

CHAPTER 2. EXPANSION OF THE MARKET

Economic progress is self-perpetuating. Market expansion induces changes in production that increase productivity; increased productivity raises the income of producers and reduces the price of goods. This opens the way for further market expansion. Expansion of the market is, therefore, both a cause and a consequence of economic progress.¹

So to understand economic progress, we need to begin with market expansion—what determines the extent of the market and what causes it to expand or to contract? In this chapter, we will examine the process of market expansion in preindustrial Europe and then draw some conclusions about market expansion in general—as it occurs in all economies, including our own.

THE EXTENT OF THE MARKET

The ‘market’, in this sense, is a group of producers connected with one another through relations of exchange. The extent of the market is the potential volume of goods and services that could be exchanged profitably among the members of this group. Among other things, this will depend on the ease or difficulty of engaging in exchange. This, in turn, will depend on the arrangements available to producers for marketing the goods they produce. We begin, therefore, by looking at the arrangements for marketing in preindustrial Europe.²

How goods were marketed in preindustrial Europe

Most of the population of preindustrial Europe lived in villages. The inhabitants of these villages produced initially largely for their own consumption.³ However, they did exchange a part of their output with one another—items such as meat, ale, eggs,

¹That is, market expansion is partly *endogenous*. Since adherents of the conventional theory seeks to explain economic progress purely in terms of exogenous causes—those completely external to the process—they deny the importance of market expansion as a factor. See, for example, (Bateman 2012).

²The following description matches reality at about the middle of our period, say in the fourteenth century.

³And also to pay tribute to a predatory class that controlled access to land. We will have more to say about this at the end of the chapter and in Chapters 10 through 12.

firewood, cloth, and so on. Such exchange was piecemeal and direct—from producer to consumer—and it was largely based on credit. Debts were usually offset against one another, rather than being settled in cash.⁴

When villagers began to produce primarily for sale rather than for their own consumption, they did so in response to demand for their goods from beyond the bounds of the village. Typically, they encountered such a demand in a nearby market town.

The market town

A market town would typically serve a number of villages in a radius of six to twelve miles—the limit of a single day’s round trip on foot.⁵ Western Europe was dotted with a dense network of such towns: by 1300, England alone had some five hundred and fifty.⁶

Exchange in the market town was structured: people met to trade in a specific place, the town market, and at a specific time. Since the total volume of transactions was modest, the market was held only once or twice a week. In the market, people traded with one another directly. Since buyers and sellers were generally strangers to one another, most of the trading was for cash rather than for credit.

The concentration of a relatively large number of potential customers on market days supported a variety of specialized artisans among the inhabitants of the town. These produced such things as processed foodstuffs, textiles, pottery, and inexpensive household items. They sold their products mostly to the country folk who attended the market.

The market town, therefore, facilitated exchange between people from different villages in its hinterland and between those villagers and the inhabitants of the town itself. The market town also facilitated exchange with a more distant and broader market. However, because long-distance exchange could not be conducted face to face, it required the services of an intermediary—a merchant.

⁴This arrangement is sometimes mistakenly described as barter. Barter, however, is the direct and immediate exchange of one good for another. Here, goods are sold on credit, against a promise of payment, and other goods are received in settlement only later, and sometimes from someone else.

⁵(Clay 1984)

⁶(Masschaele 1997). Also, see (Jones 1997) on Italy.

Long-distance exchange

Merchants came to the market town from a nearby city. They purchased local products for resale in the city, and they offered for sale goods they had brought from the city. There were also some merchants who made a living trading between market towns—especially in grain; these merchants purchased grain in towns where it was relatively abundant and cheap and resold it in towns where it was relatively scarce and more expensive.⁷

The city from which the merchants came was the center of a region that encompassed a number of market towns and their hinterlands, each within relatively easy distance of the city—perhaps a few day’s travel. England in 1300 had some fifty such regional cities—roughly one for every ten market towns.⁸

Because the city had a relatively large population, it had to rely on its hinterland for most of its food and raw materials. This trade was facilitated by its merchants. The city’s inhabitants purchased their supplies in city markets much like those of the market towns. However, trading volume was often large enough in the city for these markets to be held daily. Manufacturing was a more important activity in the city than it was in the typical market town. Much of the city’s manufacturing output was sold by its merchants in market towns throughout the region.

A city’s merchants also facilitated trade with other cities (they were joined in this, of course, by merchants from those other cities). They exported some of the city’s manufactures and, perhaps, some of the agriculture produce of its hinterland. They imported from other cities different manufactures and different types of agricultural produce. Merchants also engaged in *entrepôt* trade—importing goods from one city in order to re-export it to another.

Many cities held periodic fairs—annually, semiannually, or quarterly—to facilitate their trade with other cities and other regions. Trading at these fairs was mainly wholesale, with participation largely limited to merchants. Exchange was highly organized: brokers mediated transactions between the merchants and there were notaries

⁷ These arbitrageurs were known as *blatiers* or *bladers*. (Usher 1913); (Kerridge 1988)

⁸(Masschaele 1997)

to record the transactions and courts to adjudicate disputes. At the wholesale level, credit once again predominated, cash being used mainly to settle debts.⁹

Direct exchange and mediated exchange

We see from this brief sketch of marketing arrangements that there were two basic types of exchange. At the local level—in the village and market town—people traded with one another face to face and exchange was direct. But long-distance exchange—among market towns, between market towns and cities, and among cities—was mediated by merchants who bought in one place and sold in another.

The number of potential buyers a producer could reach through direct exchange was quite limited: most potential buyers lived too far away. So the extent of the market for a particular good was determined by the willingness of merchants to mediate trade between producers and potential purchasers of the good in question at a distance.

Merchants were willing to mediate a particular trade only when it was profitable. Its profitability depended on two things. One was the difference between the price at which the good could be purchased and the price at which it could be sold—the greater the difference, the greater the profit. The other determinant of profitability was the cost of undertaking the trade. For the trade to be profitable, the trading costs had to be less than the price differential.

If for the moment we take the difference in prices as given, then the profitability of trade, and so the extent of the market, depends on trading costs. So understanding the nature of these costs will help us make sense of the pattern of marketing arrangements we have observed.¹⁰

The nature of trading costs

What was involved in buying on one place and selling in another? A merchant had to gather the necessary information. He had to deal with sellers, purchasers, and others. He had, of course, to transport the goods from one place to another. And he had to finance the whole operation. All of these things involved costs and risks.

⁹We will learn more about organized markets and how they developed in Chapters 6 and 7.

¹⁰There has recently been a resurgence of interest in trading costs among trade economists. For a useful survey, see (Anderson and Wincoop 2004).

