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Commercial Expansion and the Industrial Revolution

C.P. Kindleberger

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**massachusetts  
institute of  
technology**

**50 memorial drive  
cambridge, mass.02139**



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for comment

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## Commercial Expansion and the Industrial Revolution

### I

The problem to be examined is the relationship between the commercial expansion of the 17th and 18th centuries and the industrial revolution. In particular it may be asked whether a commercial revolution, i.e., a discontinuously rapid increase in commerce, was necessary to, sufficient for or merely contributed to the industrial revolution. If commercial expansion was not needed in advance of an industrial revolution, was it required as a concomitant? Are different types of merchants needed at different stages of industrial evolution or revolution? In particular, at a fairly advanced stage of industry, the mercantile function may best be taken over by the industrial firm which undertakes direct buying and direct selling; and continued performance of the middleman function by the merchant community may inhibit technical change by acting as a filter between producer and consumer, blocking communication between them.

In the early stages of the industrial revolution, the merchant has been thought to have contributed to industrialization in various ways: by extending the market for outputs; by increasing the range and reducing the cost of available inputs; through capital accumulation; "to some extent" as a source of entrepreneurial ability; by directly and indirectly increasing purchasing power; by inducing rationality in business procedures and widening economic horizons [Minchenton, 1969, p. 51] additional points made in other lists, and somewhat less compelling, are the importation of foreign techniques [Bairoch, 1973, p.544] and serving as a cause of growth of large towns and industrial centers [Deane, 1965, p.68].

The method employed here is to study the role of merchants in a number of countries which are not widely dissimilar. We first analyze the activities

of merchants in general, and then examine the ties between commerce and industry in four countries: Holland, Britain, France and Germany. In particular, we examine the hypothesis that the commercial revolution produced the industrial revolution in Britain; a commercial revolution in Holland failed to lead to an industrialization process; and industrialization occurred in Germany based on direct selling and buying by industrial firms, without the need for or the benefit of a flourishing commercial network; and see which of these general views, if they are verified, applied in France. Limitations of time and capacity prevent extending the examination to the Italian city-states with their commercial expansion of the 16th and 17th centuries, or to Spain engaged in colonial trade via Seville and Cadiz in the same period. Mere mention is made of Swiss experience in textiles and watches.

Commerce may be foreign, and within foreign, continental and overseas; or domestic, and within domestic, national, regional, or local. The term "merchant", moreover, covers a wide spectrum of individuals engaged in various activities which overlap, but the central focus of many differs in significant ways. The literature mentions the great merchant or Merchant Adventurer, the merchant banker, merchant-shipper, merchant-manufacturer, stapling merchant, wholesaler, retailer. In French distinctions, not always identical, are made among négociant, armateur (ship-outfitter), marchand, détailleur, boutiquier; in German among Grosskaufmann, Kaufmann, Händler; in Holland among First Hand, Second Hand, and Third Hand. Differences among various writers in the same country and a fortiori between countries make precision about numbers difficult if not impossible. In the main, we are interested in overseas trade on the one hand, and the wholesaler at the national level on the other, and are specifically not concerned with retail shopkeepers.



The functioning of the merchant must of course be specified in historical time since his role has been continuously evolving. N.S.B. Gras traces this evolution from the travelling unspecialized merchant of the late Middle Ages who played a role especially in moving goods as well as financing, buying and selling them, and the sedentary specialized merchant of the 17th and 18th century who operated from his counting house, and perhaps a warehouse, increasingly specialized by commodities, by function (export, import, shipping, finance, insurance) and by area [Gras, 1939, passim]. Specialization by commodities was linked to that by function since when a sedentary merchant was also a shipowner or outfitter, for example, he found it necessary to provide different commodities for both outbound and return voyage, whereas to specialize in commerce without shipping made it possible to deal with limited numbers of products down to one. The specializing merchant, however, was exposed to greater risk as commodity quality changed, or old markets were closed off, leaving his knowledge obsolete and him without a continuing function. After the 18th century, direct buying and selling reduced the roles of merchant and merchant nation.

The mercantile function can be divided analytically into two parts which we may represent by ideal types: the "gains-from-trade" merchant who buys cheap and sell dear in arbitrage fashion, and the "value-added" merchant who concerns himself especially with the quality of goods, and among particular aspects of quality, delivery date or timeliness. The distinction of course is overdrawn, since transport and finance in transit adds value to goods in the arbitrage case, and gains from trade are reaped where the merchant is deeply concerned with standardization, quality control and prompt delivery. Moreover the merchant who brings colonial products from the Baltic, Mediterranean,

East Indies and America to Amsterdam for stapling in "gains-from-trade" operations generally improves the quality of the goods, refining sugar, curing tobacco, roasting coffee, repacking grain to prevent spontaneous combustion, breaking bulk and the like. The distinction is nonetheless a useful one and runs between joining markets and altering markets by upgrading goods, standardizing them, economizing on inspection and handling. In both cases, the merchant provides information, in the first instance on where goods exist and where they may be needed, in the second of what kinds of goods should be produced to satisfy consumer demand at minimal cost.

Most emphasis in the commercial revolution has been on the "gains-from-trade" merchant who uses his information and courage to obtain large rents when he is successful. The value-added function has perhaps been neglected. To avoid the risk that the goods bought and financed will be rejected by the purchasing merchant or the ultimate consumer, the merchant first inspects, say, textiles closely, not only at the fair or in the cloth hall, but in his warehouse, under strong light, and then undertakes to full, shear, bleach, size, dye or otherwise finish the cloth for the market. New qualities are sought to displace old standards and penetrate new markets.

The distinction between the gains-from-trade and the value-added merchant, while loose, is broadly that between the First Hand in the United Provinces of Holland which dealt, bought and sold goods from overseas, and the Second Hand which sorted them, inspected, arranged for bleaching and dyeing when needed and then repacked. It is not far from Adam Smith's separation between the speculative-merchant who can sometimes acquire a considerable fortune by two or three successful speculations, and the slow accumulator in a single industry who seldom makes a great fortune but in consequence of a long life

of industry, frugality and attention [Smith, 1776, pp. 113-114]. Adam Smith claimed that the only difference between a competent retailer and a great merchant was the quantity of capital:

"Besides possessing a little capital, he must be able to read, write and account, and must be a tolerable judge too of, perhaps, fifty or sixty different sorts of goods, their prices, qualities, and the markets where they are to be had cheapest. He must have all the knowledge, in short, that is necessary for a great merchant, which nothing hinders him from becoming but the want of sufficient capital." (Ibid., p. 112)

This underrates the qualities which Smith detects in the speculative merchant: boldness and foresight, including the boldness in the "value-added" merchant of urging new varieties of products on producers and consumers.

When the knowledge used by the gains-from-trade merchant has been widely diffused, his contribution is ended. Direct buying and selling replace his intermediary role. Similarly the specialized merchant who develops a particular product for a particular market faces a crisis when a new better quality displaces his. He may sell the old product in new markets, or more likely a new set of merchants may take over selling the old product in new markets. On this score, the fact that merchants in many societies seek to make a fortune and withdraw from economic life into politics, gentle life or rural pursuits is helpful. Capital accumulated in commerce may be invested in land, government stock, canal, turnpike and later railroad securities, used to build spacious houses or chateaux, and consumed, and hence to be unavailable for industry. Some will be diverted to banking and recycled into other commerce. But the social aspirations of most successful merchants which induce

them to withdraw from trade serve an economic and political purpose. Where they continue on, they block economic change and tend to perpetuate oligarchies which may be republican but are not democratic.

## II

The commercial revolution for present purposes, ignoring the Hanseatic cities, the Italian city-states and Seville and Cadiz, began in the United Provinces of Holland. Favored by location in the days of sailing ships, at the crossroads of traffic between the Atlantic (and Mediterranean) and the Baltic, and representing a "land of cities intimately united by an all-pervading network of waterways [Marshall, 1920, p. 33], the Dutch developed colonies, shipbuilding, shipping, herring fisheries and the stapling trade. The linkage from trade to local production led to shipbuilding, and Dutch success in shipbuilding in the 17th century gave her an advantage in fishing for herring along the British east coast in the North Sea. Herring were also bought from Scandinavia, and packed with salt obtained from Portugal. Baltic grain was repacked in the stapling ports with Second Hand skill which prevented it from exploding in the heat of the Mediterranean. Linens from Europe exchanged against woolens from Britain were both bought and sold in Amsterdam, after having been finished in Haarlem with local supplies of acid whey for bleaching along with seaweed from the Mediterranean and ashes for lye obtained from many points. The First Hand bought, financed and brought the goods to Holland, later shipped them on to their ultimate destination. The Second Hand sorted, inspected, finished, repacked them. The Third Hand wholesaled them to the hinterland. All dealt in the highly developed commodity and financial markets of Holland [Wright, 1955, pp. 1-6].

