
NOTES

An Industrial Momentum Achieved in the Habsburg Monarchy

Herman Freudenberger
Tulane University

By 1780 a momentum had been achieved in the Habsburg Monarchy that provided it with an economic and even a political basis with which it was able to operate fairly successfully for about another 140 years. This is of course not to say by any means that nothing of importance happened in the XIXth century but merely that the chances of success were substantially improved by the previously established momentum. To be sure, there is an intriguing hypothesis that makes the rounds from time to time suggesting that the Habsburg Monarchy — or more precisely the western portions, the so-called Hereditary Lands — comprising in 1800 about 9 million inhabitants over an area of 400,000 km² was in as good a position for a major industrialization in the century to follow as was Germany proper.¹ Those who roughly accept this proposition — and I like to count myself among them — have, however, not yet come up with a satisfactory explanation as to what went wrong, assuming of course, that the Austrians and Czechs were as anxious to create an industrial giant, which has been usually accompanied by improved economic conditions, as the Germans. Some of the more facile explanations, such as the nationality struggles, or *Schlamperei* and *Gemütlichkeit*, other types of inefficiency, aristocratic pretensions, etc. are not really totally convincing. Even the fact that Germany in the age of iron and fire had a superior resource base

¹ HERBERT HASSINGER, "Der Stand der Manufakturen in den deutschen Erbländern der Habsburgermonarchie am Ende des 18. Jahrhunderts," in *Die wirtschaftliche Situation in Deutschland und Österreich um die Wende vom 18. zum 19. Jahrhundert*, ed. by F. Lütge, (Stuttgart, 1964), 112 f. The Hungarian Kingdom in 1800 comprised an area of 400,000 km² and 13 million inhabitants.

will not prove sufficient as an explanation. Japan has after all established the fact that great industrial prowess can be based on comparative advantage.

If a great momentum was established by 1780, it had taken at least a century to be formed. To be sure, Joseph von Weinbrenner, a prominent merchant in Vienna, was very specific in dating 1752 as the Monarchy's awakening from a deep sleep, "when it was decided at one and the same time forcefully to control money and to induce the internal production of goods."² The importation of goods was to be prohibited and thus a large domestic market was to be assured. Weinbrenner may have been a bit hyperbolic in the precise dating, but there is no doubt that Maria Theresa began most insistently about 1750, ten years after her accession to power and after the military threat from Prussia had been met, to push for the rapid economic development of the so-called Hereditary Lands, roughly the Czech and Austrian lands. When she died in 1780, she had indeed accomplished a great deal in that direction.

While she deserves much credit, her predecessors — father, uncle and grandfather — did in fact pave the way.³ Moreover, none of these rulers could have accomplished much without the existence of considerable and active interest in the private sector. Usually the most convenient point of departure is the 1660s when J.J. Becher, the great Cameralist, was called to Vienna by Emperor Leopold I. Becher served primarily as a catalyst: an economic desire for progress already existed. This is an assertion for which at least some supporting evidence does exist. One may notice it, for example, in the autonomous moves of two lawyers in the provincial town Brno in the 1650s and 1660s. Apparently independent of each other, they proposed grand development schemes. One of them, Ignaz Morgenthaler, who in 1653 published a book to this effect, also submitted in the 1660s a proposal to the Emperor as to how the city of Brno, today Czechoslovakia's second largest city and certainly one of its outstanding industrial areas, could raise itself. Other examples can also be provided. Basically, however, the point is that especially in the Habsburg context the historical literature generally over-emphasizes the role of the government. The private sector was quite clearly not as active as in contemporary England or Holland. But even in England and Holland the public sector at that time was a major contributor to economic development. In short, it is difficult if not impossible to find a case of economic development where the government and private citizens, motivated by greed or whatever else Adam Smith's invisible hand contained, did not in fact collaborate or act one

² JOSEPH VON WEINBRENNER, *Patriotische Gedanken und Vorschläge über den geheimniten Ausfuhr-Handel*, 2nd edition (Wien, 1792), 31 (1st edition 1781).

