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THESIS SUMMARY

American economic aid in West Germany in the 1940s and 50s was a key factor in Germany becoming the economic superpower and world leader it is today.

The following paper examines the state of Germany immediately after World War II and goes on to describe how the American government intervened in West German reconstruction. It then analyzes three specific companies that overcame hardship in the 1940s and 50s and went on to be German powerhouses today. Finally, an analysis of the current German economy shows how the country is positioned as a world leader.

Research on these topics was conducted using literary print sources, scholarly internet databases, and a formal interview with Klaus Becker, Honorary Consul to Germany. Research librarians helped find relevant and practical sources.

Klaus Becker is a German-American businessman who has lived in the United States for 14 years and has held roles in several non-political associations, including President of the Charlotte World Trade Association, President of the North Carolina German-American Chamber of Commerce, and Honorary Consul to Germany. He founded the Zeitgeist Foundation to put the Carolinas on the political map of German institutions and share German culture with the region. The interview with Becker provides a more personal account of life in postwar Germany. He offered an important take on German-American relations both at that time and in the present day.

INTRODUCTION

After the end of World War II, Germany had to overcome the consequences of the war and rebuild itself from the destruction and economic hardship that plagued the country. Germany was able to conquer its decreased operating and production capabilities and eventually enter the world stage as a powerful market player with impactful foreign relationships.

Several factors contributed to German recovery after World War II, although one stands out: American aid. American forces helped the country by implementing necessary economic and political reforms and cultivating a working business environment in West Germany. Decades later, Germany is known for its superior quality of manufactured goods and dominates the market in several industries such as chemicals and automotive vehicles.

American economic aid in West Germany in the 1940s and 50s was a key factor in Germany's return to the economic superpower and world leader it is today.

THE STATE OF GERMANY AFTER WORLD WAR II

Nazi Germany surrendered to the Allied Forces on May 8, 1945. The central government was dissolved and Germany became fully controlled by the Allies on June 5, 1945 (Mingus, 2017).

After the war, malnutrition was rampant, refugees fled from East Germany, and the production of goods and services was drastically reduced (Mierzejewski, 2004). The Allied forces faced the challenge of restarting the German economy, repairing war damage, and providing housing and employment opportunities for German refugees from the east. They also had to deal with demands from their own governments and other countries for reparations from Germany for the damage the war had caused (Dobbins, 2003).

THE POTSDAM CONFERENCE

The Potsdam Conference took place from July 17 to August 2 of 1945, where the Allied leaders Winston Churchill, Joseph Stalin, and Harry S. Truman met to discuss the future of Germany. It was decided that Germany would be treated as an “economic unit,” although the country was divided into occupied zones. The Allies also agreed to create central finance and transportation systems (Kramer, 1991). The United States, Britain, and the Soviet Union declared primacy over Germany, taking on the authority to control German political, economic, and cultural life until they decided when Germany would regain national sovereignty (Dobbins, 2003). Press.



Source: Mingus, M. (2017). *Remapping Modern Germany After National Socialism, 1945-1961: Vol. First edition*. Syracuse University

Each zone had to work together for Germany to become self-sufficient, as Soviet and American zones were mainly agricultural while the British zone was more industrialized (Kramer, 1991).

REPARATIONS

The term “reparations” was used to refer to at least 3 Allied policy goals: demilitarization, deindustrialization, and the extraction of indemnities. The issue of deindustrialization was

particularly difficult to solve due to the question of where to draw the line between a war potential and a peaceful industry. Additionally, economists had to figure out a desirable future level of German industrial production (Van Hook, 2004).

The American cabinet generally agreed that there should be no reparations from current production in Germany, due to the fact that this policy caused severe problems when introduced after the first World War. The head of the U.S. Foreign Economic Administration prepared a study of what should be done to control Germany's power and ability to make war in the future. When the results were put together, it was clear that the establishment of a viable economy on that basis was impossible. Instead, plant and equipment materials were to be dismantled and transferred to Allied countries (Smith, 1983).

At the Yalta Conference of February 1945, the Allies agreed that the Germans should pay \$20 billion USD in reparations, with \$10 billion going to the Soviets (Maier, 1991). The Soviets later argued that the capital they stripped from Germany after the war should not be included as part of their reparations payment as it was "war booty," even though it is estimated that somewhere between 25 and 35% of German capital equipment was taken, including railroad, factory, and plant equipment (Maier, 1991).

Roosevelt and Churchill both wanted the German people to be able to live, but discussed how their standard of living should not be higher than that of other European countries (Smith, 1983). The American delegation at Potsdam determined that each country would take reparations from their own zone (Backer, 1971). U.S. economists did not believe that repeating the annuity reparation payments of the 1920s was a logical option, so it was determined at the Potsdam Conference that the debt would be paid by excess capital calculated using a level of industry equal with the average of most other European countries (Maier, 1991).

JCS 1779 stated that the limit on industrial capacity determined for reparations was not meant to "permanently limit" Germany and that the United States government's interests were to create political, economic and moral conditions in Germany that would foster peace and "contribute most effectively to a stable and prosperous Europe" (Backer, 1971). Today, we can see that this goal was achieved, as Western Europe is one of the most advanced and prosperous regions in the world with a relatively stable political environment.

INFLATION

The Nazi Party had created price and wage controls in 1936, which allowed the government to "indulge in reckless deficit spending to finance rearmament without facing inflation" (Van Hook, 2004). By 1945, there was six times more money in circulation. The Allies decided to keep the

price and wage controls in order to avoid hyperinflation, although a black market had already developed (Van Hook, 2004).

After World War II, Germany was also facing shortages in food, housing, energy, and more. These shortages contributed to the collapse of Germany's currency and development of a black market in which prices were approximately between 20 and 100 times their legal prices. Confidence in the Reichsmark dwindled and thus it began to lose its function as a means of exchange, and barter became widespread. Due to these factors, monetary imbalance was reduced as the black market absorbed much of the excess money supply and reduced the velocity of the circulation where substitutes for fiat money were used. Hence, this inflation period was considered suppressed (Smith, 1983).

Product	Retail Prices		Black Market Prices (Spring 1947)	
	1938	Nov. 1945	British Zone	Berlin
1500 g rye bread	0.47	0.52	25	35 - 45
500 g butter	1.57	1.80	240 - 250	250 - 350
500 g beef	0.83	0.87	60 - 80	120 - 150

Source: Helga Grebing, Peter Pozorski, and Rainer Schulze, (1983). *Die Nachkriegsentwicklung in Westdeutschland 1945 - 1949: (a) Die wirtschaftlichen Grundlagen*.

In the table above, we can see the prices of different foods in Germany both before and after World War II in Reichsmarks. The black market created far higher prices after the war, making certain foods and consumer goods unattainable for many. Prices increased by as much as 86.54 times for rye bread, 194.44 times for butter, and 172.41 times for beef between November 1945 and the spring of 1947. These prices were not compatible with the wage controls that were still in place, as a skilled industrial worker earned approximately RM230 each month, which could be less than the price of a pound of butter (Kramer, 1991). From 1945 to 1948, the Allies financed 67% of imports, the most important of which was food, as it helped the population to survive and grow to achieve a sustainable output level (Kramer, 1991).

It is important to note that this was not like the inflation that Germany experienced after World War I. While prices were exorbitantly high, they were relatively stable from 1945 to 1948 and varied only by location and availability (Kramer, 1991).

From 1945 to 1948 there was no central bank in Germany. There were no quotations for the Reichsmark on international markets after 1945 and all trading against foreign currencies ceased

(Backer, p. 91). The German currency and economy became largely isolated from the outside world (Smith, 1983).

World War II, and the resulting reparation payments, resulted in a large budgetary deficit for Germany. The deficit was financed through the Reichsbank by discounting treasury bills and obtaining the equivalent amount in banknotes. From 1935 to 1945, the currency in circulation increased from RM 5 billion to RM 50 billion, while bank deposits increased from RM 30 billion to RM 150 billion. Without taking into account the war damage claims of RM 350 billion, government debt had already risen from RM 15 billion to RM 400 billion. Meanwhile, Germany's national real wealth decreased by $\frac{1}{3}$ during that same time (Smith, 1983).

UNITED STATES OCCUPATION OF GERMANY

A memorandum, JCS 1067, outlining the occupation of Germany by the United States was approved by the U.S. Joint Chiefs of Staff in April of 1945 (Mierzejewski, 2004). The main objectives were to break up war-related German industries, decentralize the economy, and denazification (Mierzejewski, 2004). Originally, the Americans planned to assist in repairing certain infrastructure necessary to their occupation such as railroads and telephone systems, while the Germans would be tasked with rebuilding their own economy (Mierzejewski, 2004). It was clear that more action was needed as production stalled and people starved. After the war, industrial production was at "a practical standstill," but quickly accelerated in the American Zone (Kramer, 1991, p.91). By the end of 1946, mining, timber, gas and electricity industries were almost back to the pre-war levels of 1936 (Kramer, 1991). In 1947, the United States and the United Kingdom merged their occupation zones, in part to coordinate a common economic policy and expand economic opportunities for German businesses in their areas (Dobbins, 2003).

Denazification was an important American objective. Through the process of denazification, the Allies worked to remove Nazi party members from "positions of influence" throughout the country (Kramer, 1991, p.111). The main principles focused on dismantling Nazi political structures, arresting and punishing Nazi leaders and supporters, and excluding active Nazis from public life. This eliminated virtually all support for the Nazi regime (Dobbins, 2003).

The occupying forces became responsible for economic and budgetary policies. The U.S. forces were originally supposed to organize the economy only enough to "meet the needs of the occupying forces and to ensure the production of goods and service required to prevent disease and unrest." However, the U.S. military governor and his troops ignored this directive and directed their energies to reviving German output as fast as possible to provide sustenance for the population. Both Britain and the United States wished to reduce the cost of feeding and clothing German populations in their zones (Dobbins, 2003).

The U.S. military general devoted substantial efforts and resources to restarting German factories and mines. The same was true in the British sector. The French were less willing to see a resurgence of the German economy. U.S. and British economic policies quickly moved toward creating an economic environment favorable for business. U.S. policy was directed at creating a free-market economy in Germany. As part of this process, the German cartels were broken up. In addition, both zone commanders encouraged the development of trade (Dobbins, 2003).

