

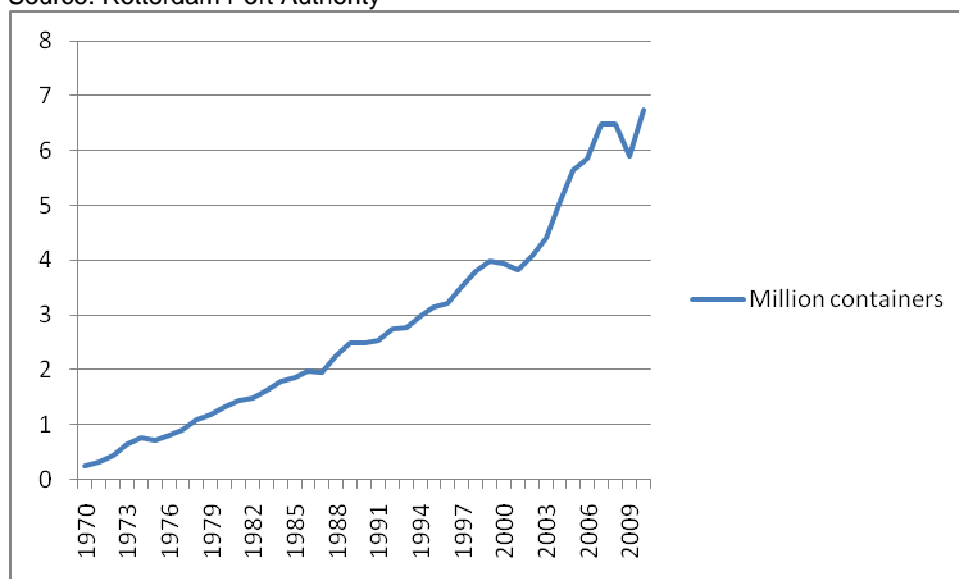
Cherishing the stepchild of container transport (1966-2010) How and why did the German and Dutch governments keep rail container transport in the race against their cheaper competitors?

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1. Introduction

Containerisation is an invention that arrived from the United States to the Port of Rotterdam in 1966. As figure 1 shows, after a hesitant start, container volumes handled in Rotterdam grew steadily, only disrupted by the crises in the 1970s, the 1980s and 2008. Containers entering Rotterdam were transported to the Hinterland, the area which the port supplies and from which it draws its transport volumes. This area includes large parts of Germany.

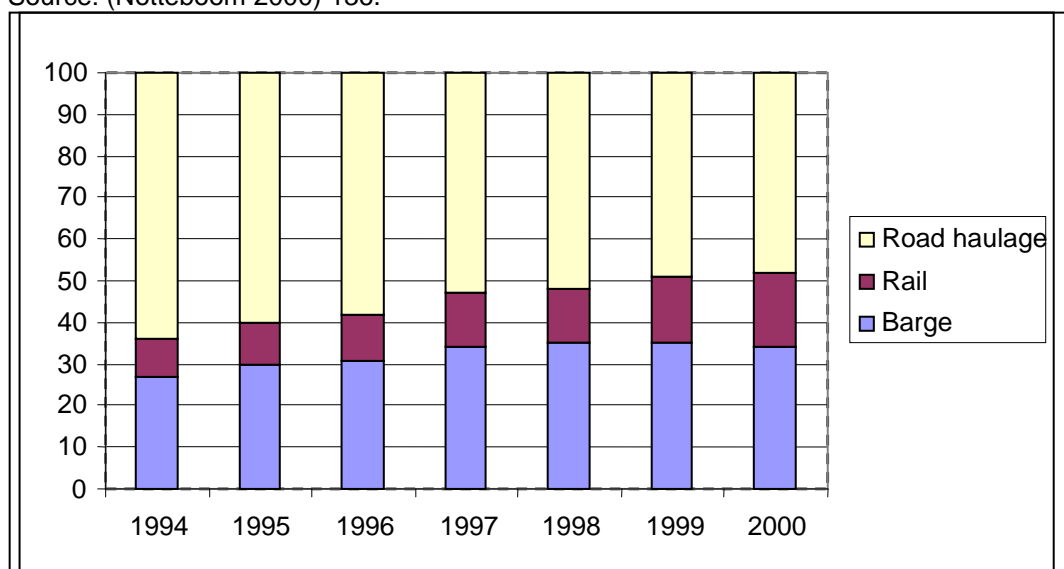
Figure 1 *The number of containers handled in Rotterdam in millions (1970-2010)*
Source: Rotterdam Port Authority



¹ Klara Paardenkooper is a PhD student in economic history working on the on the project: *Containerisation of Rotterdam's Hinterland 1966-2010*. The project is part of a larger NWO founded research project: *Outport and Hinterland: Rotterdam Business and the Ruhr Industry, 1870-2010*. This project explores economic links between the Rotterdam region and the Ruhr area which were established by the transport possibilities on the river Rhine, focusing on firms as the main actors. The first two parts of the project are *Coal, Iron Ore and Steel: Rotterdam Business and the German 'Montan' Industry, 1870-1940* and *Opting for Oil: Rotterdam's Oil Harbour and the Move from Coal to Petrochemical Feedstock of the Rhine Industry, 1945-1970*.

Hinterland container transport uses three modalities: road haulage, barge and rail transport, which have been competing with each other heavily during the whole period of containerization. Road haulage had the largest share of the modal split, the distribution of transported volumes between the modalities, followed by barge and rail. Figure 2 shows the position of rail transport within the modal split of container transport in the period 1994-2000. In fact rail transport has always had the smallest share since the beginning of containerisation, due to its inflexibility and high prices. Rail transport is inflexible as it can seldom reach the final destination. A truck has to be used for the last mile and it is expensive due to its high infrastructural costs. In spite of these disadvantages rail freight transport was favoured by the European Union (EU) as well as the Dutch and the German governments, which have subsidized their rail companies intensively. The EU strived to harmonize and stimulate European rail container transport by a special work group for combined transport of the *Conférence Européenne des Ministres de Transport* (CEMT), which had been founded in 1953 to coordinate common European transport policy.

Figure 2. *Modal split of hinterland container transport in Rotterdam (1994-2000)*
Source: (Notteboom 2000) 136.



It is curious how rail transport, as the less competitive modality, was supported during the entire period of containerization. This subject, however, has not received much attention in the literature yet. This paper examines how

and why the Dutch and German governments subsidized their national rail companies, the Deutsche (Bundes) Bahn and the Nederlandse Spoorwegen, based on yearly reports of the companies, governmental archival sources and secondary literature.

