STAGNATION AND GROWTH IN THE AMERICAN ECONOMY, 1784-1792

by

GORDON CARL BJORK

A dissertation submitted in partial fulfillment

of the requirements for the degree of

DOCTOR OF PHILOSOPHY

UNIVERSITY OF WASHINGTON

1963

Approved by Douglas C. North
(Chairman of Supervisory Committee)

Department Economics
(Departmental Faculty sponsoring candidate)

Date August 9, 1963

UNIVERSITY OF WASHINGTON

Date: July 26, 1963

We have carefully read the thesis entitled "Stagnation and Growth in the American Economy, 1783 - 1792"

submitted by Gordon C. Bjork in partial fulfillment of the requirements of the degree of Doctor of Philosophy and recommend its acceptance. In support of this recommendation we present the following joint statement of evaluation to be filed with the thesis.

A major controversy in American economic history has centered around the prosperity of the American economy in the years of Confederation. Some authors have maintained that it was a period of depression. There is no doubt that a number of the Federalists responsible for the Constitution--like Alexander Hamilton--felt that strong central government was the only solution to the ills they ascribed to the economy. Other authors both contemporary and present day have maintained that it was a period of sustained economic growth. The author of this thesis takes a long stride towards resolving this issue by carefully developed data on America's external trade. Mr. Bjork's conclusions about exports and imports, and the terms of trade, provide us with the essential quantitative data for an over-all reassessment of this crucial period in American economic history.

THESIS READING COMMITTEE: Douglass C. North

Feng-hwa Hsieh

Judith L. Thornton

In presenting this thesis in partial fulfillment of the requirements for an advanced degree at the University of Washington I agree that the Library shall make it freely available for inspection. I further agree that permission for extensive copying of this thesis for scholarly purposes may be granted by my major professor, or, in his absence, by the Director of Libraries. It is understood that any copying or publication of this thesis for financial gain shall not be allowed without my written permission.

Signature Gordon C. Bjork

Date Aug. 9, 1963

Table of Contents

Tables and Exhibits

ACKNOWLEDGEMENTS

Acknowledgements are due for permission to quote copyrighted material from the following sources: The Controller of Her Majesty's Stationery Office for unpublished Crown-copyright material in the British Public Record Office; The Clarendon Press for Elizabeth B. Schumpeter, British Overseas Trade Statistics; Alfred A. Knopf, Inc., for Merrill Jensen, The New Nation.

Preface

The years from the end of the American Revolution to the beginning of the Napoleonic Wars are a difficult and yet challenging period for the economic historian. The quantitative evidence available on the period is scarce and non-comparable with periods before 1775 and after 1800 as will be evidenced by perusal of any of the standard sources of historical statistics on various economic variables. And while quantitative evidence is scarce and non-comparable, contemporary qualitative evidence is plentiful and conflicting. One could easily call the period the "Dark Age" of American economic history.

The period is also interesting. This was the era in which the U.S. Constitution was drafted and implemented and the economic conditions and problems of the period influenced the thinking of the founding fathers.

The student of American economic development finds the period of great interest because this was the period following colonialism but preceding the prosperity of the Napoleonic wars. This was the period prior to the transformation of the South by King Cotton and the North by canals, steamboats, and the dawn of industrialization.

Those looking for contemporary parallels and "policy implications" may see in the period a former colony which won independence in a long and costly war and then solved the problems of readjusting the economy to the loss of imperial preferences and controls while struggling for political stability.

In addition to being a contribution to knowledge about the Confederation Period in American history, it is hoped that this work will be a sound example of a fruitful methodological approach for economic historians. In this it owes much to my advisor, Professor Douglass C. North, who by precept and

example has had a great influence on my training as an economic historian.

The research for this study was made possible by a fellowship from the Lincoln Educational Foundation for the academic year 1961-62 and this seems an appropriate place to express my gratitude. I would also like to pay respect to the pioneering studies of other scholars: in particular Lewis Cecil Gray, William H. Beveridge, Arthur H. Cole, Anne Bezanson, and N.W. Posthumus. Without the decades of research into the "stuff" of economic history which has been invested by these and other scholars, the economic analysis of this work could never have been undertaken.

Chapter I

The Problem and Its Analysis

In 1775, the "shot heard round the world" signaled the beginning of the American War for Independence. The 13 English colonies bordering the Atlantic coast of North America, which had grown and prospered under the mercantile legislation of the British Navigation Acts, in their adolescence felt that the time had come to leave the secure but constricting environment of the British imperial system for the rigors and opportunities of an independent existence.

The economic causes of the war were not clear-cut.[1] The grievances could doubtlessly have been remedied without revolution. There was certainly no widespread public sympathy for a war against the mother country in 1775, but the revolt, once started, was carried on through eight long bloody years at great cost, both human and economic.

When the treaty of peace was signed in 1783, most Americans desired, to use the phrase of a later century, "a return to normalcy". The seaport towns were flooded with imported manufactures to make up for the eight long years of blockade. But the Americans, having spent the accumulation of specie left by foreign armies, looked for other ways to remit for their purchases and found that the Navigation Acts, against which they had fought, were now used to exclude them from former markets. The years following the war were a time of readjustment for the economies of the former colonies and they were a time of political upheaval from which came the constitution of the federal union.

---

1 See Lawrence A. Harper, "Mercantilism and the American Revolution" Canadian Historical Review, Volume XXIII, (1942).

These were not easy years for the former colonies. Writing in 1794, Tench Coxe, an Assistant Secretary of the Treasury and an acute observer of economic affairs, wrote: "Notwithstanding the actual prosperity of the United States of America at this time, it is a fact which ought not to be concealed that their affairs had fallen into a very disagreeable condition by the year 1786."[1] Lord Sheffield, who led the fight in Parliament to exclude the Americans from the West Indian Trade, predicted that the economy of the United States would stagnate outside the protective umbrella of the British mercantile system.

On the otherhand the American philospher and statesman, Benjamin Franklin, wrote in 1784:

> "I see in the public newspapers of different States frequent complaints of hard times, deadness of trade, scarcity of money, etc. It is not my intention to assert or maintain that these complaints are entirely without foundation... But let us take a cool view of the general state of our affairs and perhaps the prospect will appear less gloomy than has been imagined...although the crops of last year were generally good, never was the farmer better paid for the part he can spare commerce, as the published price-currents abundantly testify. The lands he possesses are also continually rising in value with the increase of population; and, on the whole, he is enabled to give such good wages to those who work for him, that all who are acquainted with the old world must agree, that in no part of it are the laboring poor so generally well fed, well clothed, well lodged, and well paid, as in the United States of America;... At the distance I live from our American fisheries, I cannot speak of them with any degree of certainty; but I have not heard that the labor of the valuable race of men employed in them is worse paid, or that they meet with less success than before the Revolution... There remain the merchants and shopkeepers... /one hears on/... Occasion complaints that trade is dead; these... suppose that it is owing to scarcity of money, while in fact it is not so much from the fewnessof buyers as from the excessive number of sellers that the mischief arises;"[2]

---

1 Tench Coxe, A View of the United States, in a series of papers... (Philadelphia: William Hall, Wrigley & Berryman, 1794). p. 3. Hereafter cited as A View of the United States.

2 A pamphlet entitled, The Internal State of America; Being a True Description of the Interest and Policy of that Vast Continent. Reprinted in John Bigelow, ed., The Works of Benjamin Franklin (G. P. Putnam's Sons, 1904). 12 volumes. Vol. X, pp. 394 - 400.

The publication in 1913 of Charles A Beard's work, An Economic Interpretation of the Constitution of the United States, started a controversy which has not yet ended among historians as to the economic interests of the men who wrote the constitution. After quoting part of the statement by Franklin included above, Beard wrote, "It may very well be that Franklin's view of the general social conditions just previous to the formation of the Constitution is essentially correct and that the defects in the Articles of Confederation were not the serious menace to the social fabric which the loud complaints of advocates of change implied. It may be that "the critical period" was not such a critical period after all; but a phantom of the imagination produced by some undoubted evils which could have been remedied without a political revolution...When it is remembered that most of our history has been written by Federalists, it will become apparent that great care should be taken in accepting, without reserve, the gloomy pictures of the social conditions prevailing under the Articles of Confederation."[1]

Historians writing since Beard have not agreed on the economic conditions of the Confederation period. Curtis Nettels, the most recent author on the period, treats it as one long depression.[2] Merrill Jensen, on the other hand, wrote, "the period was one of extraordinary economic growth...there is no evidence of stagnation and decay in the 1780's. Instead the story is one of a newly free people who seized upon every means to improve and enrich themselves in a nation which they believed had a golden destiny."[3]

---

1 Charles A. Beard, An Economic Interpretation of the Constitution of the United States (New York: Macmillan, 1913). Macmillan Paperback edition, 1961.

2 Curtis P. Nettels, The Emergence of a National Economy, 1775 - 1815 (New York: Holt, Rinehart, and Winston, 1962).

3 Merrill Jensen, The New Nation (New York: Alfred A Knopff, Inc., 1950). pp. 423 - 424.

There was, obviously, much room for differing opinions about the health of the economy by contemporary observers during the rapidly changing conditions of the period. The Boston dry-goods merchant faced a different market than the Boston rum-distiller and both differed from the Virginian tobacco planter. Economic prospects differed greatly from region to region and even in the same town some prospered while others did not. One cannot move with certainty from an appraisal of the fortunes of one sector of the economy to conclusions about the economy as a whole. The inevitable necessity for selectivity and judgment by the historian makes generalizations about the American economic scene during these years of flux hazardous and tentative. And the economist who would interpret the changes taking place finds difficulty in assessing the quantitative magnitudes of many conflicting trends.

In considering the changes taking place in the economies of the thirteen states during the Confederation period, this study will be concentrated on the foreign commerce of the United States. The structure of the economy during the period was such as to give overriding importance to the fortunes of American exports in world markets. Although more than 90% of the population was in agricultural production, the portion of the population which participated in the market economy to any significant extent found that foreign markets were of paramount importance in determining how far above the level of frontier subsistence would be their standard of living. There was much discussion during the period by contemporaries as to whether exclusion from the British mercantile system had been harmful or beneficial to the foreign trade of the American states. While no final answer can be given to this question because of the impossibility of knowing what the volume and terms of trade would have been if the 13 colonies had remained within the British Empire, it is possible to compare the level and composition

of trade before and after the revolution and note the changes which were taking place. Incidental attention will be given to the fragmentary evidence on domestic trade as it related to the changed commercial situation.

This paper is essentially a study of an economy in transition. The changes taking place neither started nor ended with the years which mark the limits of the period. And yet the period is also unique in that before and after the wars which are the boundaries of the study, the economy was significantly different from this short span of years.

The task of the economic historian who would deal with the Confederation period, therefore, is complicated by the need to use both long and short run analysis to explain the changes taking place during this period. The dividing line between the two approaches is difficult to delineate with any precision.

The concentration on staple production by the colonies during the 18th century was determined by the comparative advantages of the different geographic regions. One generalization which can be made about the factor endowments of all the colonies is that land was abundant relative to labor. Land suitable for crops was by no means "free" because of the large investment in labor which had to be made to clear the land and bring it into production. There also tended to be differential rents accruing to lands near to commercial centers or navigable rivers.[1] Nevertheless, the relative abundance of land and scarcity of labor dictated the combination of these two resources near the boundary of what is technically called the first stage of production. Since land was cheap and labor was dear, these factors were combined so that the average physical product of labor was near its

---

1 An interesting discussion of land values and transport costs may be found in William Winterbotham, An Historical, Geographical, Commercial and Philosophical View of the United States of America, and of the European Settlements in America and the West Indies (New York; J. Ridgeway, 1795), 4 volumes. Vol. III, pp. 360-371. Hereafter cited as An Historical View.

maximum.

The comparative advantage of the colonies in the production of food, tobacco, indigo, lumber, and potash had been exploited to the full when the 13 colonies were under British rule. The British mercantile system had discouraged manufacturing of any type in the colonies in order to exploit the advantages of an international division of labor and consequently the few small towns which did exist in the colonial period were merely collecting centers for the frontier producers. Given the resource endowments of the North Atlantic trading community this was undoubtedly a rational allocation of scarce resources to maximize consumption and production both at home and abroad. It provided a standard of life for the free settler and probably for the slave which was above that prevailing in most parts of the world and considerably above any which could have been obtained in isolation from world trade.

The success of the colonial economy had been structured on the rational exploitation of comparative advantages. The static gains from trade made possible by European markets for tobacco, rice, indigo, potash, lumber, and ships, and the West Indian markets for lumber and food-stuffs were enormous. One can realize this by asking what the difference would have been between the relative prices of tobacco and cloth, or lumber and firearms, or potash and rum without trade.

Dependable markets for the staple exports of the British colonies had been fostered by the Navigation Acts. The exclusion of foreign sugar from the British market and the artificially high prices resulting were instrumental in the development of the British West Indian sugar plantations. Their existence, in turn, provided a good market for exports of foodstuffs for the continental colonies. Tobacco and rice had to be shipped to Britain by southern producers but were marketed all over Europe by British merchants with the encouragement of the government. Indigo and naval stores were

stimulated by the granting of a bounty. American ships and shipping enjoyed the same privileges in the British markets as the English. The strong stable demands for products of the American colonies fostered by the British mercantile policies were a sine qua non for the early development of the North American continent.

The careful nurture of a watchful parent had brought into existence by 1775 an adolescent who wanted equal status with the parent and was prepared to rebel to obtain it. The continental European markets for American products which had been established by the British merchants were coveted by the Americans. A chance to participate in the lucrative East Indian trade was sought by American merchants and expanding markets for foodstuffs in the West Indies were foreseen if trade with the French and other foreign colonies could be pursued. In short, it was felt that the restrictions of the British Navigation Acts would impose a check on the continued rapid expansion of the North American economy.

The character of the colonial economy and the stage it had reached in its evolution must be borne in mind as we study the economy of the United States after the revolution. Many Americans were shocked and surprised to find British mercantile policy used to exclude them from their markets in the post-war period and the writings of men like Tench Coxe may be seen as an attempt to convence the malcontents that the revolution was a good thing and that economic opportunities were better in 1790 than in 1770. The country was undergoing tremendous changes in the 1780's and those who were harmed were far more vocal than those who were prospering.

An analysis of the changes which were taking place from 1784 - 1792 in the economies of the several states can be most fruitfully attempted within a framework which emphasizes the changes as taking place in response to

changes in the pattern of relative prices. This involves focussing attention on both the changing demands for American products and the supply responses elicited from the American producers.

Supply functions adjust slowly to changed market situations, especially in an agricultural economy. Producers do not immediately plant wheat instead of rice in response to a change in relative prices. In a growing economy, the shift is only seen at the margin in differential rates of growth in production. The rapidity and extent of supply shifts is governed by the adaptability of the factors of production to new modes of employment. In addition to supply shifts caused by economic factors, this study will consider the effect of the war on the productive capacity of the economy.

Three separate markets must be distinguished in considering the demands for the products of the United States. The domestic market was diverse because of the differing characters of individual regions. For example, New England was a net importer of foodstuffs. The importance of domestic markets varied tremendously for different products. Domestic consumption of tobacco and indigo was of minor importance while the domestic demand for foodstuffs was the major component of total demand, rapidly expanding with the high rate of population growth.

The West Indian sugar islands would have been an extremely stable market for U. S. exports of fish, grain, and lumber but for the uncertainties introduced by the restrictions of the colonial powers on the trade of the islands. Nevertheless, political regulations could not ignore the fact that the islands had certain requirements without which their plantations could not function, and only the United States was capable of meeting these requirements.

The European markets were so important to the United States that one cannot really understand the changes taking place in the U. S. economy during the period without reference to European developments. The British and

continental markets for American tobacco, indigo, potash, flax-seed, and peltry were the only important vents for these commodities. Additionally, during this time the increasing population of western Europe was pressing against available food supplies and during years of bad harvests placed tremendous demands for cereals on the producers of eastern Europe and America. The erratic shifts in European demand for American wheat meant that even at the end of the 18th century, bad harvests in Europe could send the price of grain soaring in North America. That contemporary observers were aware of the paramount importance of overseas markets is manifest in merchant correspondence and the content of contemporary newspapers which were more interested in the price of wheat in Amsterdam and the rice crop in the Piedmont than in news from neighboring states.

The explanation of changes in relative prices in terms of demand and supply shifts and the effect of these changes on the structure of the economy plays a major part in this paper. One problem which has not received the attention it deserves is a consideration of the effect of price changes on the pace of westward expansion across the Alleghenies and shifts into and out of subsistence agriculture. While these matters are considered incidentally, any conclusive statements would have to rest upon careful empirical analysis of population shifts and land sales during the period which is beyond the scope of this study. Thus, when we speak of the shift out of tobacco into wheat or out of rum into textiles, we are confining our attention to the market sector of the economy and neglecting the effect of price changes on the non-market sector. This may well neglect one of the most crucial questions about the pace and character of economic change.

Because of the diverse forces operating on the volumes and price of various export commodities and the lack of what could be called "a national economy", an aggregate analysis of export value trends has been eschewed in

favor of a disaggregated analysis of the behavior of particular commodities and the fortunes of particular regions. An analysis of the stability and elasticity of demand for American products in European and West Indian markets together with the supply responses of various sectors of the economy forms the economic framework for the discussion of the changes in the volume and value of exports.

The decision to construct export value series in terms of current instead of constant prices was made for several reasons. First, it was thought valuable to make the series comparable with those available in various works for the period after 1790. Secondly, price behavior during the period, both internal and international makes this procedure desirable. What is wanted is some measure of the purchasing power of export revenues and since the composite import price index is approximately constant over the period, the export value series in current prices gives a better idea of the purchasing power of export earnings than would series deflated or inflated by a price index.

It is possible to analyze price behavior over the period considered and to compare the post- with the pre-war price levels by reducing the prices of commodities to the common denominator of the silver dollar. This is possible because all of the various state currencies as well as English, French, and West Indian currencies were valued in terms of each other by their silver equivalents.[1]

While the study does not consider the inflation of the Revolutionary War period (1775 - 1783), the lingering effects of war on the general level of prices is examined within the classical framework of equilibrating specie flows. Thus, it will be argued that the high prices in the United States

---

1 See Appendix II - 1.

in the immediate post-war period relative to world prices led to a trade deficit which was only overcome when the outflow of specie had equilibrated the U. S. with the world level of prices.

In a closed economy changes in relative prices will have differential effects on the various sectors of the economy but within the aggregate economy relative prices serve only to reallocate resources and factor incomes in response to chainging patterns of demand and technology. While changes in relative prices have the same effect in an open economy they may have the additional effect of changing the aggregate level of consumption if there are significant changes in the commodity or net-barter terms of trade. Consequently, this study will consider the effect of price changes on the commodity terms of trade during the period and seek to identify the causes of the changes experienced in the period after the Revolutionary War.

The analytic framework for this paper, then, is structured by assumptions about the character of the U. S. economy in the late 18th Century. It is assumed that the market sectors of the various states were geared into an international economy involving Europe, the West Indies, British North America, and even Africa and the Orient. It will be argued that the changes which were taking place came in response to price relationships changed by population growth, political changes, and technology.

The effects of the revolutionary war and the economic conditions of the Confederation period have long been debated by generations of historians. To assert that the war for independence had an important impact on the American economy is implicitly to say that the level and structure of American production and consumption were quantitatively altered after the Revolution from what they had been before. If this argument is to be proved, quantitative evidence must be offered in support of the argument which offers some measure of the change. To avoid the use of quantitative evidence because

statistics on the economic variables during the period are scarce and unreliable is to admit that one cannot give a real answer. This paper seeks to give answers by presenting quantitative evidence on the volume and terms of trade. Nevertheless, much of the evidence presented will be suggestive rather than conclusive. Economic history is an art as well as a science.

In the pages that follow the reader will find that what is attempted is not the traditional type of narrative about social, political, and economic institutions, but a quantitative and theoretically oriented analysis of how the American economy changed in the turbulent years that followed the war for independence.

Chapter II

The U. S. Economy 1784 - 1792 An Overview

The new nation which emerged from the war for independence was no more an economic unit than it was a political entity. The bases of the several regional economies had not changed significantly from what they had been in the colonial period except that the long war had disrupted trade, armies had ravaged certain areas, and disuse and disrepair had taken their toll.

In the colonial period, the market oriented sectors of the economy had primarily produced export staples for sale to Europe and the West Indies. In return, the colonies had imported manufactured goods and tropical and oriental commodities. The rationale of the British mercantile system had been that the colonies should produce commodities which could not be produced in England for English consumption or re-export to continental Europe and that the colonies should be markets for British manufactures.

The system had worked very well for the British West Indies. Food was supplied them cheaply by the continental colonies and they had a protected market for their productions in the British Isles. The rich West Indian planter lived like a lord in the West Indies and then returned to London to spend his riches in his homeland. The system had worked tolerably well for the southern continental colonies although they chafed at the quit-rents, the regulations, the monopolization of the trade by British factors and the British land policy which was preventing westward expansion.

There was a great deal of friction, however, with the northern continental colonies because given their resource base they were rivals of the mother country. They enjoyed the privileges of the Navigation Acts but they also resented the limitations which were placed on their commerce with the rest of the world and on their manufacture at home. The war drastically changed the structure of markets for the colonies and it also

wrought important short term effects upon the economy of the United States.

Although the colonies were economically dissimilar, their union against the mother country in the rebellion had produced similar consequences in most of them. First of all, eight years of blockade by the British fleet had made exportation of crops spasmodic or impossible. The disruption of the market caused a shift into subsistence farming and home manufacture. This was coupled with long absences, sometimes permanent absences, of the men who went off to fight the British. Along with the impairment of the supply capacity of the economy resulting from neglect, was the physical destruction of ships, barns, bridges, farmhouses, fences, livestock, and other stocks of capital equipment.

The war severely diminished the supply of the economy's most important factor of production -- people. Tens of thousands of slaves were carried off at the end of the war by the evacuating armies and tens of thousands of others were killed by pestilence. In addition, many loyalists fled to the West Indies, British North America, or England and among this group were many of the most valuable citizens of the colonial economy.

The war was accompanied by large scale disorganization of property relationships. Much Loyalist land had been confiscated and then returned as the tides of war shifted only to be confiscated again. Many debts were wiped out by non-payment or by the hyper-inflation that accompanied the depreciation of the continental currency.

At the same time that the war decimated the productive capacity of the economy, it created tremendous demands for many commodities. As Tench Coxe pointed out, the Revolution incurred a domestic debt in supporting the

American army of fifteen million pounds sterling (more than $70 million) but it was practically all spent in the United States.[1] Add to this at least an equal amount for the provisioning of British and French fleets and armies during the war, and it is not difficult to explain either wartime inflation or post-war high prices.

While each of the states had its own currency, these currencies were based on a silver equivalent. Consequently they were all valued in terms of the Spanish milled dollar which was the most widely used metallic currency.[2] Trade with the West Indies during the war and the provisioning of foreign armies and navies had left the country with a tremendous amount of specie at the wars end. One observer estimated it at three times the quantity in circulation in 1774.[3] In the immediate post-war period, this specie was the most acceptable means of interstate trade and the growth of interregional trade during the war had given some interdependence to the economies of the several regions.

The coming of peace caused similar effects in much of the nation. The demand for imported goods had largely gone unsatisfied for eight years -- even longer if one considers the non-importation agreements which preceded the conflict. The continental colonies had taken 1/3 of British exports in the pre-war period and British merchants were anxious to sell. With the end of the war came a terrific influx of British goods and the resulting adverse balance of trade depressed the exchanges to the specie export point and caused a flow of the abundant specie to Europe. The resulting fall in

---

1 Coxe, A View of the United States, p. 213.

2 See Appendix II - 1.

3 James Swann, National Arithmetick, (Boston, Adams, and Noarse, 1786) p. 58.

prices caused widespread distress and the greatest fall came in the prices of imported soft-goods because of the oversupply which came on credit and had to be sold below cost in many cases. Many of the most vocal complaints of "hard times" came from the merchants threatened with ruin by the fall in value of the inventories.

Federalists, who desired a strong federal union, were active in every colony in attempting to impress their fellow citizens with the desireability of a strong federal constitution. Their motives were numerous.[1] Many undoubtedly wanted a strong federal government which would pay off the debts for the war which they had acquired at a fraction of their face value in speculative purchase. There was a fear of radical elements controlling state legislatures and passing fiscal and monetary legislation which would lead to redistribution of income. The Federalist propagandists concentrated their attention on criticising the status quo -- the lack of strong central government. They complained about the dullness of trade and pointed to the lack of bargaining ability with the mercantile powers of Europe and the separate tariff regulations and trade jealousies of the individual states.[2] In every state the agricultural interests were, by and large, opposed to a change in the status quo.

Population statistics prior to 1790 are extremely untrustworthy but estimates show large differentials between states in rate of population growth which can most reasonably be attributed to internal migration.[3] The scarcity of people in 1784 conditioned both the character of land-intensive agriculture and the comparative advantage of the economy in staple production. Sparse population and undeveloped land transport also contributed to the

---

1 See Beard, An Economic Interpretation of the Constitution of the United States, Chapter V.

2 See Appendix II - 2.

3 See Appendix III - 3.

propensity of the economy to stay in subsistence agriculture because of the lack of concentrated markets.

If the American economy of the Confederation period had common interests and problems, it also had great diversity of interest because of the great differences between the economies of different regions. It is to the economies of these several regions that we will now turn our attention.

The Lower South was centered on the port of Charleston and included parts of the states of Georgia, and the Carolinas. The areas along the coast were concentrated in the production of rice and indigo. Both crops were produced on large plantations. A large amount of capital was sunk in physical improvements to the land used for rice paddies. The labor supply for rice production was made up entirely of slaves. Thus, the rice planter found himself with a large percentage of his costs of production in the form of fixed expenses -- interest on the capital tied up in land and slaves and provision of food and supplies to the slaves whether they were employed or not. Add to this the fact that rice lands were not adaptable to the production of alternative commodities and it is easy to see that the rice economy of the Lower South was not readily adaptable to short run changes in economic conditions. Indigo, like rice, required very intensive cultivation. Prior to the war there had been a bounty on indigo shipped to England and the discontinuance of the subsidy coupled with the encouragement of the industry in the West Indies combined to reduce the profitability of the industry after the Revolution.

British troops occupied the coastal regions of South Carolina during the last four years of the war and did not evacuate Charleston until December, 1782. They removed thousands of slaves when they went, creating a tremendous shortage of labour to work the rice plantations. It was estimated that

South Carolina alone lost 25,000 slaves, creating such a scarcity that in 1783, after the British evacuation, Negroes sold for 70 to 100 guineas "and were hard to procure at any price".[1] The loss of slaves coupled with the flight of loyalist elements severely reduced the productive capacity of the rice and indigo plantations in the Confederation period.

The major export markets for rice were in the West Indies and France. Thomas Jefferson wrote from Paris in 1786 that half the rice consumed in France was from Carolina while the remainder came from Piedmont. Carolina rice was wholesaleing at Havre at 22 - 24 livres per quintal and English merchants were making a great profit in the trade.[2] Since this was the equivalent of about $4.40 and the 1785 price in Charleston averaged $2.65, the profit, even after transport costs must have been considerable. British shipping probably engrossed much of the trade during the early 1780's but the Boston and Philadelphia merchants became increasingly active in handling the trade as the American merchant fleet was rebuilt. By 1787, over 2/3 of the shipping tonnage cleared from Charleston was American while less than 1/4 was British.[3] The only change in the market for rice which came after the revolution was the imposition of a substantial import duty by the English but this was accompanied by a drawback for re-exports. Rice was received duty free in France and in both the British and French West Indies.

As mentioned above, Indigo production was not particularly profitable in the post-war period, which would seem to indicate that the colonial

---

1 Lewis C. Gray, History of Agriculture in the Southern United States to 1860 (Washington; The Carnegie Institution, 1933). 2 volumes. Volume II, p. 596. Hereafter cited as Southern Agriculture.

2 Quoted in The American Museum, a periodical published by Matthew Carey in Philadelphia from 1787 - 1792. Vol. II, pp. 83-84.

3 Figured from Charleston Custom House Returns, Dec. 1, 1787, reprinted in The American Museum, Ibid., Vol. V, p. 254.

bounty was necessary. It was subjected to a substantial, though not prohibitory, duty in England and production was encouraged by bounties in the British West Indies. It was charged only a small duty in France but the French generally considered indigo raised in their own West Indies to be superior in quality.

