Military industry and readjustment in the Hungarian hinterland in the First World War

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I. Introduction

It was more than a hundred years ago that on 28 July 1914 the Great War began by the Austro-Hungarian Monarchy’s declaration of war on Serbia. Its name changed to First World War only after the next world war almost two decades later. During the war the generally politically inactive masses got politicized as their personal lives became more and more directly dependent on the state decisions. More and more of them worked in the military industry.¹ Though the front, in the case of the Austro-Hungarian Monarchy as well, was definitely away from the hinterland, through the military factories it affected the living conditions of those taking only indirect part in the war in an unprecedented and till then never experienced way.² The living conditions were considerably affected by the public order, inner safety and the operation of the administration in the hinterland, some effectiveness indexes of which are enviable even today.

II. The Hungarian military industry in the Austro-Hungarian Monarchy

Following the compromise between Hungary and Austria in 1867, the development of the Hungarian industry accelerated by the end of the 19th Century. Parallel with this, a considerable development began in the common army of the Austro-Hungarian Monarchy. Factories producing military equipment were constructed in the Hungarian part of the empire as well and several contractors, normally producing civilian supplies, were asked to support the army. The Arms and Machine Manufacturing Company (FÉG) was founded in 1891, as the first Austrian factory producing military equipment in peacetime. The company was founded in the Hungarian capital with the primary aim of manufacturing weapons, weapon parts and machine tools. „The factory immediately received considerable orders from the common, as well as the Hungarian Department of Defence for 30,000 and then 65,000 Mannlicher self-loading rifles. The production started in 1892 in the Weiss

brothers’ ammunition factory in Csepel (Budapest) as well where the production of infantry ammunition reached higher and higher proportions.”

The third military factory of high importance in the Monarchy, on the territory of Hungary was the Dinamit Nobel gunpowder and explosives factory in Bratislava. “After the outbreak of the first world war the domestic military industry made considerable progress and produced an incredible amount of ammunition. During the war 3,500,000 rifles were delivered to the army by the factories of Budapest and Steyr. The Manfréd Weiss ammunition factory in Csepel produced billions of rifle ammo and more than ten million artillery projectiles during the First World War.”

Closing the long economic fight following the 1867 political compromise, an economic compromise was made between the two determining powers of the Monarchy in 1907. From then on the Hungarian industry could theoretically provide 36,4% of the military support of the Monarchy, which was the percentage of the country’s share in the common military and foreign policy. The Hungarian military support however only approached this value, fluctuating between 28–34% between 1907 and 1918.

The warring Hungary almost completely changed its economy, especially its heavy industry in a short time, producing most of the weapons and ammunition to serve the army. In the first year of the war, the Ministry of Defence of the Hungarian Kingdom made contracts with almost 150 companies answering to the needs of the army and the navy. Considerable orders were made with the Torpedo and Submarine Shipyard of Whitehead and Co. in Fiume (Rijeka), the Hungarian Airship and Airplane Factory Ltd. (to manufacture airplanes), the Hungarian Lloyd Airplane Ltd. in Aszód, the General Machine Factory Ltd. in Mátyásföld (to manufacture airplanes), the Iron Works of Rimamurány-Salgótárján (for the production of iron and steel materials), the Waggon and Machine Factory in Győr, the Láng L. Machine Factory and the Schlick Nicholson Machine Factory in Budapest (to produce ammunition); the Chinoin in Újpest and the chemical plant in Dicsőszentmárton (for the production of chemical warfare agents).

III. Production results

III.1. Ammunition

The Monarchy’s large operations during the First World War required a serious, utterly organized military industry system, based on strict rules. “The joint production of all the ammunition factories reached its peak in September, 1917 by the production of 2,6 million pieces of artillery ammunition.”

During the war, the army received about 72 million pieces of artillery ammunition – this number was 65 million in Russia and 70 million in Italy.

