the market. Even in 1925, 37.9 percent of all farmland was cultivated in units of of less than one hectare; and another 45.9 percent was cultivated in units of one to ten hectares. This myriad of small holdings was hopelessly inefficient and would never have survived world competition. Unfortunately, it did not have to. The exigencies of war forced Napoleon I to rely on domestic agriculture. When cut off from tropical cane sugar, for instance, he encouraged home production of sugar beets. There arose, then, a self-sufficient but inefficient home agriculture. At the end of the Napoleonic wars, with the return of competition from abroad, home agriculture sought and secured protection. High tariffs appeared on sugar, wheat, and most other foodstuffs. Other agricultural products such as wool were also protected by either tariffs or absolute prohibitions. This system remained largely in effect until the Cobden-Chevalier Treaty of 1860. There followed twenty years of what the French euphemistically call free trade: i.e. moderate protection. Some foodstuffs, such as rye, barley, and oats, did enter free; but wheat still carried a duty of about 0.60 francs per one hundred kilograms, wheat flour one of 1.20 francs, and the *pates d'Italie* one of 1.20 francs. Comparable duties remained on livestock. As competition from the great plains came to be felt, however, moderation capitulated to excess. A law of 1881 excluded grain and livestock from future commercial treaties. In 1885, duties on formerly free goods reappeared and those on the rest went up. The duty on wheat climbed to three francs, and in 1887 it was boosted to five francs. Finally, with the Méline tariff of 1892, protection reached a climax, and the tariff on wheat levelled off at seven francs per hundred kilograms.

Protection permitted farming to remain fragmented in France. In 1908–09, an Inquiry conducted by the Ministry of Agriculture on small property found that since the Méline tariff, the *number* of small holdings had increased in 42 departments, had declined in only thirteen, had remained stationary in seventeen, and were undetermined in fifteen. During the same period, the *area* of small holdings had increased in 52 departments, had declined in five, had been stationary in nineteen, and were undetermined in eleven. The Iquiry also discovered that the number of large farms was actually declining, while the number, and more significantly the area, of small holdings increased. As late as 1929, 62 percent of all exploitations greater than one hectare were between one and ten hectares. Another 34 percent were between ten and fifty hectares.

Fragmented farming retarded industrialization in two ways. First, it permitted the rural population to remain inefficiently swollen and therefore impeded urbanization. Hence, in the period 1815–48, fully three-fourths of all industrial workers retained a connection with agriculture. For many, industrial employment was only a supplementary source of income. Thus, industrial labor remained unspecialized and inefficient. As long as it could fall back on its land, it was not compelled to acquire industrial habits and unit labor costs remained high. Industrial efficiency was impaired.

Second, fragmented farming reduced agricultural as well as industrial efficiency. Augé-Laribé has estimated that over one-quarter of the land in cultivation is too fragmentized for economic use. Moreover, the protective tariff permitted the farmer to resist specialization in such products as wine in which France enjoyed comparative advantage. Even Jaurès, who had favored agricultural protection in the years past, "declared that the tariff was now preventing it from realizing its true possibilities, by maintaining the un-economic production of grain and limiting the development of an export trade in the special lines in which it excelled."[14] Producing goods in which it had no relative competence, French agriculture lagged behind its foreign counterparts. In 1910, her wheat yield was twenty bushels per acre while that of Germany was thirty and that of Great Britain 32. She also lagged her neighbors in sugar beet yield per acre, in yield of sugar per ton of beets, and in milk production per cow. Golob summarizes the period after the Méline tariff in this way:

> Considered only in relation to its own past, French agriculture in the first decade of the twentieth century seemed to be continuing to progress very slowly. Per hectare yields had risen, land ownership had gained somewhat over tenancy, but the dominant note was one of maintenance of traditions, of resistance to change rather than progressive change. If a rise of truck farming indicated a slight tendency toward specialization, the decline of so-called industrial crops indicated a return to diversified farming.[15]

The result of this lack of specialization was high prices. Especially after 1894, the price of wheat became substantially higher in France than in the world

See footnotes at end of Appendix.