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Challenges to the American Economic Hegemony in the 21st Century

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Dedication

I dedicate this work to my beloved parents for their love and support throughout my life. your love, support, and guidance give me the strength, by which I reached my goals and chase my dreams. I would appreciate all the efforts they had done for me. I also appreciate and thank my wife for her effort that permit me to fulfill this humble work on time. I dedicate this work also to my beloved brothers and sisters, for their support to achieve my goals.

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Abstract

This study aims to examine the challenges that face the United States as an economic superpower in the 21st century. The United States went ahead of developed countries and dominate the global economy with complete control in major economic sectors such as science and technology, electronic industry, and new inventions in Information Technology. It has achieved this rank due to the combination between the existing resources, historical factors, and its economic policies and strategies. The present topic investigated and analyze the factors that enabled the United States of America to dominate the global economy during the 20th century and the strategies that permit it to keep its economic leadership among the developed countries. The work described and analyzed some historical studies that were conducted to figure out the reasons behind American economic hegemony. Moreover, highlighted some economic strategies that enable The U.S to maintain its Economic dominance. Despite the challenges of the rising powers to the U.S economy, the U.S faces internal challenges at economical, educational, and cultural levels to cope with current Tech needs and status. Furthermore, the U.S needs a more skilled workforce to face the moment's technological challenges.

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List of Abreviation

WWII: World War two.

GDP: Gross Domestic Production.

GD: Great Depression.

RT: Roaring Twenties.

CW: Civil War.

GA: Gilded Age.

S&T : Science and Technology

R&D : Research and Development

OECD : The Organization for Economic Cooperation and Development

IMD: Institute for Management Development

General Introduction

American economic hegemony is one of the most important topics that occupied the attention of scholars of international relations. Thus this study aims to highlight the American economy and the challenges it faces in the twenty-first century. The United States economy dominated important fields through its giant global leading companies that play a pioneering role on the international stage in areas of technology, financial services, electronics, agriculture, and healthcare. The United States of America has gone through historical stages that enabled it to develop its economy and faces the challenges of the rising powers.

The twenty-first century represents the new industrial age, science and technology play a major role in most industries. The speed of technological development has imposed a new reality and provided capabilities that are changing the balance of global economic power. The investment in different fields using smart strategies stabilized the financial sector. Furthermore, the exploitation of high productivity and well-developed infrastructure, and abundant natural resources permit the United States of America to maintain global economic leadership. However, The rapid technological progress of some countries, especially China, threatened the American leadership in this sector and the implications for overall economic competitiveness and national security.

The reason for choosing this topic is the desire to understand and research the foundations of American economic power and the challenges it faces from the rising

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powers. Moreover, the topic itself is very interesting and matters to the whole world because the decline of the U.S economy has terrific economic consequences for the whole world. In what ways could America keep its competitive status as the world's economic hegemony power in the future ?

The United States of America was in increasing growth until it reached its peak after World War II. It has maintained its position throughout this period, however, it is facing real challenges in the twenty-first century from the emerging powers. Several works review the challenges that the United States faces and whether it would decline in the short future or keep maintaining its economic leadership in the next decades. According to the National Academy of Engineering, National Academy of Sciences, and Public Policy Committee on Science, Engineering, Institute of Medicine; Committee on Prospering in the Global Economy of the 21st Century: An Agenda for American Science and Technology in their book *Rising Above the Gathering Storm Energizing and Employing America for a Brighter Economic Future*. The writers emphasized that the advantages of the United States of America are declining, especially in the market and in science and technology, therefore the American government urgently needed to make a coordinated and overall effort to enhance competitiveness in these areas. In another work Brandon Tozzo in his book *American Hegemony after the Great Recession: A Transformation in World Order*. Compares U.S. and Chinese versions of hegemony, finding that the U.S. is now menacing its own hegemonic systems as well as the stability of global capitalism. In the other book, *American Hegemony and the Postwar*

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Reconstruction of Science in Europe John Krige describes based on his analytical ideas that describe how the United States of America, high officials in the state, and scientific institutions have Americanized scientific practices in areas such as physics and scientific research. He also explains how the United States of America supports some European institutions along with how consensual hegemony in science became another way to sustain American dominance. The present topic tackles the most important factors that boosted and enabled the American economy to maintain its global leadership. It began with the factors that contributed to the rise of America as a global economic power. Second, how the U.S got rapidly industrialized and dominated certain fields that effects its economic performance. Third, the economic challenges that faces the US in 21st century.

In order to conduct this research a number of questions have been raised : what are the reasons that made America to rise as the world's leading economy power? How did the U.S developed its economy in the post-W W II ? What are the aspects of the U.S grand economy in the 21st century?

The work adopts descriptive and analytical method which help to describe a data, summarizing and visualizing the information using simple descriptive summary measures.

The present work is divided into three chapters, each chapter will be accompanied with some graphs, resources, quotes, and overall reliable resources to support the study, the first chapter attempt to give historical background of the U.S and focus mainly from the

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period between the post civil war to the world war II starting from the revolution of the USA as the new world and how it got the power, as well as mention the events that effected the economy and detailed certain time periods like the gilded age, world war II, and the roaring twenties. Chapter two focus on the role of the S&T on economy and the other main field that nourish the economy like natural resources and power, new age capitalism, higher education, and new innovations, the federal reserve system, and monetary policy. The third chapter discusses American economic prosperity against other rising power like Japan or China, this chapter will investigate the elements that boosted the US economy and how is the US trying to remain the world economic dominant.

Chapter one :

The Birth of a Superpower

Introduction:

The United States became the greatest superpower in the 20th century. It went ahead of developed countries such as Germany, Japan, and Russia. despite its shortest history the United States got rapidly industrialized and become one of the most developed countries.

After the independence The U.S.A persuade expansion policy and adopted some economic strategies that leads it to reach certain important advancements in its economy due to several factors, including the various natural resources and the exploitation of human energy by adopting an organized immigration policy and opening up to the world, Which enabled it to establish giant economic companies such as European companies. The US became the leading industrial power among the developed countries due to its free market economy.

In the twentieth century, the United States of America was able to dominate the world with complete control in all economic, cultural, industrial, and technological aspects. All these events and periods has shaped the economic position of the US today.

I.1 - The Rise of the United States of America:

I.1.1 The New World:

In the year 1492, an important historical event occurred that is known as “the discovery of ‘America’”. The Spanish expedition led by Christopher Columbus an Italian navigator arrived in the New World was commissioned by the Kings of Spain with financial assistance. This expedition was an important historical turning point through which the face of history changed. These newly discovered lands became one of the most prominent and influential countries in the world.

Another Italian sailor named Amerigo Vespucci corrected Columbus' mistake. During his voyages, he wrote some letters describing the new costs that he had reached a new continent. A German scholar read Amerigo's letter and he recognized that Amerigo was right, in his honor America was named after him. (Remini, 2008)

The first settlement in America was English after some English sailors reached the coast of America in n 1607. They landed in Jamestown. Despite the hardship they faced their settlement was the first lasting English settlement in America. (O’Callaghan, 2004)

The House of Burgesses was the first general assembly in colonial Virginia was established in 1619 by George Yeardley at Jamestown. The House of Burgesses lasted until the American Revolution with only 22 members. They meet regularly and their purpose was to pass laws and maintain order in the Jamestown Colony of Virginia. Many of the Founding Fathers like Thomas Jefferson, George Washington, and Patrick Henry, who were members of the House of Burgesses. (House of Burgesses | History & Facts, 2022)

Not all of those who immigrated to the United States of America were looking for wealth and gold only, there were a large number of those who came looking for religious freedom. Puritans were a group of religious English people who faced persecution because they wanted their church to be different from the Catholic Church. They played a major role in establishing new colonies in America such as Connecticut, Massachusetts Bay, Rhode Island, and New England. (O'Callaghan, 2004)

By 1650, England acquired the east coast of America by establishing a permanent settlement on the Atlantic coast. In some states on the eastern coast, the settlers used the Native Americans to grow grain. Which saved them from starving. And in Virginia Tobacco cultivation provided a cash income for the new settlers. By the early 1700s, African slaves made up a growing population. By 1770, nearly two million people were working and living in Britain's 13 colonies in North American colonies. (Colonial America (1492-1763), 2022)

I.1.2 The Revolution of The United States of America

The United States War of Independence (1775–83) started when many Americans believed that independence is inevitable, they declared that “ these United Colonies are, and ought to be, free and independent states. ” The main reason that pushed the colonists to rebel against Great Britain is that they needed more rights and they were not represented in the British government.

