

**The railway and its competitors: co-ordination and competition in passenger and freight transport in Austria and Switzerland during the first half of the 20<sup>th</sup> century**

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**Abstract:**

The Austrian Railways found themselves in a difficult situation after the fall of the Habsburg Empire in 1918. Not only did they have to distribute the wagons, engines and the staff among the successor states and to adapt the mutilized railway network to the needs of the then small Austrian Republic but they also suffered from a severe lack of coal and had to cope with growing competition from the motor bus and the lorry. The Federal Railways reacted, among others, by founding a new bus company, taking-over competing bus companies, ordering new rolling stock, reducing travel times by using light railways, offering reduced tickets for tourists and special freight tariffs, by acquiring capital shares in aviation companies and, last but not least, by lobbying for legal measures in favour of the Federal Railways. The electrification of the railway network, starting in the west of the country, was one of the most important issues. The Austrian Federal Government tried to help the Railways by legal measures which failed. There is a slow shift in governmental transport policy from rail to road during the late 1920s and 1930s. In Austria, the problem of competition and co-ordination between road and rail could only be solved in the late 1950s.

The situation in Switzerland was very similar to that in Austria but the solutions found differed much. The lack of coal was met by a very consequent electrification of the railway network: on the eve of World War II already 77% were electrified. This extraordinarily high degree of electrification soon became a symbol of Swiss economic performance and independence and was unique in Europe. Swiss railway electrification was a model not only for Austria. As lobbying for legal measures against competitors in freight traffic did not prove to be successful, the Swiss Federal Railways sought to achieve a compromise with private road hauliers by co-operation. In 1940 competition between road and rail as well as between the road hauliers was nearly brought to an end by a new law.

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### 1. The fall of the Habsburg Empire 1918 and its impact on the railway

With the defeat of 1918 and the fall of the Habsburg Empire the Austrian Railways had to cope with a difficult situation in many respects: first, the engines, the carriages and wagons had to be distributed among the successor states but more than a proportionate part of the administrative staff remained in Austria. Its number was much too high for the now small country, causing an increasing deficit. Secondly, the Austrian Railways nearly completely depended upon coal as a source of energy because Austria had largely neglected to use alpine water power as Switzerland had begun to do. The coal, however, came from Silesia and Bohemia and now had to be imported from Poland and Czechoslovakia. But Austria lacked the money to pay for the import of coal so the trains often did not run like scheduled or not at all in the first time after war. Thirdly, the railway network had got some gaps due to the new frontiers because Austria had to cede some important railway nodes to Czechoslovakia, Hungary, Yugoslavia, and Italy<sup>1</sup>. Nearly all important railway lines connecting the former capital with the remotest parts of the empire were now cut off by the new frontiers.

Austria-Hungary like Germany, but to a much lesser extent, was above all a country important for European railway transit. Passenger and especially freight transport between Russia and Italy, between Germany and the Balkans and, lesser important, between Switzerland and Eastern and South-Eastern Europe, had to pass through Austria-Hungary. This strategic position was partly lost after 1918, though the freight transit corridor from the Adriatic to North-Eastern Europe remained important. Some of Austria's formerly most frequented tourism resorts, the Bohemian spas and the Austrian Riviera on the Adriatic coast, now being less easily accessible, summer holiday resorts along the Western railway in Tyrol, in Salzburg and in the Salzkammergut region knew a remarkable rise. The main axis of transport shifted from north-south (Silesia-Bohemia-Vienna-Triest) to east-west (Vienna-Linz-Salzburg-Germany/Tyrol and Switzerland). This was not only due to the new frontiers but mainly to the economic situation in central Europe after 1918.

Despite all these changes, the railway kept its dominant and overarching position in the transport sector. In fact, until 1918 the railways had hardly known any competition at all. Suburban, inter-urban and long-distance passenger transport was nearly exclusively provided by the railway, whereas in urban areas the tramways occupied a leading position. Only in rural areas hitherto insufficiently serviced by the railways did road transport still prevail. If the railways had to face any competition at all, it did not derive from any mode of transport within the country but from international sea transport, of course mainly as freight transport was concerned. Under these circumstances it becomes clear that reliable and short connections to Austria's most important sea harbour, Trieste, always played a crucial role within the country's transport economy.