5 KOVÁCS, 95.
6 Ibidem, 97.
7 Ibidem, 98.
Because of the increasing demands of the Monarchy’s Army, the ammunition production situation was becoming untenable, so the Ministry of Defence was forced to take further investments and to increase the production of the existing factories. It is well reflected by the fact that the number of the initial fifty factories grew to six hundred; or to two thousand-five hundred including the contractors.\(^8\)

All factories, workshops and repair facilities that had at least a lathe, manufactured projectiles. „The ammunition shortage was overcome by the German and French armies by the end of 1915 or the beginning of the 1916 (so did the British one somewhat later) but never by the armies of Russia and Austria-Hungary.”\(^9\)

In 1918 however, the economic difficulties of the Austro-Hungarian Monarchy worsened the national conditions which caused the fall of the Empire.\(^10\)

**III.2. Warship production**

The warship production was mostly carried out in the Torpedo and Submarine Shipyard of Whitehead and Co. in Fiume and the Danubius Machine, Waggon and Shipyard Corporation of Ganz and Co. which became one of the most important contractors of the navy of the Monarchy from 1911.

This factory, considered to be a modern one of the era, produced 25 destroyers, 32 sloops and later many destroyers and two swift cruisers, 5 auxiliary vessels and a ship lifting one. This is where the 20,000-ton battleship, the Szent István was manufactured, representing the top performance of the Hungarian shipbuilding.

4 submarines, 5 monitors and 11 sloops were made in the Újpest factory of Ganz. Most of the submarines, which were made in Hungary, the U20, U21, U22 and U23 were produced in the Torpedo and Submarine Shipyard of Whitehead and Co. in Fiume. The Danube Steamer Company joined the production of submarines as well.\(^11\)

**III.3. Aircraft and aircraft engine production**

„Germany and Austro-Hungary were able to fight a two-front war against France, Russia and Great-Britain, what is more, they were sometimes even close to victory.”\(^12\)

By the end of the war, there were 12 aircraft and 11 aircraft engine factories in the Austro-Hungarian Monarchy. Three of them operated in the territory of the Hungarian Kingdom: the repeatedly extended Hungarian Lloyd in Aszód, the Hungarian Aircraft Ltd. in Budapest (Ungarische Flugzeugwerke A.G. or UFAG), and the Hungarian General Machine Factory (MÁG) in Mátyásföld joined in the aircraft production during the war.

The UFAG constructed a new aircraft factory, which was able to meet the technical expectations of the era by the end of 1915. It soon became the greatest factory of its

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\(^8\) Ibidem, 101.
\(^9\) József GALÁNTAI, Az első világháború, Budapest 1988, 246.
\(^11\) KOVÁCS, 101.
\(^12\) ROBERTS, 48.
kind, employing more than 3,000 workers at the beginning of 1918 and cooperating with several contractors. The three aircraft factories in Hungary produced 2,029 aircrafts during the war.\(^{13}\)

“The Monarchy had 61 reconnaissance, 13 fighter and 5 bomber companies in August, 1918... During the war, the air force of the Monarchy received 5,391 aircrafts but this was less than 10% of the production of Great Britain or France.”\(^{14}\)

The engine factories in the Hungarian Kingdom were important bases of the Monarchy’s aircraft engine production: the MÁG-Daimler, Ganz-Hiero in the Hungarian capital or the Hungarian Automobile Corporation (MARTA), converted from an automobile engine factory.

Each of these factories had the capacity to produce the four-valve Mercedes-Benz aircraft engine which was considered one of the best in 1918. “During the war the three Hungarian factories produced altogether 1146 aircraft engines.”\(^{15}\)

III.4. Chemical weapons

The chemical industry represented itself mainly in the rapidly developing production of gunpowder and explosives but the production of chemical ordnances was started in 1916, mostly in Hungarian factories: in the Chinoin Corporation in Budapest and the chemical plant in Dicsőszentmárton. The Chinoin, from the spring of 1917 and in consultation with the Ministry of Defence, spent about 60% of its yearly investments (about 580 thousand crowns) on the backgrounds of the production of the irritant bromoacetate and cyanogen bromide. Also, the chemical plant of Dicsőszentmárton was opened in the same year, as the result of an almost 400 thousand crown-investment.\(^{16}\)

III.5. Optical equipment

“The Hungarian army also tried to equip its soldiers with the most up-to-date equipment.”\(^{17}\)

As we have learned from the above, the need for an army using long-range guns firing with smokeless gunpowder became more and more considerable. The purely mechanical sighting, because of the distance limits of the human eye, could no longer meet the requirements of the modern weaponry. This is when the armies equipped their modern guns with optical sightings.