The back country of the Lower South was different in character from the coast plantations. Deer skins, lumber and staves, tar, pitch, and turpentine, corn, and increasingly tobacco comprised the commodities upon which the frontier farmers depended for cash income. The back country may have been a fairly important source of food for the plantation slaves. The value of their exports is quantitatively unimportant in comparison with that of rice and indigo. There was a rapid increase in the production of tobacco after 1783 and tobacco culture in the Lower South was sufficiently great to lower prices in the old tobacco regions of Maryland and Virginia after 1787. The quality of the crop in the Lower South was held to be "not inferior to James River."[1]

The 1790 census placed the population of South Carolina at 140,178 whites and 108,895 blacks. The governor's estimate in 1775 was 169,987. Another estimate for 1773 places the population at 65,000 whites and 110,000 blacks for a total of 175,000.[2] These population estimates indicate that there was a rapidly growing population of white farmers in the back country while the plantation economy on the seacoast was virtually stationary.

---

1 A letter from Levi Hollingsworth to Weston Clark, Savannah, South Carolina, February 27, 1788. Quoted in Anne Bezanson, Prices and Inflation During the American Revolution, Pennsylvania, 1770 - 1790 (Philadelphia; University of Pennsylvania Press, 1951). p. 268. Hereafter cited as Prices and Inflation.

2 See Appendix III - 3.

The Upper South, Virginia, Maryland, and the part of North Carolina contiguous to the Virginia border, had been the great tobacco producing region in Britian's North American colonial empire. Tobacco was primarily produced on large plantations by a slave-holding aristocracy. The soil exhausting qualities of the weed led to abandonment of lands where tobacco had been grown and production was being pushed back from the tidewater areas into the interior along the rivers.

Prior to the war, the trade had been dominated by Scottish factors who acted as agents for the planters. Tobacco was required by law to be shipped to England where it was heavily dutied but a large part of the duty was remitted when tobacco was re-exported. Planters purchased imports from their factors and frequently were in debt to them for large amounts. The British monopoly of the tobacco trade coupled with heavy port charges, insurance fees, brokers fees, exchange charges, interest charges, etc., combined to make tobacco production a not particularly profitable occupation for the planters. There was a general belief that tobacco prices were "fixed" to squeeze the planters and the widespread tendency of the planters to live beyond their income resulted in their being chronically in debt. It has been suggested that some planters may have lent their support to the revolutionary movement as a means of getting out from under their debts. Virginia currency fell from its usual 15% discount in London to 30% in 1773 and the resulting drain of currency and economic depression in the tobacco economy had not encouraged a continuance of the imperial connection.[1]

The shipment of tobacco directly from the plantation to Europe by non-resident merchants, the handling of imports by those same merchants, and the practice of supplying the food requirements of the plantations by food

---

1 Gray, Southern Agriculture, Vol. II, p. 573.

production on the plantations was not favorable to the growth of commercial towns in the region. Baltimore, the most sizable town in the region had a population in 1775 of less than 6,000.[1]

Tobacco culture was on the decline in Virginia and Maryland even before the revolutionary war and the process may have been accelerated by the release of planters from their obligations to Scottish factors. The primary cause, however, was soil exhaustion and the unprofitability of raising tobacco when the land had to be fertilized and improved. Speaking of the shift out of tobacco, Winterbotham wrote in 1796,

> "In the year 1758, (Virginia) exported 70,000 hogsheads of tobacco, which was the greatest quantity ever produced in this country in one year. But its culture has fast declined since the commencement of the war, and that of wheat taken its place. The price which is commands at market will not enable the planter to cultivate it. Were the supply to depend on Virginia and Maryland alone, as its culture becomes more difficult, the price would rise, so as to enable the planter to surmount those difficulties and live. But the western country on the Mississippi, and the midlands of Georgia, having fresh and fertile lands in abundance, and a hotter sun, are able to undersell these two States, and will oblige them in time to abandon the raising of tobacco altogether."[2]

In addition to the shift out of tobacco which was taking place, there was also a reorientation taking place in the organization of trade in the region. The merchants of Boston, New York and Philadelphia began to take a more active role in the trade of the region. Much of the commerce of the southern states began to pass through Philadelphia, and Baltimore grew from less than 6,000 before the revolution to over 13,000 in 1790.[3] Grist mills were started and the area became an exporter of flour

---

1 See Appendix II - 3.

2 Winterbotham, An Historical View, Vol. III, p. 112.

3 Thomas P. Abernethy, The South in the New Nation, 1789 - 1819 (Baton Rouge: Louisiana State University Press, 1961). 4 volumes. Vol. IV, p. 13.

where before the war corn and wheat were exported completely unprocessed. The plantations became more self-subsistent. Winterbotham estimated that before the revolution, 7/8s of the clothing requirements of Virginia was imported while after the revolution, 3/4 of it was manufactured at home.[1] The relative importance of the plantation economy based on tobacco exportation was declining and the immigration of small farmers into the backlands of Maryland, Virginia, and North Carolina was decisively changing the character of the economy as well as the social structure of the Upper South.

The major change wrought in the export markets of the Upper South was to escape from the necessity of shipping all tobacco through England. Tobacco prices in the post-war period were noticeably above pre-war levels and Tench Coxe noted that the trade brought more benefit to the planters.[2] There was much complaint, however, about the harmful effect of the agreement which Robert Morris had concluded with the French Farmers General. Morris had been involved in shipping tobacco to the Farmers General during the war and at the close of the war negotiated an agreement to deliver 20,000 hogsheads a year in 1785, 1786, and 1787 at a price of 36 livres tournois per cwt. This would be between $6 and $7 depending on the exchange. Jefferson argued that the agreement had reduced the price in American from 40 shillings to 22/6 per cwt. resulting in an annual loss to Maryland and Virginia of £400,000. While tobacco prices were around 40 shillings ($8.90) immediately after the war, this was a price born of warime scarcity and the price did not drop to 22/6 ($5) until after 1790. Gray sums up his discussion of the Morris monopoly by saying, "...the Morris monopoly did not prosper."[3]

---

1 Winterbotham, An Historical View, Vol. III, p. 111.

2 Coxe, A View of the United States, p. 340.

3 Gray, Southern Agriculture, Vol. II, p. 604.

Morris lost heavily in the monopoly because he was unsuccessful in lowering prices and he was sued by the Farmers General for shipping them inferior tobacco. Washington offered the following observation on the effect of the Morris agreement:

> "Respecting the utility or hurtfulness of the Tobacco Contract between Mr. Morris and the Farmers General, I have heard so many specious arguments on one side and the other, that I find myself embarrassed in making a fair judgement. In ordinary cases I know that all exclusive privileges and even partial monopolies are pernicious. How far in this instance, the contract has been only a transference of the business from the foreign Agents (English or Scottish) who used to conduct it, into other hands; and whether the same exportations, in quantity, would have been made directly to France through more advantagious channels, I cannot pretend to determine. A free competition in the purchase of the article here, as well as in the sale at the place of market, it seems reasonable to conclude, would be mutually beneficial to both Nations, however, it might be inconvenient to Individuals. Though the present contract will soon expire of course and leave an equal field of speculation on this side of the Atlantic; I have been taught to believe that the Farmers General will not so readily give up their share in the monopoly, on the other. So the business must, in all probability, revert to its original channel..."[1]

The Morris contract was not renewed, the French revolution disrupted the former channels of French trade, and the monopoly of the Farmers General ended in 1792.

The British merchants' monopoly of markets for tobacco in Europe was effectively broken after the revolution as will be seen from the table showing tobacco imports and re-exports from Britain.[2] The British merchants continued to enjoy a sizeable part of the trade, however. Tobacco for domestic consumption was heavily dutied in Britian as it was in most European countries. Assuming a demand which was price inelastic,

---

1 From a letter to Comte de Moustier, August, 1788. The Writings of George Washington from the Original Sources, 1745 - 1799 (39 vols.; Washinton: Government Printing Office, 1931 - 1944.) Vol. 30, pp. 43-44.

2 See Appendix II - 4.

it would seem fair to say that this tax was primarily born by the European consumer with little diminution of price and quantity to the American producer. One of the prime effects of high duties was to encourage smuggling. In a letter from the British Consul in Philadelphia to Lord Carmarthen, an account is given of the illicit tobacco trade with Ireland which had become so well organizaed that it was possible to insure safe arrival for 2 guineas per hogshead. Bond goes on to say,

> "...it has been confidently asserted here, that in the year 1784, 5200 hogsheads of tobacco were cleared from the port of Philadelphia for Ireland and in the next year 4700 hogsheads were cleared from Philadelphia for Ireland...The price given for tobacco here, my Lord, is of itself a convincing proof of this illicit traffic and of the success with which it is conducted: Peterboro tobacco in Virginia sells so low as 22/6 Virginia currency ($3.75) per cwt. -- in Philadelphia that sort of tobacco sells from 40/ or 50/ Pennsylvania currency: ($5.35 - $6). There is a difference of near 100 p. cent in the price between this port and Virginia besides the addition of freight: but the saving of 16d duty upon each lb. of tobacco will amply compensate for the increase of expense and afford abundant profit to the adventurer."[1]

Bond erred in the English duty of 1d per lb. and exaggerated the extent of the price difference between Virginia and Philadelphia, but the custom house records for Philadelphia for the years mentioned indicate that much Virginia tobacco was being shipped through Philadelphia.

Just prior to the war, the average annual export of tobacco from Virginia was estimated by Winterbotham at 55,000 hogsheads.[2] The amount of tobacco released for export from the several state warehouses in the post-war era is given below in hogsheads, each year beginning and ending October 1st:[3]

---

1 Letter to Lord Carmarthen, Philadelphia, May 17, 1787. Found in J. Franklin Jameson, ed., "Letters of Phineas Bond, British Consul at Philadelphia to the Foreign Office of Great Britain, 1787, 1788, 1789." American Historical Association, Annual Report...1896. Hereafter cited as Bond.

2 Winterbotham, An Historical View, Vol, III, p. 111.

3 Gray, Southern Agriculture, Vol. II, p. 605.

1783-84	49,497	1786-87	60,041
1784-84	55,624	1787-88	58,544
1785-86	60,380	1788-89	58,673

The relatively smaller export in 1783 could be explained by the fact that British troops wracked systematic devastation of plantations on the York and James Rivers in the latter years of the war and it was estimated that 30,000 slaves were carried off from Virginia.[1] The relative decline of the industry has already been explained in terms of soil exhaustion and the greater profitability of other crops on exhausted lands. Maryland, which had produced an average of 30,000 hogsheads per annum pre-war exported 28,292 hogsheads plus some manufactured tobacco in 1791-92.[2]

Even if tobacco culture was declining in the old areas, it was expanding in North Carolina. In 1768, a token quantity of 360 hogsheads had been exported from the state. By 1788 the exports amounted to nearly 6,000 hogsheads.[3] Much Carolina tobacco was shipped through Virginia ports but in 1785 the export from Edenton was 560 hogsheads and in 1786 it was 1,163 hogsheads. 500 hogsheads were shipped from Port Roanoke during a 6 month period in 1787-88.[4] The increase in South Carolina and Georgia has already been mentioned.

In his discussion of the tobacco industry, Gray points out that the exports of unmanufactured tobacco over the three years, 1790-92, averaged 110,000 hogsheads per year. This was a slight increase over the pre-war average of 102,000 hogsheads per year. Until 1840, American exports of

---

1 Ibid., Vol. II, pp. 595 - 596.

2 Ibid., Vol. II, p. 605.

3 Philip C. Crittenden, The Commerce of North Carolina, 1763 - 1789 (New Haven, Conn.: Yale University Press, 1936). p. 161.

4 American Museum, Vol. VI, p. 401. See Appendix Exhibit III - 5 - 3.

tobacco never again reached the high average level of 1790 - 92.[1]

Although there is much qualitative and quantitative evidence to indicate that the Upper South was shifting out of tobacco into production of wheat, corn, flaxseed, and foodstuffs, it is difficult to quantify the extent of the shift. To the extent that resources were shifted out of tobacco production into food production, trade might actually appear to decrease as the area became more self-subsistent. We do, however, have some scattered estimates from which inferences may be drawn. The average pre-war export of foodstuffs by Virginia was estimated at 800,000 bushels of wheat and 600,000 of corn.[2] In the year 1791 - 92, Virginia's wheat exports were only 395,376 bushels but she additionally exported 108,824 barrels of flour and a barrel of flour was worth about 5 times as much as a bushel of wheat. Virginia's exports of corn in 1791 - 92 were 684,627 bushels.[3] Alexandria, Virginia, was but one of half a dozen ports in the Chesapeake Bay region but among her exports for the year running from July 20th, 1788 to July 14th, 1789 were included 32,000 barrels of flour, 102,000 bushels of wheat, 2,600 barrels of bread, and 38,000 bushels of corn.[4] In the following year, Baltimore, the major port of the region exported over 150,000 barrels of flour and bread, 228,000 bushels of wheat, 4,700 barrels of corn meal and 250,000 bushels of corn.[5] Tench Coxe estimated Maryland's pre-war export of wheat at 400,000 bushels per annum so the increase in wheat production for Maryland was considerable.[6]

---

1 Gray, Southern Agriculture, p. 752.

2 Winterbotham, An Historical View, Vol. III, p. 111.

3 Figures from Coxe, A View of the United States, p. 414.

4 American Museum, Vol. VI, p. 108. See Appendix Exhibit III - 5 - 4.

5 Ibid., Vol. IX, p. 8.

6 Coxe, A View of the United States, p. 77.

To sum up the examination of the economy of the Upper South, I take the liberty to quote a length a letter from the British Consul in Philadelphia:

> "...from the observation I have myself made and from every information I can collect, the agriculture of the Middle and Southern States is certainly increasing at this time; tho' I do not conceive it has yet reached its level antecedent to the war.
>
> The culture of the Southern States, my Lord, has experienced a material change. In Maryland and Virginia, lands which were greatly exhausted in the culture of tobacco are now sown with grain...
>
> The increase or decrease of the exports of particular states offers no absolute test of the increase or decrease of agriculture. One state may raise more and consume more than in former years..."[1]

A final word about the changing character of the economy of the Upper South may be ventured for population estimates.[2] The white population of Virginia increased by 160,000 from 1782 to 1790 while the slave population was growing by only 20,000. While the early estimates are extremely unreliable, these population figures weem to point to the decline in the relative importance of the plantation economy.

The Middle Atlantic states of Pennsylvania, Delaware, New Jersey, New York, and Connecticut had not been tied to the production of an export staple in the colonial period. With the exception of New York, where there were large proprietory estates up the Hudson, the area was characterized by a farming yeomanry carrying on diversified agriculture. The two largest cities in North America prior to the Revolution, Philadelphia and New York, were the important commercial centres of the region. New York grew from 22,000 in 1775 to 33,000 in 1790 while Philadelphia grew from 21,000 in 1775 to 42,000 in 1790.[3]

---

1 Letter from Phineas Bond to the Duke of Leeds, Philadelphia, November 10, 1789. Reprinted in Jameson, Bond, p. 628.

2 See Appendix III-3.

3 See Appendix II - 3.

Prior to the war the Middle Atlantic region had found major markets for its exports of food in the southern states and New England, in the British West Indies, and in southern Europe. Potash and flaxseed found ready markets in the expanding textile industries of England and the encouragement of the export of bar iron to the mother country was accompanied by prohibitions on manufacturing implements with it in America.

Independence led to major reorientation of markets. The European demand for American wheat was highly unstable since the American supply was needed only during years of bad harvests in Europe. The West Indian markets were re-established and there was some additional business from the French islands but southern markets were altered by increased production of foodstuffs in the Upper South and by a shift into self-subsistence in the Lower South. The market for salt meat was considerably diminished by the prohibition against its import in the British islands although smuggling and the connivance of local governors kept the vent partly open.

The effect of market reorientation was to shift resources into import competing industries. Grist mills were built and wheat was increasingly exported in processed form as bread or flour. Distillation of cereals into beer, porter, and whiskey made possible a lessened import of rum, wines, and gin. In addition to supplying their own population with manufactured goods, the Middle Atlantic states began exploiting the southern markets formerly dominated by British merchants. There even began to be talk of supplying the West Indies with manufactures and the diversification of Philadelphia and New York exports is evident in their customs house returns on exports.[1]

Much of our evidence on the growth of domestic industry comes from Tench Coxe and Alexander Hamilton, both of whom are suspect to partiality in

---

1 See Appendix Exhibits III - 2 - 2 and III - 3 - 1.

their information because of their interest in protecting manufacture. Nevertheless, some of their evidence bears repeating. In 1784, with less than 5% of the population, New Jersey had 41 fulling mills, 8 furnaces, 79 forges, 366 saw mills, 508 grist mills, and 192 tan yards.[1] Coxe estimated that better than 25% of the Philadelphia population was employed in manufacturing[2] and that in Pennsylvania, twice as much agricultural produce was consumed by workers employed in manufacturing, exclusive of flour, lumber, and bar iron, as was exported in any given year.[3] "Beer, distilled liquors, potash, gunpowder, cordage, loaf sugar, paper, snuff, tobacco, starch, anchors, nail rods and many other articles of iron, bricks, tiles, potter's ware, millstones, cabinet work, corn, fans, Windsor chairs, carriages, sadlery, shoes and boots, coarse linens, hats, a few coarse woollen articles, linseed oil, wares of gold and silver, tin and copper, some braziery, wool cards, worms and stills, and several other articles may be considered as established. These are tending to greater perfection and will soon be sold so cheap as to throw foreign goods of the same kind entirely out of the market."[4]

During the Revolutionary war, Philadelphia and New York had both been blockaded and occupied by the British. The end of the strictures against manufacturing, the lack of foreign goods during the war, and the changed markets for foodstuffs after the war were all contributing stimuli to an increase in manufacturing. The area remianed firmly based on agricultural production but there was increased processing of foodstuffs and the beginnings of a residentiary industry to supply the rudimentary needs of a rural population for clothing, shoes, agricultural implements, and transportation

---

1 Coxe, A View of the United States, p. 254.

2 Ibid., p. 228.

3 Ibid., p. 51.

4 Ibid., p. 26.

equipment.

Prior to the war, Philadelphia had been a shipbuilding center and this trade seems to have been very slack until 1789. New York, on the other hand, became much more important in shipbuilding in the post-war period. There was a shift in the location of the shipbuilding industry after the war which was largely due to changes in the sources of timber. Connecticut became more important in building ships after the war as did Maine while the industry was in relative decline in Philadelphia and north of Boston.[1]

The rudimentary land transport of the period determined the trade flows of the region. The port of New York became the inevitable center for the north New Jersey producers and for southern Connecticut as well as the hinterland which lay in the Hudson and Mohawk river valleys. Commodities came down the Delaware to Philadelphia and overland from the rich agricultural area lying to the west of Philadelphia although this trade was increasingly diverted south to Baltimore.

To summarize briefly the condition of the Middle Atlantic region in the years following the Revolution, an extensive quotation from a letter of the British consul in Philadelphia may be cited:

> "The increase of exports for the last two or three years from Pennsylvania and New York is certain; ... the universal opinion is that of late things are resuming their former tone, and if the demand in Europe should continue, the exertions of the farmer will soon attain if not surpass the former state of agriculture.
>
> Circumstances ... may vary the modes and channels thro' which the produce of particular states may find a vent ... for instance the back country of Pennsylvania (which for some years was very rapidly settled) sends a great deal of its produce to Baltimore, in Maryland, while the whole produce of the lately settled country back of New York and Connecticut centres in New York inevitably. The increase of ex-

---

1 John G. B. Hutchins, The American Maritime Industries and Public Policy, 1789 - 1914; An Economic History, (Vol. LXXI of Harvard Economic Studies) Cambridge: Harvard University Press, 1941) p. 177

> ports from New York, therefore, may appear to advance in a much greater proportion than those of Pennsylvania, but there is no test of the relative advance of the one State compared with the other; the real progress of agriculture is much more rapid in Pennsylvania than in New York and, indeed, it seems universally allowed that husbandry, in its general scope, is in a much more flourishing situation in Pennsylvania than in any other state of this continent."[1]

The economy of the New England states depended on the sea. Lacking staple agricultural exports, the New Englanders in the colonial period had relied on exports of codfish and whale-oil, coupled with the sale of ships and shipping services to pay their import bill. The changed commercial situation following the war hit hard at the bases of the New England economy. The carrying yrade to the British West Indies was lost. The sale of ships to Britain was prohibited. The price of whale oil dropped in England because of British subsidies to their own industry. Salt fish exports were prohibited in the British West Indies and received under duties in the French islands used to give a subsidy to French producers. In addition to the loss of former markets which confronted the seafaring Yandees, the coming of peace in 1783 found the fishing fleet rotting on the beaches after eight years of disuse and the merchant fleet severely decimated by loss and capture from trying to run the wartimeblockade. A Boston merchant wrote in 1785:

> "I ... take the liberty of stating to you briefly the situation of our Commerce, and of making a few observations relative thereto ... By the operation of the British Acts of Navigation we are deprived of a good part of the means of remitting which we formerly enjoyed, and the rest is by the effects of the same Acts rendered less extensive and beneficial than before; our Oil was formerly a good and valuable Article to remit direct to London, our New England Rum when exported to Newfoundland, Quebec and Nova Scotia furnished us with large Sums in Bills upon Britain, and our new ships when they obtained a freight

---

1 Letter from Phineas Bond to the Duke of Leeds, Philadelphia, November 10, 1789. Reprinted in Jameson, Bond, p. 628.

> in the British Islands for London and were there sold served very well as a remittance ... these several means of remitting with advantage to Europe we have lost, and they formed a large part of our former remittances ... the principal part of our remaining means to remit is by our Fish to Spain and Portugal, and Pot and Pearl Ases to London & c., but the amount of these is far short of what it was before the War; our Fishery is yet small though increasing, and the manufacture of Ashes is far short of its former importance..."

After arguing that the profitability of the trade with the West Indies depended on being able to bring back molasses which could be manufactured into rum for sale to Canada, he concluded

> "The Trade of Massachusetts is now at a very low Ebb and still declining, every branch of it is very much embarrassed and the Whale Fishery almost at an end, another season will probably finish it."[1]

A scanning of Jefferson's Report on the Cod Fisheries[2] reveals the changed character of the post war markets. In 1786, the industry was operating at approximately 80% of the pre-war level with the French West Indies, Spain, and Portugal the most important markets in that order. By 1790, it had surpassed the pre-war size.

In a tract published in 1788[3] the economic prospects for the New England whaling industry were discussed at some length. The price of whale oil was limited by the competition of vegetable oils and whale oil could command no more than a 25% price differential. For this reason most nations gave up the industry before 1775 and left it to Nantucket. The English revived their industry after the war by offering bounties amounting to 20 pounds sterling per ton and assessing duties of 18/5 pounds per ton on imports. The English fostered the industry to train seamen. Both the English and

---

1 Letter from Stephen Higginson to John Adams, Boston, December 30, 1785. Reprinted in J. Franklin Jameson, ed., "Letters of Stephen Higginson, 1783 - 1804," American Historical Association, Annual Report ... 1896. Hereafter cited as Higginson.

2 See Appendix II - 5.

3 "Observations on the Whale Fishery" (New York, 1788.) Charles Evans, Microprint #21345.

French tried unsuccessfully to recruit the Nantucket whaling fleet by offering inducements to settle but both were unsuccessful and the French markets were opened to American whale oil by the Arret of December 29, 1787.

It is difficult to make any quantitative estimate of the loss of ship-building occassioned by exclusion from the British market but it seems safe to say that demand for ships post-war was largely a function of the level of American foreign trade. According to an official report of a French consul, Massachusetts launched an average of 125 vessels per year prior to the Revolution, 45 in 1784, and only 15 - 20 from 1785 to 87.[1] On the other hand, this drop can be partly explained by depletion of timber on the north shore and movement of the industry to Maine. Ship-building was described as "active" in Boston in 1788 and although the industry was admitted not to be at its pre-war level, it was pointed out that a number of ships were being built elsewhere in the Commonwealth (which at that time included Maine).[2] Tench Coxe pointed out that where shipbuilding had averaged 21,726 tons per year from 1769 - 1771 that in the year 1789-90 in 53 out of the 68 customs districts there were 29606 tons of shipping built and that in Massachusetts the increase amounted to 3,713 tons.[3] Additionally, he pointed out that there was more repair of foreign vessels and that "much more of our naval stores, cordage, twine, nails and spikes, sale-cloth, plumbers' work, rosin, spirits of terpentine, linseed oil, paints, brass and copperwork, and other less important articles expended in building and arming ships, are of the produce and manufacture of the country than was the case in 1771."[4]

---

1 Samuel E. Morison, The Maritime History of Massachusetts (Boston: Houghton Mifflin Co., 1921). pp. 34 - 35. Hereafter cited as Maritime History.

2 Justin Winsor, The Memorial History of Boston, including Suffolk County, Massachusetts, 1630 - 1880 (Boston: Ticknor, 1880-86) 4 volumes. Vol. IV, pp. 205 - 206. Hereafter cited as Boston.

3 Coxe, A View of the United States, p. 217.

4 Ibid., p. 219.

There can be little doubt that Massachusetts was in dire straits following the war. Retaliation aginst the British was attempted by prohibiting the transport of Massachusetts provisions by British ships except to colonies which also admitted American ships but the only effect of this was to decrease the export of Massachusetts provisions. In 1786, the farmers of Western Massachusetts rose up in arms under the leadership of Daniel Shays to protest against the fiscal policies being pursued by the state government. Things reached a low ebb in the winter of 1786. But then a recovery took place. Morison writes, "By 1787 the West Indian trade was in measure revived... The benefits of a reopened market for farm produce and woodenware, percolating into the interior, did more to salve the wounds of Shay's Rebellion than all the measures passed by the Great and General Court."[1]

Stephen Higginson gives an entirely different picture in his letter to John Adams at the end of 1785 than he did in the middle of that year in a letter quoted above.

> "Our Cod-Fishery has very much increased this year, and the quantity of Fish caught has been great for the number of vessels employed...Fish has been in much demand all the season from the number of Foreigners who came after it, the price of course has been high...another year we shall make a great figure in this Fishery...Our Whale-Fishery has dwindled very much...
>
> The manufacture of Pot and Pearl Ashes was almost suspended during the War, and many of the works were converted to other uses or suffered to decay... it has again been revived, and the quantity manufactured last year was very large, though not equal to what it was before the War ...As our Ashes is preferred in England and Ireland to any that is made in Europe, and always obtains a better price, we may reasonably expect to see this Branch of Business extend as far, as the European Markets will support it...
>
> The exportation of our Country produce, such as Pork, Butter, and Cheese & c... has been very much increased, and we have a fair prospect of vying with, if not in a good degree to supplant, the Irish in the West-Indies and other

---

1 Morison, Maritime History, p. 38.

markets.

> You will naturally observe that I now give you a different View of Affairs, from that in my last Letter... I then confined myself to our mercantile situation...Those who have imported largely from the British are generally in distressed circumstances...the distresses of those people must, and will, be communicated to others who are connected with them in Business; and this connection is so extensive, as to affect a great part of those who are engaged in Trade."[1]

In another letter in the middle of 1786 to John Adams, Higginson gives an extended account of the illicit trade (prohibited by both the Massachusetts and British governments) which developed between the merchants of Massachusetts and Nova Scotia. Whale oil would be sent via Nova Scotia and would both escape the English duty and receive the English bounty. Lumber was likewise purchased in Massachusetts and shipped to the West Indies as the produce of Nova Scotia.[2]

The altered market structure which followed the Revolution directed the economy into new pursuits. One new direction taken by the shipping industry was the development of trade with the Orient. The end of the British East India monopoly opened up this avenue of enterprise to the New Englanders and they were so successful at it that Morison records, "By 1790, Boston and Salem were no more market townsfor salt fish and country produce but entrepots of world commerce."[3] From the end of the war until 1789, 44 ships set sail from Massachusetts for the East Indies.[4]

The loss of former markets of New England products also forced the economy into import competing industries. In 1789 it was said that

---

1 Letter from Stephen Higginson to Hon Adams, Boston, December 30, 1785. Reprinted in Jameson, Higginson, pp. 725 - 733.

2 Letter from Stephen Higginson to John Adams, Boston, July 1786. Reprinted in Jameson, Higginson, p. 737.

3 Morison, Maritime History, p. 161.

4 American Museum, Vol. VI, p. 236.

> "The manufacture of cotton, cards, paper for writing and for rooms, woolen cloths, loaf sugar, ducks, & c. is daily rising into importance; of which the following is proof;-
>
> In the duck manufactory lately established in this town, there were daily employed nearly three hundred people, who are able to turn out 1,200 yeards per week.
>
> Of the card manufactories in this town, that of Messieurs Giles, Richards and Co. alone, daily employs one thousand persons, and during the eleven months past they have manufactured five thousand, one hundred and fifty dozen pair of cotton and wool cards.
>
> At Taunton and the towns adjoining, there are employed in manufacturing of iron and nails one thousand persons daily. The quantity of nails made by them yearly is two hundred and fifty tons...
>
> It would be easy to continue remarks upon American manufactures but it would swell the note to a volume. From this specimen let us extend our views to the different manufactures throughout the United States and we shall be animated with the certain prospect of their growing importance, --- rejoice that the people are employed, and our money kept among ourselves."[1]

The estimated value of the products of industry produced in Suffolk county increased from $3 to $4.5 million from 1780 to 1790.[2] In 1788, it was estimated that Connecticut produced 2 million yards of sail cloth per year. In 1789 a letter in the American Museum stated that "Coarse linens are so universally made in various parts of New England as to undersell those of the same quality from Europe, which can no longer be sent to any of the places north of Philadelphia..."[4] The same letter also recorded that in 1788 a Mr. Cabot of Beverley, Mass., purchased and exported from Massachusetts 70,000 pairs of womens shoes to the southern states.[5]

On balance, while the New England States were not stagnant, it

---

1 Samuel Stillman, An Oration, Delivered July 4th, 1789. (Boston, Edes, 1789) Charles Evans microprint, #21863.

2 Winsor, Boston, Vol. IV, p. 93.

3 American Museum, Vol. III, p. 593.

4 "A letter respecting the state of American manufactures & c. from a gentleman in Philadelphia, to his friend at Montego-Bay. Philadelphia, May 8, 1789." Quoted in the American Museum, Vol. VI, pp. 236 - 238.