Dutch shipping is said to have embodied few innovations, but made effective use of all existing techniques. There was specialization of design between



naval and merchant vessels, so that the latter could be more lightly built - not having to carry cannon - and could be cheaper and more efficiently sailed. Dutch shipbuilding, it was said, would have provided Adam Smith with a more striking example of the division of labor than pinmaking [Haley, 1972, p. 19]. The Dutch fluyt was standardized, so that as many as one a day could be built in the yards of Saardam, which used labor-saving machinery, especially winddriven sawmills and great cranes to lift and move heavy timbers. Timber was imported from the Baltic duty-free, and large inventories were maintained - for as many as four or five thousand ships [Barbour, 1929-30, pp. 119-24]. With a crew of 10 against one of 30 for an equivalent English vessel, freight rates in Dutch ships were one third to one half lower in peacetime than those of any rival. Since it was always easy to find a ship bound for Amsterdam, stapling there was often cheapest even when it was the longest way around [Ibid., p. 132].

Dutch stapling stimulated other industries beside shipbuilding and its related ropemaking, canvas, and naval supplies, and fishing, including herring, cod and whaling. There were cheese and gin, plus the finishing of colonial products and textiles. Haarlem, as mentioned, specialized in bleaching, Leiden in weaving, based on imported wool from Spain, and Amsterdam in silk. The Revocation of the Edict of Nantes in 1685 brought to the Netherlands from France, Protestant immigrants estimated by Scoville at 50-75,000. Included among them was a number of entrepreneurs who undertook silk manufacture in Haarlem and Utrecht, as well as production of velvet and linen in the French manner. The stimulus was short-lived, however, as compared with that in commerce and finance, and France recaptured the market for these products after the Peace of Utrecht in 1713 [Scoville, 1960, pp. 341-47].

Dutch successes in the 16th and 17th centuries were not limited to commerce, exploration, shipbuilding, fishing, but extended to public works - especially land reclamation, and not only in Holland but in England, France, Sweden and elsewhere [C. Wilson, 1968, chapter 5] - and to agriculture. The Dutch entrepreneur, workman, farmer, and seaman seems to have been characterized by energy and innovation. This industry and vitality are the only basis that one can make sense of Adam Smith's remark that the "carrying trade is the natural effect and symptom of great wealth, but it does not seem to be the cause of it" [Smith, 1776, p. 354]. Or perhaps a distinction is being made between the carrying trade - shipping - as such, and commerce with large gains from trade. Smith recognized that Holland was the richest country of Europe - though there is some lag here as marks of decline in the Dutch and upsurge of the British were apparent by 1700 and clear by 1730. But in his identification of commerce with manufactures, and merchants with artificers, Smith does not recognize that unlike England, Holland was a country with commerce but not manufactures.

The decline of the Dutch economy after about 1730 is variously explained. Three wars against the British in the 17th century and two against the French in the early 18th were surely a major factor. On narrow economic grounds, these destroyed capital, cut trade routes, raised taxes, which were levied on consumption and thus raised wages. In broader sociological terms, they drained the economy of its energy and innovative capacity. Not only did trade decline, but also shipbuilding, textile production, fishing and agriculture. Dutch industry, sailors, innovators and capital went abroad. Many industries expired without a fight [Wright, 1955, p. 59]. In 1670 the Dutch considered themselves superior to the British in energy and ability as well as capital and material resources. In 1779 a Leiden clothier complained of the general

lack of initiative among Dutch industrialists, and a deep-rooted aversion to experimenting with new methods..."a lack of initiative and enterprise in many industries and to some extent in agriculture in striking contrast to 100 years previously" [Boxer, 1970, pp. 245, 259]. Cipolla believes this decline in capacity to meet economic challenges is typical of all empires - a three-generations effect which applies to societies as well as to families. "The Dutch of the seventeenth century were great innovators. By the end of the 18th century they were incapable of keeping up with progress taking place outside their boundaries" [Cipolla, 1970, pp. 8-9].

Such sociological explanation is rejected by a recent study of the comparative industrial growth of Belgium and the Netherlands in the first half of the 19th century [Mokyr, 1974a, 1974b], which comes down squarely on the explanation of high wages in Holland as the cause of failure to industrialize. Other explanations relate to lack of mineral resources, especially coal, inadequate demand, and governmental policy, especially free trade, insisted on by the First Hunt as a traditional protector of their gains from stapling [Mokyr, 1974b, chapter 6; Wright, 1955, passim]. High wages clearly would make it difficult for Dutch industry to compete in existing industries with existing methods with countries with lower wages, especially if Dutch capitalists provided capital to Dutch and foreign industry at equal rates. But Dutch wage rates were high only in the provinces of Holland and Zeeland, and low in Utrecht, Friesland, Overijssel, Gelderland, and Groningen. More fundamentally, the impact of high wages is damaging to industrialization only in a static model. In a dynamic model, high wages stimulate innovation as Habakkuk points out for the United States in the 19th century, and Crouzet for Britain in 18th [Habakkuk, 1962, passim; Crouzet, 1966, p. 288].

In the 16th century, the Dutch went into trade for lack of land [Gee, 1729, p. 128, quoted by Smith, 1776, p. 96]. In the early period a dynamic model applies; in the later, a static. The change from the dynamic to the static model may be more significant than parametric shifts in either.

Nonetheless the Dutch experience makes clear that commercial success is not sufficient for industrial success, and that flourishing and highly specialized commerce poses risks while it earns large gains from trade. England set out to challenge Dutch supremacy in trade, with the Navigation Acts and acts of war. Hamburg represented another threat. But the Dutch emporium declined under direct trading even without the aid of mercantile policy. Exeter serges which had first gone via London and Holland to Spain and Portugal cut out first London, and then Holland, after bringing the dyeing and finishing stages to Devon [Hoskins, 1935, pp. 69-74; C. Wilson, 1941, p. 39]. German linens ultimately skipped Haarlem on their way to British ports [C. Wilson, *ibid.*, pp. 55-56]. The proportion of Bordeaux exports which went to the United Provinces bound for Germany and the Baltic declined from 53 percent in 1717-21 to 21 percent in 1764-66 while that of exports direct for the "North" rose from 10 percent to 51 percent [Crouzet, 1968, p. 256]. From having been the "regulating granary" of Europe in grain, Holland by the 19th century was merely a dumping ground [Wright, 1955, p. 171].

Long-distance trade by sea need have no connection with domestic industry. It is not clear whether this is accidental: "the absence of any large export industry which could form the solid backbone of exports and domestic investment" [C. Wilson, 1941, p. 187] or in the nature of colonial trade. A reviewer of an eight-volume work on Bordeaux notes that "Just like Athens in the classical period, or Carthage in the Roman epoch, or Venice in the



XVI century or Amsterdam in the XVII, Bordeaux found itself operating, in the XVIII century, as a center for the deposit and distribution of a flood of goods which passed from one hemisphere (sic) to the other.....left behind by all those ports like London, Le Havre or Marseilles which were connected to the great European industrial centers" [Olivieri, 1973, pp. 454-56].

"A merchant is not necessarily a citizen of any country" said Adam Smith.

"It is in a great measure indifferent to him from what place he carries on his trade" [Smith, 1776, p. 395]. Smith's understanding of trade is not always complete: he believed that the merchant employed in exchanging corn from Koenigsberg for wine from Portugal brought both to Amsterdam because he felt uneasy separated from his capital, and wanted to see it enough to compensate for the double charge for loading and unloading [Ibid., pp. 421-22]. This ignores the stapling functions of quality control through grading, packing, storing and the like. But "merchants knew perfectly well in what manner (commerce) enriched themselves. It was their business to know it. But to know in what manner it enriched the country was no part of their business" [Ibid., p. 403].