³ Cf. J.W. STOYE, "Emperor Charles VI: The Early Years of the Reign," *Royal Historical Society Transactions*, 5th Ser. XII (1962), 63-84. GRETE KLINGENSTEIN, "Vorstufen der theresianischen Studienreform in der Regierungszeit Karls VI." *Mitteilungen des Instituts für österreichische Geschichtsforschung*, LXXVI (1968), 327-377.

upon the other. This is, in my opinion, a vital part of what has recently been called proto-industrialization, a term that in my use of it means the initial, learning stage by which an agricultural society transforms itself into an industrial one.⁴ (It might be said, parenthetically, that proto-industrialization can remain static and never change to full industrialization in the modern sense. Moreover, proto-industrial structures can also persist side by side with fully industrialized structures in any given economy).

The Habsburg Monarchy's period of proto-industrialization extended from the 1660s to the 1820s. Because of the Monarchy's more backward state, technologically and organizationally speaking than in areas to the west, and its more rigid social structure, especially following the Thirty-Years War, its period of proto-industrialization may have been longer than elsewhere and, even more important, the role of the government, of the aristocracy and of foreigners may have been stronger. This conceptualization fits into Gerschenkron's scheme of economic development in that the industrialization of more backward areas requires more powerful breakthrough thrusts. Of course, as far as Alexander Gerschenkron was concerned, the Habsburg Monarchy failed to industrialize, as he expressed himself in his last book, *An Economic Spurt That Failed*.⁵ In this book Gerschenkron insisted that those who feel, like myself, that there was a gradual industrialization process in the nineteenth century were wrong. An issue such as this cannot easily be decided one way or the other; it will unfortunately remain part of an intuitive, impressionistic set of assumptions, as Gerschenkron himself demonstrated in his book.

Retrospective logic is, of course, a nice game and dangerous if one pretends that reality and truth are necessarily the result.

The game that I propose for the present purpose is to consider regionalism to be the explanatory variable for the Habsburg Monarchy. To be sure, there is no important country; even a smaller one like Belgium or Holland, where regional differences do not play a major role. It may, therefore, be a bit pretentious when I suggest that regional problems played a substantially greater role in the old Monarchy than elsewhere. I wish to concentrate on those part of the empire that comprise today's Czech and Austrian areas. Galicia, Slovakia, Hungary, Transylvania, and Croatia thus are placed essentially in the category of deficit areas that tend to divert resources and effort from the more industrialized parts. I recognize that this hypothesis flies in the face of the 'colonies' proposition, according to which Hungary above all was exploited for the benefit of the industrialized areas. This is hardly the place to discuss

⁴ See also, RICHARD L. RUDOLPH, "The Pattern of Austrian Industrial Growth from the Eighteenth to the Early Twentieth Century," *Austrian History Yearbook*, XI (1975), 11-20.

⁵ (Princeton, 1977).

the question in the detail that it deserves. One simple point may, however, be made: investment at the time of Maria Theresa, whether public or private, did not flow to Hungary.

The impression is strong that the Czech and Austrian areas did indeed gain a great deal in the eighteenth century from the financial and entrepreneurial attention that aristocracy, foreign businessmen and the government paid to them. That great opportunities were apparent is testified by the popularity of P. W. Hörnigk's tract, *Oesterreich über alles, wann es nur will*, which went through at least 16 printings between 1683 and 1781. Hörnigk speaks of the self-contained world represented by the lands of the Austrian crown. His colleagues Wilhelm von Schröder and J.J. Becher seemed to have been no less optimistic. Although these writers appealed to the state to help in the development strategy, they did not feel that government was able to do the thing on its own. To them as well as the late-Cameralists J.H.G. von Justi and Josef von Sonnenfels the role of government was above all to assist private enterprise and to eliminate the obstacles in the way of a well-functioning private economy. They were in short not basically in disagreement with writers like Adam Smith. As a matter of fact, like Smith, they were less doctrinaire than they were practical. In that respect they differed from convinced proponents of laissez-faire and free trade like Count Karl von Sinzendorf and Count Philipp von Sinzendorf. Sonnenfels, Zinzendorf and Sinzendorf all had great influence on the economic policy decisions of Maria Theresa and Joseph II.

