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The Central Commission for the Navigation on the Rhine, 1815-1914
Nineteenth century European integration.

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The Rhine in Vienna, 1814-1815

In 1804, the waning Holy Roman Empire and revolutionary France agreed on centralising the administration of Rhine navigation. In France, the Revolution gave liberal ideas a chance, also in economic matters. This not just resulted in the abolition of internal custom barriers in 1790 and the 1791 introduction of freedom of trade – meaning that all kind of activities were no longer only allowed for members of the guilds –, but also in the 1792 decision to liberate Rhine shipping. Already in the late seventeenth century land transport was more and more preferred to shipping at this river, notwithstanding enormous practical problems as muddy tracks, the small scale of cart transport, and the organisational problems of horse stations. The competitiveness of Rhine shipping was undermined by regulation, taxation, and discrimination against foreign ships. It gave road transport a chance.¹ Therefore already in this period, the riparian states – Mainz, Trier, Cologne, the Palatine (Pfalz), and the Dutch Republic – met in Frankfurt, to discuss the liberalisation of the river. As local interests were strong and a broad vision a rare exception, these negotiations only ended in new conflicts and a complete failure of the negotiations in 1724.²

In another era, after the French conquest of the left bank of the Rhine in 1794, diplomats of the new republic started to plead for Rhine liberalisation. In 1798, Paris shifted its custom border to the river and in 1804 it pressed the German Empire to accept an agreement.³ This charter handed over the authority on navigation to a General Director who not just regulated shipping, but also collected a tax that replaced all 32 tolls between the Swiss and Dutch border. An abolition of all taxes, as Paris wanted, was unattainable as the princes of the west bank, who lost their thrones, had to be compensated.⁴ More deeply in contrast with the liberal principles was the persistence of Cologne and Mainz as *Stations de navigation*, where all cargo was to be transhipped. Even so, shipping became more liberal and cheaper.

In 1810, when the Netherlands was absorbed by the French Empire, discrimination and taxes were abolished on the track to the sea as well.⁵ In spite of that, times were hard for Rhine shipping. As a consequence of the French trade policy and the short-sighted policy of the station cities, between 1808 and 1810 the Cologne skipper guild even lost a quarter of its members.⁶ More important than its practical meaning was the idea behind the 1804 charter that the Rhine should be considered a common river. Rhine shipping did no longer fall under French or German sovereignty,

¹ Schawacht, *Schiffahrt und Güterverkehr*, 25-26; Spaulding, 'Revolutionary France and the Transformation of the Rhine,' 203; Oktroivertrag zwischen dem deutschen Reich und Frankreich, 25 augustus 1804, nr. 4, *Rheinurkunden I*, 6.

² Elix, *Echte stukken betreffende de vrije vaart op den Rijn*, xi-xiii. Van Dillen found a conference of the Riparian states in 1699, but he did not mention any sources and I could not find anything about it. Van Dillen, *Van Rijkdom en regenten*, 364.

³ Schawacht, *Schiffahrt und Güterverkehr*, 17-18.

⁴ Meidiger, *Die deutschen Ströme*, 3; Haak/De Savornin Lohman, *Procederen*, 3-4.

⁵ *Rheinurkunden I*, No. 4, 15 August 1804, Oktroivertrag zwischen dem deutschen Reich und Frankreich, 2. Februar, 11. Mai 1805. 7.; Meidinger, *Die deutsche Ströme*, 3.

⁶ Hashagen, 'Die Rheinlande beim Abschlusse der französischen Fremdherrschaft,' 30.

but was regulated by a supranational organisation, while an international court gave justice in case of conflicts or offences against the rules.⁷ This concept survived to the present day.

This is an article on nineteenth century regulation of navigation on the Rhine. In 1815, after the collapse of Napoleon's Empire, the Rhine banks were split up again over a number of independent states. As it was feared that local interests would reintroduce all obstacles and taxes again, co-operation seemed necessary. Therefore, in 1815 the Vienna Congress founded an international commission, the Central Commission for the Navigation of the Rhine (CCR) which got the authority to organise navigation without discrimination of flag or cargo, to keep tolls low and make sure that the Rhine states kept the towpaths and channel of the river in good shape. Nowadays, the Commission considers it its tasks to uphold free navigation on the Rhine and its tributaries and to monitor uniform regulations of the Rhine system. Members are Switzerland, France, Germany, Belgium, and the Netherlands. In 1815, Bayern, France, Nassau, Baden, Hesse-Darmstadt, the Netherlands, and Prussia were. Here the topic is the history of the CCR between the Vienna Congress and the Great War. Central is the question what influence this nineteenth century organisation had in international politics concerning the Rhine.

The long road from Vienna to the Mainz (1815-1831)

Although few mourned Napoleon's collapse, it was feared that his fall would cause problems when new or reinstated sovereigns would reintroduce tolls and discrimination in the Rhine valley. That some had such intensions was demonstrated by the former hereditary Stadtholder and later King of Netherlands William I, who already in December 1813, only a month after he arrived in the liberated country, re-introduced pre-1810 tolls. To prevent a return to a Rhine regime modified by tiny potentates and local interests, the 1814 Peace Treaty of Paris ordered that shipping should be free from where the river was navigable to the sea. Taxation should be limited to the costs of maintaining channels and towpaths. The Vienna Congress that would reorganise post-Napoleonic Europe should set rules how to implement these principles.⁸

The Congress' Commission for Free River Navigation with representatives of Britain, Prussia, France, and Austria, invited all Rhine states to participate in their discussion on this particular river. In the same period, the Congress decided to grant substantial territories in Western Germany to Prussia. Berlin was disappointed however. It had hoped to obtain Saxony, but only got half of the former Electorate and in compensation got some miserable territories in Rhineland and Westphalia. Not only were these takeovers catholic and strongly influenced by revolutionary ideas, but, by absorbing these provinces, Prussia also became a buffer against the aggressive French. Only in the

⁷ Thiemeyer, Tölle, 'Supranationalität im 19. Jahrhundert?' 180-181.

⁸ *Rheinurkunden I*, No. 38, Pariser Friedensvertrag, 30 Mai 1840, 36-37; Van Eysinga, *Geschichte der Zentralkommission*, 11.

second half of the century, when its coal fields were developed, these provinces proved to be a major booty.⁹ A few days after the congress' territorial decisions made Prussia the main Rhine state, its river commission decided to terminate compulsory transshipment in Cologne and Mainz and the monopolies for their skipper guilds.¹⁰ What influence its new provinces had on the Prussian position is not clear, but Wilhelm von Humboldt, Berlin's representative, confirmed that his king agreed with Rhine liberalisation. In Prussia liberal ideas were dominant in economic matters. Other Rhine states followed a similar policy. Württemberg – a state along the Neckar, promised to terminate compulsory transshipment, Prussia did the same for the Mosel and assured, just as the Netherlands, not to increase any tolls until a final agreement on the river was signed.¹¹

Liberalism seemed in the air, but the Dutch only pretended to be liberal, and in the next few years Prussia would also forget most of its liberal principles. Already in Vienna the Dutch made clear that they considered the Lek – the least navigable of their Rhine branches – the only continuation of the river. In the delta where Rhine, Meuse and Scheldt come together and split up again in a substantial number of waterways, it is hard to decide which branch should be considered part of what stream. All other members agreed however, that the better navigable Waal was part of the Rhine and that the Congress' decisions should be valid there as well.¹² Actually, from the seventeenth century the Waal was the main Rhine branch, and in the eighteenth century a treaty said that hydraulic waterworks should guarantee that two thirds of all Rhine water went to the Waal.¹³ The Lek was hardly navigable.¹⁴ The Dutch lacked technical reasons to consider the Lek the continuation of the Rhine, but the new Dutch king felt offended by the Congress, as he thought the powers in Vienna tried to cut down on his sovereignty. As this sovereignty was for a significant part based on the Congress' decisions it was hard to protest while it lasted. The King found an ally in the Count of Nassau, who for practical reasons wanted a free hand in Rhine matters. A major part of his state budget came from Rhine tolls. In the Vienna negotiations on river liberalisation, the King and Count therefore tried to limit the damage, to use chicanery and pettifogger discussions to undermine unwelcome decisions afterwards. Dutch diplomats would claim that the Waal was no part of the Rhine, and that the phrase that navigation should be free *du point ou il dévient navigable jusqu' à la mer* – from the point where it became navigable until the sea – meant to, not into the sea.

⁹ *Acte du congrès de Vienne*, 30; Steinberg, *Bismarck*, 26-27; Hashagen, 'Die Rheinlande beim Abschlusse der französischen Fremdherrschaft,' 30.

¹⁰ *Rheinurkunden I*, 51 No. 42: Die Akten der Wiener Flusskommission, Protokoll von 23. Februar 1815.

¹¹ *Rheinurkunden I*, 52 No. 42: Die Akten der Wiener Flusskommission, Protokoll von 24. und 28. Februar 1815.

¹² *Rheinurkunden I*, 52-53 No. 42: Die Akten der Wiener Flusskommission, Protokoll von 28. Februar 1815 und 14. März 1815.

¹³ Meidinger, *Die deutsche Ströme*, 23.

¹⁴ Schawacht, *Schiffahrt und Güterverkehr*, 27-28.

Navigation should only be free to where tide was measurable, giving the Dutch king a free hand in regulating, taxing, and limiting shipping around the estuary.¹⁵

Although the differences of opinion were not solved, it seemed that all Rhine states agreed in essential matters. Therefore, the Congress established a permanent commission, the Central Commission for Navigation of the Rhine, to regulate shipping and solve remaining problems. France was supported by Prussia when it proposed to give this commission a similar strong authority as the General Director had in the Napoleonic period. When this would have been decided, the CCR would have given the authority in all matters concerning Rhine navigation and could have taken majority decisions, thus limiting the sovereignty of the member states. Especially the positions of the smaller members would be weakened. Thus France and Prussia wanted to guarantee that these kept their towpaths in condition, and hoped to improve their position. The small protected their sovereignty jealously however, and opposed such ideas. The Commission's authority remained limited.¹⁶ It would meet only once a year for a month to set safety regulations, organise a police regime, control the freedom of navigation, and the maintenance of towpaths and channels. It did not get a permanent secretary or office. Before it could do its normal duties, the CCR should deal with still unsolved principle problems. It was thought that this could be done in a few sessions.¹⁷ In fact, the Vienna principles were only concretised in the Mainz Convention of 1831.