5 Ibid., pp. 236 - 238.

would also be difficult to call the years following the Revolution a time of unprecendented prosperity. The New Englanders, unfortunately, could not have the Navigation Acts "both ways." They evaded many of the provisions before the Revolution and they evaded different provisions of the Acts after the Revolution. It would be difficult to assess the change in per capita output which resulted from employment shifts into import-competing industries or the extent and profitability of illicit trade with the West Indies and through Nova Scotia.

The population estimates for the New England States indicate that this area was not growing as fast as the Middle Atlantic region and there was probably a considerable flow of population south. This is understandable when one remembers that growth during the period was mostly extensive and that Massachusetts, Connecticut, and Rhode Island had no geographic frontier in the period.

Turning our attention once again to the economic situation of the nation as a whole, it would seem fair to say that the people recovered rapidly from the economic effects of the war and the changed market situations which obtained from 1784 to 1792. Speaking of the change which had taken place since the Revolution, the British Consul in Philadelphia wrote in 1789,[1]

> "During the troubles, my Lord, a number of useful labourers were taken from the pursuits of agriculture and employed as soldiers; the diminution of useful labour occasioned a diminution of the crops and the farmer sustained a heavy less thereby...but a very considerable discouragement to agriculture existed during the war, the intercourse with Europe and the West Indies was so frequently obstructed by the cruizers that the farmer found no certain vent for hispproduce and fearful that the little he raised might perish on his hands he looked scarcely further than to the nurture of his family and became careless of cultivating more than their wants required...farm houses fell into decay, so that upon the

---

1 Ibid., pp. 236 - 238.

> accession of peace those means which were formerly exerted for the purposes of tillage and improvement were appropriated to the discharge of old debts...These inconveniences are gradually wearing away,... the eyes of the people seem now to be opened to their true interests..."

An American, writing in the same year, told the story in more glowing terms:[1]

> "There is a spirit of emulation, of industry, of improvement, of patriotism, raised throughout the states...In no period have they made a more rapid progress than within this year or two;... Every nerve and sinew seems to be at its utmost stretch, and this is not by the interposition of the legislature; but by the patriotic or interested and enterprising spirit of individuals; perhaps, even by the want of an effective government, I might almost have added; for it might have meddled, and, as in most similar cases, might have marred."

The analysis of the structure of the economy in this chapter has inevitably included quantitative estimates to help identify the relative magnitudes involved in the description of an economy. It has also presented in evidence the views of contemporary observers on the performance and changing structure of the economy which are either implicitly or explicity quantitative in their origin. We must now turn our attention to a careful consideration of the volume and terms of trade on which any conclusions about the economic fortunes of the United States during the period from the Revolution to the Napoleonic wars must rest.

---

1 "Letter respecting the state of American manufactures, and c. from a gentleman in Philadelphia, to his friend at Montego-Bay. Philadelphia, May 8, 1789." Reprinted in The American Museum, Vol. VI, p. 238.

Appendix II-1

Tables Showing the Values of Various Currencies

Silver Equivalence of Various Currencies[1]

State	Monetary Unit	Silver equivalent[1]
New Hampshire	Pound	1289 grains
Massachusetts	Pound	1289 grains
Rhode Island	Pound	1289 grains
Connecticut	Pound	1289 grains
New York	Pound	966¼ grains
New Jersey	Pound	1031¼ grains
Pennsylvania	Pound	1031¼ grains
Delaware	Pound	1031¼ grains
Maryland	Pound	1031¼ grains
Virginia	Pound	1289 grains
North Carolina	Pound	966¼ grains
South Carolina	Pound	1547 grains
Georgia	Pound	1781 3/4 grains
English Pound Sterling		1781 3/4 grains

Currency Exchange Rates[2]

$1 = 6/0 : New Hampshire, Massachusetts, Rhode Island, Connecticut, Virginia.

$1 = 8/0 : New York, North Carolina.

---

1 Thomas Jefferson, Notes on the Establishment of a Money Unit, (Annapolis, 1784). Charles Evans Microprint #18541.

2 Philadelphia Directory, Francis White, (Philadelphia, 1785). Charles Evans #19385.

$1 = 7/6 : New Jersey, Pennsylvania, Maryland, Delaware.

$1 = 4/8 : South Carolina, Georgia.

Currency Exchange Rates[3]

½ Joe (Portuguese johannes) = $8

Louis = 4 French crowns

5 Louis = 23 silver dollars

Livre = 1/5 - 1/6 dollar

Currency Exchange Rates[4]

$1 = 4/4½ British currency

$1 = 6/8 British West Indies

$1 = 5/12 French currency (livres/sous)

$1 = 8/5 French West Indies (livres/sous)

---

3 Jefferson, Notes on the Establishment of a Money Unit.

4 Paul L. Ford, ed., The Writings of Thomas Jefferson (New York: G. P. Putnam's Sons, 1892-1899). 10 Volumes. Vol. V, p. 413. Hereafter cited as Jefferson.

Appendix II-2

RESTRICTIONS ON U. S. EXPORTS IN FOREIGN MARKETS

COMMODITY	GREAT BRITAIN	FRANCE	BRITISH WEST INDIES	FRENCH WEST INDIES
Wheat, flour and bread	Prohibited until wheat is 6/3 per bushel	Free	Free	Prohibited by general law but usually admitted free by local governors.
Rice	7/4 per cwt. with drawback for re-export.	Free	Free	1%
Corn			Free	1%
Tobacco	1/3 per lb. with drawback for re-export	Free but under monopoly of Farmer's General		
Indigo	Dutied. Bounty granted to West Indian producers	5 livres per cwt.		
Potash & Pearlash	Free	Free		
Flaxseed	Free	Free		
Salt Fish	Prohibited	8 livres per xwt.	Prohibited	1% plus 3 livres per cwt. French fish receive 10 sous per cwt.

Appendix II-2 Concluded.

COMMODITY	GREAT BRITAIN	FRANCE	BRITISH WEST INDIES	FRENCH WEST INDIES
Salt Pork	Lbs. 4/4/9 cwt.	5 livres per cwt.	Prohibited	Prohibited
Salt Beef			Prohibited	1% + 3 livres per cwt.
Whale oil	Lbs. 18/3 per ton. Bountry of 20 lbs. for their own.	7½ livres per bbl. of 520 lbs.		
Naval stores	Dutied	Dutied	Free	1%
Furs	15-20%	Free		
Lumber	Free	Free	Free	1%
Port chares	Average of $1.09 per ton	Average of 18¢ per ton	Foreign vessels prohibited	Average of 55¢ per ton
Ships	Naturalization prohibited	Free for naturalization		

Note: Trade with the Dutch and Danish West Indies was free and many American vessels carried provisions to these islands where they were trans-shipped to British possessions. In addition, American vessels were in need of repairs. Trade with the Spanish Indies was prohibited and American flour was shipped to Spain for re-export to the Spanish West Indies.

Source: Ford, Jefferson, Vol. V. pp. 412 - 413.

Appendix II-3

POPULATION STATISTICS

Colony	Year	Source	White	Black	Total	Compound rate of population increase
Maine	1790	U.S. Census			96,540	
	1776	Census			47,767	6.9
New Hampshire	1790	U.S. Census	141,027	158	141,185	
	1784	Coxe			82,500	9.5
	1775	Census			80,950	3.8
Massachusetts	1790	U.S. Census		378,787	378,787	
	1784	Coxe			350,000	3.3
	1776	Coxe			290,000	1.7
Rhode Island	1790	U.S. Census		948	68,825	
	1783	Winterbotham	48,538	3,361	51,899	4.1
	1774	Coxe			58,228	1.1
Connecticut	1790	U.S. Census	235,132	2,764	237,946	
	1782	Winterbotham	202,877	6,273	209,150	1.7
	1775	Winterbotham			197,910	1.2
New York	1790	U.S. Census	318,796	21,324	340,120	
	1786	Winterbotham			238,897	9.1
	1783	Coxe			200,600	7.2
	1775	Census of 1771 & 86			193,167	3.9
New Jersey	1790	U.S. Census	172,686	11,453	184,139	
	1784	Winterbotham		10,551	145,435	4.0
	1772	Census			122,003	2.3
Pennsylvania	1790	U.S. Census	430,636	3,737	434,373	
	1787	Winterbotham			260,000	
	1784	Coxe			320,000	5.1
	1779-82	Tax lists			270,518	4.7
Delaware	1790	U.S. Census	50,207	8,887	59,094	
	1784	Winterbotham			37,000	
	1779-84	Census and tax lists			37,219	
Maryland	1790	U.S. Census	216,692	103,036	319,728	
	1782	Census	170,648	83,985	254,633	3.0
	1776	Gray		80,000		
	1775	Gray			200,000	3.2

Appendix II-3 Continued

Colony	Year	Source	White	Black	Total	Compound rate of population increase
Virginia	1790	U.S. Census	454,983	292,627	747,618	
	1782-85	Census & tax lists			504,264	
	1782	Gray		270,762	567,614	3.4
	1775	Gray			550,000	2.0
North Carolina	1790	U.S. Census	293,179	100,572	393,751	
	1776	Gray	75,000			
	1774	Gray			260,000	2.6
	1770	Tax lists			246,580	
South Carolina	1790	U.S. Census	140,178	108,895	249,073	
	1775	Gov. estimate			169,987	2.6
	1773	Gray	65,000	110,000	174,000	2.1
Georgia	1790	U.S. Census	53,384	29,264	82,548	
	1776	Gray	34,000	16,000	50,000	3.6
	1775	Gov. estimate			33,054	6.3
CITIES						
Boston	1775	Sutherland			16,000	.8
	1790	U.S. Census			18,038	
New York	1775	Sutherland			22,000	3.1
	1786	Winterbotham			23,614	8.3
	1790	U.S. Census			33,131	
Philadelphia	1775	Sutherland			21,767	4.6
	1790	U.S. Census			42,520	
Baltimore	1775	Sutherland			5,934	5.7
	1790	U.S. Census			13,503	
Charleston	1775	Sutherland			14,000	.9
	1790	U.S. Census			16,000	

Appendix II-3 Concluded

SOURCES:

1. All census figures, tax lists, and Governors' estimates before 1790 as well as municipal population in 1775 were taken from Stella H. Sutherland, Population Distribution in Colonial America, (New York, Columbia University Press, 1936) pp. xii.

2. The population estimates attributed to Gray come from Gray, Southern Agriculture, Vol. II. pp. 1025.

3. The population estimates attributed to Coxe come from Coxe, A View of the United States, pp. 198-200.

4. The population estimates attributed to Winterbotham come from Winterbotham, An Historical View, Vol. II, pp. 231, 266, 320, 373, 436, 464.

5. The U. S. Census figures for 1790 were taken from David MacPherson, Annals of Commerce, Manufactures, Fisheries, and Navigation...(London: Nichols and Son, 1805). 4 volumes. Vol. IV, p. 218. Hereafter cited as Annals of Commerce.

6. The U. S. Census figures for cities in 1790 were taken from Douglass C. North, The Economic Growth of the United States, 1790-1860 (Englewood Cliffs, New Jersey, 1961). pp. 49,52. Hereafter cited as Economic Growth.

Note: The rate of compound population growth for the various years is for the interval between the year for which the rate is given and 1790.

Appendix II-4

BRITISH IMPORTS AND RE-EXPORTS OF TOBACCO
(in millions of lbs.)

YEAR	IMPORTS	RE-EXPORTS	RETAINED IMPORTS
1765	48.3	37.6	10.7
1766	43.3	35.9	7.4
1767	39.1	36.4	2.7
1768	35.8	30.9	4.9
1769	33.8	22.9	10.9
1770	39.2	31.7	7.5
1771	58.1	41.5	16.6
1772	51.5	49.8	1.7
1773	55.9	50.4	5.5
1774	56.1	44.1	12.0
1775	56.0	43.9	12.1
1783	15.6	6.4	9.2
1784	40.0	28.0	12.0
1785	34.1	26.3	7.8
1786	37.7	21.1	16.6
1787	31.8	26.5	5.3
1788	39.1	7.2	31.9
1789	47.6	29.1	18.5
1790	47.1	26.3	20.8
1791	38.2	44.3	-6.1
1792	44.1	31.2	12.9

Pre-war average re-export 38.6 million lbs.

Post-war average re-export 24.6 million lbs.

Source: Elizabeth Boody Schumpeter, English Overseas Trade Statistics (Oxford: Clarendon Press, 1960) Table XVIII, p. 62.

Appendix II-5

THE STATE OF THE FISHERIES

State of the Cod Fishery of Massachusetts, from 1765 to 1775					From 1786 to 1790 inclusive				
Towns	Vessels annually	Tonage	Seamen	Quintals to Europe a 3. 5 dolls	Quintals to West Indies a 2. 6 dolls	Vessels Annually	Tonnage	Seamen	Quintals to Europe a 3 dolls.	Quintals to West Indies a 2 dolls.
Marblehead	150	7,500	1,200	80,000	40,000	90	5,400	720	50,000	25,000
Gloucester	146	5,530	888	35,000	42,500	160	3,600	680	19,500	28,000
Manchester	25	1,500	200	10,000	10,000	15	900	120	3,000	7,500
Beverly	15	750	120	6,000	6,000	19	1,235	157	5,200	10,000
Salem	30	1,500	240	12,000	12,000	20	1,300	160	6,000	10,000
Newburyport	10	400	60	2,000	2,000	10	460	80	1,000	5,000
Ipswich	50	900	190	8,000	5,500	56	860	248	3,000	6,000
Plymouth	60	2,400	420	8,000	16,000	36	1,440	252	6,000	12,000
Cohasset	6	240	42	800	1,600	5	200	35	1,000	1,500
Hingham	6	240	42	800	1,600	4	180	32	800	1,200
Scituate	10	400	70	1,000	3,000	2	90	16	400	600
Duxborough	4	160	28	400	1,200	9	360	72	1,500	3,000
Kingston	6	240	42	800	1,600	4	160	28	700	1,300
Yarmouth	30	900	180	3,000	6,000	30	900	180	2,000	10,000
Wellfleet	3	90	21	300	600	. .	. .	. .	. .	. .
Truro	10	400	80	1,000	3,000	. .	. .	. .	. .	. .
Provincetown	4	160	32	500	1,100	11	550	88	3,000	5,200

Appendix II-5 Continued

State of the Cod Fishery of Massachusetts, from 1765 to 1775						From 1786 to 1790 inclusive				
Towns	Vessels annually	Tonage	Seamen	Quintals to Europe a 3. 5 dolls	Quintals to West Indies a 2.6 dolls	Vessels Annually	Tonage	Seamen	Quintals to Europe a 3 dolls	Quintals to West Indies a 2 dolls
Chatham	30	900	240	4,000	8,000	30	900	240	3,000	9,000
Nantucket	8	320	64	1,000	2,200	5	200	40	500	1,500
Maine	60	1,000	230	4,000	8,000	30	300	120	1,000	3,500
Weymouth	2	100	16	200	600	3	150	24	1,000	1,250
Total	665	25,630	4,405	178,800	172,500	539	19,185	3,278	108,600	142,050

Appendix II-5 Continued

ABSTRACT OF THE PRODUCE OF THE FISHERIES, EXPORTED FROM THE UNITED STATES, FROM ABOUT AUG. 20th, 1789 TO SEPTEMBER 30th, 1790

	Fish Dried		Fish Pickled		Oil Whale	
	Quant.	Value	Quant.	Value	Quant.	Value
	Quints	Dollars	Barrels	Dollars	Barrels	Dollars
France	543	1,086	12	20	9,914	73,767
French West Indies	251,116	518,288	29,294	90,818	1,756	13,685
Amount of 1st Class	251,659	519,374	29,306	90,838	11,670	87,452
Spain	72,300	194,457	280	813	593	4,147
Spanish West Indies and Florida	824	978	300	886	5	38
Great Britain	5	10	. .	. .	1,738	21,048
British West Indies	1,970	4,114	795	3,075	15	124
Nova Scotia	. . .	. . .	13	40	1	10
Holland	. .	. .	15	45	807	5,683
Dutch West Indies	23,822	48,631	4,778	13,404	179	1,317
Portugal	18,594	41,306	69	242	4	60
Portuguese Islands	5,432	11,307	292	801	139	1,243
Germany	. . .	. . .	. . .	. . .	470	2,990
Danish West Indies	1,180	2,386	803	2,421	3	27
African Islands and Continent of Africa	613	1,324	147	564	6	42
Mediterranean	2,314	4,628	6	36	135	700
Sweden	8	16	. . .	. . .	. .	. .
East Indies	. . .	. . .	. . .	. . .	. .	. .
Amount of 2nd Class	127,062	309,157	7,498	22,337	4,095	27,456
Amount of both Classes	378,721	828,531	36,804	113,165	15,765	124,908

ABSTRACT OF THE PRODUCE OF THE FISHERIES, EXPORTED FROM THE UNITED STATES, FROM ABOUT AUG. 20th, 1789 TO SEPTEMBER 30th, 1790.

	Oil Spermaceti		Whale-Bone		Candles, Sperm		
	Quant.	Value	Quant.	Value	Quant.	Value	Total Val.
	Barrels	Dollars	Pounds	Dollars	Pounds	Dollars	Dollars
France	1,403	17,523	108,807	17,917	1,200	480)	
French West Indies	80	1,029	. . . .	. . .	38,754	14,884)	749,497
Amount of 1st Class	1,483	18,522	108,807	17,917	39,954	15,364	749,497
Spain	. . .	. . .	. . . .	. . .	2,896	1,256)	
Spanish West Indies and Florida	. . .	. . .	. . . .	. . .	1,685	674)	203,276
Great Britain	3,840	60,000	1,075	215	. . .	. . .	89,000
British West Indies	. . .	. . .	. . . .	. . .	756	353)	
Nova Scotia	100	870	. . . .	. . .	. . .	. . .	
Holland	. . .	. . .	5,220	1,050	. . .	. . .	79,404
Dutch West Indies	. . .	. . .	. . . .	. . .	23,162	9,274)	
Portugal	8	120	. . . .	. . .	. . .	. . .	55,137
Portuguese Islands	. . .	. . .	. . . .	. . .	148	58)	
Germany	. . .	. . .	6,150	1,230	. . .	. . .	4,220
Danish West Indies	. . .	. . .	. . . .	. . .	. . .	. . .	4,834
African Islands and Continent of Africa	. . .	. . .	. . . .	. . .	165	66	1,996
Mediterranean	. . .	. . .	29	5	238	150	5,519
Sweden	. . .	. . .	. . . .	. . .	. . .	. . .	16
East Indies	. . .	. . .	. . . .	. . .	1,285	529	529
Amount of 2nd Class	2,948	60,990	12,474	2,500	30,425	12,360	444,790
Amount of both Classes	5,431	79,542	121,281	20,417	70,379	27,724	1,194,287

Source: Timothy Pitken, A Statistical View of the Commerce of the United States of America (New Haven: Durrie & Peck, 1835) pp. 84-85.

Chapter III

The Volume of Trade

As Evidenced in the Customs Returns of Individual States

Large gaps in the records of individual states during the Confederation period make it impossible to construct any records of foreign trade which would be directly comparable to those for the period after formation of the federal union. Nevertheless, much evidence does exist in the way of returns from individual ports and this chapter will seek to piece the evidence together in order to make out the main outline of what was happening to the new nation during the critical period from 1784-1792.

Returns from Individual States.[1]

South Carolina:

The port of Charleston, S.C., was the commercial center for the Lower South, and customs-house returns for the port have been found for the years from 1784 to 1787. Evidence on the level of pre-war trade and on exports from 1788 - 1792 come from different sources. The behaviour of exports is shown in Table 3-A. The combined value of rice and indigo exports, the main staples of the economy of the Lower South, is remarkably stable during the years immediately prior to the Revolution and from 1784-1792. The aggregate value, however, conceals be differences in the behaviour of the two commodities. While the price and quantity of indigo exported remained at fairly constant levels, the quantity and price of rice varied greatly over the years considered. The volume of rice exports was considerably higher in the pre-war years than during the Confederate period and the volume of rice shipped did not reach its pre-war level until

---

1 See Appendix III for the returns and derivations of export series for the various states.

Table 3-A

CHARLESTON EXPORTS

	Pre-war	1784	1785	1786	1787	1788	1790-91	1791-92
Value of Rice & Indigo Exports	$1,974,471	1,997,617	1,717,456	2,077,672	2,425,860	2,210,737	1,738,219	2,073,177
Quantity of Rice (bbls.)	120,048	61,713	63,713	65,857	65,195	83,333	87,179	98,044
Value of Rice	$1,267,707	1,208,492	1,013,037	1,185,435	1,173,510	1,350,000	1,150,763	1,147,115
Value of Indigo	$ 706,654	769,125	704,419	892,237	1,252,350	* 860,737	587,456	926,062
Value of Tobacco	--	$ 112,560	120,907	165,018	241,912	* 299,975		
Value of Other Exports	--	$ 52,915	54,125	60,227	48,798	* 40,560		
Total Value of Exports	$1,974,471	2,143,092	1,892,488	2,302,918	2,716,570	2,551,272	(2,693,268)	(2,428,250)

Source: Appendix III-1

* Denotes projected estimates

after 1790. Compensating for the diminished volume of exports were the exceedingly high prices which the commodity commanded during the Confederation period. The constancy of the total revenue from the sale of rice might well have come from a price theory text illustrating unitary demand elasticity.

Tobacco, which was not grown commercially in the Lower South in the pre-revolutionary period, became an increasingly important export of the area after 1783. The value of other exports of the area -- corn, lumber, turpentine and staves -- is not quantitatively important in comparison to rice, indigo and tobacco. They are, however, included in the value series for the years up to 1788. The estimates from 1789-92 are not strictly comparable to the earlier years since they are arrived at by different methods. However, they probably give a fairly good idea of export behaviour.

Pennsylvania:

The port of Philadelphia was the only port for the state of Pennsylvania and it also handled much of the commerce of New Jersey, Delaware, and Maryland. A great deal of the trade of the southern states also passed through Philadelphia during the period. As shown in Table 3-B, the value of exports from Philadelphia shows a pronounced cyclical pattern with a trough occuring in 1786. Even in 1786, however, the export series was above its pre-war level. Flour exports dominate the value series, and the upward trend in the value of exports of foodstuffs is only partially offset by the progressive decline in the value of southern staples passing through Philadelphia. The interest of Philadelphia merchants in the tobacco trade was obviously a short-term phenomenon fostered by

Table 3-B

PHILADELPHIA EXPORTS

	1773	1784	1785	1786	1787
Estimated total value of exports	$2,056,271	3,724,527	2,509,336	2,058,601	2,141,970
Quantity of flour	265,967 bbls.	218,307	217,686	153,468	193,720
Value of flour	$1,175,267	1,462,654	1,284,349	859,431	968,600
Quantity of tobacco		18,563 hhds.	5,409		4,808
Value of tobacco		$1,531,425			307,712
Value of foodstuffs	$1,725,135	1,674,720	1,597,966		1,258,154
Value of Ind,material	$ 311,367	428,718	337,722		469,818
Value of So.Staples	$ 20,121	1,621,089	573,650		413,998

Table 3-B Concluded

	1788	1789	1790-91	1791-92
Estimated total value of exports	$2,427,190	3,510,765	($3,436,093)	($3,820,662)
Quantity of flour	217,960 bbls.	369,000		
Value of flour	$1,242,110	2,018,430		
Quantity of tobacco	3,101 hhds.	1,657		
Value of tobacco	$ 195,363	77,473		
Value of foodstuffs	$1,717,924	2,795,790		
Value of Ind.material	$ 292,075	458,983		
Value of So. Staples	$ 417,191	255,491		

Source: Appendix III-2.

the commercial arrangements of the war years. In addition, tobacco began to be shipped directly from southern ports by resident agents of the Philadelphia merchants who financed the trade.[1] As seen from the behaviour of the 20 commodity series, the exports of foodstuffs from Philadelphia rapidly recovered from their low in 1786 and far surpassed their pre-war level by 1790. The increase in the post-war period, it should be noted, came about in spite of the fact that much of the foreign commerce which moved through Philadelphia pre-war had shifted to Baltimore.

New York:

The port of New York served as commercial center for southern Connecticut, northern New Jersey, and the Hudson, Mohawk river valleys to the north. The only year for which a complete record of New York exports is available pre-1790 is for 1788. The figures for this year, included in Appendix III - 3, are exclusive of coastwise trade and re-exports. The figure of $1.9 million for this year, therefore, compares very favourably with the 1790-1792 level of $2.5 million per annum. I have no records of New York trade prior to 1788 but the evidence on imports which is presented later in this chapter would lead one to believe that foreign trade during the earlier years of the Confederation cannot have been much different from 1788. If we believe the opinion of one contemporary observer that the trade of New York was almost constantly in its favour since the Revolution, then exports prior to 1788 must have been at least as great if not greater.[2]

---

1 Bezanson, Prices and Inflation, Chapter XV.

2 Winterbotham, An Historical View, Vol. II, p. 339.

Massachusetts:

Customs-house returns for both Boston and the entire Commonwealth of Massachusetts are available for 1787.[1] The Massachusetts returns are particularly interesting for the breakdown of commodities by destination. They show the extent of the coast-wise trade carried on by New England and also the East Indies, even at this early date. The foreign trade, as distinct from trade with other colonies, amounted to $1.6 million in 1787 and can be estimated at $2 million for 1788 by projecting the rate of increase for Boston for the two years to the rest of the state. All reports would seem to indicate that this was a miraculous recovery from the commercial situation of the New England colonies immediately after the war.

Other Returns:

The return for Baltimore for 1790 shows the value of exports at $2 million. The returns for the whole of Maryland for 1791 and 1792 show values of $2.2 and $2.6 respectively, but these include exports from Annapolis and Georgetown. Returns for Wilmington, Delaware, Alexandria, Virginia, Edenton and Port Roanoke, North Carolina give some idea of the extent and composition of trade of various outports.

The available evidence on the volume of trade during the period is presented in Table 3-C along with estimates of the total value of trade of all 13 states based on the percentage of total trade enjoyed by each state in 1791 and 1792. No great faith is placed in the procedure involved but it is interesting to note that the ratio estimate of trade for 1789-90 agress quite closely with customs-house returns for the whole United States for that year when they have been altered to allow for the 14 month year.

---

1 See Appendix III - 4.

EXPORTS BY STATE 1784-1792

TABLE 3-C

(in thousands of $)

	1784	1785	1786	1787	1788	1789-90	1790-91	1791-92	Average Proportion of trade by state, 1790 to 1792
Georgia							491	459	2.4%
South Carolina	2,143	1,892	2,303	2,717	2,551		2,693	2,428	12.9%
North Carolina			506				525	528	2.6%
Virginia							3,132	3,553	16.8%
Maryland						2,028	2,240	2,624	12.2%
Delaware							120	134	.6%
Pennsylvania	3,725	2,509	2,059	2,142	2,427	3,511	3,436	3,821	18.2%
New Jersey							27	23	.1%
New York					1,925	2,000	2,505	2,536	12.7%

Table 3-C Concluded
(in thousands of $)

	1784	1785	1786	1787	1788	1789-90	1790-91	1791-92	Average Proportion of trade by state, 1790 to 1792
Connecticut							710	880	4.0%
Rhode Island							470	698	2.9%
Massachusetts				1,588	1,969		2,520	2,888	13.6%
New Hampshire							143	181	.8%
Official total value of exports						17,450	19,012	20,753	
Ratio estimate of total value of exports in 000,000's	$18.9	14.2	14.4	14.4	15.5	17.5			

Sources: See Appendix III

Imports.

