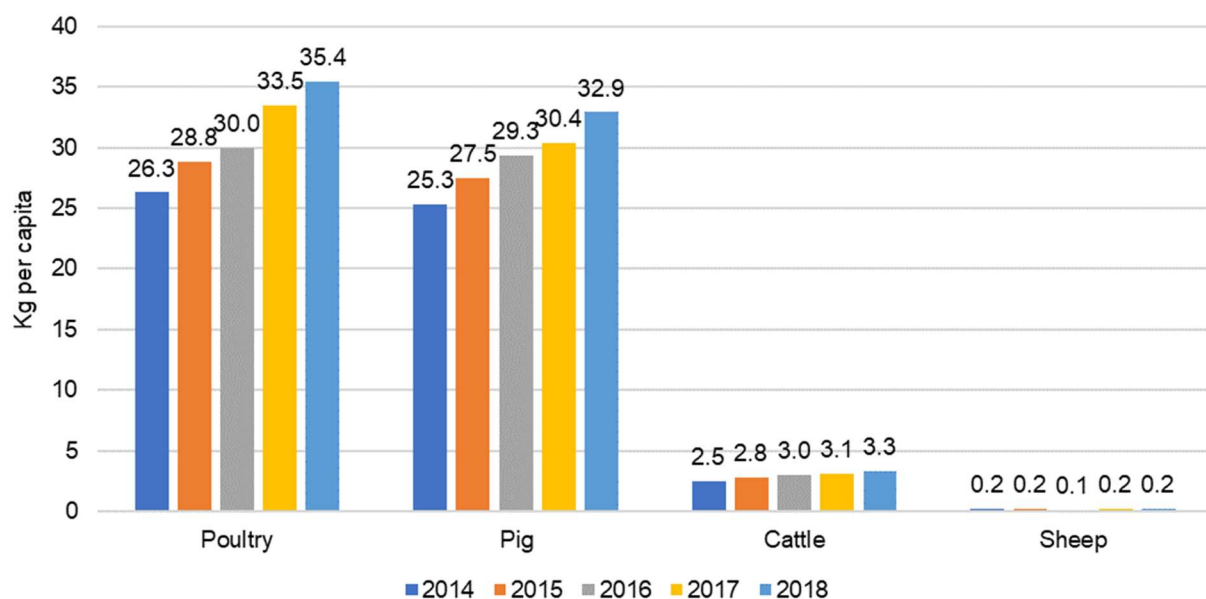
Figure 32: Per capita consumption of poultry meat in selected European countries, 2018



Source: AVEC Yearly production report (2019)

Poultry meat has been the most popular meat in Hungary (Figure 33).

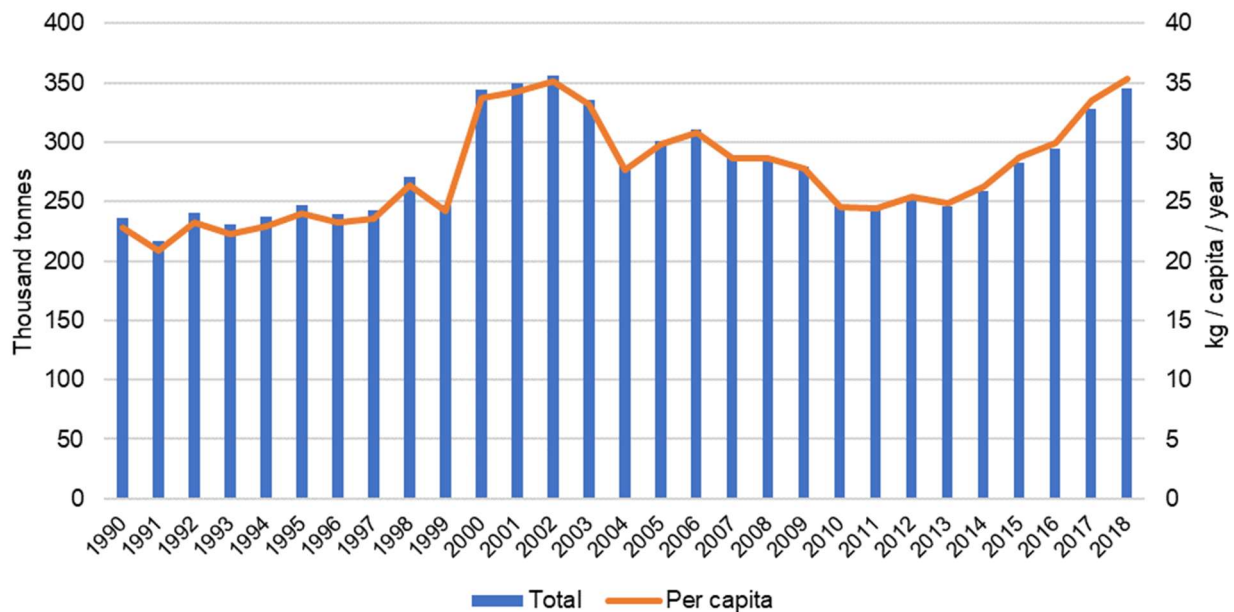
Figure 33: Per capita consumption of different meats in Hungary, 2014-2018



