Wirtschaftswunder: A Study into the Causes and Catalysts of the German Economic Miracle

Nate Hodder

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Edward Moore, Ph.D.
Thesis Chair

____
Brian Satterlee, Ph.D.
Committee Member

____
Professor Donna Davis,
Committee Member

____
Mark Ray Schmidt, Ph.D.
Assistant Honors Director

____
Date

Abstract

The purpose of this paper is to analyze the West German economy to find the reason for "Wirtschaftswunder," the German economic miracle, and contrast the decisions made after WWII to those made after WWI. The approaches of foreign powers in these periods are also analyzed. After WWI, the subsequent hyperinflation and economic collapse is mainly found to be a result of poor economic decisions within German institutions, although the collapse was almost certainly supplemented by poor foreign policy decisions by the Allied Powers. Wirtschaftswunder was made possible by Ludwig Erhard's reforms, which are found to have been much more important to West Germany's success and successful denazification than the Marshall Plan. The best plan for economic recovery for Germany was one of least economic interference. In the years immediately following WWII, the Allied Powers were extremely influential in governmental institutions, but this was only to help stabilize the devastated country for a short period of time after the war and help rebuild its political institutions so it could return to self-governance. West Germany's economy was allowed to grow, unhindered by large reparations payments, catching up to its productivity capacity that was never truly eliminated by Allied bombing during the war.

Keywords: Wirtschaftswunder, Allies, Ludwig Erhard, Marshall Plan, West Germany

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Introduction

The West German economic miracle, known as Wirtschaftswunder, was a complete economic transformation that took place after World War II had finally come to its conclusion. After WWII, much of Europe was in shambles. Many countries were quite simply devastated, both in terms of economic stability and infrastructure, most notably Poland. Germany had committed atrocities during the war previously unmatched in terms of scale and vulgarity in the modern era. Despite this, during the 1950s, Germany found itself as one of the world's leading economic industrial powers, with quite favorable quality of life, employment rates, economic stability, and median income. This could not be more different from its post-WWI years, when the economy experienced complete economic failure and one of the worst instances of hyperinflation in modern-day history.

In this thesis, several important questions will be addressed. The West German economic recovery will be analyzed from several different angles and the post-WWI German economic failure will be extensively studied to find the reasons for its collapse. The treaties will also be investigated, showing how the Yalta and Potsdam Conferences and the Marshall Plan aided West German recovery and also how Germany was essentially failed by the Treaty of Versailles. In doing so, the questions of the extent to which Germany's post-WWI hardships were self-inflicted and the extent to which the Treaty of Versailles can be blamed will be subsequently addressed. The main mistakes made both internally and externally after WWI will be analyzed to show how Germany and the foreign powers imposing reparations on it learned from their mistakes, along with the pivotal actions and plans that made the West German economy so successful.

Research into this period of time has major modern-day applicability for economic recovery. It is unrealistic to believe another war of a similar scale and with a similar outcome cannot happen, and as a result, world economies, cities, and entire nations may need to be rebuilt from scratch. To understand Wirtschaftswunder is to understand how to successfully and safely repair a nation in order to alleviate the pain and suffering of its citizens and return the region to stability, something that the world will very likely need to do in the near future. The goal of humanity ought to be maintaining peace and therefore promoting economic stability and recovery, both of which are absolutely essential to sustained peace.

Initial Contrast

The post WWII West German economic success was a stark contrast to the post WWI German economic failure. The total military casualty count of WWII has been best estimated at 34.5 million, but at the time, there was no truly effective way to measure the extremely high civilian casualties and PTSD had not yet been discovered and therefore could not be included in the casualty count. As a result, the true casualty count estimates vary greatly (US War Department, 1957). When WWI ended, the victorious Allied Powers imposed significant reparations payments and treaties on the Central Powers, who had already lost significant portions of their populations due to the war. The Big Four (The United States, Italy, France, and Great Britain) determined that Germany, as the chief instigator of the conflict, should pay and forfeit the most. Therefore, the terms of the Treaty of Versailles were extremely harsh, forcing Germany to give up large portions of land (roughly 13%), demilitarization of the Rhineland, significant lowering in the number of Germany's military forces, a particularly demoralizing "War Guilt Clause" (stating that Germany would accept complete and sole responsibility for the start of WWII), and pay reparations for the full cost of all damages caused during the course of the war (United States Holocaust Memorial Museum, 2018). In the years following WWI, the German economy failed in a catastrophic fashion for several reasons that will be addressed.

In the 1950s, Germany rebounded economically both in terms of magnitude and timeliness in ways that could never been predicted. While the 1920s were characterized by staggering unemployment, crippling depression, unprecedented hyperinflation, and starvation, the 1950s contained what can only be described as an industrial miracle. Germany rebuilt with blitzkrieg-like speed, establishing itself once again as a leading economic power in years instead of decades. This can be attributed to the completely different approach that both West Germany and the victorious Allied Powers took to recovery after WWII, which resulted in economic stability and an extended period of peace.

Germany Directly After WWI

The new German government (The Weimer Republic) that came after Kaiser Wilhelm III had fled to exile, which was in charge of representing Germany at the post WWI peace conferences, was at a crossroads on whether to fully and publically accept the War Guilt Clause or not. They "feared that Germany's alleged responsibility for the war would cause the Allies to broaden the relatively restrictive meaning of the term 'reparations'… and serve as the basis for unlimited reparation claims" (Boemeke, Feldman, & Glaser, 1998, p. 48). While the War Guilt Clause would be imposed on them regardless, choosing to not accept full responsibility for WWI could possibly soften negotiations, making it more possible for the Fourteen Points to be imposed instead of harsher treaties (even though, as seen, this would not be the case). This was an extremely problematic stance for both the peace negotiation process and Germany as a whole. “In refusing to acknowledge Germany’s “war guilt,” the new German government implicitly exonerated the old monarchical order” (Boemeke, Feldman, & Glaser, 1998, p. 48). This invalidated Germany’s early claim of a new democratic nation that had separated itself from the old regime, leaving Germany without a true and established identity. It had not fully dissociated itself from Kaiser Wilhelm’s Germany due to worries that it would invalidate the current new Weimer Republic government’s claim to rule and, in giving a confession of guilt, provide more ammunition for the Allied powers to make the reparations payments even more severe (Boemeke, Feldman, & Glaser, 1998, p. 48). In refusing to willfully accept responsibility for the war and maintaining its innocence throughout the peace process, it was impossible for the German people to ever fully accept the harsh terms of the Treaty of Versailles. Germany were frozen; a people economically decimated by what it saw as unjust and unfair reparations payments without a clear dream or ideal (the new, democratic state) to move toward. Instead of receiving closure with the acceptance of wrongdoing, the German people were overwhelmed with a sense of anger and injustice.

The Treaty of Versailles was shown to be flawed in both a moral and legal sense, and famed British economist John Maynard Keynes’ The Economic Consequences of Peace further highlighted its abundance of flaws, most notably how impossible it would be for the German economy to recover under the conditions imposed on it by the Treaty. An open critique of the Treaty opened the door for possible revisions at a later date, but also gave the German people even more reason to feel, without a shadow of a doubt, that there was injustice. Keynes was a staunch critic of the peace conference from the start. He stated that Wilson's Fourteen Points, while maybe well intentioned, completely ignored the harsh economic realities of post-war recovery. He also stated that Versailles' harsh burdens and land cessions imposed on Germany "threatened Europe's entire financial equilibrium. Such economic strangulation also threatened to prolong needlessly European recovery from war" (Boemeke, Feldman, & Glaser, 1998, p. 191). Keynes' concerns were not solely about German recovery, but about Europe as a whole. Eliminating the purchasing and industrial capabilities of one of Europe's strongest powers would have consequences for the entire continent, which also needed to rebuilt. Instead of providing more capital for nations to rebuild, which was its so-called intention, sizeable reparations payments without a manageable payment plan actually starved Europe of purchasing power and production that it needed more at that time than ever before. The reparations payments arrived in three sets in the year 1921. The first set, the A bonds, amounted to 12 billion marks, which compiled 20% of Germany's 1913 (which was, by all accounts, an extremely productive year for the German economy). The second set, the B bonds, accounted for 38 billion marks, or 100% of the GDP for that year. The final set, the C bonds, were valued at 82 billion marks (260% of 1913 GDP), although the C bonds were, in all actuality, recognized by both sides as never actually going to be paid (Crafts & Fearon, 2013, p. 113).