In this connection the assertion frequently found in textbooks in the past that Joseph II was a doctrinaire Physiocrat should be laid to rest. As in other matters he fitted quite well into his role as his mother's successor, that is, as a pragmatist and compromiser. Scholars from time to time, I believe, are misled by his rhetoric and fail to read his record. Above all he, no less than his mother, preferred the private sector greatly over the public sector. Both pushed to have state-owned enterprises sold to private entrepreneurs, although they were not terribly successful in that endeavour. Both also favoured reducing the fetters under which private enterprise had to operate and both were dismayed that private enterprise then, even as today, often seemed to prefer these fetters over freedom. The spirit under which they worked is more reflected by such actions as the tariff of 1775, which for the first time included all the Hereditary Lands in one border or loosening guild restrictions in a large number of industrial branches in 1754. In the latter case, the central government created a new category, the commercial crafts, to denote those industries whose products were traded in an extra-local commerce. Among these products there were cloths, stockings, hats, leather, buttons.⁶ Conditions of work or of becoming a master in these crafts were no longer simply subject

⁶ KARL PRIBRAM, *Geschichte der österreichischen Gewerbepolitik von 1740 bis 1860* (Leipzig, 1907), 39.

to the decision of the local guild, but now fell within the competence of the governmental authorities.

The purpose of this act was to reduce the restrictive hold that guilds had had. Writers such as Schröder in the late XVIIIth century and others in the eighteenth century felt that these practices were so harmful to economic development that they proposed eliminating guilds. They recognized, however, that over the shorter run such a move was not practical, given the time-encrusted nature of the position of the guilds. What has to be emphasized in this respect is that the government intervention did not reflect simply an insatiable desire to bureaucratize institutions. It was a convenient way to loosen the institutional barriers that had been formed over time in the private sector, especially the natural proclivity to cartelize.

One way, then, in which Maria Theresa's government tried to encourage development was to remove obstacles in the private sector. Another way was to intervene more positively. But even there it was the purpose to make private enterprise operate more effectively; a good example of this was the establishment of so-called commercial colleges, government agencies in the several Hereditary Lands of the Monarchy.

Comprised of civil servants, aristocrats and burghers, the colleges were the main vehicle of Mercantilistic policy through which the industrial sector was to be strengthened. The means that these agencies used went from the not so subtle suggestion to particular merchants to buy goods from the new enterprise to actually assigning specific quantities of a good that designated merchants were required to purchase. In the 1760s so-called operational plans (*Operationspläne*) were constructed by the central coordinating organ of the commercial colleges, the Court Commercial Council (*Hofkommerzienrat*).⁷ These plans, which can be likened to indicative national plans today, identified industries that were to be strengthened especially by recruiting foreign specialists, and spelled out, too, which geographical areas were to specialize in particular industries. Next to state-owned factories, these plans were the best indications of strong government intervention. And, yet, even they emphasized the private nature of business and industry. In 1776, the governmental commercial agencies were totally eliminated. Count Karl von Zinzendorf, a confirmed free-trader, has usually been given credit for this accomplishment but there is evidence that Joseph II pushed for their dissolution after returning from an inspection trip to Transylvania because he had become convinced that this agency had proved to be harmful.⁸ The man primarily known as an Enlightened Monarch who wanted to reform society by dictat again showed, at the very least, his pragmatic strains.

The academic writers and many high government officials agreed that the

⁷ *Ibid.*, 124 f.

⁸ HANS WAGNER, ed., *Wien von Maria Theresias zur Franzosenzeit* (Wien, 1972), 8 f.

role of government was to encourage private enterprises. That the government was in fact strongly and directly engaged in industrial enterprises was due to the unwillingness of private investors to be as active as they were in the western countries, according to Count Rudolph Chotek, at the time the president of the Court Commercial Council.⁹ The need of improvement was determined by the outflow of money for particular groups of imported goods. Even in the 1780s, long after the dissolution of this governmental unit, lists of a similar sort were drawn up. Based on such lists the government then was willing to intervene.

