Why was Sustained Economic Growth so Rare Before the Later 18th Century and Why did this Change?

Introduction

At the end of the 18th century, highly efficient iron-made machines in factories replaced laborers working in family-sized farms. Blocks of buildings sprawled out from the urban center entangled with the narrow cobblestone roads and engulfed by myriad people. Everything changed in such a short period of time. Yet not every time period has that dramatic advancement, in fact, it is only after the 18th century that the economic growth became steady and sustainable.

How can we define sustained economic growth? Overall it can be summarized by two factors, the increased total production of industry, the material foundation of economic development, and the efficiency of economic structure (Roser, "What Is Economic Growth?"). For example, the British underwent the Industrial Revolution and the glorious rise of the British Empire. Along with these, the economic growth in Britain was substantial. The total economic output in Britain grew slowly before the start of the 18th century, only fluctuated and it never exceeded more than 10 billion. However, since the end of the 18th century, it rocketed up exponentially increasing from about 10 billion to 100 billion in 1900 and to 1.6 trillion in 2016 ("Gross Domestic Product (GDP) in England," n.d.). Because of the slave trade and the exploitation of colonies, the British Empire is able to expand its market and resources. Meanwhile, supported by scholars like Adam Smith, the British government gradually slid toward a free market, believing that the self-regulating market would ultimately approach equilibrium without any government intervention and therefore maximize the utilization of resources.

To visualize this, I employ the famous cake theory, a metaphor that illustrates economic growth and a fair share of production and income. In the cake theory, distributing a fair amount of cake, in other words, income, provides incentive, and dividing the cake without waste indicates the efficiency of an economic system. If we imagine the resources in society as a huge cake, advancement in technology and increasing output push the boundary of the cake forward with extensive economic growth. On the other hand, the advancement in government policies, and economic systems optimizes the distribution of resources, i.e. cutting the cake. Overall, these two factors were the main reasons for sustainable economic growth and are significant in understanding the route of economic progression.

But what makes the 18th century a turning point? The essence of economic growth is determined by a surplus of production and the distribution of products, which in other words, is the famous cake theory, that scientists are striving to expand the amount of cake and politicians are striving to distribute the cake for each country or organization. If there are things distinct about the 18th century's economics, then the two factors, science and politics are possibly involved in the process. Did any of the factors change drastically in the 18th century particularly that helped society get rid of the fluctuation in economics?

Technological Advancement

Since the 18th century, the British traditional handicraft industry no longer fulfilled the need for high consumption. Due to the improvement in labor and land productivity, there was an unprecedented increase in agricultural production in the UK. From the 18th century, until 1770, the growth rate of agricultural output in the UK consistently exceeded the growth rate of population. Meanwhile, the carefree environment creates chances for people to be free from their positions move into vacant spots in cities, and use spare energy and time pursuing technological advancement. These advancements spurred the development of factories. The Industrial Revolution was bred under these conditions, and it rapidly spread through countries in Western Europe.

Beginning with Francis Bacon, knowledge, or in other words, natural philosophy was brought down from the metaphysical and Athenian college and applied to practical technological problems. This accompanied the spread of academic institutions. Then, the Enlightenment pushed the application of knowledge to a new high in the 17th and 18th centuries, and school and academic journals made education and knowledge more accessible. Before 1700, the sum of journals was no larger than 100 yet soon after the 1750s, the total number of published journals grew to more than 1500, mostly medicine and science, then technology. Although only a very few elites obtained the full extent of knowledge, the inventions of machines and new agricultural practices still had a great impact on workers and farmers.

For instance, the Newcomen atmospheric engine invented in 1712 was inspired and reviewed in the Philosophical Transactions of the Royal Society, a scientific institution established during the Enlightenment (From Hero to Newcomen.). The Newcomen engine refined the old Watt engine and contributed greatly to the mining industry in the 18th century. Changes to the pumping structure of the engine are necessarily required. At the same time, the Newcomen engine and the Watt engine were products of the Industrial Revolution. As a result of these new machines, the total output from mines increased.

Undoubtedly, the Industrial Revolution contributed to the economic growth of Western society. But what makes it so distinct and vital? Why did it happen in the 18th century particularly? Apart from the leap of technological advancements, an improved and competent economic system was also essential to economic advancement. The 18th century, along with the decline of mercantilism and the rise of Adam Smith. With that came capitalism which triggered a booming economy. During the long era in the 17th and 18th centuries, economic policies were dominated by colonialism and mercantilism. Most European countries developed colonies overseas and stressed trading and nationalism-based economies. Yet, even though Colonialism and trading allowed European countries to accumulate new resources and set up the foundation for future capitalism, the high proportion of government intervention created a monopolized and stagnant market. According to Adam Smith, the monopoly increases poverty as governments make large profits at the expense of worker wages. In this environment, the government raised prices and abused labor

Apart from the well-known events in Western European countries or America, the abolition of serfdom, also known as Emancipation reform in the Russian Empire is another great example of the importance of economic policy. Impacted by the rise of French capitalism, the Russian Emancipation Manifesto all serfs to possess private estates. The first stage of abolition freed the obliged serfs from their landlords and the second stage of land reform. Before then, about 38% of the Russian population comprised serfs, who served to their landlords (Pipes, Russia Under the Old Regime). The free peasants could either become farmers or move to the city. This expanded the labor market. On top of that, at the beginning of the 19th century, Russia discarded the traditional feudalism and landowner model and so that small enterprises could be established and incorporated into the open market. For example, Moscow and St. Petersburg Textile Mills, a burgeoning new enterprise at the end of the 18th century, operated numerous textile plants and provided Russia with more than forty percent of its textile and cotton production. This company played a very important role in the Russian manufacturing industry and economic activity (Hudson, “Free Enterprise and the State in Eighteenth-Century Russia.”).

Other than Russia, in the Far East, Japan also experienced economic growth during the middle of the 19th century, benefiting from the open market. Before the invasion of Western powers, Japan followed the national seclusion policy, the Sakoku, and conducted the feudal system and natural economy, there were mostly small-scale economies that produced and consumed inside the system rather than trading in the open market. Yet because of the land reclamation policy and agricultural improvements like the irrigation system and diversified crops, there's a dramatic growth in total production. (A Companion to Japanese History | Wiley Online Books.). Then in the 19th century, Japan surprisingly formed its capitalism before the colonial period. During the early 19th century, feudalism, along with the Tokugawa Shogunate, declined and capitalism emerged gradually. The industry that was most impacted is fishery, an industry related closely to the residents' daily lives. The fishery expanded rapidly between 1870 to 1900 and grew into a large-scale organization. Since the large organizations made greater production and lower prices, with the most advanced technology, such as the mechanics of transforming large shoals of fish into large bales of fertilizer remained remarkably constant, they replaced the small-scale family economy and satisfied the increasingly growing need for people. Howell, "Proto-Industrial Origins of Japanese Capitalism." Benefited by capitalism and advanced industry, the gross domestic product grew from 41.6 million in the 1600s to 106.9 million in 1800 (A Companion to Japanese History | Wiley Online Books.). Then followed a series of events in the 19th and 20th centuries, such as the Meiji Restoration in 1868 and industrialization in the 19th century, which made Japan grow closer and closer to a developed country, which Japan achieved later on.

Conclusion

In conclusion, The 18th century marked a pivotal period of economic transformation, characterized by substantial growth and the establishment of a more sustainable economic system. The increased production and the Understanding of this historical phenomenon not only shed light on past economic progress but also offer valuable insights for contemporary economic policy and development strategies.

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