The Habsburg Monarchy always felt a severe lack of internal waterways as river transport on the Danube, flowing "into the wrong direction" to the Black Sea, could never been compared to the Rhine or the Elbe. In 1912, only 2.7 million tons were transported on the Danube whereas on the Elbe which could be used by steam ships only in a very short section, 3.7 million tons were shipped<sup>2</sup>. Nevertheless, the Austrian Danube Steam Navigation Company (*Donau-*

<sup>1</sup> Mechtler (1965), Staudacher (1994), esp. p. 18.

<sup>2</sup> See Hertz (1917), p. 58, and Bachinger (1973), p. 311.

*Dampfschiffahrtsgesellschaft*) by far dominated transport on the Danube. When in 1901 a large infrastructure building programme (*Koerber-Plan*) passed Parliament, it did not only comprise new railway lines to be built but also new internal waterways (*Wasserstraßenvorlage*)<sup>3</sup>. Only the railways however were realised.

During the 1920s and still more during the 1930s this traditional modal split pattern gradually began to change in favour of road transport though the railway managed to keep its leading position. In general, transport still meant railway transport and, consequently, transport policy still meant railway policy. The transport crisis following the end of the war largely was a railway crisis.

**Table 2. Passenger and Freight Transport in Austria (Cisleithania), 1913**

	Passenger Transport		Freight Transport	
	Passengers Transported (in 1.000)	Approximate Modal Split Share (%)	Freight Tons Transported (in 1.000 t)	Approximate Modal Split Share (%)
Railways	301.915	84	158.818	96,1
Urban Transport (including electric, steam and horse-drawn tramways)	53.746	14,9	586	0,4
Internal Waterways (Danube, Elbe)	2.748	0,8	5.719	3,5
Motorized Public Road Transport (Postal and Private Services)	1.187	0,3		
Total	359.596	100,0	165.123	100,0

Source: Österreichisches Statistisches Handbuch für die im Reichsrathe vertretenen Königreiche und Länder 1914, Vienna 1914

Cisleithania comprised the Alpine countries, Bohemia, Moravia, Silesia, Galicia, Bucovina, Krain, Istria and Dalmatia but not Hungary and Croatia.

## 2. An age of competition: the 1920s and 1930s

Very soon after armistice the first proposals for modernization and rationalization were made and in 1922 the League of Nations which was supposed to give a huge credit to the Austrian Federal Government in order to put the Austrian budget back on its feet claimed far-reaching reforms within the railways: a staff reduction, new tariffs, the introduction of business principles etc. In fact, in 1923, the Austrian Railways which hitherto were a part of the Ministry of Railways now became a business enterprise, thus separating ministerial administration from management, a measure almost

<sup>3</sup> Binder (1992).

simultaneously taken by the German government, too. The number of staff was radically reduced, from 228.000 in 1919 to 85.000 in 1926<sup>4</sup>. Nevertheless, the railways kept on suffering from high debts and a general lack of money for investments, the State always being forced to cover the deficits.

The interwar period was undoubtedly determined by the competition between road and rail transport in short-distance transport and the governmental struggle for a co-ordination of these two transport modes. Like in many other European countries, the questions like how to organise and co-ordinate road and rail transport, in which transport mode to invest, who should pay the social costs of transport and what should be the role of the State kept being discussed throughout the interwar period<sup>5</sup>. There is a huge amount of contemporary literature on these questions<sup>6</sup>.

Apart from that, the rising importance of the aeroplane and of aviation in general as another emerging competitor in long-distance travel and transport must not be neglected. The aeroplane as the fastest, the most modern, the most luxurious and therefore most elitist means of transport proved to be a severe competitor at least for the luxury long-distance train. When, in 1922, the *Compagnie Franco-Roumaine de Navigation Aérienne* opened an air route running from Prague via Vienna to Belgrade, then even to Constantinople, this was not only faster but also more prestigious and therefore far more attractive to upper-class travellers than taking the Orient Express train. This aerial competition only touched the very small market segment of luxury travels, but it drove the wealthiest travellers to shift to the aeroplane whenever offered and apparently made the luxury trains unprofitable. The famous Orient Express consequently was opened to second-class travellers after 1922 in order to gain new customers instead<sup>7</sup>. Moreover, long-distance trains were speeded up in order to stay competitive in relation to the aeroplane and the Austrian Federal Railways sought to look after their interests by acquiring capital shares in those newly founded aviation companies, this being a strategy that would also be pursued facing bus and haulage companies as new competitors in road transport.

The competition in road transport did not derive, as one might suppose, from the privately used automobile but mainly from the bus and then later, from the 1930s onwards, from the lorry, too.