A bond between Germany and the United States was formed quite early in the peace process following WWI. While the European contingent of the Big Four desired to impose the heaviest possible reparations payments on Germany, US President Woodrow Wilson initially desired a much more manageable plan for Germany that would allow for foreseeable economic recovery. Wilson's main desire for after WWI was a sustainable peace throughout Europe, led by a soon-to-be-formed League of Nations. This plan was outlined in Wilson's Fourteen Points, which was later thrown out at the peace process in favor of harsher treaty terms for Germany. While the Fourteen Points were deemed too ideological by many economists, including Keyes, Germany still recognized the effort by the United States to attempt to aid Germany in its rebuilding. This later paved the way for a strong trade and loan partnership in the 1920s between Germany and the United States in an attempt to assist in the recovery of the German economy and help it pay back its reparations debts to Europe (Boemeke, Feldman, & Glaser, 1998, p. 47).

Hyperinflation and Economic Failure within Germany

The German economic crash of 1923 had its beginnings in WWI. In 1914, at the outbreak of the war, Germany departed from the gold standard, which is not uncommon for countries at war (Graham, 1930, p. 19). In order to finance the war, instead of taxing its people higher, it borrowed large amounts with the help of the Reichsbank in the form of bonds. The treasury than began printing money at higher rates to pay back these dues; money that was no longer backed by the gold standard. As a result, "A growing percentage of government debt… found its way into the vaults of the central bank and an equivalent amount of printing press money into people's cash holdings. In short, the central bank was monetizing the growing government debt" (Sennholz, 2006). Due to wartime expenditures and necessary production, both prices and money in circulation rose steadily in Germany from 1914-1918, which is not unusual for a country during wartime. By the time that the armistice was signed, the amount of money in circulation in Germany had risen fourfold and prices increased by roughly 140% (Sennholz, 2006). While this certainly does not mean that high levels of inflation would be certain or even probable in the years following WWI (economic actions could have easily been taken to offset this), this should have been a worrying sign for the Federal Ministry of Finance in Germany. However, this was simply dismissed and largely ignored by many in the German government, as were the other signs of inflation in Germany. After the war, the German government continued to print money in order to pay expenses, workers, and make reparations payments. Germany desperately needed gold and strong foreign currency, which it did not have. In December of 1923, only five years after the war had ended, the German bank had issued an incredible total of 496.5 quintillion marks, which had diluted the German mark to 1-trillionth of its value in 1914, resulting in one of the greatest recorded instances of hyperinflation in history (Sennholz, 2006). During November of 1923, 42 billion marks were worth roughly one American cent (Graham, 1930, p. 4).

During the years preceding 1923, many in the German government did not recognize the growing danger of inflation. In the early 20s, the German Finance Minister Karl Helfferich concluded that there was in fact no inflation in Germany “since the total value in circulation, when measured in gold, was covered by the gold reserves in the Reichsbank at a much higher ratio than before the war” (Sennholz, 2006). This was further cemented by the president of the Reichsbank at the time, Rudolf Havenstein. In a pre-crash study done by the Statistical Bureau of the German Government, it was found that “there was a shortage of currency in Germany, but a great deal of inflation abroad,” stating that Germany’s financial state was under control (Sennholz, 2006). The government argued that although there was a growing amount of money issued, the real value of the currency in circulation was relatively low. This logic and reasoning gave the Germans authorization to continue printing more money to cover its expenses and pay back its debts. Directly after the war, they devoted exorbitant amounts of money for health, education, and other public expenses (money that Germany did not have) in an effort to repair the infrastructure of its country and provide jobs for its many returning soldiers. Government expenses skyrocketed, and taxes alone could never cover the expenses, as many of its citizens were already either financially struggling or impoverished as a result of the devastation that resulted from WWI. Initially, when the Weimer Republic was established in 1919 and a new Constitution was written up in 1920, there was a tax plan put into place that seemed to be quite strong; a firm tax bracket was successfully implemented along with a stronger and more centralized tax collection system. Inflation was actually stopped for a short period of time. However, when news of the actual extent of the reparations broke out, which was much larger than the German people had initially predicted, a “veritable tax boycott developed. Tax collection plummeted, the monetization of short-term government paper resumed, and inflation accelerated again” (Crafts & Fearon, 2013, p. 113). Inflation was happening faster than the rate of taxing; in fact, in the time between when the taxable transaction occurred and the date of the actual tax payment, the value of the tax was useless. Therefore, the government printed even more money at an even faster rate to combat the lack of tax revenue. From 1914 to 1923, only a meager 15% of the government's expenses were covered by taxes. In October of 1923, this number had dropped to a staggering 0.8% (Sennholz, 2006). The German government had found itself in a cycle that it was unable to escape.

Foreign Occupation of the Ruhr

Another contributing factor to economic devastation was the French and Belgian occupation of the Ruhr that began in latter part of 1922 and early 1923 (Crafts & Fearon, 2013, p. 113). This was an action unsupported by many of the Allied creditors, including the United States and Britain (Sennholz, 2006). The Ruhr was a resource rich land in western Germany with extremely high production and manufacturing potential, with many of Germany's factories and other parts of their supply chains, including several rich coal mines, located there. In the mind of the French and Belgian governments, taking full control of the Ruhr and its abundance of resources would help contribute to the unpaid reparations and help their respective economies recover (The Wiener Library for the Study of the Holocaust and Genocide, 2018). This proved to be a completely counterproductive strategy. Instead of bringing a steady supply of capital into the French and Belgian economies, this furthered hindered Germany from being able to pay off its substantial reparations debts and therefore starved the Allies of much-needed reparations. German workers refused to work under the foreign French and Belgian occupation, choosing to develop and maintain a policy of passive resistance. This was encouraged by the German government, who continued to pay the workers, even though there was zero productive output from that region. Financing the German workers in their program of passive resistance was a costly process funded mostly with discounted treasury bills

(Graham, 1930, p. 10). This led to a substantial decrease in German productivity and GDP and contributed even more to the ever-growing increase in governmental expenditures in addition to inflation.

Refusal to Accept Responsibility

A large portion of the government and scholarly contingent of Germany refused to accept responsibility for the hyperinflation and economic failure; it continued to assert that the hyperinflation that was occurring was a result of the reparations that the Treaty imposed, not because of the poor economic and fiscal decisions made by the government. The government continued contributing the current position it was in to the Allies instead of accepting internal responsibility, which contributed to the ease to which Adolf Hitler rose to power a decade later. They acted as if the position they were in was inevitable, continuing to hold to the idea that the government made the correct decisions. However, according to Hans Sennholz, a former Professor of Economics at Grove City College and President of the Foundation for Economic Education, Germany's economic errors can be almost exclusively attributed to poor internal fiscal and policy decisions made within the German government. Sennholz states that although Germany blamed the Treaty of Versailles for its economic problems, the reparations payments in and of themselves did not necessitate crippling hyperinflation. The value of money and excessive reparations payments are completely independent of each other. There will be a favorable balance of payments that will objectively occur when there is a reduction of currency in the central bank (due to the purchase of gold or other foreign exchange from the central bank to the treasury for the government), as long as the country is still moderately productive. This favorable balance of payments drops the price of goods, incentivizing other countries to purchase goods from that country, therefore introducing relatively strong foreign currency to the economy, while simultaneously discouraging imports (because of the low price of goods). “In short, there can be no shortage of gold or foreign exchange as long as the central bank refrains from inflation and monetary depreciation” (Sennholz, 2006). While this may arguably be an oversimplified model that does not take into account the full magnitude of the economic stress Germany was under at the time, the basic principle still holds true.

