

Economic Growth in the U.S. During the Antebellum Period (1780-1840)

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Immediately following the American Revolution, the American economy entered a period of uncertainty and fluctuations in its economy, with much of its data clouded and ambiguous. This period, known as the antebellum period, which is commonly viewed as being between the end of the revolution and the start of the Civil War, was defined by the beginning of the industrialization in the North, the rise of cotton in the South, and expansion in the West. However, a question that economic historians have tried to answer is was the antebellum period also a time of significant economic growth? There is a major schism between economic historians when it comes to interpreting American economic growth during this period, which lies approximately between 1780 and 1840 (Atack and Passell 9). It seems that there is consensus that during the 1820's and onward there is an economic boom which shows rapid increase in income per capita. The question, then, lies with the period before 1820-30, and if this time showed a decline in income per capita then can this entire antebellum period be considered one of significant economic growth?

First, some background to the period. There are certain undeniable events and factors that shaped the time period, and two economists, Roger Miller and Robert Sexton, published a textbook that summarizes the antebellum period in one of its chapters. To start, the antebellum got off to a rough start with the Articles of Confederation which resulted in major devaluation of currency, an absence of government taxes, and a significant decrease in net exports per capita. However, the economy turned with the Constitution and wars in Europe which resulted in an export boom (Miller and Sexton 100). In 1812, the Embargo Act reversed the export trend, but had long-term development effects on the industry of America. Finally, there were major advances to transportation, specifically in railroads and canals, and communication, specifically the telegraph, which connected the country and stimulated the economy. Therefore, from the background provided by Miller and Sexton it seems there is a consensus that at the least the economy during the antebellum period was never steady, and there were multiple periods of growth and decline. The next step to answering the question of growth is to consider the evidence found from this period by economic historians over time.

An economist named Robert Martin started the discussion in 1939 when he published a work, "National Income in the United States," that suggests from 1776-1807 there is an increase in income per capita, which is then followed by three decades of decline in capita per income (Martin 55). At this point, income per capita bottomed out and booms after 1830. Another ^{economist} historian by the name of Douglass North in 1960 had a similar theory ~~seen~~ in his published work, "The United States Balance of Payments, 1790-1860," in which there was an increase in income per capita due to the trade boom caused by wars within Europe until 1807, at which point the trade embargo imposed by President Jefferson created a pitfall for income per capita until the 1830's (North 592). However, a differing view comes from historians Marvin Towne and Wayne Rasmussen in their work, "Farm Gross Product and Gross Investment in the 19th Century," also in 1960, who argued that the major expansion into the West created a dragging effect on agricultural labor productivity, which decreased income per capita until about the 1820's. They argue for a lower income per capita level from the start of the antebellum period, and it was not until sometime in the 1820's that the level of income per capita is seen on the same level as it was in 1780, and it is only then that it increased past its previous level (Towne and Rasmussen 255).

Another view comes into play in 1960 through Walt Rostow in his book, "The Stages of Economic Growth." He had a concept he dubbed the "take-off into self-sustained growth." He attributes this growth to the expansion of railroads, and the demand for railroad inputs and increased transportation created a period of growth that starts from 1780 and explodes in the 1830's and 1840's (Rostow 26). While this theory at first seemed promising as it could explain similar growth spurts in many countries, it does not coincide with American history during the antebellum period.

It was in 1964 that economic historian George Rogers Taylor attempted to find a common ground between the two views held by previous economic historians by declaring the whole period as one of no overall growth in his essay, "American Economic Growth Before 1840: An Exploratory Essay" (Taylor 427). Similar to popular consensus, Taylor illustrates the period of 1775 to 1840 as one of great fluctuation starting during and after the revolution. According to Taylor, the GNP of the American

economy declined during the revolution, and only made a partial recovery by 1789. Due to population increase, the average per capita would then logically be found to be lower in 1789 than in 1775. Other issues found during this period of 1783 to 1789 such as disrupted agriculture, trade restrictions from Britain, currency troubles, internal unrest such as Shay's Rebellion, and problems between states led to a stunted economic growth (Taylor 438).