The bus had already proven its reliability before the war. Soon after the turn of the century when the building of a network of local railways was at its height, the first motor post bus line had been inaugurated in today's Southern Tyrol and Trentino. Because of its success, in the same year another line in Upper Austria between Linz and Eferding was opened which, however, became partly obsolete when a local railway was built there and it was finally reduced to a short section. Nevertheless, even this short service was well frequented and led to the establishment of new bus lines throughout the country, above all where there had been long discussions whether to build a local railway or not. Even the first transnational lines were put in service and in May 1914 five motor buses started for a first long-distance package tour from Vienna to Bozen.

In Vienna, however, the motor bus for a time being was not successful: the privately owned *Vienna General Omnibus Company Ltd* which had a huge stock of horse-drawn omnibuses established a motor bus service during six weeks only in 1905. Another two lines operated by the Municipality of Vienna in 1907 were soon substituted by tramways. It seems as if the motor bus could not yet

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<sup>4</sup> cf. Metz (2003).

<sup>5</sup> Wohl and Albitreccia (1935).

<sup>6</sup> cf. Hanel (1932), and Österreichisches Kuratorium für Wirtschaftlichkeit (1936).

<sup>7</sup> Warmuth (1989), p. 152.

compete at that time with the tramway. Only in 1913, another now successful attempt to introduce motor buses into Vienna's urban public transport was started with various bus types already in use in London, Paris, Berlin and Leipzig.

Beside this late start in Vienna, motor bus services knew a remarkable rise before the outbreak of war, only hindered by the often bad state of roads which did not allow any heavy motor transport. By 1914, 37 motor bus lines were in service, eleven of them only in Tyrol where the newly built alpine road through the Dolomites attracted much tourists. In general, these motor buses in rural areas scarcely competed with the railways but rather complemented them. Some of these lines were only run in summer because they primarily served the needs of tourism. This promising early development of the motor bus was then suddenly stopped by the outbreak of World War I.

During the war the lorry, too, proved its reliability and fitness. In the 1920s and 1930s when the Austrian Railways had to overcome a deep crisis the lorry gradually replaced horse-drawn transport and local railways and competed severely with short-distance railway transport. Using the lorry with its higher speed instead of the horse easily perishable goods like milk, meat, vegetables, fruits and flowers now could faster be delivered to even more distant markets. A transport economist in 1928 judged the lorry being competitive with the railway not only in short-distance transport but even until a distance of 200 km due to its many advantages<sup>8</sup>. In fact, when complaining about her competitors the Railways could never exactly say how much transport they really lost due to this competition. Only in 1930 the first official railway statistics after World War I were published, containing the figures for the year 1927, but nothing was to be read there about competition between road and rail.

If we take a look at the numbers of passengers and goods transported by the Austrian Federal Railways from 1927 onwards we see an increase in both passenger and freight transport during the short period of economic recovery and even prosperity in the late 1920s. But as early as in 1928/29 the volume of freight transport began to fall off dramatically due to the world economic crisis. The same then happened to the volume of passenger transport with a delay of some months. It is remarkable, however, that the volume of freight transport started to rise again in 1933 when the economic crisis seemed to be overcome whereas passenger transport kept on decreasing and did only little recover from 1935 onwards. It seems as if freight transport was much more dependent of macro-economic factors than passenger transport and that the latter, in contrary, suffered more from competition on the part of the motor bus than from economic recession. The volume of heavy goods usually transported by the railways like wood, fuel, coal, ore, and stones knew a higher decrease than goods that could be efficiently transported by motor lorries as well. These losses in heavy transport may therefore be interpreted as the impact of economic crisis.

According to a contemporary expert, the modal split shares in 1932 were the following: railways 71,2 %, motor bus transport 6,9 %, motor transport (without bus transport) 21,3 %, river navigation 0,5 %, aviation 0,1 %.<sup>9</sup> If we look at the number of passengers transported the motor bus even had a share of 11,2 %. The average travel distance with the motor bus only was 7 km but if we only take inter-urban and long-distance transport the average travel distance is nearly the same as with the local railways. Only 2,6 % of all registered motor cars in 1932 were motor buses but nearly a quarter (24,2%) of all motorised road transport was provided by buses<sup>10</sup>.

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<sup>8</sup> Teubert (1928), 404.

<sup>9</sup> Zumtobel (1934), annex 2.

<sup>10</sup> Zumtobel (1934), p. 12f.