Source: HCSO (2020)

According to HCSO data, the per capita consumption of poultry meat increased significantly over the period 2014-2018, reaching 35.4 kilogram, a new record in 2018¹⁰. As of 1 January 2017, the VAT for poultry meat and eggs was lowered from 27 to 5 percent (preferential rate), which has also contributed to the recent growth in consumption (Figure 34).

Figure 34: Poultry meat consumption in Hungary, 1990-2018



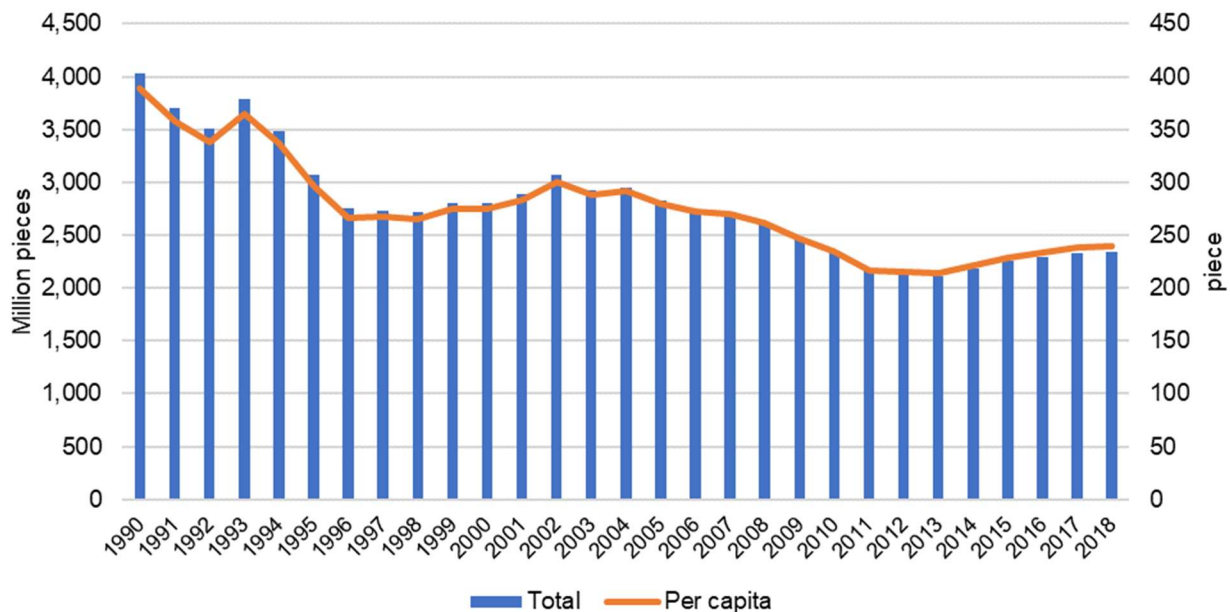
Source: HCSO

According to the HPPC, 93 percent of the Hungarian adult population consumes poultry meat. Pork and poultry meat and products are strong competitors in Hungary: as the price of one of the product categories increases, the consumption of products in the other categories tends to increase in parallel.

In Hungary, the consumption of eggs declined substantially after the political and economic transition, then again before and after EU accession, showing a slight recovery in recent years. In 2018, the per capita consumption of eggs was 240, almost 9 percent more than in 2014 (Figure 35). The consumption of eggs is characterized by strong seasonality: sales usually jump by 30 to 35 percent during the Easter season, and a significant rise is typical for the Christmas season too.