The Continental Congress finally issued the Declaration of Independence, which was more than a statement that declared the colonies were a new nation. It claimed that all

men had the right to "Life, freedom and the pursuit of happiness. " (O'Callaghan, 2004, p. 29-32)

The Declaration of Independence is considered the most significant document in American history. It was written by Thomas Jefferson and it officially named the independent states the United States of America. After the British army surrendered to Washington. American representatives and the British ended the War with the Treaty of Paris which admitted the United States as an independent country.

The American Revolution was a very important event and has a significant impact on the world. Fundamental change has occurred in the political and socio-economic system. American life was nearly changed and touched completely by the Revolutionary Spirit such as women's rights, slavery, religious life, and voting. Some English traditions were swept away immediately. (Societal Impacts of the American Revolution [ushistory.org], n.d)

I.1.3 Building The New Nation

The Independent states agree to cooperate with one another and set up the Articles of Confederation which was adopted in 1777 and began to operate in 1781. The first constitution of the United States determined a " league of friendship" for the 13 independent states. Furthermore, Congress was outlined with representation based on population.

The Articles permit Congress to act as a government such as a rais an army, printing money, and able to set laws. However, the central government was not powerful enough to run many affairs such as setting taxes and regulating commerce, and

furthermore, incapable of developing a successful trade policy, and supporting the war effort. The economic collapse, debt default, and interstate conflict made many Americans worry about the future of the United States of America.

Americans were convinced that the Articles of Confederation must be changed. On May 1787 they meet in Philadelphia to discuss the Articles of Confederation. it was the first meeting of the Constitutional convention. (Articles of Confederation (1777), 2022)

Americans wanted a stronger central government that's why the delegates seek to make a completely new government by setting out a document called the Constitution of the United States. This Constitution gave the government a federal system. However, the federal government became much stronger than before, therefore, to avoid too much power of the central government they created three branches of government to balance the power between them Judicial, Executive, and Legislative. (Constitution of the United States of America - Civil Liberties and the Bill of Rights, n.d.)

I.1.4 Westward Expansion :

Westward expansion began with the Louisiana Purchase in 1803 when Americans feared that the French would send more soldiers and so block the expansion to the west. The USA doubled in size after the Louisiana Purchase and provides a large area to the west for expansion. American newspapers and political leaders claimed that the border of the United States should spread from the Atlantic to the Pacific. This belief was called manifest destiny. In 1844 the president of the United States James k. Polk in his inaugural address said that the American claim ‘ ‘ to the whole of Oregon is clear and

unquestionable.” (O’Callaghan, 2004, p. 43) referring he believes in manifest destiny.
(O’Callaghan, 2004)

The war with Mexico took place in Texas after many events, and thousands of Americans settled in Texas. Texans dislike Mexican rule. Texas joined the United States of America after defeating Mexico. The Mexican American War was ended by a peace treaty by which Mexico was forced to waive its territory which is today California, Arizona, Nevada, Utah, New Mexico, and Colorado to the United States. The annexation of these Mexican lands completed the “manifest destiny” of The United States which now stretched across the North American continent from ocean to ocean to be one of the largest countries in the world.

There were many factors that encouraged American people to move to the west. Homestead act (1862) the idea of cheap and free land was very attractive to people who never could afford a farm in their homeland, and moreover, railroads that link the east and west coasts of the USA and by which the government provides a safe and cheap journey to the west and other attractions such as schools and no taxes.

(Factors Encouraging People to Go West - Reasons for Westward Expansion - National 5 History Revision, n.d.)

I.2. The Economic Development in The U.S:

I.2.1 Roots of Economic Strategies and Expansions :

The Constitution of the United States of America in 1787 was a very important. served the American economy in an exemplary way, as it united the market by eliminating tariffs and taxes on interstate commerce. It also stipulated the regulation of international trade, the identification of patents, and the construction of roads and post offices. Alexander Hamilton, the first secretary of the treasury sought to adopt an effective economic strategy in which the federal government would support emerging industries by providing subsidies and new tariffs on imports , as well as, pushed the federal government to create a national bank to endure the public debts. The new government however retarded some of Hamilton's proposals, but eventually, it did make tariffs a significant part of American foreign policy. (The New Nation's Economy, n.d.)

The American banking system was considered a source of instability in the American economy and banks were instrumental in economic growth. The banking system's growth clearly prompted American economic growth and endured its periodic panics as well as avoiding major depressions. (Causal Factors in American Economic Growth in 19th Century, 1975)

Extensive agricultural crops were created because of the rapid expansion to the west, allowing the country's solder areas to grow new crops. As well as new processes of manufacture especially in textiles which not just accelerated an industrial revolution in the Northeast but also by enlarging some areas' markets for raw materials. (United States - the United States From 1816 to 1850, n.d.)

One of the most important parts of economic growth was Railroad. It was an important motif of investment in the nineteenth century. The railroad provided a new and more suitable means of transporting agricultural produce, and moreover, the mechanical innovations increased the productivity of farm workers. It was one of the turning points between water and land transportation. The appearance of the United States changed since transportation was switched from water to land. (O'Callaghan, 2004)

I.2.2 The Quick Spread of Industrial Revolution:

America shifted from manual labor to the technological industry in the Industrial Revolution era, which greatly increased total production and economic growth. America shifted from an agrarian to an industrial economy.

During the Civil War era, the iron and steel industry expanded to be a major economic force in the United States. The new technologies combined with significant improvement in speed and efficiency of transportation networks allowed steel makers greater access to natural resources. All of this raised the American industry to the forefront of world production and scientific innovation. "The beginning of the 1870s was precisely the right time in the industrial development of the United States for the appearance of the steel industry," wrote one historian. The explosive growth of the steel industry paved the way for the construction of high buildings that fundamentally changed the appearance of U.S. cities.

Andrew Carnegie created a steel company and became the base building block in the 1901 creation of U.S. Steel. Carnegie sold his company in 1901 to the financier J.P. Morgan, property owner Steel Federal. Then Morgan merged those businesses with other

projects to create the U.S. giant trust. Steel is the first company that reached billions of dollars in the world. (Hillstrom & Hillstrom, 2005)

I.2.3 The Rise of Corporate America:

Americans invented a new form of corporate organization in the early 19th century. The giant companies are exposed to a risk of deception and corruption therefore Americans invented a new form of corporate organization after the civil war.

These changes in industrial organizations are as follows: Exploiting cheap energy, including coal deposits, working on the widespread use of technology in factories, communications and transportation systems, Hiring experienced workers who are easy to deal with, working on healthy competition between companies.