Information costs

The first thing a merchant had to do was to identify a profitable trading opportunity. This required information on prices in different places. Acquiring this information involved the cost of long-distance communication and, perhaps, the cost of sending someone to distant markets or of maintaining someone there.

A merchant also needed information on the quality of the goods he traded. Because production was on a small scale, and because conditions and techniques differed a great deal, the quality of goods was extremely variable.¹¹ A merchant who could not tell good quality from bad would soon find himself the victim of someone else who could.¹² The cost of acquiring the necessary expertise was years of training.

Transactions costs

Once a merchant identified a potential trading opportunity, he faced the cost of dealing with a variety of people—transactions costs. There was, of course, the cost of dealing with buyers and sellers. But there was often also the cost to the merchant of dealing with his own representatives.

Merchants initially traveled with their goods themselves and negotiated directly with buyers and sellers. However, over time, as we will see in Chapters 6 and 7, merchants increasingly relied on representatives. Managing their relationships with these representatives took time and effort: indeed, much of a merchant's day was taken up with correspondence and bookkeeping.

Merchants also had to deal with other merchants—sometimes cooperating in various ways and sometimes competing for the same business.¹³ And, for reasons we will learn in later chapters, merchants had to deal with governments.

Dealing with others almost invariably involved making and accepting promises: sellers promised delivery, buyers promised to pay, representatives promised performance,

¹¹(Grantham 1999)

¹²One example: “Whenever wine was bought or sold, special precautions had to be observed, for slight variations in appearance denoting different types, good or bad, were often visible only to the eye of the expert and the amateur was often duped into buying a mixture of dregs of many good wines, or bad wines mixed with white of egg, honey and other sweetening matter.” (James 1971) p161

¹³More on this in Chapters 6 and 7.

governments promised a variety of things. The problem with promises, of course, is that they may not be kept.

Guarding against others breaking their promises involved considerable effort and expense. There was the cost of gathering information on their trustworthiness and the cost of negotiating and writing contracts. Then there was the cost of monitoring performance and the cost of litigation or other response when a promise was broken.¹⁴

But merchants had to ensure, too, that they would be able to keep their own promises: not doing so would impair their ability to enter into future transactions. The most important precaution merchants could take was to maintain their liquidity by keeping reserves of cash or by being able to borrow when necessary.¹⁵

Transportation costs

Buying in one market and selling in another incurred transportation costs—the cost of getting goods from place to place. These costs included the cost of carriage—the cost of physically moving the goods. The cost of carriage was particularly significant for goods that were heavy or bulky relative to their value. But transportation costs also included the cost of predation en route.¹⁶ Merchants faced pirates at sea, brigands on land, and tolls and taxes everywhere.

The cost of predation was not only the amount of actual losses, but also the expense incurred in trying to prevent or to avoid losses. For example, there was the cost of arming ships and of carrying larger crews to defend them. Because there was safety in numbers, merchant ships often sailed in convoy; similarly, merchants on land often traveled together in caravans. However, this also had a cost in terms of delay: it might take some time to put together a convoy or caravan. And merchants could often avoid predation by take a more circuitous route that was safer or less subject to tolls: however, again the cost was delay.

¹⁴On the importance of transactions costs in the modern economy, see (Wallis and North 1986).

¹⁵We will discuss this in greater detail in Chapter 8.

¹⁶We will discuss this in greater detail in Chapters 10 through 12.

Financing costs

Long-distance trade had to be financed. Before a merchant saw a penny of revenue, he had to lay out the purchase price of the goods, the cost of transporting them, and perhaps the cost of storing them until they could be sold. To sell the goods, a merchant often had to extend credit to the buyer. The whole process might take many months to complete, tying up the merchant's funds in the meantime. To engage in long-distance trade, therefore, a merchant needed working capital—the resources to cover expenses before payment was finally received.

A merchant's working capital might come entirely from his own resources, in which case the financing cost was the return he could have earned had he employed those resources otherwise—for example, by lending them at interest. Or if the merchant own resources were insufficient, he would have to borrow to make up the difference. In this case, the cost was the interest he had to pay on the borrowed money.

Risk

Trading involved not only costs but also risks, and these were no less an obstacle to trade. We have already seen some of the risks—the risk that people would renege on their promises and the risk of predation in transporting goods. But there were others. In particular, transportation was also subject to the risks of nature. Ships were lost to storms or ran aground; cargo was damaged en route.

There was also market risk—the risk that prices would change unfavorably. Prices were volatile, because markets were often small individually and poorly integrated. Relatively small changes in local supply or demand could result in large changes in market price.

Market risk was exacerbated by the uncertainties of transportation and communications. The time it took for goods or information to travel from place to place was highly variable: a voyage that normally took a month might easily take two or even three. As a result, goods sent to a distant market in expectation of a favorable price might arrive to find conditions radically altered for the worse.

Trading costs and the extent of the market

Trading costs exhibit a number of properties that taken together explain a great deal about how exchange is organized and, therefore, about the extent of the market.

Trading costs increase with distance and are partly indivisible

The first important property of trading costs is that they increase with distance. This is obviously true of transportation costs—not just the cost of carriage but also the cost of predation. But, in preindustrial Europe, greater distance also meant greater delays in communications, and these increased information costs and market risk. Greater distance also means that working capital is tied up for longer, increasing financing costs.

Transactions costs increase with distance, too—mainly because trading at greater distances involves dealing with strangers. In the village, people knew one another, they traded with one another repeatedly, and it was therefore not in people's interest to break their promises. Strangers trading in the market town or city did not know one another and might never meet again, so the incentives for good behavior were much weaker. And because trading with strangers was more problematic, it was more costly. Transactions costs increased with distance for other reasons too: trading over greater distances often required transactions in foreign currencies, and it frequently required dealing with foreign governments.¹⁷

The increase in trading costs with distance created a gradient in terms of the overall volume of trade and of the types of goods traded. At the shortest distances, where trading costs were lowest, the volume of trade was high and the range of goods broad. Trade encompassed lower-margin goods—bulky and heavy commodities such as foodstuffs, firewood, and building materials, as well as cheap manufactures such as inexpensive textiles and household utensils. As distance and trading costs increased, the volume of trade fell off and the range of goods narrowed. At the greatest distances, trade was limited to high-margin goods with a high ratio of value to weight—goods such as spices, bullion, and luxury textiles.

¹⁷For discussions of the importance of the relationship between trading costs and distance for modern trading patterns see (Venables 2006) and (Leamer 2007).

A second important property of trading costs is that they are, to some extent, indivisible: that is, some of the costs of undertaking a trade do not depend on the size of the trade. For example, whether trading one quarter of wheat or a thousand, information costs and transactions costs were essentially the same. Even some transportation costs were indivisible: sending a ship or a wagon costs much the same whether it was fully loaded or not, and the cost of guarding against predation did not depend on the value of the shipment. Because of such indivisibilities, trading on a small scale is relatively more costly.