The only figures for domestic imports available for the pre-1790 period are those constructed from customs-house returns from New York and Philadelphia. My estimates for the value of imports into the port of New York for 1784-87 indicate that the annual average value of imports for those years was about $4 million.[1] Of this, slightly less than a million represented imports of West Indian commodities and the remaining $3 million was largely manufactured goods. An estimate of the value of New York exports for 1788 stated them to be more than $2.5 million exclusive of re-exports.[2] This included exports coast-wise to other states but the import figures likewise included imports from theother states.

Estimates of imports for three separate years are available for Philadephia.[3] In 1784, the value of imports into Philadelphia is estimated at $8.8 million. The figure dips to $3.2 million per year in 1786-87 and then climbs back up to $4.6 million in 1789. One remarkable thing about these figures is the stability of the value of enumerated West Indian and tropical commodities during these three very disparate years. They amount to $1.3 million in 1784 and 1789 and $1.4 million in 1787. The fluctuation in the value of imports is due entirely to huge changes in the volume of imported manufactured goods. The behaviour of the Philadelphia import series agrees very closely with the series on British exports[4] to the U. S., showing the same boom in 1784, depression in 1786-87 and

---

1 Appendix III - 6.

2 The American Museum, Vol. 7, p. 52.

3 See Appendix III - 7.

4 See Table 4 - B.

recovery in 1789.

When we add to the evidence on the volume of imports, the behavior of the foreign exchanges[1] and the estimates of the volume of exports already presented, the picture of Philadelphia trade during the Confederation period fits together very nicely. The premium of sterling over Pennsylvania currency advances slowly from 1783 until March 1786 when it reaches its high. Pennsylvania currency remains at approximately a 6% discount until the spring of 1788 when it starts to move back towards par. The tremendous rise in exports during 1789 caused sterling to sink to a sizeable discount during the spring of 1790 reflecting the favourable balance of trade which Pennsylvania had established during the previous autumn.

The fall in the exchange rate between 1783 and 1786 resulted from the adverse balance of trade caused by huge imports following the war. Only the increased export earnings resulting from the post-war prices of American exports and the shipment of specie kept the exchange discount from becoming greater than it was. The heavy discount on Philadelphia currency in 1786 coincided with the low level of exports for that year and the low level of imports in the year following. The falling of the discount and the occurence of a premium in 1790 were the monetary indicators of the recovery which had taken place.

There is no scarcity of isolated fragments of evidence on the volume of trade during the Confederate period, nor is there silence on the part of contemporary observers as to the state of trade. This survey has not included material of this type because it does not furnish the sort of evidence which is needed to make judgements about the level of foreign trade during the period. What is needed is continuous and comparable series which this

---

1 See Table 3-D.

Table 3-D

Exchange Rate Between
Philadelphia Currency and Sterling

	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Yearly Average
1783			100			100	101	100	104		104	103	102
1784	104	103	103	102	102	103	103	105	106	106	107	106	104
1785	106	-	100	106	-	108	105	106	106	107	107	-	106
1786	-	103	108	107	107	106	-	107	106	106	106	-	106
1787	106	106	105	105	105	105	105	106	105	106	105	105	105
1788	105	106	106	105	105	105	104	103	-	103	103	103	104
1789	103	103	103	103	102	103	104	103	103	103	103	102	103
1790	99	92	88	87	93	100	103	104	102	102	104	103	98
Monthly Average	104	102	102	102	102	104	104	104	105	105	105	104	

Source: Bezanson, Prices and Inflation, p. 346.

Procedure: The price of 100 pounds sterling in Pennsylvania currency is divided by 166.7 pounds, the par value, to give the percentage above or below par. Figures above 100 indicate sterling at a premium over Pennsylvania currency.

chapter and its many appendices have sought to present. The evidence of these series and some straightforward international trade theory can give us a picture of the period in which the main outlines are available. Our conclusions will be set forth in Chapter 6.

Appendix III - 1

Construction of the Charleston Export Series

Sources of Data:

The source of data on the volume of commodities exported for the years 1784 - 1787 is customs-house returns for those years printed in The American Museum. Specimen returns are included in this appendix. It would appear that the dating of Charleston exports for the years 1783-1785 in L. C. Gray, History of Agriculture in the Southern United States to 1860, is mistaken. This is entirely understandable considering the terminology of the Charleston Customs-house. It will be noticed that the customs-house returns refer to "exports of the crop of 1782" and in like manner for other years. The fiscal year ran from the export of the new rice crop starting in November and so the crop of 1782 was actually exported from November, 1782 to November 1783. Consequently, I have entered the "crop of 1783" as the export of 1784 and so on for 1785 - 1787.

The pre-war figures for rice and indigo exports are taken from the tables in Gray, as are the figures for 1790-91 and 1791-92. The volume figures for rice for 1788 come from Gray and are obviously an estimate but agree with contemporary reports. The indigo exports for that year are an average of the volume of the previous four years. The tobacco exports are the projection of a trend for the previous four years. The rationale for this procedure stemmed from a contemporary report which estimated that twice as much tobacco was exported in 1788 as in 1787, and 30,000 more tierces of rice.[1]

---

1 American Museum, Vol. V, p. 312.

Procedure:

In order to obtain values of exports for the various years, the volumes of commodities exported are multiplied by the annual average price of the commodity computed as the arithmetic mean of the prices for Charleston contained in A. H. Cole, Wholesale Commodity Prices in the United States, 1700-1861 - Statistical Supplement - Actual Wholesale Prices of Various Commodities, (Cambridge: Harvard University Press, 1938).

Coverage:

An exact method of calculating the proportion of the total value of exports accounted for by rice, indigo, and tobacco during the period is not possible on the basis of the evidence which I possess. However, these three items plus boards, staves, turpentine, and corn must account for well over 95% of the value of Charleston exports during the period. The value of South Carolina exports for 1790-91, and 1791-92 is entered in brackets in the row showing total value of exports.

---

1 American Museum, Vol. V. p. 312.

Appendix III-1-1

CHARLESTON EXPORTS FOR 1784 AND 1785

"Exports from Charleston, S. C. of the crops of the years 1784 and 1785."

		Crop of 1784	Crop of 1785
Rice	bbls.	60,442	61,879
Rice	½ bbls.	6,542	7,957
Tobacco	hghds.	2,303	3,929
Indigo	casks	1,789	2,163
Deer skins	hhds.	540	325
Deer skins	bales	290	404
Pitch	bbls.	3,719	3,789
Tarr	bbls.	6,737	5,056
Turpentine	bbls.	6,545	6,628
Lumber	thousand feet	1,072	1,758
Shingles	thousand	3,097	2,104
Staves	thousand	403	836
Corn	bushel	19,510	6,585
Butter	firkin	352	592
Pink, snake, ginseng	hhds.	4	9
Pink, snake, ginseng	bbls.	44	41
Sassafras	tons		80
Sarsaparilla	hhds.		11
Sarsaparilla	bundls.		50
Green hides		329	)
Dry hides		59	2,297)
Sides of leather		1,968	2,517
Beeswax	tons	3	
Beeswax	hhds.		2
Beeswax	bbls.		16
Bbls. of pork & beef			738

Source: American Museum, Vol. IV, p. 277.

Appendix III-2

Construction of the Philadelphia Export Series

Source of Data:

The sources of data for the volume of export commodities shipped from the port of Philadelphia for the years 1773 and 1784-1789 are customs-house returns and contemporary tables of trade published in the American Museum. Specimen returns are printed in full in this appendix.

Coverage:

The export series presented is based on twenty of the most important commodities shipped from Philadelphia during the period. They were grouped as follows:

Foodstuffs	Industrial Materials	Southern Staples
Flour	Flaxseed	Rice
Wheat	Ginseng	Indigo
Bread	Beeswax	Tobacco
Corn	Potash	Naval Stores
Meal	Lumber	
Beef	Staves	
Pork	Furs	
Ham	Bar Iron	

The customs-house returns for Philadelphia for the last five months of 1789 show that the 20 commodities named had relative importance in exports as noted:

Value of the 20 enumerated commodities	Pounds	644,298
Enumerated domestic production not included in 20 commodity series		38,690
Re-exports of East & West Indian goods		112,601
Non-enumerated articles ad valorem		317,650
	£	1,113,239

The following assumptions are made:

1. The non-enumerated articles were re-exports of European goods shipped coastwise to other states.
2. The re-exports of West and East Indian goods were shipped coastwise to other states.
3. The 20 commodities and enumerated domestic production not included in the 20 commodities were shipped abroad.
4. Errors in assumptions 1-3 cancel, i.e., the value of domestic production actually shipped coastwise was approximately equal to the value of re-exports actually shipped abroad.

On the basis of these assumptions, we can infer that a good estimate of Philadelphia exports to foreign countries during the five month period would be equal to the value of the 20 commoditities plus enumerated domestic production not included in the 20 commodities. This would amount to 644,298 lbs. + 38,690 lbs. = 682,988 lbs. Thus, the 20 commodities enumerated in our series account for 94% of domestic exports during the five-month period in 1789. This gives some idea of the completeness of the coverage.

Procedure:

Export values for given years are computed by multiplying the volume of commodities exported, wherever possible, by the annual average

price of the commodity in Philadelphia computed as the arithmetic mean of monthly quotations found in A. H. Cole, Wholesale Commodity Prices in the United States, 1700-1861 - Statistical Supplement. The following commodities were treated in this way:

Wheat	Rice	Potash
Bread	Pork	Staves
Corn	Beef	Tobacco
Meal	Bar Iron	Lumber

Since no price data could be found for the following commodities, their 1789 price was used:

Flaxseed	Ham	Furs and skins
Ginseng	Naval Stores	Beeswax

Indigo prices were computed from the annual average price at Charleston since the Philadelphia series was for French indigo.

Special Procedures used for Different Years:

The non-comparability of export returns for different years necessitated procedures to adjust values to make them comparable. Complete annual returns are available only for 1773, 1787, and 1788. The returns for 1784-1785 each cover only approximately a ten-month period while the 1789 returns are for five months only. For 1786, only flour exports are available. These irregularities were dealt with as follows:

1. For 1784, 1785 and 1789, the partial returns are transferred to an annual basis by dividing the computed value of exports for the period by the fraction of annual trade ordinarily carried on during the months covered by the partial returns. The estimate of seasonal variation in trade is the break-down of Philadelphia flour exports by month included in this appendix.[1] Thus, the

---

1 See Appendix Exhibit III-2-3.

computed value of exports for the period from March 17 to December 31, 1784, is divided by .9525 — the percentage of flour shipped from Philadelphia during that period in 1788. This procedure carries the implicit assumptions that 1788 was a "normal year" as regards seasonal variation and that flour exports reflected the general pattern of trade activity. I believe these to be reasonable assumptions on the grounds that the volume of exports was largely determined by the number of ships clearing port. The 1788 figures show no export during January when the Delaware is frozen over and little in February and March when there is still likely to be ice and storms. The other low period in July and August can be explained by the fact that this is hurricane season or by the time of harvest of crops and the difficulty in grinding grain during the low water period at the end of the summer. The figures for exports for 1785 are divided by .765 and those for 1789 by .49.

2. In 1786, the volume of flour exports is known. The volume of the other commodities is computed by taking their average volume in 1784, 1785, 1787, and 1788. Values are then computed on the basis of 1786 prices.

Purpose of the Series:

The purpose intended for the series on the value of Philadelphia exports is to show, insofar as possible, the effect of the Revolutionary

War and the Confederation period on the export trade of the Middle Atlantic area served by the port of Philadelphia. This series is not comparable with the export values for Pennsylvania post 1790 for several reasons. It includes exports to other states and it does not include many articles which were exported from Philadelphia during the period -- most importantly, manufactures and re-exports. The rationale of the series is the presentation of a value series of 20 commodities which were of prime importance in the export trade of the city in order to show the level and fluctuation of trade during the period under consideration. The importance of the 20 commodities has already been indicated in their relative value among the total exports during the latter part of 1789. Bearing in mind the difference between the values in my series and the value of exports from Pennsylvania in 1791 and 1792, it is interesting to note that these latter two figures are quite close to my estimate for 1789. (These figures are in brackets in Table 3-B.)

Appendix III-2-1

PHILADELPHIA EXPORTS FOR 1784 AND 1785

	1784	1785
Feet of board, planks, & scantling	3,545,508	1,802,064
Pieces of planks	28,446	15,715
Shingles	9,195,119	3,694,945
Staves & heading	4,013,809	2,632,366
Hoops	95,845	89,620
(Exports of logwood, brazilletto, mahagony not included)		
Oars	2,841	846
Handspikes	794	2,181
Pipes of wine	517	421
Hhds. of wine	373	110
Tierces of wine	102	39
¼ casks of wine	953	53
Hampers of wine	38	32
Cases of wine	1,020	601
Pipes of brandy	131	263
H hds. of brandy	13	113
Tierces of brandy	28	25
Bbls.of brandy	13	40
Kegs of brandy	226	337
Hhds. of rum	2,857	900
Tierces of rum	225	85
Bbls. of rum	40	42
Casks of gin	88	117
Ankers of gin	110	17
Hampers of gin	50	10
Cases of gin	3,543	2,329
Hhds. of porter & beer	127	38
Tierces of porter & beer		59
Bbls. of porter & beer	191	84
Hhds. of cider & vinegar	28	33
Bbls. of cider & vinegar	742	560
Hhds. of loaf sugar	136	59
Tierces of loaf sugar	272	2
Bbls. of loaf sugar	84	36
Hhds. of muscovalo	897	323
Tierces of muscovalo	125	17
Bbls. of muscevalo	2,320	523
Boxes of muscovalo	1,815	193
Chests of tea	771	278
½ chests of tea	9	13

Appendix III-2-1 Continued

	1784	1785
¼ chests of tea	6	9
Boxes of tea	193	9
Tierces of coffee	6	24
Bbls. of coffee	231	96
Bags of coffee	82	12
Boxes of chocolate	51	84
Bbls. of flour, middlings, & shipstuff	207,937	166,530
Hhds. of molasses	822	253
Tierces of molasses	35	7
Bbls. of bread	20,895	24,316
Bags of bread	144	459
Kegs of bread	32,245	25,419
Hhds. of Indian corn	1,908	3,342
Bbls. of Indian corn	1,025	202
Bushels of Indian corn	51,689	107,890
Bushels of wheat	28,289	23,640
Hhds. of pease	52	32
Bbls. of pease	40	115
Hhds. of Indian meal	382	439
Bbls. of Indian meal	1,386	4,915
Bbls. of rye meal	54	168
Bbls. of oats	466	269
Bushels of oats	2,185	2,285
Hhds. of tobacco	17,681	4,138
Casks of flaxseed	11,813	2,669
Casks of ginseng	233	37
Bbls of ginseng	105	12
Bbls. of beeswax	273	34
Casks of indigo	23	41
Bales of cotton	48	13
Bundles of leather	126	110
Bbls. of hair powder	42	13
Bbls. of starch	154	23
Hhds. of snuff	31	9
Bbls. of snuff	215	115
Boxes of snuff	73	13
Hhds. of lime	185	183
Casks of potash	65	104
Hhds. of tanners bark	112	168
Bbls. of naval stores	19,883	20,097
Hhds. of furs & skins	56	155
Tierces of furs & skins	16	5
Cases of furs & skins	136	34
Bundles of furs & skins		10
Tons of hemp	47	5
Tons of oakum	27	1

Appendix III-2-1 Continued

	1784	1785
Bu. of coals		1,620
Coils of cordage	2,205	84
Tons of cordage	58½	13
Pieces of cordage		157
Cables of cordage		
Anchors of cordage	61	4
Boxes of soap	898	1,745
Boxes of candles	836	531
Bales of pimento	27	32
Tierces of pimento	48	64
Bbls. of pimento	15	83
Bbls. of cocoa	120	14
Tierces of rice	1,951	4,347
Casks of ham	294	246
Hhds. of salt	166	112
Bbls. of salt	30	162
Bushels of salt	20,725	19,848
Bbls. of oil	242	178
Boxes of sweet oil	83	131
Bbs. of beef & pork	1,860	1,373
Tubs of beef & pork	133	48
Hhds. of fish	149	288
Kegs of sturgeon	88	267
Kegs of butter	212	342
Bbls. of lard	18	29
Kegs of lard	293	281
Tierces of tallow	26	6
Kegs of tallow	252	
Boxes of lemons	433	96
Bbls. of potatoes & apples	5,762	1,611
Bbls. of onions	337	99
Bushels of onions	200	6,791
Ropes of onions	61,858	44,686
Tierces of nuts	46	76
Bbls. of nuts	42	3
Bags of nuts	58	20
Casks of sarsaparilla	3	15
Bbls. of sarsaparilla		19
Tierces of seneca root	28	
Bbls. of seneca root	8	
Bbls. of ginger	223	14
Bags of ginger	73	524
Hhds. of iron mongery	102	2
Casks of iron mongery	441	139
Boxes of iron mongery	34	15
Bundles of iron mongery	45	168
Kegs of iron mongery	102	151
Pieces of iron mongery	972	3,196

Appendix III-2-1 Concluded

	1784	1785
Bars of iron	8,364	7,543
Tons of bar iron	632	433
Pigs of iron	372	11
Tons of pig iron	146	23
Tons of steel	12	20
Bundles of steel	21	46
Faggots of steel	31	37
Bars of steel	409	16
Boxes of steel	5	
Tubs of steel	50	
Sheets of copper	18	68
Cakes of copper	534	
Copper stills	46	87
Smith's anvils		18
Casks of paint	23	3
Kegs of paint	554	83
Riding carriages	72	73
Wagons	2	6
Dutch fans	59	
Dz. of Windsor chairs	329	303
Shooks	3,438	1,355
Bricks	722,409	656,533
Rheams of paper	2,997	590
Pounds of ham	2,000	
Hhds. of bran & shorts	316	40
Tierces of bran & shorts	110	10
Bushels of bran & shorts	16	50
Hhds. of dye stuf	124	
Tierces of dye stuf	10	
Trummels of dye stuf	30,780	
Truss hoops		9
Nests of tubs		12
Lbs. of whalebone	2,700	
Masts	20	
Bolts of canvas	202	58
Bolts of duck	73	174
Carts	3	
Drays	1	
Bbls. of barley	600	

Much merchandize in Pipes, hhds., casks, tierces, bbls., kegs, cases, bales, crates, trunks, chests, boxes, packages, hampers, baskets, bundles and bags.

Signed Frederick Phile, Naval officer,
Philadelphia. November 28, 1785.

Source: American Museum, Vol. IV, p. 277.

Appendix III-2-2

PHILADELPHIA EXPORTS FOR PART OF 1789

"Philadelphia exports from August 1 -- December 31, 1789"

192,762	bbl. flour		41s	Pound 395,162
11,243	½ bbl. flour		20.5s	11,524
16,876	bbl. bread		18/9	15,821
511	hhd. bread	Pound	3/15	1,916
268	½bbl. bread		9/	120
7,807	kegs bread		2/6	975
1,524	bags bread		18/9	1,428
1,508	lbs. bread		18/9 cwt.	12
378	hhds. corn		55s	1,039
321	bbl. corn		15s	240
76,613	bushels corn		15s	13,407
680	hhd. meal	Pound	4.10	3,060
7,843	bbl. meal		22.6	8,823
533	½ bbl. meal		11.3	300
27	hhd. rye meal	Pound	4	108
3,554	bbl. rye meal		20s	3,554
4,038	tierces of rice	Pound	6/7/6	25,742
489	½ tierces of rice		63/9	1,558
7,421	hhds. flaxseed	Pound	2.10	18,552
419	½ hhds. flaxseed		25s	524
6,883	bushels flaxseed		6s	2,064
913	bushels rye		4s	182
110,181	bushels wheat		8s	44,072
812	hhd. tobacco	Pound	17.10	14,218
515	bl. tobacco	Pound	4	2,060
2,220	M staves	Pound	7	15,536
49	M heading	Pound	9	441
1,350	M ft. lumber		47/6	3,207
1,607	M shingles		7/6 M	602
1,897	pieces plank		10 s each	948
722	boards		4s	154
89,800	lbs. of cotton		1/6 lb.	6,735
146	tons logwood	Pound	4	584
401 casks) 168 bbls.)	potash = 114 tons		40 Pounds	4,560
737	pieces mahogany	Pound	3	2,211
31	M hoops		65s	101
237	½ bbl. beef		22/6	267
1,599	bbl. beef		45s	3,598
50	tubs beef		30s	75
2,314	bbl. pork		65s	7,520
126	hhd. beeswax	Pound	65	8,190
10	bbl. beeswax	Pound	17	170
108,400	gals. rum		3/6	18,970
11,300	gals. brandy		4	2,260

Appendix III-2-2 Continued

80,000	lbs. coffee		17d	6,333
70,000	lbs. loaf sugar		13d	3,791
26,000	bu. salt		2s	2,600
15,000	lbs. snuff		2s	1,500
Glass				965
777	cases gin		28s	1,807
Gin				760
32,000	lbs. of nails		9d	1,200
24	fire engines	Pound	50	1,200
4,470	cwt. sugar		50s	11,175
2,455	reams &			
499	bundles paper		20s	2,954
40,000	lbs. gunpowder		3s	6,000
17,000	lbs. pepper		3s	2,550
820	tons of iron	Pound	25	20,500
1,840	bbls. naval stores		10s	920
80	hhd. skins	Pound	60	4,800
12	cases skins	Pound	50	600
8	kegs)			
41	casks) 18,000 lb.	indigo	5s	4,500
9	bbls.)			
53	casks of ginseng of 300 lbs. each		2/6 lb.	1,987
558	casks of oil 22,350 gals.		3s gal.	3,352
331	casks of ham	Pound	11.5 cask	3,724
758	chests tea	Pound	40	31,320
88	½ chests tea	Pound	15	1,320
505	½ chests (Lyson)	Pound	10	5,050
378	popes of wine	Pound	40	15,120
117	hhds. of wine	Pound	20	2,340
447	¼ casks	Pound	10	4,470
2,599	Windsor chairs		7/6	774
1,027	casks of beer & porter		35s	1,797
526	boxes soap		50s	1,315
16	coaches	Pound	200	3,200
27	chaises & phaetons		50 Pounds	1,350
17	sulkies	Pound	30	510
11	cabrioles	Pound	40	440
8	carriages	Pound	100	800
20	waggons & carts	Pound	20	400

Appendix III-2-2 Concluded

Besides the above articles, were various others, which want of room obliges us to omit -- but which, estimated at the current prices, amount to

	£	317,650
Amount of exports	£	1,113,239/15/11

Signed: Joseph Erwin

From The American Museum, Vol. 8, pp. 114-116

Appendix III-2-3

DESTINATION AND MONTH SHIPPED OF PHILADELPHIA EXPORTS IN 1788

"State of the exports of flour from the port of Philadelphia in the year 1788. In bbls."

Liverpool	828
Guernsey	308
Gibralter	5,029
Jamaica	24,516
Antigua	7,344
Barbadoes	5,740
Dominica	4,746
St. Christopher's	4,106
Grenada	2,491
St. Vincent	2,217
St. John	1,024
Montserrat	464
Tortola	399
Bermuda	726
New Providence	5,845
Halifax	3,151
Port Roseway	156
Cleared for West Indies	9,483
Bordeax	2,075
Havre de Grace	300
Isle de France	400
Cape Francois	235
Cadiz	37,699
St. Andero	12,512
Corunna	2,858
Malaga	1,800
Barcelona	1,719
Alicant	1,435
Ferrol	1,298
Guion	250
Trinidada	1,921
Carthagena, S. Am.	300
New Orleans	4,580
St. Augustine	143
St. Eustatius	14,824
Curracao	1,771
St. Martin	1,024
Surinam	530
Demarara	190
St. Croix	9,948
St. Thomas	2,586
St. Bartholemew	420
Teneriffe	4,807
Madeira	2,823
Hamburgh	120
Stockholm	12

Appendix III-2-3 Concluded

To: ports in the United States

Portsmouth, N. H.	305
Boston	15,299
Newbury port	1,665
Salem	1,040
Rhode Island	980
New London	64
New York	4,027
New Jersey	99
Georgia	669
S. Carolina	8,854
N. Carolina	305
Virginia	145
Total barrels	220,605

The shipments each month were as follows, viz.

January	none	July	24,268
February	4,373	August	15,514
March	12,433	September	16,560
April	23,215	October	24,723
May	27,489	November	25,609
June	20,838	December	25,583
			220,605

Source: American Museum, Vol. VII, pp. 125-126

Appendix III-3

NEW YORK EXPORTS

A contemporary evaluation of customs-house returns for the year 1788 indicates the value of domestic exports of the state of New York at £770,000.[1] Converted to dollars at the official rate of eight shillings New York currency to the silver dollar, this amounts to $1,925,000.

The estimate of New York exports used in Table 3-C is based on returns for a three month period in 1790 which show New York imports to be about $500,000.[2] The $2 million estimate for the year is merely an extrapolation of the figures for the quarter.

---

1 See Appendix III-3-1.

2 American Museum, Vol. IX, p. 47-48.

Appendix III-3-1

NEW YORK EXPORTS FOR 1788

"Mr. Printer,

Having some time since seen a publication from the collector of the port of New York, of the exports from the State,1... curiosity led me to make a rough calculation of the value of those articles which may with propriety be denominated the produce of the State: ... From the calculation, the amount appears to be nearly (£ 770,000): but as many articles were shipped to the neighboring states, without being entered at the custom house, it is supposed by proper judges, if the amount thereof was added to the former sum, that the exports of the produce of this state, for the year 1788, cannot be less than one million, our currency."

New York, March 19,1789.

Value of the exports from the city and port of New York, for the year 1788, exclusive of foreign manufactures, and articles coastwise to other states, viz.