Providing cheap energy led to the growth of factories and railway support. New technologies also stimulated productivity and increased factories, in addition, technological innovation led to lower costs and the employment of cheap labor. Increasing competition among companies led to a decrease in overall prices and an increase in demand for consumer goods, which reduced the heavy industry of capital goods to stimulate and increase the production of factories and farms more. (Johnson, 1998)

I.2.4 The Contribution of Immigrants to The Industrial Revolution :

During the colonial era, the United States witnessed major waves of immigration. America received a huge number of immigrants between the 19th and early 20th centuries. They came to the United States seeking a better social life and economic opportunity. And they have had a significant positive impact on the places where they settled. (Kopf, 2017)

Research by economics from Harvard, Yale, and the London School of Economics found that US counties that received more immigrants between 1860 to 1920 have ‘‘ significantly higher incomes, less poverty, less unemployment, more urbanization, and higher education attainment.’’ (Kopf, 2017, para. 3)

The United States opened its doors and allowed millions of immigrants to enter the country to power the machines of the industry as a response to the urgent need for more workers. U.S. economy required both unskilled and skilled workers, particularly through the 19th century. Unlike, after the 1880s there was a demand for unskilled workers to fill the increasing number of factory jobs during the industrial revolution. (Hillstrom & Hillstrom, 2005)

As it is mentioned in Industrial Dudley explained
 Nearly a century earlier, Alexander Hamilton, predict the phenomenon in his Report on the Subject of Manufactures (1791) :

’’ Manufacturers . . . would probably flock from Europe to the United States, to pursue their own trades or professions, if they were once made sensible of the advantages they would enjoy, and were inspired with an assurance of encouragement and employment. [They] will, with difficulty, be induced to

transplant themselves. . . . [T]hat is the best interest of the United States to open every possible avenue to emigration from abroad . . . not only for extending the population, and with it the useful and productive labor of the country, but likewise for the prosecution of manufactures.’’ (Dudley, 1998, as cited in Hillstrom & Hillstrom, 2005)

With the boom of immigration, the urban population rose from 6 million in 1860 to 42 million in 1910. Large cities became bigger. For example, the size of Chicago tripled in the 1880s and 1890s. By 1900 three cities reached 1 million people: New York 3.5 million, Chicago 1.7 million, and Philadelphia 1.3 million.

Encouraging immigration has brought many benefits in the field of economic, educational, and professional experience along with innovations and a better-educated workforce, better matching of skills with jobs, and higher overall economic productivity. Besides immigration has a positive net effect on federal, state, and local budgets. (Ppi, 2018)

I.3 Inventions and Industrial Development:

I.3.1 The innovation Development:

The United States emerged as one of the most technologically advanced nations in the world. It provided many inventions, however, the United States imitated and adopted British inventions and technology at the beginning of the industrial revolution. By the mid 19 century, American economic power grew. As a result, there were mutual technologies between countries. Until the twentieth-century innovation profoundly influenced numerous parts of British life.

Americans adopted Watt's new technology by applying steam power to water transportation. It became known as John Fitch (1743-1798). Other American inventors and entrepreneurs such as Samuel Morey, William Symington, Nathan Read, William Longstreet, Elijah Ormsbee, James Rumsey, Edward West, and Nicholas J. Roosevelt. Deeson demonstrated that :

“all have their small place in the history of steamship development of that time. Most of them added little or nothing to the rapidly growing fund of knowledge but they were genuine innovators, each ‘doing his own thing’ and without any idea that perhaps 50 or 100 miles away another man, inspired by the potential of steam, was working virtually on the same lines.” (A. F. L. Deeson, 1976, p. 25)

Americans imitated the British in building railroads and made numerous innovations to British locomotives. Joseph Henry established the Telegraph the first long-distance communication device. And Alexander Graham Bell invented the telephone which reformed communication in the United States. The typewriter was an American technological creation that transformed into commercial success. (Bull, Sam, n.d.)

In the field of iron and steel industry, America could not compete with British steel makers until they adopted the Bessemer processes in the 1860s and 1870s. However, American engineers later improved and mastered essential innovations and build plants to achieve maximum benefit. By the end of the twentieth century, the U.S .iron and steel industry had become a world leader. Bessemer's process was faster than previous methods and thus it consumes less energy (Hillstrom & Hillstrom, 2005)

Bessemer's process was faster than previous methods and thus it consumes less energy. After the Civil War, the American steel industry grew rapidly as the nation's economy extended to become the most powerful global economy. Steel production increased from 1.25 million tons to 10 million tons. By 1910, exceeded 24 million annually.

Samuel Slater built a cotton-spinning mill in Rhode Island. He was known as the "father of the American factory system." He was the first who brought the technology and information on how to build a textile industry to America and she brought the industrial revolution to the United States from Great Britain. (Bull, Sam, n.d.)

I.3.2 Transportation's Contribution to the Economy:

Improvements in transportation didn't just help settlers and migrants but also paved the way for the marketing of crops and livestock as well as communications. Robert Fulton was the first who built a commercial steamboat that was successful in carrying cotton, sugar, and passengers. (Innovation in Transportation, 2022)

Henry Ford used the idea of the assembly line for automobile manufacturing. The American economy improved due to the development of the Automobile Industry. Automobiles were introduced in the 1900s and they contributed to westward expansion. And allowed people to move more freely across the continent to the west in search of jobs. (The Age of the Automobile, n.d.)

The steamship was the first transportation innovation that enabled American economic expansion in the nineteenth century. Railroads or the so-called iron horse

contributed to the economic and geographical expansion of America. So that provided the Americans with agricultural means and they can market their products and access natural resources. (Hillstrom & Hillstrom, 2005)

I.4 American economy in early 19th century

I.4.1 Reforms during the Progressive era (1897-1920) :

After the Civil War, The United States witnessed several problems including poverty and the spread of slums; the collapse of democratic government in states and cities because of a political organization that had business affairs benefits. These problems were raised by rapid industrialization and urbanization. (United States - the Progressive Era, n.d.)

By the early 20s century, the united states became one of the most productive and richest countries in the world. And about a quarter of its population earn their income from jobs in the industry. However, the working conditions were very difficult, unhealthy, dangerous, and inappropriate. Workers earned very low wages for working long hours. In response, workers tried to improve the working conditions by forming trade unions, but they often got failed. And employers prevented anyone from interfering in managing their businesses.

There were many cases of abuse that was committed against the American people by businessmen. Therefore, the people called for reforms and demand the authority to intervene. By 1900 many Americans supported progressives, which means they were convinced that the government should deal with and find solutions to the problems of society.

Theodore Roosevelt believed in the intervention of the government to improve conditions of life. His idea was to give businessmen more freedom to act effectively while preventing them from violating people's rights. After Roosevelt was defeated by Woodrow Wilson, the latter encouraged progressives as well. And promised that he would combat “ not for the man who has made good but for the man who is going to make good, the man who is knocking and fighting at the closed door of opportunity.” (O’Callaghan, 2004, p. 83)

I.4.2 Developments and Life Changes in America During the Gilded Age Era :

The emergence of modern America was marked by the Gilded Age. America transformed from a nation tied by isolationism and agricultural country to the world’s most formidable manufacturing country. Although it was a period of prosperity in the United States of America. However, it witnessed some disturbances. (O’Donnell & Courses, 2015)

The emergence of industrial giants, such as Andrew Carnegie, John D. Rockefeller, and J.P Morgan has accompanied by this transformation in this period. Thus Americans celebrated them as “ self-made men” (O’Donnell & Courses, 2015, p. 1) Whose genius led the United States to prominence.