To the extent that the entrepreneurship thesis is valid, it differs in Holland (and Hamburg and Marseilles) from the formulation applicable in Britain and most of France. Dutch merchants did not withdraw their capital to buy land and enter the nobility as the British and French sought to. There was too little land available for the purpose [C. Wilson, 1968, p. 35; Haley, 1972, p. 49; but for a contrary view see Geyl, 1961, p. 164]. The First Hand closed ranks, formed a tight oligarchy, resisted new entry, and moved gradually out of trade into conspicuous consumption and banking. Moreover it was international, not domestic banking, and like Dutch trade unconnected

with domestic industry. Charles Wilson overstates the case when he writes that finance became the handmaiden of the industrial revolution in England, but in Holland the mistress of a plundered and bankrupt household [C. Wilson, 1941, p.188]. Holland's commercial role went into sharp decline by 1750; its financial role, despite crises such as those of 1763 and 1772, lasted until the Napoleonic Wars. In the long run, finance remains more concentrated, and is slower to cultivate direct relations outside the center than is commerce.

### III

In the United Provinces, the commercial revolution was not followed by an industrial revolution. In Britain it was. But the British were not seeking to expand commerce as a basis for industrialization when at the end of the 16th century and throughout the 17th they deliberately set out on mercantilist lines to rival Dutch commerce. On the contrary, they were bent on taking over the Dutch monopoly. The Duke of Albemarle said (later) "What we want is what the Dutchmen have" [Williams, 1970, p. 484]. Sir Josiah Child listed 15 respects in which the English should ape the Dutch [C. Wilson, 1965, p. 40] because with his compatriots he wanted to take over the rents inherent in Dutch gains from trade. To the extent that the commercial revolution in Britain determined the subsequent changes in industry - "perhaps determined" them [Mantoux, 1961, p. 92] it was accidental rather than by design.

Like its Dutch counterpart, The East India Company was established at the end of the 16th century. In 1614 a group of London merchants tried to escape the monopoly of textile finishing by forbidding the export of undyed cloth [C. Wilson, 1968, p. 31]. The effort broke down by 1622. A proclamation of 1615 urging the use of English ships found little favor with Yarmouth, Hull or London merchants [Barbour, 1929-30, p. 114]. Half a

century later, however, these policies began to take effect. The Navigation Acts were adopted in 1651, strengthened in 1661, and supplemented in 1663 by the Staple Act which monopolized the carrying trade of the colonies [Williams, 1970, p. 484]. New Amsterdam was exchanged for Surinam after the Second Anglo-Dutch War and rechristened New York. Export restrictions were applied in wool in ; the earliest restriction on export of machinery was that of the stockingframe in 1698. At the same time measures of protection of British industry were begun (and continued throughout the 18th century) in iron, linen, sailcloth, and to keep out calico in an effort to protect woollens.

A revolution in British trade consisted in the "sudden and rapid growth in re-export trade from negligible to one third of exports in 1699-1701" [Davis, 1954, p. 94]. In the hundred years after 1660, "the English merchant class was able to grow rich, to accumulate capital, on middlemen's profits and on the growing shipping industry which was needed to carry cheap sugar and tobacco, pepper and saltpeter on the ocean routes. Although re-exports and these imports called for no investment in home industry, but only in trade, this could be called the commercial revolution [Ibid., p. 95].

As Dutch commercial vitality in colonial products diminished, that of Britain (and France) rose. The initial monopoly of London in the established trading companies and under the Methuen treaty of 1703 with Portugal made the outports restive. The West Coast ports were better located for Atlantic trade; Bristol, Liverpool, Exeter and Glasgow moved into triangular trade with West Africa and the West Indies and American colonies, and direct trade to the American colonies. Glasgow specialized in Virginia and Maryland tobacco, by 1750 outstripping London, Whitehaven, Bristol and Liverpool [Price, 1973, p. 590], and stapling it for Amsterdam and French ports by virtue not of value-

added in sorting, packaging and the like, but on the basis of the monopoly of British ports conferred by the Navigation Acts.

The great West-Indies merchants like John Pinney [Pares, 1950], or John Gladstone [Checkland, 1971] were "speculative merchants", forced into sugar plantations largely by the necessity to take over the properties of those to whom they sold slaves on credit or advanced funds for other purposes. The record shows little interest in improving such plantations, beyond hiring the most efficient overseer possible. John Gladstone never visited the Indies and John Pinney's "great pride" was "to be considered as a private country gentlemen" [Pares, 1950, p. 141]. Both had more money than they knew what to do with. The Pinney merchant house speculated in cotton and sugar, and once put £10,000 into the Great Western Cotton Works [Ibid., p. 331]. For the most part they invested their profits and slave compensation money in English land, government securities, and railway shares [Ibid., p. 319]. John Gladstone supported the industrial revolution to the extent of contributing to the education of artisans and workers through the Mechanics and Apprentices Library [Checkland, 1971, p. 176]. He toyed briefly with the idea of buying a country bank which had suspended payments in Gloucester in 1825 [Ibid., pp. 182-83], but the deal fell through. For a man without pretensions to enter the aristocracy, there were not many investment outlets apart from houses and estates before the railroad boom and limited liability. "He knew little of industry, for the world of a Liverpool merchant prince was distinct from that of a factory owner [Ibid., p. 198].

The connection of gains-from-trade commerce with industry were limited. To a small degree Bristol went in for staple-based industries. It had 20 sugar refineries in operation in the middle of the 18th century, glass-making



for home demand and exports, tobacco-processing, a chocolate industry established in 1731, and a range of metal manufacture [Minchenton, 1969, p. 43]. But the city lost ground in the 18th century for a variety of reasons - delays in modernizing the harbor and the lack of a hinterland caught up in the industrial revolution [Minchenton, 1957b, p. xv]. This reverses the causation from industry to commerce. It savors of understatement to say "not all overseas trade had industrial consequences [Minchenton, 1969, p. 44]. Glasgow was important in colonial trade and in manufacturing, but there was no connection between the tobacco fortunes and the cotton factories [Campbell, 1964, pp. 17-19]. Merchants became landowners [Devine, 1971, passim], bankers, or plantation owners overseas, not industrialists. Minchenton is forced to deny Eric Williams' claim that "profits from West African and West Indian trades provided one of the main streams of accumulation of capital in England which financed the industrial revolution [Minchenton, 1969, p. 47].

Recent research, to be sure, has concluded that the industrial revolution did not need large streams of capital from commerce apart from working capital furnished by merchants. Fixed capital needs were small, and expansion was financed by plowed back earnings [Crouzet, 1972, passim]. As we shall see presently, an exception existed for South Wales in iron and copper, but not in tinsplate or copper. For the most part, however, the industrial revolution was not characterized by a discontinuous leap in rates of savings and capital formation, as economic historians have long thought.

At the other end of the analytical spectrum from the Merchant Adventurer seeking large gains from trade in overseas operations was the value-added merchant who operated internally to create a national market within Britain. Bit by bit a mercantile system evolved, starting with a single emporium or

relay center, which like Amsterdam in the 17th century world, served as a hub for the system while information was a scarce input and transactions costs high, and gradually was replaced both by direct connections which bypassed the initial pivot, and by the development of new and more efficiently located markets in some commodities, such as Manchester for cotton, cotton yarn, cotton gray-goods and finished cottons.

London was the initial relay, for domestic as for foreign trade. The monopoly in foreign trade was man-made; that in domestic was an evolutionary construct. In 1677, London had 1686 merchants - although it is unclear what this means in the absence of unambiguous definitions. It was the entrepot of England, with the postal system at its inception in the 17th century radiating out along five or more great roads from London, and with one rate charged for a letter to or from London and double that for letters between other parts of the country, on the theory that all letters went to, from or through the capital [Westerfield, 1913, pp. 417, 419].

Trade was local, national and international. In the early stages both national and international trade went through London. International trade separated itself first to the outports [Court, 1938, chapter ix]. The merchants of Leeds and Wakefield finally gained full control of the Yorkshire export trade, and routed it through Hull, rather than London, forty years after 1700 [R.G. Wilson, 1971b, p. 147]. Inland traders were less important than exporters in the first half of the 18th century but seem to have used London still to a considerable extent [R.G. Wilson, 1971a, p. 82]. In import-competing goods with no export market, national marketing took place through London merchants, whether in silk as illustrated by Sir Thomas Lombe in London, or ribbons, manufactured in Coventry but sold through 12 merchant-manufacturers with warehouses in London and Coventry [Prest, 1960, p. 49].

