

# Research on the beneficial effects of WWII on US economy

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**Abstract:** WWII is widely known as a war which “saved” the US economy. However, how it reached this goal was in great controversy. This research focuses on the effects WWII have on the US economy and figures out how those effects were able to benefit the US economy. The conclusion drawn from the work is that WWII benefited the US economy through gradually changes its industrial transformation by supporting the firms that holds the techniques vital for modern US economy structure. This work points out how a war can promote the develop of economy and builds up the base for further researches on methods that promotes the development of economy.

**Keywords:** The Second World War, US economy, The Great Depression, The Lend-Lease Act, unemployment rate, industrial transformation

## 1. Introduction

The American economy has experienced a boost in the 1940s, as shown in the increasing GDP and decreasing unemployment rate through this time period. It is widely known that United States’ participation in the second world war has largely stimulated its economy, however, it has long been a mystery how the lead to the significant increase. This research figures out the reasons behind the economic boost of America after the second world war through finding and analyzing newspapers and photos from that time and considering views of historians published on this topic. In this work, it is analyzed how “wartime prosperity” lasts long and provides possibilities to promote the development an economy from a depression.

## 2. United States’ pre-war economy

The US economy in the 1930s was fulfilled with depression and disorder. This is largely due to the smash in the stock market in 1929 and the depression kept on having a negative influence on the developing trend of American economy. From the graph in Fred Economic Data [1] it is shown a sudden growth in the unemployment rate from 1930 to 1933, which is just after the big crash in 1929, that shows it led the US economy to remain at a low level in the long run at that time period. The influence of the smash in the long run is obvious: figure 1 and 2 shows people sleeping on the street and children with shabby costumes in the photos taken during the great depression from 1930 to 1946[2].



*Figure 1. Families sleeping in open ground [2]*



Figure 2. Man sleeping outside because of unemployment [2]

Such phenomena are also shown in newspapers during that period, as the Oct. 30<sup>th</sup>, 1929 Los Angeles Times wrote, “MANY BILLIONS GO IN LIMBO”[3], as it shows how the drastic change in the US economy made people’s money disappear in the stock market therefore they have to suffer from low standard of living.

The condition continues during a lasting time period which is known as “The Great Depression”. President Roosevelt took the place in 1933, slowed down the decline of American economy to some extent, and his policies kept the US economy steady for several years as shown in the economic data from FRED [4]. However, there then appears a sudden fall in the National Income line around 1937, which indicates that the economy falls again at this point.

Considering the depressed domestic economy and the terrible living standard, some Americans started to argue that the United States needs a war to stimulate its market operation and to create a boost in demand. This part can be seen in *The Morning Call* on Nov. 30<sup>th</sup>, 1939[5]. Although this article argues against the voice that the US needs a war for its economy recovering, it still provides evidence that during this period some Americans are calling for a war to solve the economic problems. Simultaneously the whole Europe was fighting the second world war, and they bought weapons from America — a neutral nation at that time — in order to enhance their combat abilities. For this reason, probably, a gradual increase is demonstrated in the economic data shown in the FRED line graph.

There are several reasons for the “Great Depression” appeared during the 1930s and 1940s in the United States. The best-known one is the smash mentioned in previous paragraphs, yet it is not the substantial reason — it acts more likely as the last straw for a serious of potential economic issues which had been existed in the economy system for many years. These include the extreme discrepancy of wealth between different hierarchies, the overload in terms of credit consumption, the inconsistency between the stock and the actual market condition, etc. Such factors almost destroyed the US economy in the pre-war phase, leaving a number of problems to solve and actually made America unsuitable for participating in a war at that time — as universally known, the whole United States has been focusing on its domestic economy situation and keeping away from WWII happening in Europe and the Asia-Pacific areas. Therefore, America’s participation in the war must have had changed several crucial factors in its economy system, and those changes have left long-lasting influences to the US market and industry, since its economy, shown from the FRED dataset, began to recover quickly after joining the war and finally flourished again in the 1970s and 1980s. The question is, what had the war modified and how it was able to change those ones?

### 3. Section II: US economy during WWII

It is widely known that the United States joined in the second world war after the attack on Pearl Harbor in 1941, however, many people do not know that the US had sold a huge number of weapons while it was participating in the war. Since it began to do so in the early stage of WWII, the domestic economic structure was facing a drastic, lasting change.

The US economy change in the short run during the second world war is largely due to the demand increase for resources and products for the war. This is partially because of the consumption of the USA’s own army, as shown in the newspaper *Honolulu Star-Bulletin*, in a report of the midway battle [6]. From this report it is shown that the battle was long-lasting, and its cost was high including large-scale of casualty and the loss of weapons, such as battleships and planes. In order to fill such blank, many

American companies started to produce weapons therefore the war saved those producers in a sense. This is shown in the FRED graph for the statistics of the manufacturing corporations in the US from 1916 to 1940 in the FRED's dataset [7]. The graph shows the significant drop in 1932 due to Hoover's policies, however, the number of those firms and producers then showed a sudden rise in 1941 which indicates that the event America joined in the war (the midway battle) had boosted its domestic manufacturing industry.