This paper has a comparative perspective; but as it is work in progress, it does not compare the Dutch and German situation in all its aspects. Up till now in this project most research has been done in the Netherlands and information about the German side of the story is mostly based on secondary literature.

2. *The Dutch and German rail freight transport market*

The Dutch and the German freight transport market had many similarities. In both countries rail freight transport was monopolised by a state owned rail company with an ambiguous relation to the national government. From the begin of containerisation until 2000 Dutch freight transport was exclusively executed by the Dutch Railways (Nederlandse Spoorwegen, NS) This company had a hybrid position because on the one hand its shares were owned by the government and it was under the control of the Ministry of Transport, and on the other hand it was expected to act as a commercial company. NS tried to make a long term planning while the government thought in four years periods. This regulatory framework did not succeed in preventing the steady decline of the share of freight transport by rail in relation to and barge transport and the accumulation of public transport losses.²

The German rail sector had similar problems. Rail freight transport was the monopoly of the Deutsche (Bundes) Bahn (DB). Its shares, like in the Netherlands, were owned by the state. According to the State Railways Act from 1951, the DB was a commercial enterprise but it had public service obligations. The exact duties of DB, however, had not been defined clearly. DB also suffered from conflicting interests with the government which influenced the company's policy. In the procedural rules there was much space created for the interference of a number of political actors.

² Dirk Lehmkuhl, 'From Regulation to Stimulation: Dutch Transport Policy in Europe' in: *Differential Europe the European Impact on National Policy Making* (New York 2001) 247.

Consequently DB had limited freedom in its policy making. The German Ministry of Transport expected the DB to support its transport, educational, fiscal and social policy goals. For decisions about budgetary plans, salaries and closures of tracks, DB needed governmental consent.

In the highest managing body of DB, the administrative council, many actors were involved with interest in rail transport: i.e. labor unions, associations of industry and agriculture, *Lander* - states - and commercial competitors from inland shipping and road transport. The first concern of most of these actors was not the profitability of DB. Consequently, conflicts were often solved in a way which was disadvantageous for the rail company. Conflicting political interests often interfered with DB policy, which, however, did not stop actors from blaming DB for the results. DB finances were not transparent and one could not threaten the company with bankruptcy as the state would self evidently compensate the debts of the company.³

These debts were substantial. By the 1980s DB needed about 14 billion DM yearly subsidy. Different factors, among which chronic overstaffing, heavy research and development costs and futuristic projects, led to a severe financial crisis within the company. Cumulative losses exceeded DM 70 billion, requiring some 12 billion annual interest payments.¹ Obviously, the German regulatory framework was also dysfunctional.

3. Containers and the Dutch rail freight transport

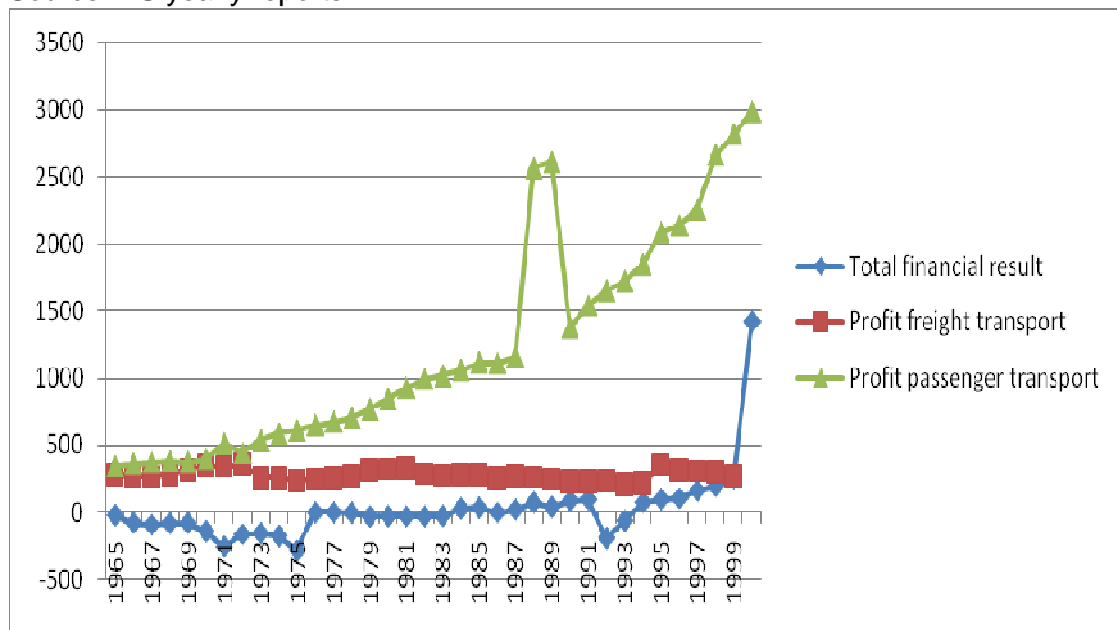
Containerisation found NS in a difficult financial position. From the 1930s freight transport volumes were decreasing. This was caused by the loss of coal transport which used to form 70% of the freight transport of NS in the interwar years. NS could not compensate this loss. Break bulk, freight transport with different destinations, kept causing such heavy losses that in 1967 for every earned Guilder the NS had to pay 1,60 Guilders of costs.⁴ Figure 3 shows that of the activities of NS, passenger transport was more

³ Michael Teutsch, "Regulatory reforms in the German transport sector: How to overcome multiple veto points", in: Adrienne Heritier, et al (eds.), *Differential Europe The European impact on national policy making* (New York 2001) 148-151.

⁴ Guus Veenendaal, *Spoorwegen in Nederland: Van 1834 Tot Nu Toe*, (Amsterdam 2004) 512.

profitable than freight transport. While the profit of passenger transport kept growing, with a peak at the end of the 1980s and the beginning of the 1990s, freight transport decreased slowly with a small recovery in the mid 1980s. It is significant that in 1998 when freight transport was detached from NS, the company suddenly started to make profit.

