The Nature of German Interwar and Wartime Trade Policies Reloaded: The Swedish-German case

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Abstract
In this paper the nature of German trade and payments policies during the 1930s’ and the war period is re-examined. According to the conventional view, stated by for instance Schweitzer, Hirschman, Child and Ellis, Germany adopted exploiting trade policies during the 1930s’. By forcing bilateral agreements onto its smaller trading partners bargaining power was biased in German advantage, i.e. Germany gained the advantages of a monopolist. According to the conventional view this was reflected in cash flows, export prices and the composition of trade. As no evidence of exploiting German strategies were found, this paper confirms recent findings of Milward, Neal and Ritschl, that contradict the conventional view.
II Introduction

The nature of the German trade policies during the Nazi era has been a well attended issue in the literature, from the contemporary to date. The conventional view is that Germany exploited its smaller trading partners. Biased bargaining power enabled Germany to force the bilateral clearing agreements onto its small trading partners. By imposing bilateral clearing agreements Germany emerged as a bilateral monopolist.¹

Methodically, the exploitation was evident in some respects. German trade frequently exceeded that of its bilateral partners. On this basis Hirschman deduced that Germany gained the advantages of a bilateral monopolist, hence the drive for bilateralism.² According to Child this was displayed in Germany’s terms of trade, exchange balances and cash revenues. Trading with Germany became of great disadvantage: as a bilateral monopolist Germany became price giver while its smaller trading partners became price takers. Moreover, as German monetary authorities were enabled to manoeuvre the composition and the terms of trade in their own favour small countries became Germany’s raw material suppliers in a centre-periphery-like order appeared.

However, at hand anomalies have appeared that contradicts the conventional view. For instance, in 1979 Neal concluded that there is no clear archival evidence that Germany’s bilateral relations were biased towards a German advantage. According to the monopoly theory the terms of trade for Germany should have risen; instead they fell, and there were no changes in the pattern and composition of trade that could be derived from Nazi foreign economic policy.³ Moreover, in 1981 Milward argued that the basis for a trade offensive on foreign markets was overthrown when the Nazis came into power. The Hitler regime’s high priorities on domestic economics were strengthened on the behalf of foreign policies. Germany’s difficulties to compete in international trade, due to the overvalued Reichsmark (RM), forced Germany to reach for cooperation rather than conflict.⁴ Further, in 2001 Ritschl re-examined the German strength in its bilateral exchange with smaller (“weaker”) countries. By analyzing Germany’s net inflow of convertible cash reserves from a supposedly “weak” country. Ritschl found that Germany’s bilateral exchange with its smaller partners frequently resulted in deficits. However, regarding the German-Swedish exchange it was the other way round. From the conventional view this may be interpreted as a result from an exploitative German policy. Unfortunately, Ritschl leaves this subject unchallenged by referring to Wittmanns’ detailed study on German trade policies on the Swedish market.⁵

The Swedish-German case has significant similarities to the German-Southeast European case. Sweden was a small country, rich in raw materials and convertible currencies, and became of strategic interest to the German rearmament programmes and the subsequent trade offensive initiated in 1936. Similarly, Sweden and Germany had concluded a bilateral exchange clearing agreement, through which Germany may have acquired tools to implement its exploitative policies. Hypothetically, this line of interpretation is confirmed in the literature. According to Child and Ellis, German exploitation of the South East European countries was displayed in biased terms of trade in favour of Germany, and a shift in the composition of trade. Wittmann’s work on German-Swedish economic exchange during the 1930s confirms that there was a shift in composition in the Swedish-German trade, e.g. Sweden took a subordinate role as a supplier of raw materials to Germany, but there was also a significant shift in terms of trade, in favour of Germany. Thus, this may be viewed as a

¹ Child (1958); Einzig (938); Ellis (1941); Grenzebach (1988); Hirschman (1980); Petzina (1968); Schweitzer (1943)
² Hirschman (1980)
³ Neal (1979)
⁵ Ritschl (2001)
result of an exploitative German policy on Sweden. According to Wittmann and others, the Swedish market was “gently” annexed to the German continental economy, as has been stated to be the case with the South East European countries.\(^6\)

During the 1930’s and 1940’s, Germany was one of Sweden’s most important trade partners. The Skagerrak blockade and the invasion of Denmark and Norway on the 9:th of April 1940 made Germany, Sweden’s only trade partner, except for some insignificant shipment through the blockade se table 1. Sweden then lost 70 percent of its former trade partners.\(^7\)