However, Taylor found that the Napoleonic Wars in Europe stimulated the economy after 1790, reaching a peak at 1799, and the standard level of living was likely close to that of the early 1770's (Taylor 439). Of course, this means that America had not yet grown, only reached a previous level of economics. In regards to the works of Martin, Taylor notes that work done by William Parker and Franklee Whartenby show that available statistics are inadequate to support Martin's conclusions (Taylor 440). North's theories are mentioned in that he believes there is an initial rise in income per capita, followed by a downward trend. Also, Taylor discusses the findings by Towne and Rasmussen that show little in the way of a rising income per capita at any period from either a rising agricultural productivity in the South agricultural development in the North (Taylor 440). By his own estimate, Taylor figures that the average level of living found in the first decade of the nineteenth century was not again to be seen until the 1830's. Embargos, non-intercourse acts, and the War of 1812 led to significantly decreased living standards, Taylor remarks. There is a slow growth in the 1820's due to advances in technology and urbanization, which gives way to rapid development in the 1830's. However, as his initial hypothesis stated, the standard of living only reaches what it had been in 1775 and again in 1799. Therefore, the entire period constituted little to no significant growth, according to Taylor (Taylor 444).

The next theories come from Robert Gallman in his published work, "Economic Growth and Structural Change in the Long Nineteenth Century" published in 1966 (Gallman 1). Gallman depicted growth through changes in aggregate output which included national and domestic product. For the case in question, Gallman chose national product (GNP) as the more appropriate measurement. In general, Gallman believed there to be significant growth shown in the twenty to thirty years before the Civil War,

as he attributed this to the beginning of industrialization, westward movement, and immigration of European immigrants (Gallman 9). Gallman's data are used in the figures in the Data Appendix, and as seen in Figure 1 in the Data Appendix, there is a consistent average growth of GNP of about four percent with some variation. Such growth every decade is quite remarkable growth, and while the rate of change does not increase it still shows positive growth. However, Figure 2 in the Data Appendix shows consistently less growth in GNP per capita. This could imply population increase was greater than productivity increase, and population increase could be seen as growth, but it could also be as a result of the fact much of the population was enslaved.

Also, Gallman discussed the factor inputs and productivity of this period in order to assess growth. It was shown by Gallman that labor had a small contribution on the growth of GNP per capita with about eight percent. Land had a negative contribution on GNP growth with a negative one percent. However, capital had the largest effect on GNP with a positive thirty two percent (Gallman 23). Therefore, it was determined that capital had the largest change in factor inputs during this period, which would coincide with the industrialization that Gallman believed allowed for significant GNP growth. Also, it is shown that productivity was up which greatly affected GNP growth.

Gallman had just a few more notes on the well-being of the United States during this period. First, GNP may not be a complete picture, and net national product (NNP) should be considered. NNP is found by reducing GNP by the amount of investments required to keep production continuing. During this period, NNP grew at a slower rate than GNP due to the capital costs of modernization and the call for new forms of capital (Gallman 24). Also, Gallman had data on heights of males as well, and also found that around 1830 the average heights of males started to decline (Gallman 37). He, too, recognized the connection between height and nutritional diet, and the connection diet and real income have. The decrease in heights could have had many causes including disease or problems with public health, both certainly characteristics of a lowering standard of living. However, because much of this seen after the period in question it is difficult to say if this trend was due to economic actions taken in the antebellum

period or merely coincidental. Overall, Gallman believed this period to be of significant growth using the constraints he set for GNP and increases in factor inputs and productivity.

Then in 1967, Paul David attempted in his article, "The Growth of Real Production in the United States before 1840: New Evidence, Controlled Conjectures," to explain his theory of growth during 1800 and 1840 using a "hard data" and carefully constructed assumptions method. Due to differences in the decennial census taken in the years between 1800 and 1840, much of the data and hypothesis by economic historians has been conjecture as the data may be incomplete. For example, it was not until 1840 that the census collected data on agriculture, the dominant economic activity for the age, and so it was the first census to give a comprehensive view of the United States and its economic activities (David 151). Therefore, there is a gap in comprehensive knowledge from before 1840, and Paul David attempted to fill this gap not through estimating absolute GNP levels, but rather through relative levels and rates of change.

