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Interaction (?) between Institutional Change and Market Forces in Hungary in the Second Half of the 19th Century*

This paper is focusing on the question of interaction or combination between institutional changes and market forces of pre-1918 Hungary. It examines which factor was more essential for agricultural growth. The most important institutional changes occurred in 1848 and afterwards when essential political, institutional and juridical changes were carried out. They were inevitable to be able to respond the challenges generated by the rapidly growing European markets. Common market was created by abolishing the customs frontier between Austria and Hungary in 1850. This – later in 1867 along with the political Compromise constitutionally reconsidered – was, however, essential for Hungarian agriculture and the food industry, because the western half of the Empire represented a secure, long-term and expanding market – even during the European agrarian crisis at the end of 19th century. This paper will present step by step which factor – market or institutional changes – was more important at a time of the 19th century. Furthermore, it is also interesting whether the world/European market, the common market, or the market of Hungary stood behind the growth of agriculture.

Pre-1918 Hungary belonged to the Habsburg Monarchy in the 19th century, and between 1867 and 1918 to Austria-Hungary. The traditional agrarian farming in Hungary came to a crisis in the beginning of the 19th century. The Napoleonic wars and particularly the Continental Blockade implemented in 1806, which aimed to block British goods from entering European ports, was an opportunity for Hungarian landowners to export cereal in the first place instead of cattle. At that time Hungarian cereal was of weak quality, however, very expensive. The way of transport made it exclusively expensive, because goods barges had to be drawn along by horses or men against the flow of water at that time. Nevertheless, the end of the Napoleonic wars ended the demand for Hungarian cereal, as well. More and more big landowners realized that there is no way out of this crisis but to take over the western-european methods of agricultural farming as well as of the plant management. To be able to accommodate to the challenges of the international market all the traditional relations of production was needed to be eliminated. Reform plans were in discussions at the diet sessions in the 1830s and 1840s. Finally, the most important institutional changes were carried out in 1848 and afterwards. 1848

opened the way for modernization in all aspects of civil life, as well as in the economy. After the revolution important political, institutional and juridical changes (i.e. emancipation of serfs, introducing taxation of all citizens, and abolishing privileges of the noblemen) were carried out, and this ensured the success of capitalization.

In the mid-nineteenth century the impulse for economic growth came from outside the country – from the international economy. From the 1830s onwards, the industrialization of Western and Central Europe gave rise to a rapidly expanding market for Hungarian agricultural, timber and food industry products. With the above mentioned institutional changes – I would say – that in the mid-19th century it was the *combination of the expanding international market and the institutional changes* that became the engines of the agricultural growth of Hungary from the 1850s on. Moreover, *common market* stepped into the picture as well in 1850, when it was created by abolishing the customs frontier between Austria and Hungary.

Between 1840 and 1890, crop production in Hungary increased threefold. From the 1840s until the 1870s, there was a 5 percent average annual increase in exports. In the 1840s, annual cereal exports amounted to 200,000–300,000 tons, but volumes increased to 1.2 million tons in 1867–1871 and to more than two million tons in the 1890s (with flour exports being included in total grain exports). What factors helped in this spectacular growth in agricultural production and in particularly grain? Primarily it was a result of increasing arable lands by either plowing up of pasturelands, or the flood protection projects. Between 1870 and 1914 the area of arable land grew by 30 percent. The falling area of fallow land (from 23 percent to 9 percent) also concluded in growing area of arable land.

	<i>Arable Land</i> 1,000 hectares	<i>Fallow Land</i> 1,000 hectares
1871–1875	10,464	2,290
1891–1895	12,009	1,697
1911–1915	12,969	1,149
<i>Index (1871/75 – 1911/15)</i>	124	50

Table 1 – Arable Land and Fallow Land in Hungary¹

One of the most important changes in the 19th century in the farming methods in Hungary was the switch to modern crop rotation from the traditional two-field or three-field system. By 1908, for example, traditional two-field or three-field system was practiced in just 26.4 percent of 13,000 rural communities.² A greater role in production growth was played by the improvement of average yields and

¹ Source: KATUS 2008. 234. (edited by NAGY)