The innovation of the Gilded Age helped the emergence of modern America. The technological creativity in this era led to many advances in constructing bridges, canals, elevators, subways. And the invention of electricity brought lighting to homes, businesses and creating prosperous night life. Furthermore, the advances in sanitation, housing, and the quality of food improved the quality of life among the middle class. Despite the big

difference between poor and wealthy people, labor unions had raised and gained encouragement to defend many of their rights and improve their social and economic life during the Gilded age. (History.com Editors, 2022)

I.4.3 The Impact of WWI on The US Economy:

The United States emerged after WWI as the most powerful military and industrial country. There was a reciprocal influence between the United States and WWI. The United States changed the course of WWI, and WWI in turn also changed the United States. The nation entered the era of electricity and steel, and the factories had developed due to the increase in production and developing competencies.

When the US infantry was dispatched, there were approximately 2000 women employed as nurses, writers, and phone operators. They also run restaurants and help American soldiers. (Hindley, 2017)

Many politicians, intellectuals, diplomats, as well as soldiers and journalists have asked questions that still resonate to this day.

“What is America’s role in the world? Are our claims to moral leadership abroad undercut by racial injustice at home? What do we owe those who serve in our wars?” asks Max Rudin. (Hindley, 2017, para. 10)

Men like Theodore Roosevelt, Henry Cabot Lodge, and other American leaders, strived hard to see America take its place among the developed countries, they wanted a strong army, a navy and a central bank, and all the means of power possessed by powerful countries such as Britain, France, and Germany. Wilson had hoped to impose peace by imposing hegemony through deploying this emerging superpower. However, Wilson and his successors made a set of mistakes that led to the Great Depression. (Frum, 2014)

The Great Depression was one of the biggest economic crises in the history of the United States of America, which lasted about ten years from the late 1920s to the end of the 1930s.

The Great Depression caused a severe unemployment crisis. However, with the beginning of World War II, due to the massive spending of the army during wartime, many Americans got jobs, as well, as the event that ended the Great Depression. (History.com Editors, 2022)

I.4.4 Science and Technology During the Roaring Twenties (1920-1929):

“The advancement of science and our increasing population require constantly new standards of conduct.” (Carlisle, 2018, P. 119)

In the first decade that followed the First World War I there was a remarkable development in the field of technology and electrical household appliances, so that even ordinary citizens could acquire them. These devices, such as cars, phones, and household appliances, were preserved of the rich only. (Carlisle, 2018)

Electricity was also considered one of the most important technologies and sources of technological development in the Jazz Age. There were entire industries such as aluminum refining developed due to the availability of electricity, and as for heavy industries, they were almost completely electrified.

Air conditioning was first invented to regulate humidity and temperature in factories, however, by the 1920s the use of air conditioning expanded to the theaters, cinemas, and administrations. Technology in the 1920s changed the means of transportation as well as the management of national transportation companies, which led to the growth of

highways and airlines, which led to rapid communication and improved access to manufactured goods.

Conclusion

The United States of America went through an economic phase that led to various changes affected society, politics and culture worldwide. These changes have helped America to occupy a prominent position among the developed countries

Every historical event and development the US has passed contributed to its economy, whether in a negative or a positive way, every period has had a major fundamental change in the culture, society, politics, and economy.

The point of change to the US was during the late 19th century to W W II it was that period that had established the foundation to the current global leading economy, even if the US has reached rock bottom when the great depression effected the economy greatly, it was until the end of world war II that the US started to recover from the great depression.

Chapter Two :

Post W.W.II Economic

Status of the U.S

Introduction:

The United States of America shifted from the military industry to the technological industry and developed knowledge and production methods by exploiting all its natural and human capabilities after World War II. Started to gain its current leading economic position and reached what we call the golden age of capitalism, it was a period similar to the roaring twenties or the gilded age, but this time the US really entered the international market and has become the global leader of the economy.

Chapter two discusses the industrial development and the strategies adopted by the American government, and tackle the problems and challenges facing the leading role and economy of the United States of America.

II.1 The Postwar USA Economy (1945-1970):

The United States changed fundamentally after WWII. Million American men and women joined the military service and worked in military factories. After the end of WWII, the United States had the best economic condition better than any other country in the world. Moreover, American society changed drastically in the post-war. American people never expected such changes. (Overview | the Post War United States, 1945-1968, n.d.)

There was a political consensus in the twenty years that followed WWII. This consensus was concerning the Cold War and anti-Communism. However, this political consensus began to break down after the USA military intervened in Vietnam. The United States has grown from various sources. Car production significantly quadrupled between 1946 and 1955. A housing boom that was supported gradually increased population expansion, besides the rise in defense spending also played an important role. (The Postwar Economy: 1945-1960/American History From Revolution to Reconstruction and Beyond, n.d.)

The United States of America provided Europe with a variety of tools due to the imbalance of economic, industrial, and military power to achieve its economic dominance there, as the United States of America had much of what the Europeans needed mainly science and technology used in the war which became an important resource to European. (John, 2006)

The U.S created important foundations like The Rockefeller Foundation and international funding of science that was created in the early 20th century and supported French CNRS in 1946 within American assistance for the postwar reconstruction of

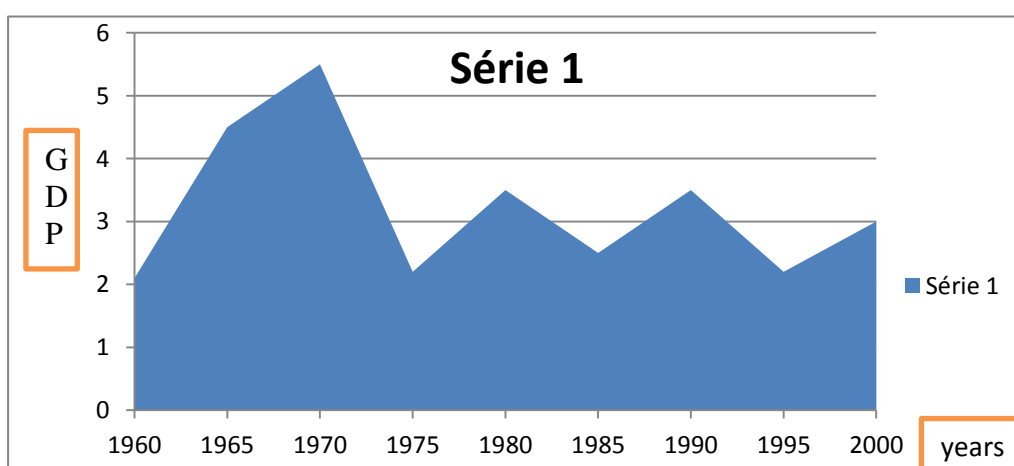
science in Europe. And also launched the Marshall plan which was an economic and political effort to reconstruct Europe however, it was under American leadership. After six months after the announcement of the plan national military, Vannevar Bush said “rehabilitation of European Science” (John, 2006, P16) as part of the Marshall Program is imperative. (John, 2006)

II.2 Prospects for the U.S. Economy in The post-Cold War Era:

It has become clear to many observers that the economic importance of power increased significantly after the Cold War, compared to the importance of the army. (Brands, n.d.)

The post-Cold War period was so eventful in the strategy of the United States of America that it did not withdraw from the world after the collapse of the Soviet Union. Instead, it has committed again to pursuing ambitious globalization as it was in the bipolar period.

Figure1. GDP variables



Growth rates are represented in the following graph

The United States of America achieved impressive economic growth during the nineties, however, it remains less important compared to the period after World War II, where growth during the 1950s and 1960s was much greater than the decade the 1990s. (Brands, n.d.)

