## DISSERTATION SESSION

## International Cooperation and Domestic Cartel Control: The International Steel Cartel, 1926-1938

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From 1919 through 1939 western European nations created an intricate set of international agreements and organizations which attempted to restore order to the chaotic face of Europe. Since World War I had destroyed the economic and political environment that had developed over the course of the century, the former belligerents attempted to coordinate both politically and economically. The emphasis on the new international order did not eliminate the passionate nationalism of the late century-far from it. The international agreements were made with a keen eye to preserve and extend the political and economic power of constituent countries.

One of the most important commercial agreements during this period was the International Steel Cartel (ISC), founded in 1926 by Germany, France, Belgium, and Luxembourg. The executive committee of the cartel allocated a fixed percentage of a tonnage program estimated each quarter. Penalties or subsidies were paid for over- or under-quota production. I found that the Germans paid the most penalties, but the amounts were not as high as reported in the contemporary press, and the payments were not large, as previously believed because of large domestic demand; rather they were a function of increasing export demand for German steel. After 1928 the Germans were given a total production quota and a quota on export sales, and it was in over-quota export sales that the Germans were paying such large penalties. In addition to the production quotas, the members established complicated bilateral penetration agreements. limitation provided the member countries the opportunity to reorganize and operate their own domestic cartels; the trade protection allowed firms to raise prices and to control the inputs of dissident firms. The international

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cartel provided the structure for its members to reorganize their domestic markets and to prepare for future international cooperation.

The German steel industry thrived in this environment and created a strong system of internal product cartels which kept domestic steel prices greater than the world price for steel products. The other countries needed to rebuild and to reorganize their steel industries in the 1920s. It was not until after 1930 that France and Belgium could attempt global domestic steel policies. Part of the problem was that both were plagued by small, numerous non-integrated steel works, called re-rollers, that required steel ingots as inputs for the production of finished steel products, such as thick They resented policies aimed at increasing steel input prices and fought the cartels. German steel makers had solved this problem before 1913 by forcing the re-rollers into concessions and by merging with them. The operation of the international cartel reflected the differences between the national groups. Using a market-share response model and calculating correlations of changes in market shares, I show that the countries with similar internal organizations--France, Belgium and Luxembourg--were the most coordinated in their production and had a rival relationship with the German group, which had its own internal agenda created by its domestic cartels.

Although the Germans prospered in the late 1920s, they were hit most severely by the world depression. This was mainly because their rigid cartel agreements did not permit the needed elasticity to adapt to new market conditions. In the agreement between the German steel producers and steel finishers, the so-called AVI agreement, for example, steel producers promised to sell steel at the world price to finishing firms that had export orders. This arrangement operated well in the relatively stable 1920s but was an extreme burden when world prices dropped after 1930. I show that the actual price received for German steel was about 20 percent lower than official prices. This helps to explain why the steel makers were opposed to the Brüning government's *Preisabbau*—their prices had already been lowered by the AVI agreement.

The French took this opportunity to profit from the Germans' misfortune. Output expanded while they created internal cartels which operated for the rest of the decade. As the French group began to create its own domestic product cartels, it became less integrated with the Belgian and Luxembourg groups, although it continued to have a rivalrous relationship with the German group. With the near collapse of the international market, the Belgian and Luxembourg groups clung together and their domestic cartels met to determine joint policy.

After the shock of the depression, the national groups were ready again to reform their international agreements under the new conditions of their own internal organizations and the changes in the international markets. In response to these changes, the International Steel Export Cartel (ISEC) was created in 1933 by the original members of the 1926 cartel. (Other countries joined afterwards, e.g. Britain in 1935 and the United States in 1938.) The ISEC was made up of a number of individual product export cartels that set export quotas and prices for the national groups. This new arrangement continued to protect the domestic markets of each

of the members, permitting them to continue the formation and operation of their domestic cartels. It made domestic coordination easier in that it reduced the conflicts within domestic cartels between firms that were large exporters and those that mainly sold in the domestic market.

In the 1930s each of the member countries had their own internal constraints that tightened after 1936. Both Belgium and Germany seem to have succeeded in exploiting their market power, but the Belgian cartel had to fight against its small domestic demand and the opposition of the rerollers, while the Germans had to adapt to increasing government intervention after 1936. The French cartel was struggling to maintain its internal agreements and was too weak to adapt to the internal shocks of the devaluation and the various labor conflicts after 1936. While the national groups were struggling with their domestic organizations, the ISEC was successful in establishing exclusive merchant agreements in major importing countries, which made it possible for the member countries to price discriminate among the many international markets. I found that member firms were able to price discriminate and received higher export prices within the cartel because of the operation of the import agreements.

My dissertation is divided into three periods. The first is from 1926 to 1930, when the countries established the basic structure of the cartel. The second period comes with the shock of the depression in 1930 and lasts through 1932. These were years of little international coordination, as the countries were mainly too concerned with their internal collapses to be interested in maintaining their external ties. The final period is from 1933 to the eve of World War II and marked the period of the highest degree of international coordination. Rather than treating the ISC as a single entity with its own policies and targets, I examine each of the cartel members and their interactions in the context of the international agreement and the economic environment. In this way the cartel is understood as a collection of individuals, and I am then able to compare inter-member gains and losses in terms of national aims.

The story that emerges from the analysis is that the form of international cooperation in each period was directly linked to both the nature of the product controlled and, most importantly, to the environment and goals of the various national groups. In a classic article, Don Patinkin concluded that "the successful cartel must follow a policy of continuous compromise"[1]. I agree and would add "and innovation in structure."

## References

 Don Patinkin, "Multiple-Plant Firms, Cartels, and Imperfect Competition," The Quarterly Journal of Economics, 61 (February 1947), 203.