In the 16 years between 1815 and 1831 the Rhine states kept their tolls, monopolies, and compulsory transshipment, as the chance of a treaty was blocked by the rivalry between two new states in the region: Prussia and the United Netherlands, a state composed of present-day Belgium, the Netherlands, and Luxembourg. Officially Luxembourg – the present Grand-Duchy and the Belgian province – was no part of the Netherlands, but an independent state with the Dutch King as its Grand-Duke. As personal decisions of the prince were decisive, Luxembourg's independence seemed academic, but it is too easy to consider the grand-duchy just a part of the Dutch kingdom. It was ruled as a Dutch province, but a member-state of the German Confederation, making the Dutch king a German Prince with an important position in this *Deutsche Bund*. Just as his colleagues of Austria or Prussia, he had a whole vote in the *Bundessammlung* and when a qualified majority was needed, his vote counted three times, more than those of most other princes and only one less than these of the two major states.¹⁸ His position was weakened however, as the strategic fortifications of Luxembourg raising high above France, were manned by German Federal, i.e. Prussian troops.

Although the two powers improved their position in Vienna enormously, both were disappointed and had ambitions to correct the decisions of the Congress. With 30 million inhabitants,

¹⁵ Nusteling, *De Rijnvaart in het tijdperk van stoom en steenkool*, 1-5.

¹⁶ Van Eysinga, *Geschiede der Zentralkommission*, 14-15.

¹⁷ Wolterbeek, *Proeve ener geschiedenis*, 58-60; Götz, 'Epiloque: The 'Alpine system'', 252; Spaulding, 'Revolutionary France,' 220-221.

¹⁸ Deutsche Bundesakte vom 8. Juni 1815.

France was bigger than Prussia and the Netherlands together, but it was just beaten and all powers of Europe were alert on any signal of ambitions from France again. Therefore, Prussia, with over 10 million hoped to become dominant in these parts of Europe, but the Netherlands thought of itself also as a major state and as it was created as a northern buffer against France, it should be a power to reckon with. That it only had 5.5 million inhabitants was compensated by important colonies, but especially by the fact that it was much richer than Prussia. Further it was a local power, not involved in all European problems as Prussia was. In Western Germany, Prussia had hoped to obtain the east Meuse-bank, now held by the Dutch. That bank would have given the new Prussian provinces a direct connection to France. The Dutch had hoped for all territories west of the Rhine and just as Prussia had the ambition to obtain what they did not get in Vienna.¹⁹ The most immediate problem was that Berlin was not in the mood to accept that the Netherlands withheld its new provinces not just from the sea, but also from France, making all their trade dependent on Dutch transit.

In May 1815 already, the Prussian minister of Finance Hans von Bülow wrote to Chancellor Karl August von Hardenberg, that it should be possible to press the new neighbour into a trade agreement. This he considered necessary as Dutch transit taxes would have severe consequences for some industries in the new territories. After the Continental System broke up, the British industry gave these industries a hard time anyway, but Bülow saw opportunities to put pressure on the Dutch to accept a trade agreement.²⁰ Berlin could use the Dutch desire of the actual elimination of compulsory transshipment in Cologne and Mainz agreed in Vienna already, but not yet implemented. Even stronger was the Prussian grip on the Netherlands because the new neighbour relied on the Prussian army now Napoleon was on the loose again.²¹ Four months later, after Napoleon's final ruin in Waterloo, Bülow made a trip through the Rhine province and complained that the trade agreement between Belgium and the General-Governments of the Lower- and Middle-Rhine would shortly expire. Then, Dutch transit taxes should be paid for trade with France. He hoped that the Prussian army – still active in France and the southern Netherlands as the last Napoleonic troops were only destroyed in November – could be used to press the Netherlands into a territorial swap.²²

With Prussia, the Dutch were confronted with a strong neighbour. Before the French period, the Republic only had some minor ones in the east, like the Prince-bishoprics of Cologne or Munster. Between the new neighbours the risk of grew as in the eyes of the Dutch King and his court their country was not small anymore after its unification with Belgium. That Prussia was a problem was clear. Dutch officials quite well understood that Berlin considered them an obstacle isolating Prussia

¹⁹ 'No. 235 Rapport over de Buitenlandsche Staatkunde der Nederlanden, 23 Januari 1829.' Colenbrander, *Gedenkstukken*, 9 band 2, 442 ff.

²⁰ Schwann, 'Grundlagen und Organisation des Wirtschaftsleben,' 202.

²¹ Posthumus, *Documenten betreffende de buitenlandsche handelspolitiek*, III, No. 5 von Bülow aan von Hardenberg, Mei 13 1815, 5-6.

²² Posthumus, *Documenten III*, No. 7 von Bülow aan von Hardenberg, September 3 1815, 6-8.

from the North Sea. In 1829 one of them even expressed the fear that Berlin would conquer the Northern Netherlands if an energetic Hohenzollern would accept that the Belgian provinces would fall into French, the Dutch colonies into British hands. The Prussian military dynasty thus could obtain what it lacked: money, capital, trade, shipping, and a stable border. Prussia could also accept a more limited solution and only take Luxembourg and the Eastern Meuse bank. Anyway, it was a danger, but the Dutch – or at least the King and his Court – also had dangerous ambitions. They knew the Prussian army superior, but also that Berlin was involved in all problems of Europe, while they themselves only had to do with north-western Europe. Therefore, they still hoped to get rid of the Prussian troops in Luxembourg, obtain free Rhine navigation, and absorb all territories west of the river until the French border.²³

As both Prussia and the Netherlands hoped to improve their position at the expense of the other, conflicts were imminent. This wish grew as both thought that the other refused to implement some decisions taken in Vienna already, causing damage to all other Rhine states. Prussia and Hesse refused to terminate compulsory transshipment in Cologne and Mainz or the monopolies of their skipper guilds. Berlin did not, as it hoped to use these again in future negotiations; Hesse wanted to make Mainz a major Rhine port. The Netherlands raised transit taxes for in- and outgoing transport to the sea out of a strategic trade policy. Prussia seemed stronger, but the Netherlands not just controlled the connections to the sea, but was also the champion of the small Rhine states. Both powers calculated for each potential agreement which state would gain most and thus grow in relative power. Consequently, an agreement proved far off. As Robert Keohane wrote: ‘When there are only two major players, and one side’s gains may decisively change power relationships, relative gains loom large: in arms races, for example, or monopolistic competition.’ He made clear that this is exceptional, but here a struggle for power between more or less equals was going on.²⁴ Both were further motivated by lobbies of interest groups that considered concessions not just against their best interest, but strongly felt that they were in their right and the rival dishonest and untrustworthy.

After the 1813 restoration of the Netherlands’ independence the king hoped to restore trade and revive staple markets. Lobbies from the Amsterdam and Rotterdam Chambers of Commerce also pleaded for this and strengthened the government not to give in. In these port cities traders were active who bought products overseas, sold these to local tradesmen who organized the staple by buying large sets of goods, stocking these, and resell these in smaller portions. The buyers re-exported them to the rest of the world, for a substantial part to German territories along the Rhine.²⁵

²³ ‘No. 235 Rapport over de Buitenlandsche Staatkunde der Nederlanden, 23 Januari 1829.’ Colenbrander, *Gedenkstukken*, 9 band 2, 442ff, 487. From a note it is clear that this document, written by J.G. baron Verstolk van Soelen, was kept behind by the King.

²⁴ Keohane ‘International institutions,’ 88.

²⁵ Wright, *Free trade and protection in the Netherlands*, 6-8; One will not find this traditional description of the First, Second and Third Hand in modern literature anymore, but it describes the importance of the Dutch trader that the Chambers of Commerce hoped to revive.

All these traders wanted to prevent the hinterland to develop direct trade with overseas countries as this would reduce Dutch interests to inland shipping and port activities. As these merchants held a strong social and political position, their lobby convinced the king that naked transit – transport through the Netherlands using local ports and skippers, but no traders or financiers – should be banned. Naked transit could not be prohibited, however. That would violate the agreements of Vienna and result in conflicts with Britain. Therefore it was taxed, making transport on the Dutch Rhine more expensive, according to some German nineteenth century authors even thirteen times more as on a comparable Prussian track, but that seems an exaggeration.²⁶ The source of is Heinrich Treitschke, a historian whose patriotism was stronger than his historical consciousness. He wrote on the Dutch interpretation of the Treaty of Vienna that never before a treaty was so shamelessly broken: ‘Even after all examples of nasty greed, with which Holland’s shopkeeper’s policy treated its neighbours in the last centuries, the German world was flabbergasted as this by our blood re-established state along all its Rhine branches, that had been free under Napoleon, established a number of toll offices...’ In this style he went on, not just blaming the Netherlands for levying transit taxes, but also mentioning all kind of taxes that no-one will find in contemporary sources.²⁷ Nonetheless, he expressed more general nineteenth century feelings in Germany.

Whether the Dutch policy was contrary to the agreement of Vienna is disputed, but its attempts to revive old staples were vain. Already in the late eighteenth century, German importers hardly needed Dutch trade or bankers anymore. An agent port could do the job.²⁸ Trade declined, naked transit grew, and taxes could not prevent this, but did increase the costs on the only road to the sea available for Western Germany. Treitschke reflected the feelings roused by this. All over the Prussian Rhineland Dutch transit taxes were considered an old-fashion, irritating and clandestine exploitation of a monopoly to support privileged groups at the expense of development. Prussia tried to convince the other Rhine states that the Dutch were to blame for the incapability to implement the Vienna principles. The Prussian argumentation was legalistic just as the historiography.²⁹ The two states were not involved in a legal dispute however, but in a struggle for power in which most other Rhine states backed the Dutch, with Nassau as the most enthusiastic supporter. It considered Rhine liberalisation a threat as it needed the income from its tolls. The other Rhine states opposed the way Prussia manipulated Rhine matters to get non-related concessions, but probably even more because they feared Berlin's growing power. These conflicts lasted until 1829. Only then the two fighting

²⁶ Berger, *Der alte Harkort*, 228.

²⁷ Treitschke, *Deutsche Geschichte*, 3, 470

²⁸ Bouman, *Rotterdam en het Duitse achterland*, 14-15; Wright, *Free trade*, 8-11; Kindleberger, ‘The Rise of Free Trade,’ 26.

²⁹ See: Van Eysinga, *Geschichte der Zentralkommission*, passim; Boogman, *Nederland en de Duitse Bond*, 12; Treitschke, *Deutsche Geschichte*, 3, 470; Bouman, *Rotterdam en het Duitse achterland*, 14-15.

cocks found a compromise. The resulting agreement was retarded for another two years as a consequence of the 1830 Belgian Revolt.