According to the official timetables, in 1919 only 9 motor bus lines were in service but the number rapidly increased from 23 lines in 1920 to 76 in 1924 and nearly 500 in 1932. By far the largest motor bus network was operated by the Austrian Postal Service which had been the pioneer of public motor transport before 1914. In order to compete with the bus and the lorry, the Federal Railways founded a bus company of their own, the *Bundesbahn-Kraftwagen-Unternehmung*, from 1933 on known under the abbreviation “KÖB” (*Kraftwagenbetrieb der Österreichischen Bundesbahnen*). This motor bus company often operated lines that ran parallel to the railway in order to not allow any other company to rival her. In 1931 she took over one of the most powerful competitors, the LOBEG company (*Lastwagen- und Omnibus-Betriebs-Gesellschaft m.b.H.*), which had built up large regional bus networks, together with her subsidiary companies. Besides these two big companies under the influence of the state there were many small companies that sometimes operated only one or two lines.

**Table 2. Passenger and Freight Transport in Austria, 1927 and 1936**

Transport Mode	Passengers Transported (in 1.000)		Freight Transported (in 1.000 t)	
	1927	1936	1927	1936
Railways (Federal and Private Railways)	108.051	63.350	27.806	25.380
Urban Transport: electric tramways	690.878	508.162	206	75
Internal Waterways: Danube	693	674	1.938	1.668
Motorized Public Road Transport	Post	1.705	3.048	
	KÖB	-	5.410	
	Oberkraft	485		
Aviation (all companies)	16	41	0,5	1.097

Sources: Statistisches Handbuch für die Republik Österreich, vol. 9, Vienna 1928. – Statistisches Jahrbuch für Österreich 1938, Vienna 1938. – Amtliche Eisenbahnstatistik der Republik Österreich für das Jahr 1927, Vienna 1930, 276-277. - Amtliche Eisenbahnstatistik des Bundesstaates Österreich für das Jahr 1936, Vienna 1938, pp. 55-56.

On the other hand, in Upper Austria the local government founded a motor bus company called *Oberösterreichische Kraftwagenverkehrs-AG (Oberkraft, 1923)* which grew very fast: in 1925 more than 444.000 passengers were transported in 48 vehicles. By 1930, the *Oberkraft* was the leading bus company in Upper Austria counting more than a million passengers (Post: 252.000, KÖB: 199.000 passengers). During the second half of the 1920s new motor bus services were inaugurated in many larger Austrian cities.

### 3. How did the Austrian Federal Railways react?

As we have seen above one strategy consisted in founding a bus company of their own. On the other hand, the Federal Railways (*Österreichische Bundesbahnen, ÖBB*) tried hard to make suburban and short-distance travel more attractive, especially for commuters, among others by renewing the rolling stock and reducing travel times by using light railways. Beyond that, the management sought to keep

expenses as low as possible and to operate as efficiently as possible. Reduced tickets were offered to tourists and especially during summer, customs clearance for freight was speeded up and special freight tariffs offered. Following the example of the American Railways, engineers even thought of introducing high-comfort express trains running between Vienna and Salzburg – Austria's most frequented railway line – conceived to be used by wealthy travellers and, above all, by tourists.

**Table 3. Motor Vehicles in Use, 1921 – 1939**

Year	Private Cars	Taxi-cabs	Motor Coaches	Lorries	Motor-cycles	Others	Total Number of Motor Vehicles
1921	7'687			3'234	2'592		
1925	8'095	2'932		6'190	15'963		
1930	12'392	4'963	2'133	12'516	17'974	18'160	68'138
1931	13'499	4'914	2'138	13'372	19'821	22'409	76'153
1932	17'960	5'220	2'407	14'088	26'414	24'926	91'015
1933	18'141	5'125	2'353	13'746	26'645	26'232	92'242
1934	18'891	5'062	2'324	13'687	27'146	28'244	95'354
1935	21'789	5'021	2'458	13'921	29'066	30'756	103'011
1936	25'149	4'939	2'494	13'599	30'219	34'210	110'610
1937	28'081	4'292	2'392	13'817	58'872	12'131	119'585
1939	59'708		1'395	21'743	105'402	1'229	189'477

Sources: *Statistik der Kraftfahrzeuge in Österreich 1930-1937*, Vienna 1931-38; *Statistisches Jahrbuch für das Deutsche Reich 1939/40*, p. 236.

In 1930 and 1931 motor vehicles were counted on 30<sup>th</sup> September, and from 1932 onwards on 31<sup>th</sup> December; 1939: 1<sup>st</sup> of July. Statistical data published before 1930 were judged to be rather inexact already by contemporaries of the 1930s.