The binding of the Austro-Hungarian armed forces to the German optical companies is evident, as they played a pioneering role in the starting of the mass production of optical devices. The Monarchy was in a convenient position because it could leave the production of its military instruments to the German factories with high production capacity, providing high quality products.

\(^{13}\) KOVÁCS, 100.
\(^{15}\) KOVÁCS, 99–100.
\(^{16}\) Ibidem, 101.
The similar Hungarian companies were far less developed and large-scale. A common feature of the companies of the optical industry was that they did not only produce optical instruments. They had strong ties to the education sector; most of their profits came from the production of visual aids, laboratory and experimental equipment.

III.6. Other war production details

“The increasing financial demand of the army entailed the intervention of the state in all areas of the economic life.”

Fat centres, meat centres etc. were created in the Monarchy as early as in the second year of the war. “First the workers of the factories of military production had to work under military orders but later this militarization was gradually extended to other categories.”

Almost all wood plants produced ammunition crates and other military components. The textile and leather industry produced an increasing amount of military clothing, boots and other equipment like belts and harnesses.

Because of the mass production of food articles, the mill and food industry started to grow as well.

The military supply sector of the domestic industry did not reach the 36,4% quota defined in the economic compromise. Only exceptions were the production of the ratios of gunpowder and explosives (44,9%), the food supplies (55,9%), the ammunition delivery (36,44%) and the production of chemical warfare agents (50,7%).

IV. Military loans

“The entry of the United States, the most powerful economic power of the world, gave an enormous psychological boost to the Allied powers, whose situation did not provide many causes for optimism… But by 1918 the situation changed. The Germans knew well that if they would not win within a short while, the defeat was inevitable.”

Accordingly, their most important ally, the Austro-Hungarian Monarchy had to mobilize all of its reserves for the sake of the less and less hoped victory.

“In the third year of the war, the military industry of the central powers, struggling with a shortage of raw materials, could not fully satisfy the army’s needs. Primarily the Austro-Hungarian Monarchy introduced new coercive measures: the violent confiscating of copper, lead and zinc. Bells, door handles, personal items and factory reserves of other purposes were all used up.”

Soon after the breakout of the war, collections began to help complete the state functions.

“If nowadays people talk about the First World War, they always remember the war loans…”

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19 GALÁNTAI, 248.
20 KOVÁCS, 102.
21 ROBERTS, 43.
22 LIPTAI, 82.
For a long time, the term ‘war loan’ was part of almost all village and family histories as the money smaller or greater community’s money was lost on this investment. However, it was a huge sum: "The eight Hungarian war loans altogether were noted in 18.5 billion crowns, the first three of them in about 4–5 billion."²⁴

The army of the Hungarian Kingdom inside the Austro-Hungarian Monarchy and its supplying military economy went through a considerable development before and during the war.

The entry of the United States in 1917 however soon turned the balance of power to the Allied forces. Because of the naval blockade against the Central forces, the Monarchy was forced to supply the growing needs of its fighting army with less and less raw materials. Under these circumstances the technological supremacy of the Allied forces became more and more evident.

The European economy was altered so much that it took long years to restore the cooperation and prosperity of the era right before the war.²⁵

V. Guaranteeing the safe operation of the military industry and the hinterland

As can be seen from the above, the performance of the bloated military industry was far higher than before the war.²⁶

The home affairs structure, having been built and modernized for about a decade, was able to perform in an excellent way in the upholding of the law and order inside the country during the first years of the war. It was necessary to make full use of the capacity of the military industry.

It is useful to overview the story of the development of the modern administration structure which, just like the army, got into a disastrous situation by the end of the war.