Why long-distance trade was mediated

But individual producers generally produced on a small scale, and the amounts they had to trade were correspondingly small. Unmediated local exchange with people they knew involved relatively low trading costs and was therefore worthwhile. But unmediated exchange at greater distances involved high trading costs and was not. Not only did trading costs rise with distance, but much of the additional cost was indivisible, falling particularly heavily on small-scale trade.

The cost of trading at a distance could be lowered by mediation. Merchants could aggregate the output of many small producers, enabling them to trade on a scale large enough to cover the indivisible costs. Furthermore, merchants were able to lower transactions costs between producers and distant consumers because they traded repeatedly with both and were therefore not ‘strangers’ to either; this enabled them to act as ‘trust intermediaries’. Of courses, the services of a merchant were themselves an indivisible cost that could only be justified by a sufficient volume of trade.

The advantage of mediation in long-distance exchange is itself an example of the benefits of the division of labor and specialization. A small scale producer who marketed his own output would have been far less productive than one who specialized in production and left the marketing to a specialized merchant. This remained true until late in the nineteenth century, when the scale of enterprises in production became much larger. To ensure their plants were fully utilized, such enterprises wanted to ensure a steady flow of orders, and they therefore found it necessary to take over the marketing of

their own output.¹⁸ But until the middle of the nineteenth century, production and commerce largely remained separate.

Concentrated trading and the hierarchy of trading centers

There is a third important property of trading costs. They are reduced by the concentration of trading. When large numbers of potential buyers and sellers come together in one place and at one time, it is easier for them to find a trading partner. With more traders involved, competition is more vigorous and manipulation of the market more difficult, so buyers and sellers are more likely to obtain a fair price. Also, the increased volume of trading makes for a ‘thicker’ market, so that large individual purchases or sales have less impact on prices: this makes prices more stable and reduces market risk. And a large enough volume of trading justifies investment in market infrastructure to facilitate trading and further lower trading costs.¹⁹

It is the advantages of concentrated trading that explain the appearance of trading centers. The tradeoff between the benefits of concentrated trading and the increase in trading costs with distance creates a hierarchy of trading centers that balance the advantages of a larger volume of trading against the cost of reaching the market.²⁰

In preindustrial Europe, as we have seen, the lowest level of the hierarchy was occupied by the market town. Above this was the regional city. And regional cities themselves constituted a hierarchy, with smaller ones feeding into larger ones: London was to Norwich and Exeter, for example, as the latter were to the market towns and villages in their hinterlands.

The geography of trade among cities and regions

The pattern of trade among cities and regions was determined by yet a fourth important property of trading costs—that water transportation is much less expensive than transportation by land. In preindustrial Europe, carriage by sea cost about one

¹⁸(Chandler 1977)

¹⁹See, for example, (Kowaleski 1995).

²⁰This approach to understanding towns and their relationships to their hinterlands and to one another is known as ‘network system analysis’: see (Hohenberg and Lees 1995) p 62).

twentieth the cost of carriage by land, and carriage by river one twelfth.²¹ As a result, there was far more trade between cities and regions that were mutually accessible by water.

Political boundaries, on the other hand, played a much less important role in determining patterns of trade. The basic economic unit, therefore, was not the kingdom or empire but the region—a city and its hinterland.²² And the extent of trade between regions was determined by trading costs rather than by political affiliation. For example, Paris traded by river and sea with the Low Countries far more than it did by land with the interior regions of France.²³

For much of the period, mutual accessibility by water divided Europe into two disjoint zones of inter-regional trade—the Mediterranean basin in the south and the North Atlantic littoral in the north. For centuries, transportation by water between the two zones was impossible or prohibitively costly and the main link between the zones was by land.

Trade within each zone was mediated by an urban center—just like trade within a region. However, in the case of the zone, the urban center was not a single town or city but an urbanized region containing a number of major cities. The urbanized central region of the Mediterranean zone was northern Italy; that of the northern zone, the Low Countries. The principal trading centers of northern Italy were Genoa and Venice; those of the Low Countries were, successively, Bruges, Antwerp, and Amsterdam.

In addition to mediating trade within their own zones, the two urbanized central regions mediated trade between the zones. They also mediated trade with more distant zones in Asia, Africa, and, eventually, the Americas. And, in addition to their pivotal role in trade, both urbanized central regions were important centers of production.

In each of the urbanized central regions, the volume of wholesale trade in its commercial cities was large enough to support continuous trading rather than periodic fairs. Genoa and Venice in the south, and Antwerp and Amsterdam in the north, were ‘perpetual fairs’. Trading volume was large enough, too, to justify investment in

²¹(Cipolla 1956), (Willan 1976)

²²(Jacobs 1984) Ch. 2

²³Of course, there was considerable trade by water between Paris and coastal regions of France.

considerable commercial and financial infrastructure. This included specialized financial intermediaries such as deposit banks and merchant banks, and specialized organized markets for trading financial instruments and commodities.²⁴

Two important boundaries

In the geography of trade there were, therefore, two important boundaries. The first was the boundary between local trade and long-distance trade. As we have seen, this was marked by the limits of direct, unmediated exchange. Direct exchange worked for trade at the level of the village and, aided by structured trading and the use of money, at the level of the market town. However, beyond this—at the regional, inter-regional, and inter-zone levels—trade depended on mediation by merchants.

The second important boundary was that between inter-regional trade within the zone and trade between the zones. This boundary was marked by the sharp increase in trading costs when cheap water-borne transportation was no longer available. Beyond that limit, trading costs were too high for the low-margin goods that accounted for most of the trade within each zone. Inter-zone trade was limited, therefore, to a relatively small volume of high-margin items, such as silks, spices, and bullion.

EXPANSION OF THE MARKET IN PREINDUSTRIAL EUROPE

Expansion of the market—for a particular good or for goods in general required an increase in long-distance trade. But long-distance trade relied on merchant mediation. It increased, therefore, if, and only if, merchants found it profitable to increase it. Consequently, the market expanded when additional trade or new forms of trade became profitable—and it contracted when existing forms of trade ceased to be profitable.

What sorts of factors might cause the profitability of trade to change? We will examine the history of market expansion and contraction in preindustrial Europe to find some answers.

The Early Medieval recovery

We saw in Chapter 1 that in the sixth century the European economy began to recover from its post-Roman decline. Why did this happen?

²⁴More about these in Chapters 8 and 9.

Causes of the recovery

The recovery was driven primarily by a significant increase in the demand for goods and services in the Frankish region of Northwest Europe—northern France and the Low Countries. The initial source of this increase in demand was the predatory class or ‘nobility’ of the region. The growing power of the Frankish nobility enabled it to squeeze more tribute from its subjects, and its conquests added to its wealth plunder and additional land. Its increased wealth financed a growing demand for goods and services—both war supplies and luxury goods for its own consumption and display.