The question is, in detail, how was those firms able to boost with the continuing of the war? It is better if Boeing is taken as a representative of those US companies which flourished during the period when America participated in the battles in WWII. Before attending the second world war, Boeing was just a small plane manufacturer with limited capital and techniques that are not eye-catching. When searching for the history of Boeing, even the whole US aviation history, it is obvious that before the second world war there was little action in this area: Boeing was known by few people, had a small-scale manufacturing mode, and most US citizens chose to travel by train or by car instead of by airplane. Figure 3 describes what Boeing looked like in its early stage:



Figure 3. Small factory, small plane, and a small number of consumers. [2]

Boeing kept developing its business in this mode for almost 25 years, until when the Japanese suddenly attacked the Pearl Harbor. Because the US Air Force needed large numbers of battleplanes for the war, Boeing, accompanied by McDonald Douglas and Lockheed Martin, soon transformed into large-scale producers of bombers and fighter planes, with the financial support from the federal government. Through this process, Boeing gradually accumulated its capital for further development in civil aviation and invented novel techniques which enabled it to produce jet aircrafts in its later stage in development. Figure 4 and 5 show how Boeing's business expanded during WWII under the country's demand for battle planes:



Figure 4. Boeing's large-scale production line for B-17 in 1945, which was the main supply for the US Air Force. [2]



Figure 5. The production of the B-29 bomber in Boeing's expanded factory. [2]

From those pictures above, it is shown that Boeing gained a new mode of massive production which is vital for its prosperity in the soon-coming decades. Thanks to the boost of demand of the country, Boeing successfully survived through the Great Depression started in 1929 and got contacted with methods that manages large-scale production, which is a common type of production for most huge firms in the American economy in later periods. It can be concluded from the works that the company managed to complete its transform process with the demand boost generated by WWII and had largely benefited from the US "war time prosperity" ----- the increase in demand and the decrease in unemployment rate during the second world war.

However, such changes in the US industry were not the primary cause for the rise of the economy during WWII. Without government supporting, it is almost impossible for any company to achieve drastic transformations like Boeing experienced. On Mar 11, 1941, the US government signed a document which is known as the "Lend-Lease Act." [8] In this act, the United States was supposed to offer weapons and other necessary resources to the other 38 countries against Fascist, including France, the UK, and the Republic of China. It was this act which enabled America to export its industrial products, therefore provoked the its domestic economy, as this directly increased the demand for US companies significantly. If WWII had never happened, American government would never have an opportunity to save its economy form the Great Depression in such a short period of time. Figure 6 to 8 are photos and posters related to this act:

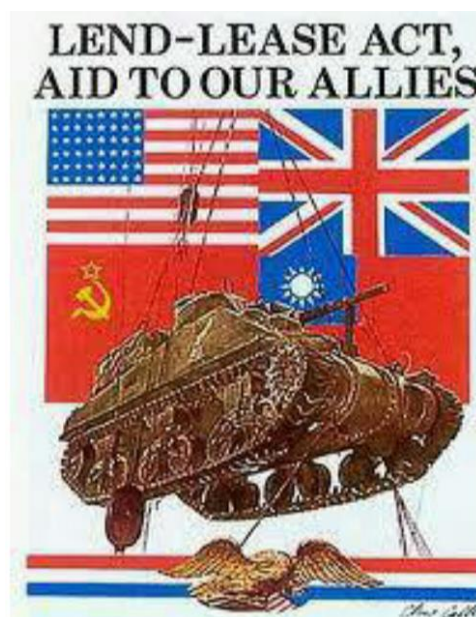


Figure 6. Poster painted refers to the Lend-Lease Act [8]



Figure 7. Another Poster painted refers to the Lend-Lease Act [8]



Figure 8. President Roosevelt signing the Lend-Lease Act [8]

#### 4. The long-lasting changes in US economy due to WWII

Beyond the change in the short run in specific firms, the second world war had also imposed a deep impact on the structure of American manufacturing industry. The US has long been adapted to a colony economy based on the exploitation of raw materials, as stated in the book *The American West Transformed: The Impact of the Second World War* [9]. Although this book focuses mostly on the transformation of the industry and economy structure in western America, it can be used as a reflection of the US economy as a whole as businesses throughout the country have experienced similar changes since American participated in WWII.

The economy structure of the USA had transformed from the previous pattern to a diversified one



including large proportion of industrial and technology component. As the author describes, the American western economy did follow this path completely in the change during WWII, however, other parts' economy had also followed similar paths, it was just different in terms of what things they produced. As western followed a traditional way which manufactured primary products based on local natural resources ----- as what people do in colonies ----- the essence of this economic structure is to produce things with low technical content in small scale, other parts did the same but focused on more complex ones such as aircrafts or machines. Most of those firms produced in small scale, and the whole process producing those products have little unique techniques and did not encourage innovations.

The whole thing changed suddenly once the US joined in WWII, and its long-lasting influence can be seen obviously. Boeing is again taken as an example here. As shown in the pictures in section two, Boeing only owned a small factory and produced limited quantity of planes in a certain time period. However, during the war it enlarges its scale and began to adapt massive production and tried to invent new techniques since the US needed to win the Fascists and they need to have technology that their enemy didn't have. Therefore, Boeing successfully transformed into a company with industrial and technology component.

Thanks to the transformation WWII brought to the American industry, the US economy survived through the Great Depression and rose up again after transformed into a mode that best suits the modern world. This transformation provided a long-lasting impact on the US economy, which can be seen from the FRED dataset [10], that the GDP, number of companies and other data related with economy development all rose significantly for several decades.

## 5. Conclusion

In conclusion, the boost that US economy has experienced is largely due to American's participation in the Second World War. Through its economy in the pre-war period, during the war and its long-lasting changes, we can figure out that the US economy actually gained novel technology, a demand boost and a vital transformation during the Second World War, which make it become more suitable for flourishing in the modern economy system. This work focuses on information from photos, newspapers and reliable datasets, which adds authenticity for itself and makes the conclusion more accurate. This research analyzes the process an economy reaches prosperity through taking advantage of the effect that a war imposes on it. Further researches can be focused on feasible solutions for economies in depression, making use of the experience of the US economy during and after WWII.

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