Havenstein also pointed to speculators at home and abroad as the reason the German financial market failed, calling it an “attack” by other countries, and many other established figures in the German economic community echoed this. This theory was introduced to the public through newspapers and other forms of media and was widely spread throughout the German public (Sennholz, 2006). Interestingly enough, speculators in Germany that were villainized by German hierarchy were actually preserving their capital and the capital of the society as a whole; the German government was the one wiping it out. There was also a “flight of capital” from Germany, which occurred when German citizens and those elsewhere invested abroad instead of Germany, recognizing correctly that the excessive printing of money was unsustainable and would result in economic failure. While Havenstein blamed foreign entities for Germany’s economic devastation, foreign governments had lost significant amounts as a result of the hyperinflation as well. “According to various authoritative estimates, foreign individuals and banks bought at least sixty billion paper marks which the Reichsbank had floated abroad at an average price of one-fourth gold mark for a paper mark. The depreciation of the mark to one-trillionth of its earlier value repudiated these foreign claims to German goods. Thus foreigners suffered losses of some fifteen billion gold marks, or some $3.5 billion US dollars, which was eight times more than Germany had paid in foreign exchange on account of reparations" (Sennholz, 2006).

External Reasons for Hyperinflation

While almost every notable scholar agrees that the fiscal decisions made during the early 1920s were the main contributors to the German economy's collapse, others point to excessive reparations and specific decisions made by the Allied powers as key contributing factors to the economic demise of the German economy. As previously stated, Keynes was one of the staunchest critics of the Treaty from the start, critiquing it for both its moral and economic qualities. Keynes correctly stated that the rest of Europe's recovery would be directly linked to Germany's recovery, and if the German economy failed due to excessive limitations and reparations placed on them by the Treaty, they would be unable to pay off their sizeable debts. This would severely limit the purchasing power and production capabilities of Germany and Europe as a whole. It is also important to make note of Germany's financial position before the reparations payments were imposed. When the strong new tax plan was instituted by the Weimer Republic in 1920, inflation was halted for a time and the economy looked as if it would recover quickly and steadily (Crafts & Fearon, 2013, p. 146). However, when the high reparation amounts were announced, inflation skyrocketed once again. More feasible reparations payments and a manageable and clear reparations payment plan could have assisted Germany in stopping its steadily rising inflation. The French and Belgian occupation of the Ruhr also should be noted as stunting the German economy. In taking over the factories and mines in the area, the occupation severely limited German productivity and output, making it even more difficult for Germany to pay back its reparations, forcing it to print more money.

Economic Recovery and Post-Hyperinflation

To combat German hyperinflation and ensure that the German economy could recover in order to pay back its reparations, the Reparation Commission met in 1923 to reevaluate Germany's reparation payments. Led by Charles G. Dawes and other representatives of the Allied Powers, the Dawes Plan was introduced in 1924. The Dawes Plan aligned Germany's reparation payments with the state of its economy; initially, the reparations payments would be very low to reflect Germany's economic state (which at this time was extremely poor). As Germany's economy began to regain strength, its reparations payments would rise in proportion to its economic prosperity. It was stated that foreign officials would supervise economic policy and decision making. France and Belgium were asked to evacuate the Ruhr in order to stimulate manufacturing and production in German industry. The biggest part of the Dawes Plan, however, was the $200 million loan from the Allies to help bolster the German economy. This plan proved to be incredibly helpful for Germany, so much so that Charles Dawes received the Nobel Peace Prize in 1925 (Office of the Historian, 2018).

Over the course of the war, the US lent over $10 billion to the European Allied powers; debts that it fully planned on recovering. The US continued to loan Germany money from 1924-1929 to help it pay back its reparation debts to the Allied powers. From the US perspective, as Germany paid back its debts to Europe, the European Allies would then be able to pay back the United States. As a result, the US invested millions into the German economy in hopes that as Germany became more stable, the US would begin to recover the $10 billion it lent to Europe during the war. Due to the stabilization and adjustment that occurred as a result of the US loans, the German economy was able to experience recovery led by large short-term loans. The Dawes Plan actually encouraged Germany to continue borrowing large amounts of strong foreign currency (Office of the Historian, 2018). With the aid and recommendations of the US, Germany began paying its reparations on credit from foreign loans, including the initially $200 million loan and subsequent US loans throughout the 20s. This later would be dubbed "the transfer problem" and would prove to be harmful for both Germany and the US.

This plan was extremely successful for German recovery until the Great Depression hit in 1929. While the German industrial production and the German economy as a whole were doing much better as a result of the Dawes Plan, there was a fatal flaw in the plan that was shown in 1929. In accepting the American loans, Germany was effectively staking its economy's future on the strength of the American economy and the influx of strong foreign currency that it was receiving as a result of the Dawes Plan (Office of the Historian, 2018). During the 20s, the American economy was extremely successful, with high levels of economic prosperity and relatively low unemployment. The housing and stock markets were both very strong as well, and the loans seemed to be a relatively safe and stable source of cash flows. Germany steadily developed an incredibly high current account deficit. However, when the US stock market failed, it began to recall the loans and stopped loaning money to Germany. Without the loans, which had been propping up the German economy for years, German businesses failed. German unemployment once again hit extremely high numbers. According to the Wiener Library for the Study of the Holocaust and Genocide, the world's oldest archive on the Nazi era, unemployment reached six million in 1932, although this number was much closer to nine million due to the fact that millions of citizens were also unemployed but were unable to register for the work force (The Wiener Library for the Study of the Holocaust and Genocide, 2018).

Adolf Hitler and the National Socialist German Workers Party took advantage of the difficult position Germany was in during the Great Depression. Unemployment was at levels never before seen in Germany during the modern era. Businesses were failing on a large scale and starvation and homelessness were serious problems for the German government. Crime was also an issue, as people resorted to drastic measures in order to survive. Due to the lack of accountability and responsibility in the Germany after WWI, these issues were considered by the greater German population to be direct and unavoidable consequences of unfair and horrific reparations imposed on them by the Allied forces. As a result, there was a deep-seeded anger and frustration in the country, coupled with intense desperation. Hitler recognized this anger and channeled it towards actual productive goals. He gave the German people an outlet in the form of a group of people to use as a real, tangible target for their frustrations. He showed a public disdain for the Treaty of Versailles, which he characterized as unjust, unfair, and corrupt, further cementing the idea that Germany was not to blame for the position they were currently in. He promised that, with the help of the German people, he would rebuild the economy and the German military. He once again gave people a sense of nationalism and a belief in a strong, proud, new German state. He promised jobs for the unemployed, food and clothing for the starving, and revenge on the people that had put Germany in this position. He later went on to start another World War, engage in widespread genocide and ethnic cleansing processes that almost eradicated an entire people group, and cause the deaths of millions of innocent men, women, and children.

