4.2 Agriculture in Czech Republic – predominated by holdings

The role of Czech agriculture in the national economy

For more than five years (since May 2004) the Czech Republic has been a member of the European Union, so the Common Agricultural Policy significantly affects the development of its agriculture. In 2008, the share of the agrarian sector, (i.e. agriculture, forestry and fishery) in the gross domestic product comprised 2.33 %; the share of agriculture itself was 1.85 %. Compared to its neighbor countries, this is a larger share than in Germany and Austria but less than in Poland and Slovakia. 3.45 % of the total labor force work in the agrarian sector; in agriculture itself 2.87 %. Table 4.2.1 provides some key figures regarding the main crops grown in Czech Republic, its cultivated area and yield.

Agricultural trade

The share of agrarian goods in total Czech imports were 5.4 % and, on the export side, 4.3 % in 2008.

The main agricultural exports are milk and milk products (including eggs and honey), drinks (including alcoholic ones), cereals and oil seeds. The main import goods are a variety of meat, fruits and nuts, milk and milk products (including eggs and honey).

The main trading partner is the EU. On the export side it includes primarily Slovakia, Germany, Poland and Austria; on the import side Germany, Poland, Slovakia, the Netherlands and Italy are the most important markets. The biggest problems for Czech farmers have been in the sugar market, in connection with ongoing sugar reform in the EU. For exports the dominate products that are traded include lower value products such as live animals, raw milk, rape seeds and wheat. Products with higher added value, such as cheese, food products, dog and cat food, are imported.

Farm structure

The main results of the Farm Structure Survey 2007 are shown in Table 4.2.2. The structure of today's Czech agriculture is rooted in its history. Family farms are not as important as in western states of the European Union.

Numerically they predominate (more than 90 % of the farms) however use less than 30 % of the agricultural area. This is because the average size of active and economically viable farms, belonging to natural persons, ranges around 44 ha. The bigger part of the agricultural area (70.6 %) is used by large holdings of legal persons, which cultivate on average more than 840 ha.

This structure of the Czech agricultural sector has consequences for the agricultural policy. The existence of large agricultural holdings affects the landscape. Often large fields are cultivated in monoculture of either cereals or rapeseed (see Figure 4.2.3). An increasing share of holdings of natural persons and limited liability companies is predicted for the future, while the share of cooperatives and joint stock companies shall decrease. In the Czech Republic, farmers owned only 16 % of the agricultural area in 2007. Most of agricultural holdings use predominantly rented land, nevertheless the share of their own land increases. The price of agricultural land is significantly lower than in the former EU-15. The average price for one hectare is still less than two thousand EUR. The land rent is lower as well. However, the trend of both indicators is increasing.

An area of 216,000 ha (i.e. 6.2 % of the utilized agricultural area) was organically farmed in 2007 (compared to 5.5 % in 2005). The number of holdings with organic farming increased by 25 %. A Czech organic farm has 300 ha on average.

The typical farms

During the last two years, two typical farms have been established within the ***agri benchmark*** network. They are located in the **Jiho**moravsky region (JM) in the south part of the Moravian territory and in the Stredocesky (JC) region which represents the Middle Bohemia. These regions together take one-third of the total crop output value. Both regions have similar climate features.

4.2.1 Czech Republic – area, harvest and yields of main crops in 2008

	Area (ha)	Harvest (t)	Yield (t/ha)
Cereals, total	*1,558,596*	*8,369,503*	*5.37*
Winter wheat	760,399	4,470,309	5.88
Spring barley	341,220	1,584,024	4.64
Oilseeds, total	*483,851*	*1,194,207*	*2.47*
Rapeseed	356,924	1,048,943	2.94
Potatoes	29,788	769,561	25.83
Sugarbeets	50,380	2,884,645	57.26
Annual fodder	212,037	6,689,983	31.55
Hop	5,335	6,753	1.27
Vine grapes	16,302	98,323	6.03

Source: Český statistický úřad (Czech Statistical Office)