The law enforcement organizations, weakened by the army enlisting, faced tasks they were unable to cope with. In the last period of the war the army had to set up so called "assistance formations“ (of selected personnel) to deal with the deserters and to uphold the worsening public safety of the hinterland.²⁷

In the last year of the war more than half of the army was not fighting at the fronts as more and more soldiers were needed in the hinterland to keep the people and the other soldiers under control.²⁸

An example for disturbances, civilian and military riots and sabotage actions: on 17 June 1918, the workers of the MÁVAG Machine Factory in Budapest, which was under military control, went on strike. 20 workers fought the gendarmes and because of this the strike

²⁴ Ibidem, 141.
²⁵ ROBERTS, 51.
²⁶ KOVÁCS, 102.
spread to the entire city and to some other towns in the countryside. Soldiers, gendarmes and policemen occupied the most important places of the capital.²⁹

V.1. The formation of the Hungarian law enforcement bodies in the era of dualism

The compromise between Austria and Hungary stated the restoration of the constitutionalism in the law article no. XII. of 1867, which the Hungarian Parliament accepted and which was regarded as compulsory for the internal affairs of both countries.³⁰

The law enforcement in the Hungarian Kingdom of the Austro-Hungarian Empire was reorganized on the basis of new principles after the compromise. It was no longer regarded as the monopoly of the central state power, the state and the local governments both had the authority to maintain law and order. The central state power formed state law enforcement bodies only where the local governments were unable to.³¹ During the years, as the Hungarian law enforcement organization gained experiences and became more and more unified, it was able to fulfill its tasks better and better: the protection of the constitutional rights of personal liberty, property, the institutions and the legal rights by the prevention, discovery and liquidation of the internal attacks against them.

V.2. The formation and development of the Ministry of Interior

The formation of the ministries, among them the Ministry of Interior (hereinafter BM, following the Hungarian abbreviation) was carried out by the provisions of the 1848/III. and the 1867/VII. law articles. The BM united the authorities which were important from the point of view of the organization and management of the internal life of the country. So, everything which could not have been assigned to the ministries operating in a professional manner was assigned to the BM. Initially it worked as a ministry of public health, welfare and even labor. It was responsible for the management of law enforcement, public health, welfare, press, guild, voting rights and the national funds. An important task of the forming internal administration was the creation of the country’s public safety.³²

Following the compromise, there was also a political system change, by which on the one hand the structure of the era before the neo-absolutism was brought back and western-European examples were nationalized on the other.³³

A special feature of the law enforcement organizations in Hungary was to integrate in the Empire’s unity in a disintegrated way.³⁴

²⁹ Ibidem, 66.
³² BOTOS, 13.
³⁴ József PARÁDI, A dualista Magyarország rendvédelmi szervei, endőrtiszi főiskolai jegyzet, Budapest 1990, 52.
In the first part of the history of the development of the law enforcement bodies during the time of dualism, between 1867 and 1880, beside the importance of the national traditions, the professional experiences of the high-level Habsburg administration were relied on. In the meantime the Hungarian law enforcement bodies gained the necessary experiences in the fulfillment of the public safety requirements of the increasingly powerful middle class. The second part lasted until 1912, the issue of the no. LXIII law article about the exceptional was executed. The exchange of experiences of the public safety organizations between the two halves of the empire did not cease but they became bidirectional. At the same time the Hungarian leaders used western-European experiences as well, regarding the special state and traditions of the historical Hungary. This is how the image of the Hungarian law enforcement forces formed according to the needs of the developing middle classes in the Carpathian Basin.

The third part, which was mostly about the domination of militarism, just like in the entire society, lasted until 1918, though the law article of the exceptional power, which signaled its beginning, strengthened the civil administrative authorities against the military ones. In practice however – in an increasing pace as the war was drawing to its end – the military methods became dominant or dependent on the military power of the Monarchy in the public safety organizations.  

It was because of the monarch himself and the close relation between the imperial and the royal armies that the Hungarian government avoided the use of armed forces for homeland security. It was however the statutory duty of the corps of the Hungarian Royal Army to help the homeland security bodies if needed.

The last part of the examined period from the point of view of the development history of the law enforcement ended in 1921 by the formation of the state police, following a regulation. As a result, beside the town police headquarters, county and district headquarters came to life and the position of the National Police Chief was created to manage the united – including the gendarmerie and the river police – public safety organization. The National Police Chief, by the nature of his authority, is the central chief of all branches of the state law enforcement, including the political one as well.

V.2.1. The first law enforcement organizations after the compromise

During the creation of the two-centered constitutional monarchy, the issue of public safety did not become a common one. The reborn Hungarian Kingdom was allowed to independently organize its state and local police forces, the Hungarian Royal Gendarmerie, the Hungarian Royal Border Guard and the Hungarian Royal Finance Guard.