Post WWI Summary and Conclusion

To summarize, there were serious errors made by both the Allied powers in the years during and following the Treaty of Versailles and the German finance department that led to hyperinflation and unemployment in Germany. On the Allied side, the Treaty of Versailles contained reparations that Germany could never have paid back, creating large amounts of debt. The payments severely restricted the possibility of economic success as the German economy suffered from unnecessary Allied interference. This debt was not accompanied by an effective payment plan and proper assistance from the Allied powers. With a realistic payment plan that mirrored German economic health, inflation may have been kept under control. After all, despite the fact that it was objectively to blame for the majority of the outbreak of WWI, Germany was itself a nation devastated by war attempting to recover. Assistance in the payment of its debts to help Germany recover and stimulate its economy would have actually allowed for the payment of more reparations and would help those other countries that desperately needed the reparations payments and Germany's industry and purchasing power in order to recover. This was displayed by the Dawes Plan which, although it was hindered by the outbreak of the Great Depression, greatly assisted the German economy and Europe as a whole from the years 1924-1929 (Office of the Historian, 2018). Had the plan been instituted directly after the war, it is entirely possible that many of the poor decisions made by the Germans could have been avoided. The occupation of the Ruhr also further hindered German economic recovery and industry and was objectively a poor decision by the Allied powers. There was also a failure to recognize, as Keynes stated, that Europe's recovery was directly related to the economy of Germany. As stated earlier, Europe desperately needed Germany's purchasing power and strong industrial potential in order to fully recover. In placing restrictions on German economy growth, all of Europe was therefore restricted as well. The German economy failed, making it much more difficult for the continent as a whole to recover.

However, although Germany was certainly not assisted by the decisions made by the Allies immediately after the war, the actual hyperinflation that caused the economy to crumble was more of a byproduct of the decisions made within the German government. The decisions made in the Treaty of Versailles did not necessitate hyperinflation, and therefore the responsibility for the German hyperinflation and economic crash lies almost solely with the German government (Sennholz, 2006). During the war, under the assumption they would win, the German government borrowed large amounts instead of raising taxes to higher rates, relying almost solely on debt to finance wartime expenditures. The amount of money in circulation also rose along with the government debt. Moving from the gold standard during the war meant that the German mark was no longer backed by gold, opening the mark up to the possibility of inflation. Germany was unable to return to it after the war due to their initial reparations payments, so although their currency was in danger of inflating, they continued printing money at an exorbitant rate rather than attempt to limit the amount of currency in circulation. The government financed large public health and infrastructure expenditures in order to create jobs without an effective tax system to finance these expenditures. Helfferich, Havenstein, and others that continued to incorrectly assert that there was no hyperinflation in Germany.

They paid workers in the Ruhr to strike with money they did not have when it was under foreign occupation (Sennholz, 2006). Another crippling error occurred after the war under the Dawes Plan, in which Germany initially recovered by staking their economic success on the success of the American economy. Instead of moving to be self-sufficient in the years before the Great Depression, they relied on the loans from the US to prop up the economy. When the stock market crashed and the US recalled the loans instead of supplying them, the German economy failed once again, experiencing extremely high levels of unemployment. Frank D. Graham, Professor of Economics at Princeton from 1921-1945, states the following about the German post-WWI financial turmoil:

> While the payments of cash reparations in 1921 undoubtedly played an important part in promoting the decline in the currency, and while the sanctions imposed on Germany in 1923 led to the ultimate collapse, this is, of course, by no means the whole story. It is true that, if a more soundly conceived and executed reparations policy had been adopted by the creditor Powers, inflation of the currency might perhaps have been stayed by the vigorous measures of reform of the public finances initiated in Germany in 1920. But inflation had none the less proceeded far before any cash reparations whatever had been paid and it was accelerated after they had been entirely suspended… it was, in many German quarters, nurtured rather than repressed (Graham, 1930, p. 10).

The Treaty of Versailles contained reparations payments that would have made economic success very difficult, but the Treaty's provisions did not necessitate economic failure. The economic failure was caused by a lack of understanding about inflation, a poor and unenforced tax plan, large amounts of debt, and a lack of strong economic reforms to stimulate production and industry. In continuing to monetize the growing government debt, Germany's currency became more and more unstable. Without a strong currency to work for, Germany's workforce and businesses became unmotivated, both to work for and sell for weak currency. Germany's productivity and production levels dropped greatly and businesses could not remain stimulated. Germany's internal monetary policy was horrific, and in continuing to print money without backing it, its currency became worthless, making it impossible to pay off its debts both to its people and to foreign powers. In recovering from WWII, Germany would have to make significant changes to its monetary policy in order to make sure that the mistakes it made were not repeated.

World War II Introduction

After World War II, Germany was in a similar position as it was post-WWI. They had been defeated in another global world war that had left an extremely high death count on both sides. Its infrastructure and several notable cities, most notably Dresden and Berlin, had suffered significant damage. Over 20% of all housing in Germany had been destroyed. Food production per capita in 1947 was just 51% of its 1938 levels. Industrial output in 1947 was merely a third of its 1938 levels and a large percentage of Germany's working-age men were killed or permanently wounded and unable to work (Henderson, 2018). The hyperinflation and economic collapse were still fresh in the minds of the German citizens after WWII, as many of them were alive to experience the full extent of the crash at that time. The problem did not just boil down to poor economic decisions, although those were certainly prevalent. There was also a cultivated and complete lack of accountability and responsibility within the German government, an incorrect perception of inflation and how it worked, an ineffective tax system, irresponsible government spending (with money it did not have), an overreliance on foreign countries and foreign currency, and an extreme amount of debt. There were also problems with the Allies, as they recognized that eliminating the purchasing power and reducing the economic stability of one of Europe's most powerful nations affected all of Europe as a whole. Destabilizing a nation also opened the door for volatility and political instability. Changes needed to be made across the board in order to make sure that the mistakes made post-WWI were not repeated.

WWII Conferences and Plans for Germany

Yalta

The Yalta Conference took place in February of 1945, when Allied Victory against Germany was all but guaranteed. Winston Churchill, Joseph Stalin, and Franklin D. Roosevelt met in the USSR to discuss how they would effectively go about ending the war with minimal casualties and what post-war actions they would take to punish Germany and rebuild Europe, but their main focus was the unconditional surrender of Germany. It was agreed that upon its surrender, Germany would be split into 4 occupational zones controlled by the US, Britain, France, and the USSR (UNC Center for European Studies, 2018). Yalta was the precursor to the longer and larger conference, Potsdam, that took place after Germany had officially surrendered, and many of the plans for Germany that were implemented after the Potsdam Conference had their beginnings at Yalta, including denazification, reparations payments, and the staffing of the German government, along with plans for rebuilding the devastated Polish state and Europe's infrastructure.

Potsdam

The Potsdam Conference officially took place from July 17th to August 2nd, 1945, after Germany had officially surrendered on May 7 (UNC Center for European Studies, 2018). While the overarching goal was achieving a period of sustained peace, the main focus of Potsdam was defining and implementing a long-term plan for Germany to promote economic stability, repay war reparations, and to make sure they would not instigate another World War in the future. The plan was fourfold, involving the decentralization, demilitarization, denazification, and democratization of Germany. It was decided that the land aggressively taken under Hitler's rule would be returned to its pre-war ownership, and a portion of Germany's land on its eastern border would be forfeited, resulting in the harsh relocation and exile of hundreds of thousands of Germans living in what would later become Czechoslovakia, Hungary, and Poland. There would also be a complete transformation of the West German economy that would starkly contrast the Treaty of Versailles and sanctions placed on Germany after WWI. In the years preceding WWII, Germany's economic success and stability could be accounted to wartime industry and heavy levels of production. Rather than eliminating much of their industrial and economic capabilities, as after WWI, it sought to transform it and maintain some sort of economic strength. Germany would move to a nation characterized by more efficient agriculture and light domestic industry (UNC Center for European Studies, 2018). West Germany was later established in May 1949. East Germany followed in October of 1949 West Germany, made up of the English, French, and American occupied zones, developed a strong capitalist democracy with a market economy. East Germany became communist under direct and centralized Soviet influence.