Specifically, David theorized three separate episodes of growth during the antebellum period (David 152). The first was seen from 1790 to the opening years of the nineteenth century. This period coincided with the growth of foreign trade shown by Douglass North, and David hypothesized that per capita income grew at about 1.6 percent per year until the trade embargo of 1807. Then, David believed there was a second growth period extending from the 1820's into the 1830's with a per capita growth of about 2.5 percent. Finally, the third period was seen on the precipice of the Civil War during the 1840's where growth was 2.1 percent, and slowed in the last few years before the Civil War. Also, according to David this period showed much development in the manufacturing sector, as there is a noticeable shift out of agriculture. Therefore, Paul David saw the antebellum period as one of significant growth (David 197)

The next step in the evolution of the question was from economic historian Diane Lindstrom who published "American Economic Growth before 1840: New Evidence and New Directions" in 1979 (Lindstrom 289). Lindstrom discussed the views of her predecessors such as Paul David and George Rogers Taylor, but where her theories differ is instead of simply answering how much growth there was

she looked to answer why there was growth, if there was indeed significant growth (Lindstrom 290). To answer this, she explored the growth patterns of Pennsylvania, and used what she found to try and expand it to a national basis. What she found was an increase in specialization and increased regional trade that occurred due to a sudden discovery of coal and new open iron areas (Lindstrom 297). From this, a large increase in labor and capital flew into Pennsylvania, and development occurred in a sparsely developed area. Also, she found that there was a reorientation of trade as foreign trade had diminished in the 1820's and 30's. This had an effect on domestic trade as well, as foreign goods could not be re-exported to other domestic areas such as the South (Lindstrom 298). Therefore, interregional trade increased, and in Pennsylvania's case the East was important in this trade.

Even though it seems that Pennsylvania grew during the antebellum period, or at least during the end of it, Lindstrom concluded that Pennsylvania's growth did not mirror the growth of the nation as a whole. However, the regional growth closer resembled the nation. Trend acceleration was the pattern in the United States during the period, and there was an increase in capita per man-hour of about .77 percent per year from 1800-1835 and about 1.6 percent in the years before the Civil War (Lindstrom 300). Therefore, the regional growth found near Pennsylvania could be extrapolated to the nation, and thus there may have been significant growth according to Lindstrom.

There are other ways to measure economic growth, as shown by Robert Fogel in 1986 when he published his results on aspects of the citizens of the United States such as height and life expectancy using biometric data titled "Nutrition and the Decline in Mortality since 1700: Some Preliminary Findings" (Fogel 441). This data gave an insight to some aspects of the standard of living of those who lived in antebellum America. First, Fogel discovered a significant decrease in the life expectancy of American-born white males. The average life expectancy peaked at around 1780, then steadily declined till it reached a low point somewhere around 1850 (Fogel 452). This could have indicated a decrease in the standard of living, which usually is seen during periods of little to no economic growth.

However, Fogel also notes that average height for American-born white males had actually been mostly consistent during the antebellum period, and only started to decline sharply after 1840 (Fogel 520). Height is strongly tied to the standard of living, as taller citizens usually indicates healthier diets, and the ability to have healthier diets can be connected to higher wages and income. Therefore, Fogel's data on heights could show that American citizens were not struggling economically during the antebellum period, but this does not necessarily indicate that there was significant growth during this period. This is especially hard to argue since immediately after this period there is a sharp decline in heights that is not reversed until about 1900.

Finally, a recent article, "American Incomes Before and After the Revolution," was written in 2013 by two economic historians, Peter Lindert and Jeffrey Williamson. This article is relevant to the issue as it revealed data on American incomes after the American Revolution. Also, Lindert and Williamson explored the inequalities of wealth among regions in the United States, especially in the North and the South. However, their data gives the picture that fluctuations in real income per capita affected the nation as a whole. According to Lindert and Williamson, the time period immediately after the revolution to the start of the nineteenth century was one of a significant drop in real income per capita, estimated at a decline of about 20 percent (Lindert and Williamson 741). Specifically, from 1774 to 1800 the per annum growth in real income per capita for the regions of New England, the Middle Atlantic, the South Atlantic, and all three regions together were respectively -.33 percent, -.27 percent, -1.35 percent, and -.86 percent. Although, from 1800 to 1840 Lindert and Williamson reveal a growth period in real income per capita of equal if not greater measure than the decline in the previous period. Using the regions from before, the growth rates for each region were 2.44 percent, 1.77 percent, 0.69 percent, and 1.56 percent. From this data, a long-term growth trend can be calculated, giving us growth from 1774 to 1840 in the major regions of the United States to have been 1.34 percent, 0.96 percent, 0.12 percent, and 0.60 percent per annum in total (Lindert and Williamson 750). This total growth is modest, but at the least would not signify a period of little to no growth as is debated.