The latter was created at the same time with the dualist state formation as one of the competencies of the Finance Ministry, the same way the correctional institution was under the control of the ministry of Justice.

37 PANTL, Kálmán: Politikai rendészet, in: A Rend, 1, 1921, 3, 1.
Also, the Hungarian guarding bodies and the Royal Crown Guard were under state control from the beginning (the monarch could only be guarded by Hungarian guarding bodies in the territory of the Hungarian Kingdom). Following the assassination attempt against István Tisza prime minister, the 1912/LXVII law article founded the Hungarian Royal Guard of the House of Representatives. On the military frontiers, which were gradually driven back to civilian conditions by the 1872 supreme order of the Monarch, the Hungarian Royal Customs and Tax Guard was created which was merged into the Hungarian Royal Financial Guard in 1886. It had a staff of almost 5,500 people and did not have its own headquarters below the county level. About 3,000–5,000 people may have served in the correctional service, while the guarding bodies, the Crown Guard and the Guard of the House of Representatives had a staff of about a thousand people.

V.2.2. The Budapest state police and the local police organizations

During the decades of dualism, of the law enforcement organizations mainly the gendarmerie and the Budapest state police (founded by the 1872./XXVI. law article), the border police (created after the turn of the century) and the state police of Fiume were under the Ministry of Interior’s control. State police forces were created where public order and the direct state control were of high priority. The police organizations of the free royal cities remained in the authority of the local governments so their activities could have been influenced by the Ministry only indirectly – with the limitation that after 1886 the town police chiefs were nominated by the Lord Lieutenants – and the government intentions usually prevailed regarding the person. The state police of the capital performed national tasks as well from the time it was founded. In many cases the detectives of the capital carried out investigations in the countryside, too, following the orders of the Minister of the Interior. The criminal data and photo register, introduced in the second half of the 1880s, and later the fingerprint collection gradually gained nationwide importance. However, because of the lack of financial resources and the antipathy and resistance against the centralization efforts, the centralization of the police was fully realized only in the area of Fiume during the years of dualism, by the creation of the Fiume state police.

The town police organizations, supervised by the local governments meant the backbone of the Hungarian police; the number of their staff was around 10–12 thousand. The police forces in the countryside were in a worse situation. Their leaders usually promoted the centralization efforts at their regularly held congresses. At around the turn of

39 PARÁDI, 2012, 34.
40 PARÁDI, 1995, 55.
41 Ibidem, 56.
42 PARÁDI, 1995, 53.
43 BOTOS, 1994, 21.
44 Ibidem, 23.
the century the local governments voted for the centralization, mainly because of financial considerations. The leaders and staff of the country police forces strongly believed that they would have higher financial and moral appreciation as state employees.  

V.2.3. The inherited and the new gendarmerie, founded in 1881

Unlike the police and the law enforcement organizations in connection with the local administration, the gendarmerie can be more regarded as a centralized, state-controlled public safety organization. The situation of the gendarmerie was different as after the Compromise the frameworks of this organization were untouched in some parts of the country (in Transylvania and Croatia). Here the direct supervision and control of the Ministry of Interior was stronger, even if these rights were practiced together with the Ministry of Defense. Initially the gendarmerie of Transylvania belonged partly to the common Ministry of Defense and the Ministry of Interior while in Croatia the local Interior Ministry supervised. The staff, promotion and disciplinary matters of the Hungarian gendarmerie belonged to the responsibilities of the minister of defense, the administration and service matters belonged to that of the minister of interior. Its operation was financed by the Ministry of Interior. Finally, on the proposal of István Tisza prime minister and minister of interior, in 1881 the II and III law articles founded the gendarmerie the staff number of which was determined in 8 thousand people. By the adaptation of the new laws the counties practically lost their authority in the upholding of the public order.

The higher quality work of the gendarmerie as opposed to the locally supervised police forces was ensured by their better education, better equipment and the unified law enforcement strategy.

An example of the effectiveness of the gendarmerie is that in the year 1911 66,218 of the 74,020 reported cases were solved.