The evolution of the process is seen in detail in cotton. In the first half of the 18th century, London was the center for the greater part of the sale of Manchester goods, home and foreign, and a merchant like Joseph Hague made a fortune in London as both importer of cotton for Lancashire and dealer in cotton goods [Wadsworth and Mann, 1931, p. 237]. The change to Manchester took place more rapidly in cloth than in raw cotton, where London remained the main port until 1795 - a decade after the industry had begun exporting cloth. London lost out in cloth slowly after 1780, and rapidly from 1790 when Liverpool, Manchester and Glasgow merchants took over. Ultimately Glasgow cloth was marketed through Manchester [Edwards, 1967, pp. 107, 151, 171, 176]. At the end, only surplus stock was sent to London [Ibid., p. 181]. In the 19th century there began the movement of some manufacturers into the merchant function - buying cotton in Egypt and the United States, and dispatching cloth to commission agents at home and abroad [C. Wilson, 1955, p.180]. The industry was one, however, in which the merchant system remained powerful and prevented wide development of direct selling. Woolens moved to direct trading [Allen, 1939, p. 260]. In cotton textiles, failure to eliminate the merchant led to an unnecessarily large number of separate qualities of product since the merchant lacked motive to induce the customer to change specifications, however arbitrary, and could transfer orders from one manufacturer to another until he found one who would fill them [Robson, 1957, pp. 92-95]. Like Amsterdam or London as a trading relay, the merchant is efficient at a certain stage of economic development, and dysfunctional beyond it. In the functional stage, it is important to have trade develop with the scale of industry. Thereafter it helps to have the merchant ready to withdraw. The speculative merchant finds no difficulty in withdrawing provided that he is attracted

into the high-prestige vocations of banking, or public service, or the high-prestige avocation of country life.

Between the pure types of gains-from-trade and value-added merchants broadly represented by the tobacco importer of Glasgow and the cotton-yarn specialist of Manchester lay a wide number who combined both functions. Perhaps the woolen trades provide the best illustration. In the 17th century Exeter was the scene of a flourishing export trade in woolens woven in Devon. The dependence of the weaver on the merchant is illustrated in Tiverton's action when a merchant died in 1765 in sending to Exeter for another [Mantoux, 1961, p. 65]. Exeter first shipped its serges to London which relayed them to Amsterdam for finishing and distribution on the Continent. London took the finishing away from Amsterdam. Then Exeter shipped direct to Amsterdam. Later Exeter took over the finishing from London and Amsterdam and shipped direct to Hamburg, Oporto, Cadiz [Hoskins, 1935, chapters 2,3]. While these changes were occurring, however, Norwich came up in worsteds and Devon serges began to decline. As early as 1714 Sir John Elwill, a leading Exeter merchant, writing to a Dutch client, noted that "mixt serges (were) not worn by Many Sort of people as formerly." In comment, Charles Wilson suggests that it is not altogether fanciful to seek part of the explanation for failure in the relative weakness of the link between manufacturer and merchant. In Devonshire the two functions were often separate; in Norwich and Yorkshire they were often combined." [C. Wilson, 1955, p. 177]. After a brief glory, Professor Wilson notes, Norwich which had benefited from London merchants gave way to Yorkshire where the link was most strong (Bowring put the point more generally in 1872: Exeter's decay he attributed to want of men of sufficient means and wide views to create new branches of trade when the old had gone [Hoskins, 1935, p. 53].).



To a considerable extent, however, the Yorkshire experience has been misinterpreted. A great deal of the difficulty has been caused by Herbert Heaton's attention to Benjamin Gott, a merchant who went into manufacturing and built Bean Ing, a vast mill in which all the processes from sorting the wool to packing the finished pieces were carried on under one roof. By 1800 the mill housed a thousand operatives. Heaton called Gott only an Industrial Half-Revolutionary because all his weavers worked handlooms and he supplemented their output by purchasing heavily from small domestic clothiers [Heaton, 1965, p. xix] (Compare Gras, who called Sir Thomas Lombe, a London merchant who financed a silk throwing mill on the Italian pattern on the Derwent river in 1718 as the morning star of the industrial revolution, not the rising sun [Gras, 1939, p. 178] because it used waterpower instead of steam.). There were others beside Gott who went from merchanting into manufacture, the Luptons [Heaton, 1965, p. xx], John Edwards and Law Atkinson [R.G. Wilson, 1971a, p. 60]. The outcry which this change of profession gave rise to has given a misleading impression. With very few exceptions, merchants did not enter manufacturing. When successful, they put their fortunes into land, annuities, government stock, canals and turnpikes, entered public life or retired to the country. Some like William Denison invested in land but did not retire to the country; he was interested in land for its safe return [R.G. Wilson, 1971b, p. 151]. But the gentlemen merchants of Leeds provided neither capital nor entrepreneurship for the industrial revolution.

They did, however, extend the market, and this by upgrading quality and pushing on delivery dates. Yorkshire's share of British exports of woolens rose from one-fifth in 1700 to one-third in 1772 and three-fifths

in 1800. It was accomplished, states R.G. Wilson, by concentrating on the cheap end of the market in both woolens and worsteds and leaving to East Anglia (Norwich) the better worsteds, to the West Country (Cotswolds) the fine broadcloths, and to Devon (Exeter) the serges [Ibid., pp. 6-7]. Cloth was bought in cloth halls, or purchased direct from the clothiers, but in any event was brought to the merchant's workshop after purchase and inspected [Ibid., pp. 56, 75]. No one paid attention to the lead seal testifying to measurements. It was sheared, fullled, dyed and sized by the merchant in his workshop, or on order under his direction. Price was not an issue in exports as compared with quality. "William Denison bullied his clothiers about delays and inferior workmanship and occasionally threatened withdrawal of his customs, but never attempted to dictate prices" [Ibid., p. 57]. Initially Yorkshire woolens were relayed by way of London, then Amsterdam, then sold direct to Europe. In due course the European market died down and expansion shifted to trans-Atlantic trade with the American colonies, and after interruption from 1770 to 1783 with the United States. As each major shift came in the trade, new merchant houses came to the fore and old either failed or withdrew. The shift from the German and Portugese trade to America, for example, meant new risks, especially much longer extensions of credit and new names.

Extension of the market underlined by Adam Smith was far from unimportant, but it tended to move parallel to rather than in anticipation of increases in production. Davis claims that the process of industrialization in England from the second quarter of the 18th century relied importantly on colonial demands for "nails, axes, firearms, buckles, coaches, clocks, saddles, handkerchiefs, buttons, cordage and a thousand other things, 'goods, several sorts'" [Davis, 1969, p. 106]. In nails, the nailmonger

stood between nail-maker and export-merchant, serving especially the colonial trade, grew rich and turned banker [Court, 1938, pp. 199-206]. This did not involve financing industry directly, but rather more trade.

The major systematic provision of entrepreneurship and finance from commerce to industry is found in the iron and copper industry of South Wales. Here the industry was organized from the beginning in large units, and in those branches of industry which started small - coal and tinsplate, - there was little London and Bristol mercantile capital. In iron, however, the demands of war brought both merchants and their capital, Anthony Bacon to Cyfarthfa Furnace at Methrhy Tydfil in 1765, joined subsequently by the London merchants Richard Crawshay, Alexander Raby, Sir Benjamin Hammett, Henry Smithers, Thompsons, Harfords, Grenfells. Johns regards the process as an exception in British development. South Wales has raw materials or access to them, - coal, iron, copper, tin, - but lacked an industrial tradition comparable to that of the Midlands, Lancashire or Yorkshire. When war cut off Britain from Russian and Swedish iron ore, an opportunity presented itself with few local resources to take advantage of it. London and to a much lesser extent Bristol merchants brought capital and entrepreneurship. The same opportunities did not present themselves elsewhere [Johns, 1950, chapters 2,6].

In frequent other cases trade and industry were linked in the early 18th century, but nothing came of it. At an early nonspecialized stage merchants were involved in all kinds of manufacture. The firm of Sutton and Cotesworth started out as tallow-chandlers and corn merchants in Newcastle, traded internationally in grindstones, glass bottles, lead and salt among exports, flax, hemp, madder, whalebone and wines among imports, manufactured candles and sword steel, mined coal and grindstones, and produced salt [Hughes, 1952, pp. 7, 51, 58, 59, 69]. Joseph Pease of Hull invested in trade, shipping,

underwriting and whaling, founded a bank, but preferred to think of himself as an industrialist, engaged in oil-seed crushing, white lead, whiting, soap and paint-making, cotton spinning, and through his son-in-law distilling and copper mining. Jackson calls him "one of the great entrepreneurs of the 18th century" [1972, p. 101]. He can hardly have contributed to the industrial revolution.