Just as Rotterdam and Amsterdam businessmen backed their government to protect their trade, the Cologne business community was convinced that Dutch chicanes undermined their right on free access to the sea. As long as Prussia and Hesse squeezed free navigation by compulsory transshipment in Cologne and Mainz and by monopolies for their skipper guilds on the tracks Cologne-Mainz and Mainz-Mannheim, Berlin hardly could blame others for that, but when it would give these old-fashion rules up, it would have nothing anymore to negotiate about. The important Cologne traders were interested in free trade and free access to the sea and thought this was agreed in Vienna already; its skippers were interested in protection. These contrasting interests were kept in line by blaming the Dutch for everything and linking the feelings thus roused with traditional anti-Dutch feelings in the region. A strong animosity against the Netherlands resulted. In the 1820s, the Westphalia Provincial Parliament considered to circumvent the Netherlands completely by digging a canal from the Lippe, a Rhine subsidiary, to the Ems, creating a Rhine estuary along the German coast. Daniel Delius, *Regierungspräsident* of Cologne, from 1823 Prussian representative in the Rhine Commission, and negotiator for a trade agreement with the Netherlands, was a major supporter, but nothing came from it. Hannover that controlled the Ems estuary was barely an improvement to the Netherlands. It hardly maintained the channel and towpaths of the Ems and did nothing to improve the Emden port. Anyway, from a Prussian perspective the British ruled Hannover was even more than the Netherlands a potential enemy. From the late 1820s, a railway with the Weser seemed a realistic alternative, making Bremen the port of the region, but only in the 1840s railways would make it possible to circumvent the Dutch.³⁰ Until then, the Cologne animosity against the Dutch grew and Cologne businessmen generally agreed that their trade could only be liberated by an alternative route.³¹ The monopoly of the Dutch on transport to the sea should be broken, as transit taxes made Rhine shipping so expensive that in Southern Germany and Switzerland land transport over Le Havre came in use.

After the Belgian Revolt (1830) it seemed that a railway to Antwerp could provide Cologne with a solution.³² Therefore, already in 1831 the liberal Rhineland trader and politician David Hansemann proposed a custom union with Belgium. Berlin was not convinced, as Antwerp and Germany only had an indirect river connection over Dutch territory. Therefore, a treaty would be of limited value as long as The Hague considered Belgium a rebellious territory.³³ In the Dutch press

³⁰ Steitz, *Die Entstehung der Köln-Minderer Eisenbahn*, 116; Berger, *Der alte Harkort*, 228; See also; Posthumus, *Documenten III*, No 31 Von Hardenberg aan von Hatzfeld, 1818, November 6, 35; Ibidem no 32 Falck aan den Koning, 1818, December 24, 35-37

³¹ Van Eysinga, *Geschiede der Zentralkommission*, 28; Treitschke, *Deutsche Geschichte*, 3, 470-471.

³² Posthumus, *Documenten III*. 'No. 39 Maandbericht over Juli 1821 van de Handelskamer te Keulen, 1821, Augustus 2,' 49-51, here 49.

³³ Wilhelm Gerloff, 'Grundlinien der belgischen Zoll- und Handelspolitik von der Gründung des Königreich bis zur Gegenwart.' In: *Weltwirtschaftliches Archiv*, 12 (1918) 159-172, there 159-161.

some already feared for Belgian plans to build a railway however, and in circles around Hansemann similar ideas developed.³⁴ Therefore it was a great success for Hansemann's liberal business circles when in 1843 a direct rail connection between Cologne and the Belgian seaport was opened. In the 1820s, however, when negotiations between Prussia and the Netherlands came to a halt, the Dutch still could obstinately refuse free access to the sea for German trade. In these years the hate against Holland in the German became that hot that according to some only the Prussian King Frederic William III prevented war. He did not want open hostilities against his sister's husband, it said. As inbreed in royal houses never prevented war, this is hardly convincing. It is well known, however, that Frederic William was more irenic than other Hohenzollern princes.³⁵

Berlin wanted to get rid of Dutch transit taxes, but also required regulations of coastal shipping, fishing, and a trade agreement, and wanted all in one package. In the first discussions on transit taxes, Berlin demanded no abolition, but a decrease of these. Only when the Dutch did not want to discuss the matter within the context of the CCR, Prussia claimed that they were contrary to the Vienna agreement anyway.³⁶ The Dutch refused to discuss the taxes in the CCR as according to them the estuary from where the tide was measurable was no part of the Rhine. They were ready, however to discuss it bilaterally in negotiations on a trade agreement. Prussia accepted this, and even ordered a diplomat to start these. He never turned up to meet his Dutch partner however, as it became clear that by separating the negotiations on Rhine matters from those on trade, Prussia could only loose. It had something to offer in Rhine negotiations – the abolition of compulsory transshipment and guild monopolies, but this it had to give anyway as it promised it already in Vienna – while in trade negotiations it would be the demanding party and stood with empty hands. Thus, by keeping the negotiations apart, the Dutch would get the stronger position, but Prussia simply did not accept to be outmanoeuvred.³⁷ It refused to play its trump card as long as the Dutch levied their transit taxes. In 1818, Prussia and Hesse therefore refused an interim agreement on Rhine navigation and a temporarily implementation of all agreed in Vienna already. Keeping their transshipment and monopolies intact was the only way to keep pressure on others riparian states. These states felt victims of Prussia's power politics and Baden, Bayern, and Nassau, in 1818 already moved to the Dutch side. According to Berlin this was because these small German states feared Prussia for its power.³⁸

³⁴ 'Over de noodzakelykheid der ondersteuning van den koophandel in het tegenwoordig tydgewricht.' *Arnhemse Courant*, 28-02-1832, Dag. 'Ingezonden stukken. Aan de redactie, September 1834.' *Algemeen Handelsblad*, 6-9-1834, Dag; Hansemann, *Abhandlung über die muthmaßliche Frequenz der von Cöln bis zur belgischen Grenze bei Eupen projectirten*. Boogman, *Nederland en de Duitse bond*, I, 77; See also: Lademacher, *Zwei ungleiche Nachbarn*, 64-65.

³⁵ Berger, *Der alte Harkort*, 228; Haffner, *Preußen ohne Legende*, 171; 'Deutschland.' *Dagblad van Zuidholland en 's Gravenhage*, 4-10-1865, Dag.

³⁶ 'Frankfort den 2 September.' *Rotterdamsche Courant*, 7-9-1819, Dag.

³⁷ Posthumus, *Documenten III*, 80, 1824, September 23. Van Reede aan de Perponcher, 122-125; 81, 1824, October 9. De Perponcher aan Ancillon.

³⁸ Stuart, *Jaarboek van het Koninkrijk der Nederlanden, 1818*, 66-70.

In 1821 Berlin took the initiative to send a proposal for a Rhine Treaty to the other members of the CCR as it thought separate negotiations between Berlin and The Hague threatening for the smaller German Rhine. In its proposal it claimed again that the entire river from where it became navigable into the sea should be free.³⁹ Berlin hoped that this would make it possible for the other German Rhine states to accept Prussian leadership, but as it was well known that was unacceptable for the Netherlands, it also was for these. It would only further obstruct negotiations. Now, even France chose the Dutch side, possible to further retard a solution to the advantage of its own ports.⁴⁰ That Prussia wanted to discuss the level of the transit taxes before claiming these were illegal, weakened its juridical claim, but that was irrelevant. When the Dutch did not give in, Prussia tried to use its position within Europe and asked from the non-Rhine states who had been members of the Vienna Congress' Commission for Free River Navigation – Austria and Great Britain – at the 1822 Congress of Verona – one of the Concert of Europe Congresses – to declare that the Dutch policy was unacceptable. Here again it was clear that not juridical arguments, but realism was decisive.

After the Prussian complains, the British foreign secretary, George Canning, forthwith discussed the matter with the Dutch envoy in London, claiming that some transit taxes were de facto prohibitive and that this was against the Congress' principles, but especially against British interest that needed the Rhine for exports to Germany.⁴¹ Therefore Whitehall presented a memo in which it expressed the opinion that the Dutch policy was against the agreements and spirit of Vienna, but contrary to what Prussia hoped for, just advised the powers to explain to the Dutch court that it should 'adopt measures in relation to the navigation on the Rhine in concert with other powers bordering on that river, which may have the effect of carrying into execution the treaty of Vienna on this subject.'⁴² London supported Berlin half-heartily. Strengthening its rival was not in its interests. In 1825, when Prussia again tried to get the major powers of Europe at its side, Russia and Austria backed Berlin, but London simply did not react.⁴³ London protested against prohibitive tariffs cutting it off from its German markets. Further it was Prussia's problem.

The implementation of liberal principles on Rhine navigation was difficult as the dominant Rhine states both had ambitions, and both had economic circles with specific interests in these matters. Berlin needed an instrument to keep pressure on the Dutch as it wanted, apart from the abolition of transit taxes and free access to the sea for its Rhine provinces, a better regulation of

³⁹ Posthumus, *Documenten III*, 47, Von Lottum aan von Bülow en von Klewiz, 1822, October 25, 61-63.

⁴⁰ Van Eysinga, *Geschiede der Zentralkommission*, 32; According to others France did already so in 1818. Stuart, *Jaarboek van het Koninkrijk der Nederlanden 1818*, 66-70.

⁴¹ Posthumus, *Documenten I*, No. 51. 1822, October 25. Canning to Wellington, 78-82.

⁴² Posthumus, *Documenten I*, No. 53. 1822, November 29. Wellington to Canning, 84-85; Wolterbeek, *Proeve ener geschiedenis*, 84-85. See as well: Posthumus, *Documenten I*, No 51, Canning aan Wellington, 1822, October 25, 78-82; Ibidem, No. 52 Wellington aan Canning, 1822, November 12, 82-84. See als: 'Mentz, den 4. November.' *Arnhemsche Courant*, 10-11-1825, Dag.