¹⁰ Because of the methodological differences, the HCSO and AVEC consumption data are not the same.

Figure 35: **Per capita consumption of eggs in Hungary, 1990-2018**



Source: HCSO (2013)

In Hungary, consumers primarily focus on the nutrient and the shell properties of eggs (eggs with brown shells are far more popular). Animal welfare is of secondary importance; however, animal welfare has recently been gaining more attention. Still, it is only a small group of consumers taking animal welfare into serious consideration when making food purchase decisions.

13. Foreign trade

According to HCSO data, exports of poultry products accounted for 8 percent of all Hungarian agricultural exports in 2019 and had a value of EUR 974.6 million, representing a 25 percent increase over 2015. Hungary's poultry meat self-sufficiency was around 130 percent in 2018, which is outstanding among the EU Member States and indicates strong export-orientation.

The poultry sector has many species and a wide range of products, with different shares in foreign trade. The most significant of the products exported is poultry meat (fresh and frozen), which foreign shipments had been steadily increasing until 2017, when bird flu outbreaks, apart from the direct damage (death of birds) caused, led to trade restrictions and a steep decline in exports. Owing to the VAT reduction, domestic demand increased in 2017, which also had a downward effect on poultry meat exports. Export shipments increased again in 2018 and 2019.

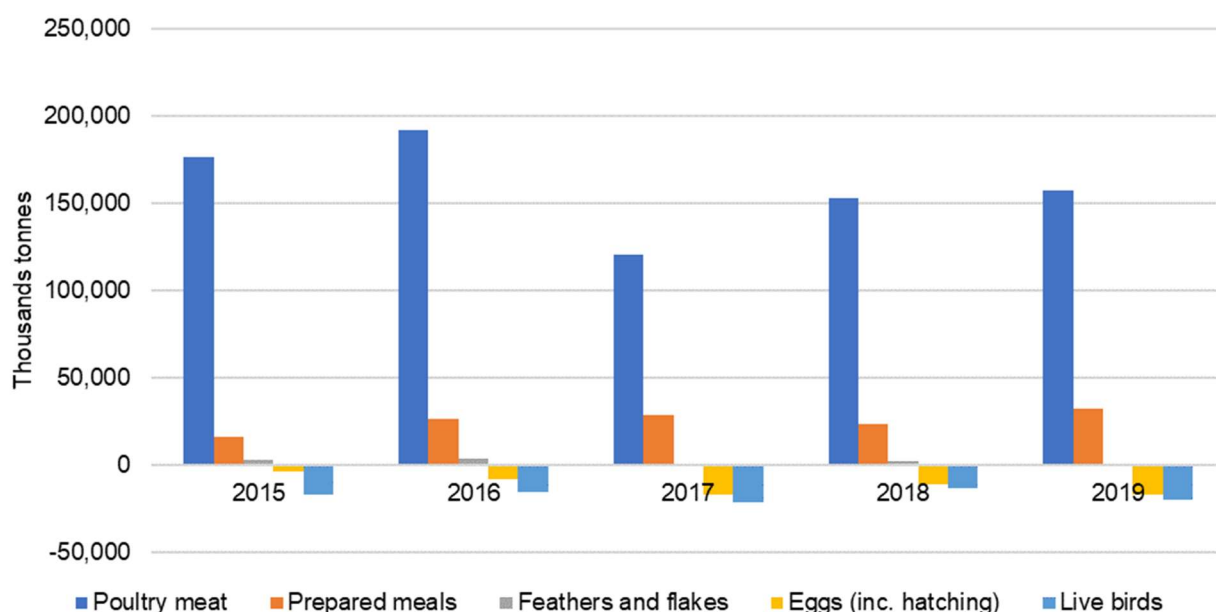
The share of prepared poultry meals in foreign sales has been increasing over the period 2015-2019, and although the total exports of eggs have been declining, the demand for eggs for hatching from Hungary has remained stable in the international markets.

The foreign trade balance of the sector has been positive, but in the case of table eggs, Hungary has become a net importer in volume terms. The total value of exports of poultry products were EUR 974.6 million in 2019. Of this, exports of poultry meat accounted for 56 percent, prepared meals for 17 percent, live poultry for 13 percent, feathers and flakes for 9 percent, and eggs in total for 6 percent (Annex 2). Over the past five years, the share of meat exports has decreased by 9

percentage-points, while the shares of live birds and prepared meals have increased by 3 and 4 percent, respectively.

