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International Economic Relations of the U.S.  
and Their Impact on Economy, State, and  
Society to 1860



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# **International Economic Relations of the U.S. and Their Impact on Economy, State, and Society to 1860**

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## **1. Introduction: Why the time and country restriction?**

The time restriction in the title of my paper is derived from John Coatsworth's contribution to this volume. I find his contention well argued that Latin America's economic backwardness today is not a product of relatively slower economic growth in the 20th century, but of stagnation and lagging growth from around 1700 to the second half of the 19th century. As far as we have macroeconomic statistics and informed estimates of GDP per capita for Latin American countries in the 20th century, they substantiate Coatsworth's point.<sup>1</sup> Therefore my main question will be: What can international economic relations contribute to an explanation of why the U.S. economy grew so early and much faster than Latin American economies during the 18th century (colonial period) and especially during the first six decades of the 19th century. How did they contribute to create the prerequisites of modern economic growth in social, political, and economic organization in the U.S. so that industrial growth could start early in the 19th century?

By the American Civil War, the U.S. had definitely passed the stage of industrial take-off into self-sustained economic growth, which Walt Rostow has dated into the 1840s and 1850s for the country as a whole, that is into a period when railroadization and accelerated industrialization came to the whole Northeast and the spreading of railroads in the West definitely created an integrated national market. For New England only he dates the take-off into the period 1816-1842, when cotton textile production expanded there from year to year without interruption and mostly with double-digit growth rates, but regards it as a "regional take-off".<sup>2</sup>

The reason for narrowing my scope to the U.S. only, instead of dealing with North America including Canada, is the following. Canada's take-off into industrialization occurred very late, 1896-1914, according to Rostow. This means it occurred much closer to the equivalent periods in Latin American countries. It would, therefore, require a wholly different approach than the one in the present paper to explain why Canadian per capita income today is close to that of the U.S., while Latin American per capita incomes are still far behind.

As to the generality of the topic, readers of this paper will certainly expect and find out that of the many aspects that the topic could cover, the majority is left out and those that are discussed are few. But I think that the issues raised in this paper stand out

prominently when it comes to explaining why the U.S. embarked upon modern economic growth so early in relation to Latin American countries.

The following sections are organized in a chronological way. Section 2 covers the colonial period, in which the different colonial North American economies were more strongly oriented overseas than toward each other. Section 3 deals with the U.S. to 1815, i.e. to the end of the European and American-British war periods. The American economy in this period experienced hefty windfall gains and losses from turbulent political developments abroad. Section 4 covers the period up to 1860, when the U.S. economy was part of the Atlantic economy and economic development advanced strongly in calm political waters. In conclusion, Section 5 raises some questions as to the conditions for economic development that differed in the U.S. and Latin America in the 19th century.

## **2. The colonial period**

It is questionable whether economic relations between a colony and its mother country should be seen as international relations. But understanding U.S. international economic relations after the Revolutionary War requires some information on the colonial economy and its links with Europe and European colonies in Latin America. For a broad and thorough treatment of the "colonial heritage" see Hermann Wellenreuther's contribution to this volume.

### **2.1. British colonial policy**

Almost by definition the economic purpose of a colony is a foreign territory subjected to the economic needs of the mother country, especially in the age of mercantilism from the 16th to the 18th century. In 1726 a member of the Board of Trade in England, the agency that supervised the colonies, expressed this in the following words:

"Every act of a dependent provincial government ought therefore to terminate in the advantage of the mother state unto whom it owes its being and protection in all valuable privileges. Hence it follows that all advantageous projects or commercial gains in any colony which are truly prejudicial to and inconsistent with the interests of the mother state must be understood to be illegal and the practice of them unwarrantable, because they contradict the end for which the colony had a being and are incompatible with the terms on which the people claim both privileges and protection."<sup>3</sup>

A colony served three purposes: 1. as an outlet for the settlement of surplus population in overpopulated Europe, 2. as a market for Europe's manufactured and luxury products as well as shipping service etc. and 3. as a natural resource for tropical goods and other primary products.<sup>4</sup>

The English started their share in the colonization of the New World with their first settlement on Roanoke Island in 1585, that is rather late and from an economically and politically backward position vis-à-vis the "superpowers" of the 16th and 17th centuries, Spain and France, (and the secondary powers Portugal and the Netherlands, both at times under Spanish rule). In contrast to Spain and France, the crown and church in England were relatively poor and were not able to provide the funds necessary for the establishment of colonial outposts on the relatively unpromising and therefore still vacant North American coast.<sup>5</sup> Therefore, English kings and Queen Elizabeth I favored private initiatives for overseas expansion and colonization by granting royal patents or charters (in exchange for part of the expected later colonial benefits): in the 16th century to individuals, like Sir Walter Raleigh, who were supported and equipped for their ventures by private merchants (and "adventurous", i.e. business-minded, noblemen), but their enterprises eventually all failed; and in the 17th century also to private trading or joint-stock companies, beginning with the Virginia Company of London (assigned a charter to colonize the American coast between parallels 34 and 38) and the Plymouth Company (between parallels 41 and 45) in 1606. Such charters usually provided for a respectable degree of independent political and economic decision making, even in the case of "proprietary colonies" like that of William Penn, whose extensive powers and rights were restrained by the provision that he must make laws "by and with the consent of the freemen".<sup>6</sup>

In theory the economic development of the English colonies in North America should have been shaped by English colonial policy according to the view quoted above. This was true as far as privileges of the colonies were concerned. But it was not true, it seems to me, with respect to mercantilistic restrictions on the colonies.

Let me first mention cases of privileges. London favored production of tobacco in Virginia ever since King James I enforced a ban on tobacco planting in England in the 1620s. Tobacco became the most important single export item during the whole colonial period and accounted for around 30 percent of commodity exports at its end.<sup>7</sup> The London government paid bounties to colonial producers of indigo, tar and other naval stores, that is goods that became very important export items in supply of the English textile and shipping industries. That this trade collapsed with independence indicates the essential role of these British subsidies for colonial production. The Navigation Acts since 1651, mainly aimed at the Dutch merchant marine which then carried most of American colonial

exports, created a preferences zone for ships built in England and the English colonies. This gave a big boost to the colonial shipbuilding industry as well as to lumber and naval stores exports from the colonies to Britain. By 1760 about one-third of the tonnage sailing under the British flag was American-built.<sup>8</sup>

Let me now show that for a long time English colonial policy did or could not impose restrictions that severely hampered economic life in the colonies in practice. It is true that the Navigation Acts of 1660 and of later years also restricted direct trade between the North American colonies and continental Europe for "enumerated" articles among the colonial exports, such as tobacco, indigo, sugar, cotton, and other items that were added to this list in a progressive way. They had to be shipped via England where they were taxed, but mostly on a preferential basis in relation to products imported by Britain from continental Europe and non-British colonies. Colonial imports were likewise required to pass through England. Colonial manufacturing in certain branches, especially of woolen textiles and finished iron products, that is of the major export items of England to its North American colonies, was prohibited. But the relatively low manufacturing activity in the North American colonies has been correctly attributed to two other factors: the abundance of land relative to labor and capital, and the limited size of the market.<sup>9</sup> And concerning the restrictions on trade, especially with continental Europe and the West Indies under Spanish, Dutch, and French dominion, colonial merchants found ways to evade the regulatory requirements of London's colonial policy. And not only the British officials in North America, but the London government under the influence of liberal-minded British merchants practiced a policy of "salutary neglect" of such violations of the law. The accustomed pattern of governance has been described by Edmund Morgan to the point in the following way:

"Administration of the colonies was left to the King, who turned it over to his Secretary of State for the Southern Department... [who] left it pretty much to the Board of Trade and Plantations, a sort of Chamber of Commerce with purely advisory powers. The Board of Trade told the Secretary what to do; he told the royal governors; the governors told the colonists; and the colonists did what they pleased."<sup>10</sup>

Therefore the costs of Britain's mercantile system to the colonies remained quite bearable and were politically accepted until 1763. At the end of the Seven Years War with France, Britain had attained victory and, in North America, had not only successfully defended her colonies, but had taken possession of the French colonies in Canada as well. Yet, the London government found itself in dire financial straits, and ended "salutary neglect" to raise more funds in North America. As we all know, this tilted the delicate

political balance between the letter and the practice of colonial law, between mercantilistic ideology and common-sense reality, a development that culminated in the slogan "No taxation without representation" and all the political and military action that it entailed.