Figure 3 Profit NS freight and passenger transport in million Guilders
Source: NS yearly reports



Triggered by the problems of the rail freight problems the Dutch State Secretary of transport Nelie Smit-Kroes commissioned various consultancy companies to investigate the future of Dutch rail freight transport. The report which was published in 1997 stated that NS was in a pecuniary position as, unlike the other modalities, it needed to pay fully for its infrastructure. Before any arrangements could take place, NS should lower its costs. The analysis led to the closing down of 25 charging stations as a cost cutting measure. Unfortunately these measures did not deliver the expected results and financial problems escalated in such a way that NS considered to terminate freight transport altogether. Notwithstanding, the State Secretary decided to maintain it. She supported her view with three arguments. Firstly, according to her the continuation of rail freight transport would strengthen the transit function of the Netherlands. She emphasized the role of international

negotiations, where the Netherlands had always fought for a full position of rail transport against its competitors. She illustrated it with the *Gemeinsames Vorgehen*, from 1978. This is a treaty with West Germany, which aimed to stimulate rail freight transport between the two countries. If the Netherlands dropped rail freight transport it would not be possible to sustain the Dutch position within the European common transport policy either. Secondly, according to the minister freight transport by the NS needed to be continued due to its essential role for the Dutch ports. Besides that, according to the research done by the commission *Zeehavenoverleg*, rail freight had a major share in national income. As third argument, rail transport was a practical emergency solution in case of fuel shortage. Maintaining employment was not considered a relevant argument in this discussion. In case of the NS stopping freight transport; other modalities would take over its function. Strangely enough, environmental considerations were not used as an argument, in spite of the fact that in the 1980s there were strong environmental lobbies in the Netherlands.

In the troubled period of the 1960s suddenly emerging containers seemed to be a good solution for the problems of the freight transport, NS enthusiastically entered the new market. It consigned its full daughter Van Gend en Loos, involved in road haulage, to experiment with it. At the same time, it bought shares in the major stevedore company in the Port of Rotterdam, the Europe Container Terminus (ECT) and two other ports which were containerizing in the Netherlands: Amsterdam and Vlissingen.

NS expected that containers would be a new market full of possibilities to make rail freight transport profitable again. At first, these expectations seemed to be justified. Figure 4 shows the exponential growth of the number of transported containers. The growth stayed spectacular with two minor interruptions in the mid 70's and at the end of the 90's. Combined transport is a bimodal transport method, when the container is transported together with the (part of the) truck. This transport method never really took off.

Figure 4 Number of containers transported by NS in millions
Source: NS yearly reports

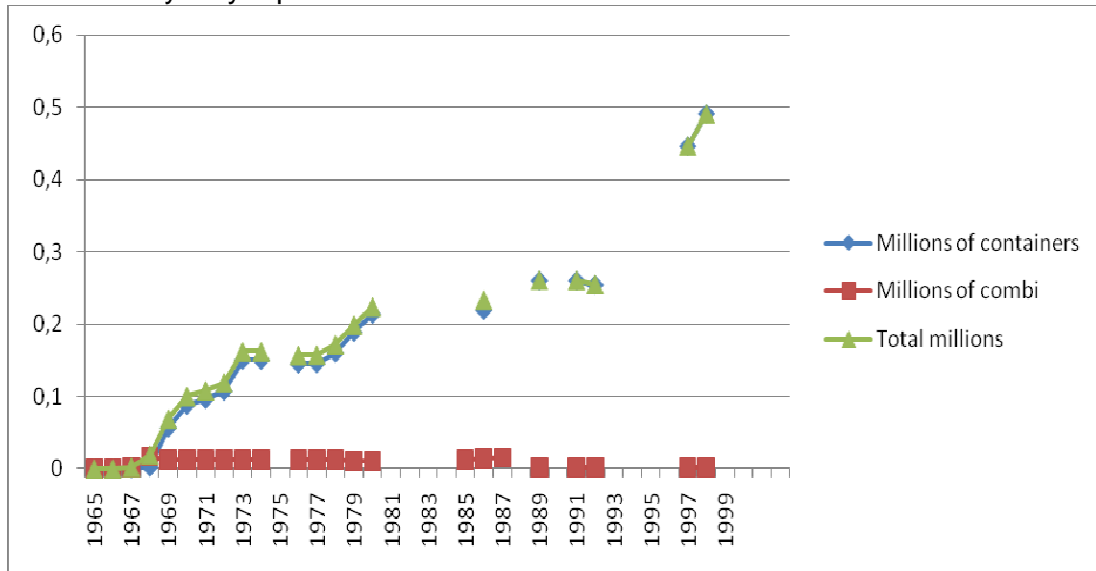


Figure 5 demonstrates that the total transported freight tons of NS decreased in a rather volatile fashion until 1995, while the transported weight of containers shown a steady growth. Figure 6 shows that an increasing amount of the transported goods were containerised peaking at 20% in 1999. Looking back NS rightfully expected that containerization would grow steadily.

Figure 5. Transported container tonnage by NS in million tons
Source: NS Yearly reports