Resources to support the German population were provided through the Government Aid and Relief in Occupied Areas program (GARIOA), surplus U.S. military supplies, U.S. and British military in-zone expenditures, and funds from the British budget. At the same time, the U.S. government recognized French and Russian reparations claims. The U.S. government forced German mines to deliver coal to France and other nearby states for free. In return, the U.S. authorities provided miners with food and wages. In addition, the Soviet Union dismantled German plants in both the British and U.S. zones and shipped the equipment to the Soviet Union as part of reparations. Thus, some of what was given was taken away by other governments. The United States attempted to reduce the impact of these reparations payments with a “first charge” principle. German export earnings were first used to pay for essential imports, and only then for reparations (Dobbins, 2003).

German economic output recovered rapidly in 1946 as plants and mines reopened. By the end of 1946, industrial output in the U.S. zone had risen to 2.4 times the 1945 level (although it was still only 45% of its 1937 level). In the more industrial British zone, output was up 50%. Nevertheless, the German gross domestic product (GDP) was only 40% of its 1944 level because of the disastrous economic situation during the first half of the year (Dobbins, 2003).

From 1946 to early 1948, the United States provided large loans and aid to a number of European countries. In addition to funds from international organizations, these funds enabled Germany and the rest of Europe to pay for the large inflows of imports that were crucial for postwar recovery. This external assistance was needed when the economies were not yet able to generate sufficient export revenues to pay for the imports needed for recovery (Dobbins, 2003).

U.S. zonal policies helped contribute to freer markets in Germany by breaking up major cartels and providing an environment in which private businesses could thrive. The U.S. insistence on trade liberalization played an important role in European economic integration and the eventual decision to establish the European Common Market (Dobbins, 2003).

Becker spoke about the American response to a setback when the Russian forces cut off all of Berlin. The Berlin Airlift (“Luftbrücke”) was created, and “Americans went out of their way to

support Germany, to keep the former capital of Berlin alive...It's enormous what the Americans did at that time. Germany was very much down...We really started absolutely from scratch. That was, of course, a welcome help at that time."

Becker also described the sentiment towards American troops at that time and how "the Americans couldn't go wrong...They were always fair, they were a glorious country." The people of Germany knew that the Marshall Plan would help them. Of course, the Marshall Plan was also in the American economic and political interest since it helped to stave off the Soviet Union.

WIRTSCHAFTSWUNDER: CONTRIBUTING FACTORS

The German Wirtschaftswunder, also known as the Miracle on the Rhine, describes the country's rapid economic recovery in the 1950s and subsequent position as an economic superpower.

CURRENCY REFORM

Currency reform was critical in ensuring economic unity in post-war Germany. The Colm-Dodge-Goldsmith plan was proposed by the Americans in 1946 and \$5.7 billion worth of the new Deutsche Mark, which was printed in the United States, began circulating in the three Western zones on June 20, 1948 (Kramer, 1991). Much needed deflation occurred as 93.5% of the previous currency volume was removed from circulation, as exchange of Reichsmarks per person was limited and liquid assets, bank deposits, and liabilities were converted at a 10:1 ratio (Kramer, 1991). This helped to control many of the inflation-related problems mentioned earlier, such as the black market and exorbitant food prices. German consumption and production increased drastically and stimulated the economy as a result of the American currency reform, as industrial production grew 30% in the quarter after the reform was enacted, while individual and corporate tax rates were reduced at the same time (Kramer, 1991).

THE MARSHALL PLAN

The Marshall Plan, or European Recovery Program, was an American initiative to help rebuild the economy of Western Europe after World War II. It was determined that the aid should stress "the raising of European production and consumption through the economic and functional integration of Europe" (Maier, 1991, p. 9). While the program saved the region from post-war devastation and poverty, it also advanced the American agenda of halting the spread of Communism during the Cold War and heightened the separation of East and West (Maier, 1991).

Becker described Germany as having to be rebuilt from scratch after the war, as it was 98% destroyed. Americans were "deeply loved" throughout Germany because of the tremendous

assistance that was given to reconstruct the nation through the Marshall Plan. The Marshall Plan was the “ignition to get the German motor going,” and helped the economy to rapidly become one of the world’s largest. Born shortly after the war in 1953, he still remembers being warned by his mother to avoid the ruins across from their apartment complex, for fear there could still be undetonated bombs in the wreckage. Becker believes that the Marshall plan was far superior to the Morgenthau Plan, which aimed to “flatten the whole country and make it a rural country of peasants,” in his own words. He attributes the Marshall Plan’s success to George Marshall’s willingness to use the Germans’ strengths, such as “engineering, science, research, and the high capacity to work punctually and to work hard,” to create the “initial push” to rebuild Germany and strengthen the economy.

The U.S. government dedicated roughly 1 to 2% of national income to the program between 1948 and 1952, and nearly \$3 billion USD went towards the reconstruction of Western Germany (Maier, 1991). Ludwig Erhard stated that all of the investment in the Bizone could be financed by the Marshall Plan (Kramer, 1991).

The Marshall Plan provided industrial raw materials, mainly in the textile industry, which spurred production (Kramer, 1991). It also created confidence in the new Deutsche Mark and in economic reform. Counterpart funds, where the United States lent Germany USD to pay for imports to be bought by consumers in DM, were used in public capital planning to remove investment bottlenecks and create capital formation (Kramer, 1991). Furthermore, the Marshall Plan created an alternative to the reparations problem by “providing... West German recipient nations with an American alternative to German reparations deliveries” (Kramer, 1991, p.154).

The Marshall Plan period allowed the German economy to stabilize itself and begin “a path of self-sustaining growth” (Kramer, 1991, p.163). Kramer believes that the Marshall Plan was also essential in helping West Germany increase foreign trade and allowed the country to reestablish crucial relationships with Western nations (1991). Germany would not be an economic superpower today if it was not closely aligned with the United States and other European countries. Politically, the Marshall Plan helped American interests in the Cold War in that it closely aligned Western Europe with American capitalism.

Some scholars argue that German economic recovery was well underway when the Marshall Plan was passed. The Marshall Plan did contribute to rapid European and German economic growth and recovery between 1948 and 1951, when the program ended. However, in some ways, the preceding period from 1946 to early 1948 was more critical. Some also consider Ludwig Erhard’s efforts in currency and fiscal reforms more important than the Marshall Plan for subsequent German economic growth, especially since Germany received less assistance per capita than other countries (Dobbins, 2003).

LUDWIG ERHARD

Ludwig Erhard is considered today as the father of the German Wirtschaftswunder. His work with the United States government during the reconstruction era was essential to creating impactful economic policy for Western Germany. Throughout modern Germany's history, economic institutions have shaped the country's political institutions, and the same is true for postwar Western Germany (Maier, 1991).

The country's first debates about its political future occurred at the Bizone's Economic Council meetings, which later led to the creation of the Federal Republic of Germany in 1949 (Maier, 1991). As the director of the Bizonal Economic Administration, Ludwig Erhard used his position to advocate for social-market liberalism and private capitalism (Maier, 1991). He believed state enterprises could not be successful, as states do not have the drive to succeed and are subject to pressure from outside groups (Mierzejewski, 2004). He also disagreed with complete laissez-faire capitalism, as he felt there should be no dishonest business gains or exploitation of factory workers as there had been in the past (Mierzejewski, 2004).

Erhard thought it best that Germany aim for rapid economic growth using free-market techniques instead of relying on the government (Maier, 1991). Erhard once stated that "there is no free market economy without free prices," demonstrating the importance of competition to his economic model and how people were able to gain confidence through helping to set prices through their own purchasing decisions (Mierzejewski, 2004, p. 33). His balance between the two extremes was to have the state create the rules for competition and supervise the system without participating or controlling the market (Mierzejewski, 2004). Many political groups, including Konrad Adenauer's CDU, originally opposed the ideas of capitalism (Mierzejewski, 2004).

Erhard supported accepting foreign aid, such as the Marshall Plan, in order to gain both money and knowledge on creating free markets (Mierzejewski, 2004). On April 19, 1945, the day after the U.S. Army occupied Fürth, Erhard met with the military and offered his assistance, and in turn was given the responsibility of rehabilitating industrial activity and the municipal economic office (Mierzejewski, 2004). He wrote recommendations for the entirety of the German economy, stressing a free market and currency reform after production and transportation systems were repaired, and soon became the Economic Advisor to the military for central Franconia, and later the Minister of Economics of Bavaria (Mierzejewski, 2004). He advocated for BMW, stating that they were not controlled by the Nazi Party and essential to the job and export industries, which then allowed the company to keep their machinery and gain contracts from the U.S. army (Mierzejewski, 2004).

Becker used BMW as an illustration of the strong business relationship between the United States and Germany today. The BMW plant in Spartanburg, South Carolina, is the largest in the world and the biggest car exporter in the NAFTA region. Today, BMW is still essential to Germany's export industry and overall economy and may not have been as successful without the help of Ludwig Erhard.

As Director of the Economic Administration, Erhard was supported by American General Clay in decontrolling goods and services after the currency reform, allowing the market to determine free prices (Kramer, 1991).

COMPANY ANALYSES

After Germany's Wirtschaftswunder, the country went on to eventually grow to one of the world's great economic powers. By 1955, the German economy was back on its own feet with the growth rate at 11.7% (Bloomberg, 2019). The following sections illustrate Germany's transformation through specific analysis of three major German companies. Their conditions after the war are compared to present-day performance. Although few numerical statistics are available from mid-20th century businesses, descriptive narratives offer a look into those times.

Significant amounts of German infrastructure were destroyed during the war and needed to be rebuilt. Companies needed to regather their workforce and come up with new strategies for growth, often focusing on exports. Each of the following companies illustrates a different story of success, and in each, American aid played some role in their reconstruction.

BASF

Badische Anilin- & Sodafabrik Aktiengesellschaft (BASF) is today a leading German chemical company that creates products in six main segments: Chemicals, Materials, Industrial Solutions, Surface Technologies, Nutrition & Care, and Agricultural Solutions.

POST-WWII CONDITIONS

In the words of Carl Wurster (chairman of the Board of Executive Directors, 1952-1965): "The years of reconstruction from March 1945 to the currency reform of June 21, 1948, [were] surely the most difficult in BASF's history. What we have achieved would have been unthinkable without the dedication of the entire workforce, who carried out their challenging duties loyally under difficult conditions and with far too little in the way of food" (BASF, 2015). We see

through Wurster's insights that the years following the war were certainly reformatory, and much of this was attributed directly to the determination of BASF workers.