4.2.2 Farm structure in the Czech Republic

	Farm Type		2007	Share of total (%)	Index 2007/2005
1	Registered entities, total	Number	39,396	100	93 %
		Area (ha)	3,518,073	100	99 %
		Avg. area (ha)	89.3		106 %
2	Active farms with economic size of at least 1 ESU [1)]	Number	25,900	66	97 %
		Area (ha)	3,489,700	99	
		Avg. area (ha)	134.7		102 %
2a	Active family farms	Number	22,959	58	
		Area (ha)	1,006,195	29	
		Avg. area (ha)	43.8		
2b	Holdings of legal persons, of which:	Number	2,941	7	104 %
		Area (ha)	2,483,505	71	99 %
		Avg. area (ha)	844.4		95 %
	1. Limited liability comp.	Area (ha)	779,486	22	99 %
	2. Joint stock comp.	Area (ha)	886,151	25	106 %
	3. Cooperatives	Area (ha)	773,946	22	91 %
	4. Others	Area (ha)	43,922	1	

1) 1 ESU = 1,200 EUR Standard gross margin
Source: Český statistický úřad (Czech Statistical Office)

4.2.3 Landscape in Jihomoravsky region

4.2 Agriculture in Czech Republic – predominated by holdings

The mean annual precipitation is about 543 mm in the JM region and 590 mm in JC which is in both cases below a long-term normal in the Czech Republic. JM region has about 363,000 ha of cultivated land while the JC region has a higher acreage of about 547,000 ha. This represents more than 25 % of the total utilized agricultural area of the Czech Republic. Agricultural holdings in both regions use predominantly rented land. The acreages of the typical farms represent the size relations in reality in both regions with CZ4000JC being larger than CZ1200JM.

Production system of the farms

Both typical farms represent a holding of legal person, which manage more than 1,000 ha. They were chosen according to the prevailing specialization (plant production or combined plant and livestock production). The typical Czech farms are characterized by a low share of owned land. The majority (more than 90 %) of cultivated land is rented. Main crops prevailing in the production systems are wheat, barley, rapeseed and corn.

The typical farm CZ1200JM is specialized in crop production. Major profit is generated from malting and winter barley (see Figure 4.2.4). Wheat production was slightly profitable whereas corn production was not profitable in 2008. The wheat yield is about 6 t/ha, barley 5 t/ha, rapeseed 3.2 t/ha and corn 7.5 t/ha. Direct costs account for 35 – 40 % of total costs of which are predominately seed costs and nitrogen costs (see Figure 4.2.5).

The second farm is situated in the Stredocesky region and represents a combined farm of crops and livestock production. The crops that are grown depend on the farm's need for feeding crops to animals (corn for silage, triticale and oats).

The production system in Stredocesky region is based on plowing. Figure 4.2.5 shows lower pesticide inputs compared to CZ1200JM which relates to soil cultivation. Only rapeseed production is profitable at about 170 USD/ha. The main reason of loss in other commodities is the quick price decline after harvest and a badly-timed sale of crops. Yields in main commodities are lower: wheat 4.3 t/ha, rapeseed 2.6 t/ha, oats 3.8 t/ha, corn 6.2 t/ha and triticale 4.5 t/ha. The only mineral fertilizer SC4000 uses is for nitrogen. Potash and phosphorus are supplied through farmyard manure. In 2008, both farms applied less fertilizer because of high prices.

In some regions drought occurs from time to time. Since the old irrigation systems can not be used anymore and investments in modern irrigation technology is very costly, irrigation is hardly used. In future, this might become a larger problem.

The labor force of the typical Czech farms is hired. Wages in agriculture rank at 75 % of the national average. The average wage is about 7 USD/hour gross. Labor costs account for about 15 % of total costs.

Both Czech farms own modern western machinery for soil cultivation, seeding, harvest and transport. Sharing machinery with other farms is not usual. However, the smaller typical farm CZ1200JM uses for part of its harvest a contractor (118 USD/ha), see Figure 4.2.6.

Increasing risk is major challenge

Threats for further development of farming systems are climate change accompanied by droughts or heavy weather events. Private insurances cover part of these risks but, for example, drought is an uninsurable risk. Czech agriculture depends on subsidies. Political decisions, which would lead to lower subsidies, could aggravate the situation in the agrarian sector. Cheep imports of agrarian commodities might result in declining commodity prices and thus affect the Czech agriculture further. Many farmers suspect that they will not have the chance to buy land, because its price steadily increases until being unaffordable and thus will be bought by foreigners instead.