In terms of volume of trade, Hungary was a net exporter of poultry meat, prepared meals and feathers and flakes over the period 2015-2019, while it had a trade deficit in eggs and live birds (Figure 36; Annex 2).

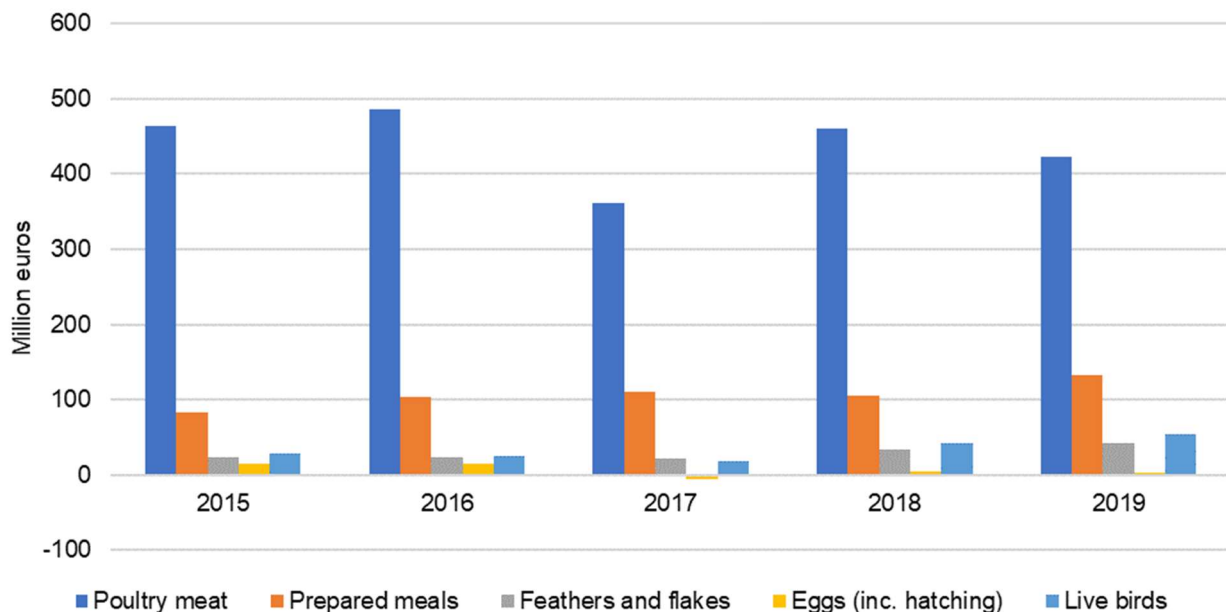
Figure 36: Changes in the Hungarian poultry sector's foreign trade volume, 2015-2019



Source: HCSO

In terms of value of trade, Hungary was a net exporter of all poultry products (poultry meat, prepared meals, feathers and flakes, eggs, and live birds) over the period 2015-2019 (Figure 37; Annex 3). The difference in the trade balance in volume and value terms is explained by the higher proportion of eggs for hatching and of breeding animals in exports.

Figure 37: **Changes in the Hungarian poultry sector's foreign trade value, 2015-2019**



Source: HCSO

Poultry imports increased by around 60 thousand tonnes in 2019, according to HCSO data. Chicken meat accounted for 75 to 80 percent of all poultry imports over the period 2015-2019. At the same time, the proportion of turkey meat in the imports showed an increase. Most of the imported poultry meat is shipped from EU Member States; Poland captured the lion's share (28 percent) of Hungarian poultry meat imports in 2019 followed by Austria (11 percent), and Germany (12 percent) (Annex 5).

Hungary's most important export markets hardly changed in the near past: the main buyers of poultry meat were EU Member States, with Romania (17 percent), Austria (12 percent), Germany (11 percent), Slovakia (4 percent), and France (8 percent) in the lead over the period 2015-2019. These countries accounted for 67 percent of total exports (Annex 5).