During the years immediately following World War II, now-BASF was a part of IG Farben. By 1945, there were enormous amounts of destruction in its two core sites, Ludwigshafen and Oppau. In regards to the buildings there, 33% were destroyed, 61% were damaged, and only 6% were unscathed. The factories had lost 45% of their production capacity (BASF, 2015). This was a significant amount of infrastructure that would need to be dealt with.

BASF's operations were scaled back and monitored closely by Allied occupation officials. American officials seized the factories and were to operate them in accordance with American policy, as well as to effectively disperse the ownership and control of the plants and equipment. There was also pressure by the Allies for organizational cleanup, including dismissal of prominent Nazis and war criminals from their posts (Abelhauser, 2004). Without proper, organized oversight, operations may have been in disarray.

The Allies originally launched a dismantling program to limit future German war potential. But eventually the Allies and West Germans came to a less aggressive agreement that did little harm to BASF. The decision to save as much equipment as possible was ultimately necessary for BASF's success, considering the company could only grow if it had successful sales levels for its products (Abelhauser, 2004).

The currency reform of 1948 brought the first signs of stabilization. Funding made available by the Marshall Plan served as a major force for rapid economic recovery in West Germany, and the resulting economic boom lasted through the 1960s (BASF, 2015).

After lengthy demerger negotiations, BASF was refounded on January 30, 1952. Carl Wurster described the environment as being characterized by "energetic reconstruction" (Abelhauser, 2004). An important company direction was the development of export markets (BASF, 2015). With the founding of the Federal Republic of Germany and the gradual freeing of restrictions on the chemical industry, exports surged. The 1959 level of chemical exports was nearly five times that of 1950 (Abelhauser, 2004). In 1955, BASF opened new facilities and resumed production activities outside Germany for the first time since the war.

PRESENT-DAY PERFORMANCE

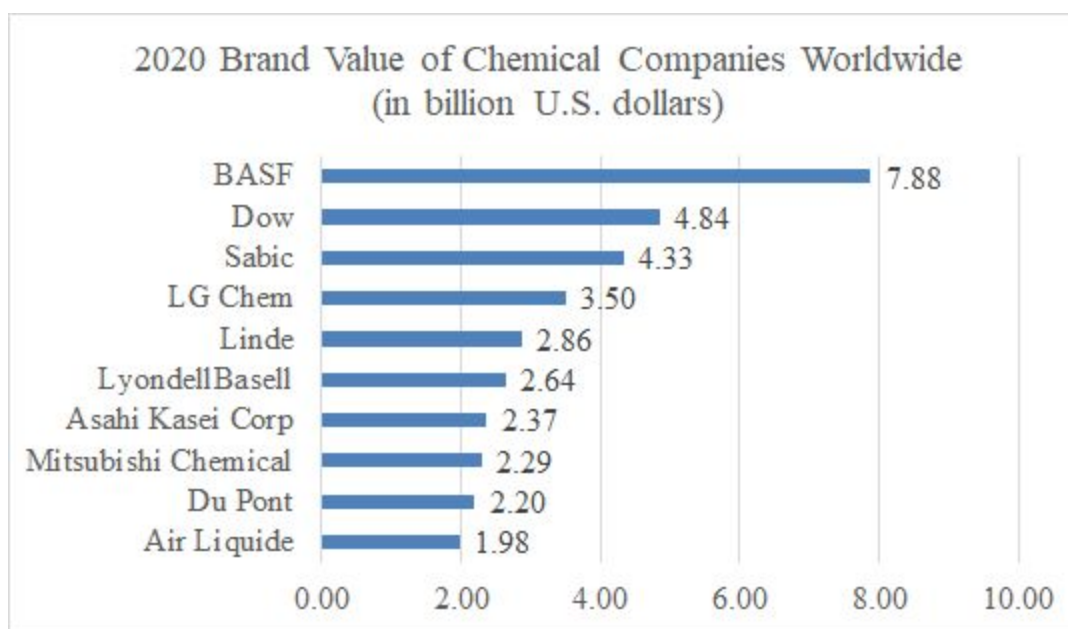
Today, BASF has a worldwide reach, represented by companies in more than 80 countries. It employs over 117,000 people worldwide and serves about 100,000 different customers. It

dominates the industry and is the biggest chemical-producing company in the world, holding a top three position in around 75% of its business segments (BASF, 2015).

Around the turn of the millennium, BASF strengthened its core business and optimized its product portfolio to consist of the six aforementioned segments we see today. Sustainability, something very relevant to corporations today, became a revolutionary business strategy and is integrated into its daily operations (BASF, 2015).

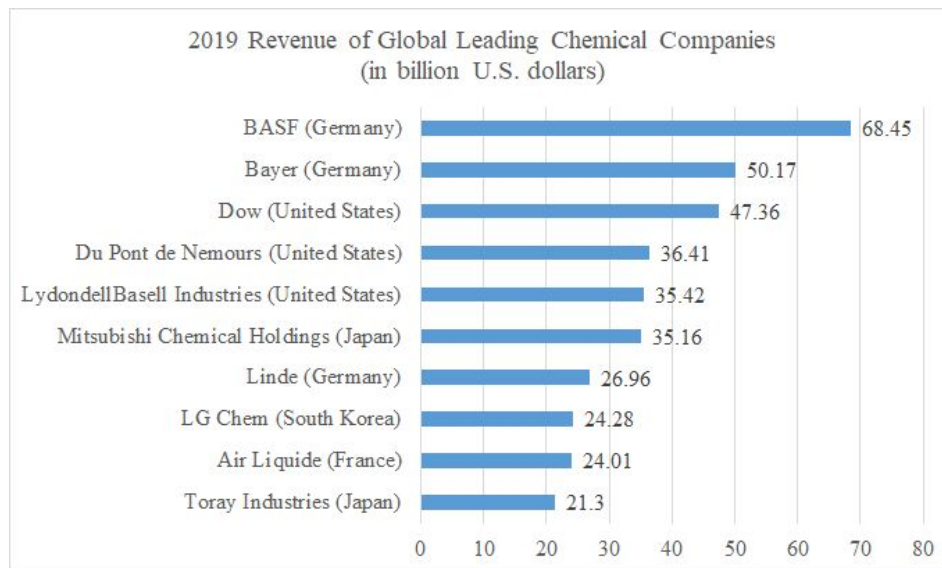
The company is a key supplier for many major customers. A few examples of awards BASF has received from its clients in recent times include “Supplier of the Year” from General Motors and “Supply Chain & Quality Improvement” from Airbus (BASF, 2019), exemplifying BASF’s global reach and successful business management performance.

Below is the brand value of BASF compared to that of other chemical companies, as of January 2020. BASF is significantly ahead of its competitors, valued at nearly 63% more than second-place Dow Chemical. Brand value is an important measure of success because it monetizes the premium customers are willing to pay for a certain brand of product, and indicates customer awareness of the company.



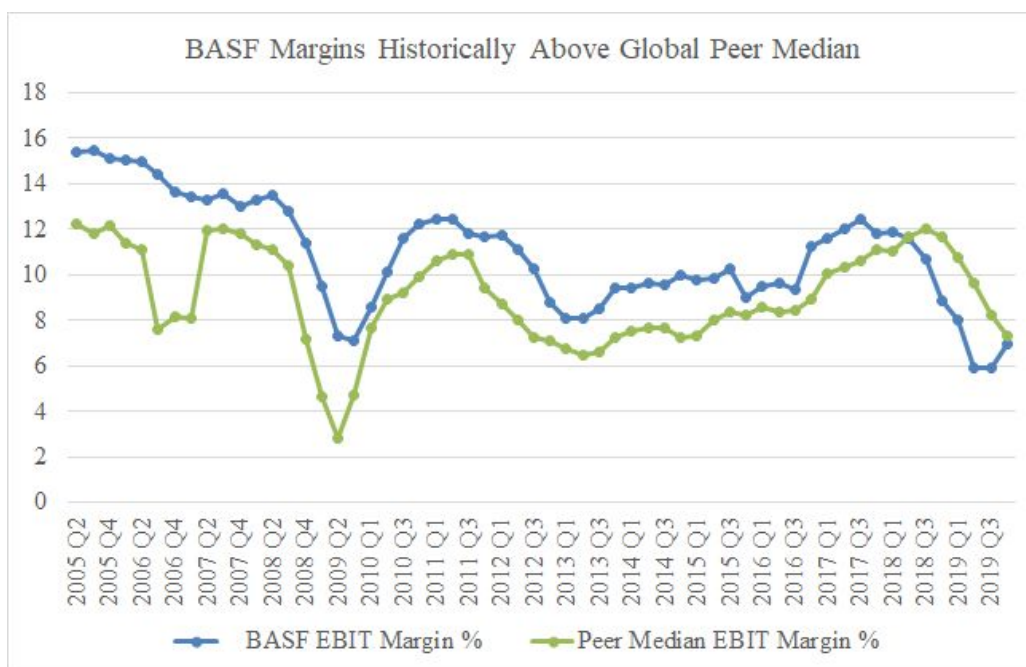
Source: Garside, M. (2020). *Leading chemical companies worldwide based on brand value 2020*. Statista.

In comparison to all global leading chemical companies, BASF came out with by far the highest revenue in 2019. The second-strongest company, which was also German, lagged by almost \$19 billion.



Source: Thomson Reuters (2019). *2019 ranking of the global leading chemical companies*. Financial Times.

A good way to illustrate the success of BASF is to measure its margins against those of its aggregate peers. The graph below directly shows this relationship over the past 14 years. For a large majority of this time, BASF's margins have been well above the peer median. In recent years, however, this relation was inverted, but it appears as though BASF is making a comeback and is now in line with industry performance. The company's most recent growth in net income of 80% in 2019 shows it has recently made significant strides forward.



Source: Miner, J. (2020). *BASF Research*. Bloomberg Intelligence.

When researching BASF's year-over-year revenue, it showed that in the past 5 years, revenue levels were lower than levels of the preceding 5 years, potentially a negative indicator. However upon further examination, the chemical industry as a whole experienced a decrease in total worldwide revenue of a comparable magnitude during the same time period.

Today there is an increased lens on sustainability and environmental impact in business, an important issue affecting the chemical industry. BASF is already a leader in sustainable innovation, which may be a key factor that allows it to keep its place as the top global player in the coming years.