Also, as an internal order of the organization said „The duty of the gendarmes is to carefully preserve the reputation of the institute and to supervise and encourage each other”.

V.2.4. The Border Guard from 1903

The 1905/VIII law article, together with no. VI, regulating immigration, and no. VII, regulating passport matters defined that „a state border guard should be set up to deal

46 BOTOS, 23.
48 BOTOS, 24.
with border guarding matters”. It must be added though that the law came into effect only at the end of 1905.
The system of frontier police headquarters was built under the supervision of the police department of the Ministry.
To control the border guard, in 1913 the border guard command was created by the direct order of the minister which can be considered a unique way. Besides, the Ministry set up a centrally supervised detective body of a growing number as well. 52
The organization of the Hungarian Royal Border Guard was made up of 16 stations and 27 offices where altogether a staff of 600 people served. 53

V.3. Home affairs from the eve of war to the collapse of the Monarchy

By the years preceding the war, the scope of authority and the organizational structure of the Ministry of the Interior firmly developed based on the decades of experiences during the time of dualism. Of the three general departments of law enforcement: the police, the public order and the criminal one, the state police and public safety division of the police department dealt with the issues of police organizations. One of these divisions’ tasks was to carry out the national management of the border guard as well. 54
The internal structure of the Ministry of Interior did not basically change until the collapse of the Monarchy, it only differentiated according to the assignments. The scope of authority of the Ministry covered more and more areas of the public administration and everyday life because of the extraordinary situation during the war. 55
In the years before and during the war, the plan of a centralized state police and the concept of the coordinated management of the police and gendarmerie to be nationalized were laid down. When the war conditions were over, the modification of the administrative system and the nationalization of the police were implemented based on those concepts. 56
After seven years of preparation the 1912/LXIII. law article was passed. Just like the British one, it allowed the government to moderate the rights of freedom in the hinterland. The gendarmerie’s limit of power was extended to the towns according to the local needs. The post and telephone traffic was put under control and the scope of martial law was extended. The issuing of passports was also limited. The obligation for registration was in force in the whole territory of the country. Most of the tasks resulting from exercising the exceptional power had to be carried out by the Hungarian Royal Gendarmerie and the police. 57
The war atmosphere and the significantly increased powers sometimes lead to overzealous actions. But the Hungarian law enforcement bodies were restrained compared to the army forces. 58

52 BOTOS, 1994, 23.
54 PARÁDI, 1990, 16.
55 BOTOS, 31.
56 Ibidem.
57 PARÁDI, 1995, 146.
58 Ibidem, 147.
During the two years preceding the war the law enforcement bodies were prepared for war conditions but only a short-term extraordinary period was expected. The best members of these forces were called up for army service and they were "replaced" by people who were unfit to serve on the battlefield and inexperienced in law enforcement.59

VI. Summary

The Army of the Hungarian Kingdom inside the Austro-Hungarian Monarchy and its supporting military industry went through a significant development before and during the war. Because of the sea-blockade, imposed on the Central Powers, the Austro-Hungarian Monarchy too was forced to meet its munitions requirements, caused by the deteriorating war situation, with less and less raw material. In the meantime, the machinery of the Ministry of Interior, formed and matured during the years of the dualism was trying, as much as it could, to uphold the law and order and the public safety in the hinterland. Its long-term and difficult activities were greatly helped by the law of exceptional power, under which the law enforcement bodies were put to the test and performed very well.

Abstract

The First World War had a considerable effect on the development of the Hungarian military industry. The war had its effect in the hinterland as well, and on the basis of the law of exceptional power, affected the development of the law enforcement bodies. The sources clearly show how the Hungarian military industry satisfied the requirements of the branches and how the Interior Ministry upheld the continuous operation of the public administration and public safety. Several of the then flourishing military companies’ names have since been forgotten while of the bodies of the border guard, gendarmerie, state police, guaranteeing the order in the hinterland in the midst of war conditions, only the last one survived, named police. How were these military factories born and how could they boost their production? How the law enforcement bodies of the era were founded, with what manpower and organizations did they guard public safety?

Keywords

First World War, military industry, military technology, Interior Ministry, police, state police, gendarmerie, border guard

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59 Ibidem, 79.


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