⁴³ Posthumus, *Documenten III*, No. 86. 1825. Februari 24. Von Schaden aan von Bernstein, 132-133.

coastal shipping, a better treatment of Prussian ships in Dutch ports and lower import duties on its products. The other Rhine states made clear that these topics could not be solved in the CCR. These states were interested in terminating transshipment in Cologne and Mainz. Because Rhine shipping fell apart in tracks, a tendency not just resulting from compulsory transshipment, but also from the character of the stream that caused that diverse ships were in use on each track, free access to the sea was a lesser point for stream-upward states. Thus it is explainable that already in September 1817 the CCR agreed that Dutch transit taxes were not their jurisdiction. In September 1819 the Commission declared that she demanded from Prussia already six month earlier that it, now they agreed with the Dutch government, would not hesitate and terminate compulsory transshipment in Cologne.⁴⁴ Only Darmstadt supported the view that the Netherlands should give up its taxes before an agreement on Rhine navigation could be signed. Hesse thus hoped to transfer Mainz into a main Rhine staple.⁴⁵

That two neighbouring countries have conflicts on trade or shipping is normal – they have all the time. That there were hardly any serious attempts to solve them is another matter. Apart from the Rhine portfolio, the discussion on Dutch ships in Prussian ports, of fishermen in Prussian waters, on salmon fishing on the Rhine, and on the proposed trade agreement, all were completely brought to a halt for years. Delegations were appointed, but never met and between 1825 and 1829 the Prussian Commissioner even did not attend the CCR meetings. The Prussian king demanded that all its discussions should stop until the Courts agreed on the principles of these.⁴⁶ Although France, the Netherlands, and the smaller German Rhine states continued their meetings, it seemed that the attempts failed to continue the liberal Napoleonic Rhine policy had completely. The negotiations between the Netherlands and Prussia lasted for years and seemed never to get to a result. In 1828 Nassau and Bayern thereupon raised their tolls, as according to the Vienna treaty the tolls should be more evenly spread over the river.⁴⁷ To do so, Prussia should levy less and Nassau and Bayern were allowed to levy more. Prussia never decreased its tolls however, as it refused to implement anything agreed in Vienna before a final treaty was signed. Now the other two raised their tolls, increasing the costs of Rhine shipping to the advantage of the French ports and to land transport. Prussia reacted by threatening to check all ships sailing the river. It seemed the final blow, as controlling a ship that not entered a port was considered against the principle that the Rhine did not fall under any national authority.⁴⁸

⁴⁴ 'Frankfort den 2 September.' *Rotterdamsche Courant*, 7-09-1818, dag.

⁴⁵ *Rheinurkunden I*, No. 35. Niederländische souverainer Beschluss betref. Abschaffung des Oktroi etc., 23 Dezember 1813, 36

⁴⁶ Van Eysinga, *Geschichte der Zentralkommission*, 33-34; 'Frankfort den 8 Junij.' *Rotterdamsche Courant*, 12-07-1825, Dag.

⁴⁷ 'Amsterdam. Rijnvaart en Rijnhandel.' *Algemeen Handelsblad*, 9-7-1828, Dag.

⁴⁸ 'Amsterdam 6 Februarij 1829. Rijn-vaart.' *Algemeen Handelsblad*, 7-2-1829.

As there were many more conflicts between the Netherlands and Prussia than just those on Rhine navigation, only bilateral negotiations could solve these, but the fear that the gains of the opponent would be bigger than the own, blocked all attempts to solve them. When the negotiations started, the Dutch and Prussians still were more or less equals. Therefore the Dutch even could claim the retreat of the Prussian troupes from Luxembourg for concession in Rhine matters.⁴⁹ Only in 1829, when it was clear that Prussia was the strongest and concessions in Rhine matters would not change that anymore, the governments could decide on a treaty and sent a common proposal to the CCR. This would become the Rhine Act of Mainz of 1831. According to the proposal, Dutch transit levies were transferred in a *droit fixe* and limited, tolls were lowered, the Cologne and Mainz Skipper Guilds lost their monopolies, and compulsory transshipment was put to an end.⁵⁰ Further, the Waal was recognized as a Rhine branch. In short, from 1831 on Rhine shipping still was taxed and some transit taxes remained, but these became much lower and discrimination against ships under foreign flags or in favour of guilds, was terminated. The Dutch won in principle, but Prussia got the price.

That Prussia won was because the balance of power within the Rhine region shifted in its favour. Since the end of the Napoleonic period Berlin had pushed small German states – especially those it more or less surrounded – to integrate into its custom area. When in 1828 the far from small Hesse-Darmstadt and Prussia founded the Prussian-Hesse Custom Union, other states – German as well as non-German – feared the resulting increase of Prussian influence. In 1828 some German states founded a Central German Trading Association – *Mitteldeutsche Handelsverein* – whose members promised not to become a member of a Prussian-led *Zollverein*. This anti-Prussian organisation was supported by Austria, Britain, France, and also the Netherlands. As it never agreed on a custom union, its economic effects were negligible however, making it easy for Berlin to convince weaker members that their interests lay with Prussia.⁵¹ Thus, the Prussian-Hesse Custom union developed into the Prussian dominated German *Zollverein* in the 1830s. The growing Prussian strength resulted in a relative decrease of the Dutch position and The Hague had to give in. The Vienna liberalisation of Rhine navigation could finally be implemented. As the new freedoms were not limited to a certain type of ships, this would have enormous implications also for the introduction of new techniques, especially steam shipping. According to the Act of Mainz the CCR got a new task as it had to see to trade and navigation on the Rhine and come with proposals if there were opportunities to improve these.⁵²

In the period between Vienna and the Act of Mainz the CCR also decreed police regulations for the entire river in 1817, and in 1830 new regulations for steam shipping. In such practical matters

⁴⁹ 'Deutschland.' 's Gravenhaagsche Courant, 31-07-1826, Dag.

⁵⁰ Wolterbeek, *Proeve ener geschiedenis*, 86-87; Meidinger, *Die deutsche Ströme*, 3-4.

⁵¹ Jürgen Angelow: *Der Deutsche Bund*. (Darmstadt 2003) 63.

⁵² Wolterbeek, *Proeve ener geschiedenis*, 102-103.

there were already discussions on majority decisions. In the first years after the Congress of Vienna, Prussia opposed this, but in administrative matters it became practice nonetheless. Any principal discussions on it were avoided.⁵³ Only in 1829, when the Dutch and Prussians discussed the concept of the Act of Mainz, majority decisions were discussed again. Now the initiative came from Prussia that at that moment was quickly developing into a regional hegemony. Berlin understood, however, that a strict regulation by majority decision was unacceptable for the smaller members, and should be weakened by a number of exceptions. At the end, majority decision proved not attainable and in important matters unanimity was needed.⁵⁴

Steam power and railways, 1831-1866

In the period after 1831, innovations were implemented that would transform inland transport markets more than even since Roman times. This not just happened on or along the Rhine, but all over the world. Already in June 1816, the newspapers contained sensational items on a ship without any sails or masts moving on the Rhine near Cologne with unprecedented speed. After the first experiments the reaction of the business community also was reserved. When in November 1816 the Dutch King was asked to give permission to build four Rhine steamers, the Rotterdam Chamber of Commerce advised negative as it could not see how this modernity would improve trade. The permission was denied, probably to protect traditional skippers.⁵⁵ Nonetheless, towing by steamers and steam passenger boats would conquer the lower, but also the higher regions of the Rhine in the 1820s. It resulted in an enormous increase in the speed of shipping. Of course this competition was feared by traditional skippers, especially when steamers also started to tug barges, thus entering the market for the transport of goods.⁵⁶ Therefore, the skippers did everything to strengthen their competitiveness. Before the introduction of steam power a trip from Rotterdam to Cologne by a towed sailing ship lasted 10-20 days as at the Dutch-Prussian often were no horses available. A barge towed by a steamer could do the trip in 3-5 days. Under the pressure of this competition, skippers reorganised the horse stations and managed to improve their speed to 5-6 days. On other tracks, especially in the middle- and upper-Rhine, skippers were less alert however, and many lost their position. Therefore, apart from better organised horse stations, skipper tried to safe their position by asking for governmental protection, and even by using violence, for instance during the 1848 Revolution. Then traditional skippers, line riders (horsemen who towed boats), and owners of pubs near horse stations, shot with riffles on steamers and tried to get control over canons to use against

⁵³ Van Eysinga, *Geschichte der Zentralkommission*, 48-51.

⁵⁴ Van Eysinga, *Geschichte der Zentralkommission*, 69.

⁵⁵ Schawacht, *Schiffahrt und Güterverkehr*, 133.

⁵⁶ Weber-Brosamer, „Die weltordnung“, 94.

them.⁵⁷ On other places skippers hindered steamers, and in Hesse the army had to protect these.⁵⁸ The pressure of the skippers was successful and in the 1848 meeting of the CCR a proposal was discussed not to give any new licenses for steamers, and to allow traditional skippers a decrease in the license fee.⁵⁹ The Dutch government did not want to participate in this, as The Hague, that since the 1843 opening of the railway Cologne-Antwerp experienced a strong competition from the Belgian port, thought railways a greater threat, and not just for traditional skippers.⁶⁰

The stir caused by the first steamer on the river is explainable as since ancient times only the wind, the current, and muscle power were used for traction. As the wind was not strong enough for upstream traffic, towing by horse or man substantially limited the size and speed of ships. In the mid 1800s there were 3,000 towing horses active along the Rhine.⁶¹ A strong horse on a well-kept path could pull a ship of maximum 50 metric tons, cargo included. Compared with road transport, this was enormous; a horse on a well paved road – a rare exception in the early nineteenth century – could only draw 1.5 ton.⁶² Although barges could transport 30 to 40 times as much, they were small. The smallest modern European barges have a capacity of 365 ton, and these are only used in old-fashion French canals. Modern Rhine barges have a loading capacity of 1,500 to 4,200 ton. This enormous increase in scale in inland navigation was almost completely realized before World War I. For this steam power was of prime importance, but not enough.

As steam power cut the link between the size of a barge and the strength of a horse, the scale could increase, but only after the channel had been adapted to the technical opportunities of the steam age. That the infrastructure of inland water transport was adapted and transport not simply transferred to railways was unique. Almost everywhere else the train became dominant. In the long run this had great disadvantages as railways had a monopolistic character. A company that owned a track did not allow any trains of other companies to use it, while a waterway was for general use and the liberal Rhine regulation stimulated competition between skippers and ship owners companies. In the mid-nineteenth century, railways had a scale advantage however, making rail transport much cheaper, if not per ton/kilometre, than because a railway could easier reach a

⁵⁷ Weber-Brosamer, „Die weltordnung“, 101 ff.; De Kommissaris bij de Centrale Commissie voor de Rijnvaart Travers aan de Minister van Buitenlandse Zaken Schimmelpennick, 6 april 1841. La.M. no. 15. Exh. 8 april 1848 no. 23 (B.Z. 1475) In: RGP, *Buitenlandse Politiek van Nederland 1848-1945*. 1.1.1848 – GS 139. 141.

⁵⁸ '205. De Kommissaris bij de Centrale Commissie voor de Rijnvaart Travers aan Minister van Buitenlandse Zaken Schimmelpennick, Mannheim 3 mei 1848. La.M. No. 19 Exh. 5 mei 1848 no. 20. (BZ 1478)' In: RGP, *Buitenlandse Politiek van Nederland, 1848-1945*.1.11848 – GS 139.

⁵⁹ 'Pruissen. Berlijn, 7 Augustus.' *Leydse Courant*, 11-08-1848, Dag.