SIEMENS

Siemens AG is an engineering and manufacturing company. It focuses on areas of electrification, automation, and digitalization, as well as engineering solutions in automation and control, power, transportation, and medical diagnosis (Bloomberg, 2019).

POST-WWII CONDITIONS

Known then as Siemens & Halske, the company played a critical role in Germany's war effort and thus suffered heavy losses. Siemens had lost four-fifths of its assets by the end of World War II. Yet by the mid-1950s, the company was able to rebuild and return to the international market by developing new equipment (Bloomberg, 2019).

When Siemens management got word of the Allied zoning of Germany, specifically the Russian occupation of Berlin, it established *Gruppenleitungen* (group directorates). The goal of this management decentralization was to ensure the firm's ability to take action and survive after the end of the war (Siemens).

In 1945, Ernst von Siemens took over the group directorate of Siemens & Halske (S&H), including all department units in western Germany. Munich was to replace Berlin as the new location for the headquarters of this group directorate. This choice was made because Munich was under the American occupation zone, which was expected to offer businesses the best development opportunities. Traditionalists continued to see the future of the company in Berlin and this resulted in some internal disputes. Although some dissent existed, it was clear to many that relocation was essential because occupation under Soviet control might not have been the best option for company growth (Siemens).

In 1949, Siemens made a historical forward-looking decision known as the *Starnberger Friede* (Peace of Starnberg), which marked the official end of Berlin as the headquarters location. This was possibly due to the addition of the French occupation zone to the American and British zones, the failure of the Soviet zone to introduce currency and economic reforms, and the establishment of the Federal Republic of Germany (Siemens).

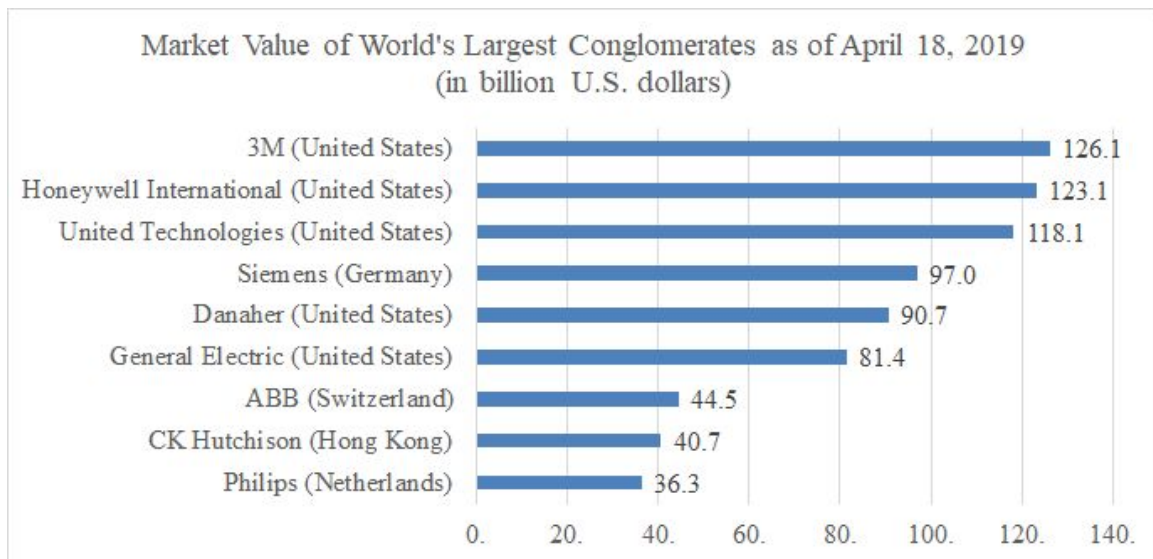
After 1945 Siemens needed to regain its image as a worldwide brand. The Allies started easing foreign trade restrictions on Germany by 1948, and the company gradually returned to the world market. It invested significantly in buying back patents, brands, and trademarks and began to found and rebuild companies all over the world. By the end of the 1956 fiscal year, Siemens' export business was the source of about 25% of total revenue (Siemens).

The 1950s saw a sharp increase in the electric appliance business. During German reconstruction and the economic miracle, washing machines and refrigerators – along with automobiles, radios and televisions – came to symbolize West Germans' rising prosperity. A young boy at that time, Becker distinctly remembers this development and comments that his parents' first refrigerator was “a big thing.” The increasing demand was significantly favorable for Siemens, which had been making such consumer goods for decades. Siemens soon landed prestigious large contracts that revived its business overseas (Siemens).

The business opportunities in the American zone, as well as currency reform and advantageous industry conditions, helped Siemens bounce back from the destruction of the war and poise itself for the growth that would continue into the 21st century.

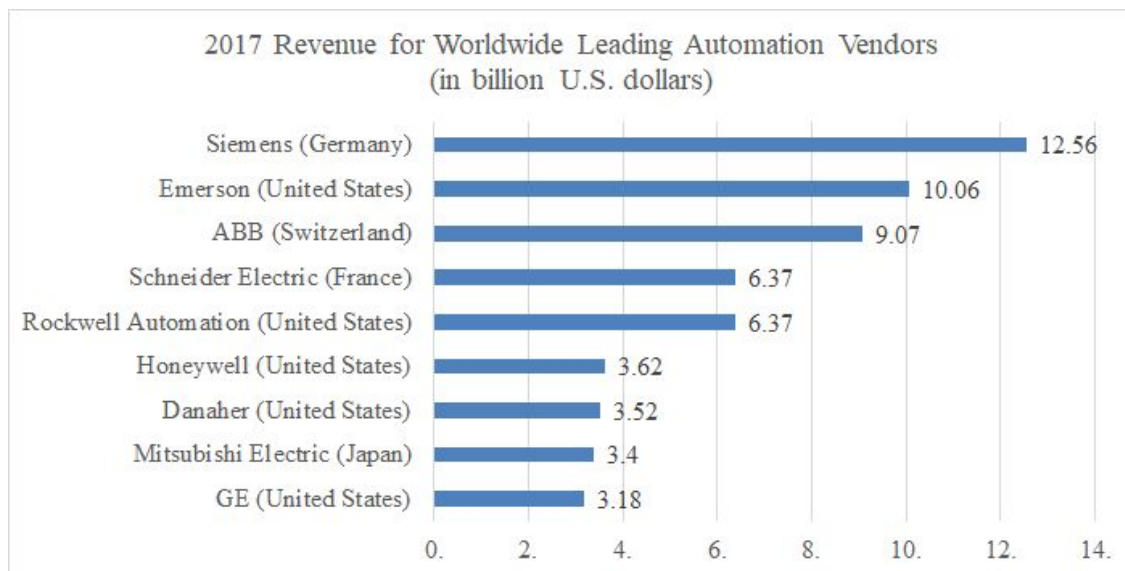
PRESENT-DAY PERFORMANCE

Several statistical snapshots point towards Siemens' success in the present-day global market. Before getting into more specific measures of Siemens' performance, the following chart represents the world's largest conglomerates. Siemens is number four on this list - the size and breadth of this company is extensive and has come a long way since the postwar era.



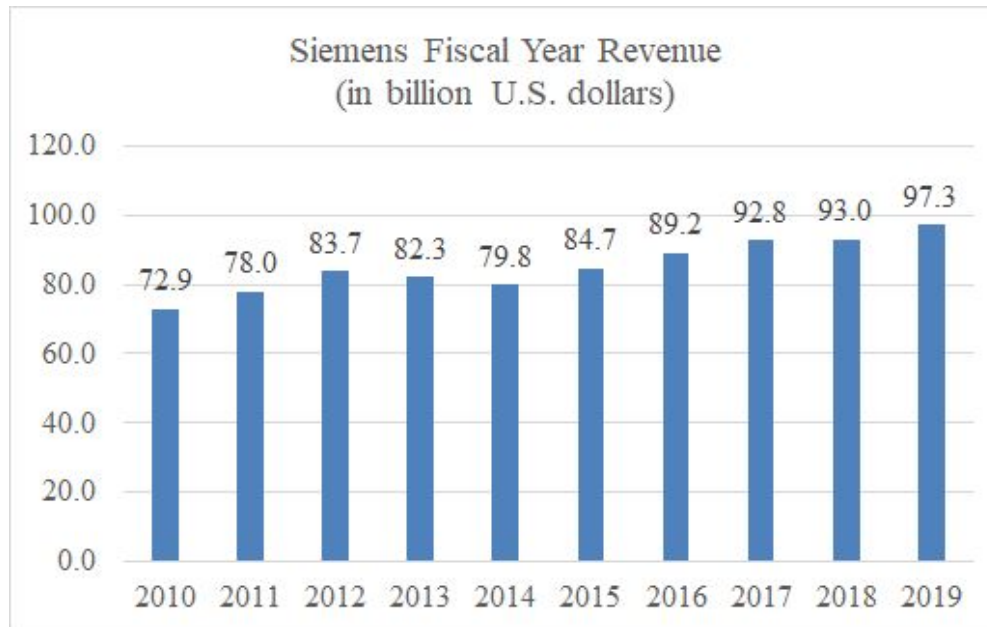
Source: Forbes (2019). *World's largest conglomerates as of April 18, 2019, based on market value.* Statista.

Worldwide, Siemens had the highest revenue in 2017 for leading automation vendors. With \$12.5 billion in revenue, Siemens came in first place by over \$2.5 billion.



Source: Wagner, I. (2018). *Leading automation vendors worldwide in 2017, based on revenue.* Statista.

In Siemens' last ten fiscal year cycles, there has been a steady upward trend in revenue, showing growth and a healthy amount of business being done each year by the firm.



Source: Siemens (2019). *Siemens AG's revenue from FY 2010 to FY 2019*. Statista.

Note: Currency converted using the 2019 exchange rate of 1.12

Siemens is focusing on its software capabilities and presence in the tech world as increasing digital sophistication evolves new industries. It has invested in several mergers and acquisitions over the past few years, including one to expand the company's cloud-based internet operating system. Siemens is also adjusting to market trends in the energy industry, moving towards efficient and renewable power. In 2017 the company strengthened its onshore turbine business in China, Latin America, and India through a merger that strengthened its wind power business (Bloomberg, 2019). The company's awareness of trends and consumer needs have been key for its success, and if it remains perceptive of those, the company can continue to differentiate itself.