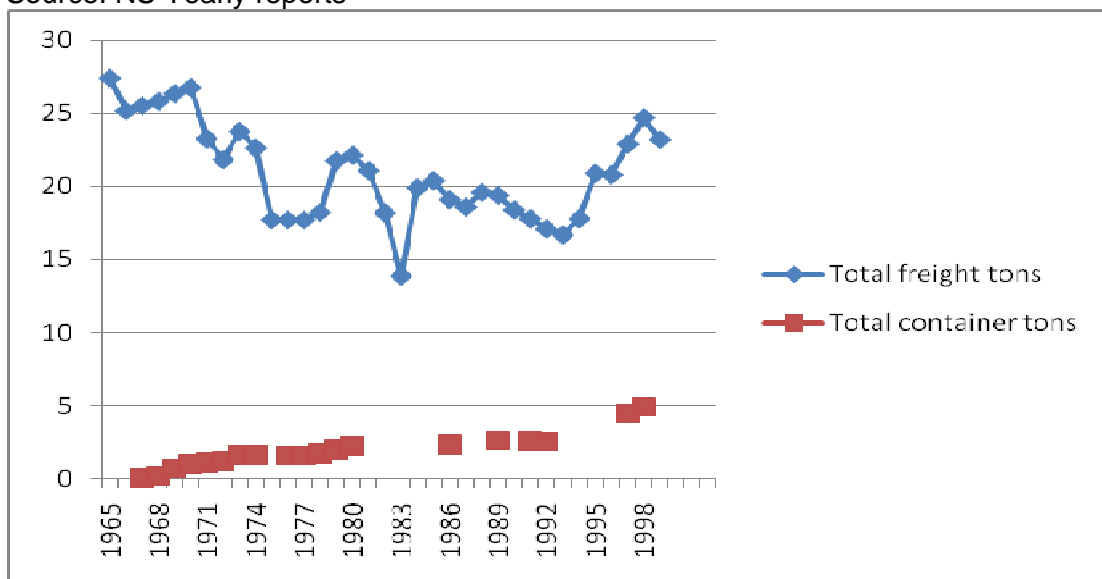
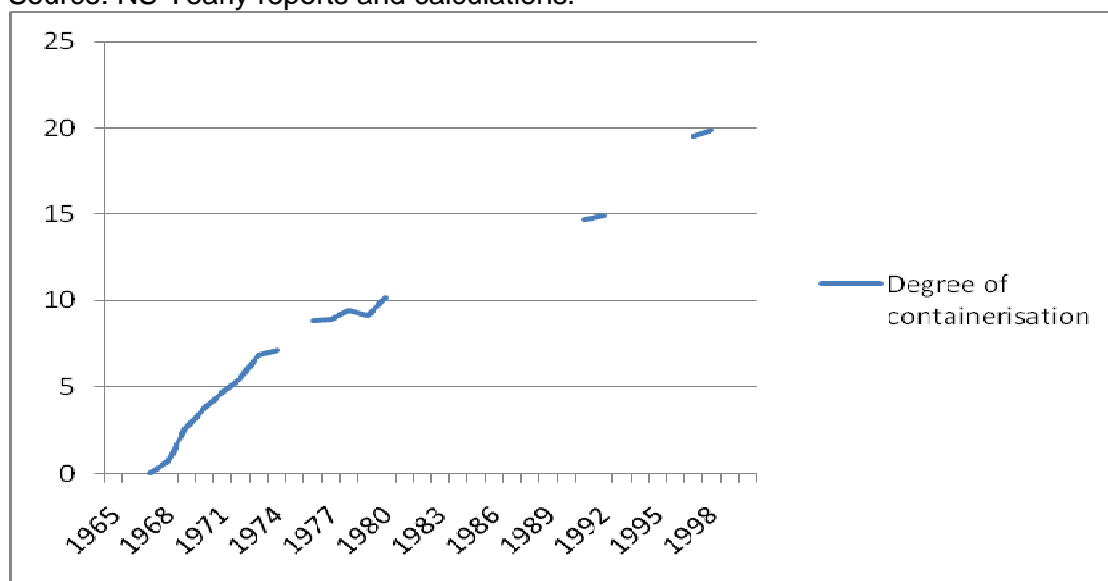


Figure 6. *The containerisation degree of the freight transport of NS in percents*⁵

Source: NS Yearly reports and calculations.



The financial results of container transport were, however, disappointing. The key to the success of containerization was the dramatic reduction of transport costs. Deep sea companies, which were the most powerful actors in containerization, soon discovered that most costs could be spared at land transport. On sea every option to increase the scale, speed and effectively were already exploited. Sea shipping companies made use of the cut throat competition between the hinterland transport modalities in order to save costs. This had, indeed, dramatic consequences for NS, which had the highest tariffs of the three modalities. Even though NS transported a growing amount of containers, profit margins were small and container transport caused losses.

Table 1. *Profit from container transport in 1979*

Source: *Bedrijfseconomische analyse containervervoer*⁶

	Average load (ton)	Profit per ton (Guilders)	Profit per wagon (Guilders)
Break bulk	23,7	20,25	479
Wagon load	41,1	8,35	343
Iron ore	51,7	5,43	281
VAM (disposal)	24,1	10,18	245
Container	19,0	10,99	209

⁵ When calculating the containerization degree the average weight of a container of 10 Ton is used. This may seem low, especially considering the fact that in internal reports NS used the weight of 13-17 ton for a 20 foot container and 22-27 ton for a 40 foot container. However, one has to consider that a substantial amount of containers were transported in an empty state. NS *Gecombineerd Weg/ Rail Vervoer G.W.R.V.*, mei 1974, 10.

⁶ NS 301 *Bedrijfseconomische analyse containervervoer*, oktober 1980, 4.

Table 1 shows that the average load of containers is the lowest of all freight transport of NS. This is caused by the fact that in 1979 32% of the containers were transported empty. The profit per ton of container transport shows a more favorable picture, it is the half of the profit earned on break bulk but almost double of iron ore. The profit per wagon, however, discloses the problem, containers give the lowest profit.⁷ Stopping container transport was, however, not a real option. Container transport was entangled with other production and exploitation processes of the company. Stopping would mean that other services of NS would become more expensive.⁸

4. *Unequal competition between the modalities in the Netherlands*

In 1965, a year before the introduction of containers NS was already complaining about the unequal competition between the modalities of hinterland transport. According to NS, a healthy market required fair competition conditions. The three modalities, however, had completely different competition conditions due to their entirely different organization and financing.

Firstly, the barge transport branch consisted of a handful of major companies and numerous small companies; most of them operated by one family. In the small companies there was not much control on working and safety conditions and there were no collective labor agreements (CAO) negotiated. Furthermore, according to NS the technical condition of numerous boats was unsatisfactory. Due to these social and technical reasons, barge transport could keep its costs low, causing low prizes. However the main concern of NS was the fact that due to international agreements, like the Treaty of Mannheim (1868)⁹ its infrastructural costs were not allocated to barge transport. This modality, however, also had its disadvantage: it was plagued by almost permanent overcapacity, which the government tried to

⁷ NS 301 *Bedrijfseconomische analyse*, 4.

⁸ NS 301 *Ibidem*, 1.

⁹ H. Gaarlandt, "De akte van Mannheim," *Internationale spectator*, 9 (1955) 435-450.

solve by scrapping measures. NS considered that also as a preferential treatment of this modality.¹⁰

Secondly, the road transport branch had similar conditions. It also mostly consisted of small companies. Salaries were lower than at NS and secondary working conditions were worse. Because of the lack of control, working hour regulations were frequently violated. Furthermore, in spite of the agreement about collective labor conditions in the road haulage sector in 1975, according to NS, few companies implemented it. Because of these factors the road haulage sector was also capable of operating at low prices, especially because, just like barge, it was also not compelled to pay all its infrastructural costs. This advantage was caused by aggressive lobbying of the automobile industry at the EU.¹¹ Next to its low prizes, road haulage achieved its strong market position by the flexibility of its door-to-door service. However, this branch was also suffering from overcapacity especially at times of negative economic trends. This distress existed in spite of a permit system and tonnage stop.¹²

Finally, rail transport had a completely different position. It was executed by one large state owned company. As a result of governmental social policy, salaries and secondary labor conditions were far better than in the other two modalities. NS had an own agreement for collective labor- and safety conditions and working hours were monitored rigorously.¹³ NS had to build its infrastructure mainly from its own resources. Freight transport was executed by the same company as passenger transport and it suffered from the fact that passenger transport enjoyed priority.¹⁴ Due to all these conditions rail transport had higher costs than the other two modalities and at times lost volumes to them. Rail transport, however, had a stronger market position at longer distances.¹⁵ As figure 7 shows, from a distance of 150 km the cost

¹⁰ NS 68 NS-DGV werkgroep goederenvervoer per spoor 1 september 1976, 19.