There was a sharp decline in GDP during the seventies, due to the change in demographic growth and the lack of professionalism among some young people, in addition, the price of oil increased in the periods between 1973 and 1981. Monetary policy remains unstable during the 1970s and 1980s. And despite the decline in inflation during the 1980s, the negative consequences of price instability continued. (Brands, n.d. p)

The economic growth varied during the three decades of the sixties, seventies, and eighties, but during the last five years of the nineties, GDP rose to 3,4 % in the annual rate, due to the development in the performance and strategies that were used in the US economy and this proved that there were two important factors to promote US economic growth, strong investment and domination in high technology industries. (Brands, n.d.)

II.3 Natural Resources and Power :

There are two basic types of natural resources, the first is renewable resources, which are those that nature can replace faster than humans use, such as the sun, wind, and water. Secondly, non-renewable resources are those that nature can renew at a slower rate than what humanity uses, such as minerals, natural gas, coal, and crude oil. (AMADEO, 2022)

The United States of America has various natural resources that boost its economy, including vast squares of land, two marine coasts that provide food, and large seaports, and it also has huge oilfields, coal, gas, and freshwater, it has thousands of hectares of

fertile land suitable for agriculture thanks to the Great Plains in addition to its containment of seaports This makes it easily accessible across the ocean and land, making it attractive to immigrants who have created diversity in the population. The United States is the third largest country in the world. It contains a vast land rich with natural resources and has a diverse climate. An infrastructure was made to facilitate for companies to produce and transport the manufacturers. The United States is considered the largest supplier of oil, natural gas, and coal in the world, so the diversity of climates and geographic regions makes it fertile ground for the availability of renewable energy sources.

II.4 Financial crisis of 2008:

The United States appeared as the world the dominant of the international capitalist system. Moreover, plays a central role in many international institutions. The United States of America emerged from the economic recession stronger than other developed countries, despite the spread of unemployment, the booming stock market, and diminishing budget deficits compared to other developed countries. (Tozzo, 2020) The United States of America caused the spread of financial crises to the global economy during the financial crisis of 2008. The problem was about to cause a collapse in Europe due to the sovereign debt crises and because its quick spread.

However, the East Asia , China has maintained continued economic growth by taking some measures that can overcome the financial crisis. Through this crisis, it became clear that capitalism is an interconnected world system.

The European Union is still unable to compete with the United States of America as a unified global superpower. Many nominate China to be the first competitor to the United States of America due to its rapid growth from a middle country to occupying the lead, in addition to some other developing countries such as Brazil and India, which may head towards global leadership that may transform the global regional power, but it still lacks sufficient economic capacity and the strength of the army.

II.5 The New Era of American Capitalism:

There have been so many opportunities for business and growth in the 21st century that the United States of America can benefit greatly from these opportunities through the strengths of capitalism. The American model of capitalism may need to evolve to provide opportunities for the benefit of individuals, companies, and the general economy. American capitalism developed long ago to conform to the changing nature of the economy. (Manyika et al., 2020)

America's model of capitalism has continued to lead in the global economy. America has been ahead in performance among the advanced economies and in the field of development, investment, and research, as it maintained a first place among the six advanced economies in the G7. Sectors that have contributed to growth in the twenty-first century include Innovations, digitization, artificial intelligence, and the ecosystem. American companies have achieved significant profits, it is the most profitable and famous in the world. (Wai Li, 2017)

II.6 The Role of Science and Technology in US Economy :

The United States continues to be a pioneer in applying research and innovation as it was the first economically after a survey conducted to compare the economic competition of many developed countries. The United States of America since World War II has maintained leadership in the field of science, technology and engineering and it is considered the major factor in remaining the US dominant and occupying a strategic place among developed countries. (Institute of Medicine et al., 2007)

The United States of America is among the top countries in higher education, scientific research and training. In a recent comparison, it was found that 38 out of 50 leading institutions in the world that attract students' interest in science and technology are in the United States of America.

The end of the Cold War increased the importance of commercial technologies in supporting of both military security and economic development. By the end of the twentieth century, developed countries were almost equal in the field of technology, however, the United States maintain its pioneer position among technologically powerful nations.

II.7 The Advantages of New Technologies and Innovations :

The development of science and technology depends on many advantages, that maintain the lead of the united states of America in this field. Innovation has an effective role in the rapid growth of a strong and advanced economy including , smart systems in several areas, especially transportation, mobility, and renewable energy, as well as their impact on health care and biomedical technology. In addition to the use of artificial

intelligence, which has the ability to influence several areas and change the balance of working life. New knowledge can also be exploited and expanded in several diverse sectors, with benefits extending beyond the health sector. (Institute of Medicine et al., 2007)

Supporting investment in all its forms in research, advanced education, the diversity and quality of its research, as well as its educational institutions.

The spread of the English language as the language of science and engineering, the availability of investment capital, and the American society also enjoys openness so that gifted people of all nationalities have equal opportunities for success, the provision of positions for post-doctoral scholars, and in addition to that there are many public policy advantages, including funded research activities that led to industries and new products and jobs, add to that the United States of America has an economic climate that has helped develop and encourage investment for technology-based companies, an international policy that looks abroad and provides lifelong learning support.

II . 8 The Knowledge Economy :

The knowledge economy is based mainly on human capital in the twenty-first century economy, where production and consumption in this system are based on the field of intellectual capital. In particular, it refers to the ability to benefit from scientific and applied discoveries and research that became an essential component of several economic activities in most developed countries. What distinguishes the knowledge economy is the presence of a large proportion of highly skilled employees whose jobs require special training and skills in their field of work, unlike the economy in the past, when the economy depends heavily on unqualified workers, and production based primarily on

physical goods. The knowledge economy requires expertise, data analysis, and thinking. (Team, 2022)

The first who used the phrase “ the knowledge economy.” (Lingenfelter, 2012, para1) in his 1969 book *The Age of Discontinuity* is Peter Drucker. After Thirty-two years later Drucker wrote :

“The next society will be a knowledge society. Knowledge will be its key resource, and knowledge workers will be the dominant group in its workforce.

Its three main characteristics will be:

Borderlessness, because knowledge travels seven more effortlessly than money.

Upward mobility, is available to everyone through easily acquired formal education. The potential for failure as well as success. Anyone can acquire the