⁶⁰ '398. Minister van Buitenlandse Zaken Bentinck aan de Kommissaris bij de Centrale Commissie voor de Rijnvaart Travers, 8 Augustus 1848, No. 62 (BZ 1487).' And 399 Minister van Buitenlandse Zaken Bentinck aan de Kommissaris bij de Centrale Commissie voor de Rijnvaart Travers, 8 Augustus 1848, No. 63 (BZ 1487).' In: RGP, *Buitenlandse Politiek van Nederland*, GS 139.

⁶¹ Meidiger, *Die deutschen Ströme*, 73

⁶² Kurs, 'Schiffahrtsstraßen im Deutschen Reich,' 664.

final destination and the transporter could economise on transshipment costs. Inland water transport needed a substantial price advantage per ton/km to be cheaper than rail transport. By canalisation, the Rhine would become navigable for large-scale trains of barges towed by steam tugboats with a loading capacity up to 6,000 tons in the early twentieth century and inland shipping became strongly competitive again.⁶³ The recovery of a competitive mode of transport that resulted, guaranteed competitive transport markets and low freight rates for the entire Rhine region.⁶⁴ By supervising the modernisation of the infrastructure of the Rhine, the CCR supported the creation of a cheap transport system that would become one of the competitive advantages of the region.⁶⁵ As a result, from the late 1880s Rhine shipping recovered its market share, especially in bulk transport. With that Rotterdam – and not the railway port Antwerp – became the prime sea port of the hinterland. Between 1890 and 1913, the costs of river shipping nose-dived with 75 percent, while Dutch rail freights rose with 9, and German rail freights decreased with 9 percents. In the entire 1860-1913 period, Dutch rail tariffs decreased with 17, German rail tariffs with 55 per cent, but those of Rhine shipping with 82 per cent, while the general price level was more or less stable.⁶⁶ The Rhine became a regional highway for bulk transport.

The first steamers appeared on the Rhine in 1816. Thus, already before the Act of Mainz, important technical developments changed transport. Only from the 1830s and 40s, inland transport would be completely transformed however. Modernizing barge-shipping by introducing steam power reached a new stage when the river got competition from railways. While until 1843 Rhine shipping had all but a monopoly on the transport between German territories bordering the Rhine and the sea, with the opening of a railway from Cologne to Antwerp an alternative became available, not just for barge-shipping, but, as by now Belgium was an independent nation, also for the Dutch ports. For the first time in modern history, overseas trade relations of the German Rhineland was independent of the Dutch port and in a short period of time many more railways, also to German sea ports, would completely destroy the Dutch monopoly. Between 1840 and 1860, German railways multiplied 30 times, rail transport over 500 times. The costs per ton/kilometres decreased with 56 per cent.⁶⁷ Railways became dominant, making transport possible on an unknown scale, in all directions.⁶⁸ Inland navigation lost its leading position.⁶⁹

Railways also had technical implications, as they required stable bridges. Downstream from the medieval bridge in Basel, the Rhine was only crossed by ferries or pontoon-bridges, making it

⁶³ Clapp, *The navigable Rhine*, 44.

⁶⁴ Levainville, 'The Economic Function of the Rhine,' 9-10.

⁶⁵ Klemann, Schenk, 'Competition in the Rhine delta.'

⁶⁶ Ibidem. See also: Hein A.M. Klemann, 'Competitiveness and German-Dutch Monetary Relations, 1871-1931.'

⁶⁷ Fremdling, *Eisenbahnen und deutsches Wirtschaftswachstum*, 17, 48 and 57.

⁶⁸ Strauch, 'Die Entwicklung des Rheinschiffahrtsrechts,' 77; Fremdling, 'De rol van spoorwegen,' 43; Keller, Shiue, 'Tariffs, Trains, and Trade,' 22.

⁶⁹ Fremdling, 'Railways and German Economic Growth,' 601; Schwabe, *Die Entwicklung der deutschen Binnenschifffahrt*, 7-8.

possible to pull out a part to give free passage to barges. Although there were some experiments with train-ferries, only stable bridges proved a solution. In the 1850s Prussia started to build the first, – the *Dombrücke* (Cathedral Bridge) – just behind the Cologne cathedral at the spot of the present Hohenzollern Railway Bridge. As the initiative came from a railway company, the original design was a serious threat for navigation. Protests from skippers, steamer companies, diverse Chambers of Commerce and a number of Rhine states made international regulation necessary. In 1858 an extra meeting of the CCR, that had the duty to protect the navigability of the Rhine, was held to discuss the problem.⁷⁰ This also was of principle importance for the CCR as some German states also protested against the bridge with the *Bundessammlung*, the highest authority of the German Confederation. As France and the Netherlands were Rhine, but no German states, a decision of the *Bundessammlung* would not bind these states, and so only partially solve the problem. Thus it became clear that all Rhine matters were CCR, and no internal German matters.

To solve the bridge problem, an Expert Commission of the CCR was asked to answer whether it was possible to make it higher than the proposed 48 Rhineland feet (15 metres) or include a moveable part. The experts agreed that a moveable part was no solution, but were divided whether the bridge could be higher. Prussia offered to increase the height with another 5 feet (1.57 metre), however. While this discussion was going on, building activities on the railway from Bonn to Bingen crossing the Rhine and a bridge crossing the Mosel had already started.⁷¹ It was clear that the spectacular growth of the railway network caused that bridges were needed everywhere. After long negotiations within the CCR, an agreement was reached on a higher bridge and compensation for skippers who had to adapt their ships to pull down their masts. All other plans for bridges also were discussed in the CCR and adjusted to the needs of shipping. After 1875, this was not necessary anymore. Barges were adapted and builders knew the rules. Now, the CCR permission got the character of a building license.⁷²

From the 1850s, railways became such serious competitors that the only possible answer for barge shipping, apart from giving up (as was done in many other river systems), was an enormous increase in the scale to lower the costs. Rightly Van Eysinga wrote that the time of regulation – the normal euphemism for canalisation – only came when steam shipping became dominant.⁷³ Not the development in shipping motivated the authorities to improve the river however, but competition by railways. Traditionally, hydraulic building activity focussed on protection of the river banks from

⁷⁰ 'Deutschland.' *Middelburgsche courant*, 19-01-1858, Dag.

⁷¹ Notizen über die neue Rhein-Brücke bei Köln, 3-17 'Berlijn, 28 Maart.' *Opregte Haarlemsche Courant*, 31-03-1958, Dag; 'Haarlem, 7 April.' *Opregte Haarlemsche Courant*, 08-04-1858.

⁷² Van Eysinga, *Geschiede der Zentralkommission*, 80-81.

⁷³ Van Eysinga, *Geschiede der Zentralkommission*, 43.

floods and ice, not on improving the channel. Therefore, the CCR was not involved. Building was considered a task of the individual states. Only if there were conflicts between Rhine states on tow-paths – and there were many – the Commission tried to mediate. As the Act of Mainz liberalised shipping, especially steam shipping, the new traction became dominant and would completely change the meaning of keeping the waterway in a good shape. Traditional sailing ships did not need a deep channel. They were small anyway. It was practical however, when the waterway was wide enough to tack if the wind came from an inconvenient direction. Steamers could be much bigger. Consequently, deeper channels were needed, but that meant limiting the width of the river, what was against the interests of skippers, if only because then the current was strengthened. From the 1850s it became clear however, that if Rhine shipping wanted to survive, adaptation to steam shipping and a much larger scale was needed. Therefore, the river should be canalized, freed from rapids, sand banks, and shallow places and deepened.

In the 1840s, railway transport grew much faster than Rhine transport, especially after the port of Antwerp was connected by train to the German hinterland. For the Netherlands this meant that it lost its monopoly. Now it became a Dutch interest to keep the Rhine competitive. The new situation caused some panic. From 1843, the year of the opening of the railway Antwerp-Cologne, The Hague pleaded within the CCR for a general termination of all shipping rights and transit taxes along the entire river, and wanted a railway connection with Germany.⁷⁴ In 1847 it even asked to terminate all Rhine tolls and showed its disappointment when not all Rhine states were immediately enthusiastic.⁷⁵ Under the pressure of competition, The Hague became liberal and wanted a railway, but now the Germans were not in a hurry. Although some Rhine states wanted to lower and even terminate taxes and tolls and the Dutch freed the barges from those states from all taxes, Hessen refused to participate and as it had a treaty with Bayern and Baden not to change anything on Rhine shipping, without agreement among each other, Darmstadt could obstruct all development.⁷⁶ Some tariffs decreased, but it was not enough to strengthen the competitiveness of the Rhine against railways. In 1851 the Netherlands therefore unilaterally terminated all tolls and taxes on its track.⁷⁷ It had some positive results, but competition the further developing railway network and ports like Le Havre and Antwerp grew.⁷⁸ In 1853, skippers, traders, and steamship companies involved in Rhine

⁷⁴ 'Rotterdam, den 14 October.' *Overijsselsche Courant*, 18-10-1844, Dag; 'Binnenland. Tweed Kamer de Staten-Generaal. 's-Gravenhage, 7 Maart. *Algemeen Handelsblad*, 10-3-1845, Dag; Handelingen Tweede Kamer 1844-1845 30 april 1845, Beraadslaging over den Rijnspoorweg.

⁷⁵ 'Nieuwstijdingen. Amsterdam, Zaterdag 28 Augustus. *Algemeen Handelsblad*, 30-8-1847.

⁷⁶ 'Nederland en de Rijnvaart.' *De Nederlander: Nieuwe Utrechtsche Courant*, 18-11-1848, Middag.

⁷⁷ Klemann, 'Vlissingen,' 27-29; 'Nederland en de Rijnvaart. Niet Officieel Gedeelte.' *Dagblad van Zuidholland en 's Gravenhage*, 9-10-1861, Dag.