¹¹ John F. L. Ross, , *Linking Europe Transport Policies and Politics in the European Union*, (London 1998) 91-104.

¹² *Ibidem*.

¹³ NS 68 NS-DGV werkgroep goederenvervoer per spoor, 19.

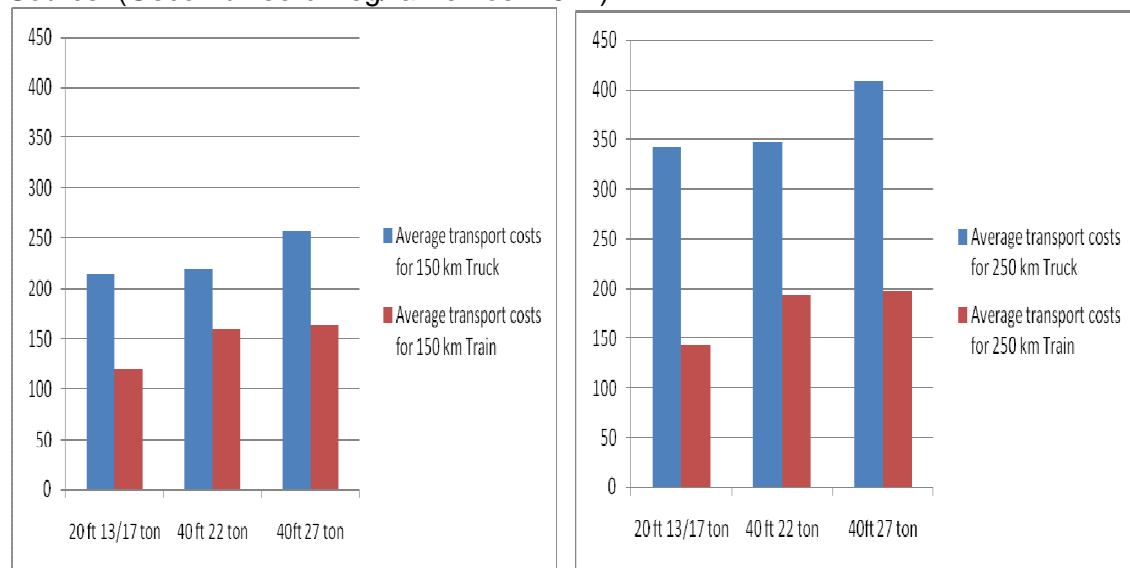
¹⁴ This was included in the company policy in 1967.

¹⁵ NS 68 NS-DGV werkgroep goederenvervoer per spoor 19.

advantages started to show and from 250 km they grew spectacularly.¹⁶ The problem was that such distances were scarce in the Netherlands. Cross border transport needed to be transferred to the Deutsche Bahn which cashed a major part of the profit.

Figure 7. Average transport costs for containers by truck in and train at the distance of 150 and 250 kms (35 wagons) in 1973 in Guilders

Source: (Gecombineerd weg/railvervoer 1974)



The position of NS compared to the other modalities became even more problematic in times of economic crises, as the transport branch with its low margin of profit was hit especially hard. However, the impact of crises was delayed. Thus the 1973 oil crisis started to show its effect in 1974-1975 and the transport volumes were in 1976 back to the level of before the crisis.¹⁷ The overcapacity caused by the crises, however, lingered on until 1979 when the transport volumes suddenly started to rise. The NS blamed this fact on the government which allegedly used an assumption of continuous growth for its policy. According to NS the government should have fought overcapacity with a coordinated policy.¹⁸

Thus, while all modalities had their advantages and disadvantages, it is obvious that rail freight transport was in the most difficult position of the three

¹⁶ NS 127 Gecombineerd Weg/ Rail Vervoer G.W.R.V., mei 1974, 10.

¹⁷ NS Yearly Reports 1974-1976.

¹⁸ NS Yearly Report 1978.

modalities, due to social, technical, financial and political reasons. The most pressing factor was that unlike its competition, it had to pay its infrastructural costs fully. This explains why it occupied such a small fraction of the modal split.

5. Who was going to make the competition “fair”?

During the research period the initiative to solve the problem of unequal competition conditions shifted a few times between the national governments and the EU. In the beginning of the 1960s NS set its hope on the EEG to solve the problem. It was a major disappointment for NS when the Conférence Européenne des Ministres de Transport (CEMT) in its 1965 report emphasized the importance of investments in waterways, instead of railways. In the same year, however, a breakthrough came at the national level, the Commission of the Social Economic Council of the Netherlands (Sociaal- Economische Raad, SER) advised the minister of transport that the different transport modalities were to be treated equally concerning fees. At the same time the CEMT was still trying to find a solution for the problems of the rail companies but without result. It advised the separate companies to keep investigating the problem.¹⁹

In 1967 the expectations of NS were partially fulfilled by a proposed law of the Dutch government which promised governmental financial support until 1969. NS pleaded for an integrated policy towards the three modalities. It argued that Germany was trying to implement such a policy. At the same time the efforts of the CEMT to solve the problems of the railways were still fruitless. In 1968, however it finally decided that from 1972 on, governments should support rail companies financially. NS was, however, in a pressing situation as by 1969 it accumulated a debt of 400 million Guilders. This caused problems paying the interests, not to mention making infrastructural investments.²⁰ In 1970, this debt increased to 514 million Guilders.²¹ In 1971 the NS was relieved when the new cabinet seemed to give priority to transport issues in the *Regeerakkoord Steenkamp* (Government Agreement

¹⁹ NS Yearly Report 1965.

²⁰ NS Yearly Report 1968.

²¹ NS Yearly Report 1970.

Steenkamp) and the *Nota Beleidsmobuigingen* (Policy Change Document), which installed a *Transport Fund*.