VOLKSWAGEN

Volkswagen AG manufactures and sells vehicles, serving customers globally. Originally founded by the German government in 1937 to produce a "people's car," today its products include economy and luxury cars, motorcycles, and commercial vehicles (Bloomberg, 2019).

POST-WWII CONDITIONS

In 1945, American troops liberated Volkswagen's forced laborers and set up maintenance works for their military vehicles in the Volkswagen factory. The occupation of the factory marked the beginning of the transition from armaments production to civilian automobiles, generating hope for a better future. As the largest and most important employer in a region with little industry, the local population counted on Volkswagen for survival (Volkswagen).

In the beginning, the United States Army utilized available parts to produce vehicles. Subsequently, responsibility was turned over to Allied British forces. The British Military Government instructed the company to produce sedans to meet their increased transport needs during the occupation period. Because Volkswagen manufactured goods for the Allies, it had priority in supply of raw materials that were then in short supply. The importance of this privilege during the time of economic control cannot be overestimated. Like most raw materials, the steel that was indispensable for car production was subject to a quota system (Volkswagen).

In 1947, Volkswagen obtained its first importer for its sedans (also known as saloons). The firm was well ahead of other car-makers in the export business. In total, the company had 56 exports in 1947 - the next year, it had 4,500. In order to remain competitive, British officers ordered a critical review of the saloon at the end of 1947, resulting in strong subsequent quality improvements. On April 26, 1948, the company officially moved its business offices from Berlin to Wolfsburg (Volkswagen).

The currency reform and the introduction of the Deutschmark established a functioning market for goods, which ended the short-supply economy and helped pave the way for Volkswagen's economic growth. In 1948/49, it built just under half of all the cars produced in West Germany (Volkswagen).

Volkswagen itself was considered a symbol of the Wirtschaftswunder. The company was able to shape its long-term growth strategy by combining mass production, global market orientation and the integration of its workforce. The rapid growth of the workforce made the creation of new housing an urgent task, so in 1952 Volkswagen established a non-profit community housing corporation to ease the housing shortage in Wolfsburg (Volkswagen).

Volkswagen's transition to pedestrian cars under American occupation and its increased access to raw materials paved the way for it to become a market giant. It produced best-selling cars over the next decades using the American mass-production system. Its Transporter model was called the "workhouse of the economic miracle," a minibus primarily appealing to business users. The Volkswagen saloon was the best-selling car of the decade, achieving a market share of around 40%. It also came out with the iconic Beetle. By 1959, every third car in Germany was a Beetle and Volkswagen's market share was 31.5% (Volkswagen).

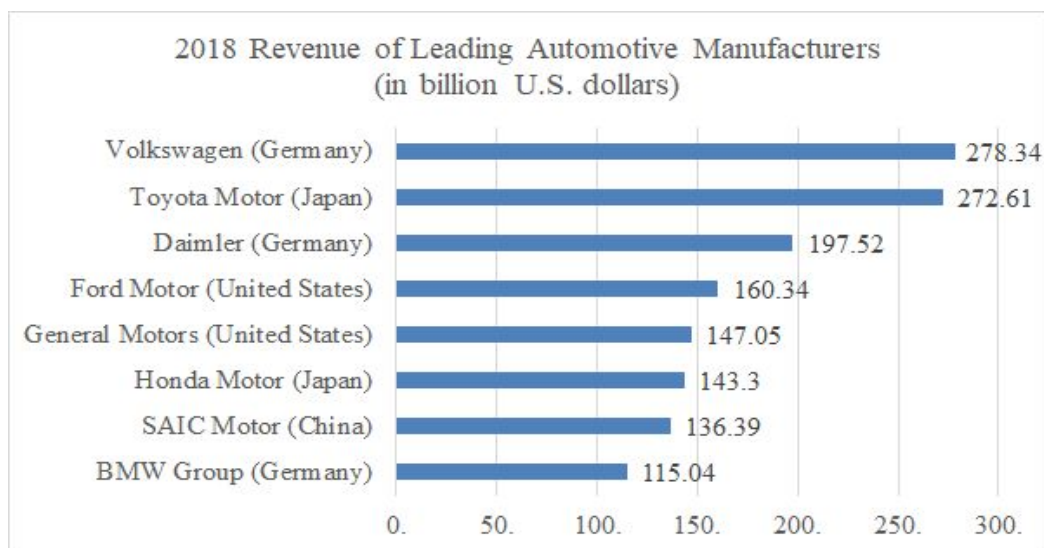
PRESENT-DAY PERFORMANCE

Volkswagen's headquarters in Wolfsburg, Germany holds the world's largest car manufacturing plant. It has a global market share of around 12% and produces nearly 11 million vehicles each

year, second only to Toyota. It operates under 12 independent brands and has over 120 plants in more than 30 countries across the world (Bloomberg, 2019).

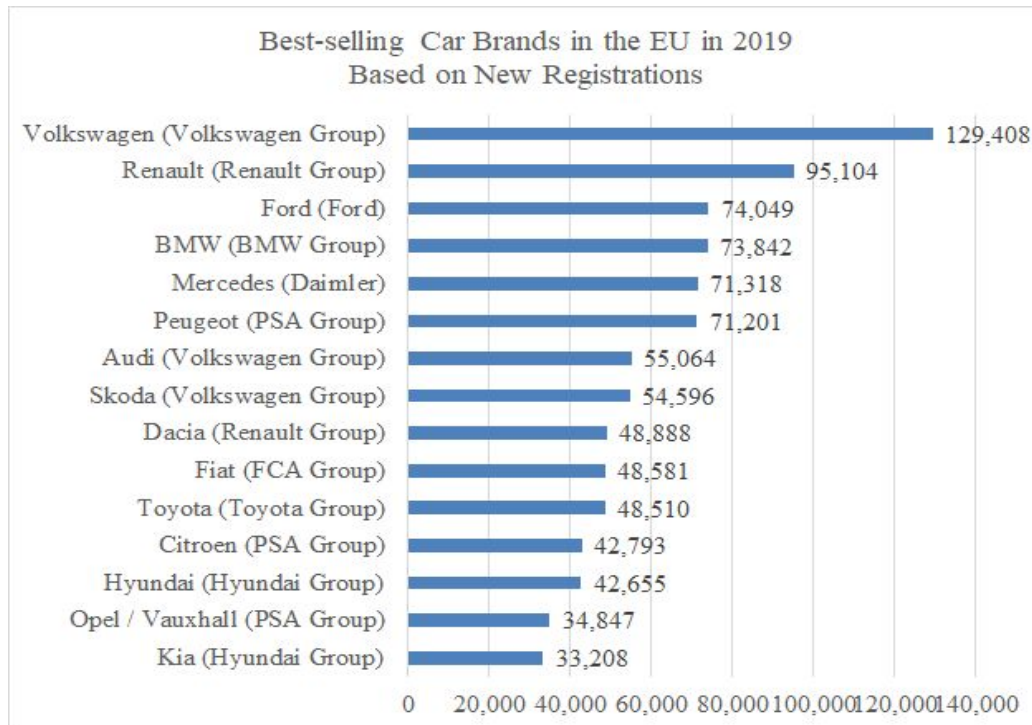
In general, Volkswagen poses a strong position against its competitors and is a well-recognized and respected brand. It boasted a worldwide sales revenue of \$253 billion euros and did \$17 billion euros in operating profit in the fiscal year 2019. This company is a prime example of one that rebounded after World War II, moving from producing war vehicles to being a staple of society today (Bloomberg, 2019).

In 2018, among leading car manufacturers worldwide, Volkswagen had the most revenue at \$278.34 billion, beating out Toyota by just under \$6 million.



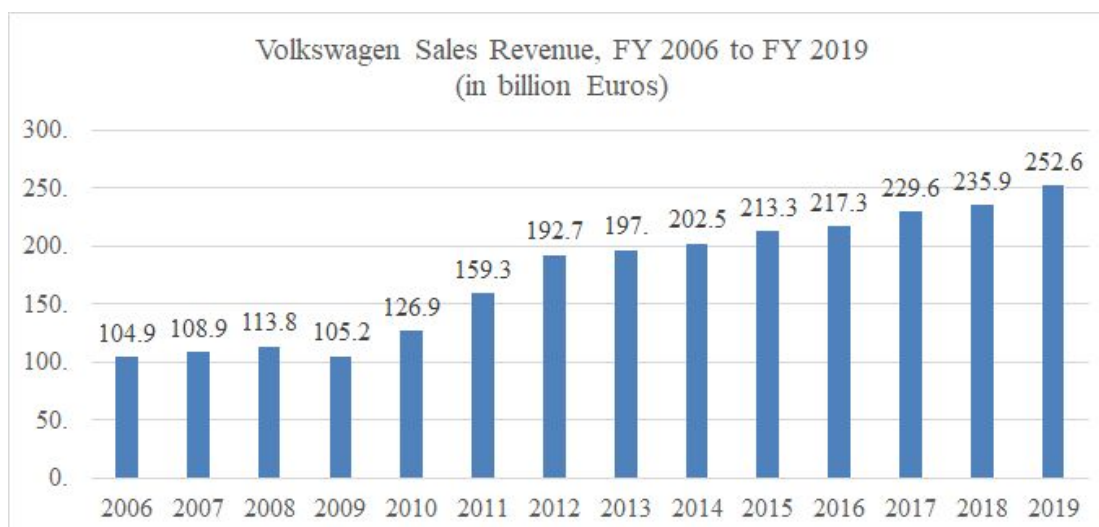
Source: Wager, I. (2020). *Revenue of the leading automotive manufacturers worldwide in 2018*. Statista.

In 2019, Volkswagen was the automotive group with the best-selling car brands in the EU, beating out second-place Renault Group by a whopping 35,000 new registrations. It is important to note that many brands fall under Volkswagen, including Audi and Porsche.