Table 1: Sweden’s Trade Through the Skagerrak Blockade 1941-45

<table>
<thead>
<tr>
<th></th>
<th>1941</th>
<th>1942</th>
<th>1943</th>
<th>1944</th>
<th>1945</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of vessels inward</td>
<td>32</td>
<td>59</td>
<td>47</td>
<td>79</td>
<td>17</td>
</tr>
<tr>
<td>No. of vessels outward</td>
<td>35</td>
<td>62</td>
<td>44</td>
<td>78</td>
<td>6</td>
</tr>
<tr>
<td>Goods imported. 1000 tons</td>
<td>206</td>
<td>426</td>
<td>346</td>
<td>528</td>
<td>108</td>
</tr>
<tr>
<td>Goods exported. 1000 tons</td>
<td>128</td>
<td>196</td>
<td>150</td>
<td>277</td>
<td>30</td>
</tr>
<tr>
<td>Main import of Food stuffs 1000 tons</td>
<td>95</td>
<td>295</td>
<td>185</td>
<td>279</td>
<td>53</td>
</tr>
<tr>
<td>Main import of Mineral oil 1000 tons</td>
<td>56</td>
<td>69</td>
<td>120</td>
<td>137</td>
<td>27</td>
</tr>
<tr>
<td>Main export of Wood products 1000 tons</td>
<td>108</td>
<td>181</td>
<td>136</td>
<td>257</td>
<td>28</td>
</tr>
</tbody>
</table>


However, Germany had access to other trade partners than Sweden during the war period. Thus we could argue that the Germans found themselves in a monopoly position in the bilateral trade with Sweden.\(^8\)

However, with regard to the political nature and motivation of Germany’s bilateral agreements, Wittmann, in turn, leaves the issue open for interpretation. On the one hand, the quantitative data that addresses the effects of the exchange support the conventional hypothesis. On the other hand, Wittmann’s qualitative analysis, which addresses the rationale of the exchange, suggests that Sweden had a relatively strong bargaining position.

This paper draws on the assumption that both views may be consistent. It is argued here that small countries such as Sweden had opportunities to gain from the bilateral agreements. However, the purpose, design and application of the agreement were of great importance to make it benefit the small country. In all probability, small countries made concessions to German bargaining offers, but Germany made concessions as well (as it takes two to conclude a continuous bilateral agreement). Therefore losing in one sector may have been acceptable, if there were other gains, of a higher priority, that balanced the losses.

This paper aims to examine the conventional view on Nazi German trade policies during the 1930s’ on the Swedish-German case. In the following section (II) the organization of the Swedish-German bilateral payments as well as the payments are analyzed. The bilateral clearing exchange agreement was signed and put in practice in September 1934 and lasted

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\(^6\) Wittmann (1978), pp. 110-111. This conclusion concurs with Baker Fox’s analysis of small state behaviour during the war. According to Baker Fox, Sweden adopted an intense-negotiating method by putting the German demand for Swedish raw materials in the scale of balance. Germany would not risk being deprived of valued goods that Sweden possessed. Baker Fox (1959), pp. 1-9. See also Nilson (1983), who has examined the British and German competition on the Scandinavian markets during the 1930s. See also for Fritz (1974) and Olsson (1975) who concludes that the German-Swedish markets became interdependent.

\(^7\) Fritz (1982) p. 6

\(^8\) Fritz (1982) p. 6
until the end of the war. The main question to answer is did the Swedish current account result in deficits (as the German resulted in surpluses)?

In section III composition of trade is presented and commented in brief, though (hopefully) sententious enough for this paper. Section IV gives a price perspective to the bilateral trade from Germany to Sweden and investigates three commodities exported between the two countries from 1929 to 1945. The main question to answer here is if Germany raised prices when they experienced dominating or monopoly trade. During the 1930’s Germany accounted for more than 30 percent of Swedish imports, hence Germany could be characterised as a dominating trade partner next to Great Britain. However, during the outbreak of war the bilateral trade shifted to clear German monopoly on Swedish import through the Skagerrak blockade. How did commodity prices react to increased German bilateral power? Is it possible to find any clear patterns in the bilateral price statistics that supports the classic monopoly theory?

In section V conclusions are presented.

II Swedish-German bilateral payments 1934-1938

Ritschls’ analysis indicates an increase in the German monetary reserves in 1938-40. This might have been a result from an exploiting trade and payment policy towards Sweden. To tackle this issue, we need to comprehend the institutional context, in which trade payments were effected, i.e. the bilateral agreement. According to the conventional view, small countries made concessions to German bargaining offers, but what if Germany made concessions as well (as it takes two to conclude a continuous bilateral agreement)? Therefore losing in one sector may have been acceptable, if there were other gains, of a higher priority, that balanced the losses?

From a Swedish perspective the bilateralism began at the time of the German introduction of the moratorium of 1933, that prohibited payments to foreign creditors caused a strong reaction among the creditors. Sweden was one of the countries to take action. After long and hard negotiations the Germans accepted the Swedish unconditional demand to carry out the exchange within the framework of a bilateral clearing exchange system. The German-Swedish general bilateral clearing agreement was signed in August 1934. The agreement encompassed principles and rules for trade and German payments on financial claims to Swedish creditors, as well as the right to impose sanctions if the agreement was violated. The basic principle of the agreement was that Germany was to have a regular bilateral trade surplus, as it had traditionally had. Bilateral equilibrium was defined in terms of the trade surplus, assumed to amount to about 90 million RM (137 SEK).9

All German-Swedish cross-border payments were accounted within the bilateral clearing. Two interlinked accounts were established in the central banks of each country. Payments fell into three main items: i) Clearing funds that referred to payments from trade that were settled per contra. Since the German exports were to exceed the Swedish exports, a surplus emerged in the accounts. Regarding the volume of the distribution of the surplus it was to be distributed (trached) by the principle of two fifth in favour of ii) Transfer funds that referred to Swedish financial claims and three fifth in favour of iii) the Reichsbank’s Option funds that were distributed to the German account, at the disposal of Germany for re-building the monetary reserves and financing imports.