⁷⁸ 'Amsterdam, 24 April.' *Opregte Haarlemsche Courant*, 26-04-1852, Dag.

shipping sent petitions to the CCR to hurry with liberalisation of Rhine navigation, as it was hard to compete with the train, even for steam shipping.⁷⁹ The Netherlands, Baden, and Bayern agreed and Prussia was also in favour of liberalization, but Hessen and Nassau needed the tolls.⁸⁰ In the 1860s even a transnational lobby developed when representatives from all Rhine states of Chambers of Commerce, shipping and insurance companies, as well as private people with interest in Rhine shipping, met in Coblenz to co-ordinate their lobbies and pressure on the governments. A Committee of 12 members was asked to represent these interests with the governments, especially with those who were not yet in favour of liberalization.⁸¹ The German Rhine states – all members of the *Zollverein* – also met in Coblenz, while in the Prussian House of Representatives (*Abgeordnetenhaus*) the government was asked to put pressure on Nassau and Hessen.⁸² As the two small states could not give in, tolls and levies remained a problem. Only in 1861 the Rhine states agreed on lower tolls and the *Zollverein* promised to stop levying transit taxes.⁸³ It was too little and too late, but as Prussia made clear when the Netherlands terminated all tolls and duties in 1851, even that was not enough. The railways on the left bank immediately reacted by decreasing its freight rates substantially. Rhine shipping kept transport costs low by creating competitive transport markets, but that would only last as long as it survived.⁸⁴ To become competitive again a larger scale was needed. Therefore, the river should be canalized, but in the Netherlands big investments were not done yet. Apart from technical problems, this had financial reasons. As a result of the policy to keep the army mobilized against the Belgians for 10 years, King William I left a bankrupt country in 1840, when he abdicated. When in the early 1850s it was decided to improve the channel, the river's width was limited with dikes and groins to increase the current in the hope that this would slip away superfluous sediments and deepen the waterway. In this lower Rhine area, where the clay was sticky, this proved vain and in the 1870s it had to be accepted that dredging – for which enormous expenditures were needed – was unavoidable.⁸⁵

⁷⁹ 'Deutschland.' *De Grondwet*, 04-10-1853, Dag; 'De vrije Duitse Rijn.' *Nieuwe Rotterdamsche Courant*, 30-05-1856, Dag.

⁸⁰ 'Van den Rijn, 22 December.' *Opregte Haarlemsche Courant*, 24-12-1857, Dag.

⁸¹ 'Deutschland.' *Nieuw Amsterdamsch handels- en effectenblad*, 14-06-1860, Dag; 'Coblenz, 18 Julij.' *Nieuwe Rotterdamsche Courant*, 21-07-1860, Dag.

⁸² 'Economische Kroniek, 3 Junij.' *De Economist*, 1860, 181-230, here 192; 'Deutschland.' *Nieuw Amsterdamsch handels- en effectenblad*, 14-11-1860, Dag.

⁸³ 'Economische Kroniek, 20 Februarij.' *De Economist*, 1861, 88-142.

⁸⁴ 'Niet-officieel gedeelte. Nederland en de Rijnvaart.' *Dagblad van Zuidholland en 's Gravenhage*, 09-10-1861, Dag.

⁸⁵ *Handelingen Tweede Kamer der Staten-Generaal 1870-1871*, 10 mei 1871. *Staatsbegroting over het Dienstjaar 1871. Beraadslaging over hoofdstuk V*, 716-723.

Since ancient times people living on its banks had adapted the Rhine to their needs, but only during the nineteenth century it was transformed from a more or less natural river full of sandbanks, rapids, overflows, bending, rocks, floating islands of quicksand, and periods of low water and ice, but also with salmon and sturgeon living and breeding in it, into a canalised waterway adapted to the needs of large-scale shipping. Protecting the banks from floods remained important, but creating a safe, straight and deep channel that could be used in all weather conditions, became the prime target.⁸⁶ Thus it became possible to use big steel barges combined in trains of four ships of altogether 400 metres, tugged by a steamer of 1300-1500 hp in the early 1900s. Since the 1840s, when the first steam tugged trains emerged, the cargo of barge trains ten folded while fuel consumption decreased.⁸⁷ These transport facilities could cope with the demand of transport of enormous quantities of uniform bulk – coal, ore, cereals, and wood – generated by the German industry. In the transformation of the river the CCR played a major role, as it became accepted that the Central Commission took over the supervision on the channel.

Disputes on the channel or the tow-paths were a returning phenomenon. Therefore, already in the Act of Mainz it was agreed that technicians of the CCR would regularly check the navigability of the river. In fact, this never happened until 1847. Then the Prussian Commissioner initiated an inspection from Basel to the sea as he feared the competition by the railways on the banks. Just before, competition by the railway Basel-Strasbourg, wiped out all shipping on this thorny track.⁸⁸ After an inspection trip in 1849, the CCR Commissioners of Prussia, Nassau, and Hesse wrote a memo on the Dutch Rhine, which was in a terrible shape. This was not the first protest of German Rhine states, by then all member of the *Zollverein*, against the Dutch. During the 1840s, there were a number of conflicts, as the Germans had the impression that The Hague still tried to control their overseas contacts. As a result of the delta character of the lower Rhine, the amount of water in each branch of the Rhine was much less than in the German Rhine, while the slow current and ice, normal with nineteenth century winters, caused that sediments from other parts of the river – sand, peddles, clay – settled especially in these branches. As the bottom of the river rose, only by raising the dikes the water could be kept out of the surrounding land, but by doing so again and again the water level became higher than the surrounding land, what not just resulted in serious problems with seepage water, but also caused terrible flood in wintertime when ice prevented a quick flow of the enormous amounts of water the river had to deal with. In many winters substantial parts of Dutch Brabant, Holland up to Leiden and Amsterdam, and Utrecht were flooded.⁸⁹ The canalisation

⁸⁶ Van Heezik, *Strijd om de rivieren*, 89 c.q.; Blackbourn, *The Conquest of Nature*, 77-119.

⁸⁷ Clapp, *The navigable Rhine*, 44.

⁸⁸ Van Eysinga, *Geschiede der Zentralkommission*, 78.

⁸⁹ Van der Woud, *Het Lege land*, 95ff.

of higher levels of the river to prevent such winter floods in German areas only caused a faster flow of superfluous water from there to the lower Rhine, increasing the Dutch problems.⁹⁰

According to The Hague the technical problems were too complicated and the limited navigability of Dutch Rhine branches unsolvable. In Germany this was simply not believed.⁹¹ That the channels of the Dutch Rhine branches were in a terrible shape was correct. The depth of the Waal – considered to be a main shipping route – at certain points was little more than a metre, while the port of Rotterdam could only be reached from the sea during high water. In some German lands the river also was hardly navigable and unregulated, but that was not Prussia's message. Berlin was in the first place interested in a smooth channel from its developing industrial centres to the sea. The message to The Hague was clear: it had to improve the navigability of its Rhine branches as Prussia could not accept that the river, after being normalised in Prussia, ended in a swamp. In 1850, the year after the Commissioners of Prussia, Nassau and Hesse had inspected the river, the liberal Dutch internal minister Rudolf Thorbecke would change the river policy and initiate the building of dikes and groins to limit the width of the river and improve the depth.⁹² Until then the main problem for the Dutch was to transform the river in a drainpipe to get rid of superfluous water and ice. Now getting a straight, deep channel became the prime target.⁹³

From 1849, inspections of the river became a regularly returning event organised by the CCR and resulting in reports on how to improve the navigability. In 1861, technicians from all Rhine states made a trip to check bottlenecks and set new, common targets. When the water was low, from the depth of the channel should be at least 1.5 metres Strasbourg to Mannheim, so they decided, 2 metres from Mannheim to Koblenz, and 2.5 metres from Koblenz to Cologne. From there to the sea the channel should be at least 3 metres. After this was realised it would be possible to sail with barges with a loaded draft of 2 metres from Rotterdam to Mannheim without transshipment or any obstacle or locks. On most places, these targets were reached already, but complicated engineering projects were needed to remove remaining bottlenecks.⁹⁴ From 1861, the Committee of Technicians of the CCR would regularly control the channel and the engineering activities. To meet the targets giant engineering project were needed, executed by the *Rheinstrombauverwaltung* (Rhine Stream Building Administration) of the diverse German Rhine states, or the Dutch Internal Ministry. Although the actual execution of the projects was done by the member-states, the CCR supervised and coordinated these.

⁹⁰ Lintsen, 'Two Centuries of Central Water Management,' 552.

⁹¹ Van Heezik, *Strijd om de rivieren*, 73-74.

⁹² *Ibidem* 87 ff.

⁹³ C. Bloys, 'Onze handelsplaatsen en Verkeerswegen.' *De Economist*, 1886, 1011-1032.

⁹⁴ Nasse, *Die Schifffahrt der deutsche Ströme*, 32.

Prussia, which in 1851 was the first German state that founded an organisation to transform the Rhine in a well-navigable waterway, did not hesitate to put pressure on other Rhine governments to normalise their tracks as well.⁹⁵ Apart from the Netherlands, the problems with the navigability were most severe in Hesse and Nassau. These states came under ruthless Prussian pressure to participate in its regulation activities. Especially for Nassau this was an unsurpassable problem as it had the left bank of one of the most problematic part of the Rhine (Prussia had the right bank), near the Binger Loch, where a granite mountain wall with only a very narrow passage, almost blocked the river. To remove this obstacle was one of the biggest technical problems of the canalisation project. All governments involved agreed that something should be done, but the negotiations on what exactly took years. In 1856 this resulted in a special meeting of the CCR to find solutions for the track Mainz-Bingen. A committee of engineers from France, Prussia, Hessen, Nassau, and Baden would decide if further problems would rise.⁹⁶ The supervision on all building activities agreed between the individual Rhine states became the task of the CCR. As Prussia was the initiator and organiser behind this activity, by now the commission seemed an instrument of Prussia. It executed the Prussian plans in those parts of the Rhine region where Berlin had no jurisdiction. The Prussian developing industry along the Rhine and Ruhr needed the canalisation of the river. The CCR had to guarantee this.⁹⁷

Prussian power politics, 1866-1914

It was in the first place Prussia that put pressure on regulation, but more and more the need to do so was recognized in the Netherlands as well. The Hague understood that without improvement of the navigability the country would lose its transit to Antwerp. Complex negotiations were needed to convince smaller Rhine states that giant investments were needed to canalise the Rhine. In 1866 the political situation changed however, when after the Austro-Prussian war Berlin used the opportunity not just to improve its position in the region but also to liberalize Rhine navigation once and for all. Notwithstanding his king's bad consciousness, prime-minister Otto von Bismarck annexed Nassau (together with Hanover, Hesse-Kassel, and the Free-City Frankfurt). By the conquest of Nassau Bismarck destroyed a principality that since the Vienna Congress had opposed the centralisation and liberalisation of the Rhine, kept its tolls intact, and proved a difficult partner in the canalisation process. By its annexations, Prussia became hegemonial in the region, especially after it used the peace-negotiations in Prague to dictate a new Rhine regime. Bayern, Baden, and Hesse – who all fought at the side of Austria – had to accept a complete liberalisation of all navigation and the supervision by the CCR over the normalisation of the river.⁹⁸

⁹⁵ Nasse, *Die Schifffahrt der deutsche Ströme*, 58; Van Heezik, *Strijd om de rivieren*, 22-35.

⁹⁶ Van Eysinga, *Geschiede der Zentralkommission*, 83-84.

⁹⁷ Van Eysinga, *Geschiede der Zentralkommission*, 81ff.

⁹⁸ Schmitt, 'Prussia's Last Fling,' 316-347.