14. Impacts of the first wave of the Covid-19 pandemic

In response to the COVID-19 outbreak, the Hungarian government took several measures, starting with the imposition of a state of emergency on 11 March 2020. The first travel restrictions were introduced on 12 March, and on 17 March, Hungary closed its borders to most passenger travel. On 28 March, the Hungarian government declared a curfew. The restrictions led to a slowdown of economic activities and considerable perturbations in the supply chains. The imposition of mandatory containment measures had a direct and notable impact on the ability of most companies to operate. Much of the services sector remained closed in April, moreover, many of the manufacturing enterprises cut down production or came to a standstill as both domestic and foreign demand weakened. A first easing of the restrictions was announced on 29 April, and a gradual reopening of shops started on 4 May 2020. The loss of revenues caused by the coronavirus pandemic and the lockdown measures affected many undertakings in the agri-food sector, of all sizes.

In respect of poultry production, the coronavirus pandemic led to unpredictable short-term fluctuations in the demand for and the prices of broilers while feed prices for both broilers and layers increased considerably. Although the reactions by consumers following the announcement of the

restrictive measures caused a temporary drop in meat stocks, and it pushed up prices for both poultry products and poultry for slaughter, with the collapse of the HoReCa (Hotels, Restaurants, Cafés) sector producer prices fell back to their 2018 level.

The strong demand shifts made it difficult for the poultry industry to adequately plan supplies: while producers initially had to satisfy an unprecedented consumer rush, they were soon forced to defer the delivery of birds for slaughter. Exports of poultry meat declined substantially, and many of the farmers decided to suspend the placing of day-old chicken and to liquidate breeding flocks. As far as the turkey sector is concerned, existing supply contracts for breeding eggs and day-old poults were not amended to consider the increasing feed costs. For the producers of laying hens and day-old broilers, the placing of their liquidated flocks on the market was a major challenge, especially that imports of poultry meat increased by 27 percent in the first quarter of 2020, particularly from Romania, Slovakia, Austria, Germany and Poland. Owing to the lockdown, the usual rise in the price of eggs around Easter did not occur, egg producers thus missed out the seasonal extra income.

The Hungarian government introduced temporary national aid schemes to compensate for damage caused by the coronavirus outbreak and the subsequent restrictions to the national economy. For the agri-food sector, HUF 25 billion (EUR 71 million) was made available in the form of direct grants by the end of June. The agricultural sectors targeted include poultry (HUF 4 billion) and pig farming, sheep and suckler cow farming, milk production, beekeeping, horticulture, and wine growing, as well as fish farming. The raising of the amount of de minimis support for goat and rabbit farmers is also included in the HUF 25 billion. Of the HUF 25 billion, HUF 8 billion (EUR 23 million) can be applied for by food processing undertakings.

15. SWOT analysis of the Hungarian poultry sector in support of the CAP strategic planning for 2022-2027

Strengths

- Feed base and production of premixes
- Genetics and diversity of species
- Well-mechanized housing technologies (indoor systems)
- Cost-effective production
- Well-coordinated value chains, high integrity
- Many slaughterhouses with special quality certificates (BRC, IFS, halal, kosher, etc.)
- Wide range of poultry products
- Positive trade balance
- Diversity of export markets
- Well-organized representation of interests (HPPC)

Weaknesses

- Heterogeneity of farmers' qualifications and skills
- Lack and high fluctuation of labour both in production and processing
- Lack of greenfield investments making difficult the exploitation of the genetic potential
- Farmers in integrations having lower incomes which hinders modernization
- Access to credit for small farmers hampered by the lack of own finances
- Veterinary problems (e.g. Salmonella, Campylobacter)
- No recordings of antibiotic use at the farm level
- Heterogeneity of the capacity utilization and efficiency of slaughterhouses
- Low level of R&D&I

Opportunities

- Geographical proximity to the main export markets
- Growing global demand for poultry meat with no religious constraints (MEA, and Asia)
- Growing consumer demand for further processed products
- Further growth potential both in production and domestic consumption
- Segmentation in poultry farming and processing
- Introduction of 2nd or 3rd shifts in slaughtering
- Low interest rate environment
- Relatively low environmental impact compared to other species, which could be well adapted to the paradigm of sustainability
- Environmental and animal welfare constraints on the growth of production in western Europe
- Speeding up of digital transformation and innovation activities through vertical integrations
- Generation renewal
- Development of management skills
- Enhanced cooperation between universities and the poultry industry in the field of education