## **2.2. Domestic developments and the external economic structure**

In their thorough quantitative study of economic development in colonial North America James Shepherd and Gary Walton (1972) have substantiated the importance of international economic relations for the colonies. "Economic growth in the colonies was strongly affected by the development of trade and a market sector, especially with regard to overseas trade and markets".<sup>11</sup> Per capita economic growth is estimated to have been "well under 1 percent during the eighteenth century to 1775, with stagnation (or decline and recovery) from 1775 to 1790". The population in the thirteen colonies increased at an average annual rate of 3.1 percent from 1660 to 1790, the overwhelming portion of which resulted not from immigration, but from the extraordinary high rate of natural increase.<sup>12</sup> Thus economic growth in colonial North America was not intensive growth stemming from productivity increase, but extensive growth resulting from higher inputs of land and labor. This conclusion is supported by information from balance of payments estimates for the 18th century colonies in North America, namely that capital imports were insignificant and that "capital formation in the colonies was financed almost exclusively by domestic saving during the eighteenth century".<sup>13</sup>

The share of commodity exports of the colonies in their total output has been estimated at 14-18 percent for the beginning of the 18th century, declining to 11-12 percent by the time of the Revolution. Including exports of services, mainly from shipping, the latter percentage reaches 14-15.<sup>14</sup> In view of the much lower export ratio of the later industrial USA and considering that markets in Europe and America were far more apart in the 18th than in the 19th century on account of much higher transportation costs, this indicates an enormously high degree of importance of international economic relations for the welfare of colonial North America.

The regional and product structures of imports and exports of the colonies determined the impact of their international economic relations on conditions at home to a large degree. Throughout the period Great Britain was by far the most important trading partner of the thirteen colonies. In the years 1768-1772 Great Britain (and Ireland) absorbed between 50 and 60 percent of the commodity exports of all British colonies in North America and delivered on average almost 80 percent of their commodity imports.<sup>15</sup> The substantial trade deficits with Great Britain were usually covered by trade surpluses with the West Indies and with Southern Europe, by the expenditures of British military

forces stationed in the colonies, and by shipping and other invisible earnings.<sup>16</sup> For Great Britain the North American colonies had assumed an ever growing importance in her total foreign trade over the course of the 18th century, from roughly 6 percent in each of the following categories at the beginning of the century to 12 percent of British imports, 9 percent of British reexports and a full 25 percent of British domestic exports in 1772-1773.<sup>17</sup>

The commodity structure of imports and exports reflected the markedly different factor endowment of the land-abundant colonies and of labor-abundant Great Britain perfectly. Apart from the usual reexports (tea, spices, drugs) England supplied the American market with manufactured goods (woolens, linen, hardware, and metal products of all sorts). The North American colonies in turn supplied Great Britain overwhelmingly with primary products, whose export value dwarfed the export value of the numerous ships sold to England mainly from New England and of semimanufactures such as pig, bar, and cast iron exported mainly from the middle colonies. Tobacco constituted 83 percent of North American colonial exports to England around 1700, about 60 percent 50 years later and 35 percent around 1770. In those years rice exports to Britain accounted for less than 1 percent, 16 percent and 24 percent respectively.<sup>18</sup> Add to this indigo, for which British Parliament granted a bounty since 1748 and you have assembled the North American export items for which demand in Britain grew over the eighteenth century at a tremendous rate.

It is important to keep in mind that by far the larger share of colonial exports were products of the American South, which remained true in the 19th century, when cotton replaced tobacco, rice, and indigo in importance. This fact, which is also pointed out by Christopher Clark in his contribution to this volume, helps explain several long-term consequences:

- The economic fate of the South with its staple production was linked to market conditions in Europe, specifically in England, almost totally.
- Apart from services for this trade that the New England and Middle Atlantic colonies provided, the South was economically not dependent on the North.
- The North, in contrast, needed the South to earn the means for the importation of British manufactured goods to provision the requirements of the family farmer and of urban households. This contributes to explain why the South, although progressively outnumbered by the population in the Northern states, retained its political dominance in Washington D.C. until shortly before the Civil War.



- The actual and potential competitors of the South were not the North or countries in Europe, but other colonial territories around the world with similar climate condition, including India and Latin America.<sup>19</sup> It is therefore no accident that the plantation system on the basis of imported black slaves developed there, similar to the hacienda in Latin America. This implied a distribution of income and wealth, especially of real estate ownership, more unequal than in the colonies in the North, where the family farm predominated.<sup>20</sup> And this in turn had implications for the development of a mass market for manufactured goods, where the North was more advanced than the South.

### **3. External conditions and U.S. economic developments to 1815**

#### **3.1. Problems of economic adjustment until 1793**

The American Revolution can be interpreted as an expression of the refusal of the Americans to play the economic role that the British mercantilistic system had assigned to the North American colonies, namely to supply British industry with primary and - at best - semifinished products and to provide a market for British manufactures. With political independence all restrictions on manufacturing activity in the U.S. vanished, but at the same time all privileges of access to the British market (and its colonies in the West Indies and Canada) were lost as well, which affected the export staples tobacco, indigo, wheat, and rice as well as shipbuilding and shipping on a big scale. Exports to Britain were down from an average of £1.8 million annually from 1768 to 1773 to £1.1 and 1.2 million in 1789 and 1790 respectively.<sup>21</sup> In 1790-1792 Great Britain received only 31 percent, about half of the pre-revolutionary share, the West Indies 34 percent, Southern Europe 14 percent and the then open North European markets 16 percent of total U.S. exports, with the South of the U.S. being the main victim of the decline in trade with Britain.<sup>22</sup>

In one of its first activities the U.S. Congress imitated the European powers and enacted discriminatory rules against foreign shipping to and from the U.S. in July 1789.<sup>23</sup> And in the Tariff Act of July 1789 it introduced customs tariffs for the Union as a whole. This created for the first time a common market for the former colonies who prior to independence had maintained firmer links with markets in Britain, the West Indies and elsewhere than with each other.<sup>24</sup> The tariffs were the main source of revenue for the central government and they were designed and applied on a non-discriminatory basis, i.e. they favored or disfavored none of the U.S. trading partners and in this way signaled a position of commercial neutrality to the rival powers in Europe.<sup>25</sup> A number of commercial treaties (with France, Holland, Sweden, and Prussia) were concluded, but with little effect on U.S. foreign trade in practice.