The growing demand of the Frankish nobility stimulated trade between the regions of Francia that were mutually accessible by river and sea. This inter-regional trade encompassed not only high-margin items such as slaves and woolen cloth, but also bulk commodities such as grain and wine. Inter-regional trade gradually expanded across the North Sea to include Britain and Scandinavia, with the Franks exporting wine and manufactures to these regions and importing from them commodities.

In the eighth century, Charlemagne’s conquest of northern Italy revived inter-zone trade between the North and the Mediterranean—then mostly under Muslim control. The scale of this inter-zone trade remained modest, however, and its scope restricted to high-margin items: the Franks imported silks and spices from the Mediterranean and exported principally slaves.

Earlier historians, Pirenne in particular, have argued that it was this revival of inter-zone trade that led to economic expansion in the North. However, recent research has shown the reverse: that it was the growth of the Frankish economy—largely due to inter-regional trade—that led to the revival of inter-zone trade with the Mediterranean.²⁵

In the tenth century, the discovery in Saxony of large deposits of silver provided additional stimulus to the recovery. The silver represented a windfall gain for the fortunate discoverers—and for the local lords who collected the royalties. This increased their demand for all sorts of goods. In addition, the increased supply of silver lowered its local price, and this created the potential for trade with other parts of Europe where the price remained higher.

²⁵See, in particular, (Wickham 2005).

Extrinsic changes and a multiplier effect

The recovery was driven, therefore, by changes that were extrinsic to the economy—changes that originated outside it. One was the increasing demand for goods on the part of the Frankish nobility—supported by its success in predation.²⁶ Another was the fortuitous discovery of major deposits of silver and the increased demand that this created.²⁷

In both cases, the increase in demand raised the local price of goods. This made it profitable for merchants to buy goods elsewhere, where their prices were lower, and bring them for sale. It was this new activity on the part of merchants that was responsible for the expansion of the market.

During the post-Roman decline, merchants had virtually vanished from Europe for the lack of profitable trading opportunities. Now, as such opportunities reappeared, being a merchant once again became a worthwhile occupation.²⁸ For the same reason, market towns, which before had largely disappeared, began to spring up again, and a number of important regional fairs were established. In addition, growing commercial traffic spurred investment in road and river improvements.

These improvements in the mediation of trade and in transportation infrastructure lowered trading costs. The fall in trading costs made trade more profitable, which led to further expansion of the market. This mechanism constituted a multiplier effect—a trading cost multiplier. The trading cost multiplier amplified the impact of the original extrinsic increase in demand in expanding the market.

There was, in fact, something of a chicken-and-egg relationship between trading costs and the volume of trade. High trading costs held back expansion of the market. However, investments in commercial and transportation infrastructure were largely indivisible, and

²⁶Predation not only increased the income of the predatory class, but also—presumably—reduced that of producers. However, producers may have compensated to some extent by working harder to ensure their own subsistence. In any event, the change in their income would have had little impact on long-distance trade, in which they did not participate.

²⁷Perhaps not entirely fortuitous. The economic recovery increased the need for money, which raised the price of silver. This must have made prospecting more attractive.

²⁸(Postan 1987) p 219

they were therefore justified only when the volume of trade was sufficiently great.²⁹ So the low volume of trade held back investments that would have lowered trading costs and caused the volume of trade to increase.

Extrinsic changes could be particularly important in breaking this impasse. They did so by creating opportunities for trade that were profitable even though trading costs were high. The consequent expansion of trade led to a lowering of trading costs, which opened the way for other types of trade that had previously been unprofitable.

The Commercial Revolution

As we saw in Chapter 1, the Early Medieval recovery was interrupted in the ninth and tenth centuries by wars and invasions. However, in the eleventh century, it resumed with renewed vigor.

Expansion of inter-regional and inter-zone trade

During the ensuing period—the Commercial Revolution—the nobility's demand for luxuries continued to stimulate trade, as did its taste for war and conquest. In particular, the Crusades, which began at the end of the eleventh century, proved to be a godsend for the economy of northern Italy. Genoa and Venice made huge profits from supplying the Crusaders with shipping services and provisions. Also, the growing wealth of the nobility financed a construction boom, with mills, stone castles, and cathedrals going up all over western Europe. Further major discoveries of silver in Germany and Bohemia in the twelfth and thirteenth centuries provided yet more stimulus.

Inter-regional trade in the northern zone expanded southward along the Atlantic coast to the Bay of Biscay and northern Spain and pushed northward into the Baltic region. Initially, trade with the Baltic crossed the Danish peninsula by land, so it was limited at first to high-margin items—mostly furs in exchange for silver and woolen cloth.

The Mediterranean zone also saw an expansion of inter-regional trade. The Crusades established Christian dominance of the seas, which lowered trading costs for European

²⁹See (Reed 1973) for a discussion of economies of scale in the production of transactions services and in transportation

trade considerably.³⁰ Moreover, the increasing abundance of silver in Europe coincided with a dearth of silver in the Muslim world; the resulting price differential greatly stimulated trade across the Mediterranean.

The Mediterranean was also the traditional route for European trade with Asia and Africa. Trade with Asia used routes through the Black Sea or the Levant; trade with Africa, through the Maghreb or Egypt. This inter-zone trade consisted principally of exports of silver from Europe in exchange for spices and silks from Asia and gold from Africa.

It was during this period that Northern Italy came to dominate inter-regional trade in the Mediterranean and became the urbanized central region of the zone. Northern Italy also became the entrepôt for Mediterranean trade with the northern zone of Europe—in goods from the Mediterranean zone itself and in goods reaching the Mediterranean from Asia and Africa.

A demand multiplier and its effects

The expansion of trade in Europe increased the incomes of producers, traders, and predators alike. Higher income increased their demand for goods, making additional kinds of trade profitable and stimulating further expansion of the market. This mechanism constituted a second type of multiplier effect—a demand multiplier.³¹

In particular, the expansion of trade created an increasingly prosperous urban middle class in Europe that expressed a growing demand for ordinary, non-luxury goods—particularly agricultural produce and inexpensive manufactures. This new urban middle class also expressed a demand for housing, stimulating investment in construction and in urban infrastructure.