Threats

- Decline in meat consumption in Europe (promotion of alternatives)
- Further expansion of poultry production and exports in CEE countries, especially in Poland
- Increasing market pressure by EU free trade agreements (e.g. EU-Mercosur)
- Realignment of export markets in the EU because of Brexit
- New and ever more strict conditions posed by the retail sector
- Conflicting expectations and requirements by consumers and legislators concerning animal welfare, environmental protection, and food safety
- Farm demographics
- Increasing volatility of input prices
- Increasing frequency of extreme weather events (heat stress)
- Increasing incidence of infections and epidemics (e.g. Avian Influenza, avian mite)

Annexes

Annex 1: Annual market prices for broilers in the EU

100 kg 65% broilers

	2015	2016	2017	2018	2019	2019/2018
BE	171.47	166.34	166.36	167.60	161.36	- 3.7%
BG	150.13	144.52	147.26	153.30	150.56	- 1.8%
CZ	182.44	178.09	181.31	198.60	213.30	+ 7.4%
DK	246.14	239.18	241.67	240.96	231.65	- 3.9%
DE	260.38	265.94	269.18	275.95	286.29	+ 3.7%
EE	179.71	176.40	-	-	-	-
IE	180.00	180.00	213.65	210.99	213.06	+ 1.0%
EL	200.82	206.38	203.01	200.13	201.91	+ 0.9%
ES	169.16	159.75	165.26	164.84	154.56	- 6.2%
FR	221.90	226.21	230.00	230.00	230.00	+ 0.0%
HR	182.86	180.60	184.97	188.51	186.25	- 1.2%
IT	205.06	184.42	205.46	206.53	199.48	- 3.4%
CY	255.16	254.26	253.95	251.68	252.41	+ 0.3%
LV	163.33	156.16	-	-	-	-
LT	148.77	141.17	144.31	150.88	152.03	+ 0.8%
HU	153.47	143.01	145.36	150.09	151.00	+ 0.6%
MT	221.44	224.01	222.61	223.22	224.93	+ 0.8%
NL	195.83	182.20	-	-	-	-
AT	184.40	182.78	182.58	214.89	244.80	+ 13.9%
PL	128.21	118.77	124.69	127.47	124.62	- 2.2%
PT	154.29	137.63	154.44	151.85	148.96	- 1.9%
RO	150.26	147.81	148.55	154.63	147.56	- 4.6%
SI	199.06	192.72	192.89	211.95	210.04	- 0.9%
SK	171.14	156.28	150.62	157.26	179.80	+ 14.3%
FI	261.45	256.27	255.83	270.03	301.05	+ 11.5%
SE	250.35	264.38	248.03	237.87	239.17	+ 0.5%
EU	188.82	182.16	187.17	190.25	189.77	- 0.3%
UK	174.97	154.65	149.97	164.63	169.90	+ 3.2%
EU + UK	186.87	178.25	182.28	187.05	187.28	+ 0.1%

Source: EU Commission (2020)

Annex 2: Foreign trade value of the Hungarian poultry sector, 2015-2019

EUR million

	Live birds	Poultry meat	Eggs (inc. for hatching)	Feathers & flakes	Prepared meals	Total
Imports						
2015	53.4	54.7	36.0	18.4	20.8	183.3
2016	59.8	65.1	25.5	14.5	21.6	186.4
2017	74.4	107.6	43.5	20.1	26.0	271.6
2018	74.0	116.1	35.8	35.0	27.9	288.8
2019	73.9	121.9	44.4	45.9	32.5	318.5
Exports						
2015	82.5	517.5	50.2	41.9	103.4	795.5
2016	85.4	551.6	40.8	38.9	125.2	841.9
2017	93.3	468.3	38.0	41.5	136.2	777.4
2018	116.9	576.6	39.9	69.1	132.9	935.4
2019	128.9	544.8	48.2	87.9	164.8	974.6

Source: HCSO

Annex 3: Foreign trade volume of the Hungarian poultry sector, 2015-2019

thousand tonnes

	Live birds	Poultry meat	Eggs (inc. for hatching)	Feathers & flakes	Prepared meals	Total
Imports						
2015	38,736	39,580	16,803	1,724	12,102	108,944.5
2016	39,032	44,990	19,107	2,201	11,452	116,782.0
2017	53,720	70,020	25,732	3,305	12,722	165,499.2
2018	48,920	68,168	21,203	3,661	15,310	157,262.5
2019	53,408	77,291	28,574	4,356	15,921	179,549.4
Exports						
2015	21,562	215,534	12,866	4,353	28,247	282,562.8
2016	23,154	236,432	10,747	5,329	37,824	313,485.8
2017	31,894	190,067	8,615	3,600	41,129	275,305.3
2018	35,571	221,016	9,698	5,514	39,003	310,802.0
2019	33,574	234,759	11,242	4,459	47,810	331,844.7