As to the infrastructure which had to be adapted to the new spatial structures, there was no money to build new railway lines except for but two secondary lines. The only success was the electrification of a large part of the network in the western states. These efforts were mainly driven by the lack of coal. By 1930, the whole network in the west of Salzburg and the Salzkammergut region was electrified, a total of 835 km, though this success was only achieved five years later than planned. Due to the world economic crisis works had to be stopped. In Switzerland, in contrary, electrification works were speeded up because of the crisis in order to give work to the unemployed. Then, the Tauern railway line was electrified until 1935.

Let us take a glance at the Swiss Federal Railways (Schweizerische Bundesbahnen, SBB) and see how they coped with competition from the road. Like the Austrian Federal Railways the SBB enjoyed a de facto monopoly in long-distance transport at the beginning of the century. The traditional horse-drawn postal service was not reduced by the railway but knew a remarkable rise because the railways had caused a general rise of transport volume and the stage-coach could profit

from that by transporting passengers to and from the railway stations. Nevertheless, stage-coach transport in 1910 only transported 1,9 million passengers whereas 240 million people used the railways<sup>11</sup>.

The Swiss Federal Railways had only emerged at the turn of the century from the merger of five big railway companies which were bought up by the Federal State in the years between 1900 and 1909. Between 1913 and 1948 another four small privately owned companies followed<sup>12</sup>. The new company started with high debts from these purchases which proved to be a great burden during all the years until 1944 when the Federal State finally released the SBB from a great deal of the debts and injected fresh capital<sup>13</sup>. The existing railway network was dense and well adapted to national transport needs but the infrastructure and, above all, the rolling stock was somewhat neglected. Until the outbreak of World War I the SBB managed to renew both the rolling stock as well as the infrastructure (stations, workshops).

Even if not directly involved in war Switzerland, too, suffered from a severe lack of coal. The SBB therefore were not capable of maintaining full service during the war so that public opinion gradually turned against the railways because customers, politicians and even the railway staff doubted on the SBB's reliability. Moreover, with the outbreak of war wealthy tourists from abroad did not come any more and after 1918 did not come again. This was all the more a setback because foreign tourists constituted the most important clientèle, even more important than the home market.

Under the impression of growing dependence on coal imports from abroad the electrification of the railway network soon became a key issue of railway modernization even though the first attempts and proposals had already been made since 1901 and the Lötschberg-Simplon line had been electrified as early as in 1913. In 1918 the SBB's Administrative Board definitely decided to adapt the most important lines to electric traction, the electricity coming from Swiss hydro-power. 55% of the whole network were electrified by 1928, on the eve of World War II even 77%. This extraordinarily high degree of electrification soon became a symbol of Swiss economic performance and independence and was unique in Europe<sup>14</sup>. Swiss railway electrification was a model not only for Austria<sup>15</sup>.

In order to compensate for foreign tourists the SBB after 1918 sought to gain new customers by making railway travel more attractive to the Swiss. From 1924 on travelling in and through Switzerland with the SBB was heavily promoted.

At the same time the Swiss Postal service decided to switch from the horse to the motor bus because the Swiss army gave her a great number of lorries they did not need any more after war. These lorries were now converted to motor buses (*cars alpins*). Both the network and the number of passengers transported by the postal motor bus service grew very fast. The motor bus substituted other transport modes but did also complement them<sup>16</sup>. Like in Austria, road transport was furthered by improving

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<sup>11</sup> Frey (1999), Bretscher (2006).

<sup>12</sup> Paquier (2006).

<sup>13</sup> Buchli (2006), Meyer (1947).

<sup>14</sup> Bairoch (1989).

<sup>15</sup> Staudacher (1995).

<sup>16</sup> Merki (1998).

the road network. This was largely financed by the car owners and the gas taxes (*Benzinzoll, Treibstoffzoll*) they paid<sup>17</sup>.

At first the SBB less successfully coped with growing competition from road freight transport. Attempts to make her influence bear on the process of law-making in order to hinder haulage transport did not succeed. Then, around 1930 there seems to be a paradigm shift within the SBB management towards co-operation with the haulier companies instead of confrontation. Following the recommendations of a special committee, the *Schweizerische Express A.G. (SESA)* was founded in 1926 as a first step towards a closer co-operation between road and rail. The SESA helped to gather experience in the new field of combined freight transport<sup>18</sup>. Together with privately owned railway companies the SBB offered a door-to-door road-rail haulage service which allowed them to maintain a strong position in the parcel service market. Until 1934 the SBB and the road hauliers even came to an agreement as to how to rationally divide the freight transport market among them. The draft bill was approved. It provided for a compulsory concession for any professional road freight transport and a division of tasks regulated by law. In May 1935, however, when the law was submitted to a referendum, the Swiss clearly voted against<sup>19</sup>.