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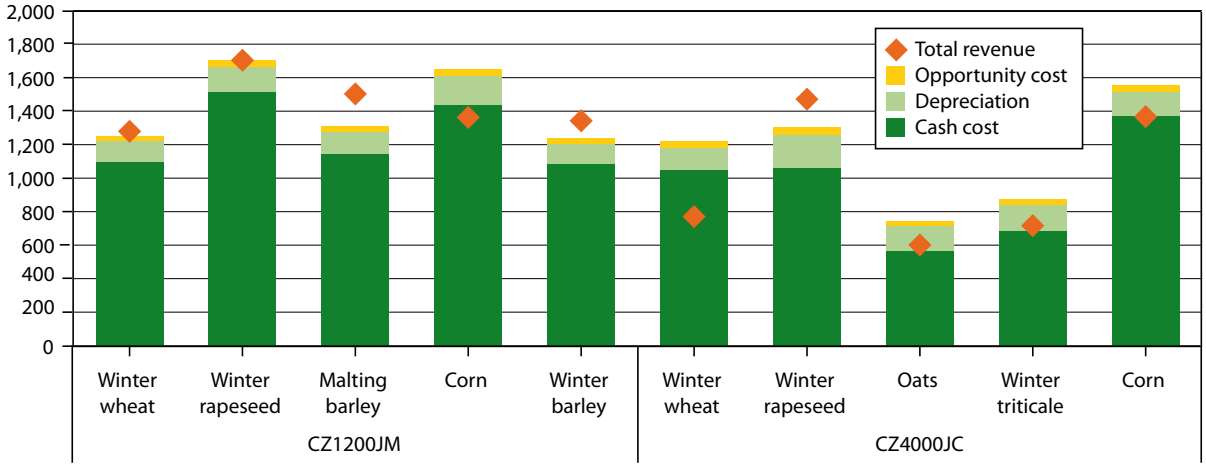
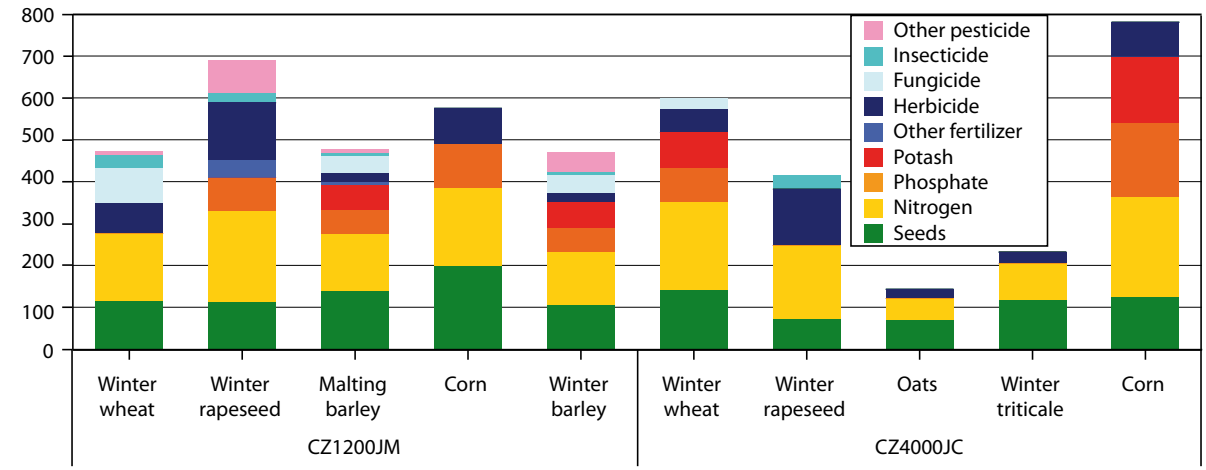
4.2.4 Typical farms: Total cost & gross revenue (USD/ha) in 2008



4.2.5 Typical farms: structure of direct cost (USD/ha) in 2008



4.2.6 Typical farms: operating cost (USD/ha) in 2008