The distribution followed a chronological, hierarchical order. The first tranche of the surplus was distributed to re-payments on a) the Reichsbank, b) the government loans; the second tranche was distributed to a) private claims and b) the Reichsbank. Regarding the tranches (volume) and the distribution (payment order), Germany was favoured. However, the

9 National Archives (NA.) Clearingnämndens arkiv (CLN), Fk, Vol. 15. Supplement to Protokoll vom 20 Juni bis 10 Juli 1935.
distribution of the surplus was to cover German financial liabilities. The annual payments required for the government loans and the private claims coming due amounted to about 30 million RM. (Thus, the rest of the surplus was distributed to the Reichsbank.).

Like most of the bilateral agreements of the 1930s’, the Swedish-German agreement malfunctioned when put into practice. Germany’s export was to exceed Swedish export by 90 million RM, but increasing German demand for Swedish raw materials, combined with increasing transportation difficulties, resulted in deficit. 10

A deficit meant that there were no means of payment to distribute for financial claims. This may or may not have been a deliberate German breach of the agreement to force the Swedes to renegotiate and remodel the agreement to the advantage of Germany. This may well be the conventional line of interpretation. 11 It is true that the German-Swedish clearing agreement was unwanted in Berlin, but it could not be exited without Swedish sanctions and the Swedes made it perfectly clear they would respond vigorously to such an action. 12 Though the deficit was intolerable, Swedish economic intelligence service connected the malfunction with diverging German domestic priorities and foreign economic needs, rather than with cunning German foreign trade policies. This interpretation of events has been confirmed in Milward’s works. 13 The Weimar regime’s aim for domestic economic growth and a settling of social unrest (the troublesome unemployment problem in particular) evolved under the Nazis. This meant that available resources were to be used for government expenditures and German industry’s increasing demand for raw materials. 14

Moreover, according to Wittmann, the German attitude towards bilateral exchange changed from indifference into compliance in the mid 1930s’. Sweden was a strong sales market, rich in raw materials and a hard currency market of rank, and the agreement was not disadvantageous to the German economy. 15 German financial liabilities to the Swedes were to be fully compensated from the German reserves, which confirms the German wish to meet the Swedes. 16

In July 1935 new negotiations were commenced, which resulted in an adjusted agreement. The most important adjustments were that the clearing surplus was to be divided equally, with ½ going to the Reichsbank and ½ to the Swedish creditors (previous 3/5 and 2/5 respectively). The revised distribution agreement was clearly in Sweden’s favour. Further, both parties agreed to aim at a surplus of about 60 million SEK, which in practice was enough to suffice.

The new agreement manifested the German incentives to provide for a sufficient clearing surplus: If the surplus increased, the Reichsbank’s share increased. If the surplus was stable or diminished the Reichsbank’s share diminished. The financial claims, however, were to be paid anyway. If the clearing surplus did not suffice, Germany had to use its reserves.

10 German import plans were supervised by the exchange control authorities (Reichstellen). According to the German negotiators, the problem was related to the exchange control. German import companies had to apply for authorization. If approved by the proper Reichstelle, the importer was issued a certification that specified the goods to import, to what amount and in what quantity. The German import was based on plans that were coordinated by the authorities. The authorities, in turn, based their plans on the importers’ previous imports and commitments made in agreements. Hedberg (2003), p. 47, 78-79.
11 As mentioned above, Child claimed that the exchange control enabled Germany to manoeuvre the composition of trade into a centre-periphery order. However, the Swedish historian Nilson claims that this was not a breech of agreement technically, but rather an attempt to disavow it. Nilson (1983), pp. 102-104.
12 The Swedish negotiators threatened to freeze and expropriate German assets to compensate the deficit with an old loan issued in 1878 and granted by German banks to Sveriges Allmänna Hypoteksbank. In 1935 the loan was estimated to about 4.8 million SEK worth. NA. CLN. FIIb 17, Vol. 486. Memo. 12 June 1935.
According to the adjusted agreement, the Germans had to keep up their commitments (i.e. their exports) to be able to gain from it.

The adjusted and additional agreements of 1935/1936 provided a strong basis for the continuous German-Swedish exchange. The revision of the agreement coincided with the introduction of the second German four year plan, which put armaments in high priority. Increasing industrial demands for Swedish raw materials such as iron ore and forestry products and Swedish demand for fuel, consumer goods and finished manufactured goods such as chemicals boosted the trade flows. The outbreak of the war improved the prerequisites for the clearing system to function even further.