According to the then latest economic theory of the day, Adam Smith's Wealth of Nations of 1776, economic development was determined by the size of the market. The American domestic market around 1790 was very limited indeed with 95 percent of the almost 4 million people living in rural areas with a high degree of self-sufficiency. So economic growth was crucially dependent on the expansion of export demand and also determined by "the characteristics of the export industry and the disposition of the income received from the export sector", as Douglass North in his pioneering study of early U.S. economic growth has concluded.<sup>26</sup>

It is true that influential politicians and businessmen, like Robert Morris, Alexander Hamilton, and Tench Coxe, designed strategies for the development of manufacturing industries in the U.S. in order to break Britain's dominant position on the American market.<sup>27</sup> They had observed during the Revolutionary War how important a certain degree of self-sufficiency in manufacturing production was, for civilian consumption and even more for military armaments. They had also seen that the interruption of trade with Britain had provided a strong stimulus to American manufacturing activities (although along the more traditional technological and organizational line). When hostilities were over and trade with Britain was resumed, especially Hamilton and his Assistant Secretary of the Treasury Coxe became aware of the probable long-term disadvantages for the U.S. of importing manufactures and exporting agricultural staples: The prices for U.S. export fell from 1786-1792 while those for manufactured imports did not; this means that the terms of trade worsened for the Americans.<sup>28</sup> These two experiences induced Hamilton to demand protective tariffs for infant industries in his famous Report on Manufactures of December 1791 in order "to render the United States independent on foreign nations, for Military and other essential Supplies".<sup>29</sup> Hamilton also saw the need of capital imports to help finance large-scale modern manufacturing production in America and therefore pleaded for and achieved the consent of Congress to his proposals for the restoration of American credit abroad and the credit of the U.S. government at home. His and the Federalists' conception of a strong central government can thus be interpreted as a consequence of the relatively backward stage of economic development of the U.S. vis-à-vis England (and France) in combination with the determination of the Federalists to emulate the economic success of Great Britain on its own turf, namely in manufacturing.

The Congress did not fully consent to Hamilton's proposal of protective tariffs. But with the undeveloped state of the domestic market, high protection would hardly have created much room for economic growth anyway, which instead of near self-sufficiency in rural areas required expanding urban and foreign markets to realize the economies of scale that constitute the core benefit of factory production. A big boost to U.S. export in addition to a redressment of British competition on the U.S. market would certainly be better suited to break the limits to economic growth and development and to overcome the problems of

economic adjustment that the U.S. faced at the start of its existence. And what was for the U.S. a historical accident, the outbreak of war between England and France in 1793, did just this. It weakened British competition within the U.S. and provided for expanding foreign markets for American export on an unprecedented scale.

### **3.2. Prosperity and commercial capitalism 1793-1807**

The British were fighting the French as well as the Dutch and the Spanish navies and merchant marines. The Netherlands was dominated by, Spain was allied to France. With U.S. neutrality American vessels, mostly via American ports, were able to carry on trade between continental Europe and European colonies, especially in the West Indies. For the same reason Great Britain had more of her trade carried on American ships. War production necessities and the war-related elimination of competition increased demand for American domestic exports in Europe and in Latin America on a big scale.<sup>30</sup> From 1795-1807 the terms of trade, that is export to import prices, were much more favorable to the U.S. than before.<sup>31</sup>

U.S. exports and earnings from the carrying trade on U.S. ships increased dramatically in this period despite the seizure of hundreds of American (= neutral) ships by both France and Great Britain.<sup>32</sup> This finally induced the American government under President Jefferson to retaliate with economic sanctions, namely the Embargo Act of December 1807, replaced by the Non-Intercourse Act of March 1809, the former prohibiting American ships to sail to any foreign port, the latter prohibiting trade with Great Britain, France and their possessions only. The Macon Act of May 1810 substituted the Non-Intercourse Act and promised to either France or Great Britain that the U.S. would cut trade relations with the other, if one of them would lift her own restrictions on U.S. trade. After France had withdrawn her decrees against American shipping, the U.S. conflict with England sharpened and led to the U.S. declaration of war under President Madison on June 1, 1812.<sup>33</sup> With the British Navy blocking U.S. foreign trade, U.S. imports and exports, which had been low since 1808, were wiped out almost completely by 1814. This meant that after 1807 first economic and then military warfare of the U.S. government did more than any protective tariff could ever have done to shield U.S. infant industries against British (and other) foreign competition.

Here are some figures:<sup>34</sup> In 1790-1792 U.S. exports, almost all of it domestically produced merchandise, amounted to about \$20 million each year. In 1801, that is a year before Britain left the war against France (for only about a year and a half) with the Treaty of Amiens, U.S. exports reached a first peak with \$94 million, of which about half were reexports. The final maximum was reached in 1807 with \$108 million for total U.S.

exports and 60 million for reexports. U.S. net earnings from the carrying trade had increased from an average of about \$6.5 million in 1790-1792 to 42 million in 1807.<sup>35</sup> With the U.S. GNP estimated at \$564 million in 1807,<sup>36</sup> total exports constituted a share of 19 percent and net earnings from the carrying trade 7.5 percent, both in sum 26.5 percent of U.S. GNP. These percentages for the years 1790-1792, with an average GNP estimate of \$205 million, had been roundabout half as big, namely 10 percent for total exports and 3.2 percent for earnings from the carrying trade, a total of 13.2 percent.

The American economy around 1800 prospered enormously on exports. The four major seaport cities on the Atlantic coast, Boston, New York, Philadelphia, and Baltimore, grew 2-3 times in population between the censuses of 1790 and 1810<sup>37</sup> and merchants there accumulated great amounts of commercial capital. The shipbuilding industry produced on a higher level than ever before. The banking and insurance business thrived. Huge amounts of private capital were invested in infrastructure, namely in roadmaking, river improvements and canal construction. Hundreds of corporations were chartered on the basis of common stocks for financing the construction of turnpikes. Markets for local trade and tradesmen developed.

It was in this period that the South turned to cotton production, which began to replace the central role played by the former staples tobacco, indigo, and rice. Not only the introduction of the Sea Island cotton from the Bahamas, but also the invention of the cotton gin in 1793 by Eli Whitney, which facilitated the separation of the cotton fiber from the seeds for the green-seed cotton, made cotton production in the upland, non-seaboard South competitive. Britain's rapidly expanding cotton industry, which into the 1790s had relied on cotton supplies from Egypt, India, the Near and Far East and the British West Indies, thereafter relied on American cotton more and more.<sup>38</sup> U.S. exports of cotton rose from merely 189 thousand pounds in 1791 to 66 million pounds in 1807.<sup>39</sup> For that period as a whole it has been calculated that cotton accounted for about half the value of total domestic exports.<sup>40</sup> That the South could maintain its political influence and power position within the Union up to the Civil War can be attributed to the central role that "King Cotton" assumed in the Southern economy and in total U.S. exports in this period on account of the almost insatiable demand of the British and other European textile industries.