Bushels of wheat	322,000	@	8s	£ 128,800
Bushels of Indian corn	183,000	@	3/6	32,025
Bushels of rye	10,000	@	4/6	2,250
Bushels of buckwheat	12,000	@	3s	1,800
Bushels of oats	12,000	@	2s	1,200
Bbls. of flour	62,000	@	40s	124,000
Bbls. of beef	8,600	@	50s	21,500
Bbls. of pork	8,700	@	80s	34,500
Bbls. of fish	3,800	@	25s	4,750
Bbls. of cider	520	@	15s	390
Bbls. of apples	2,800	@	8s	1,120
Bbls. of potatoes	1,920	@	10s	960
Bbls. of bread	42,100	@	30	63,150
Bbls. of lamp black	200	@	20	200
Bbls. of hams	190	@	180s	1,710
Bbls. of vinegar	3	@	20s	3
Bbls. of pease	4,300	@	20s	6,450
Bbls. of tallow	96	@	200s	960
Bbls. of nuts	245	@	8s	98
Bbls.of oil	517	@	70s	1,809
Bbls. of naval stores	7,900	@	10s	3,930
Bbls. of potash	13,124	@	120	78,744
Bbls. of honey	73	@	150	547

1 See American Museum, V, p. 230.

Appendix III-3-1 Continued

Bbls. of beeswax	73	@	40 ℔	2,320
Bbls. of mustard	6		80s	240
Bbls of starch	145		80s	580
Bbls. of clover-feed	66		80s	264
Bbls. of rye meals	8,653		20	8,653
Bbls. of Indian meal	2,024		20	2,024
Hhds. of lime	85		20	85
Hhds. of ginseng	65,600 lbs.		45	13,120
Hhds. of flaxseed	42,042		45s	94,594
Hhds. of flax	9			130
Hhds. of loaf sugar	29		35℔	1,015
Hhds. of snuff	14		75℔	1,050
Hhds. of N. Y. rum	500		12℔	6,000
Casks of oak bark	132		20s	132
Casks of furs	138		200℔	27,600
Casks of nails	32		10℔	320
Kegs of bread	4,623		8s	1,849
Firkins of butter	2,541		40s	5,082
Firkins of lard	1,281		30s	1,921
Jars of honey	71			56
Anchors	120		6℔	720
Boards	65,000		1s	3,250
Hoops	500,000		70s M	1,750
Shingles	1,798,525		1℔ M	1,798
Heading & staves	4,215,448		5℔	21,075
Oars	7,762		2s	776
Handspikes	2,081			50
Trunnels	5,000			50
Shahen hhds.	838		8s	335
Hhds. of cider	149		70s	521
Carriages	18		75℔	1,350
Windsor chairs	1,132			450
Hogs	841		20s	841
Horses	600		10℔	6,000
Sheep	1,065			500
Horned cattle	109			400
Raw hides	6,411		40s	12,822
Cables	4			400
Coils of cordage	225		90s	1,002
Spars	214		20s	214
Boats	11			100
Bricks	245,282			280
Iron pots	201			100
Mill stones	50		10℔	500
House frames	2			50
Saddles	8			30
Oysters	60,000			120
Feet of boards	1,101,453		70s	3,853
Feet of scantling	404,672		70s	1,416

Appendix-III-3-1 Concluded

Feet of plank	30,627			40
Pieces of sq. timber	3,421			1,000
Pieces of sq. cherry wood	220			1,000
Bunches of onions	90,341		4d	1,505
Cheese	67,239		6d	1,680
Flax	27,179		6d	681
Hams	5,651		6d	141
Bars of iron	15,134	at	24s per cwt.	6,120
Dz. poultry	325		12s	195
Tons of hemp	20		50£	1,000
Tons of hay	12		3£	36
Tons of nail rod	4		30£	120
Tons of pig iron	530		8£	4,240
Tons of timber	454		5£	2,270
Tons of clay	6			6
Pairs of shoes	114			40
Bundles of tow cloth	92		4£	368
Bundles of leather	30		10£	300
Bundles of whalebone	22		10£	220
Boxes of candles	914		60s	2,742
Boxes of soap	788		30s	1,182
Boxes of chocolate	251		70s	898

Source: American Museum, Vol. VII, pp. 125-126

Appendix III-4

MASSACHUSETTS EXPORTS

A complete account of Massachusetts exports for the year 1787 is included in Appendix III-4-1. Converted to dollars at the official rate of 6 shillings Massachusetts currency to the dollar, the value of exports to foreign countries during the year amounted to $1,588,000. In 1789, a Boston correspondent wrote to the editor of the American Museum, "We have the pleasure to inform the public, from the authority of the controller-general's books, that the increase of trade throughout the Commonwealth, for the three last years, hasbeen in a ratio beyond the expectations of the most sanguine, antecedent to this period. The aggregate exports of the state in the year 1787 were nearly seven-hundred thousand pounds currency, which was almost as much as they were in any year before the revolution. A complete account of our exports of 1788 is not yet collected. We are induced to believe, however, that they are far greater than they were in the preceding year. In this town, the augmentation is very great, though we have reason to suppose that it by no means exceeds the proportion of other seaports in the Commonwealth. In 1787, our total exports from the port of Boston were computed to be about three-hundred and seventy thousand pounds,...In 1788, our exports were about four hundred and sixty thousand pounds...."[1]

The figures cited above tally with the returns for the port of Boston presented in another place.[2] Assuming that the exports for the remainder of the state did increase at the same rate as those for Boston, the 1788

---

1 The American Museum, Vol. 5, p. 415.

2 The American Museum, Vol. 7, pp. 49-50.

exports for the entire state would have amounted to $1,969,000 and this estimate has been entered in Table 3-C.

Appendix III-4-1

MASSACHUSETTS EXPORTS FOR 1787

"General Account of the Exports from the commonwealth of Massachusetts for the United States of America, Nova Scotia, West Indies, Europe, Africa and the East Indies. From January 1, 1787, to December 31st following, inclusive."

ARTICLE	U. S. A.	NOVA SCOTIA	WEST INDIES	EUROPE	AFRICA & EAST INDIES	TOTAL QUANTITY	PRICE	TOTAL VALUE
M. boards	1,458	718	18,534	765	529	22,003	30s	£ 33,004
M. hhd. staves			993	859		1,946	100s	9,730
M. shingles	573		17,894			18,775	8s	7,510
Tons of timber			8,988			9,607	12s	5,764
Hhds. of fish	9,631		13,429			13,430	130s	87,295
Qtls. of fish				105,100	5,897	120,628	15s	90,471
Hhds. of N. E. spirits	5,327	89		134	897	6,447	180s	58,023
Bbls. of N. E. spirits	3,258	237			327	3,996	45s	8,991
Bbls. of beef	1,748		2,468		1,640	6,002	42s	12,604
Bbls. of flour		4,385	1,850	2,788	2,857	12,514	32s	20,022
Firkins of butter			767		1,283	2,628	50s	6,570
Oxen		673	460				150s	8,497
Casks of flaxseed	1,113			6,271		7,384	40s	14,768
B. of pot & pearl ash				6,203		6,203	100s	31,015
Casks of oil				3,366		3,366	6£	20,196
Bbls. of oil	5,949		805	5,217		12,173	80s	48,692
C. of whalebone				658		705	200s	7,050
Boxes Spermacetti candles	1,557		557		469	2,622	80s	10,488
Lbs. of coffee	97,331					102,892	1s	5,144
Lbs. bohea tea	65,055	11,092				79,946	2s	7,994

Appendix III-4-1 Concluded

ARTICLE	U. S. A.	NOVA SCOTIA	WEST INDIES	EUROPE	AFRICA & EAST INDIES	TOTAL QUANTITY	PRICE	TOTAL VALUE
C. brown sugar	2,234					2,636	40s	5,272
Lbs. of leather	104,495					105,335	13d	5,705
Dz. of shoes	3,136					3,175	60s	9,525
Hhds. molasses	967	674				1,699	140s	11,893
Hhds. tobacco				380	212	667	210s	7,003
Variety of articles not enumerated	23,716		8,577					48,431
Total value	£ 210,370	£ 34,762	£ 18s,179	£ 209,448	£ 50,447			£ 687,308

Source: American Museum, Vol. V. pp. 338-340.

Appendix III-5

OTHER RETURNS

Scattered returns from various other ports are presented in the Appendix to give some idea of the commercial activity of the period outside the four major centers of trade.

The rapid growth of Baltimore during the period makes it difficult to class as "an out-port" by the end of the period and the return for the period from October 1st, 1789 to September 31st, 1790 shows the extent to which Maryland had become a wheat producing center even at this early date.[1]

The returns for the small North Carolina ports of Edenton and Port Roanoke during the Confederation period are interesting because they show the extent and composition of Carolina exports.[2] Naval stores and other forest products together with pork and corn reflect the frontier character of the state's economy. The estimate of North Carolina exports for 1786 in Table 3-C excludes North Carolina produce shipped through Charleston or Virginia.[3]

Winterbotham wrote of Delaware that "The manufacture of flour is carried to a higher degree of perfection in this State, than in any other in the Union. "In the fall of 1789, and the spring of 1790, there were made at the Brandywine mills fifty-thousand barrels of superfine flour...These mills give employment to about two hundred persons."[4] He stated that over 28,000

---

1 See Appendix III-5-1.
2 See Appendix III-5-2.
3 American Museum, Vol. 1, p. 112.
4 Winterbotham, An Historical View, Vol. II, p. 466.

Appendix III-5 Concluded

barrels were shipped even in 1786. A relatively low state of trade seems evident in the returns included in Appendix III-5-3.

Finally, a return is included for the port of Alexandria, Virginia.[1] It is unfortunate that the only export records for Virginia during the Confederation period are for the tobacco released from state warehouses.[2] There is much evidence to indicate that plantations were shifting from wheat to tobacco and the returns for Alexandria are only a small proportion of the grain exports of the state since Norfolk, Georgetown, Baltimore, and many smaller ports also shared in the trade.

---

1 See Appendix III-5-4

2 See Chapter 2

Appendix III-5-1

BALTIMORE EXPORTS FOR 1789-90

"Exports from Baltimore, Oct. 1, 1789 — Sept. 30, 1790"

Barrels of flour	143,174	
Barrels of bread	9,843	
Bushels of wheat	228,116	
Bushels of corn	249,310	
Casks of flaxseed	2,282	
Barrels of meal	4,674	
Shingles	2,415	M
Barrels of pork	383	
Staves and heading	250	M
Tons of pig iron	727	
Hhds. of tobacco	14,174	

Value of the above articles	$ 1,916,240.13
Unenumerated articles	111,530.31
Total exports	$ 2,027,770.64
Imports during the same time	1,945,899.55
Balance in favor of Baltimore	81,971.09

Source: American Museum, Vol. IX, p. 8.

Appendix III-5-2

EDENTON AND PORT ROANOKE, N. C., EXPORTS, 1787-88

"Exports from Edenton, N. C., for 1785, 1786"

	1785	1786
Tar, bbls.	18,082	17,865
Pitch, bbls.	3,002	2,853
Turpentine	16,457	10,768
Plank & scantling, ft.	339,000	350,000
Pipe staves	310,000	547,000
Hhd. staves	1,800,000	1,454,000
Shingles	5,700,000	6,291,000
Pork, bbls.	787	1,671
Corn, bushels	178,920	66,151
Blackeyed pease, bu.	7,363	2,688
Wheat, bushel	2,085	120
Fish, bbls.	1,655	4,442
Tallow, lbs.	8,600	11,210
Hides	4,200	5,167
Lard, bbls.	100	162
Tobacco, hhds.	560	1,163

"Port Roanoke, N. C., exports, Sept. 8, 1787 -- March, 1788"

Naval stores, bbls.	27,456
Pipe staves	193,000
Hhd. staves	570,000
Bbls. of staves	460,000
Shingles	3,707,000
Indian corn, bushels	123,700
Blackeyed pease bu.	5,163
Bacon, lbs.	11,000
Tobacco, hhds.	500
Flaxseed, bushels	500
Turpentine, bbls.	24
Pork, bbls.	124
Hides,	1,190
Fish, bbls.	4,962
Oars	2,000
Otter skins	700
Deer skins	1,000
Snake root, lbs.	1,200
Bees-wax, lbs.	3,610

Source: American Museum, Vol. VI, p. 401

Appendix III-5-3

EXPORTS FROM WILMINGTON, DEL., 1788-89

"Exports and imports of the port of Wilmington, Delaware, from the 1st of June, 1788, till the 1st of June, 1789."

Exports (incompletely copied)-

21,783 bbls. superfine flour
457 bbls. common flour
256 bbls. middlings flour
346 bbls. ship stuff
363 bbls. ship bread
41 kegs of biscuit
288 bbls. corn meal
205 bbls. pork
5,958 bu. Indian corn
775 tierces of flaxseed
60½ tierces rice
1,000 Windsor chairs
50 cwt. bar iron
1,040 hhds. hoop
plus other lumber & provisions

Imports included rum, sugar, coffee, molasses, cotton, limes, linen, and salt.

Source: American Museum, Volume VI, p. 108.

Appendix III-5-4

EXPORTS FROM ALEXANDRIA, VA., 1788-89

"Exports from the port of Alexandria, Virginia, from the 20th July, 1788, to the 14th July, 1789."

5,122	hhds. tobacco
32,088	bbls. flour
2,649	bbls. bread
37,891	bushels corn
1,742	bushels peas & beans
805	bb.s tar
685,000	shingles
128,620	staves
14,200	ft. plank
102,268	bu. wheat
50	bbls. pork
47	tierces rice
50,000	lbs. ginseng
6	hhds. ginseng
28	casks ginseng
63	tierces ginseng

Source: American Museum, Vol. 6, p. 108.

Appendix III-6

NEW YORK IMPORTS

March 24, 1784 to April 17, 1787

Value of non-enumerated articles	$ 9,127,340
Value of enumerated articles	2,944,732
	$ 12,072,072

Reducing the above to an annual average by dividing by 3.

Annual average value of non-enumerated articles	$ 3,042,467
Annual average value of enumerated articles	981,577
	$ 4,024,024

Source: Appendix III-6-1

Appendix III-6-1

NEW YORK IMPORTS, 1784-1787

"Imports into New York, from March 24, 1784 to April 17, 1787."

ARTICLE		AMOUNT	PRICE	VALUE
Non-enumerated articles				£ 3,650,636
Rum	gals.	3,610,565	3/6	631,849
Madeira		88,608	8s	34,643
Common wine		668,012	4s	133,602
Porter		44,327	2s	4,433
Linseed oil		21,775	6s	6,532
Tea	lbs.	1,284,775	3s	192,713
Coffee		567,508	1s	28,375
Chocolate		3,919	2s	391
Loaf sugar		282,303	1s	14,115
Snuff		1,370	2s	127
Mfd. tobacco		110	2s	11
Cheese		107,952	9d	4,048
Leather		26,210	1s	1,311
Raisins	cwt.	1,052	60s	3,156
Cordage		7,423	60s	22,269
New hollow ware		2,210	28s	2,094
Axes and scythes	doz.	1,258	20s dz.	1,258
Bottled porter		13,643	15s dz.	10,232
Hats		14,963	20s	14,963
Boots pr.		771	30s	1,156
Shoes pr.		96,722	6s	29,016
Saddles		792	60s	2,376
Tons of hemp		318	60£	19,180
Silk, playing cards, carriages, rope, yard, silver plate, gold plate, watches, clocks, bottled wine, starch and hair powder, matt, harness				£ 4,828,829/13/6

Source: American Museum, Vol. VII, p. 311.

Appendix III-7

PHILADELPHIA IMPORTS

Value of Philadelphia Imports[1]

March 18, 1784 -- March 17, 1785

Value of articles ad valorem	$ 7,733,209
Value of enumerated articles	1,253, 090
Subtract 15% of the value of enumerated articles to obtain their prime cost.	- 187,963
Extimated value of Philadelphia imports	$ 8,798,336

Value of Philadelphia Imports[2]

November 1, 1786 -- October 31,1787

Value of articles ad valorem	$ 1,989,856
Computed value of enumerated articles @ 1789 valuation	1,369,884
Subtract 15% to obtain prime cost	- 205,483
Extimated value of Philadelphia imports	3,154,257

1 See Exhibit III-7-1

2 See Exhibit III-7-2

Appendix III-7 Continued

Value of Philadelphia Imports[1]

August 1st, to December 31, 1789

Value of articles ad valorem	$ 1,709,067
Value of enumerated articles	631,276
From which we subtract 15% to obtain prime cost	- 94,692
Estimated value of imports for 5 months	$ 2,245,651

Translating these figures for five months anti an annual basis by diving by .49, the proportion of trade estimated to be carried during these 5 months, we obtain the following.

Value of articles a d valorem	$ 3,487,892
Value of e numerated articles	1,288,318
Subtract 15% to obtain prime cost	- 193,249
Extimated imports for 1789	$ 4,582,961

1 See Appendix III-7-3

Appendix III-7-1

"Imports into & exports from Philadelphia of sugar, wines, spirits, molasses, teas, coffee, and cocoa from March 18, 1784, to March 17, 1785."

	Imported	Exported
Loaf sugar, cwt.	4,694	176
Muscovado	74,720	5,935
Madeira, gals.	44,738	3,130
Other wine	255,278	3,325
Bottled wine, dz.	11,297	6
Rum, gals.	1,221,118	146,595
Brandy, gin, etc., gals.	135,391	12,602
Molasses, gals.	593,094	28,700
Pounds of green tea	48,803	3,900
Pounds of black tea	382,479	41,135
Cwt. of coffee	5,997	470
Cwt. of cocoa	764	

Value of enumerated articles £ 469,322 8s 11d

Value of non-enumerated articles during the period £ 2,896,332 16s 3d

Amount of duty paid for articles imported during period £ 102,601/17/9

Amount of drawback £ 5,950/17/9

Source: American Museum, Vol. 7, p. 68.

Appendix III-7-2

"Imports into, and exports from, Philadelphia November 1, 1786 to October 31, 1787 of sugar wine, spirits, tea, and coffee."

	Imported	Exported
Cwt. Refined sugar	21	
Cwt. Muscovado	49,920	3,829
Madeira wine gals.	18,657	13,625
Other wine gals.	369,088	71,110
Doz. bottle wine	7,371	236
Gals. rum	796,707	47,028
Gals. brandy, gin, etc.	76,077	6,584
Pounds green tea	21,977	5,635
Pounds black tea	430,160	41,515
Cwt. coffee	8,990	356

"Value of non-enumerated articles during the above period." £ 745,263 10s 7d.

Source: American Museum, Vol. 7, p. 121.

Appendix III-7-3

"Estimate of the merchandise imported into Philadelphia from August 1, to December 31, 1789."

Merchandise ad valorem		£ 640,100
176,900 gals. molasses	2s	17,690
32,855½ gals. Madeira wine	10s	16,427
159,986 gals. other wine	6s	47,996
168,964½ spirits	4s	33,738
179,354 bu. salt	2s	17,935
15,562 bu. coal	1s	782
5,569 lbs. hyson tea	10s	3,784
9,618 lbs. inferior green tea	5s	2,404
10,953½ lbs. bohea tea	2s	4,095
1,743,908 lb. muscovada sugar	6d	43,597
19,778 lb. white powdered sugar	8d	659
511,862 lbs. coffee	17d	40,522
103,339 lbs. cocoa	6d½	2,718
Raw materials & c, not subject to duty extimated at		5,000
		£ 876,533 . 7 . 9

In order to reduce the enumerated articles, which are here set down at their Philadelphia market prices, to their prime costs, we must deduct 15%, which, from £ 236,433/2/9 amounts to £ 35,464 . 19 .5

Imports 841,068/8/4

Total value of exports from Philadelphia for 5 months	£ 1,113,239/15/11
Total value of imports for	841,068/8/4
Favourable balance for five months	£ 272,161/7/7

Source: American Museum, Vol. 8, p. 116.

Chapter IV

Other Evidence on the Volume of Trade

Another way of attacking the problem of estimating the level of trade is from a survey of the records of the countries with which the new nation carried on commerce. Foremost among the customers of the United States during the Confederation period was the imperial power which had controlled completely the trade of the 13 colonies during the pre-revolutionary period. British trade policy in the Confederation period toward the United States was very favorable as regards trade with Great Britain as opposed to the restrictions imposed on the West Indian trade. The same bounties on exports to the United States were given as on exports to the British colonies. Imports from the United States could be carried in either British or American bottoms and were subject to the same duties and drawbacks as goods imported from the British colonies. The trade policies were aimed at securing as large a proportion as possible of the trade of the former colonies.[1]

The estimated market value of British imports from the United States is shown in Table 4-A. From a survey of the changed post-war commercial situation one would expect that U. S. exports to Great Britain would decline. Tobacco, indigo, and naval stores no longer were required by law to be shipped to England for re-export. The decline of the re-export trade in tobacco has already been alluded to.[2] Rice shipments to European ports north of Cape Finisterre no longer had to be sent first to England. What is interesting, therefore, is not that American exports were marginally

---

1 Richard Champion, Considerations on the present situation of Great Britain and the United States of North America, with a view to their future commercial connections (London: John Stockdale, 1784).

2 See Appendix II-4.

Table 4-A

Estimated Market Value of British

Imports from the United States, 1770-75, 1784-92.

Year	Estimated Market Value (in thousands)	Value Relative (1790-100)
1770	$3,248	55
1771	5,978	86
1772	5,078	86
1773	4,960	84
1774	4,842	82
1775	6,555	111
1784	4,429	75
1785	4,901	83
1786	4,134	70
1787	4,488	76
1788	4,901	83
1789	4,901	83
1790	5,905	100
1791	4,724	80
1792	4,311	73

Source: Appendix IV-1

lower in the post-war period but that they were as high as they were. The estimated annual average value of exports from the 13 colonies in the six years preceding the revolution was $4.96 million while the estimated average value in the period from 1784-92 was $4.74 million. The value of exports to Britain also shows the same cyclical behavior noted in the Philadelphia export series with a low occuring in 1786.[1]

The official value of British exports to the United States during the period is shown in Table 4-B. If we assume that prices of British exports were relatively constant over the period, this series can be taken as demonstrating quite accurately the trend of trade during the period although its value for estimating the absolute level of trade is uncertain because of the valuation of exports by their official rather than market values. The behavior of this series conforms quite closely to our hypotheses about imports being at a high level after the war for independence due to pent-up demand and then declining until 1786-87. That prosperity in the United States had reasserted itself by 1789 is also evident from the figures.

The other important European customer of the United States was France. As will be seen from the two sources on French trade presented in Table 4-C, exports to France during the period of Confederation averaged around 9 million livres per year which amounted to about $1 3/4 million. The reliability of the French figures is open to question, and I have no idea as to the basis of valuation. Jefferson stated the value of exports to France in 1790 at $1.4 million,[2] and so the French figures seem quite feasible, the difference being explained by Jefferson's figures being for

---

1 See Table 3-B.

2 Ford, Jefferson, Vol. 5, p. 413.

Table 4-B

Official Value of British Exports to the United States

(in thousands £s)

Year	Official Value	Volume Relative (1790-100)
1783	£1,435	41.8
1784	3,679	107.1
1785	2,308	67.3
1786	1,603	46.7
1787	2,014	58.6
1788	1,886	55.0
1789	2,525	73.6
1790	3,432	100
1791	4,225	123.1
1792	4,271	124.4
1793	3,515	102.4

Source: MacPherson, Annals of Commerce, Vol. IV, pp. 40, 68, 99, 120, 137, 182, 198, 214, 231, 262, 288.

Table 4-C

Trade with France
(in Livres)

Year	U. S. Exports to France	French Exports to U. S.
1783	2,615,000	11,723,000
1784	9,110,000	1,678,000
1785	9,211,000	1,778,000
1786	9,476,000	1,781,000
1787	9,595,000	1,815,000
1788	9,705,000	1,888,000
1789	9,653,000	1,719,000
1790	9,842,000	1,937,000

Source: M. Arnould, Memoire surla situation commerciale de la France avec les Etats-Unisde l'annee 1775 jusques et y compris 1795. Quoted in Edmond Buron, "Statistics on Franco-American Trade, 1778-1806, "Journal of Economic and Business History, (May, 1932).

Table 4-C (Con't.)

Trade with France

French Imports from the United States
(In France)

Commodities	1787	1788	1789	1790
Whalebone	116,300	141,300	271,100	168,945
Planks & Wood	481,000	408,600	307,700	274,846
Salt meats		94,800	227,000	79,432
Train Oil	651,200	354,300	824,600	648,863
Dried & Salt Fish	56,900	185,800	44,000	11,200
Potash	39,100	93,300	54,400	131,160
Rice	473,100	180,300	1,619,800	1,006,941
Leaf Tobacco	10,957,300	1,399,400	4,295,800	1,020,868
Total Imports	14,106,900	3,470,100	13,039,200	8,417,206
Exports Brandy Silk Wine	2,079,900	1,377,300	1,644,514	918,219

Source: Tanguy de la Boissiere, Sommaire d' observations sur les Etats-Unis de l'Amerique (Philadelphia: circa 1795). Quoted in Buron, Ibid.

a 14 month year and the difference between prices in the two countries.

The estimates of imports from France during the period are in the range of 1.5 - 1.8 million livres or about $300,000. Jefferson stated the imports from France in 1790 at $155,136. The difference between these figures, once again, is partly due to different price levels in the two countries and imports in the year 1790 might well have been considerably diminished by the French revolution. The closer correspondence and greater detail of Boissiere's figures might indicate that they are worthy of greater trust than those of Arnould.

Table 4-D shows destination of exports for 1790 - 1792 indicating that Spain and Portugal also took considerable amounts of U. S. exports, but I have not been able to find any records of trade for these countries. Albert Kohlmeier[1] attempted to estimate the volume of trade between the United States and the Netherlands during the Confederation period from shipping returns. His methods and results appear unreliable, but he does cite the actual level of imports from America into Holland in 1785 at slightly under $1 million and shows that the volume of trade increased rapidly during the period. Exports to the "Netherlands and possessions" was near the $2 million mark between 1790 and 1792, but a large part of this was trade with the West Indies.

Of crucial importance to any discussion of the changed situation of the foreign trade of the U. S. after the war is the trade of the British West Indian Islands. Before the war, the 13 colonies had been practically the sole supplier of sugar islands in foodstuffs and lumber. Trade deficits

---

1 Albert L. Kohlmeier, "The Commerce between the United States and the Netherlands, 1783-1789." (Studies in American History Dedicated to James Albert Woodburn, Indiana University Studies, Vol. XII, Nos. 66-68; Bloomington: 1925.)

Table 4-D

Destination of U. S. Exports

	1790	1791	1792
Great Britain and possessions	$9,246,562	$7,953,418	$8,192,328
Sweden	47,240	21,866	166,846
Denmark and Norway	224,416	277,273	573,890
Netherlands and possessions	1,940,278	1,634,825	2,402,180
Hanse towns	478,050	426,269	1,116,071
France and possessions	4,668,902	4,298,762	5,674,630
Spain and possessions	1,989,421	1,301,286	1,769,618
Portugal and possessions	1,283,462	1,039,696	1,018,643
West Indies generally		59,434	229,396
East Indies generally	135,181	318,628	285,879

Source: U. S. Congress, Senate, Exports, Domestic and Foreign from the American Colonies to Great Britain, from 1697 to 1789, Inclusive. Exports, Domestic, from the United States to All Countries, from 1789 to 1893, Inclusive. Compiled and Collated from Official Papers by Charles H. Evans. Senate Report No. 259, Part 2. 53rd Congress, 2nd Session. (Washington: Government Printing Office, 1894). Table V. Hereafter cited as Senate Report No. 259.

with Britain had been offset by surplus in the West Indian trade. After the war, U. S. ships were excluded from the carrying trade to the British islands and the import of salt meat and fish was prohibited in order to favor Irish and Canadian producers. Several articles have called attention to the circumvention of the Navigation Acts following the Revolution by temporary relaxation of restrictions, connivance of colonial officials, and smuggling.[1] I think it fair to assume that the extent of illicit trade was fairly considerable. In 1785, Horatio Nelson wrote to the Admiralty that "nearly the whole trade between the British colonies and the United States of America was carried on in American bottoms. To see the American ships and vessels with their colours flying in defiance of the Laws, and by permission of the officer of the customs, lading and unloading in our ports was too much for a British Officer to submit too (sic)."[2]

My calculations[3] indicate quite conclusively that the extent of legal trade was considerably lower after the Revolution than before. What is very interesting, however, is that the value of trade from 1785-1787 was greater than it was in 1793. The series on the trade of Philadelphia and contemporary qualitative evidence point to a cyclical low in 1786.

A careful consideration of the economic situation of the West Indies during the period soon leads one to the conclusion that the reported trade with the U. S. considerably understates the actual extent of commercial intercourse. The plantation economy had certain requirements for cereals,

1 Herbert C. Bell, "British Commercial Policy in the West Indies, 1783-93". The English Historical Review, Vol. XXXI, 1916, pp. 429-441. Alice B. Keith, "Relaxations in the British Restrictions on American Trade with the British West Indies, 1783-1802". The Journal of Modern History, Vol. XX (1948).

2 Letter from Horatio Nelson to Lord Sydney, November 17, 1785, Nevis., B. W. I. Colonial Office 152/64.

3 See Appendix IV-2-1.

proteins, and lumber. A good measure of those requirements can be seen in the imports from the 13 colonies in 1771-73. It can be readily ascertained that the imports from the British North American colonies, even though ten times greater after the war than before, were still far short of meeting the West Indian need for fish and lumber. In fact, in 1790 Nova Scotia was given permission to import from the United States 540 M. of staves, 924 M. of boards, 40,000 barrels of flour and 80,000 bushels of wheat... "An irrefragable proof that Canada had no surplus of either lumber or grain beyond her own consumption, or undoubtedly the Canadian market would have been resorted to, in preference to that of the United States."[1] In 1789, there was a complaint that the American fishing fleet was providing stiff competition to Cape Breton and that "by their illicit practices forestal us even in our own markets. Their outfit in provisions (the chief expense) is obtained at least thirty per cent cheaper than ours, and they barter their fish at the neutral islands in the West Indies which are immediately smuggled into our islands to the great disadvantage of the British traders."[2] Canada, Nova Scotia and Newfoundland were not able to begin to satisfy the requirements of the British West Indies.

At the same time that the British were discouraging trade between the United States and their West Indian colonies, the French were encouraging trade with theirs. Jefferson estimated that value of trade to the French West Indies in 1790 at $3.3 million against $2.3 million with the British West Indies.[3] The relatively favorable conditions that Americans enjoyed

---

1 Bryan Edwards, The History, Civil and Commercial of the British West Indies, 5th edition (London: G. and W.B. Whittaker, 1818-1819). 5 volumes. Vol. II, p. 518.

2 Harold Innes, The Cod Fisheries: The History of an International Economy (New Haven, Con.: Yale University Press, 1940). p. 233.