There were of course revolutionary figures in trade: Strutt who financed Arkwright's patent for the roller spinner and subsequent patents [Fotton and Wadsworth, 1958, pp. 63-64], Robert Owen, David Dale, Samuel Oldknow but they came from the country draper's shops, not from the merchant princes [Wadsworth and Mann, 1931, p. 239]. In Fortunes Made in Business [anon. 1883] only three of 28 industrial fortunes resulted from production of one who had started in trade. Sir John Brown was apprenticed to a cutlery merchant, having wanted to be a merchant as a boy despite family resistance, started to make his own cutlery, and gradually moved into other steel products such as files, and ended up making railway spring buffers. Titus Salt set himself up as a manufacturer to spin alpaca wool after trading in it because he could not induce Bradford spinners to spin that fiber. William Bass was a carrier of beer, then a trader, and finally a brewer. But these connections run between the humblest of value-added merchants, rather than the merchant bankers, and not at all between the gains-from-trade merchant princes and industry. David Dale who built the New Lanark cotton mills outside Glasgow was not one of the 140 pre-1776 Glasgow merchants making fortunes in tobacco, but started as an apprentice in a silk mercer's house, imported linen yarn, went then into banking and only then into cotton spinning [Fox Bourne, 1866, p. 189].



Trade thus grew with the industrial revolution, rather than starting it, as Bairoch also demonstrates [1973, passim]. In fact, it is just as well that merchants who do make great fortunes withdraw from trade. Gains-from-trade merchants have to make a fortune in a few years because their rents are likely to be competed away rapidly. Value-added merchants are usually capable of making only a few major improvements in the organization of trade or a change in product before they settle into a routine. To make a fortune and clear out leaves the coast clear for new families to enter and adjust to evolving conditions. Such new families may not exist, as noted earlier for Exeter.

If then the commercial revolution was the expansion of overseas trade in colonial goods - sugar, tobacco, tea and coffee - the merchant's role was not central to the industrial revolution. The value-added merchant aided industrialization in two ways - by urging improvements and expanding the market, and perhaps in a third way, in the usual case, by removing himself from the economic process after a limited period, and unblocking what would otherwise be a barrier to change. The process of building the market proceeds by stages - first through a relay point like London, and a relay institution like the merchant. As information becomes widespread and change slows down, to maintain the old circuits is inefficient.

#### IV

French foreign trade expanded somewhat faster than that of the United Kingdom during the 18th century, and trade of some ports - notably Bordeaux, the real exports of which grew at a compound rate of 4.1 percent per year, much faster. Fortunes were made not only in Bordeaux, but in Marseilles, Nantes, St. Malo, Rouen, Le Havre among ports, and by the great merchants - négociants - of inland cities Paris, Lyons, Amiens, Beauvais, Le Mans and the like. Much of the trade of the ports, however, like that of Amsterdam,

Bristol, Liverpool, Glasgow, was only loosely coupled with domestic production in France and thus had little to do with the industrialization process. Within France there was a commercial and equally an industrial evolution - without the discontinuity one finds in the Britain of the last quarter of the century. The négociants reaped large gains from trade and big fortunes. Some went into banking. Many bought seigneuries (landed estates) and offices available from the King including ennoblement. To a greater extent than in Britain, ports were populated by foreign merchants, or Protestants of French origin, usually nominally converted to Catholicism, whose loyalties ran partly or wholly to fellow-religionists and family members abroad. The internal market developed first through the relay of Paris, and a lesser extent, Orleans and Lyons, which were finally overcome through direct shipments. Annual and semi-annual fairs gave way in the century to continuous distribution.

French economic historiography has given us a rich detailed picture of the position of the separate ports, and of the textile trades of Beauvais and Le Mans, based on archives and notarial records - Admiralty accounts, rolls for special taxation, and individual marriage contracts, testaments, and bankruptcy proceedings. The prosperity of the ports was due above all to overseas trade. Trade of the Middle Ages in wheat, salt and wine gave away after the middle of the 17th century, and especially in the last quarter, to preoccupation with sugar and slaves, and to a lesser degree coffee, cotton and indigo. Saint Malo and Nantes were deeply engaged in fishing for cod off Newfoundland, which was dried or salted for distribution to the Catholic peasantry of France, and as well, along with salt beef from Ireland, to slaves in the Antilles. In the course of the 18th century, Bordeaux prospered especially because of her window on the Atlantic and her good

relations, based on the ancient trade in wine, with Holland and the Baltic to which excess supplies of sugar, coffee and indigo were relayed.

Nantes (and its neighbor Lorient) had the privilege of the French East India Company (until 1769) and was a center of trade in spices. Its success, most marked in the first half of the century, was owing to its accumulation of capital from the Indian trade, and its threeway trade in slaves and sugar. Well placed for the movement of high-value products like spices to the interior, its long-run disability lay in poor road and river connections with Paris [Meyer, 1969, pp. 66, 252]. The salt, cod, sugar, drugs and spices brought to Le Mans from Nantes had to be transhipped from boat to horses and cart at Malicorne [Dornic, 1955, p. 103]. Bordeaux was not much better situated. It could supply planters in Martinique and Saint-Dominque with flour, wines, brandy and salted food, cod transhipped from Brittany or beef from Ireland, but was far from manufacturing centers of France. Crouzet claims this was not important since the biggest export item was textiles and they were not heavy [Crouzet, 1968, p. 210]. Inward shipments were handicapped by high transport costs, administrative and customs obstacles, not to mention low incomes. They consisted of Spanish wool, salt and dried fish, and above all sugar and coffee. Soap, dried fruits, rice, drugs, perfumes and oils came by water from Marseilles [Ibid., p. 275]. Elsewhere Crouzet suggests that if trade is regarded as a superficial phenomenon in France, so was it in the United Kingdom, and that Bordeaux, Nantes and Rouen furnished the colonies the textiles to clothe the slaves, materials for sugar mills, sails, cordage and cannon for ships [Crouzet, 1966, p. 265]. The list seems skimpy. Meyer produces a longer one for Nantes, nearer to the manufacturing centers than Bordeaux, - luxury articles wanted by the planters - (furniture, silver, books, clothes) - food for

slaves: dried cod from Newfoundland, salt beef and butter from Ireland and Brittany; food for the planters: flour, grain, wine, brandy; construction materials: bricks, lime, wood; cheap cloth for the slaves, etc. and calls them of "mediocre" or "feeble" value [Meyer, 1969, pp. 164, 225]. It is hard to accept Crouzet's contention that commercial expansion was a strategic factor in the growth of industry, or that the international conjuncture spread to the peasantry - whose economic life was rather dominated by the state of the harvest well into the nineteenth century.

If overseas commerce did not help greatly with demand, there remains the question of capital formation. Fortunes were made at Nantes and Bordeaux in 10 to 15 years, Arthur Young said [quoted Meyer, 1969, p. 207]. Many of these were consumed in purchases of seigneuries and the building of chateaux. Others found their way into banking. Some went abroad. Foreign merchants never completely dominated the merchant communities of France, but they frequently led them. Bordeaux was a melting pot, and at the top of society the foreign merchants, living assembled at Chartrons and connected through the "Protestant international" to Huguenots and other Protestants not only at other French ports but at Amsterdam, London, Geneva [Poussou, 1968, p. 345; Crouzet, 1968, pp. 213-24]. Not all foreigners were Protestants; among them were Irish and English Catholics, themselves religious and political refugees as the Huguenots were from France. As the total number of négociants recorded by Carrière in Marseilles rose from 275 at the beginning of the 18th century to 750 near the end on the eve of the French Revolution, the proportion of foreigners went from 10 to 18 percent, and those of French from the Languedoc and Dauphiné, largely Protestants if nominal converts, from 9 to 28 percent [Carrière, 1973, p. 280]. Some Huguenot capital was exported from France following the Revocation of the Edict of Nantes and particularly