### **3.3. The early rise of infant manufacturing industries 1808-1815**

The external trade conditions from 1808-1815, in contrast, forced a big push for the development of manufacturing industries on the U.S. economy. Plentiful domestic capital and labor resources that could no longer be profitably invested and employed in

commercial activities, were then available for other uses, especially in the Atlantic seaports Philadelphia, New York, and Boston. The trade restrictions led to high prices for manufacturing products, and low prices for agricultural products. This made it profitable to move capital and labor resources into manufacturing. The early rise of the New England textile industry, the mother of the factory system in the U.S., fell into this period.<sup>41</sup> The woolen goods, clothing, leather and shoe, lumber, paper and printing, glass, iron, armaments, and food-processing industries expanded in this period.<sup>42</sup> As the overwhelming part of this manufacturing activity took place in New England and, still to a lesser degree, in the Middle Atlantic, the Northern States broadened their economic base, while the Southern states continued to rely on monocultural activities. With prices for manufactured products high and those for the agricultural staples low, more of the specie money of the nation concentrated in New England banks.<sup>43</sup>

During the period from the start of the Union to 1815 as a whole, the endowment of the U.S. with productive factors improved from abroad only in land availability. The Louisiana purchase from Napoleon in 1803 approximately doubled the territory of the U.S. As to labor, immigration was low, compared to natural increase, and contributed only about 3 percent to total population growth.<sup>44</sup> Slave imports were ended in 1808 according to Article I, Section 9, paragraph 1 of the Constitution. Capital imports played no role; U.S. capital formation during that period resulted solely from domestic sources.<sup>45</sup>

#### **4. External relations and U.S. economic developments to 1860**

##### **4.1. Tariff protection and manufacturing industries**

The period from 1815-1860 was relatively free of war-related foreign trade distortions despite the Mexican War in America in the 1840s and the Crimean War in Europe in the 1850s. Economic forces within the international economy influenced economic developments in this period much more than political events, which was partly due to the fact that the age of mercantilism was over with the Napoleonic Wars. Henceforth the doctrine of liberalism was on the rise and economic policies were more and more shaped by it. Trade restrictions, particularly in Europe, were rather removed or lowered than upheld or increased. It was in this period that the Atlantic Economy took shape comprising Europe, North and Latin America, and other regions of new settlement.<sup>46</sup>

The American economy did not display such extremes in expansion and contraction as during the preceding period, but rather a deep restructuring and reorientation that carried

it into self-sustained modern economic growth and thereby also into the Civil War because it broke the backbone of the political power of the South. It turned the U.S. economy away from economic dependence on Europe "toward dependence on our own internal economy as the mainspring of expansion".<sup>47</sup> The export share never again reached the level that it had attained before 1808 and the reexport and carrying trade even fell to insignificant proportions. D. North states that after 1815 the

"United States was left with only cotton as the major expansive force. The vicissitudes of the cotton trade - the speculative expansion of 1818, the radical decline in prices in the 1820's and the boom in the 1830's - were the most important influence upon the varying rates of growth of the economy during the period. Cotton was strategic because it was the major independent variable in the interdependent structure of internal and international trade. The demands for western foodstuffs and northeastern services and manufactures were basically dependent upon the income received from the cotton trade".<sup>48</sup>

When the war in Europe had ended, British manufactured exports reappeared on the formerly cut-off markets with a vengeance, in continental Europe as well as in the U.S. The American manufacturing industries in the Northeast, war babies still, could hardly bear this brunt of competition. New England's cotton industry output shrank from 2.4 million yards of cloth in 1815 to only 0.8 million in 1816.<sup>49</sup> At the same time American staple exports were booming. Cotton exports exploded until 1818, and wheat and flour exports increased dramatically in 1816 and 1817 due to bad harvests in Europe. It looked like the old division of labor from the colonial era would reestablish itself, with Britain specializing in the production and export of manufactures and with the U.S. importing manufactures and specializing in the production and export of primary and semifinished products.

That such backward development did not last and that industrialization took hold of the United States fully after the worldwide trade depression of the 1820s is - in my view - partially due to some protective tariffs that the war-baby industries had cried for since 1815 and that Congress had granted especially to the textile industry and more moderately to the iron industry already in 1816. In the 1820s those tariffs were increased further, and more and more industries received protection, until the trend was reversed in 1833, after the famous Tariff of Abomination of 1828 had triggered the Nullification Controversy between South Carolina refusing to apply the tariffs and the Washington government under President Jackson.

Henry Clay was the leading spokesman for protective tariffs in Congress. Advocating the special interest of U.S. manufacturing industries, he appealed to the general American yearning for independence, especially from Britain, and propagated the so-called American System. Under the shield of high tariffs, U.S. manufacturing would grow; this would be not at the expense, but to the benefit of farmers and other primary producers who would find expanding home markets in industrial demand for primary products and in the demand for foodstuffs by a growing urban population. When the states of the South rallied behind South Carolina's opposition to protectionism and reversed the trend in 1833, some of the effects of protectionism on the development of U.S. manufacturing industries had already occurred, others would still be powerful for years to come, as the agreed-on ten-year gradual reductions to tariff rates of at most 20 percent would start from a very high plateau.<sup>50</sup>

The policy of high tariffs for young industries in the U.S. after 1815 constituted - in modern terminology - an import-substitution strategy. The case of the New England cotton textile industry demonstrates that it did work. When the 1816 tariff had been put in place, the cotton industry there recovered immediately and expanded with annual double-digit growth rates until 1833 and less spectacularly, but still impressively thereafter.<sup>51</sup>

#### **4.2. Factor endowment and early U.S. industrialization: a new view**

A second even more important condition that set the stage for early industrialization in the U.S. was factor endowment. Under this heading - I think - I have a new view to contribute. According to the familiar Heckscher-Ohlin theorem, assuming free trade, a country exports those goods in whose production process its relatively abundant factors of production are being used intensively, and imports those goods that are produced intensively with factors in which the country is relatively poorly endowed. In the early 19th century, Britain is regarded as abundant in labor and capital and scarce in land, while the U.S. is seen as abundant in land and scarce in labor and capital.<sup>52</sup> This view is also taken by Christopher Clark in his contribution to this volume. But taking the average factor endowment for the U.S. territory as a whole blurs important regional distinctions, which in Europe with its many national borders would naturally show up as differences between countries, say between England and Portugal, to borrow an example from David Ricardo. As industrialization in the U.S. started early in the 19th century in New England and somewhat later in the Middle Atlantic, and as it was not a phenomenon evenly dispersed over the whole U.S. territory, one should suppose that relative factor endowments of the Northeast, on the one hand, and the other parts of the U.S., on the other, had something to do with it. Let me advance the hypothesis that the relative factor endowment of the Northeast, especially of New England, in the early 19th century was much more similar to

that of England than to the other regions of the U.S. This means concretely that New England and other parts of the Northeast, like Great Britain, were relatively scarce in land, but abundant both in labor and capital, while for the rest of the U.S. the reverse was true.

The hypothesis can be tested by looking

- at regional population density and wealth per capita, on the one hand, and
- at interregional population and capital flows within the U.S., on the other.