The Dutch and French who were not involved in the 1866 war, did not oppose liberalisation, but feared Prussia's new position.⁹⁹ In the Netherlands, as in all small countries of Europe, the aggressive Prussian policy was considered a threat. 'Prussia uses the new nationalistic principle, for conquests according to old traditional power politics', the Dutch statesman Thorbecke wrote.¹⁰⁰ Paris, that stayed neutral in 1866, wanted to be compensated for this, and was not satisfied by the compensations Bismarck thought reasonable. In Belgium there were fears that they would become victim of French imperialism, and rumours in the international press said that Bismarck and Napoleon III discussed to take both one of the Low Countries.¹⁰¹ Conservative protestant Prussian nationalists around the *Kreuzzeitung (Neue Preußische Zeitung)*, in close contact with Bismarck, also claimed the Germanic Netherlands as it would make Prussia an important naval and colonial power and could protect the Netherlands from further decline.¹⁰² From this period on there were regularly rumours in the international press about a Prussian annexation of the Netherlands, always mentioning the importance of the Dutch ports for Prussia's economic and military development.¹⁰³ When confronted with such idea, Bismarck always denied any desire to do so.¹⁰⁴ In 1867 a conflict concerning Luxembourg almost resulted in war, however. As in 1866 the German Confederation broke down, the Dutch hoped that the Prussian troops that manned the citadel of Luxembourg on behalf of the Confederation would leave. Prussia did not want to withdraw its troops, as it could control the German-French border from this height, but Napoleon III wanted to buy the Grand-Duchy from the Dutch king, to reinforce his position.¹⁰⁵ The Dutch King Willem III, who admired the French emperor, did not refuse his proposition immediately and thereupon war between France and Prussia seemed imminent. It made the position of the Netherlands most uncertain, especially as in 1866 Prussia annexed neighbouring Hanover. The Prussian behaviour gave the impression that the smaller powers of Europe were dependent of its whims. During the 1868 Mannheim negotiations on Rhine liberalisation, fearful situations followed. Berlin did little to the comfort the small country; Dutch panic seemed a Prussian interest. It smoothed the road to the acceptance of all Berlin wanted. This

⁹⁹ Doedens, *Nederland en de Frans-Duitse oorlog*, 18.

¹⁰⁰ 'Aantekeningen ongedateerd.' In: *Briefwisseling van J.R. Thorbecke, 1830-1872*, 7, KS 98, 487.

¹⁰¹ 'London, Friday, November 16, 1811.' *The Times*, 16 November 1866.

'Particuliere Correspondentie. Brussel 11 Augustus.' *Nieuwe Rotterdamsche Courant*, 13-08-1866, Dag; 'België.' *Nieuwe Rotterdamsche Courant*, 17-08-1866, Dag.

¹⁰² Groen van Prinsterer, *La Prusse et les Pays-Bas*, 6-7.

¹⁰³ d'Haussonville, *La France et la Prusse*, 39-40; 'Germany, Berlin March 18.' *The Times*, March 19, 1878.

¹⁰⁴ 'Books of the week.' *The Times*, January 19, 1893.

¹⁰⁵ 's Gravenhage, 11 September 1866.' *Dagblad van Zuidholland en 's Gravenhage*, 12-09-1866, Dag.

was illustrated in 1869 by the Prussian King, the future Kaiser Wilhelm I, when he visited his new conquests in Hanover, and spontaneously remarked to a Dutch official that he had no intentions to annex the Netherlands as well. The official reported to The Hague: *'Qui trop s'excuse, s'accuse'*.¹⁰⁶

In 1868, Berlin only had to persuade France and the Netherlands to accept the regulation of Rhine navigation agreed already among all remaining German Rhine states in the Peace of Prague. The Hague had major objections. Although it accepted a complete liberalisation of Rhine navigation in 1851 already, the proposed treaty allowing every Rhine State to control all hydraulic engineering activities when these had a relation with Rhine water, were against their interests. It would include the vital defence works of the Holland Waterline, giving Prussia control on the cornerstone of the Dutch defence system. Further The Hague had objections against the idea to extend police control and juridical powers of the CCR to other waterways, as it was feared that it was not the CCR, but Prussia behind the mask of the CCR that executed these rights.¹⁰⁷ The Dutch delegation left the negotiations, whereupon Berlin mobilized its public opinion, suggesting in more or less official newspapers that the Netherlands tried to cut off the German access to the sea again, in a by the way manner discussing the need of an independent Dutch state in modern Europe.¹⁰⁸ Dutch newspapers wrote about Prussia's ambitions and its consequences in a pessimistic mood, just as a year before during the Luxembourg crisis.¹⁰⁹ The Hague felt intimidated and the formation of the Kaiserreich would not improve that. Prussia's power and its willingness to use force made the Netherlands accept Berlin's demands. It resulted in the Mannheim Convention of 1868.¹¹⁰

During its first century, the commission had to deal with internal political rivalry, cumulating in the Prussian absorption of the Rhine state Nassau in 1866 and the absorption of the French territories bordering the Rhine by the new German Kaiserreich after 1871. Apart from all kind of other struggles within the Commission, it had to find answers to the problems raised by a complete transformation of inland transport as well as by the industrialisation of the territories along the river. From 1871, Prussia-Germany dominated the Rhine, as all members of the CCR, apart from the Netherlands, were German states and parts of the Prussian dominated Kaiserreich. By then the emotional period in the history of the Rhine Commission seemed over. The Netherlands and the German member states of the CCR agreed on the need to canalized the Rhine and transform it in a major waterway. In 1886 a Dutch author concluded that from 1850 the prime target of the Rhine

¹⁰⁶ Doedens, *Nederland en de Frans-Duitse oorlog*, 18

¹⁰⁷ 'Duitschland.' *Dagblad van Zuidholland en 's Gravenhage*, 30-8-1868.

¹⁰⁸ Handelingen Tweede Kamer der Staten-Generaal 1868-1869, 5 Maart 1869, Herziening Rijnvaartacte, 973-975; 'Nederlanden. Breda, den 2den September.' In: *Bredasche courant* 3-09-1868, Dag; 'Duitschland.' *Dagblad van Zuidholland en 's Gravenhage*, 30-8-1868.

¹⁰⁹ 'Niet-Officieel gedeelte. 's-Gravenhage, 24 Augustus.' *Dagblad van Zuidholland en 's-Gravenhage*, 25-08-1868, Dag; 'Nederland en de Rijnvaart. Niet Officieel Gedeelte.' *Dagblad van Zuidholland en 's Gravenhage*, 9-10-1861, Dag; 'Nog iets over de Rijnvaart-kwestie.' *Algemeen Handels-blad*, 5-09-1868, Dag; 'Binnenland. Rotterdam, 29 Augustus.' *Nieuwe Rotterdamsche Courant*, 30-08-1868, Dag.

¹¹⁰ Handelingen Tweede Kamer der Staten Generaal, 1868-1869, 5 Maart 1869, 973-975

policy had been to get a straight and deep channel. By then that project was almost completed, and he expected that the Rhine would become, even more than it was already, the prime transport route for the most important industrial areas of Europe. For Westphalia and the Rhine province he considered the nearness of the best navigable river of prime importance. At that moment already that iron ore and cereals were dominant in upstream direction, and the author thought that coal as a return cargo would further increase the competitiveness of the river.¹¹¹ In the same period the government expressed the opinion that the target to deepen the channel to 3 meters on the track Cologne-Rotterdam, as decided by the CCR in 1861, was almost completed. The CCR agreed with this. Between 1852 and 1882 Prussia had spent 20 million guilders to improve the river; the Netherlands 35 million.¹¹² After the Rhine was canalized, sailing remained only in use in local transport. Steaming became the rule and barges became larger. Especially big German industrial companies in the Ruhr area who needed large scale transport of ore and coal – Haniel, Stinnes, Thyssen or Krupp – used the new possibilities to lower transport costs by building Rhine fleets of modern steam-tugged barges. For fiscal reasons these barges often used the Dutch flag. Rhine shipping became cheap and just before World War I almost a quarter of all German trade (in tons) crossed the German-Dutch border in Rhine barges.¹¹³

In this period, when the success of the Rhine canalisation was without doubt, some German interests started a lobby against the low freights rates. As between 1870 and 1880 the costs of rail transport per ton/km were only 50-150 per cent higher than of Rhine shipping, railways could compensate this by other advantages. In 1883 the costs of rail transport were however, suddenly 228 per cent higher, to increase further with large fluctuations, to 452 percents in 1901 and 659 per cent in 1913.¹¹⁴ This was a direct consequence of the larger scale made possible by the canalisation project. Some interests groups opposed these developments. Now it became cheaper to use overseas cereals than rye from Prussian east of the Elbe River territories in the West German industrial centres along Rhine and Ruhr. Although German agrarian protection substantial raised food prices and transferred income to these territories, it was not enough to back the rye or wheat of the German agrarian regions in its competition with cereals from America or the Ukraine.¹¹⁵ That railway freights from these territories to the Ruhr and Rhine area were so much higher than the decreasing costs of maritime shipping in combination with cheap inland transport by Rhine barges,

¹¹¹ Bloys, 'Onze handelsplaatsen,' 1018-1020.

¹¹² '84a. Nota behorende bij de brief van Waterstaat, Handel en Nijverheid van 19 maart 1887, No. 38, Afd. Waterstaat A. RGP, *Buitenlandse Politiek van Nederland 1848-1945*, 41886-1890, GS126.

¹¹³ Klemann/Schenk, Competition in the Rhine delta.'

¹¹⁴ Klemann, Schenk, 'Competition in the Rhine delta'; Smits et al., *Dutch GNP*, 142-147; Fremdling, *Eisenbahnen und deutsches Wirtschaftswachstum*, 29-31; authors' own calculations.