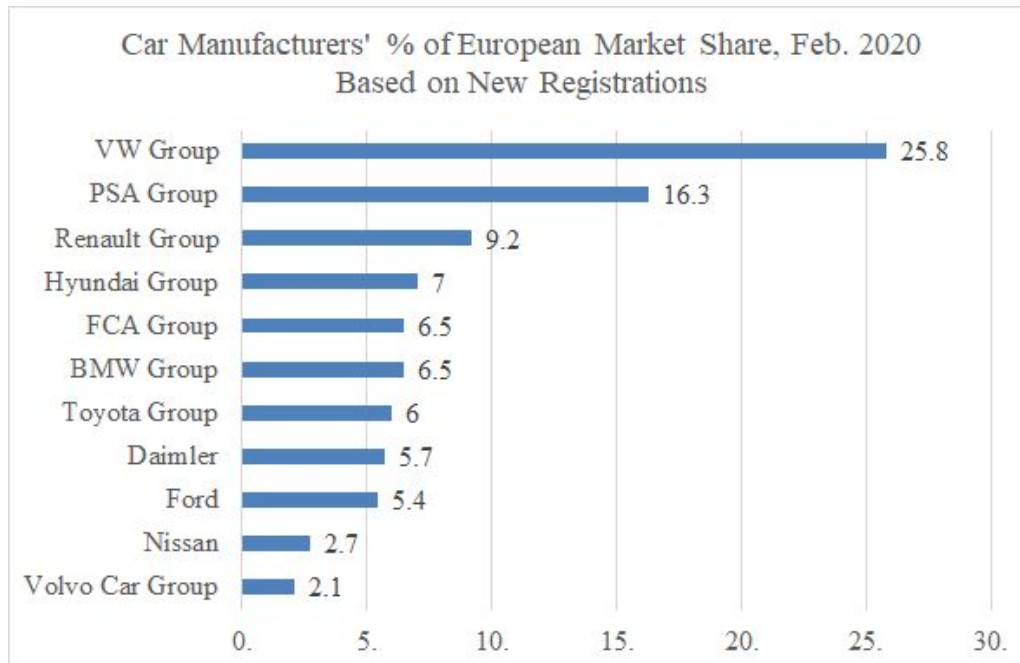
Source: Wagner, I. (2020). *Best-selling car brands in EU-28 in Dec. 2019 based on new-car registrations*. Statista.

The following graph illustrates Volkswagen's sales revenue from fiscal year 2006 through fiscal year 2019. The company has exhibited a steady increase in revenue over this period, a promising indicator of a stable and successful firm.



Source: Wagner, I. (2020). *Volkswagen AG's sales revenue from FY 2006 to FY 2019*. Statista.

Below is a chart showing car manufacturers' percent of the European market share based on new registrations as of February 2020. Volkswagen has a significantly higher market share than any other group, coming in at over one-quarter of the market share.



Source: Wagner, I. (2020). *Selected passenger car manufacturers' European market share between January and February 2020, based on new registrations*. Statista.

While Volkswagen has had a consistently strong performance in recent times, it was the center of a diesel deception scandal in 2015 due to falsifying emissions data and is still feeling the effects. Millions of Volkswagen-branded cars were fitted with a defeat device in their engines. The automotive manufacturer will likely have to recall 8.5 million diesel-engine vehicles in Europe alone. Attempts to mitigate repercussions from the scandal are expected to cost 30,000 jobs over the course of the next few years. It is rumored that Volkswagen Group will also get rid of some noncore assets, such as the Ducati motorcycle brand. While company performance has stayed strong since the confirmation of the scandal at the end of 2015, this issue makes the coming years uncertain for Volkswagen, and it could be affected well into the future (Wagner, 2020).

Nevertheless, the company's continued position as a leading market player shows the extent of its loyal customer base and brand distinction. Moving forward, Volkswagen has the opportunity to expand its reach and penetrate the growing electric vehicle market. This could be crucial to the company's growth strategy and can make or break its market position in the future.

These company cases offer specific examples of German restoration and how certain businesses rebounded from the war. To go further than that, Germany's economy as a whole is also very competitive on the global stage today.

GERMANY'S ECONOMY TODAY

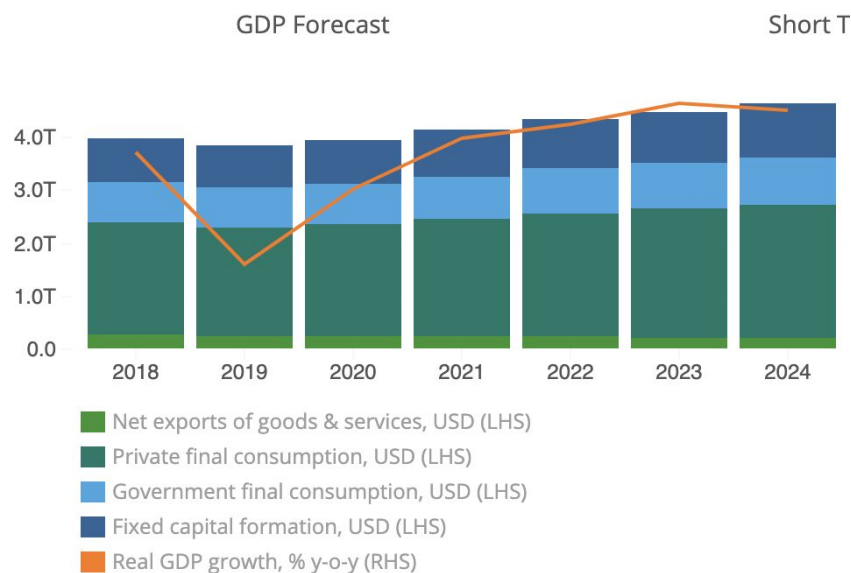
ECONOMIC LANDSCAPE

Germany holds a strong position in the world market with the fifth largest economy based on purchasing power parity. It is the biggest economy in Europe and acts as "the engine of the region's growth" (Boumphrey, 2019). It benefits from a highly skilled workforce, and low levels of corruption allow businesses to operate unhindered. The country is known for its strong export-orientation, distinguished in the chemical, automotive, electrical, and mechanical engineering industries (Boumphrey, 2019). On Euromonitor International's Global Competitiveness scale, Germany ranks seventh out of 141 countries, behind Japan, the United States, China, and others, but preceding the United Kingdom and most Western nations ("Global Competitiveness Scale," 2020). Its focus on innovation will continue to support economic development (Boumphrey, 2019).

Investors are attracted to the superior quality of German manufacturing and the country's technological capabilities. The German government's commitment to upgrade the country's infrastructure is another appealing quality (Boumphrey, 2019). Foreign direct investment remains strong in Germany, and Becker referenced Tesla's entrance into the country. Tesla is now building outside of Brandenburg, in "the den of the lion of the automotive industry worldwide." It built a factory there with a larger capacity than its headquarters in California, indicating a reversal of sorts. "It's not anymore the German diesel engine going out, it's now the digitalized car of Elon Musk [coming in], so that is pretty impressive. The paradigm certainly changed."

2018 FINANCIALS

At the end of fiscal year 2018, Germany had a national gross domestic product (GDP) of 3,947,741.7 million USD ("Germany Country Profile," 2020). The country had a population of 82 million people and an unemployment rate of 3.40% ("Current Key Financials," 2020). Fitch Solutions forecasted real GDP to grow by 1.1% in 2020 and 1.5% in 2021.



Source: Fitch Connect (2020). *Germany Country Risk Summary*.

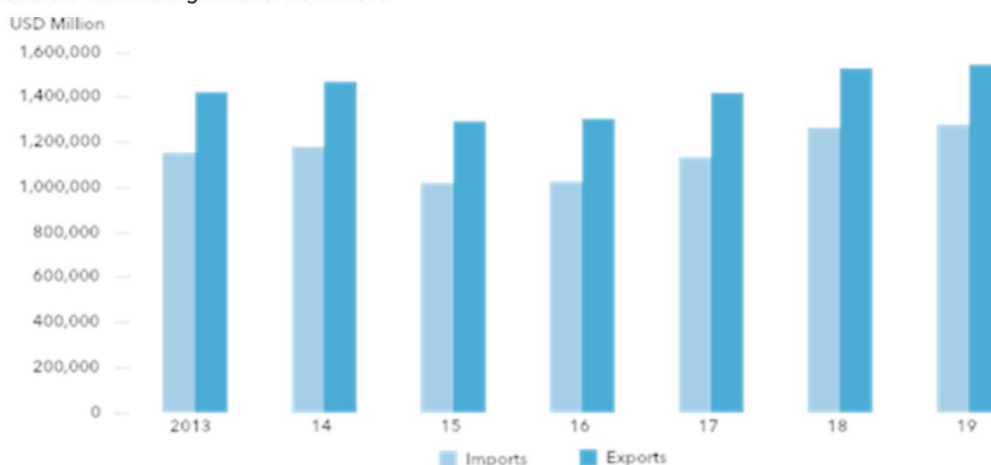
	2012	2013	2014	2015	2016	2017	2018
GDP (USD millions)	3,527,426.3	3,732,728.1	3,883,920.2	3,360,550.0	3,466,790.1	3,657,159.2	3,947,741.7
GDP (EUR millions)	2,745,310.0	2,811,350.0	2,927,430.0	3,030,070.0	3,134,100.0	3,244,990.0	3,344,370.0
GDP (Real Growth %)	0.4	0.4	2.2	1.7	2.2	2.5	1.5

Source: Passport (2020). *Germany: Country Profile*.

IMPORTS AND EXPORTS

Germany has had a trade surplus over the past several years, as exports have outweighed imports consistently. This is a sign of a strong economy that excels in the production of goods and services. Germany is earning more in export revenue than they are spending to bring in necessary items. In 2018, Germany had a trade surplus of 263,792.2 million USD (“Germany Country Profile,” 2020).

Chart 3 Total Foreign Trade: 2013-2019



Source: Euromonitor International from national statistics/OECD/IMF

Note: Data for 2019 is forecast.

Source: Passport (2020). *Germany: Country Profile*.

	2012	2013	2014	2015	2016	2017	2018
Total Exports (USD)	1,374,083.0	1,422,859.3	1,470,254.6	1,293,833.9	1,304,818.5	1,419,012.2	1,527,242.2
Total Imports (USD)	1,117,840.8	1,152,374.9	1,178,747.6	1,018,493.4	1,024,565.2	1,133,099.0	1,263,450.0
Trade Surplus	256,242.2	270,484.4	291,507.0	275,340.5	280,253.3	285,913.2	263,792.2

Source: Passport (2020). *Germany: Country Profile*.

POTENTIAL ECONOMIC OBSTACLES

While Germany is one of the five biggest economies in the world, it may not hold this spot in the coming years as the global economy becomes more integrated and complex. According to Fitch Solutions, issues such as a shrinking population, the need to reduce regulations, and restructuring the banking sector pose challenges to Germany in the future (“Germany Country Risk Summary,” 2020). Germany’s working age population is rapidly declining as the pension-age population grows (“Germany 10-Year Forecasts,” 2020).