**Table 4. Passenger and Freight Transport in Switzerland, 1927 and 1936**

Transport Mode		Passengers Transported (in 1.000)		Freight Transported (in 1.000 t)	
		1927	1936	1927	1936
Railways: Swiss Federal Railways		113.065	106.933	17.867	12.804
Urban Transport	Electric Tramways	203.639	203.222	111	
	Motor Bus	3.315	21.009		
Internal Waterways	Navigation on Lakes	138	197		
	Rhine at Basel			740	2.291
Road Transport	Postal Horse Carriages	76	14		
	Postal Motor Bus Service	2.854	5.246		
	Licensed Motor Bus Companies (non-urban traffic)	1.891	3.559	21	36
Aviation		5.600	30.000		

<sup>17</sup> Merki (1996), Pfister (2004), Ochsenbein (1999).

<sup>18</sup> Brüscheiler (1955).

<sup>19</sup> Mühlethaler (1994).

Source: Ritzmann-Blickenstorfer (1996)

#### 4. What did the Federal Government do?

Switching back to Austria, we shall now see which measures the Austrian Federal Government took. The Federal Government of course was interested in keeping the Federal Railways competitive by taking legal measures in favour of the latter. But we also see a slow shift from railway to road transport not only in the government's transport policy but also in public opinion. Already in January 1925 a meeting of transport experts from government and business as well as of representatives of pressure groups had claimed higher investments in road building because, as many of them argued, road haulage had proven a more efficient, cheaper and faster mode of transport than the railway even though being much hindered by the bad condition of roads<sup>20</sup>.

In fact, in 1928, in order to adapt national roads to the needs of modern motor car traffic, the Federal Government started a long-term national road building initiative (*neuzeitliche Ausgestaltung der Bundesstraßen*). By the end of 1931, nearly 500 km were completed, but then the economic crisis nearly brought all work to a stop because of a lack of money. It was only in 1934 that the Austro-Fascist Regime again paid considerable attention to road building and road improvement using the labour of the numerous unemployed and invested much money<sup>21</sup>. But these measures had a strong focus on the building of tourist roads like the *Großglockner Hochalpenstraße*<sup>22</sup>.

In 1931 a federal tax on gas (*Benzinsteuer*) and another on motor vehicles in use that depended on cylinder capacity (*Kraftwagenabgabe*) were introduced which put an end to the confusing variety of taxes because each federal state and even major cities had imposed their own motor vehicle taxes, the amount differing considerably from state to state. The main reason, however, for introducing these two taxes was to yield higher revenues for the budget. The introduction of a federal tax on gas also went together with the abolition of all still remaining road and bridge tolls. Though the burden of taxation for road transport thus was considerably raised bus travel and road haulage still seemed to be capable of offering their services much cheaper than the Railways. The tax on vehicles in use was abolished in 1935 in order to foster motorization.

In order to protect the highly indebted Federal Railways against growing competition from road transport the Federal Government in 1933, following again the German example, promulgated the so-called Road Haulage Act (*Lastkraftwagenverkehrsordnung*) which was directed at road haulage and not at motor bus transport because the Federal Railways thought the lorry to be their most dangerous competitor. In fact, it was the bus, instead. According to this Act road haulage was simply speaking restricted to short-distance and business-to-business transport whereas long-distance transport was reserved to the Federal Railways. Freight rates were prescribed by the Government. Without any doubt this law was made in favour of the Federal Railways. But it was not a law in favour of the railway in general because privately owned railways were not given preference to in the same way. Nevertheless, the law proved a failure: it was largely ignored by hauliers and neither could it be controlled nor did it have the desired impact of saving the Federal Railways from competition. In 1937 the Road Haulage Act was abolished. The idea of co-ordination between road and rail transport by legal measures had failed.

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<sup>20</sup> Schmid, Staudacher, Lindenbaum (1994), 173f.

<sup>21</sup> Kreuzer (1993), 49.

<sup>22</sup> Rigele (1998).

In Switzerland, however, governmental regulation was more successful. In August 1940, road transport was regulated by the *Autotransportordnung* (ATO) which also followed the German model. This finally proved to be a fair solution because it reduced competition between road and rail as well as among the haulage companies<sup>23</sup>.