In diagram 1 below the Swedish and German export 1934-1944 is displayed. The trade flows expanded when the agreement had been concluded. During 1935 to 1939 the turnover trade nearly doubled and relatively proportionally, the agreement functioned. The reason was that while Germany prepared for war, the Swedish government ordered a stock of staple commodities that were expected to be short in supply during the anticipated war. In 1939 the clearing surplus amounted to about 144 million SEK, a 653 per cent increase compared to 1934. In April 1940 the Skagerrak blockade isolated the Swedish economy from the Anglo-Saxon markets. The importance of the German market increased. This was reflected in the trade flows. In 1941 the trade peaked and 1944 trade was brought to a standstill by the Swede’s. Whereas the Swedish export was halted the German was maintained (at some level). This was a Swedish initiative in order to produce a surplus for the financial claims.

Diagram 1.

Sources: NA. CLN. FIIb 17, Vol. 487. Memo. 23 November 1937; Memo. 24 October 1940; Memo. 31 January 1942; Memo. 15 January 1943; Memo. 9 januari 1945.

In 1938 the Czech and Austrian markets were added to the German-Swedish cross border payments. This also meant that Swedish-Austrian financial relations were to be added to the German-Swedish clearing exchange. The distribution from the surplus, however, was kept intact as the Germans repurchased bonds in 1940 (worth 40 millions USD).

Thus, Ritschl’s finding – Germany’s net infl ow of convertible currency from Sweden seems correct. In accordance with the agreement the surpluses were to be distributed to both

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17 Sudetenland was geographically defined as Germany whereas Bohemia administratively became a protectorate. These regions were insignificant to Swedish foreign trade. Hedberg (2003), pp. 106-108. In 1936-37 the Austrian share of the Swedish trade turnover came to 0.07 per cent, while the Czech share amounted to about 2 per cent. SOS Handel (1936); SOS Handel (1937).
18 NA. UD. H 94 Cr, Vol. 2337. Överenskommelse med Tyska Riket. 23 Nov. 1938.
Swedish creditors and the Reichsbank. As the financial claims/transfer fund required approximately 18 million RM per annum, the Reichsbank/options fund should have acquired the same amount.

In 1941 and in 1943, however, the Germans failed to carry out its export commitments. As the clearing resulted in a deficit the German negotiators proposed using a revolving credit to balance temporary clearing deficits. However, the Swede’s revised the proposal into a traditional short-term credit (one year time limit) amounting to a moderate 250 millions SEK, only to be used for imports from Swedish industries that would suffer from a termination of the Swedish-German economic exchange. Although indignant, the German negotiators accepted the bid, since it was presented as non-negotiable. Since the Germans disliked its terms the credit was sparsely used.19

III The composition of trade

As mentioned in section I, Child stated that the German monetary authorities used their bargaining position to manoeuvre the composition and the terms of trade in favour of Germany, at the expense of its small partners. It is also true that the clearing trade was specialized. The expanding trade flows from 1936 onwards coincided with the implementation of the Second Four Year Plan. According to Schweitzer, the aim of the overall plan was autarchy.20 Specifically, the main objective was to strengthen the domestic industrial capacity for military as well as civil demands.21 Ironically, the former included a dynamic trade policy that resulted in increasing German demand for Swedish raw materials. As raw materials were given high priority in the German monetary plans, mining and forestry were regularly favoured, while imports of finished goods were placed under German restrictions. Clearly, Sweden’s role as a supplier of raw materials and primary products grew. However, the importance of the German market should be viewed in a wider context. During 1890-1930, Sweden experienced a transition from a semi-agrarian to an industrialized economy. Industrial branches like mining, steel, engineering and forestry expanded. This affected the structure and composition of Swedish trade during the first decades of the century. On the one hand the Swedish economy relied to a greater extent on the import of finished and consumer goods, whereas exports were composed of raw materials (such as iron ore) and primary products (such as pulp).22 The perhaps most significant example is the share of iron ore in the Swedish export to Germany, which increased from 38 per cent in 1935 to over 50 per cent in 1938.23

Though trade agreements were negotiated frequently, the composition of trade was to be decided by each country respectively. Since the export of both countries had to develop proportionally (to avoid clearing deficits), the German import plans became the yardstick. This meant that Germany announced future import commitments; thus the initiative was in the hands of the Germans.24

Nonetheless, the composition of the German-Swedish trade was brought up when the Swedish government committee met for internal discussions in November 1937. From the Swedish point of view, it was argued that the demand for Swedish finished goods on the German market was increasing, but that the import plans gave priority to raw materials and

19 Hedberg (2003, p. 203.
21 Mason and Caplan (1993), pp. 300-301.
22 For instance, in 1890 the share of pulp and paper exports amounted to a modest 5 per cent of the export volume, while in 1930 it was up to 30 per cent. Lennart Schönh (2000), ch. 4; Larsson, (2002), ch. 6.
24 NA. CLN, Fk, Vol. 15. Supplement to Protokoll vom 20 Juni bis 10 Juli 1935.
primary products; i.e. the manufacturing industries were discriminated. On this basis the Swedes contemplated imposing trade restrictions on, in particular, the export of iron ore.