As to population density, the census data for 1810 show that New England (with the exception of Maine that was not yet founded) and the Middle Atlantic contained the most densely populated states within the Union. The resident population per square mile of land area was 4.3 on average for the Union as a whole in 1810. Ten years earlier, before the Louisiana Purchase of 1803 had practically doubled the territory of the U.S., this average had been 6.11 for the territory of the original 13 colonies. As against that the population density in the different states of the Northeast in 1810 was in diminishing order:

Rhode Island	72.1	Residents per square mile
Massachusetts	58.7	
Connecticut	54.3	
New Jersey	32.7	
Vermont	23.9	
New Hampshire	23.7	
New York	20.1	
Pennsylvania	18.1	

Outside the Northeast only the two most northern South Atlantic states were also marked by relatively high population density in 1810: Maryland with 38.3 and Delaware with 37.0 residents per square mile. All other states exhibited a much lower population density.<sup>53</sup> Although none of these ratios reached the average population density figure for Great Britain (England, Wales, and Scotland), namely 118 residents per square mile in 1801,<sup>54</sup> they were relatively much closer to the British figure than to the population density of the rest of the U.S. If we had a figure for Great Britain on the eve of her industrialization process - let's say in 1750 - it might well have been in the range of population density in Rhode Island, Massachusetts, and Connecticut in 1810. I draw the conclusion that population density figures support the hypothesis that the Northeast of the U.S., especially New England, was relatively abundant in labor and scarce in land.<sup>55</sup>

The endowment of different regions or states with capital is hard to come by. The censuses up to the middle of the 19th century did not collect data on wealth distribution other than slaveholdings,<sup>56</sup> which does not contribute to an estimate of wealth differentials



between the Northeast and the South. But we have several indicators for the regional level of wealth accumulation:

- For 1798, there are regional data on dwellings, and their value. As Lee Soltow reports on the mean values: "The states lying along the East Coast from Massachusetts to Maryland had averages between \$200 and \$320. Upper New England (Maine, Vermont, and New Hampshire) had averages from \$100 to \$200, approximately half those of Massachusetts through Maryland.... The frontier states of Tennessee and Kentucky had very humble values", namely \$45 for the former and \$59 for the latter. The mean value in Virginia was \$149.<sup>57</sup> One part of the value differences certainly reflected differences in the quality of housing, the other part the price effect of regional income differences. Both can be interpreted as an expression of regional differences in capital accumulation.
- From 1840, we have well established data on regional per capita income levels which also reflect the degree of a region's wealth and capital accumulation. Richard Easterlin reports for 1840 that nominal per capita income in the Northeast was 135 percent of the U.S. average, that is almost double the levels of the North Central (68 percent) and of the South (76 percent). A few decades earlier the relative positions cannot have been much different, just as they did not change much in the century following 1840, the one-time impact of the Civil War excluded.<sup>58</sup>
- We have circumstantial evidence that during the period of enormous American prosperity from the outbreak of the Anglo-French War in 1793 to 1807, of all U.S. regions the Northeast benefitted most from international trading opportunities that opened up. The merchants and shipowners of this region not only took advantage of the reexport and carrying trade for foreign nations, but also of the organizing, financing, and management of U.S. exports of staples, not only of wheat and flour from the North, but of cotton from the South as well. This must have produced an accumulation of commercial capital in the Northeast on a tremendous scale. In contrast to Southern capital accumulation in the form of plantations and slaveholding expansion, the accumulated Northeastern commercial capital either found its way into industrial ventures directly; Lance Davis noted this for the early New England textile mills: "a list of the officers of the new mills closely resembles a list of the successful merchants of a decade earlier."<sup>59</sup> Or it was kept as financial and thus relatively liquid capital, as the spreading of financial institutions and the development of markets for securities (stocks and bonds) in the Northeast, particularly in Boston and New York, demonstrates.<sup>60</sup>

All three points support the same conclusion, namely that the Northeast was relatively abundant in capital in the early 19th century vis-à-vis the rest of the country, especially in its endowment with comparatively liquid commercial capital. In that respect the Northeast was much more akin to Great Britain than to the other parts of the U.S.

The hypothesis is also supported by evidence on interregional population and capital flows within the U.S. It is well known that "many agricultural areas of New England were becoming progressively exhausted" already since about the middle of the 18th century.<sup>61</sup> This led to emigration from this most densely populated region to the new farming areas of the West throughout the antebellum period, "but it was most pronounced in the second and third decades of the nineteenth century". Those who stayed because they had family and community ties and traditions to lose, were eager to supplement their incomes often through part-time factory work. This explains why, despite the westward migration, "some excess supply of labor was retained in the New England countryside" and why it was available for factory production "at favorable wage rates".<sup>62</sup>

Capital, most of it on a short-term basis, also flowed from the Northeast in response to 19th century agricultural expansion and investment in infrastructure in the West and the South. Douglass North came to the conclusion: "The flow of capital from the North to the South and West was sizable."<sup>63</sup> Lance Davis states that in response to Western demand for external capital to finance its transport system, "finance moved westward in the 1830s and 1850s; however, while some of the funds came from Eastern savers, the bulk were drawn from abroad".<sup>64</sup> As to the South, Davis reports for the antebellum period that "the cotton factors - firms specializing in marketing southern cotton - provided the basis for a movement of short-term capital from the Northeast to the South".<sup>65</sup> It is well known that there were substantial interest, even discount rate differentials between regions within the U.S., with rates in New York City at the lower end, not much higher than those in London, and with other regions often several percentage points higher.<sup>66</sup> Although interregional capital mobility within the U.S. was limited during the antebellum period, as Davis found out, there is no question that capital was plentiful in the Northeast<sup>67</sup> and that its abundance there contributed significantly to the early rise of the textile industry in New England and of other manufacturing industries in the Northeast in general. Again we found that this capital-rich and capital-exporting region - in terms of factor endowment - was much more similar to England than to the capital-importing rest of the U.S.

### **4.3. Human capital**

In the preceding section we have been using the category "labor" as one of the production factors without in any way taking into view the very different qualifications that individuals possess. Modern economic growth requires people with specific profiles. It requires industrial leaders with an enterprising spirit willing to venture and organize capital investments in new technologies and along new lines of mass production. It also requires a labor force with the necessary discipline or work ethic for routine work in the factories and

with a certain level of education. U.S. international economic relations helped to provide for this sort of manpower or human capital.

As to the early U.S. industrial leaders, the entrepreneurs or innovators who ventured their capital and the inventors who set their creative minds on the development of new technologies, were both to a certain extent products of British culture. The merchant of Boston who started to invest in manufacturing in the early 19th century had more in common with his British counterpart in Manchester and Liverpool, Birmingham and London than with a plantation owner in the South. In some cases he would himself have been raised in one of those places. He typically entertained close business relations with his peers in Britain and therefore opposed the U.S. government on the war with Britain with the threat of secession at the Hartford Convention in 1814. He was strongly interested not only in price developments in Britain, but in the technological innovations that transformed Britain's economy in an unprecedented way. Like his British counterpart he would explore opportunities for gainfully investing his capital in a new factory. The Southern plantation owner, in contrast, typically invested only along traditional lines of production, namely in land and in slaves for the expansion of cotton production. The Anglo-Saxon cultural background and the ongoing close commercial links with Britain, where the industrial revolution occurred under the eyes of merchants in New England, go a long way to explain why men with entrepreneurial qualifications were present when manufacturing opportunities opened up in the Northeast.<sup>68</sup>

The same is true for the technical expertise that was employed in the new industries. The latest knowledge on new technologies in Britain was imported either through the immigration of men like Samuel Slater who came from Britain in 1790 to build the first American mill to use Arkwright's water frame, i.e. cotton-spinning machinery, like the brothers Arthur and John Scholfield of Yorkshire who arrived in the early 1790s to build wool-carding machinery driven by waterpower, and like Henry Burden, a Scottish engineer who introduced crucial innovations in weapons production in the Springfield armory. The latter systematically brought over immigrant mechanics to work in the armory. Later it was the Welsh immigrant David Thomas who introduced the anthracite iron-smelting process in Pennsylvania's iron industry in 1840.<sup>69</sup>