## 5. Conclusions

Austria's Federal transport policy of the 1920s and 1930s evidently was rather ambivalent and inconsistent. One might even say that there are hardly any signs of a rational federal transport policy. Hardly any consistent strategy can be discerned as both push and pull factors were used at the same time: on the one hand, the Railways were given preference to by legal measures while on the other hand road transport was fostered by large investments and, though later, by abolishing the *Kraftwagenabgabe*. The Federal Government was well aware of the strange fact that there were two big stately owned road transport companies competing with each other (the Postal Service and the *KÖB*, owned by the Federal Railways), but did not engage very much in merging them; in 1937 a committee was asked to discuss a merger but nothing happened. The Federal Railways, on the other hand, tried to compete with the motor bus and the lorry by taking multiple measures which proved to be at least partially successful. But in the long run, the railway continually lost market shares to road transport.

## Bibliography

BACHINGER (1973): „Das Verkehrswesen“, in BRUSATTI, Alois (ed.): *Die wirtschaftliche Entwicklung*, Verlag der Österreichischen Akademie der Wissenschaften, Vienna, pp. 278-322 (Die Habsburgermonarchie 1848-1918, vol. 1).

BAIROCH, Paul (1989): „Les spécificités des chemins de fer suisses des origines à nos jours“, *Schweizerische Zeitschrift für Geschichte*, vol. 39, pp. 35-57.

BINDER, Harald (1992): „Die Wasserstraßenvorlage und die wirtschaftlich-politische Lage Österreichs im Jahre 1901“, *Österreichische Zeitschrift für Geschichtswissenschaften*, , no. 1, pp. 43-62.

BRETSCHER, Ulrich (1982): *Von der Postkutsche zum Postauto. Geschichte der Reisepost*, Meier, Schaffhausen.

BRÜSCHWEILER, Paul (1955): „Die Ergänzungsdienste der Eisenbahn“, in EIDGENÖSSISCHES AMT FÜR VERKEHR (ed.), *Ein Jahrhundert Schweizer Bahnen 1847-1947: vol. 4*, Huber, Frauenfeld, pp. 546-563.

BUCHLI, Felix (2006): *Schweizer, steh zu deinen Bahnen! Die Sanierung der Schweizerischen Bundesbahnen (1920-1945)*, T. Bautz, Nordhausen (Berner Forschungen zur Regionalgeschichte, 6).  
FREY, Thomas (1999): „Eine funktionale Bestandsaufnahme der Pferdepost, 1850-1920“, *Traverse. Zeitschrift für Geschichte*, no. 2, pp. 89-107.

HANEL, Georg (1932): *Eisenbahn und Automobil in Österreich*, Manz, Vienna.

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<sup>23</sup> Sager (1999), Nellen (1963).