However, such restrictions were of little interest for the Swedish economy, nor were they feasible to introduce. Mining and forestry belonged to the most profitable sectors. Also, diminishing international trade made such markets as the German highly valuable in a long term perspective. Reduced iron ore or forestry exports would have resulted in troublesome diminishing income, shut-downs and regionally concentrated unemployment.

Another long term consideration was that the German market provided for strategic gains – especially in times of war. Fuel prices in Poland and Germany were lower than on the British market, but in addition the discharging berths in the Baltic Sea were closer to the coal heated Swedish industries, easily accessible on the east coast. From this perspective the gains from the German market were massive and, as long as the financial issues were settled in accordance with the agreement, the principal Swedish aim of the bilateral clearing exchange agreements was achieved.

The blockade of the Skagerrak was of great importance to Sweden. Politically the blockade isolated Sweden from the Allied powers and economically Sweden as well as German economic dependency on Germany increased. However, as the war broke out Germany lost important markets as well. The importance of access to foreign markets increased rapidly. However, even though the Swedish economy had to rely on German export capacity (in particular after the blockade) – which was reflected in trade volumes – the composition and structure of the Swedish-German trade did not change radically.

IV Prices

High prices above the equilibrium price can only exist when the principles of free competition has been set out of play. Therefore, monopoly is the extreme form of a non-competition market, were prices are set by the characteristics of the producers, the consumers and the specific good/service that are being traded; some goods are more important than others which effects the price sensibility of the consumers (elasticity). The advocates of traditional monopoly theory argue that the price equilibrium is set by the intersection of marginal cost and marginal revenue. It is profitable for a firm to raise the price as long as the marginal cost is lower than the marginal revenue, when they are equal there are no more benefits from further raising the prices. We should also consider the effects of an international monopoly situation where of currency fluctuations and custom tariffs plays a crucial role, this could affect the outcome of a firm’s price setting.

However, the traditional theory implicitly shows that there are no different levels of industrial development that affects the price level, though it is highly possible that this could affect the outcome of the price level. Haberler’s “theory of international trade” shows that it could be profitable for a state to choose a price below the monopoly price level when the

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27 The Swedish specialization in raw materials and primary products is evident in the historical statistics. During 1915-35 the forest and the iron ore industries’ shares of the total Swedish export volumes expanded from about 35 to 50 per cent. Whereas the forest industry dominated the Swedish exports as a whole, the iron ore export dominated the Swedish exports to Germany. In 1935 the iron ores share totalled 38 per cent and in 1938 50 per cent. SOS Handel (1936)
28 Hedberg (2003), pp. 139-141.
31 Child (1958) p. 70
industry is under construction. A lower price level would increase demand and secure profits in a situation where the single firm or the state controlling the industry doesn’t have enough information about the market characteristics. It is also possible that a fluctuating price level could harm the marketability of the product and therefore vary the produced quantity. Fluctuating production quantity could lead to necessary cut downs regarding production (labour and fixed capital).32

The difference between the Haberler and the traditional view approach becomes evident when we consider the relationship between two countries involved in bilateral trade. Smaller trade dependent countries trading with bigger price setting countries, could actually be in favour if we consider the Haberler approach. The traditional view would most likely argue that the smaller country would experience a higher price level if it were trading with a larger dominant (being the single provider of a traded product) country. During the 1930’s when export markets dwindled it is possible that Haberler’s approach with steady price levels and marketability would favour countries involved in bilateral trade more than monopoly prices.

**Price and volume analysis of Swedish import from Germany during the period 1929-1945**

This essay uses price and volume data from official Swedish trade statistic33 on foreign trade. The statistics are calculated on a yearly basis and involves all countries represented in Swedish trade during the period. The national archive contains no statistics that could be used to compose long time series of monthly data on Swedish trade during period 1929-1945. I have chosen price and volume statistics from twelve different goods traded from Germany to Sweden for my analysis. The goods are arranged in three different groups: (1) Fertilisers, (2) cool and coke and (3) pig-iron and paint.

This essay uses nominal prices recalculated into series of index. The base year depends on the trading frequency of the good. In some cases when the good isn’t traded in the year of 1929 the nearest year that contains quantities of that good is used. The base year for the index have been calculated from a simple formula:

\[ \frac{P}{Q} = X \text{ (The unit price in kilo grams or litre)} \]

**Fertilisers**

Fertilisers could be divided into four different groups depending on the main chemical base substance of the product: nitrogen-based, phosphorus-based, kali-based and mineral-based.35 During the 1930’s Germany was one of the most prominent producers of chemical products. The chemical industry constituted an important role in the international trade. The industry expanded significantly during the 1920’s and 1930’s. The high involvement of industrial production methods was characteristic for the chemical sector. The prospect to use machines in the production made it a capital-intensive industry. Therefore, during times of high employment and shortage of labour, prices could be maintained at lower levels since real capital is more important in the production chain of chemical industry.