3 Ford, Jefferson, Vol. V. p. 413.

in trading with the French islands in comparison to the British have already been shown.[1] In 1790, about $1.9 million worth of goods were exported to Holland and her possessions. The largest part of these were bound for St. Eustatia -- the entrepot port of the West Indies from which the British Islands were supplied in contravention of the Navigation Acts. An inference to the extent to which the Americans replaced the British in trade with the non-British islands and the increasing extent to which the Americans traded with the foreign West Indies can be seen in Tables 4-E and 4-F. It would appear that the U. S. was shifting toward increased trade with the non-British West Indies during the period.

Any conclusions about the value of American trade with the West Indies during the Confederation period must inevitably be tentative. There can be little doubt that the legal trade with the British islands was diminished from its pre-war level -- the largest part of the diminution being in the export of fish. There was probably some loss of the lumber trade to the Canadian colonies. Balanced against the loss of this legal trade was the rapid expansion of trade with the French West Indies and indirect trade through St. Eustatia.

The immediate effect of the Proclamation of the King in Council, 2nd June, 1783 prohibiting American ships from trading with British islands, was to raise prices in the West Indies in anticipation of expected shortages and price increases.[2] Prices soon returned to their normal level, however, indicating that the normal channels of supply were not markedly affected. L. C. Gray concluded: "It is doubtful if British policy seriously affected

---

1 See Appendix II-2.

2 See Appendix IV-3.

Table 4-E

Exports from Great Britain to Foreign West Indian Colonies[1]

1782	£363,000
1783	102,000
1784	12,000
1785	653
1786	8,774
1787	4,674

Table 4-F

Exports from the British West Indies to the United States[2]

Commodity	1783	1784	1785	1786	1787
Sugar (cwt.)	5,651	47,595	46,142	35,801	19,333
Rum (gal.)	679,760	2,742,277	2,188,000	1,399,040	1,620,205
Molasses (gal.)	53,600	5,800	43,800	1,800	4,200

---

1 Source: MacPherson, Annals of Commerce, Vol. IV, p. 160.

2 Source: Ibid., Vol. IV, p. 161.

the flow of American lumber and provisions to the Islands after the first scarcity and high prices that followed its imposition. The liberal policy of France with respect to American trade with the French West Indies partially offset the disadvantages of the British Policy."[1] American trade with the West Indies was not expanding in the post-war period because the economy of the West Indies was not expanding and the future of this trade was doomed to a decline in its relative importance to the economic life of the new nation.

---

1 Gray, Southern Agriculture, Vol. 1, p. 602.

Appendix IV-1

CONSTRUCTION OF THE SERIES SHOWING VALUE OF EXPORTS TO GREAT BRITAIN.

THE PROBLEM: The basic problem confronting the student of British foreign trade during this period is that the values of exports and imports are based on official values.[1] Some of these values date back to the 17th century and bear no relation to market prices of the commodities. The British Foreign trade series indicate changes in the volume of trade. What is desired is a measure of the value of trade in terms of market prices, f.o.b. American ports.

EVIDENCE: Evidence on the official value of British imports from the United States in the pre- and post-revolutionary periods is taken from the official British returns.[2,3] The value of American exports to Great Britain in the base year, 1790, is taken from Jefferson.[4] Prices are taken from A. H. Cole., Wholesale Commodity Prices in the United States, 1700-1861, Statistical Supplement, Actual Wholesale Prices of Commodities.

---

1 Albert H. Imlah, Economic Elements in the Pax Britannica: Studies in British Foreign Trade in the nineteenth century (Cambridge: Harvard University Press, 1958).

2 Official values for British imports from the colonies comprising the United States for 1770-1775 came from Great Britain, Board of Trade, 6:20, p. 176.

3 Official values for British imports from the United States for 1784-1792 comes from MacPherson, Annals of Commerce, Vol. IV, PP. 68, 99, 120, 137, 182, 198, 214, 231, and 262.

4 Ford, Jefferson, Vol. V, p. 413.

PROCEDURE:[1] An estimate of the value of trade with Great Britain required two series -- the volume of goods being shipped from the 13 states to Britain and the American prices of those commodities. The volume series was obtained by converting the official value of American imports for the years covered into a relative volume series based on 1790. Thus, if the official value of imports from the U. S. in 1770 was £ 1,016,000, and the official value in 1790 was £ 1,190,000 the relative volume of British imports of American goods in 1770 was taken to be 85% of the volume of 1790. The assumption underlying this proeedure is that the composition of British imports from the U. S. did not change sufficiently to make this way of estimating volume grossly inaccurate.

Secondly, a price index was constructed with weights appropriate to the composition of British imports from the United States. The basis for the weights is the value of specific commodities in 1791 as cited by Jefferson.[2] The following weights were used:

Tobacco	55%
Indigo	13
Rice	12
Wheat	10
Flour	5
Potash	5

Imports of cereals in 1790 were very high due tc crop failures in Europe and the weights given in this table are lower than indicated by the value of grain exports to England in 1790. Prices for 1773-75 for tobacco at Philadelphia were not available and consequently a price relative was assigned which was the average for 1770-73. This procedure seems justified

---

1 See Appendix IV-1-1.

2 Ford, Jefferson, Vol. V., p. 413.

if the prices at Charleston are observed for they were fairly steady over the years in question at the 1770-73 level.

The price relatives were then multiplied by volume relatives to obtain value relatives based on 1790. Thus, in 1784, the price relative of 119 multiplied by the volume relative of 63 yielded a value relative of 75.

The final column of table 4-A was obtained by multiplying value relatives by the value of exports from the United States to Great Britain in 1790 as given by Jefferson. The figure of $6.9 million was divided by 14/12 to take account of the fact that the customs returns for the year ending September 30, 1790, were for a 14 month year, having been started in August, 1789. This arbitrary procedure may understate the value of exports for 1789-90, but it does not affect the series on relative value at all since the relative volume and relative price series are independent of the absolute value of exports computed from American customs-house returns for 1790. It can also be noticed that the behaviour of the price relative index used in this series is extremely similar to the one in Appendix IV-1. A break-down of the origin of American exports to Britain by region is also included in Appendix IV-1-2.

Appendix Table IV-1-1

DERIVATION OF MARKET VALUES OF U. S. EXPORTS TO GREAT BRITAIN FROM OFFICIAL RETURNS

	Official Value of British Imports from the U. S. (in thousands of £s)	Relative Volume of exports (1790 = 100)	Price Relative (1790=100)	Value Relative	Estimated Value of U.S. exports to Britain, f.o.b. American ports. (in thousands of $)
1770	£1,016	85	65	55	$ 3,248
1771	1,340	113	76	86	5,078
1772	1,259	106	81	86	5,078
1773	1,369	115	73	84	4,960
1774	1,374	115	71	82	4,842
1775	1,921	161	69	111	6,555
1784	£ 749	63	119	75	4,429
1785	894	75	110	83	4,901
1786	843	71	98	70	4,134
1787	894	75	101	76	4,488
1788	1,024	86	97	83	4,901
1789	1,050	88	94	83	4,901
1790	1,190	100	100	100	5,905
1791	1,194	100	80	80	4,724
1792	1,048	88	83	73	4,311

6 Yr. Pre-war average - $4,960

9 Yr. Post-war average - $4,744

Source: See Appendix IV-1.

Appendix Table IV-1-2

Official Value of British Imports from

the United States by Regions

Year	New England	New York	Pennsylvania	Maryland & Virginia	Carolinas	Georgia	Total
1770	£ 148,011	£ 69,882	£ 28,109	£ 435,094	£ 288,907	£ 55,532	£1,015,535
1771	150,381	95,875	31,615	577,848	420,311	63,810	1,339,840
1772	126,265	82,707	29,133	528,404	425,923	66,083	1,258,515
1773	124,624	76,246	36,652	589,803	456,513	85,391	1,369,229
1774	112,248	20,008	69,611	612,030	432,302	67,647	1,373,846
1775	116,588	187,018	175,962	758,356	579,349	103,477	1,920,750
1783	26,350	83,412	30,053	93,888	74,589	+ Scottish 5,764	37,932 351,988
1788	267,146	111,848	32,807	504,671	282,248	25,057	£1,023,789

Sources:

1. For 1770-1775, Senate Report No. 259, Table 1.
2. For 1783, MacPherson, Annals of Commerce, Vol. IV, p. 40.
3. For 1788, Great Britain, Board of Trade, 6/20, p. 176.

Appendix IV-2

THE VALUE OF AMERICAN EXPORTS TO THE BRITISH WEST INDIAN ISLANDS

Table IV-2-1 shows the volume and value of American exports of selected commodities to the British West Indies for the period immediately prior to the Revolutionary War, the middle years of the Confederation period, and during the first year of the Napoleonic wars in Europe. It also shows the values of exports of certain commodities from British North American colonies, Canada, Nova Scotia, and Newfoundland for the period before the war and 1785-87.

SOURCES:

1. The History... of the British West Indies by Bryan Edwards: The figures for the volume of exports from the United States the British North American colonies for 1771, 1772, 1773 and the volume of exports from the United States for 1793 come from Volume II and Volume V.
2. A document from the British Public Record Office, Colonial Office, 318/1, entitled, "A Comparative State of the Trade between the West Indies, and North America, from the 1st of October, 1785 to the 1st of October 1787; Shewing the Number of Vessels, with their Tonnage, which Entered Inwards, and the particulars of their respective Cargoes; distinguishing the Several Countries where these Vessels Cleared and Entered: To which are Subjoined, the Exports of Rum and Sugar, distinguishing the Quantity from Each Island, to the United States, the British Colonies, and to the Foreign Islands." This

valuable document gives a full account of the legal trade of the British West Indies with the United States, the British North American Colonies, and the Foreign islands in the West Indies. The American exports listed in Table IV-2-1 for 1785-87 include the imports of the British West Indies from the other West Indian islands on the grounds that these were merely transshipped.

3. Prices are taken in most cases from A. H. Cole, Wholesale Commodity Prices in the United States, 1700-1861, Statistical Supplement. Prices for the three periods come from 1772, 1786, and 1793 and are annual average prices for the ports of most likely origin. Exceptions to this procedure are made in the case of whale oil and pickled fish where the Boston prices for 1787 are used for whale oil. The ratio of the price of pickled to dried fish in 1787 are used to adjust the 1772 and 1793 figures since no figures for pickled fish are available.

Appendix
Table IV-2-1

EXPORTS TO THE BRITISH WEST INDIES

Value of Exports from the United States, 1771-73, 1785-87, and 1793

Commodity	Average of 1771-73 Volume	Price	Value	Average of 1785-87 Volume	Price	Value	1793 Volume	Price	Value
Lumber	25,500 M.	$14.00	357,000	9,320 M.	$15.75	146,790	14,747	$12.75	$187,000
Shingles	19,800 M.	1.33	26,334	13,500 M.	1.33	17,955	23,472	1.33	31,000
Staves M.	19,300	17.90	345,470	13,500	20.80	280,800	8,864	21.00	144,000
Corn bu.	401,000	.50	200,500	221,000	.59	130,390	242,000	.48	116,000
Bread & Flour bbl.	132,000	4.75	627,000	139,000	5.60	778,400	131,000	5.00	655,000
Rice bbl.	35,000	5.00	175,000	7,850	6.00	67,000	13,000	3.90	51,000
Dried fish	7,100	2.20	15,620				5,000	2.50	12,500
Pkld. fish	84,000	2.50	210,000				426	3.00	1,200
Naval stores	5,700	3.60	20,520	3,500	3.00	10,500			
Beef & Pork	15,000	12.00	180,000	120	5.80	1,536	140	11.00	1,500
Whale Oil	1,060	20.00	20,120	24	15.00	360			
			$2.2 million			$1.4 million			$1.2 million

Table IV-2-1 Concluded

Value of Exports for the British Colonies in North America

	Average of 1771-73			Average of 1785-87			1793		
Commodity	Volume	Price	Value	Volume	Price	Value	Volume	Price	Value
Lumber	78 M.	$14.00	$ 1,100	2,500 M.	$15.75	$ 39,400			
Shingles	60 M.	1.33	80	1,800 M.	1.33	2,500			
Staves M.	9	17.90	1,250	1,900	20.80	39,500			
Dried Fish Qtl.	5,000	2.20	11,000	9,300	2.50	23,250			
Pickled Fish bbl.	4,000	2.50	10,000	38,000	3.00	114,000			
Beef & Pork bbl.	65	12.00	780	400	12.80	5,100			
Whale Oil	40	20.00	800	500	15.00	7,500			
			$25,000			$230,000			

Appendix IV-3

PRICE BEHAVIOUR AT KINGSTON, JAMAICA, BEFORE AND AFTER THE PROCLAMATION OF THE KING IN COUNCIL PROHIBITING THE CARRIAGE OF GOODS IN AMERICAN SHIPS

Date	Flour	Staves	Boards
9/20/83	£ 3/10 bbl.	£ 12 M.	£ 10 M.
10/18/83	6/15	35	18
11/8/83	3/5	35	18
1/5/84	1/15	25	10
3/20/84	1/10	13	8
Common peace prices	£ 1/5-2/5	£ 10-12	£ 5-10

Source: The prices for the first four dates and "common peace prices" are taken from Anderson, Of the Origins of Commeree.[1] The table, entitled "Abstract of Prices of lumber and provisions at Kingston as published in the Kingston Gazette", gives prices for a number of commodities. A range is given in most cases and the lower price is the one given above. The prices for March 20, 1784, also came from Anderson, p. 556, and the descriptions conform to those given in the earlier table.

Discussion: This material is presented to show the reaction of market prices in the major port of the British West Indies to the King's order prohibiting American shipping. The news of the changed commercial situation must have reached Kingston about the 20th of September, having been passed on the 2nd of June. The fears of scarcity and higher prices had obviously been allayed by the following spring for prices had returned to normal.

---

1 Adam Anderson, An Historical and Chronological Deduction of the Origins of Commerce from the earliest accounts, (London: J. Walter, 1787-1789), 4 volumes. Volume IV, p. 555.

Chapter V

Price Movements and the Terms of Trade

Writing at the close of the Confederation period, Tench Coxe observed that the United States was obtaining many of her imports at cheaper prices than she had before the Revolution. He particularly called attention to East Indian goods, wines, and manufactures from England. He then went on to observe that the tobacco trade was bringing more profit to the planter than it had before the Revolution.[1]

Evidence on trends in relative prices seems to indicate that the states enjoyed a definite improvement in the net barter terms of trade in the post war period. In order to explain the changes which took place, it is necessary to go behind the aggregate indices and look at several important component commodities.

The most striking change between the pre- and post-revolutionary eras in import prices is in the price of tea and it is one of the most easily explainable.[2] One of the contributing factors to the war had been the colonists irritation with the British East Indian Company's monopoly of the trade. After the war, many American merchants built Indiamen and entered the trade. As early as 1784, the Empress of China sailed from New York and Grand Turk I sailed from Salem for Canton.[3] Tea may seem an unimportant commodity but it accounted for better than 15% of the value of imports in 1790 and the large reduction in its price was a considerable saving for the new nation and a lucrative endeavour for the merchants who prosecuted the trade.

---

1 Coxe, A View of the United States, p. 340.

2 See Appendix Table V-2-1.

3 Hutchins, The American Maritime Industries and Public Policy, 1789-1914; An Economic History, p. 230.

The only manufactured commodity for which a continuous and comparable price series is available is Duck-canvas. The price for this material is marginally lower in the post-revolutionary period. Whether this coarse fabric was cheaper because of the innovations in spinning and weaving taking place is difficult to establish. One could feel much happier in talking about textile prices if there were continuous series on imported calico or woolens. Anne Bezanson[1] devotes several pages to conditions in the dry goods trade of Philadelp hia following the war. The situation after the war is compared to the period before in that domestic products were enjoying buoyant demand while the dry goods trade was "dull". Domestic producers, who had entered the trade during wartime scarcity were undersold by the importations of European goods which were below their pre-war levels in price.

West Indian commodities -- coffee, muscovado sugar, rum, and molasses -- were marginally higher in price in the post-war period. There was a change in consumer taste in the post-war period which resulted in larger importations of coffee and sugar and smaller amounts, relatively, of molasses and rum.

The remaining two commodities, Liverpool salt and Madeira wine, are difficult to explain. I will venture a guess only on the former and attribute its erratic price behaviour to changes in the demand for cargo on the back-haul from Britain.

Import Price Index A, comprising the above commodities at their annual average wholesale prices in various U. S. cities, shows definite cyclical behaviour both before and after the war and is appreciably lower in the

---

1. Bezanson, Prices and Inflation, Chapter XVII.

Table 5-A

Import Price Indices

Year	Import Price Index A	Import Price Index B	Composite Import Price Index
1770	123	98	110
1771	108	100	104
1772	103	102	102
1773	114	104	109
1774	115	100	108
1775	123	96	109
1784	109	98	103
1785	101	101	101
1786	98	104	101
1787	97	105	101
1788	94	103	99
1789	94	105	99
1790	100	100	100
1791	107	99	103
1792	120	99	110

Source: Appendix V-2.

post-war period. There was a general downward trend in most prices after the war with lows coming in 1788-89 and the import price index turns up again after 1790. D. C. North's figures on the prices of imports show them rising to levels considerably above the Confederation years during the period of the Napoleonic Wars.[1]

As will be noted in Appendix V-2, Import Price Index B is constructed from English price series on shoes, stockings, woolen cloth, and hats and then is corrected for American use by taking into account changes in the rate of exchange between sterling and American currency. The English prices are contract prices for supplies to institutional customers and are therefore subject to suspicion but the prices selected do change marginally from year to year, and there is no reason to think that the prices of these commodities were not relatively stable over the peace-time years considered. The price-relatives of the commodities in the index average out to a fairly constant level and when corrected to take account of the exchange rate, the index is still quite stable fluctuating over a 9 point range from 96 to 105.

It is in the prices of export commodities that the important changes are to be noted. The first things which springs to the reader's attention from looking at the Export Price Index[2] is that the post-war price relatives are higher than the pre-war level in every single year. Turning to individual commodities, one of the largest increases in relative prices is in the price of tobacco - just as noted by Coxe. The increase in tobacco prices would be even more noticeable if the price series were

---

1. North, Economic Growth, p. 229.

2 See Table 5-B.

Table 5-B

Export Price Index

Year	Export Price Index	Terms of Trade
1770	69	63
1771	75	72
1772	83	81
1773	78	72
1774	73	68
1775	70	64
1784	115	112
1785	106	105
1786	97	96
1787	92	91
1788	87	88
1789	87	88
1790	100	100
1791	92	89
1792	86	78

Sources: See Appendix V-1. The terms of trade is computed by dividing the Export Price Index by the Composite Import Price Index found in Table 5-A.

to be pushed back before 1770 for prices in the pre-war years quoted were at an all time high. Surely, one of the more important reasons for the higher prices of tobacco in the port-war era was the end of the British monopoly in the tobacco trade and the release of the commodity from numerous charges connected with its re-exportation.

The extremely high prices which tobacco commanded in 1784-85 doubtlessly reflected a diminished production in the older tobacco areas of Virginia and Maryland but demand was also very bouyant after the reopening of the English market by the proclamation of the King in Council in September, 1783.[1] The high prices during 1784-85 frustrated the attempts of Rober Morris to buy tobacco at low prices, and he was unable to ship any tobacco to the French Farmers General in 1784.[2] Tobacco prices continued at high levels until 1790. The research on prices at Amsterdam by N. Posthumus indicates that the post-war behaviour of tobacco prices was similar in European markets. Tobacco prices were 50% above their pre-war level in 1784 in Amsterdam and at their low in 1786 were still above their 1770-75 level which was only reached after 1791.[3] There are two inferences to be drawn from the behaviour of prices at Amsterdam. First, the European price of tobacco was a primary determinant of American prices. But secondly, the end of the British control of the trade meant that even when price dropped to its pre-war level in Europe, it remained considerably above the pre-war level in the United States and American producers benefitted from the reorganization of the distribution of the commodity.

---

1 Bezanson, Prices and Inflation, p. 259.

2 Frederick L. Nussbaum, "American Tobacco and French Politics, 1781-1789" Political Science Quarterly, Vol. XL, No. 4 (December, 1925.) p. 501.

3 N. W. Posthumus, Inquiry into the History of Prices in Holland (E. J. Brill, Leiden, 1946). p. 86. Hereafter cited as Inquiry.

The relatively higher level of prices for wheat and flour were important contributors to the post-war improvement in the terms of trade. The extremely high prices in the latter half of 1789 and the first half of 1790 are immediately traceable to the heavy demand for foodstuffs occasioned by widespread crop failures in Europe, but even during the rest of the period flour was above the level of pre-war years in price. Tench Coxe was among those who remarked on the high price of provisions in the post-war era.[1] The source of high prices in 1784-85 was the result of a high level of European demand. Posthumus' tables show the Amsterdam price of wheat reaching a high in 1785.[2] Prices held up in 1786 in Philadelphia because of a bad crop in the preceding year[3] (this is reflected in the low exports for flour from Philadelphia in 1786).

While European demand was somewhat diminished from 1786-1789, the American supply was also lessened by the ravages of the Hessian fly.[4] The Middle Atlantic region was hard hit in some areas during this period, and the reduced supply of grain kept the price from falling as far as it otherwise might have done. The famine prices coupled with the bumper crops of 1789-91 bore the new federal union into being on a wave of prosperity.

In the prices of other provisions, corn, beef, and pork, the same high prices in 1784-85 and 1790 are to be noted. The continuing high prices of corn in the post-war period must have been the result of buoyant demand in the years noted as well as the high price of wheat. Tench Coxe estimated that by 1790 the volume of corn exports had reached four times

1 Coxe, A View of the United States, p. 25.

2 Posthumus, Inquiry, pp. 3,6, and 10.

3 Bezanson, Prices and Inflation, p. 102.

4 Percy W. Bidwell and John I. Falconer, History of Agriculture in the Northern United States (Washington: The Carnegie Institution, 1925). p. 95.

their 1770 level.[1] The high price of salt meat in the post-war period was probably more contingent upon domestic conditions than upon foreign trade. One would expect that the exclusion of salt beef and pork from legal s ale to the British West Indies would have lowered its price. One explanation of high meat prices in the period from 1784-86 would be that farmers were trying to rebuild their stocks after the loss of many animals during the war. The continuing high levels of prices, however, would seem to indicate that agreat deal was being taken by the West Indies.

Taken together, the high prices of the farm crops of the middle states reflected a very favorable turn in the terms of trade for the farming yeomanry from the back country of Virginia to southern Connecticut. It must have created hardships, however, for New England and for the plantation economy of the Lower South in that both regions were net importers of cereals from the middle states.

Turning our attention to New England it is evident that the export prices of the products of this region were higher than would be expected from the changed commercial situation facing the New Englanders because of restrictions on the West Indian trade. Jefferson wrote to LaFayette in 1786 that the loss of markets for fish in the British West Indies would force it to European markets and depress the price.[2] High prices until 1787 were probably caused partially by the restricted supply resulting from the destruction of the fishing fleet during the war, but the price of fish held up remarkably well during the period taken as a whole and was well above

1 Coxe, A View of the United States, p. 225.

2 Jefferson, Vol. IV, p. 355.

pre-war levels except in 1788-89 when it dropped only to the levels of 1773-75. Staves and lumber also commanded higher prices after the war indicating that the increase in exports of the British North American colonies was not driving the price down. The marginally higher price of potash in the post-war period is not surprising for this article was in great demand for the bleaching of textiles in England. The American article was considered superior to the Baltic and it continued to be admitted without payment of duty. There are no series available on whale-oil or spermacetti candles. Contemporary comment on this industry indicates that it was in great distress in the post-war period because of the low prices caused by European encouragement of the whaling industry.

Taken as a whole, prices for New England exports were favorable in the post-war period. We have not, however, talked about the price of ships or of freight rates in the post-war period and the blows dealt to the maritime interests of Massachusetts by British restrictions need to be considered when talking of the fortunes of the region.

The price behaviour of the two staple exports of the Lower South, rice and indigo, differ markedly from each other and from the export prices of other regions. The destruction of rice plantations and the loss of slaves resulted in a severe diminution of production in the immediately post-war years. However, extremely high prices accompanied the diminished production. As production increased, prices fell until they had reached their pre-war levels by 1789. They continued to fall after a temporary check in 1790 until the outbreak of the Napoleonic wars.[1] Indigo prices did not change significantly from their pre-war level in the post-war years. The effect

---

1 The price of Milanese rice in Amsterdam shows the same behaviour. See Posthumus, Inquiry, p. 41.

of the shifts in relative prices on the southern producer after 1790 will be discussed at length in the conclusion.

An overview of the general trend of prices of export commodities in the post-war period suggests a general downward trend from the high levels which prevailed in 1783-84. The trend was interrupted by a precipitate rise in the price of food in 1789-91 due to the effect of a temporary shift in European demand resulting from widespread crop failures. The beginnings of the Napoleonic wars initiated another period for the American economy which is beyond the scope of this study.

The general conclusion to be made from a study of prices during this period is that slightly lower import prices coupled with significantly higher export prices resulted in a marked improvement in the net barter terms of trade for the new nation during its formative years.[1] The differential effects of price shifts on the various regions will be discussed at length in the concluding chapter.

---

1 See Table 5-B.

Appendix V-1

CONSTRUCTION OF THE EXPORT PRICE INDEX

The export price index is a simple Laspeyres index based on 1790. The weighting is somewhat arbitrary because of the necessity of picking commodities where reliable continuous price series are available. The weights of the various commodities and the percentage of total export value accounted for by these commodities in 1790 is given below:[1]

City used for Prices	Commodity	Weight in Price Series	% of Total Value of Exports in 1790
Philadelphia	Tobacco	25%	21.5%
Philadelphia	Flour	25%	23.7% (Flour & Bread)
Philadelphia	Wheat	8%	6.9%
Philadelphia	Corn	7%	6.9% (Corn & corn meal)
New York	Beef	2%	1.4%
Philadelphia	Pork	2%	1.0%
Philadelphia	Iron	1%	.6%
Boston	Potash	5%	4.2% (Potash & Pearlash)
Boston	Fish	5%	4.7%
Philadelphia	Staves	2%	2.3%
Charleston	Lumber	2%	1.8%
Charleston	Rice	10%	8.7%
Charleston	Indigo	5%	2.7%
Philadelphia	Turpentine	1%	.4%
		100%	86.8%

It would be impossible to reweight the index since there are no figures

1 Appendix V-3-1 for U. S. exports for 1789-90.

for total U. S. exports before 1790. The assumption of the price index is that the percentage of total exports accounted for by each commodity remained relatively stable throughout the period. The price series are taken from the port of likely origin for the commodities in most cases.

The index was constructed in the following manner: First, average annual prices for the fourteen commodities were computed from monthly quotations. Secondly, price relatives for each commodity were calculated with 1790 as base. Finally, a composite index was calculated by weighting each of the price relative index numbers and summing.

The computational formual used for constructing the export price index is:

$$X^n = \sum_{i=1}^{k} W_i P_i^n$$

where: X^n = the value of the Export Price Index in the n'th year.

W_i = the weight given the i'th commodity. $\sum_{i=1}^{k} W_i^1 = 1.$

P_i^n = the price relative of the i'th commodity in the n'th year.

Several adjustments had to be made because of gaps in series or changes of various types. The adjustments are as follows:

1. Potash: the series changes from shillings per cwt., Massachusetts currency, at Boston, to £ per ton, Pennsylvania currency, at Philadelphia from 1784-1792. The pre-war series is accordingly adjusted by changing cwt. (112 lbs.) into tons (2,240 lbs.) and Massachusetts currency, 6 shillings = 1 silver dollar, into Pennsylvania currency, 8 shillings = 1 silver dollar. The implicit assumption is made that the price f.o.b. Philadelphia was equal to the price, f.o.b.

Boston.

2. Flour: the series changes from shillings per cwt., 1770-1775, to shillings per bbls., 1784-1792. Cwt., (112 lbs.), are converted into bbl., (196 lbs.), to translate the pre-war series into its post-war equivalent.

3. Tobacco: the quality of tobacco is unspecified in the pre-war series and listed as "James River" in the post-war period. Prices for 1773-1775 are unobtainable and the resulting composite index is accordingly adjusted for these years by dividing the weighted sums of the price relatives of the other commodities by 1 -- weight of tobacco series.

4. Lumber: the series changes from shillings per hundred in the pre-war period to pounds per thousand in the post-war series. Price is correspondingly adjusted to changes in quantity and the change in currency value between the pre- and post-war period is made on the basis of South Carolina currency (32 shillings, 8 pence = 1 silver dollar) to the post-war ratio (4 shillings, 8 pence = 1 silver dollar).