² KATUS 2008. 233.

product quality which were due to the following factors: improving farm management, technical and machinery facilities, developing human resources, or applying better soil cultivation. It is fairly interesting, that mechanization was not applied to the same extent to all work processes. It was due to *market requirements* that the mechanization of agriculture was most advanced in the field of threshing. It helped to be in the market one or two weeks in advance of others.³

After 1867, one third of Hungarian grain production was exported, with flour exports representing a growing share. At the turn of the century, Hungary was the world's second-largest flour exporter – after the United States. Budapest was the largest milling center in the world until 1900 when Minneapolis took it over. In the post-Compromise years, Hungarian exports reached 30 percent of GDP. Between 1867 and 1871 the share of raw agricultural products was 62 percent, food industry products accounted for 15 percent. By the period 1909–1913, the share of unprocessed products had fallen to 51 percent, while that of foodstuffs had risen to 25 percent. Thus, the combined share was unchanged at around 76–77 percent. In the era of dualism, agricultural production in Hungary exhibited an average growth rate of 2–2.1 percent.⁴

This explains why it was primarily agricultural interests that sought the construction of railways in the 1850s and 1860s. In the 1860s, grain and flour accounted for more than half of the total goods transported. In the years following 1867, exports accounted for between 50 and 60 percent of total transported goods. In 1840 there was no railway in Hungary at all. By 1860 the length of the railway lines reached almost 2,000 km, while by 1875 around 7,000km (by the eve of WWI 22,000 km long railway network served the transport in Hungary).⁵

Hungary was particularly affected by one aspect of the Great Depression. This was the agrarian crisis or, more precisely, the grain sales crisis. Hungarian grain and flour were squeezed out of foreign markets. The effects of the agrarian crisis were partly offset by the fact that industrial goods – consumer goods in particular – suffered even greater price falls. Consequently, an industrial price gap developed in the markets of the Monarchy, and the terms of trade in Austria-Hungary developed favorably for Hungary. So this change on the foreign markets did not result in the falling of the Hungarian agricultural

³ This is the reason why steam engine statistics in the 1850s and 1860s are of great importance for economic historians. In the field of agriculture, Hungary was at roughly the same level as Austria at the time of the Compromise; indeed, it was somewhat more advanced in terms of mechanization. According to the latest calculations of Max-Stephan Schulze (SCHULZE 2007), in 1870 the value of agricultural goods per capita was 141 crowns in Hungary and 117 crowns in Austria. The map showing the steam engines used in agriculture supports this calculation, too. See NAGY 2012.

⁴ KATUS 2008. 265–270.

⁵ KATUS 2012. 434–435.

production, it was *common market and the market inside Hungary* – the latter because of the increasing population as a result of the demographic transition – that generated agricultural growth. The great importance of the common customs area to Hungary's agrarian economic development cannot be exaggerated when we realize that three quarters of Hungarian exports were destined for Austria. In the period 1882–1886, foreign markets had been the destination for 22 percent of grain exports and 40 percent of flour exports. In contrast, by the period 1909–1913, 96 percent of grain exports and 98 percent of flour exports were destined for Austria or Bosnia.⁶

In response to the grain sales crisis the Hungarian agrarian economy went through a change in the production structure. Apart from a simple making use of the above mentioned advantages of the common market the 1880s saw essential structural changes in the Hungarian agriculture. The foreign market crisis generated a structural respond. What changes did the Hungarian agriculture go through from the 1880s? First of all, there was more than fivefold increase in the cultivated area of fodder crops in close interaction with the increase of the relative importance of livestock farming as against plant production. The advance of livestock breeding was due to a combination of factors, including a change in the structure of food consumption as a result of modernization and urbanization. A second factor underlying the change was price development. In comparison with prices for plant products, the prices of livestock products developed more favorably in both world market and the markets of the Monarchy. The change in consumer demand is also reflected in the changing structure of Hungarian agricultural exports. In the 1880s, plant products were predominant, accounting for 37% of total export; livestock and livestock products accounted for 25%. By 1913, plant products' share fell to 26% of total exports,⁷ while the share of livestock and livestock exports remained unchanged. As a result, the two principal agricultural sectors were of equal importance in terms of Hungarian exports prior to WWI. Cattle breeding were a particularly successful sector of Hungarian livestock farming in the era of dualism. The number of cattle began to grow in the 1880s, increasing from 5.6 million in 1884 to 7.3 million in 1911. The growth in cattle exports was even more spectacular, increasing from an average annual figure of 50,000 animals in the period 1867–1874 to more than 300,000 animals at the beginning of the twentieth century.⁸ Another essential result of restructuring (Figure 1 and 2) was the increase of food industry products in exports. Between 1867 and 1871 the share of raw agricultural products was 62 percent, food industry products accounted for 15 percent. By the period 1909–1913, the share of unprocessed products had fallen to 51 percent, while that of foodstuffs had risen to 25 percent.⁹