During the wartime Sweden, like many other countries, suffered from shortage of food. Therefore, it was vital to uphold the agricultural production. During the war years the food provision industry employed a substantial part of the Swedish population; in 1942 around 24

32 Haberler (1950)
33 Svensk handelsstatistik published by Kommerskollegium
34 P equals the price and Q equals the quantity
35 [http://www.ne.se/jsp/search/article.jsp?i_sect_id=198485&i_history=1](http://www.ne.se/jsp/search/article.jsp?i_sect_id=198485&i_history=1) (051221)
percent of the population was employed in some kind of food provision related industry. The industry alone produced for 2.3 billion Swedish kronors (SEK), which could be compared with paper pulp industry that produced artefacts to the value of 1 billion or the wood-industry that produced at a value of 670 million SEK. Only the iron-ore- and metallurgy-industry produced a higher value, which could be valued to 3.8 billion SEK.  

According to Fritz chemical products were one of the key goods imported from Germany to Sweden during the war. Beside metals and coal products it was the third greatest imported good during 1942.  

The group of Fertilisers contains five different types of goods:

1. Chilesalpeter (Chile-nitre)  
2. Stassfurterkalisalt 20 percent  
3. Stassfurterkalisalt 40 percent  
4. Kalksalpeter (Chalice-nitre)  
5. Others (Undefined import)  

Chart 1 shows import prices for all types of Fertilisers exported to Sweden from Germany during 1929-1945. The two goods chilesalpeter and others varied heavily throughout the whole period. Stassfurterkalisalts and kalksalpeter maintained a steady price level, even after the outbreak of the war and the Skagerrak blockade in 1940. Though, the price levels are hard to interpret without the import quantities, displayed in chart 2, which shows the percentage of import of Fertilisers, coming from Germany, during the period 1929-1945. It seems like the pre-war period until 1939 is dominated by fluctuating quantities without any clear trends. During this period Sweden still had access to the world market and Germany only dominated a part of the Swedish import. It is obvious that Sweden did not depend on the German market since the main part of the import of chilesalpeter came from other countries (Chile) during 1936 to 1939. Why Sweden redistributed their import is hard to tell, but raising price levels during 1936 could reveal parts of the answer. The import of kalksalpeter also decreased from 1936, at this point Sweden imported most of their kalksalpeter from Norway. This import was maintained throughout the war and could therefore have affected the German price setting opportunities as a competing import, since Norway was included in the German Reich from 1940 it is hard to argue any competition possibilities between the German and Norwegian trade with Sweden. In any case the total import of chilesalpeter and kalksalpeter was insignificant since the war broke out. It is obvious that the most important artificial manure during the war years was stassfurterkalisalt (40 percent) which represents 100 percent of the Swedish import from 1940 and forward. Also the group others reaches levels near 100 percent, though the real quantities are too insignificant to use in an analysis of price levels.  

The price on stassfurterkalisalt (40 percent) starts to rise from 1934, after a downfall from 1933’s level. Two more rapid changes occurred, an increase between 1938-1939 and 1940-1941. However, the price changes in stassfurterkalisalts were not so dramatic for us to talk about a substantial price raise after the market was monopolised. From a Swedish perspective the increased prices on stassfurterkalisalts during the war years never reached the inflation on the domestic market which in 1942 were 37, 5 percent over 1939’s level.

36 SOS industri (1942)  
37 Fritz (1982) p. 9 table 2  
38 The Swedish import of Chilisalpeter during 1941 was 4 percent of 1929’s level.  
39 CPI from Sveriges officiella statistik: konsumentpriser och indexberäkningar åren 1931-1959
Coal and Coke

In general, coal was the most important power source for the whole of Europe and Germany was one of Europe’s greatest producers of coal products. During the 1930’s and 40’s the coal provided industries with fuel and the German market with foreign capital through export. According to Fritz coal had three main functions for the German economy: (a) as fuel (b) as raw material for the chemical industry and (c) as means of payment for vital imports. When the war broke out the shortage of coal became imminent. Germany still
exported some of their coal but it was hard to maintain the pre-war levels of production. Even if occupied countries like Belgium, Holland, Czechoslovakia and Poland had great coal assets they also suffered from production problems. The key reason to the production problems in coal extraction was the insufficient labour recourses. Many mines used compulsory labour to cope with the problem, which further extended the problem since compulsion hardly creates motivated workers.\(^{40}\)

For Sweden coal was vital, it was mainly used as industrial raw material and for heating private homes. In cities coal was even more important compared to the countryside, since wood couldn’t be used for heating to the same extent. The lack of coal products contributed to many innovative solutions, creating substitutes for coal. Wood was widely used not only for heating but also to produce tar which could be used as fuel for marine motors. By a special device wood also could run ordinary petrol motors, producing a special generator gas. Other more important fuel recourses were peat, which primarily were extracted from peat bogs in southern Sweden. In addition to this Sweden also had some domestic coal production\(^{41}\), but too insignificant to really become relevant compared with the levels consumed. The main conclusion is that many of the substitutions methods used to compensate for the deficit of coal were labour demanding and not very energy effective compared to the coal. Hence, it was vital for Sweden to maintain the German export of coal.\(^{42}\)

The supply problems during the war would obviously have affected the price level to increase on coal products. The deficit of real substitutes, primary for the industry, would have affected the price elasticity making consumers more willing to pay higher prices for coal products. Hence it is obvious that we should expect quite radical price fluctuation for coal products during the war years.