- HERTZ, Friedrich (1917): *Die Produktionsgrundlagen der österreichischen Industrie vor und nach dem Kriege*, Verlag für Fachliteratur, Berlin and Vienna.
- KREUZER, Bernd (2007): “National Road Networks in the 1930s: The Case of Austria’s roads”, in MOM, Gijs, TISSOT, Laurent (eds.), *Road History. Planning, Building and Use*, Alphil, Neuchâtel, pp. 99-116.
- MECHTLER, Paul (1965): „Internationale Verflechtung der österreichischen Eisenbahnen am Anfang der Ersten Republik“, *Mitteilungen des Österreichischen Staatsarchivs*, 17/18.1964/65, pp. 399-426.
- MERKI, Christoph Maria (1996): „Der Treibstoffzoll aus historischer Sicht: von der Finanzquelle des Bundes zum Motor des Strassenbaus“, in PFISTER, Christian (ed.), *Das 1950er Syndrom. Der Weg in die Konsumgesellschaft*, Haupt, Bern and Vienna, pp. 311-332.
- MERKI, Christoph Maria (1998): „Der Umstieg von der Postkutsche aufs Postauto. Zur Motorisierung des öffentlichen Überlandverkehrs in der Schweiz“, *Vierteljahrschrift für Sozial- und Wirtschaftsgeschichte*, vol. 85, pp. 94-112.
- METZ, Ernst (2003): *Beamteneinsparung aufgrund der Genfer Protokolle unter besonderer Berücksichtigung der Österreichischen Bundesbahnen*, unpublished PhD thesis University of Vienna 2003.
- MEYER, Hans-Reinhard (1947): „Die Sanierung der Schweizerischen Bundesbahnen“, in EIDGENÖSSISCHES AMT FÜR VERKEHR (ed.), *Ein Jahrhundert Schweizer Bahnen 1847-1947: vol. 1*, Huber, Frauenfeld, pp. 409-417.
- MÜHLETHALER, Jan (1994): „*Schiene versus Strasse*“. *Von den Anfängen eines verkehrspolitischen Grundsatzdiskurses und dessen Leitbilder in der Schweiz (1921-1935)*, unpublished Lizentiatsarbeit University of Zurich.
- NELLEN, Alfred (1963): *Die Regelung des gewerblichen Strassenverkehrs in der Schweiz von 1920 bis 1960 unter besonderer Berücksichtigung der Vereinbarung Schiene/Strasse vom Mai 1952*, P.G. Keller, Winterthur.
- OCHSENBEIN, Gregor (1999): *Strassenbau und Strassenkosten ohne Ende. Eine systemtheoretische Analyse eines sich selbst verstärkenden Prozesses im 20. Jahrhundert*, unpublished Lizentiatsarbeit University of Bern 1999.
- ÖSTERREICHISCHES KURATORIUM FÜR WIRTSCHAFTLICHKEIT (ed.) (1936): *Eisenbahn und Kraftwagen*, Springer, Vienna.
- PAQUIER, Serge (2006): „Options privée et publique dans le domaine des chemins de fer suisses des années 1850 à l’entre-deux-guerres“, *Schweizerische Zeitschrift für Geschichte. Revue suisse d’histoire. Rivista storica svizzera*, vol. 56, pp. 22-30.
- PFISTER, Christian (2004): „Finanzierung des Strassenbaus: Das Karussell kommt in Schwung“, *Wege und Geschichte. Les chemins et l’histoire. Strade e storia*, no. 1, pp. 26-30.
- RIGELE, Georg (1993): *Die Wiener Höhenstraße. Autos, Landschaft und Politik in den dreißiger Jahren*, Turia + Kant, Vienna.

RIGELE, Georg (1998): *Die Großglockner-Hochalpenstraße. Zur Geschichte eines österreichischen Monuments*, WUV, Vienna.

RITZMANN-BLICKENSTORFER, Heiner (ed.) (1996): *Historische Statistik der Schweiz. Statistique historique de la Suisse. Historical Statistics of Switzerland*, Chronos, Zurich.

SAGER, Fritz (1999): „Spannungsfelder und Leitbilder in der schweizerischen Schwerverkehrspolitik 1932 bis 1998“, *Schweizerische Zeitschrift für Geschichte. Revue suisse d'histoire. Rivista storica svizzera*, vol. 49, pp. 307-332.

SCHMID, Georg, STAUDACHER, Peter, LINDENBAUM, Hans (1994): „Das Automobil holt auf“, in SCHMID, Georg, STAUDACHER, Peter, LINDENBAUM, Hans (eds.), *Bewegung und Beherrschung. Transport und Transportsysteme in Österreich 1918-1938. Eisenbahn, Automobil, Tramway*, Böhlau, Vienna, pp. 160-210.

STAUDACHER, Peter (1994): „Die österreichischen Eisenbahnen 1918-1938. Problemgeschichte eines Transportsystems“, in SCHMID, Georg, LINDENBAUM, Hans, STAUDACHER, Peter, *Bewegung und Beherrschung. Transport und Transportsysteme in Österreich 1918-1938. Eisenbahn, Automobil, Tramway*, Böhlau, Vienna, pp. 15-105.

STAUDACHER, Peter, (1995): „Die Elektrifizierung der Eisenbahnen in der Schweiz und in Österreich während der Zwischenkriegszeit“, *Blätter für Technikgeschichte*, vol. 56, pp. 71-110.

TEUBERT Wilhelm (1928): *Die Welt im Querschnitt des Verkehrs*, Vowinkel, Berlin.

WARMUTH, Heinrich (1989): „Eisenbahn, Automobil und Flugzeug als Konkurrenten in der Ersten Republik“, in GUTKAS, Karl and BRUCKMÜLLER, Ernst (eds.): *Verkehrswege und Eisenbahnen*, Österreichischer Bundesverlag, Vienna, pp. 135-168.

WOHL, Paul, ALBITRECCIA, Antoine (1935): *Road and Rail in Forty Countries*, International Chamber of Commerce and Milford, London.

ZUMTOBEL, Walter (1934): *Der Kraftfahrlinien-Personen-Verkehr Oesterreich's*, Zumtobel, Dornbirn.