The growing urban demand for supplies was felt in the rural hinterland as an increased demand for its ‘exports’, which raised rural incomes as well. This, in turn, increased the rural demand for inexpensive manufactures from the cities and for food

³⁰“Thus the one lasting and essential result of the crusades was to give the Italian towns, and in a lesser degree, those of Provence and Catalonia, the mastery of the Mediterranean.” ((Pirenne 1937))

³¹“But what constitutes a large market? Not area or population alone, but buying power, the capacity to absorb a large annual output of goods.” (Young 1928) p38

products from other regions. Rising rural incomes also made it possible for young people to marry earlier. This contributed to a rapid growth in population that further reinforced the demand multiplier.³²

A supply multiplier

The expansion of the market increased not only the demand for goods but also the supply. In the rural hinterland, those who wished to purchase goods in the market needed to produce for the market in order to obtain the necessary purchasing power. This increased the supply of goods reaching the market. Moreover, the desirability of the goods now available in the market spurred producers to greater effort, further increasing supply. This type of response has been called an ‘industrious revolution’.³³

As we will see in the following chapters, expansion of the market induced a reorganization of production and stimulated technological progress, both of which raised productivity. Higher productivity increased supply and lowered prices. These effects of market expansion on supply constituted a third type of multiplier—a supply multiplier—that fed back to stimulate further expansion of the market.

A powerful trading cost multiplier

During the Commercial Revolution, the trading cost multiplier became more powerful. The much greater expansion of trade stimulated widespread investment in transportation infrastructure. This included all-weather roads in Italy, bridges in England, river improvements in France, and canals in Flanders.

There was substantial investment, too, in the infrastructure of exchange. An explosion of new market towns facilitated local exchange: the number of market towns in England increased by a factor of five between the eleventh century and the fourteenth.³⁴

³²(Langdon and Masschaele 2006)

³³(de Vries 1993) noted this response in the early modern economy and coined the term ‘industrious revolution’. (Epstein 2001) noted a similar phenomenon in the fourteenth and fifteenth centuries, after the Black Death. (Bailey 1998) sees it as an important component in the expansion of the Commercial Revolution in the thirteenth century.

³⁴(Dyer 1995)

There was substantial investment too in the infrastructure of long-distance trade. Existing trading centers were improved—for example, through the construction of inns, market halls, and docks—and new trading centers were established. In particular, the Italians converted the regional fairs of Champagne into a sophisticated center for trade between the two zones.

The growing volume of trade led to increasing productivity in commerce itself, especially in northern Italy. As we will see in later chapters, Italian merchants developed new forms of commercial organization and new financial instruments and intermediaries. Their commercial and, especially, financial advantage over the merchants of the North enabled them to dominate inter-zone trade.³⁵

The resulting decline in trading costs made it possible for trade between the two zones to expand to include lower-margin items. Most important of these were various kinds of inexpensive textiles. The Italians imported light woolens from the Low Countries and from England for their home market and for re-export throughout the Mediterranean. In return, they exported to the North Italian-made cottons and fustians.³⁶ Fustian, a cotton-linen blend, was a mass-market product that became quite popular with the middle and even lower classes of northern cities; it even reached the rural market, where it displaced homespun woolens and linens.³⁷

Further market expansion—a self-perpetuating process

The inter-zone demand for inexpensive textiles from Northwest Europe led to an expansion of manufacturing there and to the rapid growth of its cities. The demand of those cities for supplies contributed to a significant expansion of inter-regional trade within the northern zone. The increasingly urbanized Low Countries drew raw materials

³⁵Menger notes the role of merchants in expanding trade by reducing trading costs: see, for example, (Menger 1981 [1871]) #732} Ch. IV.

³⁶Munro has written extensively on the woolen trade: see for example (Munro 1990). (Mazzaoui 1981) is the best source on the cotton trade.

³⁷“... high productivity in the traded goods sector in north-western Europe may be seen as arising through merchant distribution and finance as much as through production. The service sector can thus be seen as playing a crucial role in economic growth during the early modern period, as in the modern period.” (Broadberry and Gupta 2006) p. 10.

and foodstuffs from other regions—wool from England and Spain, grain from northern France, fish from Scandinavia, wine from Gascony and the Rhine, beer from Hamburg.

In the late thirteenth century, the Italians established for the first time a direct maritime link between northern Italy and Northwest Europe.³⁸ This made profitable a trade in bulk commodities between the two zones, although only in relatively valuable ones such as alum, wool, and raw cotton—all of them raw materials used in the production of inexpensive textiles.

Here we see the beginnings of a new phenomenon—multipliers interacting with one another to generate a self-perpetuating process of economic progress. In this case, the trading cost multiplier caused an expansion of trade. This set in motion a demand multiplier and a supply multiplier, which both contributed to a further expansion of trade. The expansion of trade again set in motion a trading cost multiplier, and so on in a reciprocal, self-perpetuating cycle.

The crisis of the Long Fourteenth Century

As we saw in Chapter 1, these promising developments were cut short by the wars of the Long Fourteenth Century—a major, negative extrinsic change.³⁹

The interruption of trade

War raised trading costs sharply, and this disrupted long-distance trade. With trading costs so much higher, only trade in high-margin luxuries remained profitable. Overland trade between the two zones in low-margin items was hit hard. With the decline in this trade, the Fairs of Champagne withered. Maritime trade between the zones continued a little longer, to the benefit of Bruges, but this too was soon choked off by war-related predation.

³⁸The westward passage through the Straits had been difficult for existing sailing ships because of the direction of the prevailing winds. The Genoese solved the problem by using three-masted galleys which could be propelled by oar when the wind was unfavorable. However, because of the large crew required, this was expensive, and only relatively valuable cargoes were worthwhile. (Nightingale 1995)

³⁹As we will see in Chapter 10, an argument can be made that the wars were at least partly endogenous—made possible by the increased prosperity of the preceding period.

The ending of the inter-zone trade in inexpensive textiles depressed the manufacturing cities in the Low Countries. This reduced the demand of those cities for supplies and raw materials—a negative demand multiplier set in motion by the original negative extrinsic change.

The increase in trading costs also caused a significant reduction in inter-regional trade within each of the two zones. The whole of the Mediterranean was affected, as was the southern part of the northern zone—from the Low Countries to Iberia. For example, the cost of shipping wine from Bordeaux to London trebled between the 1330s and the 1380s, and did not return to pre-war levels until the late fifteenth century.⁴⁰

Trade with the Baltic continues

War had much less of an impact, however, on the northern part of the northern zone—from the Low Countries northwards—and trade there continued uninterrupted. Indeed, as trading costs continued to fall, Baltic exports to the Low Countries expand to encompass lower-margin goods such as beer and wood products.

In the middle of the fourteenth century, the Dutch opened a maritime route to the Baltic through the Danish Straits. This greatly reducing the cost of transportation, effectively adding the Baltic to the northern zone of trade. The result was a further expansion of Baltic exports to include bulk goods with even lower margins—not only grain turned into higher-margin beer but grain itself; not only wood products but raw timber.