The group “Coal and Coke” contains five different types of coal based products produced in Germany and imported by Sweden from 1929-1945:

1. Antracitkol (Anthracite coal)
2. Gas and kokskol (Gas-coal and coke-coal)
3. Ängkol (Steam coal)
4. Others (undefined import of coal products)
5. Koks (Coke)

Chart 3 shows import prices for all types of coal products exported to Sweden from Germany during 1929-1945. Import prices appear to have been stable until 1936 when prices in general increased; this was the first breaking point towards higher prises. The next breaking point occurred in 1939 at the outbreak of the war. Prices then escalated and increased with, in some cases, up to 100 percent. Prices did not stabilize until 1942, when they surprisingly started to fall by a few percent.

It is obvious that the stabilizing price treaties, which included 90 percent of the goods traded between Germany and Sweden, affected the prices on coal products after 1942. Remarkably, import prices on coal products started to rise as early as 1936, long before the German monopoly dominated the Swedish market. After 1940 prices only increased, at the most, by 25 percent. In fact the German import prices seemed to follow the British coke very well (se diagram 2). By obvious reasons international prices were not available after 1939.

\(^{40}\) Fritz (1982) p. 36-38  
\(^{41}\) The Swedish Coal production was located in Skåne in the southern parts of the country.  
\(^{42}\) Olsson (1975)
The initial price change of 1936 on Swedish import of coal products seems to be connected to increasing world prices. The second price increase on Swedish import, between 1939 and 1940, was probably connected to the outbreak of war, when Sweden among many other countries, bulked large quantities of coal products. During 1938 Sweden imported 5,773,128 tons of coal and 1,939,573 tons of coke. The following year import quantities increased to 6,342,473 tons of coal (10 percent increase from 1938’s level) and 2,339,118 tons of coke (20 percent increase from 1938’s level). During 1940 the import levels decreased for both coal and coke. Sweden then imported 3,996,401 tons of coal (69 percent of 1939’s level) and 1,724,965 tons of coke (88 percent of 1939’s level). Thus import peaked in 1939 when counties realised that energy would be a resource of short supply.

Chart 4 below shows the German influence on Swedish import during 1929 to 1945. It is not hard to discover the clear dominance established between 1940 and 1941. Sweden then imported 100 percent of its coal products from Germany. With total dominance over the Swedish import market, Germany had the opportunity to set prices as a monopolist. However, rapid changes in price levels occurred as early as 1936 and boost at the outbreak of war between 1939 and 1940 when import levels peaked. After Germany had established their monopoly, prices stabilized and in some cases they also decreased. It seems like the increased prices levels on coal products at the outbreak of war were connected to higher demand rather than any clear monopoly strategies.

Source: SOS Handel 1929-1939
The third group of goods imported by Sweden from Germany consists of three less homogenous commodities from the iron and chemical industries. The group Pig-Iron and Paint involves control goods with less importance for Swedish war economy. Why would Sweden buy German pig-iron to over prices, when they were self supporting in iron and steel products? An acceptance for higher prices could only reflect a higher price level in general where even German pig-iron could be imported. Paint represents a chemical commodity produced in the German chemical industry described earlier under artificial manure. Pig-iron came from the German iron industry which was developed during the nineteenth century. Throughout the 1930’s, German steel production expanded rapidly foremost as a
consequences of higher demand from the domestic market and war production. Improved infrastructure also contributed to the swift increase of output in the iron industry. However, Germany suffered from decreasing output during the war, mostly because of the shortage of coal products and blast furnaces together with an overloaded infrastructure.43

The group “Pig-Iron and Paint” contains three different types of goods produced in Germany and imported by Sweden between 1930-1945:

1. Tackjärn (Pig-iron)
2. Färg med oljebas (oil based colour)
3. Färg utan oljebas (not oil based colour)

Chart 5 shows prices for “Pig-Iron and Paint” imported by Sweden from Germany during 1930-1945. The paint product varies throughout the whole period with price peaks at 1932 for “Färg utan oljebas” and at 1939 for “Färg med oljebas”. It is hard to establish any clear price trends for paint products, even if it’s possible to do so, they certainly don’t seem to vary according to monopoly suppression of Swedish trade.