The Potsdam Conference necessitated a complete shift in German education, industry, economic policy, and the mindset of the German people. As a result of the unconditional surrender, as stated in the official Potsdam Conference report released to Germany, the German people would be fully and wholeheartedly convinced that their current hardships were a direct result of their own actions and the actions of the Nazi Regime (Berlin Conference of the Three Heads of Government (USSR, UK, and USA), 2008, p. 2). Germany would not be able to escape responsibility as it had attempted to do after WWI. German administrative and economic controls were implemented by the Allied powers, but only to the extent necessary to develop a balanced economy and make sure that Germany could not develop war potential. Most of the control, however, would later be given to the German people in order to further cement that they were responsible for their own economic success and prosperity or failure after World War II. There were strict restrictions placed on Germany’s wartime industries:

> In order to eliminate Germany's war potential, the production of arms, ammunition and implements of war as well as all types of aircraft and sea-going ships shall be prohibited and prevented. Production of metals, chemicals, machinery and other items that are directly necessary to a war economy shall be rigidly controlled and restricted to Germany's approved post-war peacetime needs.

(Berlin Conference of the Three Heads of Government (USSR, UK, and USA), 2008, p. 11).

However, other parts of the industry would be stimulated (those that were not necessary to war and militarization) to help make up for the reduction in wartime industries, and Allied control would only be taken as necessary to disarm, demilitarize, and collect reparations. Concrete goals were set to maximize agricultural output in the several years following the cessation of WWII in order to make sure there was enough food for the German people and the occupying forces (Berlin Conference of the Three Heads of Government (USSR, UK, and USA), 2008, p. 7). Transportation infrastructure would be repaired so citizens could work, coal production would be stimulated to offset the subsequent energy crisis (inevitable after WWII), and housing and utilities would be repaired as soon as possible. Allied economic and planning assistance would be granted to make sure that Germany maintained an adequate average living standard for its citizens that would match the average living standard of the United Kingdom and the United States.

There was also a plan set in place regarding Germany's reparations payments from WWII in addition to the existing WWI payments. The long term reparations would still be substantial, but there was a different approach taken than in the years following World War I; reparations would be collected, but only enough as to not hinder Germany from being able to function without the constant assistance of external powers. The reparations payment plans were stretched out and much more flexible than after WWI, and payments were designed to mirror the German economic conditions and strength at that time. Limits were set to assure that Germany would not be allowed to spend more than 5% of its export revenues to pay back its debt in order to assure that its economy would have the cash necessary to recover (Toussaint, 2006). Germany would be taught to be independent and self-sufficient as reasonably and practically possible. As Germany would still require imports in order to survive and stimulate the economy, the amount needed to cover the payments for these necessary imports would be provided in an assortment of forms by the Allied Powers (mainly the United Kingdom and the United States) if not able to be paid by Germany. However, the long-term goal was to reduce the reliance on imports and stimulate internal production of goods, services, and materials not essential for militarization across the 4 occupation zones. The German government and administrative agencies, on both a local and national scale, would be stabilized and engineered for success for a future democratic and peaceful nation, one day in the future disassociated with the countries that at that time had ultimate control over the occupation zones (Toussaint, 2006). They sought decentralization of governmental power across all local governmental agencies, and as a result there would be a delay in establishing a Central and ruling German government in order to build up the lower levels of the German government (except for those governmental programs that were absolutely essential for aiding German recovery at the time). Perhaps the most important task, though, was destroying the Nazi institutions that had taken control of the German people in the 30s and 40s and changing the mindset of the German population. Long-term sustained assurances were taken to make sure that the Nazi regime and mindset were unable to be revived in the future, which involved changing school criteria, changing the intense feelings of racial superiority towards minorities, and erasing Nazi ideologies from the minds of the German people.

Marshall Plan

The German economy was also assisted greatly by the Marshall Plan, which is commonly acknowledged as one of America's greatest achievements of the twentieth century (Brainard, 2007). Implemented in 1948, its goal was to assist in rebuilding Europe in the form of aid given over the course of four years as well as stopping the spread of Communism to the European countries that had been substantially weakened by the war (Office of the Historian, 2017). As shown so clearly in the years following WWI, Secretary of State George Marshall and President Truman both recognized that any recovery of Western Europe was impossible without the recovery of West Germany. As stated by historian Manfred Knapp, “America’s decision to include West Germany in the Marshall Plan was due primarily to its desire to allow Germany to make its indispensable contribution to the success of the reconstruction and the stabilization of the system of Western European industrial states” (Knapp, Stolper, & Hudson, 1981, p. 418). The Marshall Plan resulted in over $12 billion in aid distributed to Western Europe, with Germany being one of the largest recipients, taking roughly 11% of the $12 billion (Office of the Historian, 2017). This resulted in substantial foreign investment in the West German economy and allowed for the further stimulation of domestic industry and the repairing of their broken infrastructure (highways, hospitals, power lines, etc.). Other countries profited as well; between the years of 1948 and 1951, those that accepted aid experienced an estimated rise in GNP by at least 15-25%. The Marshall Plan contributed to the successful reuniting of Western Europe by fostering trade and creating economic interdependencies amongst its member nations. Secretary of State George Marshall, the engineer of the Marshall Plan, later received the Nobel Prize for peace and remains the only general in history to do so (Office of the Historian, 2017). The Marshall Plan is viewed as a turning point for American engagement abroad and its success has permanently altered American foreign policy.

West German Growth and Years Following WWII

West Germany experienced extreme economic growth in the 1950s that surpassed the economic growth of every other European nation in that time period. Between 1950 and 1959, GDP rose by roughly 8% annually. In Europe, only Austria came even remotely close to matching this growth. Living standards in West Germany doubled in that decade, and by the early 1960s, under 20 years after the war had ceased, West Germany was the largest financial and economic power in Europe (Ritschl & Eichengreen, 2009, p. 192). By 1958, industrial production was over four times the annual rate at the beginning of 1948 and industrial production per capita was over 200% higher (Henderson, 2018). This was even more incredible when compared with Germany’s post WWI struggles and economic collapse. Germany was suffering from problems after WWII similar to its state after WWI, most notably a drop in productivity and destruction of its infrastructure. However, its economic growth and efficiency could not have been more different.

Many scholars argue that the notable decline of output, productivity, and efficiency in the German economy at the end of the war and during the years immediately following was what allowed for such a rapid increase in growth simply because of post-war shock: Germany began to regain access to its full capacity and increase its productivity after the fighting had ceased, which historians Eichengreen and Ritschl argue was vastly more important than the structural changes Germany made in the years following WWII and the assistance in recovery lent by the Potsdam Conference and Marshall Plan (Ritschl & Eichengreen, 2009, p. 193). Germany experienced significant negative output shock during the end of the war and in the years immediately following it. Between the years 1944 and 1946, output in what would soon become West Germany fell annually by 38%, despite a 20% rise in West German population, making an even more severe annualized 47% decline of per capita output a truer reflection (Ritschl & Eichengreen, 2009, pp. 198-199). There was a decline in German total factor productivity (TFP) of 69% between 1944 and 1946, as opposed to a cumulative decline in British TFP of 12% (which was still considered substantial) (Ritschl & Eichengreen, 2009, p. 199). In 1948, the 3 Allied zones of occupation that would later become West Germany had a GDP of merely 64% of its 1938 level. When contrasted with the UK, where output was 13% higher than its 1938 during 1948, this becomes even more drastic. Quite simply, the larger the drop in output that a country experienced during and after WWII, the faster it grew in the years following as it regained its composure and repaired its infrastructure and its workforce productivity. The reasoning for this can oddly enough be illustrated by an analysis of Allied bombing techniques.

> Beginning in mid-1944, Allied bombing changed its tactics to maximize damage to bottleneck sectors of the German economy (see Birkenfeld 1964; Budraß 1998). Bombing now targeted electric power, synthetic fuels generation, and the railroad network. Rather than destroying productive capacity, it simply

> disrupted the supply chain—most prominently supplies of coal, which were now much harder to get from the pithead to the power station and factory (Ritschl & Eichengreen, 2009, p. 199).