5. Pork: the pre-war years and 1784 quote pork as unspecified while from 1785 the description is "Burlington". No adjustment is made. The change from shillings to pounds per barrel is noted.

6. Beef: there are no quotations for 1784 and 1792 and the composite series is adjusted accordingly to the procedure used for tobacco.

SOURCE OF DATA: Average annual wholesale prices of the various export commodities were computed from the monthly price quotations found in A. H. Cole, Wholesale Commodity Prices in the United States, 1700-1861, Statistical Supplement - Actual Wholesale Prices of Various Commodities.

Appendix V-1-1

PRICES OF EXPORT COMMODITIES

	Tobacco Price S-cwt.	Rel.	Flour Price S-cwt.	Rel.	Wheat Price S-bu.	Rel	Corn Price S-bu.	Rel.	Beef S-bbl. Price	Rel.	Pork S-bbl. Price	Rel.	Iron L-ton Price	Rel.
1770	28.7	60	15.7	51	5.9	58	3.6	88	5.0	98	76.9	95	23.2	83
71	32.5	69	28.5	53	6.8	67	3.2	78	49.5	97	80.3	99	24.1	86
72	32.3	68	35.5	66	7.7	75	3.7	90	60.4	118	91	112	27.1	97
73	--	--	33.1	61	7.4	72	3.1	76	54.0	106	83.8	103	26.4	94
74	--	--	31.7	59	6.9	68	2.8	68	49.3	97	69.4	86	26	93
75	--	--	27.1	50	5.7	56	2.9	71	50.9	98	66.1	82	24	86
1784	62.0	131	50.4	93	7.5	73	4.7	115	--	00	110.0	137	39	139
85	54.9	116	44.4	82	7.9	77	4.0	98	66.2	130	109.2	135	32	114
86	45.1	95	42.1	78	7.5	73	4.4	107	66.2	130	96.5	119	27	97
87	48.1	101	36.6	69	6.8	67	3.2	78	65.5	128	89.7	111	26	93
88	47.4	100	42.9	79	6.0	59	2.4	58	45.0	88	75.1	93	26	93
89	47.4	100	39.1	72	6.8	67	3.9	95	49.0	96	71.5	88	26	93
90	47.4	100	55.1	100	10.2	100	4.1	100	51.0	100	81.0	100	28	100
91	35.3	74	7.5	73	7.5	73	3.2	78	46.0	90	87.0	107	30	107
92	35.3	74	9.8	96	9.8	96	3.6	88			83.0	98	33	118

Appendix V-1-2 Concluded

	Potash		Fish		Staves		Lumber		Rice		Indigo		Turpentine	
	Price S-cwt.	Rel.	Price S-cwt.	Rel.	Price M	Rel.	Price S-100 ft.	Rel.	Price S-cwt.	Rel.	Price S-lb.	Rel.	Price S-bbl.	Rel.
1770	46.6	126	13.5	101	6.2	85	3.0	107	6.9	58	3.7	82	13.8	77
71	51.4	139	13.6	101	6.8	93	3.1	110	7.9	67	4.8	107	14.3	80
72	37.8	102	13.0	97	6.7	92	3.3	118	11.7	99	5.4	120	16.7	93
73	35.1	95	11.5	86	6.0	82	3.4	121	9.4	80	4.3	95	18.3	102
74	32.9	87	9.8	73	6.8	93	3.6	128	7.4	63	4.7	104	19.2	107
75	35.6	96	11.4	85	6.8	93	3.6	128	7.1	60	4.7	104	24.8	138
1784	41.0	111	19.7	147	9.2	126	4.7	168	15.3	130	4.7	104	29.7	166
85	53.0	143	17.7	132	8.4	115	4.4	157	12.5	106	4.9	109	21.5	120
86	40.0	108	15.6	116	7.8	107	3.7	132	14.1	119	5.2	115	13.8	77
87	36.0	97	13.7	102	7.2	99	3.3	118	14.1	119	5.6	124	11.0	66
88	34.0	92	11.3	84	6.3	86	3.0	107	12.7	108	4.9	109	12.2	68
89	40.0	108	10.8	81	7.2	99	3.0	107	10.8	91	4.2	93	13.2	74
90	37.0	100	13.4	100	7.3	100	2.8	100	11.8	100	4.5	100	17.9	100
91	39.0	105	15.0	112	7.3	100	3.0	107	10.3	87	4.5	100	16.0	89
92	33.0	89	15.0	112	7.9	108	--	--	9.2	78	5.2	115	14.0	78

Source: Appendix V-1.

Appendix V-1-2

Abstract of the exports of the United States, from the commencement of the customs-houses in the several states, which were established at different times in August, 1789, to the 30th day of September, 1790.

		Quantity	Value
Potash	tons	7,050	$ 661,634
Pearlash	tons	1,548	177,459
Apples	bbls.	5,898	6,318
Boats		8	372
Bricks		850,550	2,617
Beer and porter	casks	472	4,616
Brandy	casks	97	3,016
Cordials	boxes	236	637
Cordage			5,739
Carriages			28,017
Candles, tallow	lbs.	149,680	14,876
Candles, wax	lbs.	5,274	2,461
Cider	bbls.	442	849
Cotton	bales	2,027	58,408
Coffee	lbs.	254,752	45,753
Chocolate	lbs.	29,882	3,537
Cocoa	lbs.	10,632	950
Cassia and cinnamon	lbs.	9,392	9,715
Deer skins			33,009
Duck, American bolts		77	777
Duck, Russian bolts		220	2,200
Essence spruce			600
Flaxseed	casks	40,019	236,072
Flax	lbs.	21,970	1,468
Earthen and glassware			1,990
Furs			60,515
Furniture			8,351
Fish, dried	qtls.	378,721	828,535
Fish, pickled	bbls.	36,804	113,161
Oil, whale	bbls.	15,765	124,908
Oil, spermacetti	lbs.	5,431	79,542
Candles, spermacetti	lbs.	70,379	27,724
Whale bone	lbs.	121,281	20,417
Buckwheat	bu.	7,562	2,562
Corn	bu.	2,102,137	1,083,581
Oats	bu.	98,842	20,900
Rye	bu.	21,765	13,181
Wheat	bu.	1,124,458	1,398,998

Appendix V-1-2 Continued

		Quantity	Value
Ginseng,	casks	813	$ 47,024
Gunpowder	lbs.	5,800	861
Gin	gals.	18,005	16,989
Grindstones		203	450
Hair powder	lbs.	12,534	1,687
Hats		668	1,392
Hay	tons	2,126	12,851
Horns			1,052
Ironmongery			7,878
Iron, pig	tons	3,555	91,379
Iron, bar	tons	200	16,723
Indigo	lbs.	612,219	527,379
Horned cattle		5,406	99,960
Horses		8,628	339,516
Mules		237	8,846
Sheep		10,058	17,039
Hogs		5,304	14,481
Poultry	doz.	3,704	6,263
Staves and heading		36,402 M	463,229
Shingles		67,331 M	120,151
Shook hhds.		52,558	32,002
Hoops		1,908 M	19,598
Boards		46,747 M	260,213
Handspikes	doz.	2,361	1,505
Casks	2,423	3,697	
Scantling	feet	8,719 M	95,308
Lumber of different kinds			128,503
Timber of different kinds			139,328
Leather	lbs.	22,698	5,302
Logwood	tons	264	3,911
Lignumvitae	tons	176	1,760
Lead and shot	tons	6	810
Mahogany			18,531
Medicine and drugs			1,735
Merchandise			28,156
Molasses	gals.	15,537	3,904
Muskets		100	500
Nankeens	bales	11	2,315
Oil, linseed bbls.		119	1,962

Appendix V-1-2 Continued

		Quantity	Value
Flour	bbls.	724,623	$ 4,591,293
Bread	bbls.	75,667	209,674
Meal	bbls.	99,973	302,694
Peas and beans	bushels	38,752	25,746
Beef	bbls.	44,642	279,551
Pork	bbls.	24,462	208,099
Ham & bacon	lbs.	253,555	19,728
Butter	firkins	8,379	48,487
Cheese	lbs.	144,734	8,830
Potatoes	bbls.	5,318	6,009
Tongues	bbls.	641	1,598
Onions, vegetables			22,936
Hogs lard	firkins	6,355	31,475
Honey	firkins	165	990
Oysters	kegs	272	272
Pimento	bags	715	4,928
Pepper	lbs.	6,100	1,440
Paper	reams	169	381
Paint	lbs.	4,650	963
Pitch	bbls.	8,875	17,488
Rawhides		230	485
Raw silk	lbs.	177	409
Rosin	bbls.	316	778
Rice	tierces	100,845	1,753,796
Rum, American	gals.	370,334	135,403
Rum, West Indian	gals.	12,623	5,795
Raisins	casks	213	1,205
Salt	bu.	31,935	8,236
Sago	lbs.	2,319	455
Soap	boxes	597	3,967
Snuff	lbs.	15,350	5,609
Seeds and roots			2,135
Shoes and boots	pairs	5,862	5,741
Saddlery			5,541
Starch			1,125
Sugar, leaf	lbs.	16,429	3,432
Sugar, brown		33,358	2,237
Sassafras	lbs.	49,504	555
Steel	bundles	163	978
Stones, sawed		170	550
Tallow	lbs.	200,020	20,722
Tobacco	hhds.	118,460	4,349,567
Tea	chests	1,672	121,582
Tar	bbls.	85,067	126,116

Appendix V-1-2 Concluded

		Quantity	Value
Turpentine	bbls.	28,326	$ 72,541
Turpentine spirits	bbls.	193	1,032
Tow cloth	pièces	67	1,106
Vinegar	casks	24	106
Wines	pipes	1,074	83,249
Wax	lbs.	231,158	57,597
			$20,194,794
To the northwest coast of America			10,362
Amount of several returns received since Feb. 15			210,810.84
		Total	$20,415,966.84

Note: Quarterly returns from several small districts are deficient.

Signed: Tench Coxe

Source: American Museum, Vol. 9, pp. 156-159.

Appendix V-2

CONSTRUCTION OF THE IMPORT PRICE INDICES

There are several formidable problems involved in the calculation of an index showing the general behaviour of import prices. The first is that we have only fragmentary evidence about the composition of imports during the period consisting of scattered yearly returns for selected ports. These reports list the quantity and value of certain commodities, spirits, wines, tea, coffee and the like, but the largest entry is articles ad valorem. Included in this latter are the soft goods and manufactures which were the largest part of imports, and we have only a very general idea about the composition of ad valorem merchandise.

The second problem is that we possess no American series on the prices of manufactures and textiles. We do have extensive price series for the period on the enumerated articles, but we do not know how the prices of imported merchandise varied over the period. The one exception to this is a series on the price of Russian duck at Boston. This series was, therefore, given a disproportionate weight of 10% in the Composite Import Price Index.

The problem of prices of soft goods was handled by constructing a composite price index for four articles purchased on contract by Greenwich Hospital in London during the period. These four articles -- blue cloth, shoes, stockings, and hats are assumed to have been a significant proportion of American imports from Britain and their price behaviour is taken as representative. These prices display relative stability over the period and although they were undoubtedly stickier than market prices, they may be taken as representative of the general trend of prices in soft goods for the period. From thses four series a composite index is constructed with

a base of 1790. This index is then multiplied by the premium or discount of Philadelphia currency on sterling during the period to take into account the effect of currency appreciated and depreciation on American prices. The result is an index which is given a weight of 50% in the construction of the Composite Import Price Index.

The remaining weight in the Composite Import Price Index is accounted for by the following commodities with the weights given:

Weight	Commodity	City from which Prices are Used
20%	Bohea Tea	Philadelphia
10%	Coffee	Boston
10%	Muscovado Sugar	Philadelphia
10%	Liverpool Salt	Philadelphia
10%	Molasses	Boston
10%	Madeira Wine	Charleston
10%	West Indian Rum	Philadelphia
20%	Russian Duck	Boston

The above commodities are the components on Import Price Index A.[1] The English prices modified by the exchange rate comprise Import Price Index B.[2] It will be noted that this method of weighting gives a total weight of 60% to manufactured articles and 40% to commodity imports from various sources.

The computational formula for the construction of Import Price Index A is:

$$A^n = \sum_{i=1}^{k} W_i P_i^n$$

---

1 See Appendix V-2-1.

2 See Appendix V-2-2.

where:

A^n = the value of Import Price Index A in the n'th year.

W_i = the weight given the i'th commodity. $\sum_{i=1}^{k} W_i = 1$.

P_i^n = the price relative of the i'th commodity in the n'th year.

The computational formula for Import Price Index B is:

$$B^n = \tfrac{1}{4} C^n \sum_{i=1}^{k} P_i^n$$

where:

B^n = the value of Import Price Index A in the n'th year.

C^n = the discount of Pennsylvania currency on sterling in year n divided by the discount of Pennsylvania currency on sterling in 1790.

P_I^n = the price relative of the I'th commodity in the n'th year.

The Composite Import Price Index is the arithmetic mean of Import Price Indices A and B.

Appendix V-2-1

AMERICAN PRICES OF IMPORTED COMMODITIES

	Duck S-pc (B) 10		Coffee S-lb. (B) 5		Bohea Tea S-lb. (P) 10		Salt S-bu. (P) 5		Musc. Sugar S-cwt. (P) 5		Molasses S-gal. (B) (5)		Madeira Wine P-Pipe (C) 5		Rum W. I. S-gal. (P) 5	
	Price	Price Rel.	Price	Price Rel.	Price	Price Rel.	Price	Price Rel.	Price	Price Rel.	Price	Price Rel.	Price	Price Rel.	Price	Price Rel.
1770	73	122	1.1	100	6.3	263	1.9	95	51.8	75	1.4	76	22.9	56	3.0	68
71	73	122	.86	78	4.9	204	1.5	75	50.8	74	1.3	72	22.9	56	3.3	75
72	69	115	.97	88	4.1	171	1.8	90	49.2	71	1.3	72	22.9	56	3.5	80
73	72	120	.79	72	4.6	192	2.2	110	50	73	1.4	76	--	--	3.2	73
74	74.7	125	.85	77	5.2	216	2.0	100	55.6	81	1.4	76	28.6	71	3.0	68
75	--	--	.80	73	4.0	167	3.7	185	52.9	77	1.7	94	28.6	71	3.0	68
84	57.5	96	.99	90	3.4	142	3.3	165	62.3	90	1.5	83	37.5	94	4.2	95
85	67	112	.97	88	2.7	113	2.9	145	52	75	1.3	72	40.8	102	3.5	80
86	69	115	.94	85	2.7	113	1.8	90	55.8	81	1.3	72	46.6	117	3.4	77
87	62.9	104	1.02	93	2.6	108	1.8	90	53.7	78	1.5	83	53.5	134	3.3	75
88	61.3	102	1.1	100	2.4	100	1.6	80	54.8	80	1.4	76	55	137	3.1	70
89	63.7	106	1.1	100	1.9	79	1.7	85	60.6	88	1.4	76	52.5	131	3.8	86
90	60.0	100	2.4	100	2.4	100	2.4	100	68.9	100	1.8	100	40.0	100	4.4	100
91	59.5	99	.96	86	2.6	108	2.2	110	81.4	118	2.1	117	40.0	100	--	--
92	71.3	119	1.06	96	=2.5	104	=2.3	115	108.4	157	2.7	150	--	--	--	--

Source: Appendix V-2

Appendix V-2-2

PRICES OF IMPORTED MANUFACTURES BASED ON ENGLISH PRICES

	Blue Cloth		Shoes, Common		Stockings		Hats		Mean Price Relative of		Import
	S-pc Price	Price Rel.	S-pr. Price	Index	S-doz. Price	Index	S-pc Price	Index	Commodities	Exchange Discount	Price Index
1770	[illegible]	94	4.	101	1.46	97	2.5	111	101	.948	97.6
71	6.5	97	3.75	95		97	2.5	111	100	.977	99.6
72	6.25	94		95	1.54	103	2.33	104	99	1.007	101.6
73		94	3.83	97		103	2.33	104	99.5	1.029	104.4
74		94		97	1.33	87	2.17	96	93.5	1.053	100.4
75	6.0	90	3.63	92		87	2.17	96	91	1.029	95.4
1784	6.33	95	3.50	88	1.50	100	2.33	104	97	1.043	97.6
85	6.45	97	3.31	84	1.50	100	2.33	104	94	1.058	101.4
86	6.50	97	3.25	82	1.50	100	2.33	104	96	1.064	104.1
87		100	3.43	87	1.50	100	2.33	104	98	1.055	105.4
88		100	3.46	87	1.50	100	2.25	100	97	1.044	103.3
89		100	3.96	100	1.50	100	2.25	100	100	1.031	105.1
90	6.67	100		100	1.50	100	2.25	100	100	.981	100
91	5.95	89	3.92	99	1.50	100	2.25	100	97	--	99*
92	5.90	88	3.92	99	1.50	100	2.25	100	97	--	99*

* Exchange discount not available. Value assumes par exchange.

Source: Appendix V-2.

SOURCES OF DATA:

1. The average annual wholesale prices of the imported commodities included in Import Price Index-A -- American Prices of Imported Commodities -- are taken, with the exception of prices of West Indian rum, from A. H. Cole, Wholesale Commodity Prices in the United States, 1700-1861, Statistical Supplement -- Actual Wholesale Prices of Various Commodities. The series on West Indian rum comes from Bezanson, Prices and Inflation During the American Revolution, Pennsylvania, 1770-1790.

2. The English prices of various manufactured articles come from William H. Beveridge, Prices and Wages in England from the twelth to the nineteenth centuries (London: Longmans, Green, & Co., 1939).

3. Data from which the exchange rate between sterling and Pennsylvania currency were computed for the period from 1770-1775 were taken from A. H. Cole, Wholesale Commodity Prices in the United States, 1700-1861. From 1784-1790, the material for computation came from Bezanson, Prices and Inflation, Appendix Table 6. (See my Table 3-D.)

Chapter 6

Conclusion

The quantitative and qualitative evidence on the volume and composition of American foreign trade and the price behaviour of selected commodities has been presented. This evidence can now be used to provide an explanation of the changes taking place in the economies of the thirteen states during the period from the end of the Revolution to the beginning of the Napoleonic wars.

Any conclusions about the economy of the United States during the Confederation period must be based on regional analysis because of the very different types of market situations facing the individual states and the varied effects of the war in different areas.

As shown in Table 3-A, the value of Charleston exports showed no marked tendency to expand during the period under consideration. Table IV-1-2 shows the official value of British imports from the Carolinas and Georgia far below their pre-war level in 1788. The figure for the Carolinas is 50% below pre-war and the exports from Georgia to Great Britain were only one-third of what they had been from 1770-1775. Undoubtedly there was some expansion of trade with the other European countries in rice, indigo, naval stores, and tobacco, but the amount was certainly nowhere near large enough to make up for the decline in exports to Britain. The difficulties faced by the plantation economy of the Lower South are nowhere better seen than in the population statistics of South Carolina where there was an absolute decline in the slave population between 1775 and 1790.[1]

The economic fortunes of the Lower South were tied to the performance of two staple exports - rice and indigo. The destruction of rice plantations during the war and the loss of slaves resulted in rice exports in

1 See Appendix II-3.

the years immediately following the Revolution which were about half of the pre-war average. The pre-war volume of exports was not regained until after 1790. Compensating for the diminished volume of rice exports from 1784 to 1790 were prices that were almost double their pre-war level.

The most reasonable explanation of the evidence on rice exports requires three assumptions: (1) That the price of rice in Charleston was the European price less transport costs, (2) That American rice exports were the major components of the total supply of rice in European markets, and (3) That the European demand for rice was fairly stable over time with an elasticity near unity. Given these three assumptions, the behaviour of rice exports is clearly explainable. As American rice exports increased from 1784 to 1792, they shifted the supply curve in European markets progressively to the right and prices fell to their pre-war level when the pre-war volume of rice exports had been re-established. Because of the unitary demand elasticity, total revenue from rice exports remained fairly constant.

The profitability of plantation rice culture depended critically on the price of rice, and the cost of slaves and food to the rice planter. We know little about the prices of slaves after the Revolution except that they were "high". It can be seen, however, that the ratio of the price of rice to such staple foodstuffs as corn, wheat, and pork was higher in the six years after the Revolution than in the six years preceding and this was undoubtedly a stimulus to the rapid rebuilding of the rice plantations. After 1790, the return of rice prices to their pre-war levels left planter with large investments in rice paddies and consequently large fixed costs which were incurred when rice prices were high. The price-cost squeeze was made tighter by fact that rice plantations were not economically adaptable

to the raising of other crops. Rice production did not decline after 1790, absolutely, but there is evidence of a relative shift of resources into wheat and corn production in the Lower South which one would expect from the decrease in the ratio between rice prices and the price of foodstuffs consumed by the slave population.*

An analysis of the profitability of indigo culture must likewise stress the relationship between the cost of the food inputs used to feed the slaves and the price of the export commodity. Prior to the Revolution, the industry had been stimulated and supported by the granting of a bounty by the British Parliament. The loss of the bounty and the favoring of West Indian producers did not immediately destroy the American indigo culture but it did not expand after the war and after 1790 the resources of the industry were shifting into the rapidly expanding culture of cotton.

Turning our attention to the minor staples of the Lower South, we note a rapid increase in tobacco exports. Unfortunately for the Lower South, they only became quantitatively important at the end of the period when prices had fallen from their high post-war level. Naval stores, which had been bountied prior to the war never regained their former volume. Britain had supported this uneconomic industry prior to the war for military reasons and the withdrawal of bounties and priviledged access to a protected

* Using the price relatives of Appendix Table V-1-1, the following ratios were computed between the average price relatives of rice and three important foodstuffs for plantation slaves:

	Rice / Corn	Rice / Wheat	Rice / Pork
Pre-war average (1770-75)	.91	1.07	.74
Post-war Average (1784-89)	1.04	1.38	.84
Average (1790-92)	.99	.98	.86

market had an effect on exports of naval stores similar to the effect on indigo culture.

The effects of the Revolution and the end of the imperial connection were not favorable to the export economy of the Lower South. The physical destruction and disorganization during the period of hostilities and the loss of imperial encouragement for the export of indigo and naval stores were a definite setback. The low volume of rice exports in the immediately post-war period was compensated by high prices so that total revenue from rice exports did not suffer. Expansion of tobacco production took up some of the slack created by the relative decline of indigo and naval stores. But the Lower South faced definite problems in the Confederation period arising from the fact that there were no expanding markets for the primary staple exports of the region. This, coupled with the relative shift in the price of foodstuffs they imported from the other regions was responsible for an increasing shift into production of domestically consumed foodstuffs by the end of the period and the rate of increase in the growth of exports was well below the rate of increase in population.

The fragmentary evidence on tobacco exports for Virginia and Maryland presented in Chapter II indicates that the volume of tobacco exports from the Middle Atlantic region was approximately constant during the Confederation period. Tobacco released for export from government warehouses in Virginia was 15% lower in 1784 than during the rest of the period, but there was a very large amount shipped through Philadelphia in that year. Maryland exports in 1792 were approximately at their pre-war level but since there was no damage to Maryland tobacco plantations during the war we may infer that exports stayed approximately at the same level throughout the Confedera-

tion period.

The assumptions structuring our explanation of American tobacco prices are the following: (1) That the American price was equal to the European price minus transport and handling charges, and (2) That the European demand for American tobacco was relatively inelastic and stable over time. The reasonableness of this last assumption rests on the character of the commodity - no substitutes, no alternative sources of supply, per capita expenditure on the commodity a small part of per capita income. Given these assumptions, it is possible to explain the Upper South.

During the war, tobacco was difficult to export to Europe except via the West Indies and by the end of the war the diminished production in the Upper South had decreased the supply of American tobacco in European markets and driven the price to extremely high levels. Production remained fairly stable in the Upper South at near the pre-war level during the Confederation period because of problems of soil exhaustion necessitating abandonment of old fields in the region as new ones were put into production. The net increase in production of tobacco occurred in the Lower South and even though the increase was modest, it resulted in fairly substantial price falls in European markets because of the inelastic character of European demand.

European prices, however, fell by more than American prices during the period because of the narrowing of the price-spread between the two markets. This narrowing of price differentials we have attributed to the release of American growers from the necessity of selling to an oligopsonistic group of British tobacco factors and to the avoidance of the many charges and additional transport costs involved when the commodity had to be shipped to Britain

for re-export to the continental market.

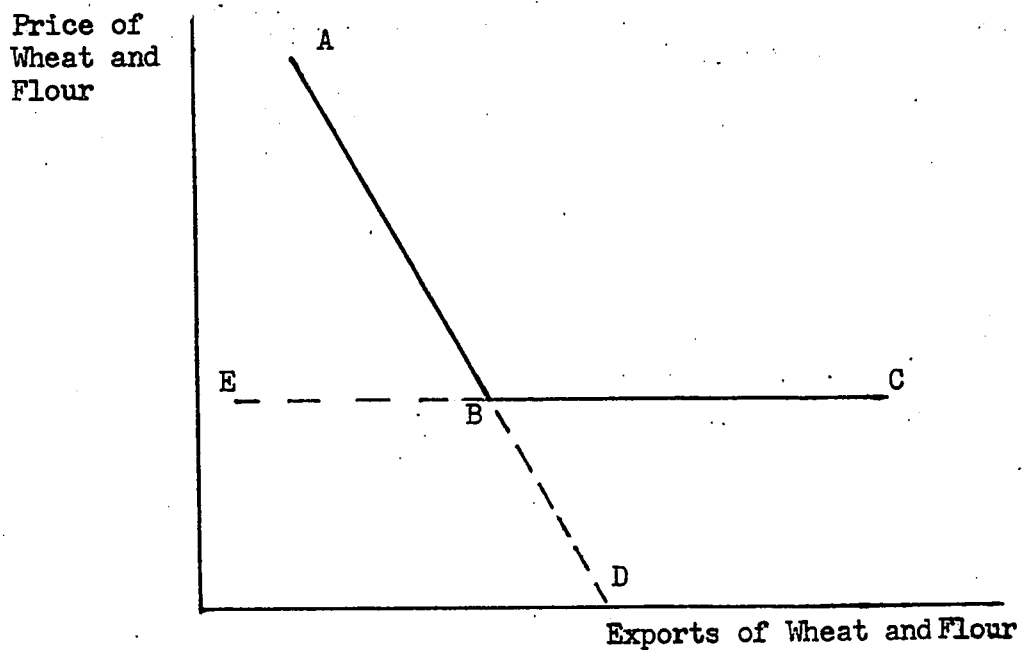
It seems reasonable to conclude that the years up to 1790 were a time of real prosperity for the tobacco planters of the Upper South. A slight diminution of total tobacco exports for the region coupled with exceptionally high prices resulted in greatly increased returns from the sale of tobacco. The temporary nature of prosperity is stressed because by 1791, the increase in production in the Lower South had driven prices almost back to their pre-war level and the usual pattern of agricultural price behaviour was being accomplished as high prices stimulated expansion of production until prices were driven back to the minimum long-run cost of production for the industry.

When we add to the export revenues from the sale of tobacco the increasing exports of staple foodstuffs, the economy of the Upper South during the period would appear to have been quite prosperous.

The level and pattern of economic activity for the Middle Atlantic region may be inferred from several of the series for the port of Philadelphia. The export series in Table 3-B show the value of exports falling from a high in 1784 to a low in 1786 and then rising agin to another peak in 1789-1790. Most of the fluctuation in the value of exports is traceable to changes in theprice and volume of flour and wheat exports.

An explanation of the behaviour of wheat and flour exports rests on an analysis of the character of the export markets. There were, first of all, the New England, Lower South, Nova Scotian, and West Indian markets for Middle Atlantic wheat - all of which had fairly stable and inelastic demands for wheat. We will call the combined demands of these markets the "American" demand for wheat. Secondly, there was the European market where Middle Atlantic wheat could be sold only when bad harvests occurred. The demand

curve for this market could be represented as perfectly elastic to the Middle Atlantic producers at the European price less transport costs. The summation of demands in the "American" and European markets produced an aggregate demand for Middle Atlantic exports of wheat and flour which was kinked as is shown below in Figure 1.



The effective demand curve, ABC, is kinked at B where the perfectly elastic European demand curve, EC, crosses the relatively inelastic "American" market demand schedule, AD.

The high European prices of 1784-85 and1789-90 resulted in high prices for wheat and flour in Philadelphia because of the upward shift in the European segment of the demand schedule and this happily coincided with good crops in the Middle Atlantic wheat growing areas in those two periods. The result was high prices and high exports in those periods as illustrated in Figure 2 where FG is the supply function. The "normal" European demand is

shown by dotted line BC while the increased "drouth" price is shown by B'C'.