in the waves of penalties against failure to abjure Protestantism begun 10 years before 1685 and lasting as late as 1730 [Scoville, 1960, chapter 2]. It was easy for merchants and shippers to export gold, silver, jewelry, furniture. Van Harzel, a Dutch Protestant, who possessed the second largest fortune in Nantes in 1715 - 400,000 livres - escaped in 1730 with his entire wealth [Meyer, 1969, p. 173]. Contemporaries and later scholars made a great deal of this loss, and of the dependence on Marseilles and even Nantes merchants on Swiss funds of the "Protestant diaspora" [Dermigny, 1960, p. 209], but this is denied [Carrière, 1973, 930ff]. The Protestant infusion of the négoce, however important, owes a great deal to the movement of Protestants excluded from charges and offices and with inhospitable farmland off the southern slopes of the Central Massif, to Bordeaux and Marseilles [Cavignac, 1967, p. 30, Carrière, 1973, p. 279]. Foreigners took part when a port failed to maintain representatives abroad - as Marseilles, not deeply engaged in Northern trades, let Swiss, German, British, Dutch agents buy, rather than itself sought to sell [Carrière, 1973, p. 274] or in some views filled a vacuum left by French disdain for commerce [Mathorex, 1919, chapter II, section 1]. Or it could possibly be regarded as a supply response with excess German potential merchants, limited by the closed ranks of the Hanseatic cities, and anxious to join the race for fortunes, finding a place in French ports and even in the West Indian islands. Jean-Jacques Bethmann (sic) was the richest shipowner and one of the greatest merchants in Bordeaux, of Frankfurt-am-Main origin, and there were many others [Cavignac, 1967, p. 30; Thésée, 1972, p. 10]. Spanish and Portuguese Jews expelled from their countries were not numerous, but some of them were among the most prominent. Abraham Gradis had many friends in high places, was owed money by the Marshall of Richelieu and the Duke of Lorges, and died, some

years after a loss of 2,7000,000 livres tournois with a fortune of 10,000,000, second only to that at 15 millions in 1791 of the Languedocian, Francois Bonaffé, a Protestant who married a Creole in Guadeloupe [Poussou, 1968, pp. 349-50].

As in Britain, there are a few examples of close connection between commerce and industry. The Dolle brothers, originally from the Dauphiné, made money in commerce with the Antilles, via the fair of Beaucaire, and moved to buy plantations in the Islands, rather than land in France. In 1787 they explored the desirability of going into linen weaving in Grenoble to assure a supply of cloth for their slaves [Léon, 1963, p. 87]. This conveys a hint of market failure, that adequate supplies would not be available at appropriate times and prices when needed, although perhaps it is nothing more than an outlet for surplus funds. More apposite, but also more debated is the Huguenot ship-owner, Antoine-Jean Solier, who took funds from his correlative in the calico printing (indiennes) trade, whether in Switzerland to which they had been expelled by the Revocation of the Edict of Nantes, or after their return to France in the Oberkampf plant at Jouy [Dermigny, 1960, passim]. Solier et Cie was a négociant in general as well as a specialist in import of undyed calico from India, and it is not certain that Swiss participation in this last trade was more significant than any other.

One odd connection between trade and commerce led through land. The merchant retired to the country on an estate, but then entered industry as a maitre de forge on the basis of iron discovered on the property and woods available for charcoal. Le Nicolais of Laval was a négociant blanchisseur who acquired the forge of Aron in this way [Dornic, 1955, p. 171]. Another was Narcisse L., associated with his father in the wine trade in Paris who,

in 1833, took on interests in mines and blast furnaces [Daumard, 1970, p. 368]. The equivalent in Glasgow was the tobacco merchant whose land turned out, or was known in advance to bear coal, and led its owner into the coal, salt or iron business [Price, 1973, p. 587; Hughes, 1952, chapter ii].

Rouen and Le Havre were more closely connected with industry, and Rouen more than Le Havre which participated in the colonial trade. Woolens and linens of Northern France were sold at fairs at Caen and Guilbray and shipped over Rouen when exported. More important was the growth of the cotton-textile industry, based on cotton imported from the Islands, and the putting-out system operated by Rouen merchants. "Siamois", a mixture of linen and cotton patterned after the dress worn by the ambassador of Siam and the members of his suite in 1684, were one speciality. Total production rose rapidly in Rouen and its parishes from 50,000 pieces in 1717 to 489,000 in 1767, and were exported as well as sold within France [Dardel, 1966, p. 119]. As Britain mechanized, Rouen tried to follow suit, with the aid of British workers, merchants and manufacturers. Fortunes were perhaps made more quickly in the colonial trade either directly, or via Cadiz, than by industry, and in banking, which was closely associated with Paris. Rouen was more like Liverpool, Bordeaux like Glasgow, except that Liverpool was associated with an innovative textile center, Rouen with an imitative. It was badly hurt by the Eden treaty of 1786 which lowered duties in English textiles and earthenware.

Apart from Rouen, the grand négoce of the ports had a limited connection with the industrial evolution of France. The same was not true of the great merchants of inland cities, insofar as they have been studied. France is a hexagon, closed against the outside world, but connected in-

ternally by a communication network. Until the 18th century, this operated commercially with Paris as the entrepot, pivot, or relay. In the sixteenth century the brightly colored cloths of Paris and Rouen were being sold in the Languedoc by merchants travelling to fairs [Le Roy Ladurie, 1966, pp. 123-26]. At the end of the 17th and beginning of the 18th century, Paris began to be eliminated by direct selling. In 1650, Beauvais sold its linens two thirds to Paris and Lyons, with the rest local or exported over Rouen. In 1690 exports had gained at the expense of Paris, and direct relations had been established by Beauvais merchants with Montpellier, Toulouse and other inland cities. By 1730, the role of Paris had shrunk to very small proportions. Lyons sustained its trade. In the early period it had been a relay point for the south. Later it served as a stapling place for exports to Switzerland and Italy [Goubert, 1959, maps, pp. 29, 71, 103]. Over the eighty years and throughout the rest of the 18th century exports grew to a preponderant position because of the competition at home from cotton cloths. The high quality demi-Hollandes of the seventeenth century became an export staple because of the loss of home demand. By diverting the existing supply to new outlets, the Danse, Motte and other mercantile dynasties relieved the pressure on Beauvais manufacturers to keep up with technological change, and thus contributed indirectly to their fossilization and ultimate decline.

Paris remained the relay longer for the newer goods in greater demand. While Oberkampf at Jouy (after 1759) sold no indiennes in export markets, it used Paris as a center of consumption and for redistribution to distant points. Alongside this network, however, there developed marketing directly through the established textile centers: Abbeville, Amiens, Beauvais,



Troyes, etc. and the establishment of depositories who handled shipments to fairs [Bergeron, 1973, p. 19]. There was of course specialization. One Parisian indienneur, Dubois, sold 4/5th of his output in the provinces; another, Jarry, mostly in Paris [Ibid.]. In silk, another high-grade product, as well as in printed cottons, Lyons sold through Paris throughout the century, apart from export sales. Two thirds of domestic sales went through the relay of Paris, rather than directly and the "overpowering superiority of Paris limited the direct intervention of Lyon négociants in the rest of the country" [Garden, 1973, p. 20]. Even in silk, however, Paris was a rival but did not dominate [Ibid., p. 24].

There were some interesting features in the trade in etamines, a loosely woven light woolen cloth in which Le Mans and the surrounding cities specialized. The numbers of négociants in Le Mans engaged in this product was seven in 1712, a dozen toward the middle of the century [Dornic, 1955, pp. 45, 59]. It is stated that these négociants followed the extension of the master manufacturers "or at least did not precede it", but became the masters of the trade by buying, finishing and shipping the cloth [Ibid., p. 53]. Le Mans and its surrounding towns specialized in etamines dyed black, which was sold in large quantities to monks and nuns within France and to Italy as well. Domestic sales through fairs were handled largely by merchants from Paris or other towns, rather than by the marchand/drapier mercier of Le Mans who existed in large numbers or the Le Mans négociants [Ibid., pp. 1, 43, 100, 105]. Like demi-hollandes etamines lost out to cotton textiles, and also suffered from the deterioration in the quality of wool, Paris merchants dropped out of the trade, leaving the great merchants of Le Mans only with overseas trade.

The account of textiles in Maine provides a footnote on Paris as a relay in the "curious commercial circuit" in linens. The Abbey of Le Beauvais in Le Mans bought linen for shirts, underpants and stockings from Alençon, 30 kilometers to the north and slightly west each year from 1713 to 1730. These were delivered at the end of January or beginning of February, like other linens bought from Rouen for surplices, table linen and handkerchiefs, by a certain Marigner, wholesale cloth merchant of Paris, 100 kilometers to the east of Le Mans [Dornic, 1955, p. 109]. Dornic suggests that the explanation lies in the state of the local roads in winter. Another possibility is that until direct selling took over especially in the declining products which lost out in the French luxury market, the relay of Paris remained critical. In foodstuffs, of course, it continued at Les Halles in Paris until the market was moved to Orly in the 1960s.