The impact of the Black Death

The Black Death, which reached Europe in 1347, constituted a second major extrinsic shock during this period, with complex effects on the economy. The reduction in population, by a third or more, reduced the demand for food—particularly for grain, the dietary staple. The resulting fall in grain prices lowered the value of agricultural land, causing rents to fall. The fall in rents was exacerbated by the increased scarcity of labor, since landowners had to compete for scarce tenants by offering them more favorable terms on their leases. At the same time, the scarcity of labor caused wages to rise in the cities as employers there competed for workers.

⁴⁰(Menard 1991)

The overall result of these changes was a major redistribution of income away from the land-owning nobility and clergy—those who collected land rents—and towards peasants and urban workers. This redistribution reduced the demand for luxury goods and increased the demand for non-grain foods and inexpensive manufactures. With inter-regional trade in much of Europe blocked by war-related increases in trading costs, this new demand for mass-market goods primarily provided a stimulus to trade within the regions. Regional trade played an unusually important role during this period, mediated by a host of new regional fairs.⁴¹

The expansion of the Long Sixteenth Century and the crisis of the Long Seventeenth

The wars of the Long Fourteenth Century came to an end in the middle of the fifteenth century. Trading costs returned to pre-war levels, and long-distance trade recovered rapidly.

A recovery driven by multiplier effects

In this recovery, in contrast with that of the Early Middle Ages, there was no major extrinsic change to stimulate market expansion. At the time of the earlier recovery, there had been little production for the market. So even a small extrinsic increase in demand had added significantly to the modest level of existing trade. Also, because there had been little trade or production for the market, multiplier effects had been weak. In these circumstances, an extrinsic change had been very helpful in getting things going.

By the fifteenth century, however, production for the market was much more significant—despite the wartime interference with long-distance trade. Indeed, considerable long-distance trade continued in the northern part of the northern zone, as did long-distance trade within regions elsewhere. When peace returned, long-distance trade expanded rapidly into the areas in which it had been blocked.

There was a powerful trading-cost multiplier during this period as Dutch merchants continued to lower transportation costs—building more efficient ships, finding profitable back cargo, and lowering the cost of finance and risk. As a result, by the sixteenth century, Baltic grain was competitive, not only in the Low Countries, but all along the

⁴¹(Epstein 1991)Ch. 3

Atlantic coast as far south as Spain and Portugal.⁴² Other long-distance bulk trades became profitable too—salt from France and Portugal for the Baltic, for example, and Baltic and Scandinavian timber for the Low Countries and Iberia.

As part of the recovery, there was a revival of overland trade between the zones in inexpensive textiles and other low-margin goods. However, this trade never regained its former importance for the northern zone, since inter-regional trade had become so much greater there than it had been during the Commercial Revolution.

The impact of the voyages of discovery

In the late fifteenth century, the voyages of discovery established direct maritime links with Asia, Africa and the Americas. The maritime link with Asia lowered trading costs, although not dramatically. The volume of trade expanded gradually, particularly imports of pepper. However, trade with Asia remained small relative to inter-regional trade within Europe. As an indication, total trade with Asia around 1600 was worth between one and two million ducats a year. At the same time, the much less glamorous inter-regional European trade in cattle—itself only a small part of total inter-regional trade—was worth roughly twice that amount.⁴³

Atlantic trade had a greater economic impact because of the establishment in the Americas of European colonies. The colonists produced commodities to export back to Europe and imported in exchange a wide variety of supplies.

The most important colonial export was sugar—first from the Atlantic islands, then from the Caribbean, and finally from Brazil. In addition, by the 1550s, large quantities of silver were being shipped from the mines of Zacatécas and Potosì.

The colonists imported from Europe basic foods such as flour, wine, and oil as well as a wide range of manufactures. There was also a growing demand for slaves from West Africa for the sugar plantations.

⁴²(de Vries and van der Woude 1997) Ch. 9

⁴³See (Blanchard 1986) on the value of the cattle trade, and (Subrahmanyam and Thomaz 1991) on the value of the trade with Asia.

By the end of the sixteenth century, Spanish America was becoming a trading zone in its own right. It developed its own inter-regional trade in supplies and basic manufactures, and forged a direct link with Asia via the Philippines.

The increasing abundance of silver in Europe—initially mined in Central Europe and later from the Americas—together with the high value of silver in India and China provided a powerful stimulus to the export of goods from Asia to Europe. In return, much of the American silver was re-exported from Europe to Asia.⁴⁴

The rise of the Netherlands and of England

In the northern zone of Europe, the expansion of inter-regional trade and of manufacturing led to an expansion of its urbanized central region beyond Flanders to encompass Brabant and Holland. By the middle of the sixteenth century urbanization in all three provinces was approaching 50%. The growing demand of the cities there for food and raw materials further stimulated inter-regional trade within the zone.

By the end of the fifteenth century, Antwerp had eclipsed Bruges as the principal trading center. While Bruges had been little more than an outlet for exports of Flemish cloth—especially to the Baltic—Antwerp developed into a major entrepôt. It became the trading center not only for the northern zone of Europe but for Europe as a whole and for Europe's transoceanic trade with the rest of the world.

England experienced an export-led boom in the sixteenth century. The primary export was woolen cloth, most of it exported through London to Antwerp. The wealth created by expansion of the woolen trade stimulated a growing internal trade within England. England was blessed with relatively good transportation, and it lacked the frequent and heavy tolls that handicapped internal trade elsewhere in Europe. Commercial development, centered on London, further lowered trading costs, creating a large, well-integrated internal market—an inter-regional market within a single country.⁴⁵

⁴⁴We will see this trade from the Chinese side in Chapter 15.

⁴⁵At the end of the seventeenth century, Gregory King—an early economic statistician—estimated that England's internal trade was four times the size of its external trade: the ratio was probably much higher in the sixteenth century. ((Palliser 1983))

The prosperity of the Netherlands had begun with its trade with Antwerp—as a provider of supplies and of shipping services. The Dutch war of independence from Spain was a setback, but the Dutch economy recovered quickly. Moreover, the destruction of Antwerp during the war opened the way for Amsterdam to replace it as the principal commercial and financial center of Europe: Amsterdam’s population grew from 30,000 to 140,000 from 1570 to 1647. A growing shortage of fuel in Amsterdam and in other cities in the region stimulated the development of peat mining, which required the building of canals to bring the peat to market. The canals represented a major improvement in internal transportation, which contributed to the development of an integrated internal market in the Netherlands.⁴⁶

Towards the end of the sixteenth century, as we saw in Chapter 1, the increasing incidence and severity of war in Europe caused an overall slowing of the economy. The impact was less severe, however, than it had been during the crisis of the Long Fourteenth Century.⁴⁷ In particular, the thriving economies of England and the Netherlands continued to flourish and to expand.