Other technical knowledge was imported from Britain by skilled Americans who traveled to England and spied on technology the export of which had been outlawed by the British parliament. Francis C. Lowell did this and afterwards together with Paul Moody introduced the first American cotton loom driven by waterpower in 1814 in his Boston Manufacturing Company.<sup>70</sup>

I emphasize these points, because I see in them a crucial difference of development conditions between North America and Latin America. Neither did the Latin American

colonies or states have such close cultural and commercial links with the cradle of industrialization, namely England, nor did their cultural mother countries develop into early industrializers. Spain's and Portugal's flourishing commercial capitalism, especially of the 16th and 17th centuries, for whatever reasons was not transformed into industrial capitalism. Instead, when Spain and Portugal could no longer exploit their Hispanic empires in the 19th century, they lost their source of prosperity and power. Wealthy men in Latin America for their part, it seems to me, remained conditioned by their Hispanic heritage from Europe, namely to derive wealth from exploiting cheap labor, mainly black or Indian, in producing staple exports for European markets.<sup>71</sup>

As to the qualifications of the labor force in general, a certain work ethic and a basis educational level are required for modern economic growth. I will not discuss the Protestant work ethic hypothesis here, which Max Weber exemplified among others by comparing the Puritan with plantation colonies. It seems to me that the Puritan tradition of New England contributed to shaping a disciplined workforce suited to the needs of factory production. In Latin America, in contrast, the labor force was generally much less adaptable to routine work, as is required in industrial plants. This is well known for Indian and black labor, but it is also true for white members of the labor force, who came overwhelmingly from Catholic backgrounds. The Spanish culture did not provide for the "taste for toil" that makes for work discipline. A trapper who had journeyed to the Spanish settlements of the West in early America reported that "the people live apparently unconscious of the paradise around them. They sleep and hum Castilian tunes while nature is inviting them to the noblest and richest rewards of honorable toil".<sup>72</sup>

Besides adaptability to the routine of factory work, education provided the other asset that the North American labor force possessed. Stanley Lebergott and Nathan Rosenberg both valued basic education in common schools as a factor in early American economic growth very highly.<sup>73</sup> It facilitated the adoption of inventions and thereby the process of constant technological change which is characteristic for industrialization. In 1830 the U.S. percentage of total population enrolled in school was estimated at 15 percent, surpassed only by Germany with 17 percent. The ratio in the Netherlands, Switzerland, Denmark, Norway, and Sweden was 12-14 percent, in the U.K. 9, France 7, and Spain 4 percent. In 1850 the U.S. took the lead with 18 percent.<sup>74</sup>

It is well known that not only the blacks were excluded from education in the South, but that education and the school system for white people there was inferior to the West, where the more equal distribution of income and wealth and of political power created by far stronger incentives for the development of broadly based public education.<sup>75</sup> The best public school system and education in the country was, however, provided by the New England states where America's industrial revolution began.<sup>76</sup>

Compared to the 8 percent of U.S. GNP that is spent on education today, the share of education expenditure in GNP was rather modest in the antebellum period, perhaps one percent, as Albert Fishlow estimated.<sup>77</sup> But during the 19th century the accumulation of human capital in the U.S. was much higher than that, because it resulted from a second source as well, namely immigration. It increased spectacularly when the industrial take-off, which first started as a regional take-off (as Rostow calls it) in New England early in the century, spread to other parts of the country in the 1840s and 1850s, as the following data on immigrants per 1000 of population show: 1820-30: 1.2; 1831-40: 3.9; 1841-50: 8.4 and 1851-60: 9.3.<sup>78</sup> But unlike European financial capital, which reacted to the same market conditions as the migrants,<sup>79</sup> imported human capital did not have to be serviced with interest and amortization payments. In fact, as most immigrants came as young adults, the U.S. saved the costs of upbringing and educating these permanent additions to the American labor force. Paul Uselding has estimated that immigration in the period 1839-1859 accounted for a human capital formation amounting to one-half to three-fourth of total gross physical capital formation, which means 5-10 percent of GNP in the U.S. during that period.<sup>80</sup>

**5. Conclusion: Where did Latin American conditions for economic development differ from the U.S. experience?**

I lack the knowledge of Latin American history which would allow me to make a valid comparison of the conditions for economic development there with the U.S. But Colin Lewis in his contribution to this volume provides us with an impressive overview over Latin American economic developments since the 19th century. I confine myself here to simply raising questions for the Latin American experts to answer. They relate to issues that I chose to discuss in the preceding sections. I suspect that the following points could play a prominent role in explaining the different paths of the U.S. and Latin America into the 20th century:

- Is Adam Smith's statement in 1776 correct that British rule in America had been "less illiberal and oppressive than that of any other European nation"<sup>81</sup> and if so, did Spanish and Portugese oppression in Latin America create conditions inimical to economic development?
- Where in Latin America was land ownership and the political participation that usually went with it not the privilege of just a few, but a common phenomenon of almost all of the population? In the U.S. by 1774 three out of four free families possessed their own

farm. This had implications for political participation. Every colony that joined the Revolution was equipped with a representative assembly, elected by the property owners. These assemblies made the laws and levied the taxes.<sup>82</sup> The Revolution, therefore, was not a movement to gain independence, but a movement not to let the British parliament take it away. Was there somewhere in colonial Latin America a region with a comparable degree of economic and political autonomy?

- Did inequality in income and wealth distribution in Latin America retard the development of mass consumer markets and thus the incentive to industrialize, similar to the South of the U.S. and unlike the North?
- Did Latin America have an area comparable in factor endowment to New England at the start of the 19th century and if so, why did factory production not develop there in a similar manner?
- Was there a lack of human capital in Latin America, that is of entrepreneurial capacity, of work discipline and of education?
- Was Friedrich List on the right track when in 1827 he advocated infant industry protection for the U.S. to develop manufacturing industries, but did explicitly not recommend it for Mexico, South America, and Spain? According to List, the Hispanic countries should continue to exchange their precious metals and raw produce for foreign manufactures, because their peoples were "yet uninstructed, indolent and not accustomed to many enjoyments"; they "must first be led by a desire of enjoyment to laborious habits and to improvements of their intellectual and social condition."<sup>83</sup>