By the middle of the 18th century, Paris like London and Amsterdam was shifting from trade to finance. It continued to invest in trade, through the trade of the ports. One scholar states bluntly that Paris in the 18th century was a financial not a commercial city [Cavignac, 1967, p. 132], but this presumably would apply more fully to the second than to the first half of the century. But the funds were invested but little in industry. Le couteulx, Paris banker and Rouen merchant, invested in textile manufactures in Rouen, but mainly trafficked in Spanish piastres through his Cadiz branch [Ibid.]. Paris was a relay for money which went back to the ports and to foreign trade, when it was not used to buy privileges from the court, rather than into industry. At the same time, the commercial network within France, if not the superficial but profitable trade of the ports, evolved side by side with the progress in production.

Germany has been characterized as an economy without highly developed commerce, and one which sprang directly from traditional society to industrialization without passing through an extended commercial development [Borchardt, 1971, pp. 89-90, 145-46; Kocka, 1974, p. 9]. In the early 19th century, a British observer characterized Münster as having "little commerce", claimed that the "commerce of Hanover (is) inconsiderable despite the connection of Bremen" and further that:

"A body of merchants and manufacturers, who by their capital give employment to numerous workmen, and who like country gentlemen are too rich to be dependent on the smiles or frowns of the court, is not to be found in Prussia [Jacobs, 1820, pp. 94, 116, 225]

Bavaria was marked by a lack of a considerable group of great merchant families and great distant trading houses [Schremmer, 1970, p. 594]. In Baden, merchants were mistrusted as swindlers and speculators and the task of industrial development (Gewerbefoerderung) was to protect and strengthen the middle class against them [Fischer, 1962, p. 79].

This picture is perhaps one-sided, leaving out as it does the Hanseatic cities - Cologne, Bremen, Hamburg, Lübeck, the Rhineland and Frankfurt-am-Main, in which merchant communities were highly developed. Cologne had sunk back from a leading position in international commerce as Antwerp and Rotterdam proved better located for stapling. In its turn, Lübeck, the site of Thomas Mann's novel of a merchant dynasty, Buddenbrooks [1901], lost out to the better-located Hamburg and Bremen. These cities, however, developed their own merchant dynasties, with Hamburg especially strengthened by displaced Huguenots in the early 17th century and by refugees from the French Terror at the end. Hamburg specialized in short-haul trade to the

Baltic and above all London. It became known as the "English city". Bremen developed long-distance traffic, especially trans-atlantic, in tobacco, cotton and rice. Hamburg dominated in sugar, coffee, hides, tropical wood and wines. Bremen complained that it lacked an export product, as Hamburg had grain and the Baltic ports grain and wood [Rauers, 1913, pp. 13-15]. Frankfurt was the gateway for British goods to southern German states.

Frankfurt and Hamburg differed profoundly in social and political ways. Frankfurt was a creation of the Prussian emperor, who established the Frankfurt fair there, at the major crossing on the east-west trade route of central Europe. When the Zollverein was formed under Prussian leadership, Frankfurt found membership irresistible. Hamburg was republican, oligarchic, devoted to trade, shipping and finance to the exclusion of all else. The leading merchants associated but little with bureaucrats from government, refused to accept titles, and frowned on intermarriage with Prussian officers [Eckardt, 1910, I, p. 200]. In contrast to Augsburg whose merchants were anxious to be ennobled, the city not only forbade ennoblement as a strict rule as early as 1276, a regulation renewed in 1658 and practiced throughout the 17th century, but stated on the earliest of these occasions that no knight could live in the city [Schramm, 1969, p. 82]. Hamburg was a miniature Holland, populated by gains-from-trade merchants stapling commodities produced for the most part at a distance. It resisted incorporation in the Zollverein and the Reich, until the patriotic surge of 1870, and even then it remained a free port, rather than an integral economic member of the Empire, for another decade and a half. Within Frankfurt, moreover, there was a difference of view between the patrician merchants who wanted to stay out of Zollverein, and the new group



who succeeded in winning adherence [Bohme, 1968, passim]. The difference corresponds roughly to the gains-from-trade leading merchants, interested in overseas trade and especially British goods, and value-added men concerned with developing the local market.

Limited economic development in most of the German states, and especially poor transport connections among them, and political separation, led to stunted commercial growth outside the Hanseatic states, Frankfurt and the Rhineland. The Rhineland and Westphalia were different from the other German states even before guild restrictions were eliminated by Napoleon at the end of the century. Merchant networks large and small were much more fully developed. Barmen and Elberfeld concentrated in textiles, and especially bleaching and dyeing, with the former emphasizing production, the latter marketing. What is impressive about Barmen and Elberfeld is their capacity to shift as comparative advantage was lost - from linens to cottons and then to ribbons and embroidery. When high wages and English competition with machine cottons made it necessary, a plant was moved across the river to Gladback-Rheydt. By the end of the 18th century, the mercantile elite with customers throughout Europe, and especially France, the Netherlands and London, was a close-knit oligarchy, cut off from the aristocracy as the English and French were not, and turned inward into a life of luxury - horses, servants, finishing schools for daughters, wine, jewelry and speaking French. Of the 300 mercantile houses in Frankfurt, 240 were of German origin and in 1776 some 50 to 60 of them were from Barmen and Elberfeld [Kisch, 1972, pp. 347, 363, 383, 387]. Similar mercantile towns existed in the Krefeld and Munster, not to mention Cologne.

Silesia was otherwise. The linen trade flourished from the 16th century only when Dutch and English merchants by-passed the guilds because they could not adjust to the requirements of foreign markets [Kisch, 1959, p. 543]. By the late 17th, early 18th century Silesian linen dominated the world, and produced a class of wealthy merchants, who loaned out their profits in mortgages of the aristocracy and, when they could, acquired estates [Ibid., p. 552]. When linen lost its overseas market to cotton, the only response was lower wages and fraud and adulteration [Blumberg, 1960a, p. 99].

The merchant class in the Rhineland seems to have furnished entrepreneurs for industry, but the petty merchant class rather than the Grosskaufmänner. A study of Rhenish and Westphalian entrepreneurs notes that many of them in the 19th century came from merchant families of the previous century [Zunkel, 1962, chapter 1]. The author comments that whereas in Britain entrepreneurs came largely from artisans, in Germany merchants played at least an equal role [Ibid., p. 25]. These small merchants, Kaufmänner rather than Grosskaufmänner of the sort found in Hamburg, went from putting out into manufacturing, like J.G. Brugelmann who built the first mechanical cotton-spinning works at Ratingen near Düsseldorf in 1783, five stories high, with 1600 spindles, and partly but not entirely waterpowered [Adelmann, 1970, p. 86]. Until 1830-50, foreign trade and financing of foreign trade were largely in Dutch hands. Krupp, Stinnes, Haniel, Liebrecht, Ehrenbold also moved from trade to production in iron and coal in the first half of the 19th century [Wutzmer, 1960, pp. 148-50]. Mannesmann at Remscheid was a printer and merchant who started a file factory in competition with British imports [Zunkel, 1962, p. 26]. "It was not the successful handworker who made it big, but his son, who, converted from being a powerfully capitalized

merchant, used the corporate form, and hired a technical man who remained in the second rank" [Aycoberry, 1968, p. 518]. On the other hand, in Switzerland in the textile industry, factory pioneers were technical people, not financial, trade or managerial [Braun, 1965, p. 78]. Elsewhere, however, Braun noted that the north of the Alps there formed a local stationary class of merchants united in guilds parallel to the handwork guilds of the city, who were interested in innovation, achievement-oriented, and busy not only in trade, traffic and finance but also in production. He cites the Geneva watch industry along with the Zurich textile industry, as linked to city merchants, who, once the restrictions of the ancient regime were lifted, put forth a tremendous burst of energy [Ibid., pp. 263-64].

There is some slight evidence of merchants investing in industry. A table of professions of the founders (original stockholders) of 61 companies in Prussia in the 1850s, covering 480 individuals, showed 32 percent merchants, 14 percent manufacturers, 12 percent state officials, 11 percent bankers, 7 percent large landowners and 1.3 percent military. The representation of merchants in mining in Silesia was lower than for Prussia as a whole, dominated by the Rhineland [Blumberg, 1960b, p. 196]. In one Cologne cotton spinning and weaving plant, 29 merchants, 8 bankers, 2 manufacturers, one mine-owner, one newspaper published and 2 state officials were investors; and in a Silesian mine, 3 mine-owners, 13 merchants, 13 mine officials, 22 independent artisans and tradesmen, 8 officials, 4 millowners, 2 teachers, 2 doctors, 2 innkeepers, 1 "investor", 1 printshop owner and eight other persons [Ibid., p. 201]. The Stinnes coal and iron complex in 1850 had 41 living stockholders in Cologne consisting of 14 merchants, 7 bankers, 7 rentiers, 1 mine-owner, and one each of the occupations of director, building inspector, major general, chief accountant,

judge, privy councillor, inspector, lawyer, doctor, lady, widow [Zunkel, 1962, p. 52]. The evidence is available only for the period after our primary interest, and is highly fragmentary. It suggests, however, that merchant wealth provided one of the major sources of company capital. It is assumed that these were the value-added type of merchant rather than gains-from-trade overseas traders.