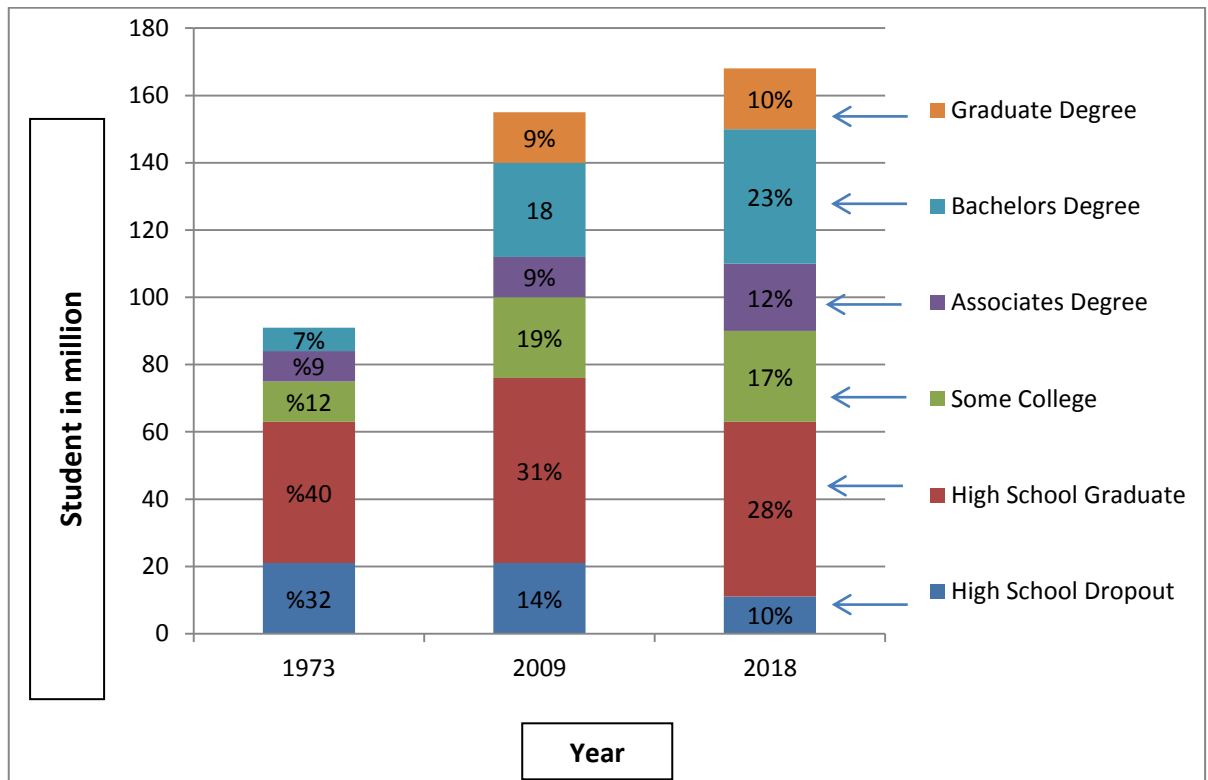
"means of production," i.e., the knowledge required for the job, but not everyone can win.” (Lingenfelter, 2012, para2)

II . 9 The Role of Higher Education in The Knowledge Economy :

In the past half-century, higher education has played a pivotal role in making the US economy stronger. Integration of education and research has become an essential pillar of the innovation and research system in the United States of America. Moreover, expanding access to student-created economic opportunities and, new knowledge has provided a primary factor for innovation and economic growth. Developed and modern higher education is more important than ever. Often American colleges and universities are a model for developing and developed countries that strive to create high-quality institutions. As international competition in the knowledge economy is growing. (Institute of Medicine et al., 2007)

Higher education in the United States of America is considered a social and political priority. This is why colleges and universities are required to increase productivity basically to cope with the economic pressures resulting from health care costs and to resist tax increases and the growing deficit. The major challenge for higher education is improving quality and achieving productivity gains. It is one of the most important resources for meeting this challenge. (Lingenfelter, 2012)

The educational attainment of American workers has grown exponentially. The workforce was 91 million in 1973. And 32 % of jobs were held by high school dropouts, while high school graduates occupied 40 percent. workers without university education represent 65.5 million employees. While 25 million jobs were employed by university and college graduates.

Figure1.*Higher Attainment Levels Needed for Future U.S. Jobs*

Note: Higher Attainment Levels Needed for Future U.S. Jobs. Adopted from *educause*, by Paul. Lingenfelter, 2012, <https://library.educause.edu/resources/2012/5/chapter-1-the-knowledge-economy-challenges-and-opportunities-for-american-higher-education>. Copyright[2010] by Anthony Carnevale, Help Wanted

In 2009, the number of workers in the United States of America reached 155 million, with only 14 percent of high school dropouts, and 31 percent of high school graduates employed, so their share in the workforce decreased from 72 to 45 percent. workers with no college occupied 69.8 million jobs in 2009. In contrast, about 63 million jobs were created only for high school graduates or dropouts in 2018, less than that occupied by this group in 1973.

Conclusion

American economists were influenced by the apparent success of government economic intervention in a wide range of countries including European countries.

The U.S benefited greatly after WWII and it transfer its workforce and technology from Military field to industries to boost the economy. Furthermore, invested in technology and used it to benefit from its huge human and natural resources.

The U.S used a good ideology that influenced it to be the world economic dominant in the mid-20th century. The history of economic thought provides a lens for bringing the ideological dimension of economic change into focus.

Chapter Three

American Economic

Challenges in 21st Century

Introduction:

The United State of America might be one of the largest leading powers in the 21 century with a huge amount of international trade, the biggest military in the world, giant developed factories equipped with the latest technology, and world-leading universities. However, it has great competition that increased in the last few decades.

The U.S facing these uprising powers, serious ones that make it difficult to sustain their economic growth, and their standing in the world. Moreover, the U.S faces some internal problems such as health care, non-organized immigration, environment, education, and increasing climate change problems. In addition, the world has just started recovering from a pandemic caused by a virus that cost millions their lives.

However, the U.S is still dominated many fields internationally and has excelled in them, some of these fields are science, technology, education, and military strength. In addition, it seeks to flourish its economy against other rising power in the 21st century.

The present study discusses how numerous factors, such as science, technology, education, and military power has boosted the US economy. Furthermore, the USA is trying to develop this fields to maintain its economic dominance.

III.1 Military Strength:

III.1.1 The Contribution of the American Military in the Economy:

American Military plays a significant role in the economy. American citizens are affected by the positive benefits of military installations. Direct and indirect employment associated with the US aerospace and defense industry benefits a minimum of one million jobs. These companies contribute significant income and taxes, and the overall industry contributes about \$37.8 billion in wage taxes. (Contributors, 2012)

It's crucial for a country to invest into its military, as it's the classic public good, the source of defense of a nation and national security, among many other benefits that relates greatly to politics and economy. Some economists may argue that the military expansion has not so positive effects on the economy, for example spreading inefficiency, reducing civilian R&D and investment, and it has contributed to the spread of inflation, but considering the many positive outcomes the military has, the concerns may seem exaggerated. The US is one of the nations that pays a great deal to the military power, in fact the US is number one ranking in military power among all the other nations. (Riddell, 1988)

When it comes to the budget of the military a lot of countries may go into debt to provide the needed budget and that is when the debt increases the burden of repaying the debt meaning the interests payments increases and there for acts as strain on economic growth, and the US is one of those countries as it can go on a budget deficit to cover all the expanses of the military however, the US has arguably the best position for debt payment, its economy is considered the most influential one out there, so that guaranteed

them that any other country is willing to lend them, and what helps more is that almost all the financial operations are in US dollar, but not all nations are as lucky as the US.

Jobs are a big part of the economic impact of military spending. In addition to supporting the troops, military spending creates a considerable infrastructure to support the active-duty personnel. Then there are the private businesses that spring up as a result of the military spending, including everything from weapons manufacturers to the restaurants that pop up near military bases.

III.1.2 American Military and Technology:

Some people may argue that the military divert critical talent and technological skills toward military research instead of civilian ones, but any search in the S&T is good for the nation's whole, Both the civilian and military sectors have talent that can be utilized in different ways. For instance, military research has been instrumental in the development of various technologies, such as the internet and GPS systems. In addition, the military has also been funding the development of drones, which are capable of delivering packages for Amazon.

S&T and military are very beneficial to each other, S&T field in the military often focuses on problems related to the army for example like developing new weapons and gear, but scientists and engineers working in the army invention can be to the public benefit also, for example, developing medical and pharmaceutical treatments that can benefit the medical field, design portable ecofriendly energy sources amongst many other things.

III.2 Education System and Programs:

The education system in the United States had significant reforms in the 21st century; however, the rise of international competitors in science and technology urged the US to take the development of S&T into consideration. Its main concern is how to develop the education system, especially in k_12. Even the US is still the leader in applying research and innovation among developed countries. However, it is obliged to make its educational system suit the demand of the 21st century. The United States recognized that its leadership in Science and Technology remains only through developing its educational system. That will be able to get along with the rapid growth of science, innovation, engineering, and technological skills in many fields of rising powers. (Institute of Medicine et al., 2007).