¹¹⁵ Wolf, 'Was Germany Ever United?'; Broadberry, Burhop, 'Real Wages and Labor Productivity', 409.

made it easy to blame Rhine shipping. The German ports of Hamburg, Bremen and Emmerich, also saw a dangerous competitor in Rotterdam, that became the most important Rhine port. These interest groups considered Rhine shipping too cheap. Some industries not connected to the waterway network also complained that they were bad off because waterways were subsidised, while railways were taxed.¹¹⁶ It resulted in lobbies of the railways, ports, agriculture, as well as some industries to levy tolls along the Rhine again. One lobbyist, Frans Ulrich, a Railway manager, wrote a pamphlet to express the opinion that it was unfair to tax railways and subsidise waterways as this improved the competitiveness of regions near waterways at the expense of the tax payer and regions not connected to these.¹¹⁷ The same argumentation is found in a 1906 publication by a steel company in Aix-la-Chapelle, who was confronted with rising transport costs, while the taxes it paid were used to improve the transport facilities of its competitors.¹¹⁸ Ulrich thought compensating taxes were needed to bridge the price differences between rail and Rhine transport.¹¹⁹

Taxation of Rhine shipping was against the Act of Mannheim that prohibited all taxes or tolls on the Rhine. It also was against the constitution of the Kaiserreich that said that tolls on waterways were only acceptable when used to improve or maintain that waterway. Finally such ideas were against the interests of the most industrialised parts of Germany.¹²⁰ Recent research shows that toll or other levies to compensate the indirect subsidies Rhine shipping obtained by not paying for the waterway, never could have been thus high that it would compensate the freight rate differences. It would only result in an increase of Rhine freights with 11 per cent.¹²¹ When compared with the enormously differences between the cost of rail and Rhine transport per ton/km after 1885, it hardly seemed relevant. Not indirect subsidies, but the organisational activities by Prussia and the CCR made Rhine shipping competitive. Even so, German industries along the Rhine and Ruhr that needed iron-ore and wood from Sweden or Spain and shipped growing quantities of coal to Rotterdam for further export opposed plans to reintroduce tolls and set up their own lobby.¹²² At the same time the Netherlands, stimulated by the Rotterdam Chamber of Commerce, demanded that Germany should not forget its obligations, and keep the Rhine open for all transport and free of any tolls or taxes. No longer power politics dictated the situation, but economic interests were at stake. Rhine transport and with that the Netherlands became so important for Germany that the Dutch position in low politics even influenced high politics.

¹¹⁶ Rabius, *Der Aachener Hütten-Aktien-Verein*, 69–75; Wirminghaus, *Zur frage der Wiedereinführung von Rheinschiffahrtsabgaben*

¹¹⁷ Mees, 'De vrije vaart op den Rijn.' *De Economist*, 1898, 38-41; 'Rijnvaart-belastingen.' *Algemeen Handelsblad*, 5-11-1909, Avond; Rijnvaart-belastingen. *Algemeen Handelsblad*, 8-11-1909.

¹¹⁸ Rabius, *Der Aachener Hütten-Aktien-Verein*, 69–75.

¹¹⁹ Mees, 'De vrije vaart op den Rijn.'

¹²⁰ Schwabe, *Die Entwicklung*, 3–4.

¹²¹ Klemann, Schenk, 'Competition in the Rhine delta.'

¹²² Wirminghaus, 'Der Rhein und die Schiffahrtsabgaben'; 'Progrès du port de Rotterdam.' *Annales de Géographie*, 1900 (9) 277.

Already in 1902, a Dutch politician said that for Germany an independent Netherlands was of higher value than an annexed country.¹²³ His reasoning is comparable to that of General Helmuth von Moltke when he decided in 1908 to adapt the strategic plan of his predecessor Alfred von Schlieffen to attack through the Netherlands in case of war with France. As Moltke thought that Britain would use the indignation in the public opinion after Germany attacked Belgium to enter the war, he concluded that the Netherlands were safe from a British invasion and decided to keep it out of war for strategic reasons, but also because, as he wrote, it allows us to import and export and 'should become the windpipe we can breath through.'¹²⁴ In 1913 the progressive-liberal German MP Georg Cothen (*Fortschrittlichen Volkspartei*) made similar remarks, when he said that because the Netherlands provided Germany with all it needed for its overseas trade, the fact that it was no part of Germany was no problem at all. To the contrary, it could be favourable for Germany when in case of war its overseas trade was organised by a neutral power.¹²⁵ In the pre-1914 years the English, but especially the nationalistic French and Belgian press often wrote that the Dutch became completely dependent of Germany and that its ports were so important for the Reich that this would result in the German conquest of the country in case of a European war. In the more analytical British press it was also heard however, that the fact that Germany got everything it could demand from the Netherlands without any interference, and that the neutrality of its most important port could only be in its favour, it would keep the Netherlands out of a possible European war. Already in the 1890s, the Dutch envoy in Berlin came to similar conclusions. Notwithstanding the noise of German nationalists about the Netherlands not paying taxes for their defence by the Germans, the Dutch were kept out of the war in 1914. The Netherlands had little to fear from Germany because it gave it already everything by free trade and cheap transport Germany could expect. Military interference could only damage these relations.¹²⁶ Free Rhine navigation was only one aspect of this, but probably the most important one.

Conclusions

After the Vienna Congress, the instable balance of power between the United Netherlands and Prussia almost destroyed the uniform and liberal regulation of Rhine shipping. This was implemented during the French dominance in the early nineteenth century, and was considered so important by the Congress of Vienna that it set up a unique experiment by handing over the authority on the river to an international commission, the Central Commission for Navigation of the Rhine. Before the

¹²³ 'Mr. Fokker over de aansluiting van Nederland bij Duitschland.' *Nieuwsblad van Friesland: Hepkema's Courant*, 13-09-1902, Dag.

¹²⁴ Paul Moeyes, *Buiten schot. Nederland tijdens de Eerste Wereldoorlog, 1914-1918* (Amsterdam 2001) 81.

¹²⁵ 'Duitschland.' *Nieuwsblad van het Noorden*, 09-05-1913, Dag.

¹²⁶ See: McDonald, 'Peace through Trade or Free Trade?'.
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Rhine could be liberalised according to the principles of Vienna, some remaining problems had to be solved. However, Prussia and the Netherlands both were obstinate not to give any concessions to the other, as they feared that the rival would strengthen its position. The Dutch had a juridical strong position and were backed by the smaller Rhine states, but Prussia – the most powerful state in the region – did not accept to be outmanoeuvred. Both were calculating their relative gains. Therefore, only when it became undisputable that Prussia was the strongest, the Dutch gave in and bilateral negotiations could result in the Mainz Convention of 1831. Before this was accepted by all Rhine states, the Netherlands definitively lost its position as a result of the 1830 Belgian Revolt. Apart from Prussia and France only minor powers remained within the CCR.

As in the Mainz Convention Rhine competition on the river became free and there were no limits to a particular type of ships, steam shipping now got a free hand and it seemed that this would become dominant. Traditional skippers felt endangered and tried to defend their position by a better organisation of horse stations, but also by convincing government that they needed protection and even by using violence against steamers during the 1848 German Revolution. As by then railways were already threatening all Rhine shipping – traditional and modern – they had no chance. For both the Netherlands and Prussia the survival of this type of transport was of the utmost importance. For Prussia because it needed cheap and competitive transport for its developing industry that compared to its British rivals was rather far from the sea; for the Netherlands keeping barging cheap was the only chance for the Dutch ports after Belgium opened a railway from Antwerp to Cologne.

The Dutch were conservative and just wanted to liberalize Rhine shipping from governmental and organisational obstacles; Prussia thought it not enough. All natural obstacles hindering large scale steam tugged barge-trains also should be removed. The Dutch not just had no money for it, but also were not convinced that it was possible to solve the technical problems. Therefore it was Prussia that from 1847 started a systematic policy to canalize the Rhine, using the CCR as an instrument to obtain this also in those parts of the river that were not under its jurisdiction. Especially the small Nassau remained an obstacle, however. It needed the income from its tolls and thus opposed a complete liberalisation and it could not pay for the canalization on its track. In the second period, that lasted to 1866 Prussia used its power to control the CCR and transform it into an instrument to get what it wanted without escalating conflicts. When in 1866 internal German conflicts escalated nonetheless, it used the post-war situation to get from all German Rhine-states all it wanted in Rhine matters. Nassau, that would have remained a problem, it simply annexed. To further improve its position it pressed the by then severely intimidated Netherlands to accept the 1868 treaty of Mannheim. France, the only remaining rival of Prussia in the region, was isolated from the river in 1871, although for quite different reasons.

In the last period, the only members of the CCR were German states who were parts of the *Kaiserreich* – not the *Kaiserreich* itself – and the Netherlands. Now the CCR in the first place became a technical commission controlling and co-ordination the agreed policy on regulating the river. In the 1880s this policy was finished and the entire river from Rotterdam to Mannheim was canalised. A much larger scale of transport became possible, making cheap bulk transport develop. Now Rotterdam became the central German port and essential for its main industrial regions. This port, Rhine barging, and the interests of its industries along the Rhine and its subsidiaries became that important that lobbies by German ports, railways, farmers and industries far from the waterway, could not change the liberal German policy on Rhine navigation and convince Berlin that tolls were needed again. Rhine shipping was and remained free, also because it was not in the German interest to undermine the position of the CCR or the Act of Mannheim, or to get conflicts with the Dutch. Even the fact that the Netherlands in 1914 was kept out of the war, was influenced by the central position of its port in German trade. It was for German of prime importance that a substantial and essential part of its trade went over a neutral port. The Rhine and the liberal transport regulation on this river thus not just influenced low, but also high politics.

In his thesis on post-war European integration, Luuk van Middelaar observes that it is essential that in supranational organisations not all decisions are taken unanimously, as in treaties between sovereign states. Majority decisions are essential as he thinks that only by handing over sovereignty a step to a new state formation can held the anarchy, characteristic for international relations, in check.¹²⁷ In the CCR there only were majority decisions on administrative topics, and according to van Middelaar this organization thus had to fail. However, the American international relations specialist Robert Keohane thinks that in a realist world dominated by sovereign states, there is no place for supranational institutions. The question why they exist he considers 'unanswerable if institutions were seen as opposed to, or above the state, but not if they were viewed as devices to help states accomplish their objectives.'¹²⁸ Power struggles dominate the international anarchy, but as supranational institutions create 'the capability for states to cooperate in mutually beneficial ways' such organizations are 'reducing the costs of making and enforcing agreements.' In short, supranational organisations are no step to new state-formation, but instruments to reduce what economist call transaction costs in international politics. Therefore, such organizations do not change power relations, but only the way these result in decisions.¹²⁹

When the CCR is seen in the light of this theory it was from 1831 an instrument of the most important Rhine state, Prussia, to obtain what it needed – the canalisation and liberalisation of the river, without constant conflicts with other Rhine states. After 1831, Berlin managed to reach its targets in a most convincing way. The Rhine was liberalized and canalized and the only major conflicts – the wars and war danger between 1866 and 1871 – had to do with the formation of the German nation

¹²⁷ Van Middelaar, *De passage naar Europa*, 62 ff.

¹²⁸ Keohane, 'International institutions,' 82-96, here 85.

¹²⁹ Ibid 86.

state, and only indirectly with Rhine politics. Prussia got what it needed and by doing so created a cheap transport network in a period that almost everywhere else inland water navigation was destroyed by railways. It only could do so without conflicts with all other Rhine states by using the CCR as an instrument. It was a tool that made international politics more efficient. Thus, the Rhine region got a transport network that was not just cheaper than that of most other industrial regions, but also a network where monopolistic markets keeping freight rates high were out of the question.

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