The explanation given for underrepresentation of merchants in Germany as contrasted with Britain and France has various elements: first, the late unification of the country and the failure at an early stage to build an entrepot or relay pivot apart from the fairs of Frankfurt and Leipsig; second, the disdain with which German social values regarded commercial pursuits, holding the merchant in lower status than the industrialist, in contrast with Britain where the opposite ranking obtained; and third, the early bureaucratization of the firm, with direct buying and selling combined with production in a single business entity.

The low standing of commerce in Germany (outside the Hanseatic cities and Frankfurt-am-Main) contrasted with the higher status of the nobility and the military of course, and of industry as well. Merchants were scorned as tradespeople, Händler as opposed to heroes, in Sombart's book Helden und Händler, contrasting the Germans and the British. The term contained anti-Semitic prejudice as well as a sense of economic and social inferiority vis-à-vis the British [Kehr, 1965, p. 153]. The three-generations-from-shirtsleeves-to-shirtsleeves did not apply in Germany nor was there opportunity to gain acceptance in an open aristocracy [Zunkel, 1962, p. 13]. Purchase of land in Prussia was forbidden to all but the nobility until 1807 [Ucke, 1888, pp. 8, 11] although there was brisk trade in land along the coastal lands such as Mecklenburg and Holstein. After 1807 there is evidence of



rich merchants buying estates [Kisch, 1959, p. 552] and farms which had been in the same family for two or three hundred years changing hands three, four or six times in ten to fifteen years [Abel, 1962, p. 304]. Sartorius von Waltershausen is quoted to the effect that in the 1820-1830 agricultural crisis 80 percent of aristocratic landlords lost their estates [Bramsted, 1964, p. 54], and presumably not all were broken up and sold off piecemeal to land-hungry peasants. Later estates were purchased. But the rule broadly held: while bourgeois were permitted to purchase estates after the Stein-Hardenberg reforms, and aristocrats to enter trade, for the most part the old barriers to social integration held.

Industrialization on a significant scale in Germany came in the middle of the 19th century, and relied on direct buying and selling rather than a commercial network built up by value-added merchants. There is some debate as to when German industrial "take-off" occurred [Hardach, 1972, pp. 67ff] but for our purposes the difference of 20 years is inconsequential. In mining, distribution of coal was regulated by the state, subject to price control, and did not need to rely on a mercantile structure [Jankowski, 1973, pp. 718ff]. Railroads were large-scale and so quickly were iron and steel producers. In the earliest stages of getting started, when the firm consisted of 35 workers, Albert Poensgen, of the steel tubing plant of Poensgen & Schoeller, took over all mercantile activities of the firm personally, especially supervising the routine purchasing of inputs by two employees after Dutch merchants failed to perform what he had expected from them [Hatzfeld, 1966, p. 204].

In the electrical and chemical new industries, bureaucratic organization took place from the beginning. Siemens and Halske was started by a military engineer, Werner Siemens, and quickly acquired a manager in another military

man, Wilhelm Meyer. Initial sales were of telegraphic installations for the military forces of Prussia, and the Russian government. By 1872, Werner Siemens noted the necessity to write to customers in advance of undertaking production. "Only thus can our fabrication constructions be very cheap, good, and quickly delivered" [Kocka, 1969, p. 126]. The middleman was eliminated before he had taken hold in an effort to speed up technical progress. Kocka observes that the monopoly on education which the merchant class had had earlier was eroded by general universal education, and that rather than rely on a mercantile network, large companies enforced standardization, undertook communication of goods and prices, delivered goods to inventories of shops, sold by sending samples over distances, undertook direct contact between buyer and seller [Ibid., p. 165]. Dye companies initially marketed abroad through export firms in the developing countries, and through wholesale firms in Europe and the United States. These agents were allowed, however to carry only one firm's lines. After 1885, they went to direct selling [Beer, 1959, p. 95]. The chemical industry requires intimate contact between producer and consumer to ensure proper use of frequently dangerous materials, but in any case products which must be employed in exact ways to achieve efficient results [Hohenburg, 1967, pp. 127ff].

Did the absence of a well-knit system of markets hurt? Political reality more than the absence of mercantile connections was responsible for the fact that prior to Zollverein and the railroad, Germany was not one country but a juxtaposition of a number of half-closed economies. With Zollverein and the railroad, a large German market quickly substituted for innumerable local markets [Benaerts, 1933, pp. 121-22]. It has frequently been claimed that Germany was poor in capital prior to 1980. Sombart observed

that great fortunes were rare, and the man with a mere half-million talers regarded as rich [Ibid., p. 123]. Hamburg at mid-century is said to have had 100 millionaires in mark banco (equivalent to 500,000 talers) as opposed to only seven or eight in Cologne [Aycoberry, 1968, p. 515]. But as Borchardt has made clear in a classic article, it is hard to give content to the widely held view that German's lag behind Britain in the early 19th century was the result of lack of capital. Capital markets, like goods markets were fragmented and underdeveloped, but banking institutions (and foreign credits) responded quickly to the demand for capital for such large projects as railroads and iron foundries, and once started, they proceeded on reinvested profits [Borchardt, 1961, passim]. The so-called German way to industrialization may have been delayed by the absence of an antecedent capital market built on mercantile credit but not for long.

## VI

No attempt has been made to compare numbers of merchants at various periods in Holland, Britain, France or Germany, or to evaluate such statements as that England in 1721 had 2/3rds the numbers of merchants of all Europe put together, though Amsterdam in 1671 handled 10 times as much trade as London with 1/20th the retailers [Westerfield, 1915, p. 412]. The secondary sources are weak on the merchant communities of London and Paris because of their great size and complexity, and because of the destruction of the Paris archives in 1871 [Daumard, 1970, p. 8]. A few qualitative conclusions can perhaps be drawn, however.

The widely-held view of contribution of the merchant to industrialization seems clearly exaggerated insofar as the profits of "gains-from-trade" commerce are concerned. These fortunes are neither necessary nor sufficient

to stimulate industry. They are typically consumed, invested in nonindustrial outlets, including banks which finance primarily trade or foreign governments, and in land, government stock, annuities, offices. When industry catches hold, it largely uses trade credit, finances itself with plowed back profits. In large-scale industry - South Wales iron and German joint-stock companies - one can find investor contributions from merchants and especially in the latter case banks. They are the exception.

Nor do merchants typically become manufacturing entrepreneurs, unless one limits the discussion to the putters-out of the proto-industrialization period. Again there are exceptions like Benjamin Gott among the "value-added" merchants. The great majority of merchants who made fortunes moved out of business into banking, politics or rural pursuits. Where there was no aristocracy to ape - perhaps because the agriculture of the area did not produce a surplus which needed to be guarded, or which could be expropriated by the landed aristocracy and military - merchant oligarchies formed, tended to dig in, and ultimately lead to mercantile decay. The moving off successful merchants served the economic function of removing what might otherwise have developed into a block to change.

The value-added merchant is an unit in an information network. In the early stages, information is needed to see what can be produced and what is needed or sought, and where. Surveillance of quality and delivery timeliness is one aspect of information control. Division of labor between producer and his intelligence-gathering collaborator permits maximum efficiency.

With success comes fossilization, at which stage the merchant network is a barrier to change, with the result that it is helpful to have him ready to retire. Where he clings to the old ways, decay ensues.



One general force reducing the role of the merchant was universal education. The rents earned by both types of merchants were initially based on his monopoly of calculation and languages. Apprenticeship was expensive and consisted in instruction at home and in the offices of associates abroad. Money and opportunity costs limited entry. But the spread of education competed down the rents of merchants. With information cheap, direct connections rendered the middleman obsolete when he was not dysfunctional.



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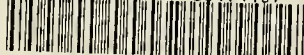
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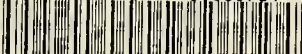
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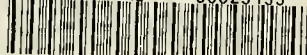
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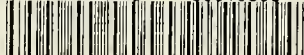
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