There was a number of state-owned enterprises. In each case of such ownership the state took over at a point when a worthy enterprise seemed to be on the way towards total failure. By the 1780s Joseph II could easily take an indifferent attitude. He felt that if an enterprise could not exist on its own after having been well started, then nature should take its course. He may not have been wrong in this attitude, as the experience of the Brno Fine Cloth Factory demonstrated. Heavily supplied with government funds in the 1760s and 1770s, it went bankrupt in 1789, partly because of the government's foreign policy which resulted in war with Turkey, one of the factory's major sales markets. Part of the reason for its demise was, moreover, that a number of its better employees had made themselves independent, thus competing with their former firm and depriving it of their services at the same time. Its very success, in the larger sense, was a major contributory cause of its destruction. But, in fact, the woollen industry did flourish in this city as never before, the result, to a large extent, of the unleashing of private entrepreneurs. Government ownership may have been necessary at a time when the elements fostering industrial growth were still sluggish. By the time of Maria Theresa's death in 1780 the economy had achieved considerable internal strength. Joseph's hands-off attitude thus could succeed.

The largest factory of the time, possible in all Europe, was the state-owned Linz woollen fabrics factory. It had been privately founded in 1672, taken over by the semi-state-owned Oriental Company in 1719 and made a completely state-owned enterprise in 1754, when the Oriental Company finally dissolved. Maria Theresa attempted to have it sold but without success.¹⁰ During the period of her rule and that of her son Joseph this factory carried out numerous government functions in helping other industrial units, both private and public. For example, it operated a second fabrics factory in Unicov (Mährisch Neustadt) (Moravia) for a period of years and was able to nurse it back to prosperity so that in 1787 the Linz factory was able to relinquish the last vestiges of control. Led by a very able and active manager,

⁹ HERMAN FREUDENBERGER, *The Industrialization of a Central European City* (Edington, 1977), 50.

¹⁰ V. HOFMANN, *Beiträge zur neueren österreichischen Wirtschaftsgeschichte*, (Wien, 1919).

Sörgel von Sorgenthal, the Linz enterprise also aided the state-owned needle factory at Liechtenwörth (Lower Austria) subsequently purchased by Count Theodore Batthyany, and the state-owned Vienna porcelain factory. The Linz enterprise, in short, operated as both a private firm in competition with others and a public agency whose object it was to strengthen other enterprises. Even as the central government operated through the Linz factory to strengthen the private sector it did so more directly in its policy to introduce technological innovations. It did this by the widely used methods of recruiting experts from abroad and helping them to get established within the Monarchy. Needless to say not all these efforts proved successful and it would indeed be impossible to say how efficient this policy was.

There is the case, for example, of the "artists" Bonafont and Le Brun, who offered their services to the Austrian ambassador in Milan 1765. They claimed to be able to construct cylinder printing machines for silk and other fabrics and as a result they were brought to Vienna.¹¹ Not long after the artistic craftsmen arrived it was discovered that their machine did not answer the purpose for which it was built. Nevertheless, le Brun is known to have remained in Vienna until 1785, having well before that time received an exclusive privilege for the construction of spinning machines. He seems to have succeeded best at making debts and was forced to flee the country in 1785 before having constructed many machines. Le Brun was clearly recruited by the government and even supplied with an annual pension out of government funds. In his industrial activities he was, however, associated with a merchant house in Vienna, Grosser & Co.¹² In short, we find again the collaboration of business and government. While this case proved to be abortive in a concrete sense, it not only demonstrates the government's interest in innovation; it also suggests that actions like these proved to be important contributions toward the establishment of a momentum. One can make this statement while at the same time accepting in part some of Joseph II's rather harsh judgement of this policy. In hyperbolic fashion he felt that the large state subsidies resulted only in attracting unskilled, inexperienced and dishonest "industrialists" (Fabrikanten) whose main merit was that they were proficient with their mouths and were able to flatter "famous" officials so that the state was defrauded.¹³ This bitter utterance of the Emperor reflects more the frustration and possibly the cynicism of the man than it does the absence of accomplishment. The "famous" but obviously naive officials were aristocrats.