⁶ KATUS 2008. 231–232.

⁷ KATUS 2012. 441., 448.

⁸ KATUS 2012. 448.

⁹ KATUS 2012. 468.

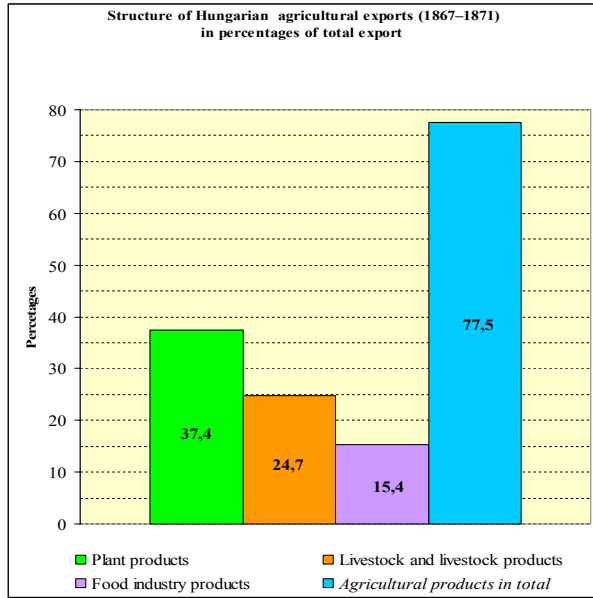


Figure 1.

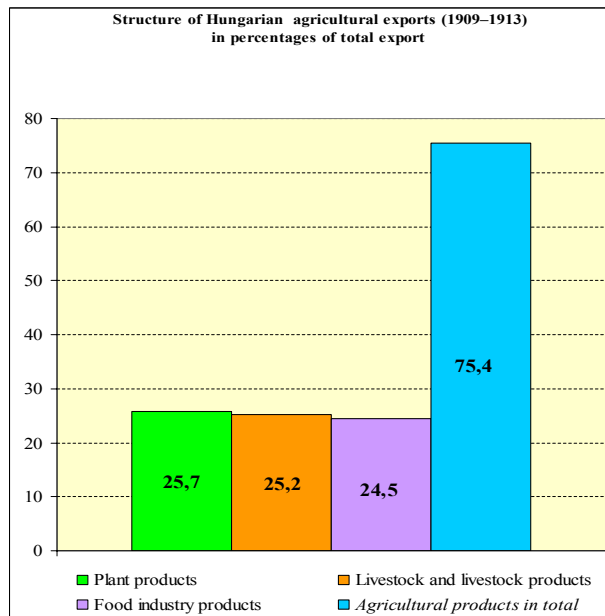
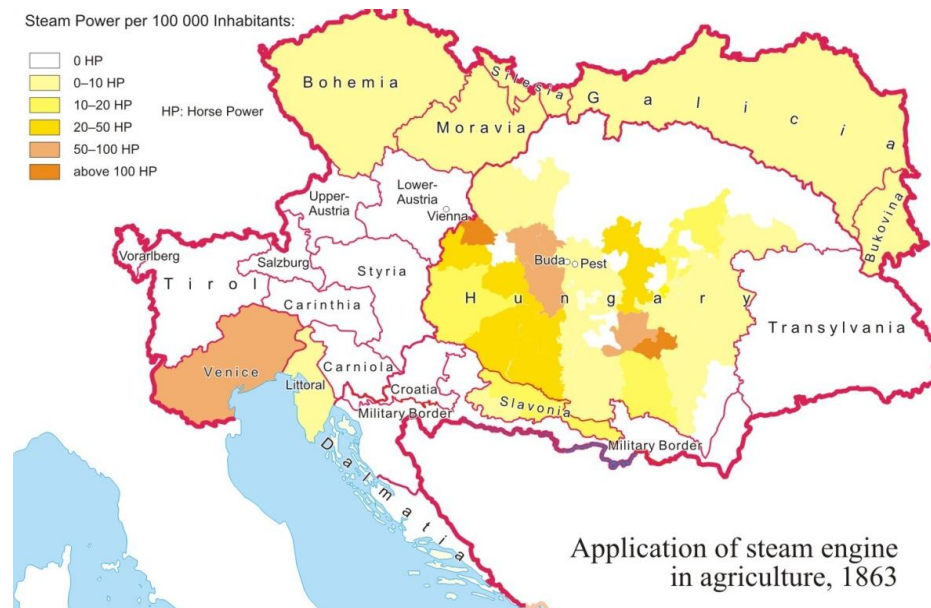