German productive capacity was never truly eliminated by bombing; although key areas of the country had been destroyed and others areas taken from them after the war, there were still intact factories, fertile farmland, and industrialized cities, especially in West Germany. There were many other wartime efforts by the Allied forces to target German bottleneck sectors, showing that Germany was merely temporarily pushed off their growth path that they continued on after the war had ended. West German industrial capacity was still extremely high, estimated during 1944 to have been at over 35% higher than during 1936 (Ritschl & Eichengreen, 2009, p. 196). It was just unable to be accessed due to shortages of raw materials and energy (notably coal, which in West Germany in 1947 was at 52% of its 1938 levels). This continued into the later months of 1947. Having lower amounts for each reparations payment and an extended payment plan allowed for more money to be invested in the quick repair of German infrastructure and the bottleneck sectors that the Allies had destroyed, which when coupled by a rise in employment and worker productivity, allowed Germany to regain the output and productivity that it had momentarily lost during the end of the war and in the year immediately following its surrender. However, this is not to minimalize the German economic miracle, especially when compared to the German economy after WWI.

Despite their research, a quite legitimate and popular reason in scholarly circles for the ability of the economy to rebound so quickly boils down to monetary reforms and changes in socioeconomic institutions after WWII, supportered strongly by Mancur

Olson's model of the capture of policy by distributional coalitions (Ritschl & Eichengreen, 2009, p. 193). The German economy encouraged corporatist organizations and industry with the help of US officials as it attempted to move from a society largely dependent on peasant agriculture to non-wartime industry and more efficient and more modern large-scale agriculture. It also instituted pro-market reforms, which allowed for more free trade and businesses to flourish in a competitive environment rich in human capital and resources. This brought it economically closer to the rest of Europe, fostering trade across the globe.

The most important of these economic programs and reforms were implemented by economist Ludwig Erhard. Robert A. Peterson and David R. Henderson are two of the many scholars that attribute Ludwig Erhard's free market reforms with beginning Wirtschaftswunder and freeing the potential of the German economy. A graduate of the University of Frankfurt, Erhard was a strong advocate for free market economies, rejecting Nazism and bureaucratic state planning of the economy. He would later be appointed as Minister of Economic Affairs and Chancellor of West Germany as a result of the success of his economic programs. As director of the Office of Economic Opportunity and advisor to General Lucius D. Clay, military governor of the US zone of occupation, Erhard proposed total currency reform during 1947 that was later instituted on June 20, 1948 with the help of Allied control. "The basic idea (of the currency reform) was to substitute a much smaller number of deutschemarks (DM), the new legal currency, for reichsmarks. The money supply would thus contract substantially so that even at the controlled prices, now stated in deutschemarks, there would be fewer shortages" (Henderson, 2018). This resulted in an over 90% contraction in the money supply in an effort to control inflation. The importance of this currency reform cannot be overstated; in implementing currency reform, Erhard ensured the stability of deutschemarks and safeguarded the economy against the hyperinflation that had so recently devastated it. Erhard also eliminated all price controls and rationing regulations in an effort to de-Nazify the economy and further embrace free-market principles, which initially went against the Allied Control Authority's initial economic plan. This contributed to incentivizing the depressed German workforce and businesses (Peterson). The currency reform and elimination of price controls went hand-in-hand; "Decontrol of prices allowed buyers to transmit their demands to sellers, without a rationing system getting in the way, and the higher prices gave sellers an incentive to supply more" (Henderson, 2018). This allowed for the self-correction of inflated prices and for the market to begin to stabilize itself. In the simplest of terms, the currency reform attacked inflation and the elimination of price controls ended repression. Erhard also supported the cutting of extremely high wartime tax rates, further stimulating businesses and corporations by putting more money in the pockets of the German people.

There was a notable shift in the German economy after Erhard's currency reform and elimination of price controls were instituted. Absenteeism plummeted as the price and rationing controls that had de-incentivized the stagnant workforce were eliminated, boosting workforce participation rates immediately (Henderson, 2018). Food shortages also ended; shops were immediately filled as owners began to understand the value of the new German currency. The German middle class began to rapidly grow as a result of the low tax rates and better jobs. In the 50s and 60s, unemployment was extremely low, the standard of living was high, educational opportunities were affordable and abundant, West German industrial output continued to grow, and Western Europe became more and more economically cohesive, opening up opportunities for international trade and economic stimulation in strong economies.

These initial economic growth and trade opportunities in the early 1950s were stimulated by Germany becoming further integrated with the rest of Western Europe. Due to economic reforms and the necessary of export markets to provide the demand needed to access its full productivity levels, Germany began to reenter export markets that it had not utilized in over a decade. West Germany developed important trade partnerships with other countries, most notably Austria, as the rest of Europe needed Germany's newly accessed productivity and economic growth to recover themselves. West Germany had surpluses of food and goods that other European countries desperately needed, which only grew during the 50s as the economy became stronger and stronger. West Germany exported large amounts to assist European recovery in addition to making its reparations payments. In recognizing that peace was their best option, West Germany voluntarily entered into economic and political partnerships, providing increased stability and mutual economic stimulation. This is illustrated by the uniting of the European Steel and Coal communities in 1951, which laid the groundwork for the founding of the European Union in 1993. Six major European countries (Belgium, France, Germany, Italy, Luxembourg, and the Netherlands) agreed to run their heavy industries under a common management to assure that countries cannot make weapons to fight against other European nations, as was the case in the past (European Union, 2018). This united these six European countries economically and politically, setting common goals for economic success and lasting peace (European Union, 2018). West Germany also joined NATO in 1955, cementing their long-term goals of peaceful relationships and interdependencies with the rest of Europe. In joining NATO, West Germany showed that it was more than willing to defend other member countries from unwelcome Soviet political advances, displaying its dedication to free-market capitalist economies and trade. Elimination of Nazi regulations and adopting pro-market reforms proved to be extremely profitable for West Germany and Europe as a whole. In contrast, the heavily regulated East German economy, plagued by Soviet communist controls and economically distant from most of the West, stagnated and ultimately failed.

Another explanation of West Germany's post-war economic growth can be found in productivity convergence. German productivity finally converged to British levels in 1960 after trailing British GDP per man by at least 25% until 1950 (Ritschl & Eichengreen, 2009, p. 213). The lower output-per-worker ratio, explained by WWI, inflation, and the Great Depression, kept German GDP at relatively low levels until it was able to converge properly. This is also supported by Temin's research in Western Europe economic growth after WWII, in which he found that "Movement from agriculture to industry the larger a country's share of employment in agriculture – his proxy for delayed structural change – the faster its growth" (Ritschl & Eichengreen, 2009, p. 193).

The final reason for the strong levels of growth is the lack of strong industrial and financial restrictions of the Allied Powers in the years following WWII and the extended reparations payment plan, which extended to 2010, when the UK announced that Germany had made its final reparations payments. This allowed for mostly unhindered economic growth stimulated by Allied economic assistance. All these arguments, however, have some form of inherent validity, meaning that most likely the fairest argument is that it was a combination of all these factors that allowed for the economic growth.

Differences in the Approach of Foreign Powers

There were large differences in the approach of foreign powers that assisted Germany in being so successful and economically independent. The first is that instead of loans, the vast majority of the Marshall Plan assistance came in the form of gifts. Just as America’s loans to Germany in the years preceding the Great Depression stimulated the German economy, the influx of strong foreign currency from the Marshall Plan and the rest of the Allied powers following WWII greatly assisted the German economy. However, the US government recognized that gifts would be far more valuable for all nations in the long run and that the recovery of Europe would be directly linked with the recovery of Germany. With gifts instead of loans, West Germany (along with the other recipients of Marshall Plan assistance) would be able to purchase foreign goods, stimulating jobs and production across Europe and the US. In doing so, nations would not suffer the large employment drop that characterized the years following World War I (Toussaint, 2006).