Source: AKI based on HCSO datasets (2020)

Annex 4: Imports of poultry meat (HS 0207) to Hungary, 2015-2019

	thousand tonnes				
	2015	2016	2017	2018	2019
Poland	4,957	10,572	20,689	21,490	27,241
Austria	7,544	9,105	9,276	10,371	10,800
Romania	3,875	3,676	3,919	4,798	10,460
Slovakia	2,205	1,547	3,051	6,278	8,432
Netherlands	6,354	4,651	7,689	4,988	6,795
Germany	6,800	7,808	11,260	8,244	5,829
United Kingdom	2,065	2,571	3,281	2,365	2,203
Others	5,779	5,059	10,854	9,633	5,530
Total	39,580	44,990	70,020	68,168	77,291

Source: HCSO

Annex 5: Poultry meat (HS 0207) exports

	thousand tonnes				
	2015	2016	2017	2018	2019
Romania	35,249	39,082	36,854	34,167	37,371
Austria	27,798	33,751	23,976	23,180	25,871
Germany	25,913	26,566	22,542	26,455	23,182
Ukraine	1,543	1,785	5,737	12,225	17,659
Slovakia	18,423	20,577	15,308	18,301	17,019
France	9,770	10,955	8,808	15,352	14,586
Bulgaria	8,803	7,932	8,672	8,643	12,878
Others	88,036	95,784	68,171	82,692	86,193
Total	215,534	236,432	190,067	221,016	234,759

Source: HCSO (2020)

Annex 6: **Euro exchange rate**

Year	EUR/HUF
2015	309.90
2016	311.46
2017	309.21
2018	318.87
2019	325.35

Source: Hungarian National Bank

Annex 7: Production costs and incomes of chicken fattening in Hungary, 2017-2019

	Unit	2017	2018	2019*
Production value	HUF/kg	262.38	267.38	273.58
Average sales price	HUF/kg	254.81	257.65	265.65
Direct state subsidies	HUF/kg	10.14	12.41	11.50
Other revenues of the enterprise	HUF/kg	1.83	0.00	0.00
Total revenues of the enterprise	HUF/kg	238.97	244.43	250.41
Depreciation of breeding animals	HUF/kg	41.77	40.40	39.51
Total feed costs	HUF/kg	165.96	164.45	166.01
including feed grains produced on farm	HUF/kg	0.24	0.70	0.70
purchased feed grains	HUF/kg	163.77	163.53	165.11
fodder produced on farm	HUF/kg	0.00	0.00	0.00
purchased fodder	HUF/kg	0.00	0.00	0.00
other feedstuffs	HUF/kg	1.94	0.22	0.20
Veterinary costs	HUF/kg	6.36	6.41	7.28
Cost of performance testing	HUF/kg	0.00	0.01	0.00
Direct marketing costs	HUF/kg	0.01	0.00	0.00
Direct insurance costs	HUF/kg	0.06	0.10	0.15
Other direct variable costs	HUF/kg	10.08	7.55	7.73
Total direct variable costs	HUF/kg	224.23	218.92	220.69
Variable machinery costs	HUF/kg	4.19	3.21	3.90
Cost of maintenance	HUF/kg	1.77	2.02	2.62
Cost of machinery services used	HUF/kg	0.89	0.51	0.77
Cost of labour (wage)	HUF/kg	8.24	9.65	11.78
Common charges of labour	HUF/kg	1.74	1.84	1.81
Depreciation	HUF/kg	4.35	3.58	3.88
Other costs	HUF/kg	0.10	1.15	0.16
General costs of the activity (enterprise)	HUF/kg	0.63	1.45	0.57
General costs of the farm	HUF/kg	3.97	3.02	2.54
Total production costs	HUF/kg	250.10	245.35	248.72
Gross margin	HUF/kg	38.14	48.46	52.89
Profit of the enterprise	HUF/kg	12.27	22.03	24.86
Unit cost of the main product	HUF/kg	250.10	245.35	248.72
Average size of the enterprise	head/farm	25,170.76	22,254.41	11,026.37
Average live weight production	tonnes/farm	483.85	451.51	202.16

* Estimations.