While Joseph held the aristocracy in generally low esteem, it, too, had made a very definite contribution to the momentum of industrial development achieved by the time that Maria Theresa died in 1780. We know that mer-

¹¹ Hofkammerarchiv (Vienna), Kommerz, red no. 305, ff. 133-142, 1. Mar., 1766.

¹² *Ibid.*, ff. 638-645, 11. Dec., 1789.

¹³ K. PRIBRAM, *Gewerbepolitik*, 396-400.

chants and artisans were unenterprising and also lacked the required wealth. The landholding nobility, on the other hand, was rich and for as yet unexplained reasons took a much greater interest in industrial progress than members of the upper class elsewhere. They were undoubtedly encouraged in this respect by Charles VI, Maria Theresa's father and predecessor as well as by her consort Francis Stephan and, not least, by herself. Charles had been a major investor in the Oriental Company, which owned the Linz woollen fabrics company as well as the Schwechat cotton factory, the latter having claimed at one time to have provided sustenance for 60,000 persons.

The first half of the eighteenth century was still a time when there existed no sharp distinction between the private property of a ruler and the public property of the state. In an analogous manner the manorial lord acted as a public body called the *Obrigkeit* at the same time that he played the role of a private landowner. For both the prince and aristocrat profit maximization and public welfare consideration were intermingled. Increasingly in this century and the first half of the next, the private and public character of their decisions became separated. Possibly no one epitomized this development better than Francis Stephan, Maria Theresa's consort, who was paid off for his loss of the Duchy of Lorraine with the Duchy of Tuscany and Maria Theresa's hand in marriage. One of his first acts after his marriage in 1736 was to buy some estates on which he established factories. By history relegated to the ample shadow of the Queen and derisively called by the king of Prussia the greatest manufacturer of Europe, Emperor Francis Stephan was especially influential in economic matters. Before his death in 1765 he had been founder of a large cotton factory and an earthenware factory in Slovakia, a woollen cloth factory in Bohemia and the operator of a large iron works west of Prague. Some of his enterprises proved to be quite profitable while others may have provided more of a public good in the sense of serving as a training institution for industrial development. Without any doubt his industrial activities served as a demonstration for aristocrats and strengthened greatly the resolve of the Queen to press for industrialization. His death, incidentally, also marked the point from where the private property of the royal family became formally distinct from its public status.

In the proto-industrialization period, the period during which the basis for the transformation of a traditional agricultural society, to an industrialized one was laid in the Habsburg Monarchy, the aristocracy made a more profound contribution to the developing momentum than elsewhere in Europe. In Great Britain, for example, it is difficult to find an aristocrat who made any substantial investment in a factory, let alone to found and operate one. One certainly ought not, of course, to exclude the Duke of Bridgewater and his coal-bearing canal as well as other great landowners who, in the nineteenth century were involved in railroad building in the construction of residential sections in English cities and in the mining of ores. But the Arkwrights and the Boul-

tons were the great innovating entrepreneurs. In France and Germany some examples of noble entrepreneurs can be found, especially in connection with iron and coal, such as in the case of Donnersmark family in Silesia. In Poland, Russia and Hungary, too, could be found a few noblemen interested directly in industrial undertakings. A Potocki or a Tyzenhausen in Poland did indeed establish factories and huge undertakings can also be recorded on a few Russian estates. But nowhere can one find as many aristocrats in industry, providing as great a share of the output as in Bohemia and Moravia. Names such as Waldstein, Kaunitz, Haugwitz, Nostitz, Schwarzenberg, Liechtenstein, Fürstenberg, Ciam-Gallas, Lazanski, Vrtby, Sternberg, Harrach, Blümegen, and Kinsky were among those prominent in industry.