Although Germany can be an attractive environment for foreign investment in many ways, establishing business there comes at an elevated cost. Its relatively high tax burden can deter company incorporations (“Business Dynamics: Germany”, 2019).

Economists believe that the Eurozone is not poised for growth in the coming decade and that global protectionism will concurrently increase. The US-China trade war and increasing tariffs will hinder the German economy's ability to grow as it is highly dependent on exports ("Germany Country Risk Summary," 2020). Germany must find ways to remain competitive as globalization increases and other nations pose a threat with rising productivity.

STRENGTHS

Germany has a strong and stable democracy that has a powerful voice and influence over the European Union ("Germany Political SWOT," 2020). The influx of young immigrants arriving in the country since 2015 have been a relatively cheap addition to Germany's workforce and will provide tax revenues while helping the country's growing demographics problem. Analysts believe that Germany will continue to have one of the continent's lowest unemployment rates and highest standards of living. It has historically had a savings surplus and has a competitive advantage in high-tech manufactured goods. Government monetary policy has consistently encouraged consumption and consumer spending and drives growth ("Germany 10-Year Forecasts," 2020).

Note: At the time this was written, the world was in the middle of the COVID-19 pandemic. This unprecedented event will have extreme economic impacts on Germany moving forward. Expert analysis on economic strengths, obstacles, and projections were forecasted before the economic shutdown caused by the pandemic.

OTHER INFLUENTIAL FACTORS

Germany's return to economic prominence did not happen overnight - it occurred over decades of complex development. Several factors other than American economic aid likely influenced this success.

Americans were not the only forces occupying Germany after the war. British, French, and Soviet troops also implemented their own support measures. Had the United States not been involved, perhaps Germany would have progressed faster, perhaps slower. Additionally, Americans would likely not have been able to conduct the entire occupation on their own.

Many of the German industries that suffered as a result of the war were already well established prior to it. Further research would be needed to analyze pre-war manufacturing capabilities and compare them to post-war levels after American occupation and aid.

The country's willingness and confidence in foreign market entrance, especially in China, was another trait that has led to an increase in wealth. An international presence proved to be increasingly important in the globalized state of the world, where more and more economic activities occur and are merged across country lines.

A relatively long period of time passed between American involvement in Germany's reconstruction and the statistics presented regarding present-day Germany and German companies. This means that a myriad of events have impacted German businesses since then, including but not limited to the Fall of the Berlin Wall, the Financial Crisis of 2008, war involvement, and Eurozone activities such as Brexit. Becker would say that reunification in and of itself was a major boost for German industry.

Germany's image and global renown for building reliable products also played a role in its recovery. It is important to note that Germany had a terrible reputation following the war and worked arduously to rebuild relationships with other countries, including its former enemies. In Angela Merkel's words, Germans "will never forget the hand of reconciliation that was extended to us after all the suffering that our country had brought to Europe and the world" (Rienzi, 2015). In 2014, 60% of the international community ranked Germany positively in a BBC poll (Rienzi, 2015). Gaining this positive international opinion required a lengthy process. The condemnation of war crimes through the Frankfurt Auschwitz trials of the 1960s allowed Germany to begin taking responsibility for Nazi war crimes. A "grassroots reconciliation effort" was started by German faith-based groups to reach out to Israel and France and was supported by Konrad Adenauer, the first Chancellor of the Federal Republic of Germany (Rienzi, 2015). Germany also paid reparations to Israel for the crimes suffered by Jewish people. Without reconciling with other nations, Germany's economy would have been unable to thrive in the ways that it has.

Had Germany not taken the necessary steps to make amends, "Made in Germany" products may not have not achieved a positive connotation. Other countries and importers likely would not have been as receptive of German goods. Although the term was coined by the British in the late 1800s, the "Made in Germany" label became increasingly desirable after World War II. People realized that Germany, unlike the United States, focused on superior quality work and "post-industrial custom-tailoring" rather than mass-produced items (Deutsche Welle, 2012). Germany showed its desire to reintegrate itself with the rest of Europe by joining the European Coal and Steel Community and the European Economic Community in the 1950s. Additionally, integrative transatlantic institutions - military, political, and economic - bound Germany to the United States and other Western nations, creating an environment in which Germany could actively engage in international business activities (U.S. Diplomatic Mission to Germany, 2008). Becker comments that Germany was especially strong in areas such as diesel engines, car manufacturing, machinery for woven and non-woven fabrics, and making fast trains. In Becker's

words, Germany “produced good products which the whole world wanted to buy...We were good at that and we were good at exporting.”

CONCLUSION

Although American aid was certainly an influential factor in advancing the German economic situation immediately after World War II, it is impossible to know how the reconstruction period and resulting economy would have fared without it. The present and future are always influenced by historical minutiae that continue to impact future outcomes.

A change in any number of factors, such as German leadership, business law, or the global economy, could have largely impacted the German economy and permanently changed its course in history. American aid was merely one part of a multitude of forces influencing Germany’s future. Other scenarios, such as the implementation of the Morgenthau Plan, complete Soviet control of Germany, or reconstruction without any other country’s influence, could have greatly benefited or damaged Germany, but it is impossible to measure the effects of an event that did not occur.

The political landscape during the Cold War also created an environment that played a major role in American involvement. There was considerable self-interest at play when Americans devised the Marshall Plan. The United States feared losing power to the Soviet Union, and one of the goals of the Marshall Plan was to halt the spread of communism into Europe. By fostering commerce between European countries and the United States with the Marshall Plan, the United States was able not only to assist Germany specifically, but to ascertain global power itself.

Germany is indeed an economic superpower today, but after discussion with industry experts, it is clear that this present-day success likely cannot be attributed only to American aid from over 60 years ago. Several significant events for Germany took place since the Wirtschaftswunder, including its reunification. It would be necessary to research when exactly the aforementioned German companies started surpassing their competitors - specifically, whether or not that occurred before or after reunification. As stated by Klaus Becker, “ I would not say that the success of the last 10, 20, 30 years...is based on the Marshall Plan.”

While the creation of the Deutsche Mark and the Marshall Plan on their own did not single-handedly bring about German economic success, both were essential in quickly repairing the war-devastated economy and were largely brought about by the United States. Again, Becker believes that the Marshall plan was the crucial initial push to ignite the German economic motor. The currency reform was instrumental in eliminating Germany’s black market of normal goods and services and revitalizing consumption and production activities. Without it, the country’s

rally back into manufacturing may not have been possible in the time that it was. Business opportunities in the American zone also helped major companies to come back from the destruction inflicted upon them by the war. Today, many of those companies are extremely prosperous and have a strong presence on the worldwide stage. Germany's overall economic conditions are admirable, and it certainly has potential for growth and continued success.

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APPENDIX

INTERVIEW WITH KLAUS BECKER

March 20, 2020 4:00 PM EST

The following interview was conducted by Gabriella Barber and Emily Carlstrom via phone call with Klaus Becker, Honorary Consul to Germany. His insights offered an important perspective on life in Germany after World War II. Additionally, his experience in business and German-American relations gave us several new things to think about, which we subsequently incorporated into this paper.

Q: Can you tell us about yourself and your experiences?

A: I am Klaus Becker, I have been living here in the United States for the past 14 years. I was born in Germany in Marbach, a quaint, old university town. I underwent the normal education. I went to high school. I did something which was unusual - I did one of the famous apprenticeships after high school, which was unusual at that time. And then, I studied and through the studies, I worked in the United States, I worked in Italy, I worked in Brazil, I worked of course in Germany as well. And then immediately after my diploma it was called at that time - nowadays you would call it the Master's - I went immediately within 7 days after my examination to the United States and stayed there. I worked the first 3 years for an international steel trader and then this company went bankrupt in '83.

Since that time I have been on my own, I am entrepreneurial, independently working and I have always been involved in the international steel trade and have engaged myself in various non-political associations. I was president of the Charlotte World Trade Association and then I was 7 years the president of the North Carolina German-American Chamber of Commerce. And for the past 6 years I have been the Honorary Consul of Germany. I represent the Federal Republic of Germany in the Western 50 counties of North Carolina. I immediately said when they appointed me to this function that I want to fill it with life, and so I have founded the Zeitgeist Foundation, which really has become a nice institution. On the one hand, it tries to bring Charlotte and the region - the Carolinas in the widest sense - onto the political map of the German institutions in Washington, in Berlin, and in the individual states in Germany. By the same token, to convey aspects of German life to the region here, to Charlotte, but I have been teaching also to universities in South and North Carolina. And to spread a little bit, convey the aspects of German life, in cultural and artistic aspects, in political and journalistic, in historic even sports-related, so that's the basis.

Now I will do a little more - that's the standard introduction there. I was thinking about where you're coming from, and quite frankly, I did not know based on what I learned in school very much about American history, I did not know very much about the Second World War - somehow ...?... in our area, in our time, and I don't want to say it was purposefully, somehow we didn't get to it. I learned a lot of things just later - especially now in the last five, six years here that I got more involved in the transatlantic and more involved in German-American relations also when I became American, and I had to deal with that little booklet, which I thought was wonderful, with 100 questions that you had to be able to answer to be an American citizen.

So that was a very interesting thing and now, to 1948 - to the Marshall Plan. Go a little bit further back. Americans were drawn into the First World War - 1914-1918 - rather late, in 1917, in January 1917. They didn't really want it, they wanted to be on their own. They said listen, look, we don't need that, we have an ocean on both sides and we want to be left alone. And then they saw that the catastrophe was so bad, and that their interests were in the long run not really represented. So they went into that and sacrificed, of course, soldiers there which was horrible, and ended the First World War. The First World War was never really negotiated very well, and you can go into that much deeper than I can. It never came to complete rest, so basically I always compare these almost thirty years of 1914-1945 between the two World Wars to the time of 1614-1648, the time of the Thirty Year War. It takes apparently thirty years before something is clarified like that. America was drawn into the Second World War, where they really didn't want to be either, and they needed to do that and they had even another enemy, the Japanese. It became a much harder battle. And so they were, I say a little bit flippantly, they were set up and said that we don't want to do that anymore and if you don't behave in the future, we will come up with a couple of institutions.