As we all may know a nation's education system has great effects on its economy, it determines how well the country's economy will perform, the US is one of the largest leading countries economically, it is the mainland to approximately half of the best global universities, and in order for a nation to make a progress in the field of S&T to achieve economic growth and well-being, it needs to produce, adapt, and commercialize knowledge, by investing and developing the education system to enlarge the productivity of its economy.

In the recent years the United States has become one of the most chosen destinations by international students to pursue their studies; the USA has the largest international student's population, with more than one million international students and still growing.

Researchers in the United States lead the world in the volume of articles published and in the frequency with which those papers are cited by others. US-based authors were listed on one-third of all scientific articles worldwide in 2001. Those publication data are significant because they reflect original research productivity and because the professional reputations,

Job prospects and career advancement of researchers depend on their ability to publish significant findings in the open peer-reviewed literature. The United States also excels in higher education and training. A recent comparison concluded that 38 of the world's 50 leading research institutions that draw the greatest interest from science and technology students are in the United States. Since World War II, the United States has been the destination of choice for science and engineering graduate students and for postdoctoral scholars choosing to study abroad. Our nation about 6% percent of the world's population has for decades produced more than 20% of the world's doctorates in science and engineering. Because of globalization in the fields of science and engineering, however, it is difficult to compare research leadership among countries. Research teams commonly include members from several nations, and industries have dispersed many activities, including research, across the globe. (2005, 2005).

Another measure to a nation's educational system success is the doctoral production, Over the last two decades, the globe has seen a steady rise in the number of doctoral graduates. According to an OECD report, the United States is the largest PhD producer of any country worldwide by far, churning out 67,449 graduates in 2014. That's well over

twice as many as second-placed Germany's 28,147. The United Kingdom rounds off the top-three with 25,020 PhDs.

Education is critical to a country's economy; it increases the efficiency of individual workers, and helps the economy evolve beyond manual tasks, or simple production processes, because these factors are no longer enough to sustain the economy value of a country. The world has changed drastically, and in order for a nation to compete with the other leading nations, it needs to invest great deal in science and technology, research and development, as it's the main sponsor to the development of economy, and to do that, the country needs to familiarize its society to these aspects, by including them in the educational system, and providing research centers and resources and undergraduate programs, to attracts more students and talents to benefit the economy and helps it rise to the international standards and competition.

The USA has understood this very well, and is implementing it in its country, nearly 5% of all students enrolled in higher level education in the USA are international students, and the numbers are growing, and the USA since the end of world war II has been in the lead in S&T and R&D, and that has resulted in huge and in the lead economy.

The science and technology research community and the industries that rely on that research are critical to the quality of life in the United States. Only by continuing investment in advancing technology through the education of our children, the development of the science and engineering workforce, and the provision of an environment conducive to the transformation of research results into practical.

III.3 Silicon Valley's role in the US Economy:

Silicon Valley is considered as one of the largest technology corporations in the world. It is located in the state of San Francisco Bay Area which ranked the first high-tech innovation and development among the U.S regions. This represents a third of the investment capital in the United States. There are also other important areas of venture capital such as New England, the New York Metro area, and Los Angeles County. (McLaughlin, 2013)

The Silicon Valley is one of the strongest economic due to its enormous productivity and innovation. The actual economic expansion was due to its contribution that experienced across the entire United States. It has been the fastest growing economy it has Google's headquarters, Apple, Stanford University, Adobe Inc, Intel, PayPal, Hp Inc, Twitter, Electronic Arts, and Facebook. Furthermore, digital advertising revenue on Google and Facebook accounts for more than half of the global market share.

The Bay Area is considered the technology capital of the United States of America it includes the most strong modern innovation and software development concentration in the U.S. It includes a group of higher education institutions associated with program applications. (Quinn, 2019)

Giant companies like Facebook, Amazon, Google, Apple, and Microsoft face several challenges from top tech giants and the environment that permit these companies to flourish might not be changed in the future, tech industry may experience shifts including fallback in some of the advantages related to some advertisements and sorting out some start-up companies. In the recent years, the USA is facing challenges from foreign giant companies of technology industries, the development of artificial intelligence systems by

other developed countries creates problems for the United States of America, the most important is the competition in the economic and military fields. This makes the United States of America fearful about its future. The US is still the leader in the field of industrial technology however, this field required to get updated and creat new innovations and a good environment and skilled workforce.

III.4 American Leadership in Science and Technology:

Science and Technology is the main factor that boosts the economy of the developed countries. The United States of America is working hard to maintain the global leadership in technological development and scientific research. The loss of leadership in S&T has a negative impact on the economy, standard of living and national security.

(Institute of Medicine et al., 2007)

The United States attaches great importance to this sector, which is the most important factor affecting the economy and financial markets. Among the most important technology companies are information and communication technology companies that have a rapid impact on daily life, money transfer, financing and the wider economy.

The United States of America is still performing the top in the field of S&T however the challenges of the rising powers in 21st century especially China has increased. For that this leadership must not be taken for granted. The United States seek to maintain its strategic place among developed countries through the improvement of discoveries of science and technology, education and training working in the field of science and technology, preservation and interest in academic and industrial research centers, protection of intellectual property, at the same time.

Ever since the industrial revolution economic development, and all its aspects whether its education, agriculture, health, jobs, military, or transportation, has been driven by the pursuit of scientific and technological development all over the world and the USA is no different, in fact for the USA science and technology are critical to American prosperity in 21 century.

Ever since the globalization of S&T, and the rise of science centers in developing countries such as China and India, there have been some concerns about the USA's status as a global leader in science and technology fields, as these are its main economy booster, and these concerns were justified considering that the USA was not investing enough in that field. Losing leadership and status in S&T can destroy the US economy, and it can have major impacts on the social and political status, from the living standard, and national security, the economy can go bankrupt.

Globalization can also be an issue for the USA when trying to maintain scientific and technological dominance, with the growing strength of other nations in S&T, the ability for new inventions, technology and information to be rapidly transmitted around the globe, and the emergence of private sectors that control the nature of the invention, all these factors can pose a threat to the USA leadership in S&T.

The USA has the largest world economy, with a GDP worth more than 20 trillion dollars in 2020, and a constantly rapidly growing economy. The United States continues to lead the world in science and technology. The United States grew faster in many measures of S&T capability than did Japan and Europe, and developing nations such as China, India, and South Korea showed rapid growth in S&T output measures, but they are

starting from a small base. These developing nations do not yet account for a large share of world innovation and scientific output, which continues to be dominated by the United States, Europe, and Japan.

The United States accounts for 40 percent of total world R&D spending and 38 percent of patented new technology inventions by the industrialized nations of the Organization for Economic Co-operation and Development (OECD), employs 37 % (1.3 million) of OECD researchers (FTE), produces 35 %, 49 %, and 63%, respectively, of total world publications, citations, and highly cited publications, employs 70 percent of the world's Nobel Prize winners and 66 % of its most-cited individuals, and is the home to 75 percent of both the world's top 20 and top 40 universities and 58 % of the top 100. (Institute of Medicine et al., 2007)

By most available criteria, the United State is still the undisputed leader in the performance of basic and applied research. In addition, many international companies put The United State as leader in applying research and innovation to improve economic performance. In the latest IMD international world competitiveness year book. The United State ranks the first in economic competitiveness, followed by Hong Kong and Singapore. The survey compares economic performance, government efficiency, business efficiency, and infrastructure. Larger economies are further behind, with Zhejiang (Chinas wealthiest province.) Japan, The United Kingdom, and Germany ranked 20 through 23.