## Anmerkungen

- 1 A. Maddison, A Comparison of the Levels of GDP Per Capita in Developed and Developing Countries, 1700-1980, in: *Journal of Economic History* 43 (1983), 27-52. His methods have been criticized by J.R. Hanson, *Third World Incomes before World War I: Some Comparisons*, in: *Explorations in Economic History* 25 (1988), 323-336, and J.R. Hanson, *Third World Incomes before World War I: Further Evidence*, in: *Explorations in Economic History* 28 (1991), 367-379. Hanson's criticism, however, does not affect Coatsworth's argument.
- 2 W.W. Rostow, *The World Economy. History and Prospect*, Austin, Texas, 1978, 385-386.
- 3 Quoted in H.N. Scheiber, H.G. Vatter, and H.U. Faulkner, *American Economic History*, New York, 1976, 59-60.
- 4 This "old imperialism" in the age of commercial capitalism differs from Europe's "new imperialism" since the 1870s, i.e. in the age of industrial capitalism, mainly in the dominant role of population exports in the former versus capital exports in the latter case, and the predominance of mercantilistic restrictions on international competition during the "old" versus laissez-faire during the "new imperialism". Under the "old imperialism" the mother country sent people along with government regulations and restrictions to dominate life in the colony, under the "new imperialism" countries were opened for intensified trading of goods and services and for large-scale capital investment and were thus economically penetrated by world market forces. H.U. Faulkner, *American Economic History*, 5th ed., New York, 1943, 562-564.
- 5 M. Rothstein, *Foreign Trade*, in: G. Porter (ed.), *Encyclopedia of American Economic History*, New York, 1980, 248.
- 6 Quoted in H.N. Scheiber, H.G. Vatter, and H.U. Faulkner, *American Economic History*, New York, 1976, 39.
- 7 M. Rothstein, *Foreign Trade*, 249.
- 8 H.N. Scheiber, H.G. Vatter, and H.U. Faulkner, *American Economic History*, New York, 1976, 68.
- 9 J.F. Shepherd and G.M. Walton, *Shipping, Maritime Trade, and the Economic Development of Colonial North America*, New York, 1972, 23.
- 10 E. Morgan, *The Birth of the Republic, 1763-89*, Chicago, 1956, 10-11.
- 11 J.F. Shepherd and G.M. Walton, *Shipping ...*, 6. A broader view of the economic and social structure of colonial North America and its consequences for later economic development in the USA is presented by J.J. McCusker and R.R. Menard, *The Economy of British America, 1607-1789*, Chapel Hill, N.C., 1985, and by J.A. Henretta and G.H. Nobles, *Evolution and Revolution. American Society, 1600-1820*, 2nd ed., Lexington, Mass., 1987.
- 12 J.F. Shepherd and G.M. Walton, *Shipping*, 33 note 1, 36.
- 13 *Ibid.*, 43. This is confirmed by the latest research of M. Wilkins, *The History of Foreign Investment in the United States to 1914*, Cambridge, Mass., 1989, 27. See also J.M. Price, *Capital and Credit in British Overseas Trade: The View from the Chesapeake, 1700-1776*, Cambridge, Mass., 1980.
- 14 J.F. Shepherd and G.M. Walton, *Shipping*, 44.
- 15 U.S. Bureau of the Census, *Historical Statistics of the United States. Colonial Times to 1970*, Washington, D.C., 1975, 1182-1183.
- 16 Annual data for 1768-1772 in *ibid.*
- 17 M. Rothstein, *Foreign Trade*, 250.

- 18 J.F. Shepherd and G.M. Walton, *Shipping*, 38, 40, 241-245.
- 19 This is pointed out by G. Wright, *Old South - New South: Revolutions in the Southern Economy Since the Civil War*, New York, 1986.
- 20 See A.H. Jones, *Wealth of a Nation to Be*, New York, 1980, 314, for the distribution of total physical wealth by region.
- 21 D.C. North, *The Economic Growth of the United States 1790-1860*, Englewood Cliffs, N.J., 1961, 18-19.
- 22 M. Rothstein, *Foreign Trade*, 252-253.
- 23 D.C. North, *The Economic Growth*, 20.
- 24 M. Rothstein, *Foreign Trade*, 253.
- 25 This was what the first Secretary of the Treasury Alexander Hamilton had proposed, while Secretary of State Thomas Jefferson and his supporter in Congress James Madison had been fighting for trade discrimination against Britain and in favor of France, because France had supported the American cause during the Revolutionary War and had herself granted trade concessions to the U.S. already. Hamilton, in contrast, warned against discrimination of England with a view to the role that British capital would have to play in American economic development. See H.N. Scheiber, H.G. Vatter, and H.U. Faulkner, *American Economic History*, New York, 1976, 115.
- 26 D.C. North, *The Economic Growth*, 1. For a recent discussion of the classical theory and 19th century experience of "development through trade" see G.M. Meier, *Theoretical Issues Concerning the History of International Trade and Economic Development*, in: C.-L. Holtfrerich (ed.), *Interactions in the World Economy. Perspectives from International Economic History*, New York, 1989, 33-58.
- 27 For details see J. Dorfman, *The Economic Mind in American Civilization 1606-1865*, vol. 1, 2nd ed., New York, 1953.
- 28 P. Uselding, *Manufacturing*, in: G. Porter (ed.), *Encyclopedia of American Economic History*, New York, 1980, 398.
- 29 A.H. Cole, *Industrial and Commercial Correspondence of Alexander Hamilton Anticipating His Report on Manufactures*, Chicago, 1928, Reprint New York, 1968, 247. A few decades later Friedrich List propagated the infant industry argument of protection first in exile in the U.S., then in Germany against economic dominance by England. See R.H. Tilly, *Los von England: Probleme des Nationalismus in der deutschen Wirtschaftsgeschichte*, in: *Zeitschrift für die gesamte Staatswissenschaft* 124/1 (1968), 179-196.
- 30 E.L. Bogart and D.L. Kemmerer, *Economic History of the American People*, 2nd ed., New York, 1948, 194.
- 31 D.C. North, *The Economic Growth*, 229. They fell by about 50 percent during the British-American war 1812-1814, when U.S. foreign trade had practically come to a standstill.
- 32 For a fascinating new account of the fate of a New England merchant firm, the house of John and Richard Codman, see F. Crouzet, *Opportunity and Risk in Atlantic Trade during the French Revolution*, in: C.-L. Holtfrerich (ed.), *Interactions in the World Economy. Perspectives from International Economic History*, New York, 1989, 90-150.
- 33 H.N. Scheiber, H.G. Vatter, and H.U. Faulkner, *American Economic History*, New York, 1976, 117.
- 34 Taken from D.C. North, *The Economic Growth*, Appendix I.
- 35 *Ibid.*, Appendix II, 249.



- 36 B.R. Mitchell, *International Historical Statistics. The Americas and Australasia*, London, 1983, 886.
- 37 D.C. North, *The Economic Growth*, 49.
- 38 H.N. Scheiber, H.G. Vatter, and H.U. Faulkner, *American Economic History*, New York, 1976, 131.
- 39 D.C. North, *The Economic Growth*, 231.
- 40 M. Rothstein, *Foreign Trade*, 253.
- 41 R.B. Zevin, *The Growth of Cotton Textile Production After 1815*, in: R.W. Fogel and S. Engermann (eds.), *The Reinterpretation of American Economic History*, New York, 1971, 123.
- 42 For details see V.S. Clark, *History of Manufactures in the United States*, vol. 1: 1607-1860, Washington, D.C., 1929. C.P. Nettels, *The Emergence of a National Economy, 1775-1815*, New York, 1962, 270-288.
- 43 W.B. Smith and A.H. Cole, *Fluctuations in American Business, 1790-1860*, Cambridge, Mass., 1935, 28.
- 44 J. Hughes, *American Economic History*, Glenview, Ill., 1983, 115.
- 45 D.C. North, *The Economic Growth*, 32, 219.
- 46 B. Thomas, *Migration and Economic Growth. A Study of Great Britain and the Atlantic Economy*, 2nd ed., London, 1973.
- 47 D.C. North, *The Economic Growth*, 67. For a thorough study of the structure and cycles of U.S. international economic relations in the 19th century see J.G. Williamson, *American Growth and the Balance of Payments, 1820-1913. A Study in the Long Swing*, Chapel Hill, N.C., 1964.
- 48 D.C. North, *The Economic Growth*, 67.
- 49 R.B. Zevin, *The Growth of Cotton Textile Production After 1815*, 123.
- 50 H.N. Scheiber, H.G. Vatter, and H.U. Faulkner, *American Economic History*, New York, 1976, 119. S. Ratner, *The Tariff in American History*, New York, 1972. See also the collection of documents on the tariff and manufacturing issue from 1789 to 1817 in: T.C. Cochran (ed.), *The New American State Papers, 1789-1860*, vol. 1: *Manufactures*, Wilmington, Del., 1972.
- 51 R.B. Zevin, *The Growth of Cotton Textile Production After 1815*, 123-124.
- 52 In Latin America factor endowments in the 19th century are similar to the U.S. in countries with relatively little indigenous population like Argentina. Other countries with a relatively high indigenous population were also scarce in capital, but abundant both in land and labor, if only unskilled, for instance Mexico. For the racial composition of the different Latin American countries see W. Woodruff, *Impact of Western Man. A Study of Europe's Role in the World Economy 1750-1960*, 2nd ed. updated to 1980, Washington D.C., 1982, 112.
- 53 U.S. Bureau of the Census, *Historical Statistics*, 8, 24-35.
- 54 B.R. Mitchell, *European Historical Statistics 1750-1970*, London, 1978, 8.
- 55 Land scarcity in the older portions of New England has been noted by a number of authors already, e.g. by A.H. Jones, *Wealth of a Nation to Be*, New York, 1980, 412, note 27.
- 56 See L. Soltow, *Economic Inequality in the U.S. in the Period from 1790 to 1860*, in: *Journal of Economic History* 31 (1971), 822-839.
- 57 L. Soltow, *Distribution of Income and Wealth*, in: G. Porter (ed.), *Encyclopedia of American Economic History*, New York, 1980, 1095-1096.