Compared to paint products, pig-iron seemed to vary similar to the coal prices described earlier with price peaks at 1936 and 1940. It is likely that the price levels on pig-iron reflected the price levels of the raw material used in the process to produce pig-iron and that Sweden accepted those prices because of higher price levels in general.44

In Chart 6 we can see how Germany controlled the Swedish import of pig-iron from 1939 and partly controlled Swedish import of paint products. The indirect control of paint products does not show in the chart, but the statistics reveal that Norway was the second largest exporter of these products to Sweden during the war. It is remarkable that the Swedes actually imported large quantities of pig-iron compared to what they exported at the beginning of the war. During 1939 Sweden exported 26 669 tons of pig-iron and imported 22 188 tons, at 1940 Sweden exported 36 356 tons of pig-iron and imported 48 391 tons.

V Conclusions

In this paper the conventional view has been re-examined in three respects (payments, composition of trade and prices). There were no evidence of exploiting German trade and payment policies. Thus, this part of the analysis concedes to Neal’s conclusions.

The Swedish Government forced the bilateral agreement on Germany. However, as the Swede’s aimed at encouraging the Germans to go along with the agreement long term, German incentives had to be pointed out. On this basis the Swede’s offered to distribute half of the emerging trade surplus to the Reichsbank (option funds). The other half was tranched to settle financial claims. From a Swedish perspective this was a win-win agreement. The relation was characterized by a will to meet, as has been claimed by Milward and Wittmann.

The composition of trade was obviously a result from the Swedish factor endowment. After the industrialization the Swedish economy relied to a greater extent on imports of consumer goods whereas the export was composed of raw materials (as iron ore) and primary products (as pulp). From this structural base, decades of industrial glory followed.45

In section five, two competing trade strategies were introduced, a traditional monopoly strategy connected to the Child perspective and Haberler’s “theory of international trade” suggesting that gains from monopoly trade is subordinated long term industrial development. If the Germans chose to adopt a monopoly strategy by gaining from a dominant trading

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43 Fritz (1982) p. 18
44 English prices peaked during 1937 and 1938 (SOS, handel 1946)
45 Isacson (2002) ch. 5; Larsson (2002) ch. 6
position they would most likely have raised export prices when they controlled the bilateral trade, in terms of export levels.

Import prices on artificial manure were remarkable stable throughout the war, also after the Skagerrak blockade of 1940. Small tendencies to price increase is detected in stassfurtekalisalt (both 20 and 40 percent) around 1940, but put into the perspective of Swedish price fluctuations during the war\textsuperscript{46}, this appears to be quite insignificant with increases around 15 to 25 percent. Since Germany controlled 100 percent of its volumes stassfurtekalisalt (40 percent) seems to be the good with the highest possibility of monopoly pricing. However, the import prices for stassfurtekalisalt (40 percent) increased with a modest 15 percent (see chart 1). The war does not seem to have had a severe impact on the price levels for artificial manures. If this was connected to the structure of the German chemical industry, as an established sector with minor use of labour compared to real capital, is hard to say. In any case the monopoly strategy, inflicting higher prices on trade in a dominate position, does not fit with the fluctuation of prices on artificial manure. It gets even more confusing when we investigate the price variation in paint products; here it’s hard to find any trends at all. Hence, if we consider paint as an insignificant product for the Swedish war economy, it is possible that the top levels of import during 1939 led to increasing prices which then fell heavily or simply were not affected at all, because of low demand during the war. Most important, paint products do not show increased price levels after 1940.

Turning to coal products, the price levels fluctuated differently from the artificial manures and paint products. Quite extensive price changes occurred in the late 1930’s. However, the price increase seemed to have started as early as in 1936, connected to new price levels on the world market\textsuperscript{47}. The second wave of price increases takes place between 1938 and 1940 at the outbreak of war. The war created a shortage of coal, which forced the price to increase. After 1940 prices on coal products tended to stabilize and in some cases even decrease, despite the fact that Germany controlled 100 percent of the Swedish import market (see Chart 4). The same pattern is detected for price levels on pig-iron, which seemed to follow prices on coal products. The causal connection is obvious since coal is essential to produce pig-iron. The fact that Sweden chose to import pig-iron from Germany also shows that price levels were acceptable.

Considering these facts it is possible that Germany and Sweden endeavoured price stability but the heavy increase in demand for coal products at the outbreak of war made it impossible. After 1940 Sweden and Germany therefore signed a treaty to stabilize the destructive price increase in trade, this indicates the will to reach stabile prices between the two parties. There is also further evidence that point in this direction. Fritz spoke of the German incapability to reach pre war levels of production in coal mines on occupied territories. Even if Germany had the ability to invade Sweden and thereby price Swedish import, a stabile relationship could actually have favoured Germany since occupying Sweden could have endangered the iron ore production into lower production levels. Was Germany then in a dominating position? Yes, but evidence shows that they prioritized stability before higher price levels. The monopoly theory simply does not seem to be the correct tool of analysis.

\textsuperscript{46} CPI from Sveriges officiella statistik: konsumentpriser och indexberäkningar åren 1931-1959
\textsuperscript{47} SOS, handel 1946
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