And that was mainly Truman. I think very highly of President Truman, who created multilateral institutions, which are so often scolded nowadays, and that's a side remark. They created multilateral institutions like the United Nations in New York, they created NATO. By the way NATO, that was not a joke, there was a saying at that time that NATO was created in order to keep us, the Americans, in, in Europe, to observe everybody, to keep the Russians out, to keep the communists out, and to keep the Germans down. One doesn't say that nowadays anymore but that was the original idea. They supported very much the European Union and the whole thing was basically geared to peace in the world, which worked very well. We have in Europe now an unprecedented peace period of 70 years, which has not happened before. Now, they were of course, asking themselves, what do we do with the alleged aggressor, Germany, who started all that mess and misbehaved very badly? What do we do with them?

There was, for example, the Morgenthau plan, whose idea was to flatten the whole country and make it a rural country of just peasants. Then Marshall came, George Marshall, 1948. He was the Secretary of State and he said look, I think we don't do that, we use the qualities which the Germans have - like engineering, the science, the research, the high capacity to work punctually and to work hard - we use that, we will build up Germany, we will control them very much, and by the same time we will build up against the Russians, the Bolsheviks. And so they decided to support Germany for 5 years. And it was only for 5 years, and that was the initial push to get Germany really going.

You probably know in '48/'49, shortly after the Marshall Plan was implemented, another setback came. The Russians were very mean, they cut it off, all of Berlin, and the Berlin Airbridge was

created. Americans went out of their way to support Germany, to keep the former capital of Berlin alive. It's commended, at one stage I prepared myself for a speech regarding the Airbridge. It's enormous what the Americans did at that time. And so that was the key ignition to get the German motor going. Germany was very much down - it was 98% destroyed. You would see sometimes cities - homes in Syria, they are not as destroyed as German cities were at that time. They were 98% - they were all one stone on another. We really started absolutely from scratch. That was, of course, a welcome help at that time.

I remember ruins, for example, opposite of the apartment complex where I lived with my parents. My mother always said don't go into the ruin, until many years later they made a playground out of it. Don't go into the ruins! Number one, there were wrecks. Number two, there was always the danger that there were some bombs which didn't go off which could go off when children play with that. So I grew up with that - I still remember a lot of ruins, and I was born in '53. I was born 8 years after the war ended and I still remember. You don't remember anything when you're a baby, you have to be 4, 5 years old. So I remembered, basically, until the late '50s, still ruins standing in Dortmund, so it took a while.

In the meantime, you cannot say that Germany's position - and I sense that a little bit in your questions or in your comments so far - I would not say that the success of the last 10, 20, 30 years - so since reunification - the success which Germany has is based on the Marshall Plan. I don't think you can say that. I think the Germans caught that ball, they caught it well, they behaved, they were humble, they knew that they did horrible things, they did not want to be politically active, they were fully under the protection and under the umbrella of the United States. They just wanted to have one thing: a better life, and politically not disturbed by any emperor, by any crazy communist parties, by nationalistic parties, or by Hitler, they just wanted a normal life, and they built and built and built. I would say since 1990, continual economic success of Germany is not anymore directly [due] to the Marshall Plan. It's only insofar that the Marshall Plan gave the key ignition to it. Now I've said a lot, now you may want to ask another question.

Q: We also wanted to ask you, how have you seen Germany's economic development change throughout your lifetime?

A: Look, I can tell you that very easily. In the beginning, it was one thing, it was resurrection. What I related to a little bit was resurrection of the pure wounds of building houses again. Don't forget one thing - we had 16 million refugees in that country coming from Russia, coming from Czech Republic, coming from East Germany, which was communist. West Germany [took many refugees] themselves, a figure which is often forgotten nowadays. They say, oh, Merkel had 1 million refugees, and they are all up in arms and what did she say - and she accepted them. We

had, in times when Germany was really down, because it was destroyed, we had 16, 17 million refugees whom we had to incorporate somehow.

In the beginning, I remember, no one went on vacation. We had an eating wave, suddenly people had better food, normal food, and everybody was eating. That was the first thing. The second thing was then, suddenly, the first people had refrigerators. In the early/late 40s, beginning of the 50s here in America, you had already refrigerators. Oh, God, that was a big thing, but my parents had their first little refrigerator in our kitchen. Then my father had his second-hand car, not a new car, second-hand car, first time it was 1966/1967, so that's basically 20 years after the war.

So then everybody was happy, suddenly the Germans, you know, went into Italy for vacation, not only to the Black Forest. They ventured out into other countries. Then the economy took off so vehemently, so strongly, that they had to import what we called guest workers. You know, they had to invite Yugoslav people, Italians were the first ones, some Spanish people, and they came and worked at Volkswagen and were very quickly integrated, and then later the Turkish people, it was not so easy to integrate them and probably mistakes were done too. Then Germany became a global player, you know. Suddenly, they were exporting 50% of what they produced; they were exporting to other countries. The next step, it is not only the satisfaction of their own demand, own consumption, it is the export of products which they produced and they produced good products because "Made in Germany" has a good ring. So, nowadays, Germany is a big economy, which you might want to mention is now the big colossus, we are the big giant economy. We are 82 million people, which in percentage is very small of the world population, but we are the 4th strongest economic nation. So many people start now to complain and say Germany is not carrying the burden, the responsibility, the political responsibility, and the Germans were taught after the second world war, "we don't want to have you politically active." So you have to see that a little bit in the context.

Did I describe the economic steps how I lived it? Suddenly, my father had a car; suddenly we were going to South Tirol which is in northern Italy; suddenly, I ventured out and I worked when I was 18 years old and worked in a hotel in Italy. That was all possible because economically it was going up.

Q: What was the sentiment towards Americans as you were growing up and how has that changed over time?

A: Good question. The Americans couldn't go wrong. They were loved, deeply loved. I mean, they all knew the Marshall Plan helped them. The Americans were very fair opponents. Everybody was happy when he was an American prisoner of war. Nobody wanted to be the Russian prisoner of war, you know? So, they were always fair, they were a glorious country. My

father was, in 1960, he worked for 3 months in the United States, as a small technician, he came over, he talked about this glorious country.

I think first the Vietnam War started to create some cracks in that view, you know. It was an unnecessary war in Vietnam which was not terminated quick enough. Then, of course, some people suffered from the idea that we had nuclear weapons on our ground that Americans installed Pershing defense rockets, which I think were absolutely right... You know, but they were against it, you know suddenly and we were not a sovereign state. Another country was putting nuclear weapons on us. I think the American picture suffered and suffered from these constant ongoing wars worldwide where Germans were drawn in. What do we have to do in Afghanistan? We don't have a role. We are a regional smaller middle power, what do we do in Afghanistan? We understand because we help you; we helped you immediately when 9/11 happened, but there was no end to it. I mean only now, what is it now, after 19 years the war ended. This absolutely, absolutely senseless war in Iraq, which was one of the biggest, biggest, biggest mistakes of America, I would say, in America's foreign policy. You know, where the French president and the chancellor clearly said look we are people, we suffered through many wars, we have more experience with wars over thousands of years, stop that, you do not have to go to Iraq and no, that destabilized the whole region. Everybody will agree to that but this was not necessary at all. It destabilized the region and created a weak Iraq, Iran strong, it disintegrated Syria, it created ISIS...the USA has not used its powers very well there. It should be a little bit more careful. People see that and say what in the world are they doing. They are such a good nation, they have such a strong constitution, they are so straight-forward and good working people and then they do these things and that destroyed, a little bit, the American power in the world I would say. Is that too negative?

Q: Do you think that all of those events have an impact on German and American business relations today?

A: Business? No. Okay I have to be careful. I think that business between America and Germany is great and doing well. You see at BMW, the plant that's the biggest BMW plant in the world, they built it where? They built it 1.5 hours from Charlotte. That's a sign that Germans want to do business here, and if you go over there you see all of the KFCs and the McDonalds and you see Google and everybody uses Amazon and so on. Germans like to use American services very much so that is fine. What is disruptive is unnecessary remarks of the President when he says "I put 25% tariffs on automotive parts." Why? Why do you want to put 25% tariffs on automotive parts, which are here built into cars and are afterwards exported again? It doesn't make sense. I say that very mildly; I could say other things. I mean, 70% of the cars that are produced in Spartanburg are exported, contributing to exports. He's always saying "yeah America is exporting more." The biggest BMW in Spartanburg is the biggest car exporter in the NAFTA

region. Not only in the United States, but in the NAFTA region. And you want to put punitive tariffs on them because they import some parts in order to make cars? Excuse me, but it doesn't sound pretty wise to me.

Q: What do you think has been the most important factor for Germany's economic growth since reunification?

A: People always say, we call the West Germans Wessis and the East Germans Osis, and it's not always with respect, I don't really like the denominations, but the Wessis often think "ah," we spent so much money for the East Germans they should be grateful." Now I'm going into an inner German thing, but that money was spent and supported the German industry in West Germany mostly. Of course, also some Spanish people, Italian people, French people, that East Germany repaid for that, but mainly it was something that was a big engine for the West German car industry for example that was suddenly a kicker. Then, this continued exports. We are just very good at something which is at the brink of being old-fashioned, but say 5 years ago, the big thing until Tesla was founded was to build good engines, good machinery, and so on, not so much digitalization, not so much Tesla's typical product. We were just good in diesel engines; we were just good at building cars. We were just good at machinery to make woven and non-woven fabrics. We were just good at making fast trains which were then adopted by China. We were just good at that and we were good at exporting. We were not afraid of foreign markets. It's difficult to go to China if you don't speak the language and suddenly you have to build up something. Germany suddenly played a big role in the automotive industry in China. I would say reunification itself was a good kicker for another boost for the industry. They just produced good products which the whole world wanted to buy.

By the same token, what's happening now, suddenly Tesla, I don't know if you know, has a capacity of building cars of 350,000 units a year right now in California. Now they are building outside of Brandenburg?, which is this German state around Berlin, a new factory in Germany in the den of the lion of the automotive industry worldwide, just probably 150 km away from Volkswagen, which is the largest car manufacturer in the world, and they built a factory there which can produce a yearly capacity of 500,000 units. Just see what's happening now! See that there's something reversing. It's not anymore the German diesel engine going out, it's now the digitalized car of Elon Musk is coming to Germany, so that is pretty impressive. I think you should keep that in mind. The paradigm certainly changed.