- 58 R.A. Easterlin, Regional Income Trends, 1840-1950, in: R.W. Fogel and S.L. Engerman (eds.), *The Reinterpretation of American Economic History*, New York, 1971, 40. It is noteworthy that Jeffrey G. Williamson found out that regional income differences were higher in 1840 than in 1948 (J.G. Williamson and P.H. Lindert, *American Inequality. A Macroeconomic History*, New York, 1980, 74). This should reflect similar regional differences in capital endowment as well.
- 59 L.E. Davis, Capital Mobility and American Growth, in: R.W. Fogel and S.L. Engerman (eds.), *The Reinterpretation of American Economic History*, New York, 1971, 293.
- 60 M. Rothstein, *Foreign Trade*, 255.
- 61 P. Uselding, Manufacturing, in: G. Porter (ed.), *Encyclopedia of American Economic History*, New York, 1980, 404.
- 62 Ibid., 404. See also C. Clark, *The Roots of Rural Capitalism. Western Massachusetts, 1780-1860*, Ithaca, N.Y., 1990, esp. 121-122, and P.D. McClelland and R.J. Zeckhauser, *Demographic Dimensions of the New Republic. American Interregional Migration, Vital Statistics, and Manumissions, 1800-1860*, Cambridge, U.K., 1982, 50.
- 63 D.C. North, *The Economic Growth*, 114.
- 64 L.E. Davis, Capital Mobility and American Growth, 286.
- 65 L.E. Davis, et al., *American Economic Growth. An Economist's History of the United States*, New York, 1972, 327.
- 66 Lance E. Davis, Capital Immobilities and Finance Capitalism: A Study of Economic Evolution in the United States, 1820-1890, in: *Explorations in Entrepreneurial History. Second Series*, 1 (Fall 1963), 88-105. For data after 1870 see L.E. Davis, Capital Mobility and American Growth, 288-292.
- 67 Ibid., 293.
- 68 The predominant role of the cultural element in explaining early industrialization in the U.S. is the main theme of T.C. Cochran, *Frontiers of Change. Early Industrialism in America*, New York, 1981.
- 69 L.E. Davis et al., *American Economic Growth*, 419. J. Hughes, *American Economic History*, Glenview, Ill., 1983, 153.
- 70 On the role of inventors and innovators or entrepreneurs throughout American economic history see J. Hughes, *The Vital Few: American Economic Progress and Its Protagonists*, exp. ed., New York, 1986.
- 71 Had the South won the Civil War, it could well be sitting in one boat with Latin America today. Argentina, like Canada a country with hardly any black or Indian population, must be considered an exception; its relative prosperity well into the 20th century only confirms this.
- 72 H.E. Krooss, *American Economic Development. The Progress of a Business Civilization*, 3rd ed., Englewood Cliffs, N.J., 1974, 65.
- 73 S. Lebergott, *Manpower in Economic Growth*, New York, 1964. N. Rosenberg, *Technology and American Economic Growth*, New York, 1972.
- 74 Ibid., 38, Table 1.
- 75 D.C. North, *The Economic Growth*, 9.
- 76 N. Rosenberg, *Technology*, 35. J. Hughes, *American Economic History*, New York, 1983, 125.
- 77 A. Fishlow, Levels of Nineteenth Century American Investment in Education, in: *Journal of Economic History* 26 (1966), 418-436.
- 78 J. Hughes, *American Economic History*, 332.

- 79 B. Thomas, *Migration and Economic Growth*, 33.
- 80 P. Uselding, *Conjectural Estimates of Gross Capital Inflows to the American Economy: 1790-1860*, in *Explorations in Economic History* 9 (1971), 59. For a critical assessment of Uselding's results see R.E. Gallman, *Human Capital in the First 80 Years of the Republic: How Much Did America Owe the Rest of the World?* In: *American Economic Review* 67 (1977), 27-31.
- 81 Quoted in H.N. Scheiber, H.G. Vatter, and H.U. Faulkner, *American Economic History*, New York, 1976, 75.
- 82 S. Lebergott, *The Americans. An Economic Record*, New York, 1984, 30-31.
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### Zusammenfassung

Der Ausgangspunkt dieses Beitrages ist die Beobachtung, daß der relative Abstand im Pro-Kopf-Einkommen zwischen Nord- und Lateinamerika nicht im 20., sondern im 18. und 19. Jahrhundert entstanden ist. Der Autor geht deshalb den Triebkräften der wirtschaftlichen Entwicklung der USA vom Kolonialzeitalter bis zum amerikanischen Bürgerkrieg nach, vor allem den außenwirtschaftlichen Einflüssen. Für die Kolonialperiode arbeitet er die positive Rolle der merkantilistischen Politik Englands, besonders für die Agrarproduktion des Südens sowie den Schiffbau und den Überseehandel des Nordostens, heraus. Für das erste Vierteljahrhundert der Republik wird vor allem die Bedeutung der europäischen Kriege 1793-1815 betont; sie schufen die Bedingungen, unter denen sich zunächst bis 1807 der amerikanische Handelskapitalismus gewaltig entfalten konnte. Die so akkumulierten Vermögen der Nordoststaaten standen in der anschließenden Phase des gestörten US-Außenhandels bis 1815 für Investitionen in der aufkommenden Industrie zur Verfügung. Für die Zeit von 1815 bis 1860 diskutiert Holtfrerich die fördernde Rolle, die drei Faktoren für den Durchbruch der Industrialisierung in diesen Jahrzehnten spielten: erstens, die US-Zollpolitik, zweitens, die stärkere Ähnlichkeit des Nordostens der USA mit dem kapital- und arbeiterreichen, aber bodenarmen England als mit dem bodenreichen, aber kapital- und arbeiterarmen Rest der USA und, drittens, die Qualität des Humankapitals, die durch das britische kulturelle Erbe und durch die andauernde Einwanderung aus Europa gefördert wurde. Abschließend wirft der Autor einige Fragen des Vergleichs mit lateinamerikanischen Entwicklungen auf.

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### MATERIALIEN

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