The NS's hopes were shattered in 1980 when in the *Toelichting begroting* (Budget Information) in 1981 the minister of transport D. Tuijnman stated that he would not give high priority to coordination problems as according to him the modalities operated in separate markets. NS contested with the argument that break bulk transport was in direct competition with road haulage, while closed train transport had the same problem with barge transport. The consequent *Beleidsnota Goederenvervoer*, (Policy Document on Freight Transport) from 1981 was attacked by three points of criticism by NS. Firstly it disagreed with the refusal reallocating infrastructural costs. Secondly, it was opposed to the government's wish to consider only the historical value of the infrastructure, when calculating the subsidy. The third complaint was that the government refused to pass legislation, which would damage other modalities.²²

In 1983, NS had to face the sad truth that 25 years of Common European Transport Policy had not solved any of its stringent problems. Some solace was offered by the statement of the Dutch Government in 1985 that it would guarantee the continuity of NS freight transport for 10 years.²³ Additionally, in 1988 there was an agreement signed with the ministry for a subsidy which would remain approximately the same until 1993.²⁴

In 1989 the EEG realised that it could not continue hesitating forever and passed the problem of the unequal competition between modalities to the national governments. According to its decision, governments should chose whether they wish to externalise or divide the infrastructural costs and decide which costs were liable for compensation.²⁵

In the eighties the focus of attention of the EU shifted from intermodal to intramodal competition. In a sequence of directives the EU advised the member states to separate the national rail companies from the government, to detach exploitation from infrastructure and open the rail market to

²² NS Yearly Report 1980-1981.

²³ NS Yearly Report 1985.

²⁴ NS Yearly Report 1988.

²⁵ NS Yearly Report 1989.

competitors. This liberalisation, which was initiated by the EU and executed by the national governments finally managed to strengthen the position of the railway companies both in The Netherlands and in Germany within the modal split.

6. Liberalisation of the Dutch and German rail market

In the 1990s European politics gained major impact at the rail market.²⁶ The EU supported free movement of persons and goods and opposed monopolistic positions. One of the sectors which still had monopolies and government subsidies in 1990 was the rail market. EU politicians resented the national way of thinking of rail companies. They intended to create a free and efficient market with lower prices caused by competition.²⁷ They saw privatization as a suitable instrument. The ownership was supposed to change from public to private, the market was supposed to unbundle vertically: separate infrastructures and operations and liberalize: remove legal entry barriers and allow competition.²⁸ In 1991 the European Commission gave some advice to stimulate market mechanisms by requiring the detachment of infrastructure from exploitation at least legally.²⁹ The EC directives De EU 91/440 (2001/12) about liberalizing the rail market, which were more elaborated on in the directives 95/18, 95/19, required next to legal separation between infrastructure and exploitation, payment for using the infrastructure, reforming finances, the reduction of debts and more independent company like operation of rail companies.

In the Netherlands, in the 1980s a strong consensus emerged about strengthening the position of the railways. The Port of Rotterdam supported rail reform as it feared for loss of its competitiveness.³⁰ There was also wide support from the ministries. The Ministry of Economic Affairs emphasized the importance of rail freight transport for the Dutch ports, the Ministry of

²⁶ Gerrit Nieuwenhuis, *Nieuw spoor De ontwikkelingen van de spoorwegen in Nederland na 1970*, (Alkmaar, 2005) 58.

²⁷ NS Yearly Report 1983, Guus Veenendaal, *Spoorwegen in Nederland*, 106.

²⁸ Martijn van der Horst and Larissa van der Lugt., "Coordination in Railway hinterland chains: an institutional analysis", *IAME 2009*, 24-26 June 2009, (Copenhagen, 2009) 6-8.

²⁹ This was not an unusual situation for The Netherlands. Already in 1917 private companies involved in exploitation merged, while the infrastructure was owned by the state.

³⁰ Lehmkuhl, 'From Regulation to Stimulation: Dutch Transport Policy in Europe', 242-243.

Environmental and Spatial Planning had environmental concerns about truck transport and it was strongly supported by the lobbies of congested provinces and municipalities.³¹

The Netherlands as the “best pupil” of the European class was fast implementing the EU derivatives.³² In 1991 the committee Wijffels was appointed to work out the EC directives into national policy. The reorganization followed the recommendations of the commission’s report. Property rights were shifted to NS, except for the infrastructure. Former NS activities were organized in two segments, infrastructure, capacity management and licensing belonged to the government commissioned part and passenger transport and freight transport to the NS owned part.³³ The separation had to take place within 5 years, which was a tedious job as the common infrastructure had to be divided between the separate companies. Government subsidies were reduced from 450 million in 1995 to zero.

The infrastructure was vertically separated from exploitation. Railned, the predecessor of ProRail, was responsible for the execution of government policy: facilitating the increase of passenger transport and simultaneously stimulating rail freight transport. The creation of new infrastructure was to be provided by the government, which introduced an infrastructure fund in 1994. This fund was partly filled with returns from the transport sector, fuel taxes and infrastructure use. The government decided that it was public responsibility to supply infrastructure of all modalities and with this decision it stressed the importance of integrated transport policymaking.³⁴

In Germany the federal parliament passed a liberal railway reform in 1993, which reorganized the formerly monopolistic rail market by introducing competition and clarified the relationship of the largest rail company with the state. The Deutsche Bundesbahn and the formally East German Deutsche Reichsbahn formed a joint stock company, Deutsche Bahn AG. Even though the federal state was still the owner, this company would be less dependent

³¹ Ibidem, 235-236.

³² Ibidem, 246.

³³ Ibidem, 236-237.

³⁴ Ibidem, 237-238.

on the government, because of the new management consisting of a management board, supervisory board and shareholders. In this system there would be less possibility for state intervention.³⁵

The German state took a unique step during the rail reform, it liberated DB from all past financial burdens. It even took over the old pensions and social insurances and it volunteered to make the necessary investments to upgrade the former East German infrastructure. Besides, the German state still financed regional rail services and infrastructural investments. According to the new railway legislation the development of new railway infrastructure was the responsibility of the federal government. The investments were financed by rent free loans, however, the railways had to reimburse this funding according to the annual depreciation of the tracks value. Consequently, the infrastructure operator had to break even with its fees to be able finance its full costs.³⁶

During the period of liberalization DB just like NS, was split into different units with separate profit sectors. The branches were supposed to become separate joint stock companies within five years Since 1993, formally, in the German market there is open access to operators who fulfill the licensing criteria. However, as the infrastructure is still in the hands of the by far the largest player (in 1997 DB had a market share of 85%³⁷) there is a danger of discrimination against the small new entrants which are not subsidized, like DB.³⁸ They complain about high charges, insufficient access to shunting stations, physical and human resources.³⁹

The fact that infrastructure was not fully separated from DB holding is a major disadvantage of German liberalization, which in other aspects fulfilled and even went beyond the liberalization policy of the European Union. The current solution is financially also not perfect either, the fares cover only 56%

³⁵ Teutsch, 'Regulatory reforms in the German transport sector', 148-151.