The case of Kinsky may be especially revealing. Count Josef Kinsky, in the 1760s the president of the Bohemian Commercial Council, submitted annual reports to Maria Theresa on the industrial progress on his estates. He founded diverse enterprises including the manufacture of mirrors and textiles of various sorts. In 1769 he had invested the formidable sum of 270,000.¹⁴ In addition, he was very active in encouraging his fellow noble landowners to engage in industrial undertakings. Why did he do all this? Was this wealthy bachelor primarily trying to impress the Empress with his devotion? Or, did he in fact expect to gain additional income by profiting directly from the sale of manufactured goods or indirectly by collecting more taxes and fees from his peasants, whose own incomes had been augmented by industrial occupations? It is difficult if not impossible to come up with satisfactory answers to such questions. For our purposes a definitive answer is not required as long as we can show as we can that Kinsky was able to further the industrial momentum, despite the fact that he was singled out by name in Emperor Joseph's denunciation of gullible officials.

While there seems to be little doubt that the contribution of aristocrats to Habsburg industrialization was substantial, their enterprises especially when operated by themselves or their agents seem not to have been very profitable. This assertion, like others, has to be impressionistic even when the relevant data on a particular factory are available, for a manorial factory has to be evaluated within the context of an entire estate. At this point no comprehensive study of this sort has been made although the evidence seems available.

An interesting aspect is that those aristocratic factories seem to have been most successful where burghers, especially merchants, participated as partners. A nobleman by himself, even when interested in an industrial firm, usually lacked the experience or the persistence to stay with one industrial endeavour. A good case in point is the fine woollen cloth factory that was established on the estate Naměšt (Namiest) in Moravia in 1795.¹⁵ Having shortly be-

¹⁴ Hofkammerarchiv (Vienna), Kommerz, red no. 876, ff. 1-12, 11. Apr. 1770.

¹⁵ For further details see FRANTIŠEK MAINUŠ, *Vlnářství a bavlařství na Moravě a ve*

fore inherited the estate from his father and finding himself pressed for funds, Count Heinrich Haugwitz took into partnership with him two major merchant-industrialist-bankers of Vienna, J.B. von Puthon and Bernard von Tschoffen, as well as an experienced woollen manufacturer, Martin Stählin, who became the manager of the firm. Puthon, above all, had numerous other industrial interests and moreover had for many years before been a partner in a large cotton factory in present-day Slovakia. Tschoffen, a native of Switzerland and a major wholesale merchant in Vienna since at least the 1760s, had considerable experience in industry. It may be sheer coincidence that Tschoffen contracted in 1795 for a 50-hp steam engine with Boulton and Watt, which was, however, never delivered. Stählin had been engaged in woollen manufacturing in nearby Brno. Haugwitz seemed to have been the only one devoid of industrial experience. He supposedly was above all concerned to use the factory as a device to provide better income capacity for his poor peasants. The factory became one of the largest producers of fine woollens in the Monarchy and was honoured in the industrial exhibition in Vienna in 1835 with a gold medal for quality.¹⁶ Unfortunately, the archival evidence on this firm is rather sparse but it seems hardly amiss to credit its great success to the combination of rich aristocratic landowners and experienced commercial and industrial partners.

Besides the noblemen and the government, foreign businessmen proved to be major contributors to Habsburg industrialization. This was especially true of the so-called *Niederlagsverwandten* in Vienna, merchants who were the beneficiaries of special privileges. A number of Swiss merchant-bankers such as Fries, Geymüller, Steiner, and Tschoffen of whom mention has been made above, were among the most outstanding representatives of this group. They were the founders of numerous enterprises, introducing many technological innovations as well as products previously imported from abroad. Wealthy merchants with foreign backgrounds were also participants in the forward momentum in such places as Prague and Brno. In Prague, for example, the name del Curto comes to mind, obviously of Italian background and a merchant-banker closely associated with the imperial family and their Bohemian holdings. In Brno, a number of west Germans made major contributions. One of the outstanding names to recall there is that of J.H. Herring, who originally came to Brno as the agent of a Nürnberg exporter in 1779. After the tariff law of 1784, which prohibited the import of a large number of articles, Herring was let go by his employer and instead set himself up as an independent operator. While not the sole originator of Brno's industrial growth that caused this city to be called the Austrian Manchester in the XIXth century, Herring