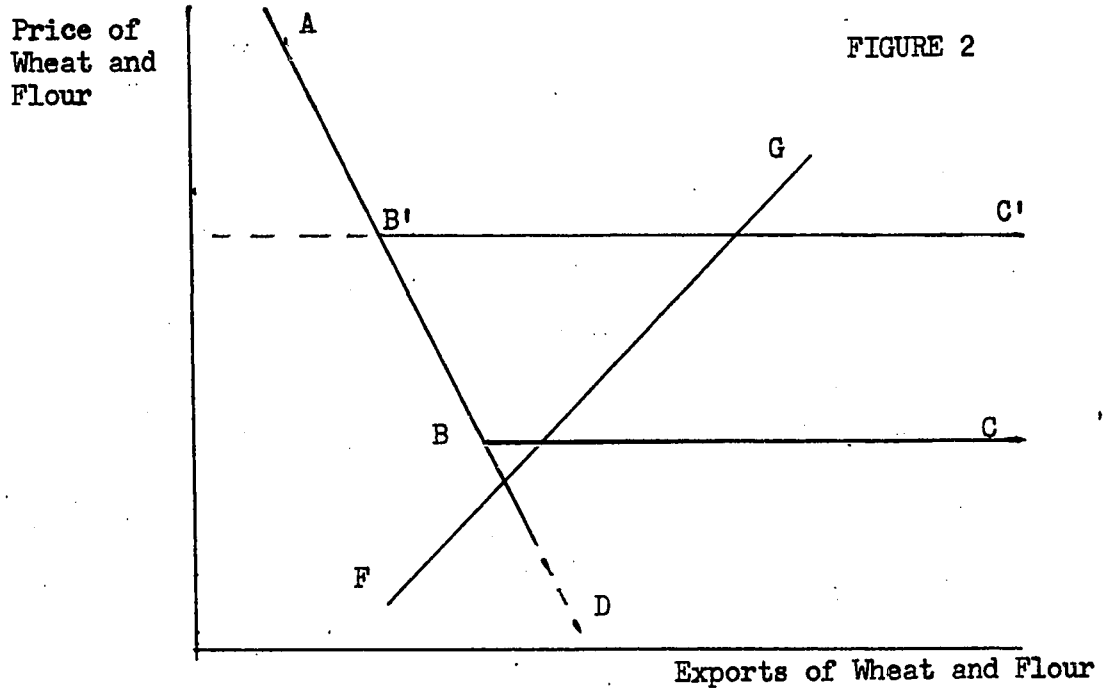


FIGURE 2

During the period from 1786 to the middle of 1789, Philadelphia wheat prices did not fall as much as might have been expected from the drop in European prices because of crop failure due to the Hessian fly. A diagrammatic representation of this situation is depicted in Figure 3 where the supply curve has been shifted from FG to F'G' by crop failures. The effect

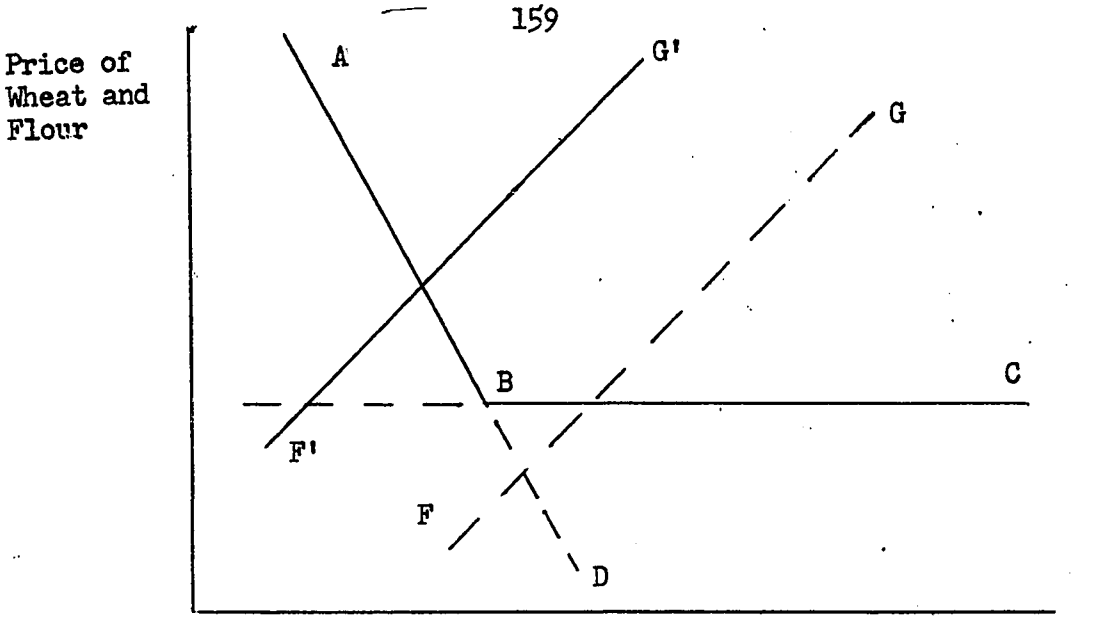


FIGURE 3

of crop failures in the Middle Atlantic wheat growing areas coupled with "normal" European prices was to effectively cut off wheat exports to Europe.

The foregoing discussion of the determination of prices and exports is, of course, simplified and abstracted, but it would seem to fit the contemporary qualitative accounts of the state of trade and the quantitative evidence on Philadelphia prices and exports of wheat and flour.

Interacting with the cyclical forces introduced by the erratic shifts in the European demand for wheat were the effects of the Revolution. The accumulation of specie during the war and the inability to buy imported goods had resulted in a rise in the domestic price level relative to the European and at the end of the war there was a tremendous influx of imported goods.- especially manufactured soft-goods from Great Britain. If we use our figures on the estimated value of Philadelphia exports and imports for 1784, 1787, and 1789, an estimate of the balance of trade for Philadelphia may be

obtained: (in millions)

	1784	1787	1789
ESTIMATED VALUE OF EXPORTS[1]	3.7	2.1	3.5
ESTIMATED VALUE OF IMPORTS[2]	8.8	3.2	4.6
ESTIMATED DEFICIT IN THE BALANCE OF TRADE FOR PHILADELPHIA	- 5.1	- 1.1	- 1.1

The balance of trade does not allow us to make any estimates directly of the balance of payments. However, given the above estimates of the balance of trade, the consistent discount of Pennsylvania currency on sterling[3] during the Confederation period is understandable. So is the shipment of specie to Europe so widely deprecated by the debtor sections of the community.

The post-war adjustoment of the American economy required an equilibration of the American price level with the world level of prices. This was accomplished by the classical mechanism of a trade deficit and an outflow of specie until the domestic price level had been reduced. In the particular period and situation considered in this study, the adjustment was complicated and modified by the abnormal supply-demand relationships for the most important of the staple commodities produced by the United States - wheat, tobacco and rice.

The same cyclical behaviour seen in the series for Philadelphia can be seen in the British trade statistics. American exports to Britain reached a low in 1786 and a high in 1790.[4] British exports to the United States

---

1 See Table 3-B.
2 See Appendix III-7.
3 See Table 3-D.
4 See Table 4-A.

fell from a high level in 1784 to a low in 1786 and then climbed to high levels once again after 1790.[1]

Turning our attention to New England we must rely on qualitative evidence for the first few years of the Confederation period. The destruction of the fishing fleet during the war, the loss of markets for whale-oil and ships, and the general disorganization of trade necessitated a large scale reconstruction and reorientation of the maritime economy in the period immediately after the end of hostilities. By 1786 the corner of recovery had been turned and the increase in the exports for Massachusetts from 1787 to 1792 was nothing short of phenomenal.

It should be acknowledged that the failure to take into consideration shipping revenues during the period leaves a large gapiin the evidence for any conclusions about the economic fortunes of the New Englanders. Some of the carrying trade to the West Indies was lost to the British but there was an expansion of trade to the French and other West Indian islands and the beginnings of trade with the Orient during the period. The destruction wrought by the war on the merchant shipping of New England was not overcome until 1790 but its rapid recovery even before the tremendously prosperous period of the Napoleonic Wars is attested to by the figures on registered tonnage available post 1789.[2] By 1791, American shipping was carrying better than half the foreign commerce of the United States.[3]

The whalers of Nantucket were probably a group of people hurt more by the aftermath of the Revolution than any other but this was an extremely

---

1 See Table 4-B.

2 William W. Bates, American Navigation; the Political History of its Rise and Ruin and the Proper Means for its Encouragement (Boston and New York: Houghton Mifflin & Co., 1902) p. 49.

3 Ibid., p. 446.

small and isolated segment of the population. The New England fishing fleet was rebuilt rapidly after the war and the price of fish held up well. On balance, there does not seem to be very conclusive evidence to indicate that the maritime interests of New England were unable to adjust satisfactorily to the post-war situation. Several contemporary observers have been quoted to the effect that the economy of New England was on the way to recovery by 1786.

One of the most amazing things about the foreign trade of New England in the post-war period is the tremendous increase in exports to England. Table IV-4-2 shows the official value of exports from New England to Britain in 1788 at double their pre-war level. In fact, New England was the only section of the United States which exported more to Britain after the Revolution than before.

An overall view of the economic fortunes of the various states during the period makes clear much of the background against which the formulation of the Constitution and the formation of the Federal Union can be considered. Prices were falling both because of the outflow of specie and because of the behaviour of European prices of important export staples. The differential effects of a falling general price level on the community are well known. The burden of governmental debt becomes heavier. The dissatisfaction of the debtor class with the resultant redistribution of income becomes serious. The effect on profits is protested by the merchants and trade is slow in expectation of further price decreases. All these complaints are rife in the writings of the period.

A time of disorganization of traditional markets, even when coupled with the rise of new economic opportunities, is protested as having

disastrous effects because those who are hurt by the changes are more vocal in their complaints than those who are benefitting. When this is coupled with a cyclical recession resulting from world market forces acting on the economy it is altogether understandable that there should have been widespread dissatisfaction from 1783 to 1787 and that the weakness of the national government under the Articles of Confederation in controlling the money supply, paying interest on the public debt, and regulating and encouraging the foreign and domestic commerce should be blamed for the hardships, real and imagined, of the nation during the "critical period of American history."

But moving from public opinion to economic realities, were the weaknesses of the Articles of Confederation responsible for the economic conditions which prevailed? Consider, for example the Federalist argument that the Articles of Confederation were unsatisfactory because they failed to provide a government which could bargain effectively with the mercantile powers of Europe for trade concessions. Writing in the Federalist Papers, Alexander Hamilton put forth the following argument:

> "By prohibitory regulations, extending at the same time throughout the States, we may oblige foreign countries to bid against each other for the privileges of our markets.
>
> This assertion will not appear chimerical to those who are able to appreciate the importance of the markets of three millions of people - .... Suppose, for instance, we had a government in America capable of excluding Great Britain (with whom we have no treaty of commerce) from all our ports; what would be the probable operation of this step upon her politics? Would it not enable us to negotiate, with the fairest prospe prospect of success, for commercial privileges of the most valuable and extensive kind in the dominions of that kingdom?[1]

The validity of Hamilton's argument depends on two conditions: first, that exclusion from markets during the Confederation period severly limited foreign markets for U. S. goods, and secondly, that commercial treaties could

---

1 Alexander Hamilton and others, The Federalist Papers, The New American Library of World Literature edition, (New York: 1961). Paper 11. pp. 86-87.

be negotiated by a federal government which would increase the effective demands for American exports. Let us consider these in turn.

Probably the greatest restrictions on U. S. exports were encountered in the fisheries and whaling. Here, both France and Britain self-consciously fostered their own fisheries, not primarily for economic advantage, but to serve as a "nursery for seamen". Additionally, Britain excluded the United States from the West Indian carrying trade and prohibited American exports of salt meat to the sugar islands to favor Irish producers. These were the most significant of the mercantile restrictions which limited the U. S. economy in the post-war period. While these limitations were certainly significant for New England, it would be difficult to argue that they were not overcome by the New Englanders finding new vents for their fish in Southern Europe and West Indian markets. This leaves salt meats, which cannot be considered as having great quantitative importance. Thus, it is hard to argue that exclusion by the mercantilist policies of European nations had more than marginal signifcance for the post-war trade of the United States.

Looking further, could a strong central government have negotiated for change in the polcies of foreign nations? The English might have traded the interests of the Irish meat producers for the Manchester manufacturers but it is difficult to see how naval powers such as Britain and France would have sacrificed policies designed to increase sea power for commercial privileges in American markets. The out break of the Napoleonic Wars greatly expanded markets in the West Indies for fish, meat, and shipping services but this was a temporary phenonemon which had nothing to do with the policies of the American federal government and the return of peace in 1815 saw the revival

of navigation laws and a relative and absolute decline in the importance in the importance of U. S. maritime interests.

Another Federalist argument for the necessity of a strong central government was connected with the desire to foster inter-state commerce.

> "An unrestrained intercourse between the States themselves will advance the trade of each by an interchange of their respective productions.... the aggregate balance of the commerce of the United States would bid fair to be much more favorable than that of the thirteen States without union or with partial unions. It may perhaps be replied to this that whether the States are united or disunited there would still be an intimate intercourse between them which would answer the same ends; but this intercourse would be fettered, interrupted, and narrowed by a multiplicity of causes, which in the course of these papers have been amply detailed."[1]

Here, the validity of Hamilton's argument cannot be denied but the quantitative extent of inter-state commerce and the seriousness of the restrictions placed on it during the Confederation period needs to be considered. Massachusetts exports for 1787 (Appendix III-4-1) and Philadelphia exports for 1788 (Appendix III-2-3) show that the inter-state commerce of these states going by sea was considerable. American ships and goods received preferential tariffs and port charges and it can be argued from the silence of complaint in the contemporary material on the period, that restrictions on inter-state trade were not considered to be a very serious impediment. Nevertheless, the increasing importance of internal commerce in the 19th Century would undoubtedly have placed severe restrictions on the growth of the American economy even though this cannot be considered as a significant problem in the period under consideration.

On balance, our answer to the necessity of a strong federal government to rescue the states of the Confederation from economic stagnation is

---

1 Alexander Hamilton, The Federalist Papers, pp. 89-90.

negative on several grounds. First, the restrictions placed upon the foreign commerce of the United States by European nations had a marginal effect on the United States as a whole and it is doubtful that a strong federal government could have changed the mercantilist policies significantly. Secondly, there is neither empirical evidence, nor apriori reason to believe that interstate commerce was constricted by the lack of a strong federal government during the period.

After an analysis of the evidence on the period one is inclined to agree with Benjamin Franklin that taking "a cool view of the general state of our affairs" the fortunes of the United States were "less gloomy than has been imagined." There was a modest increase in the value of American exports in the post-war period and the terms of trade were certainly much more favorable than they had been prior to the Revolution.

The United States did lose protected markets for ships, indigo, naval stores, and whale-oil in Great Britain but there were compensating gains in direct trade with continental Europe and the Orient. Additionally, the operation of the Navigation Acts no longer required such commodities as tobacco and rice to bear the intermediate charges of re-exportation by British intermediaries.

Americans were prohibited from the legal carrying trade to the British West Indies but the evidence presented in Chapter IV indicates that the value of legal exports of American commodities to the British West Indian islands did not decline too severly and that the extent of illegal trade in fish and salt meats and the trans-shipment of goods via foreign islands in the West Indies largely negated the restrictions of the British Navigation Acts. Trade with the French islands was far more important quantitatively

than trade with the British islands by the end of the period as is shown by the exports to the two groups of islands in 1790.

High European wheat prices resulting from population pressing on limited agricultural resources in the drouth years of 1784-85 and 1789-91 resulted in windfall gains for American producers in those years. The extremely inelastic European demand for tobacco produced large revenues for the planters from 1784-90 and the character of the demand for rice kept revenue high in the post-war period before production was re-established.

The peculiar characteristics of the period from 1784-1792 shoud not be allowed to divert consideration from the longer run problems f acing the United States during the years after the War for Independence. True, commerce recovered remarkably quickly after the war and the Federal Union was borne in on a wave of prosperity. True, the terms of trade were significantly altered, at least temporarily, by changed market conditions and fluctuations in world prices. Nevertheless, the southern states did not have a bright future and the growth of the Middle Atlantic and Northeast would not have proceeded significantly faster than the rate of expansion of domestic markets. And if there was no necessity for a strong federal government for commercial reasons, there were still the matters of national defence, western lands, Spanish control of the Mississippi, and the Indians to be dealt with.

Taking a long view, it becomes evident that while there was a modest increase in exports between the pre- and post-revolutionary periods, the increase in exports was far below the rapid increase in population. The value of per capita exports was considerably less in 1790 than it had been prior to the war. If we were to postulate some model for the analyis of economic growth in which an expanding export sector was given causal importance in

stimulating the growth of the economy, the United States during the period under consideration would not have appeared to be a very likely candidate for growth based on rapidly expanding demand for her products in world markets.

Disaggregating the economy into its various regions, the prospects were markedly different for the diverse local economies. Looking beyond the years of this study, it is interesting to conjecture about what would have happened to the Lower South if the rapid growth of the cotton economy had not occurred. In all probability the trend away from slave plantations producing an export staple would have continued and the region would increasingly have been characterized by subsistence agriculture.

The relative decline of tobacco culture in the Upper South must be seen partly as a matter of soil exhaustion. Tobacco could be grown on exhausted lands with agricultural methods involving manuring and crop rotation but this greatly increased the costs of production. The primary reasons for the shift into wheat and corn must be seen in the behaviour of relative prices. The favorable terms of trade for the tobacco planters during the period resulted in a marked increase in income for this sector of the population. After 1790, however, wheat prices were continuing at high levels and much tobacco land was being turned to the production of grain. In 1793 Jefferson wrote that Albemarle county, Virginia, was completely changing over to wheat production.[1] He also wrote:

> "In four years the three little Counties of Augusta, Rockbridge, and Rockingham....from having but one Manufacturing Mill only have upwards of 100 Merchant Mills in great perfection.... and our adventuring farmers are coming with their Batteaus loaded down the James River through the Blue Ridge within 3 and 4 miles of Lexington."[1]

---

1 Quoted in Gray, Southern Agriculture, Vol. II, pp. 608-609.

The growth of general farming in the Upper South is suggested by the population statistics.[1] The growth of slave population was lower than the growth of white population in both Maryland and Virginia. The change in the character of the economy of the Upper South after the war and the release of tobacco planters from their bondage to the Scottish factors would undoubtedly have led to an earlier end to slavery if it had not been for the tremendous increase in the value of slaves brought about by the expansion of cotton production. There was much sentiment for voluntary manumission during the Confederation period in Virginia and Maryland although those favoring an immediate end to slavery were in a minority.[2]

If one were to have asked in 1790 what region of the country was going to have the greatest economic importance, the answer even at that early date would probably have been the Middle Atlantic. The prosperity of the region is manifest in the rates of population growth of New York and Pennsylvania and their commercial centers, New York City and Philadelphia. The export trade of the region was obviously going to be erratic due to the unstable European demand for wheat but the diversification in the export of other staples, the increasing importance of residentiary industry, and manufacture of goods for southern markets obviously boded well for the long run prospects of the Middle Atlantic area.

The relatively slow rate of population growth in Massachusetts, Connecticut, and Rhode Island was not due to economic stagnation but may be attributed to the fact that they had no frontier. New Hampshire, Maine, and New York (including Vermont) were receiving the natural increases of

---

1 See Appendix II-3

2 See Gray, Southern Agriculture, Vol. II, pp. 615-617, 648-699.

the population.

It was the New England and Middle Atlantic states which benefitted most from the Revolution. They gained the southern markets for their manufactures and enjoyed expanding markets for the products of their more diversified economies in Europe. The more equal distribution of income provided a more substantial domestic market for local producers and the lower propensity to import luxury goods increased the size of the multiplier-accelerator effects from international and inter-regional trade.

In the introductory chapter to this work it was stated that the economic historian dealing with this period would have to take into account both short and long run considerations. The analysis and evidence contained in the main body of the work is mainly occupied with the behaviour of the economy in the short run, an economy in transition from colonial to independent status, an economy recovering from a long and costly war, an economy sensitive to the impersonal forces of the North Atlantic economy of which it was an integral part. The general conclusion to be made from the evidence is that the United States did rather well in the Confederation period. Taking a longer view, the failure of foreign markets to expand at a sufficiently high rate offered the long run prospect of a continuing relative decline in the importance of the international section of the economy and an unpromising prospect for a rapid rate of economic growth through expanding demand for United States products in world markets.

BIBLIOGRAPHY

BOOKS

Abernethy, Thomas P., The South in the New Nation, 1789-1819. Baton Rouge: Louisiana State University Press, 1961.

Anderson, Adam, An Historical and Chronological Deduction of the Origins of Commerce from the earliest account. London: J. Walter, 1787-1789. 4 volumes.

Bates, William W., American Navigation; the Political History of its Rise and Ruin and the Proper Means for its Encouragement. Boston and New York: Houghton Mifflin & Co., 1902.

Beard, Charles A., An Economic Interpretation of the Constitution of the United States. New York: Macmillan, 1913. MacMillan Paperbacks edition, 1961.

Beveridge, William H., Prices and Wages in England from the twelth to the nineteenth Centuries. London: Longmans, Green & Co., 1939.

Bezanson, Anne, Prices and Inflation During the American Revolution, Pennsylvania, 1770-1790. Philadelphia: University of Pennsylvania Press, 1951.

Bidwell, Percy W. and Falconer, John I., History of Agriculture in the Northern United States. Washington: The Carnegie Institution, 1925.

Bigelow, John, Ed., The Works of Benjamin Franklin, New York: G. P. Putnam's Sons, 1904. 12 volumes.

Champion, Richard, Considerations on the present situation of Great Britain and the United States of North America,.... London: J. Stockdale, 1784.

Cole, Arthur H., Wholesale Commodity Prices in the United States, 1700-1861 with Statistical Supplement - Actual Wholesale Prices of Various Commodities. Cambridge: Harvard University Press, 1938. 2 volumes.

Coxe, Tench, A View of the United States, in a series of papers... Philadelphia: William Hall, Wrigley & Berryman, 1794.

Crittenden, Philip C., The Commerce of North Carolina, 1763-1789. New Haven: Yale University Press, 1936.

Edwards, Bryan, The History, Civil and Commerical of the British West Indies. 5th edition. London: G. and W. B. Whittaker, 1818-1819. 5 volumes.

Fitzpatrick, John C., ed., The Writings of George Washington from the Original Sources, 1745-1799. Washington: Government Printing Office, 1931-1944. 39 volumes.

Ford, Paul L., ed., The Writings of Thomas Jefferson. New York: G. P. Putnam's Sons, 1892-1899. 10 volumes.

Gray, Lewis C., History of Agriculture in the Southern United States to 1860. Washington: The Carnegie Institution, 1933. 2 volumes.

Hamilton, Alexander and others, The Federalist Papers. Reprinted by The New American Library of World Literature and based on the McLean edition of 1788. New York: The New American Library of World Literature, Inc., 1961.

Hutchins, John G. B., The American Maritime Industries and Public Policy, 1789-1914; An Economic History. Cambridge: Harvard University Press, 1941.

Imlah, Albert H., Economic Elements in the Pax Britannica: Studies in British Foreign Trade in the Nineteenth Century. Cambridge: Harvard University Press, 1958.

Innes, Harold, The Cod Fisheries: The History of an International Economy. New Haven: Yale University Press, 1940.

Jensen, Merrill, The New Nation. New York: Alfred A. Knopf, Inc., 1950.

MacPherson, Annals of Commerce, Manufactures, Fisheries, and Navigation,.... London: Nichols and Son, 1805. 4 volumes.

Morison, Samuel E., The Maritime History of Massachusetts. Boston: Houghton Mifflin & Co., 1921.

Nettels, Curtis P., The Emergence of a National Economy, 1775-1815. New York: Holt, Rinehart, and Winston, 1962.

North, Douglass C., The Economic Growth of the United States, 1790-1860. Englewood Cliffs, N. J.: Prentice-Hall, 1961.

Pitkin, Timothy, A Statistical View of the Commerce of the United States of America. New Haven: Durrie and Peck, 1835.

Posthumus, N. W., Inquiry into the History of prices in Holland. Leiden: E. J. Brill, 1946.

Schumpeter, Elizabeth B., English Overseas Trade Statistics. Oxford: The Clarendon Press, 1960.

Sutherland, Stella H., Population Distribution in Colonial America. New York: Columbia University Press, 1936.

Winsor, Justin, The Memorial History of Boston, including Suffolk County, Massachusetts, 1630-1880. Boston: Ticknor, 1880-1886. 4 volumes.

Winterbotham, William, An Historical Geographical, Commercial, and Philosophical View.... New York: J. Ridgeway, 1795. 4 volumes.

ARTICLES

Bell, Herbert C., "British Commercial Policy in the West Indies, 1783-93," The English Historical Review XXXI, (1916).

Buron, Edmond, "Statistics on Franco-American Trade, 1778-1806", Journal of Economic and Business History IV, (May, 1932).

Harper, Lawrence A., "Mercantilism and the American Revolution, "The Canadian Historical Review XXIII, (1942).

Jameson, J. Franklin, Ed., "Letters of Phineas Bond, British Consul at Philadelphia to the Foreign Office of Great Britain, 1787, 1788, 1789," American Historical Association, Annual Report...1896.

Jameson, J. Franklin, Ed., "Letters of Stephen Higginson, 1783-1804," American Historical Association, Annual Report...1896.

Keith, Alice B., "Relaxations in the British Restrictions on American Trade with the British West Indies, 1783-1802", Journal of Modern History XX, (1948).

Kohlmeier, Albert L., "The Commerce between the United States and the Netherlands, 1783-1789", Studies in American History Dedicated to James Albert Woodburn, Indiana University Studies, Volume XII, Nos. 66-68. Bloomington: Indiana University Press, 1925.

Nussbaum, Frederick L., "American Tobacco and French Politics, 1781-1789," Political Science Quarterly XL, No. 4, (December, 1925).

PERIODICALS

The American Museum, or, Universal Magazine. Published by Matthew Carey in Philadelphia from 1787-1792 and bound in 10 volumes.

MICROPRINTS

Microprint material cited below is numbered as found in Charles H. Evans, American Bibliography, Chicago: Blakely Press, 1903.

#18541, Thomas Jefferson, Notes on the Establishment of a Money Unit, Annapolis, 1784.

#19385, Francis White, Philadelphia Directory, Philadelphia, 1785.

#20016, James Swann, National Arithmetick, Boston: Adams and Nourse, 1786.

#21345, Observations on the Whale Fishery, New York, 1788.

#21863, Samuel Stillman, An Oration, Delivered July 4th, 1789, Boston: Edes, 1789.

GOVERNMENT DOCUMENTS

GREAT BRITAIN

Great Britain, Board of Trade, Document 6:20, "An Account of the Value of Imports into Great Britain from the American States in the Year Ending January 5, 1789."

Great Britain, Colonial Office, Document 152:64, A letter from Horatio Nelson to Lord Sydney, dated November 17, 1785, from Nevis, British West Indies.

Great Britain, Colonial Office, Document 318:1, "A Comparative State of the trade between the West Indies, and North America, from the 1st of October, 1785, to the 1st of October, 1787; Shewing..."

UNITED STATES

U. S. Congress, Exports, Domestic and Foreign, from the American Colonies to Great Britain, from 1697 to 1789, Inclusive. Exports, Domestic, from the United States to All Countries, from 1789 to 1893, Inclusive. Compiled and Collated from Official Papers by Charles H. Evans. Senate Report No. 259, Part 2. 53rd Congress, 2nd Session. Washinton: Government Printing Office, 1894.

CURRICULUM VITA

NAME: Gordon Carl Bjork

BIRTHPLACE AND DATE: Seattle, Washington, December 15, 1935

SECONDARY EDUCATION: Franklin High School, Seattle, Washington; Dartmouth College, Hanover, New Hampshire; Oxford University, Oxford, England, University of Washington, Seattle.

DEGREES: B.A., Dartmouth, 1957
B.A. (Honours), Oxford, 1959
Ph.D., University of Washington, 1963

ACADEMIC HONORS: Daniel Webster Scholar, Dartmouth College
Rhodes Scholar, Oxford University
Fellow on the Lincoln Foundation, University of Washington
Phi Beta Kappa

PARENTAGE: Gordon E. and Florence E. Bjork, Seattle, Washington

PERSONAL: Married to Susan Jill Serman of Oxford, England, 1960
Daughter, Katharine Sara, born June 29, 1963.