Figure 2.

Restructuring of plant production did not hit only the growing importance of fodder crops but also of industrial plants. Of particular importance was the rapid growth in sugar beet production, because this provided the raw product for the sugar industry, which was developing at the turn of the century. During the years preceding World War I, sugar export – which caught up with grain and flour export – was directed mainly to countries outside Austria-Hungary, especially overseas.

Market forces indirectly stood behind significant changes in the structure of the Hungarian government, since in the 1890s the agricultural lobby strengthened and managed to establish an independent Ministry of Agriculture. The Ministry contributed, in various ways, to the development of Hungarian agriculture and to the spread of modern production methods – especially among the country’s peasant farmers. Government supported projects were implemented in various regions in the country to reduce the regional economic differences in Hungary, particularly improve the way of agricultural production in the periphery.¹⁰

The causes and engines behind agricultural growth in Hungary before 1914 are appeared to be a *combination between institutional change and market forces*. But the *main factor was the market forces* either from outside or inside.¹¹



1. Pictures Map – Application of steam engine in agriculture (1863)

¹⁰ NAGY 2003

¹¹ Source: NAGY 2012

Conclusions: To sum up the question of market forces or/and agrarian reforms stood behind the agricultural growth in the 19th century the following arguments should be taken into consideration:

1. Traditional agrarian farming in Hungary was in crisis in the beginning of the 19th century. Only the Continental Blockade gave space for cereal export for a while, and then landowners themselves accepted the inevitable fact of reforms, though it took decades to carry out.
2. 1848 reforms were necessary to be able to respond to the rapidly expanding market for agricultural goods generated by the industrialization of Western and Central Europe in the middle of the 19th century. At that time the combination of market forces and agrarian reforms contributed to the increase of the agricultural production.
3. The common market, created in 1850, and constitutionally reconsidered and developed in 1867, became also essential for agrarian dynamics, furthermore during the grain sales crisis for diminishing the disadvantages of foreign markets for Hungarian agricultural products.
4. The further improvement of average yields and product quality from 1880s on was due to agrarian reforms, such as improving farm management, technical and machinery facilities, developing human resources, or applying better soil cultivation. However, market forces played important role concerning the question of mechanization: it was not applied to the same extent to all work processes (field of threshing).
5. The foreign market crisis as well as the inside market requirements (growing population as a result of demographic transition and urbanizing society) challenged the production structure which went through essential changes in the 1890s.
6. The strengthening of the Hungarian agrarian lobby (as agriculture being the essential part of the GDP and export) had impact on the government structure and through an independent ministry state supported projects helped to reduce the regional economic differences in Hungary, particularly the underdeveloped methods of agricultural production in the periphery.
7. Finally, the author concludes that it was the combination and not the interaction between market forces and agrarian reforms that caused the agricultural growth in Hungary. She also adds that the main factor was the market forces.

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