³⁶ Teutsch, 'Regulatory reforms in the German transport sector', 153-154.

³⁷ Brian Slack and Ruud Visser, "Challenges confronting new traction providers of rail freight in Germany", *Transport Policy*, 14, (2007) 400.

³⁸ Teutsch, 'Regulatory reforms in the German transport sector', 151-153

³⁹ Slack and Visser, "Challenges confronting new traction providers of rail freight in Germany", 400.

of the costs and one third of the track is not profitable and is threatened by closing.⁴⁰

7. *Railway financing and subsidies in the Netherlands and Germany*

In the Netherlands before the liberalization of the rail market NS received government subsidy in two different ways. Firstly, NS received direct subsidies. These were meant for passenger transport as a restitution for the public transport obligation of NS. From the eighties freight transport received separate subsidies as compensation for its unfavorable competitive position.

Figure 8. *Government subsidy for NS freight transport in million Guilders*
Source: NS yearly reports

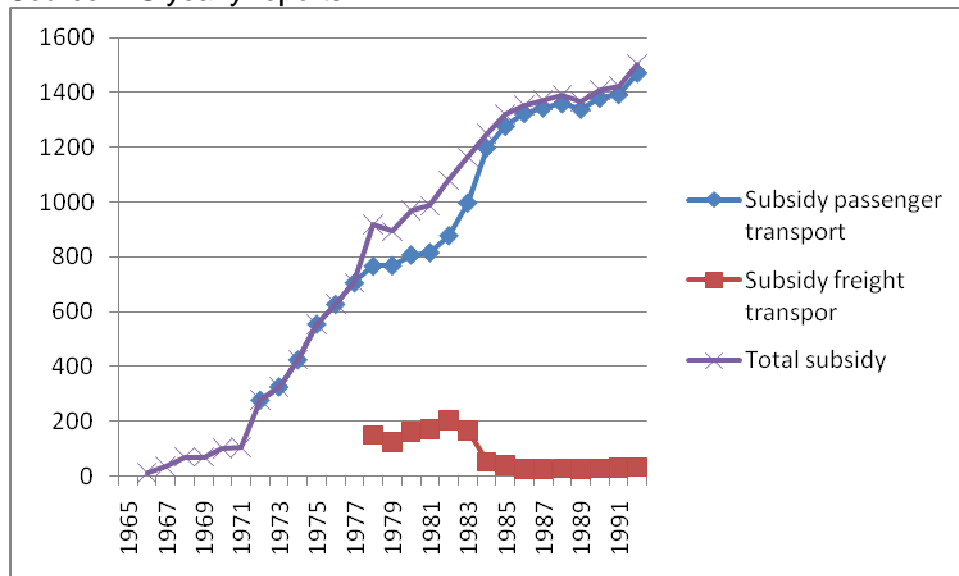


Figure 8 shows the growth of government subsidy that the NS received between 1965 and 1998. The peak in 1978 is caused by an exceptional amount which was calculated as a compensation of the past years.⁴¹ The declining amount can be caused by the fact that from that time on only subsidy given to freight transport is registered. The amount became stable from 1989 and it was completely stopped in 1998. Secondly, the government raised the share capital of NS to cover the costs of infrastructural investments

⁴⁰ Teutsch, 'Regulatory reforms in the German transport sector', 155-156

⁴¹ NS Yearly report 1975.

a number of times. For example in 1972⁴², in 1976 when the government raised the capital with 56 million Guilders⁴³ and in 1976 with 76 million Guilders.⁴⁴ Finally in 1991 there was an agreement made with the government that in case of steady profit future investments would be financed by the government beforehand until 1993 with 600 million Euro's.⁴⁵

During the liberalization, NS Cargo received a onetime donation of 190 million Guilders. After liberalization, the rail market was subsidized by investment in the infrastructure. As ProRail belongs to the government commissioned segment, the government is free to stimulate rail freight transport financially. ProRail was for 85% financed by the government as only 15% of its costs was covered by the access charges paid by the users. However, in the last decades the EU kept an eye on what it calls "fair" competition. For example, for the partial payment of the European Train Control System (ETCS) on the Betuwe freight rail line between Rotterdam and Germany the government needed to ask permission from the EU.⁴⁶ The Betuwe Route itself, which was built exclusively for freight transport was a major subsidy, as it was partially financed by government funds. In 2009, when the transport sector was recovering from the effects of the economic crisis of 2008 the government introduced subsidies for rail transport, partially to stimulate the usage of the Betuwe route. This way the government fulfilled the wish of the operator of the Betuwe Route, Key Rail to increase the usage of the track.⁴⁷

Before its liberalization Deutsche Bahn was subsidized in different ways. Firstly by direct subsidy, on the one hand by compensating DB for its public service obligations and on the other hand financing the deficits of the company. Secondly, it gave preferential treatment to DB by regulating freight tariffs. It started issuing special *Seehafenausnahmetarife* already long before

⁴² NS Yearly report 1974.

⁴³ NS Yearly report 1976.

⁴⁴ NS Yearly report 1977.

⁴⁵ NS yearly report 1991.

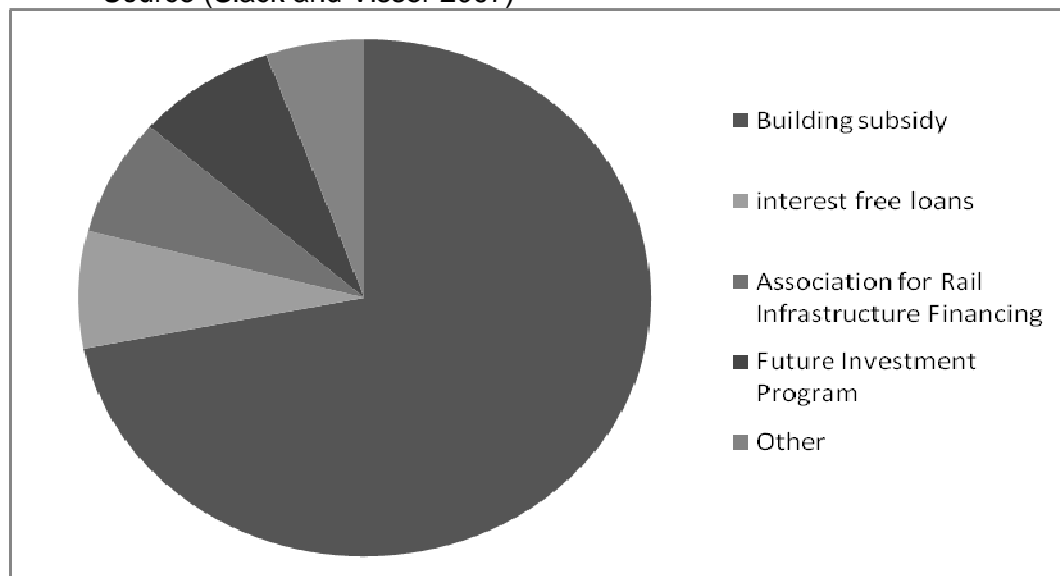
⁴⁶ Elaine Burridge, "Commission goes Dutch", *European Chemical News*, 82, 2152, (2005) 14.