In conclusion, all the theories of the economic historians must be analyzed to see where the consensus lies. Certainly, there were patterns during this period that are inarguable amongst any economic historian. For example, the decade after the revolution was met with depression under the Articles of Confederation. Then, the following decade was characterized by a trade boom that revitalized the economy. Next, the War of 1812 and the Embargo Act of 1807 ground exports to a halt, and the economy took another decline. However, this then led to the industrialization of America, which had positive effects on the economy in the years ahead. Where economists differ it seems is whether or not these givens when taken as a whole indicate significant or no economic growth. However, given the most recent research done and the majority of the economic historians presented here it seems the consensus is that this period did show significant growth. While this probably will not ever be in total agreement with all economic historians, this is the majority answer that has presented itself during the course of this paper.

Data Appendix

Figure 1

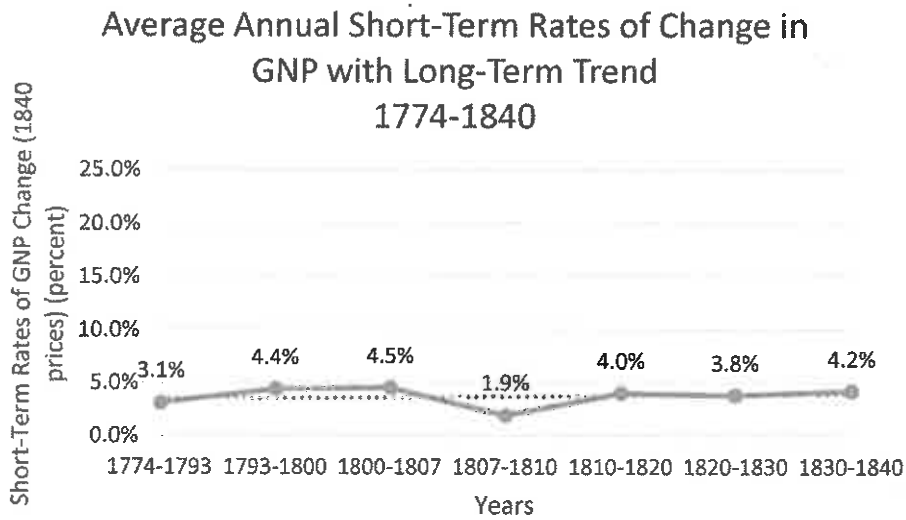
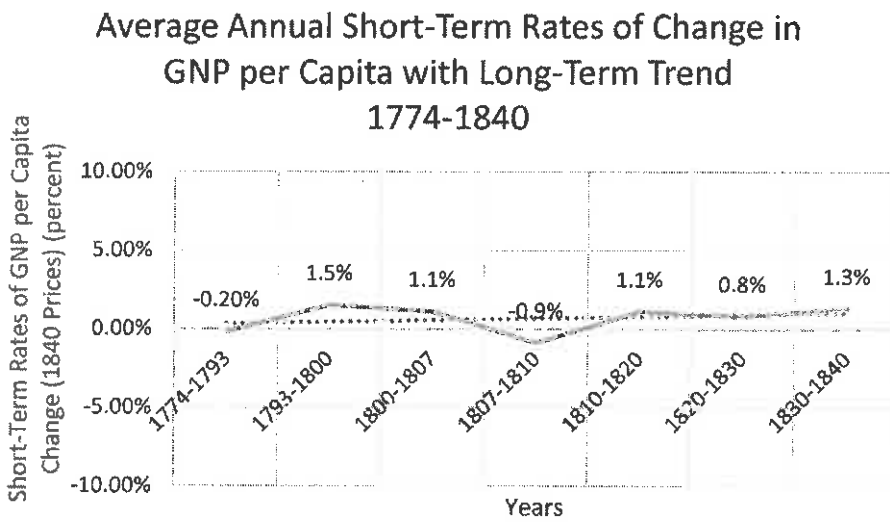


Figure 2



Data for graphs was recovered from sources:

Gallman, Robert. 2000. "Economic Growth and Structural Change in the Long Nineteenth Century." Edited by Stanley L Engerman and Robert Gallman. The Cambridge Economic History of the United States (Cambridge University Press) II: 7-8

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