The second difference was the implementation of a firm and viable plan for repayment and foreign control of monetary policy that would still allow for economic growth and employment. After WWI, Germany was beaten down with unrealistic reparations payments that, when coupled with the horrific internal fiscal decisions, ruined the economy. Understanding that supporting the German economy was the best decision for Europe resulted in helpful controls being placed and assistance being lent to the German people, including stimulating production of domestic industry in order to reduce its reliance on imports (Toussaint, 2006). Instead of just taking as much money as possible from Germany, Potsdam called for smaller payments over a large period of time which would stabilize the economy, leading to political stability as well. This would also allow for the recovery of foreign nations, as more money would be able to be taken from Germany over an extended period of time while not eliminating its purchasing and industrial power.

Another difference was the uniting of Western Europe as a collective whole that had to recover rather than separating countries in terms of inherent wartime badness or goodness. In beating down the German economy through huge war reparations, it was unable to fully recover and as a result discontent and anger grew as Germany felt alienated and mistreated after WWI. The simplistic view of taking as much as possible from one country that had done wrong and giving as much as possible to the countries that were innocent had proved to be incredibly flawed. In contrast, Europe as a whole had to be united and lifted up in order to successfully recover (Toussaint, 2006). In linking the economies of all Western European countries through foreign aid and gifting them capital to purchase foreign goods, Western Europe was able to work together to experience a period of peace and growth together.

WWII Conclusion and Summary

After WWI, Germany’s people were starving, they were heavily reliant on foreign loans, their currency was worthless, and their government was extremely unstable, engineering a perfect climate for the rise of Adolf Hitler. In the late 1950s and 60s, however, West Germany had the strongest economy in Western Europe if not one of the strongest in the world. They had booming industry, strong currency, and were extremely independent, limiting their reliance on imports and stimulating domestic production. If Germany's post-WWI failures (notably hyperinflation and Hitler's rise) are mainly attributed to internal decision making within the German government, it seems only fair that Germany be attributed with most of its post-WWII economic successes.

The German economy succeeded for several key internal reasons. The first of these reasons was post-war productivity shock. After the war, Germany began to repair its infrastructure and regain access to its full productive and industrial capacity. German productive capacity was never truly eliminated during the war, and was still much higher than before the war started. The German government devoted large amounts of manpower and capital to its infrastructure, and it was quickly repaired (including the bottleneck sectors that the Allies had destroyed). As a result, employment and worker productivity rose, allowing Germany to regain its productive potential and transfer its large wartime economic potential to domestic industry.

Germany was further able to become more efficient by moving from peasant agriculture to non-wartime industry and more efficient large-scale modern agriculture. As Germany was forced to provide food for its starving people and the large number of Allied soldiers occupying it while concurrently stimulating industry, it became more efficient with its agriculture while simultaneously moving much of its population to domestic industry.

These changes were also supported by Erhard's currency reforms and decontrol of prices, leading into the next reason for German economic growth and stimulation: institutional changes and monetary policy reforms. These reforms began with denazification, as the new German government and Allied powers sought to remove all

Nazi influence from all areas of the government. Ludwig Erhard, a staunch anti-Nazi Bavarian economist, was tasked with reforming monetary policy. This became manifested in radical changes, including complete currency reform and adoption of the deutschemark, decontrol of prices, removal of rationing, and the lowering of the high tax rates characteristic of large wartime expenditures. These pro-market reforms revitalized the economy, incentivizing sellers, lowering unemployment and absenteeism while simultaneously raising productivity, and ending food shortages. The economy quickly became highly stabilized, incentivized, and productive as Erhard's free-market policies took the place of the Nazi controls. This is closely related to the productivity convergence highlighted earlier. Germany suffered from low levels of output-per-worker due to WWI, hyperinflation, and the Great Depression. This kept German GDP and low levels as it sought to fully fight off the adverse effects for decades. As noted earlier, the German GDP began to converge after WWII, partially due to the large movement from agriculture to industry and the increase of worker productivity and motivation due to monetary stability.

The early German economy, and the later West German economy, was further stimulated and stabilized by its cohesion with the rest of Western Europe. In order to reach its immense productive capacity in the years following the war, it was forced to look for export markets that were willing to buy German goods in order to rebuild. The abundance of demand for German goods allowed it to increase production and lower unemployment in order create the supply needed to meet this demand as well as strengthen trade alliances. West Germany also entered peaceful alliances with foreign powers through NATO and the uniting of Europe's steel and coal economies that provided political stability, assisting West Germany in its goal of maintaining long-term peace and stabilizing its economy.

This is not to say that West Germany did not receive substantial help from the Allied powers, especially the United States. The Allies did help a great deal; however, their most effective assistance came in the form of simply letting the German economy grow without major interference (with the exception of the Marshall Plan and government stabilization). The lack of unnecessary restrictions on the German economy allowed the economy to grow and prosper without the interference that plagued it during the years after WWI. The extended reparations payments and the way that they mirrored the health of the German economy helped stimulate growth and economic stability in order to utilize Germany’s productive and economic prowess to boost Europe as a whole. It also enabled Germany to pay its reparations payments over an extended period of time, providing the countries it had wronged with a steady stream of capital that could be used to rebuild. Another key form of assistance from the Allied powers in Germany came from the stabilization of the government and economy immediately after the war. This aid manifested itself in assistance with the election process, denazification of the government, stimulation of food production, military presence to maintain peace, and financial aid. This allowed Germany to recover quicker and more rapidly than would have been expected if it was operating on its own and successfully remove Hitler’s authoritarian influences on German institutions. The Marshall Plan also greatly assisted German rebuilding of infrastructure, especially the fact that almost all of the financial aid was in the form of gifts rather than loans. This meant that Allied assistance did not raise the amount of German debt and result in a situation similar to the US loans being recalled when the Great Depression hit. In lifting up the German economy through the influx of strong foreign currency, all of Europe was able to experience Germany's substantial economic contribution after the war. This (along with NATO) also brought Western Europe as a whole closer together, providing it with a common enemy: Communism. The treaties and conferences following the war as well as the Marshall Plan sought to unite Western Europe politically and economically in order to promote sustained and lasting peace.

Despite these crucial external contributions, the unparalleled success of the West German economy can mostly be attributed to internal German policies, reforms, and productivity. As easy as it would be to attribute Wirtschaftswunder to the efforts of the Allied Powers, that simply would not be true. Although the programs and the changing of the approach as a whole of the Allied Powers assisted Germany, Germany itself was responsible for stabilization of their currency and raising their production levels and efficiency to match their pre-existing capacity after the war. Unlike after WWI, they did not allow themselves to be over dependent on the US and other world powers; instead, they implemented moderate protectionist policies regarding imports, pro-market reforms, and moved much of their workforce from agriculture to industry.

Although several of Germany's successful pro-market plans were at first suggested and implemented immediately after the war by the Allied powers to make sure Germany would not completely starve or develop war potential, it was free-market Germans such as Ludwig Erhard who adopted them and perfected them, coupling them with currency reform and complete restructuring of German financial institutions. Many changes were actually contrary to the initially Allied vision of German monetary policy, such as the elimination of price controls and rationing in order to stimulate workforce participation and food production. Even the controls that were suggested by the Allied Powers were later completely entrusted to the German government to monitor after it was deemed strong and established. Besides balancing out the economy immediately after the war, ensuring that Germany could not develop a war potential (along with Marshall Plan aid obviously), and supervising reparations payments, the Allies were actually quite detached from the majority of West German economic controls as early as 1950.