Source: FADN

Annex 8: Production costs and incomes of table egg production in Hungary, 2017-2019

	Unit	2017	2018	2019*
Production value	HUF/layer	7,838	8,285	7,940
Average sales price	HUF/layer	26.75	26.12	27.17
Direct state subsidies	HUF/layer	186	197	216
Other revenues of the enterprise	HUF/layer	0	0	0
Total revenues of the enterprise	HUF/layer	7,563	7,988	7,700
Depreciation of breeding animals	HUF/layer	477	620	515
Total feed costs	HUF/layer	3,227	3,588	4,098
including feed grains produced on farm	HUF/layer	205	117	100
purchased feed grains	HUF/layer	2,865	3,461	3,985
fodder produced on farm	HUF/layer	0	0	0
purchased fodder	HUF/layer	0	0	0
other feedstuffs	HUF/layer	157	11	13
Veterinary costs	HUF/layer	66	88	79
Cost of performance testing	HUF/layer	0	0	0
Direct marketing costs	HUF/layer	0	0	0
Direct insurance costs	HUF/layer	2	0	27
Other direct variable costs	HUF/layer	665	429	453
Total direct variable costs	HUF/layer	4,438	4,725	5,172
Variable machinery costs	HUF/layer	108	179	131
Cost of maintenance	HUF/layer	3	2	13
Cost of machinery services used	HUF/layer	9	2	15
Cost of labour (wage)	HUF/layer	468	466	513
Common charges of labour	HUF/layer	100	91	99
Depreciation	HUF/layer	282	423	452
Other costs	HUF/layer	3	4	5
General costs of the activity (enterprise)	HUF/layer	32	51	65
General costs of the farm	HUF/layer	166	230	211
Total production costs	HUF/layer	5,608	6,172	6,675
Gross margin	HUF/layer	3,401	3,560	2,768
Profit of the enterprise	HUF/layer	2,230	2,113	1,265
Unit cost of the main product (egg)	HUF/layer	21.25	20.56	24.32
Average yield	piece/layer	264	300	274
Average size of the enterprise	layer/farm	1,219.82	1,037.88	5,066.01
Average output of the farms	thousand	321.84	311.62	390.28

* Estimations.

Source: FADN

Relevant regulations

- 11/2019. (IV. 1.) AM rendelet a baromfi ágazatban igénybe vehető állatjóléti támogatások feltételeiről
- 128/2009. (X. 6.) FVM rendelet az állatgyógyászati készítményekről
- 148/2007. (XII. 8.) FVM rendelet az egyes állatbetegségek megelőzésével, illetve leküzdésével kapcsolatos támogatások igénylésének és kifizetésének rendjéről
- 188/2019. (VII. 30.) Korm. rendelet az állattenyésztésről
- 1998. évi XXVIII. törvény az állatok védelméről és kíméletéről
- 2004. évi CXL törvény a közigazgatási hatósági eljárás és szolgáltatás általános szabályairól
- 2008. évi XLVI. törvény az élelmiszerláncról és hatósági felügyeletéről
- 22/2012. (II. 29.) Korm. Rendelet a Nemzeti Élelmiszerlánc-biztonsági Hivatalról
- 314/2005. (XII. 25.) Korm. rendelet a környezeti hatásvizsgálati és az egységes környezethasználati engedélyezési eljárásról
- 32/1999. (III. 31.) FVM rendelet a mezőgazdasági haszonállatok tartásának állatvédelmi szabályairól
- 41/1997. (V. 28.) FM rendelet az Állat-egészségügyi Szabályzat kiadásáról
- 63/2012. (VII. 2.) VM rendelet A Nemzeti Élelmiszerlánc-biztonsági Hivatal, valamint a megyei kormányhivatalok mezőgazdasági szakigazgatási szervei előtt kezdeményezett eljárásokban fizetendő igazgatási szolgáltatási díjak mértékéről, valamint az igazgatási szolgáltatási díj fizetésének szabályairól.
- 65/2012. (VII. 4.) VM rendelet a takarmányok előállításának, forgalomba hozatalának és felhasználásának egyes szabályairól