⁴⁷ Dennis Koster and Emiel de Block, "Stand van zaken augustus 2010 Goederenvervoer in Nederland", *Op de Rails*, Oktober, 10, (2010) 486.

the Second World War in order to secure the position of the ports of Hamburg and Bremen.⁴⁸ The federal state protected DB from competition from the road haulage sector by the introduction of a license system for German haulers. This system continued until 1998, when cabotage was liberalized. Road transporters were also prohibited to impose higher tariffs than railway until 1961 and even afterwards deviation from the rail tariffs was restricted until 1994.⁴⁹ The reason for this next to supporting DB, was the fear for congestion, pollution and high investments in building highways to facilitate growing road transport.

During the liberalization the government made a royal gesture to DB and freed it from all financial burdens from the past. After the liberalization, DB, whose infrastructure is not as thoroughly separated as in the Netherlands still received substantial government subsidies. In 2004 it received the total subsidy of 3,41 billion Euros. Figure 9 shows the distribution of the subsidy. However, the measures were not entirely successful as DB is still making substantial losses.

Figure 9. The distribution of the governmental subsidy to DB
Source (Slack and Visser 2007)



⁴⁸ Jonker, J.P.D., "Koopman op een dwaalspoor. De Seehafenausnahmetarife in de betrekkingen tussen Nederland en Duitsland aan het begin van de jaren twintig," *Jaarboek Buitenlandse Zaken 1988-1989*, (1989) 181 and 190.

⁴⁹ Teutsch, 'Regulatory reforms in the German transport sector', 136.

8. Conclusion

At the beginning of containerization until the nineties in the Netherlands as well as in Germany rail freight transport were national monopolies, i.e. the Nederlandse Spoorwegen and the Deutsche Bahn. The activities of both companies were entangled with government policy, in Germany, however, also with other interest groups, labor unions, associations of industry and agriculture, *Länder* and commercial competitors from inland shipping and road transport. This entanglement complicated both companies decision making and commercial operations.

Containers arrived to the Netherlands in a period when NS was facing major difficulties. Freight volumes were going down and profitability was decreasing. NS expected to have found a solution for its problems by entering the container transport market. Container volumes were growing steadily and the containerization degree of freight transport was increasing during the whole period. The financial results of container transport were, however, disappointing as profit margins were small and container transport even made losses. However, stopping this activity was not an option as container transport got entangled with NS's other production and exploitation processes and stopping it would have made other services more expensive.

Rail freight transport had a difficult competitive position within the modal split. As a result of social, technical, financial and political reasons it had the highest costs, thus the highest prizes of the three modalities. The most pressing factor was that, unlike its competition, it had to pay its infrastructural costs fully. This explains why it occupied such a small fraction of the modal split during the whole period of containerization. NS had high expectations from the EU and the national government to solve the problem of "unfair" competition conditions but at the end of the day it was disappointed. The problems of both NS and DB were finally addressed by the liberalization of the rail sector.

In the sixties and the seventies the European Union had the ambition to pursue a European coordinated transport policy which would solve the problem of unequal competition condition between the three modalities of freight transport, by allocating infrastructural costs "fairly". This ambition was,

however, never realised. Finally, in the eighties liberalization policies initiated by the EU and implemented by the national governments nonetheless did strengthen the position of rail freight transport by separating government and company interests, and detaching exploitation from infrastructure and opening the rail market for competition. In Germany the separation of infrastructure was not fully implemented, which caused many problems.

Both the Dutch and German government's policy tried to stimulate rail freight transport. In the 1960's and 1970's in the Netherlands there were not many initiatives to finance infrastructural investments of the NS, it was supposed to finance itself mostly from its own resources. In the eighties, however, a consensus emerged to strengthen the position of rail freight transport. Ministries and companies realised the importance of rail freight transport for the Dutch ports, for the transit transport. Besides, due to growing congestions and environmental awareness the advantages of rail freight transport were also increasingly recognised. The Netherlands, the "best student" of the European class industriously implemented EU liberalization policy. After liberalization the government the commissioned part of the former NS took over the financing of building new infrastructure and the government pledged itself to provide infrastructure for all the three modalities. This was the beginning of a coordinated policy that NS had been expected for so long.

German transport policy had always been favourable to DB. The federal government protected the national champion by regulating rail and road tariffs and by issuing *Seehafenausnahmetarife*, which at the same time stimulated the German ports of Hamburg and Bremen. Before liberalization the state steadily supported DB financially. During liberalization it freed DB from all financial burdens from the past. However DB, is still heavily subsidized. The main reason for this is that during liberalization infrastructure was not fully separated from exploitation, it is still the part of DB holding. In fact the German State subsidizes the German infrastructure the same way as the Netherlands does.

Both the Netherlands and Germany heavily subsidised their rail companies. The Dutch government's motives were first paying for the public service obligation and compensation for the unequal competition position of

rail freight transport. The German government had to subsidise DB because its policy decisions were influenced by other party's whose had other priorities than the feasibility of the company and DB was also compelled to assist the government perform its other policy goals.

In fact the underlying reason for subsidizing rail companies before liberalization was the unequal competition position of rail companies which were entangled with the national governments. As a result of international treaties like the Treaty of Mannheim and the strong lobby of the automobile industry, competing modalities did not need to pay all their infrastructural costs, while rail companies had to pay their infrastructural costs fully. European Common Transport Policy failed to address the problem of unequal competition and national governments did not succeed in implementing integrated transport policy. Rail transport subsidy was the price that they had to pay for these failures. After liberalization, when rail infrastructure was detached from exploitation the Netherlands did manage to implement an integrated transport policy, by creating an infrastructure fund, which is partially financed by infrastructural fees. German liberalization, however was incomplete, the infrastructure is not fully detached from exploitation, which causes having to subsidize DB still directly.

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