Slezsku v XVIII. století (Praha, 1960), 150; CHRISTIAN D'ELVERT, *Zur Cultur-Geschichte Mährens und Oest. Schlesiens* (Brünn, 1870), 148 f.

¹⁶ *Oesterreichische National Enzyklopaedie*, 6 vols (Wien, 1838), VI, 479 f.

contributed mightily to its progress. A supplier of raw materials for the woollen industry, he was also in the forefront of urging the introduction of advanced machinery from England. With the young Count Altgraf Hugo Salm-Reifferscheidt he founded for the importation of woollen yarn spinning machines in 1796 and in 1800 financed Salm's trip to England, from which the intrepid nobleman smuggled out a number of blueprints of spinning machinery.¹⁷ Interestingly enough, all this activity was not sufficient to introduce the English spinning machines into Brno. It took the coming of an English mechanic, George Woodward, to do so. Woodward, whom one might call a mechanic-of-fortune, had been recruited in northern Germany as part of a group organized by Baron Karl von Glawe-Kolbielski and financed by several noblemen, including the Princes Schwarzenberg and Colloredo-Mannsfeld. Once arrived in Vienna Woodward and several other mechanics felt themselves under no compunction to remain with their employer and instead hired themselves out to the highest bidder.

Foreign workmen like Woodward were the transmitters of the more developed technology of the west and as such clearly contributed to the industrial momentum. There were those like Le Brun who were probably charlatans. One should not wonder very much, therefore, at finding some foreign specialists to be drunkards and others to have been frauds who ended in jail.

To summarize, Maria Theresa's death in 1780 occurred approximately a century after the agitation for economic development seriously began in the Austrian monarchy. Her reign extending from 1740 to 1780 contributed greatly to the forward momentum that resulted in a modest industrial revolution in the XIXth century. 1780 was, for the industrialization drive, little more than a milestone. The Queen's son and successor, Joseph II, who had served as co-regent since his father's death in 1765, had already made a lasting mark on economic policy before he acceded to sole rule. His ten-year tenure was consequently primarily a continuation of an economic policy that relied heavily on the private sector. The role of the government was to eliminate obstacles and to provide aid in special situations but increasingly to allow market forces to have their way. While this trend was clearly visible, the paternalistic elements at all times remained strong. Nevertheless, the emphasis was on a mixture of state and private activity.

Continuity is the theme of this presentation. During the century-long learning period, which I would like to classify as a preliminary part of the proto-industrialization phase, there was an unquestionable speeding up from 1750 on, induced partly by the desire to make good the loss of Silesia, the Monarchy's economically most potent area before 1740, and by the more for-

¹⁷ GUSTAV TRAUTENBERGER, *Die Chronik der Landeshauptstadt Brünn*, 5 vols. (Brünn, 1896), IV, 210.

ceful measures of Maria Theresa and her collaborators intended to create a stronger economic base. A precise measure of this acceleration does not exist. But indications like the rise in the number of workers employed in "commercial" crafts in Lower Austria from about 20,000 persons in 1762 to over 180,000 in 1790, figures that can be matched in Bohemia and Moravia and other "Cisleithanian" areas, bear eloquent testimony.¹⁸ The state abetted and materially supported in this effort various groups including above all aristocrats and foreign enterprisers. This movement resulted in visible and significant structural changes by 1780 when larger, more concentrated enterprises began to take on a stronger role in the economy and when more forceful efforts were made to reduce the importation of foreign goods by having them produced at home.

¹⁸ HASSINGER, "Stand der Manufakturen," 147, 151.