The Dutch and the English also played a growing role in transoceanic trade. For example, in the seventeenth century, the Dutch took over the trade with Asia from the Portuguese, and they applied to it the same methods they had used so successfully to lower trading costs in the inter-regional trade in grain.⁴⁸ The resulting fall in trading costs led to a significant expansion in the volume of trade with Asia; the range of Asian exports to Europe expanded to include inexpensive manufactures such as Indian calicoes and Chinese porcelain.

It has been suggested that economic growth in England and the Netherlands in the sixteenth and seventeenth centuries was a result of their being the terminus for transoceanic trade with Asia and the Americas.⁴⁹ The causality, of course, was just the reverse: this area became the terminus for transoceanic trade precisely because it was the

⁴⁶(de Vries and van der Woude 1997)

⁴⁷We will explore the reasons for this in Chapter 11.

⁴⁸(Musgrave 1981)

⁴⁹(Acemoglu, Johnson et al. 2005)

most economically dynamic part of Europe. And its dynamism stemmed overwhelmingly from its inter-regional trade—maritime trade within Europe and inland trade within the growing internal markets of England and the Netherlands.

The merging of the two zones

Trading costs in general declined so much by the seventeenth century that the two zones of inter-regional trade in Europe effectively merged into one. In the 1590s, widespread harvest failures in the Mediterranean raised the price of grain there, and the high prices attracted English and Dutch grain ships. The resulting inter-zone trade in grain paved the way for a general expansion of maritime trade between the two zones.

As a result, the whole of Europe became, effectively, a single zone of trade. This change was reflected in changing patterns of urbanization. Before 1500, there had been two distinct urban hierarchies in the two zones, centered respectively on the cities of Northern Italy (Florence, Venice, Genoa, and Milan) and on those of Low Countries (Bruges and Antwerp). Between 1500 and 1600 there had been some integration, but the two hierarchies had remained distinct. From the seventeenth century, however, there was a fundamental shift towards a single urban hierarchy with Amsterdam and London at the top.⁵⁰

THE PROCESS OF MARKET EXPANSION

We have seen that market expansion is driven both by extrinsic changes and by multiplier effects. What is the relative importance of the two? We have seen that there is a hierarchy of trade. What is the role of the different levels of trade in the process?

Extrinsic changes versus multiplier effects

The relative importance of extrinsic changes and of multiplier effects in driving market expansion depends on the nature of the economy—on whether it is a market economy or a non-market economy.

Market and non-market economies

In a market economy, a significant part of exchange is mediated by specialized traders. Producers produce primarily for exchange, meeting their own needs largely with

⁵⁰(de Vries 1984)

goods and services produced by others. Exchange is largely mediated by commerce and encompasses large numbers of producers and consumers spread over considerable distances.

There are two types of non-market economy. One is a *subsistence economy*. In such an economy, each small community is largely self-sufficient. Within the community, individuals produce mainly for their own consumption. However, they engage in some exchange to share risk and, to a limited extent, to benefit from specialization. Such exchange is almost entirely local and direct, and there are no specialized traders. There may be some predation, but it has little impact on the overall nature of the economy. The economies of hunter-gatherer and tribal societies are subsistence economies. After the Roman collapse, some parts of Europe reverted to tribal subsistence economies.

The other type of non-market economy is a *tribute economy*. In such an economy, an organized predatory group supports itself by direct exaction from producers. Exaction is often in kind—a quantity of grain, a measure of cloth, or a number of days of labor. Tribute economies are often command economies, in that predators tell producers what to produce for them. Producers produce what they must for tribute and what they can for their own subsistence.

In a tribute economy, as in a subsistence economy, there is direct exchange at the local level. Specialized traders may import luxury goods for the predatory class and export in return a part of the tribute, but the activity of these few specialized traders does not affect the overall nature of the economy. The economies of the Late Roman Empire and much of Early Medieval Europe were tribute economies.⁵¹

We can understand the different types of economy in terms of our three basic economic activities of production, predation, and commerce. All economies, of course, are based on production. In a subsistence economy there is little else—predation and commerce are negligible. In a tribute economy, predation is significant but there is little commerce. In a market economy, commerce is substantial and there are varying amounts of predation.

⁵¹See (Wickham 2005); we will have more to say on this in Chapter 10. We will see in Chapter 13 that China was a tribute economy for much of its history: see also (Gates 1996).

Commercialization

It is useful to think of the impact of market expansion on production in terms of two processes. In the first, market expansion commercializes non-market economies—transforms them into market economies. It is because contact with a larger market offers producers new and more attractive trading opportunities that they reorient their production towards the market. In the second process, further expansion of the market continues to transform market economies in the self-perpetuating process of economic progress.

The rate of economic growth in preindustrial Europe was, therefore, a weighted average of two distinct rates. The first, relatively high, was the rate of growth of the expanding and productive market economies—those already commercialized. The second rate—much lower—was the rate of growth of those parts of the European economy still characterized by tribute and subsistence. Commercialization gradually increased the proportion of market economies and so the weight on the higher rate of growth.

However, even by the end of our period in the early seventeenth century, commercialization was far from complete. Well beyond this time, most Europeans still produced for themselves a substantial part of what they consumed: many still grew their own food, made their own clothing, and built their own homes. An indication of the extent of non-market production in the Mediterranean economy of the sixteenth century is that only about 10% of the total grain produced entered the market: the rest was consumed directly by producers and landowners.⁵² By the end of our period, commercialization had made great strides, but market economies still coexisted with large areas of subsistence and tribute.⁵³

To a considerable extent, differences in rates of growth across countries and regions reflected different degrees of commercialization—different proportions of market and non-market economy. The high-growth countries and regions were those that were highly commercialized; the low-growth countries and regions were those that were not.

⁵²These are Braudel's estimates for the Mediterranean zone in the sixteenth century ((Braudel 1972)).

⁵³On the coexistence of 'two economies' in early modern France, see (Fox 1971)

Indeed, one reason for the acceleration of growth in the developed economies in recent centuries is the completion of this long process of commercialization: the fast-growing market economy has finally absorbed all of the slow-growing non-market economy.

The role of extrinsic changes and multiplier effects

The higher rate of growth of market economies was the result of an internal, multiplier-driven, self-perpetuating process. In non-market economies multiplier effects were weak, and economic growth depended much more on the response to extrinsic stimuli—for example, to demand from outside the economy. In general, as economies became more commercialized they depended less on extrinsic stimulus and exhibited a stronger tendency towards self-perpetuating multiplier-generated growth.

We saw this distinction illustrated by the difference between the recovery from the late Roman decline in the Early Middle Ages and the recovery from the Crisis of the Long Fourteenth Century in the fifteenth century. Extrinsic changes were far more important in the former recovery, and multiplier effects much stronger in the latter. The early recovery required the commercialization of what had become, over the centuries of decline, largely a non-market economy. The later recovery required only the reanimation of a suppressed market economy through re-expansion of the market.