There was also never truly a point where the Allied Powers had the full control over the German finance departments and the German economy, and if there ever was, it was only immediately after the war and for an extremely short period of time. Instead, they worked in a supportive role to help strengthen the new anti-Nazi German government. Although the Allies maintained a strong military presence there to resist the Soviet-led expansion of communism, West Germany was declared to have the “full authority of a sovereign state over its internal and external affairs” at the Convention on Relations between the Three Powers and the Federal Republic of Germany in 1955, just 10 years after their WWII surrender (Junker, 2011, p. 117). This is quite notable, especially when one considers the fact that Germany had singlehandedly started the two the largest wars in the modern era in a span of just 25 years and the Allied powers therefore were forced to take every possible precaution to make sure Germany would not have the opportunity to repeat its actions. The Marshall Plan, while assisting Germany, also cannot be entirely attributed with the German economic miracle, as many Americans have attempted to do.

> Marshall Plan aid to West Germany was not that large. Cumulative aid from the Marshall Plan and other aid programs totaled only $2 billion through October 1954. Even in 1948 and 1949, when aid was at its peak, Marshall Plan aid was less than 5 percent of German national income. Other countries that received substantial Marshall Plan aid exhibited lower growth than Germany. Moreover, while West Germany was receiving aid, it was also making reparations and restitution payments well in excess of $1 billion. (Henderson, 2018).

In fact, it was actually the lack of interference in the German economy that also assisted its growth and the growth of Europe as a whole, further supporting Adam Smith's capitalistic ideas of the invisible hand and free market self-regulation.

Final Conclusion

As stated previously, the goal of humanity should be to promote peace and stability and make the recovery of devastated countries as easy as possible. Therefore, there is a duty for strong foreign powers after wars to help devastated countries recover and regain stability and health. A large part of this involves engineering climates that stimulate economic growth and stability to supply domestic jobs, providing food for citizens of that country, and providing opportunities to repair the infrastructure. This duty does not entail choosing which countries recover and which countries stay buried in economic hardships; rebuilding a continent devastated by war necessitates rebuilding the individual countries and economies within it and making sure they are stable upon leaving them. This is of the utmost importance because economic stability can directly be linked to political stability; in making comparisons to the US forces in the Middle East during the Gulf and Iraq War, unrest has been prevalent in countries that the US interferes in then withdraws from because there is a lack of economic and political stability, leaving the door open for tyranny and authoritarian rule.

There were opportunities to learn from their mistakes that proved to be extremely beneficial for both Germany and the Allied powers. Germany learned valuable lessons about restricting inflation and maintaining currency valuation through free market policies. It learned that in departing from what gave their currency value (in the case of WWI, it was the gold standard) they could not spend large amounts (especially with money it did not have and with an unmotivated workforce) without its currency losing its value. Erhard realized that in order for Germany to recover and be completely denazified, it would have to shed the Nazi price and rationing controls as well as the high tax rate that would keep businesses from being stimulated. A more reasonable tax rate would actually stimulate recover and allow for more money to be collected in the long-run as less businesses would default and go bankrupt. Germany also learned that overreliance on a single/few outside powers for economic stability and rebuilding had the potential to result in economic failure, especially during time of economic crises. In reducing its dependence on foreign loans from a single nation and imports and becoming more self-sufficient, it would be responsible for its own success. In WWI, Germany was ruled by others, whether that be as a result of reparations payments or its unwise decision to take on large amounts of foreign debt. In the years following WWII, it made the decision to be self-ruled, reducing the variance and uncertainty that can arise when over-dependent on foreign currency or governments for assistance. Germany recognized that it still needed strong foreign currency to combat any possibility of inflation as well as access its full productive capacity. To replace overreliance on a single outside power to support these needs, such as loans from the US after WWI, it developed intricate economic interdependencies and trade partnerships with many other strong European countries as well as America and eliminated its isolationist trade policies that had existed for decades. It stimulated foreign trade and exports, bringing in strong foreign capital while simultaneously accessing demand to match its productive capacity and supply of goods.

Although the Allies cannot be blamed for directly causing Germany's economic failure and hyperinflation (these can solely be attributed to decisions made internally within German institutions), Germany would never have been able to truly be successful with the reparations payments and heavy economic interference. The lack of a strong and viable reparations payment plan brought a lack of clarity, bringing more economic instability as German businesses were unsure of how the reparations payments would affect the economy as a whole. When the reparations payments were announced, they were immediately deemed to be impossible to pay by experts, adding to the further instability and trust in the German economy. While hyperinflation began before the reparations payments and the reparations payments did not necessitate hyperinflation, it limited whatever possible options Germany did have, regardless of how minimal they were. In refusing to help Germany recover in order to bring both political and economic stability and realistic payment plans, the Allies in the German economy that ultimately led to severe unrest and the rise of Adolf Hitler. This lack of necessary aid in Germany's recovery also further delayed the rest of Europe's recovery because the Allies attempted to be selective in which countries it wanted to recover after WWI; they beat down Germany in attempts to get as much money as possible to give to the countries that it had perceived to have been innocent. Western Europe was starved of Germany's purchasing power and production of goods, and it later paid the price of the lack of stability when Hitler took power and Germany began WWII.

The Allies changed their approach to post-war aid and European economic recovery. They learned that, in attempting to rebuild Europe, it could not be selective on the countries it wanted to recover and those it wanted to punish due to the strong interdependencies that exist between the various European economies. It realized that, by design, Europe was united in ways that far superseded political agendas or wartime alliances, and in recognizing this unity, it was evident that Europe as a whole would have to be stimulated and assisted in order to be most effective in its recovery from WWII. It also realized that in punishing a country through economic instability and hardships, it would therefore be engineering a climate perfect for political instability and other issues. Economic instability, especially when it can be attributed to a foreign nation and is perceived as unjust (whether or not it is truly a result of the foreign power), leads to discontentment, internal turmoil, frustration, anger, and desperation which become more and more difficult to control. In the interests of creating lasting peace, the Allies realized that supporting economic recovery would be directly linked to peace and stability. The Allies placed very moderate sanctions on the economy, as stated, to limit wartime potential and assist in financial decisions without interfering with economic growth. The reparations payments, never more than 5% of Germany's export value, were designed to mirror the health of the German economy. The controls the Allies implemented when Germany was at its weakest were given to the German people as soon as possible to make sure it was clear that Germany would be responsible for its own success or failure. The controls the Allies implemented when Germany was at its weakest were given to the German people as soon as possible to make sure it was clear that Germany would be responsible for its own success or failure. Supporting economic recovery and refraining from implementing unnecessary controls, convincing Germany that they would be responsible for their own success or failure, brought a complete change in the Zeitgeist, translated directly as the "spirit of the age" or "spirit of the time" The post WWII Zeitgeist was characterized by feelings of hope, stability, contentment, and security instead of the pre-WWI feelings of anger, frustration, humiliation, and hatred. It is these post-WWII dominant feelings such as these that helped bring long term peace to West Germany. The Allies also learned that its aid to Germany would be most profitable in the form of gifts, not loans. In restricting the amount of debt Germany was in and assisting in its recovery, the Allies were therefore able to take advantage of Germany's purchasing of American goods and productivity, proving to be much more valuable in the long run than repayment of loans that would restrict growth and purchasing power. The Marshall Plan was a fantastic example of this; in providing no-strings-attached financial aid to countries, they were able to recover quicker, stimulating trade and productivity which America and the UK were therefore able to take advantage of. Although this was not the main cause of the success, it certainly assisted Germany's economic growth. The Allies also realized that for a country to experience unhindered growth, it therefore must not be limited by unnecessary interference. In keeping reparations payments lower and extending the payment plan over a longer period of time, the German economy was able to grow and reach its untapped productivity levels. Also, in eliminating the tariffs on German goods that existed in the years following WWI as a way of punishing Germany for its wrongdoings, the German economy was able to grow and develop important trade relationships that benefitted all of Western Europe as a whole.

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