The contribution of the different levels of trade

The importance of extrinsic changes and the nature and strength of the various multiplier effects differed at the different levels of trade—local, regional, inter-regional, and inter-zone.

Local and regional trade

Purely local trade in the village and market town offered little in the way of multiplier effects. Local markets were too small to support much reorganization of production, so local trade by itself created no demand or supply multiplier effects. Exchange was unmediated, so there was no possibility of commercial development lowering trading costs—so no trading cost multiplier effects either. Economic progress in the country largely depended, therefore, on extrinsic change in the form of outside demand for its goods from long-distance trade.

It was primarily trade within the region that generated such outside demand. Larger regional centers, such as Paris and London, drew supplies from a considerable distance, providing stimulus to local areas in their hinterlands—helping to commercialize production. Trade within the region had significant multiplier effects. The extent of the regional market was large enough to accommodate a significant reorganization of production. This generated supply and demand multiplier effects that further stimulated regional trade.

Trade within the region had a trading cost multiplier too. The provisioning of large cities was highly profitable, and it promoted considerable commercial development. For example, London in 1300 was served by a number of specialized grain merchants—‘cornmongers’ or ‘bladers’—some substantial enough to buy up the output of entire manors.⁵⁴ Also, to facilitate their provisioning, cities invested in transportation infrastructure. The resulting fall in transportation costs made possible regional trade in other goods.

Inter-regional trade

Inter-regional trade had the strongest multiplier effects. Because of relatively low trading costs, inter-regional trade was made up mostly of low-margin goods—bulk commodities and inexpensive manufactures. Since such goods were typically produced in many different regions, the expansion of inter-regional trade meant increasing competition. In addition, much of the demand for such goods came from the middle class and was therefore highly sensitive to price. Competition in a price-sensitive market exerted a powerful downward pressure on costs.

The response to this pressure was a reorganization of production that lowered costs by increasing productivity: the inter-regional market was large enough to accommodate considerable such reorganization. The resulting increase in productivity generated large supply multiplier effects; its effect in raising incomes generated large demand multiplier effects.

The pressure of competition and the price-sensitivity of demand also motivated efforts to reduce trading costs. Lower trading costs generated strong trading cost

⁵⁴(Masschaele 1997)

multiplier effects. They also caused prices to convergence across regions: for example, differences in grain prices narrowed, and grain prices in different regions moved more closely together.⁵⁵

Although the decline in trading costs originated mainly in inter-regional trade, its benefits spilled over into trade at lower and higher levels. As increasing productivity in commerce lowered the cost of mediating exchange, mediation began to appear at the local level: by the end of the period, retail shops had begun to appear in regional centers and even in market towns. The fall in trading costs also carried over into inter-zone trade. For example, it was innovations in ship design in the inter-regional trade in bulk commodities that made possible the voyages of discovery.⁵⁶

Inter-zone trade

The multiplier effects of inter-zone trade were far smaller than those of inter-regional trade. The volume of trade was much smaller and so, consequently, was its demand multiplier effects.

Goods traded between two zones were generally produced in one but not the other—spices and bullion, for example. Indeed, it was the consequently sharp difference in scarcity that created price differentials large enough to cover the high trading costs of inter-zone trade. Inter-zone trade was rarely, therefore, a source of competition.

Moreover, since the items of inter-zone trade were typically luxuries, demand was not particularly sensitive to price: quality was more important. So inter-zone trade generally created little or no pressure to lower costs, and it therefore played little role in raising productivity.⁵⁷ As a result its demand and supply multiplier effects were usually weak.

⁵⁵Such effects are associated today with ‘globalization’ ((O’Rourke and Williamson 1999)). In preindustrial Europe, however, they were associated with inter-regional trade—trade within the zone—rather than with global or inter-zone trade.

⁵⁶See Chapter 4.

⁵⁷There were, of course, exceptions. As we have seen, the trade in inexpensive textiles between the two zones of Europe during the Commercial Revolution was more like inter-regional trade in its effects. And imports of silver from the Americas during the sixteenth and seventeenth centuries eventually drove European mines out of business.

Similarly, there was little pressure to lower trading costs, so that trading cost multiplier effects were weak too. Because trading costs remained high, there was little convergence in prices between zones. Silver, for example, remained far more valuable in Asia than in Europe for centuries.

Despite this, inter-zone trade did have significant multiplier effects on supply and on trading costs. These were, however, quite different in nature from those of inter-regional trade.

Inter-zone trade was above all a source of new goods and new technologies.⁵⁸ A number of important industries spread from China to the Muslim world, and from there to Europe. They included paper-making, gunpowder, printing, porcelain, and cotton and silk textiles. In agriculture, inter-zone trade brought important new crops such as sugar, rice and cotton from Asia, and maize and potatoes from the Americas. These new goods and new technologies increased productivity, not by improving existing forms of production, but by making possible new kinds of production that created greater value.

Inter-zone trade had a trading cost multiplier effect too, because it was a source of new commercial and financial techniques. It seems likely that the Italians learned from the Muslims and Byzantines, and it is certain that the merchants of northern Europe learned from the Italians.

CONCLUSION

Economic progress is self-perpetuating—driven by the interaction between commerce and production. In this chapter, we have begun to explore the nature of this process.

We have seen that expansion of the market sets in motion multiplier effects—a demand multiplier, a supply multiplier, and a trading cost multiplier. These feed back to stimulate further market expansion. It is this positive feedback that makes economic progress self-perpetuating.

We have also seen some of the ways in which commerce drives this process (we will see others). Market expansion means increasing long-distance exchange, and long-distance exchange requires mediation: commerce provides that mediation. It does this, however, only when doing so is profitable. So, ultimately, it is the profitability of

⁵⁸See, (Romer 1994) on the importance of trade as a source of new goods.

commerce that determines the extent of the market, and it is changes in the profitability of commerce that are the proximate causes of market expansion and contraction.

Commerce is also responsible for the trading-cost multiplier. Market expansion increases the volume of trade, and this leads to rising productivity within commerce itself. Trading costs fall, and this causes further expansion of the market—the trading cost multiplier. The resulting increase in the volume of trade causes a further decline in trading costs. This second feedback mechanism—between market expansion and the productivity of commerce—reinforces the core feedback mechanism between market expansion and the productivity of production.⁵⁹

In this chapter, we have also taken a first look at how predation can inhibit economic progress.⁶⁰ The crises of the Long Fourteenth Century and of the Long Seventeenth were the result of massive increases in war-related predation. We saw that the impact on production was largely indirect—through its effect on trade and so on the extent of the market.

⁵⁹We will have much more to say on this in Chapters 6 through 9.

⁶⁰Much more in Chapter 12.

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