In the most recent IMD international world competitiveness year book in 2018, The USA leads the IMD world digital competitiveness ranking 2018 followed by Singapore,

Sweden, Denmark and Switzerland, rising from the third spot, The USA overtakes Singapore and Sweden to top the ranking. (Bris, 2018)

An extensive review by the organization for Economic Co-operation and development (OECD) conclude that since World War II, US leadership in science and engineering has driven its dominant strategic position, economic advantage, and quality of life.

III.5 The impact of the globalization of S&T and the rising powers on the performance of S&T:

“There is little doubt that America’s leadership in science and technology is facing significant challenges in an increasingly global economy.” (Wyndrum, 2006 as cited in Galama & Hosek, 2008)

Most who said that the US faces challenges from the rising powers meant globalization. They consider it the main reason. Therefore the US is threatened to no longer could take its supremacy in scientific discovery and innovation. Thus, It will inevitably be a threat to the United States of America in other areas. The increasing power of other countries in science and technology, and on the other hand, the increasing competition in low-wage countries may lead to outsourcing American science and technology jobs, adding to this the changing nature of innovation. (Galama & Hosek, 2008).

Science and technology in the 21st century are geographically dispersed, interconnected, and more dynamic than ever before. In the 21st century, technological progress has accelerated the pace of globalization. Currently, globalization is accelerating

the pace of progress in science and technology as organizations from all over the world seek to benefit from a globally distributed talent base.

III.6 The Role of Immigrant workforce in the U.S Economy:

“Immigrants added \$2 trillion to the U.S. GDP in 2016 *and* \$458.7 billion to state, local, and federal taxes in 2018.” (National Academies of Sciences, et al, as cited in Immigration Facts: The Positive Economic Impact of Immigration, 2022)

The Corona pandemic has damaged working health and moved the economy, due to a decrease in newcomers to the United States of America, as newcomers to the United States of America help fuel innovation, meet the needs of the labor market, and strengthen the middle class. (Immigration Facts: The Positive Economic Impact of Immigration, 2022)

There are many factors that have a direct effect on the economy one of these factors is productivity, and that factor relies on human resources as it's the provider of labor, and the USA is one of the nations that contain a high population, and not just the number but also the quality of its people, as they have a firm belief in individuality and hard work, and considering that the USA is number one attraction destination for immigrants, whom they contribute largely on the labor factor and the enlargement of the economy, as they are not picky when it comes to jobs, they work hard to provide for their families. The power that immigrants had to rely on was the source of their success in America. This was the reason why the country's morals were greatly influenced by their social status. America was full of active laborers who were willing to work whatever it took to improve their lives.

The characteristics that were developed during the time of immigrants were also reflected in the American society. Americans became more optimistic and flexible, and they were more willing to take risks. Another advantage of immigrants was that they were able to experience different cultures, which resulted in the creation of new ideas and innovations in the country.

Conclusion

The US economic policies and strategies have made it possible for the country to assume a leading role in the world economy. In various domains, the US has been able to influence the decisions of other nations because of its economic influence. The US economic power lies in its S&T advancement among the developed countries. Additionally, affects various businesses and commerce. The US' growing power reflected the country's globalization. Its influence in international affairs, technology, and business was also reflected in the World Wide Dominance.

The US used its advancement of innovation in S&T to exert pressure on weak countries. It started to make its hegemony on European countries since post WWII era. However; it was also focused on preserving its domestic economy. This was evidenced by the country's use of the global financial resources.

Many nations preferred the technological products of the US. Thus the U.S is required in the 21st century to make great efforts to encourage S&T innovation and train a well skilled workforce and benefit from foreign-born workers.

General Conclusion

This study aimed to identify the effective American economic strategies that enabled it to continue to be a global economic leader. Based on a descriptive analysis of the real factors that boosted and maintained the American economic hegemony during the 20th century, and especially after World War II. It can be concluded that the United States is more required than ever to form a skilled workforce in the technological and scientific fields and develop its system of education to provide a good environment for the workforce with cheap labor. Increasing and regulating the number of working hours. The best example was in Post WWII when the US shifted the military workforce and technology to the development of the industries.

The real aspect behind American growth is the importance of US resources, higher education services, supporting scientific and technological research, and the leadership of US institutions in technological advancements. However, defining the main US economic policies provide the readers with an idea about the problems that faces the United States and its situation among the developed countries. Furthermore, there are some examples of US economic global strategies and systems like education, important giant technological companies in the 21st century, and the negative and positive side of globalization on the world economy. Despite the challenges of developed countries in the field of technology the US remains the leader with its high quality products. The reasons behind such development are strong infrastructure, human capital, and international product exchanges.

General Conclusion

American people benefited greatly from the development of the technologies in their daily life. In the long run, the most important aspect that lead improvements in productivity and living standards has been and will continue to be the average of technological advance. For instance, online banking can quite help individuals living in rural areas; online shopping can help people with decreased mobility, online learning or teleworking might be a solution for parents looking for their children at home or others with care responsibilities.

There are furthermore researches to better understand the implications of these results, future studies could be important also for instance, Climate change in 21st century, Jobless and poverty in the US, The challenge of the group BRICS to the US, The impact of technology on social justice in the US.

This work determines the strategies that enable the US to maintain its supremacy on the world economy. High-quality training in technology, qualified workforce, and support and develop S&T research is the strong base for building a strong economy that can face external challenges and provide self sufficiency.

Works Cited

- Articles of Confederation (1777)*. (2022, January 31). National Archives. Retrieved January 31, 2022, from <https://www.archives.gov/milestone-documents/articles-of-confederation>
- AMADEO, K. (2022, April 21). *U.S. Natural Resources*.
<https://www.thebalancemoney.com/how-natural-resources-boost-the-u-s-economy-3306228>
- Bryn O'Callaghan.(2004).*An illustrated history of the U.S.A(7th.ed)*. longman.
<https://www.longman.com>
- Brands, H. (n.d.-b). American grand strategy post-cold war era. *Australian National University Press*.
- Baumel, A. (2010). Cholera treatment center in Haiti [Online image]. Doctors Without Borders. <https://www.doctorswithoutborders.org>
- Bull, Sam, J., Uncle. (n.d.). *Inventions and Discoveries*. Library of Congress.
<https://www.loc.gov/exhibits/british/brit-5.html>
- Colonial America (1492-1763)*. (2022.September12). Retrieved September 12, 2022, from https://www.americaslibrary.gov/jb/colonial/jb_colonial_subj.html
- Constitution of the United States of America - Civil liberties and the Bill of Rights*. (2013, July 28). Encyclopedia Britannica. Retrieved September 11, 2022, from <https://www.britannica.com/topic/Constitution-of-the-United-States-of-America/Civil-liberties-and-the-Bill-of-Rights>

- Contributors, S. S. (2012). *Military Economy: The Military and Defense Industry: An Economic Force in the U.S.* / Site Selection Online. Site Selection. Retrieved September 18, 2022, from <https://siteselection.com/issues/2012/sep/sas-military-economy.cfm>
- Carlisle, R. P. (2018). *The Roaring Twenties*. Facts on File.
- Factors encouraging people to go West - Reasons for westward expansion - National 5 History Revision*. (n.d). BBC Bitesize. Retrieved September 11, 2022, from <https://www.bbc.co.uk/bitesize/guides/znhkpg8/revision/2>
- Frum, D. (2014, December 24). *The Real Story of How America Became an Economic Superpower*. The Atlantic. Retrieved September 17, 2022, from <https://www.theatlantic.com/international/archive/2014/12/the-real-story-of-how-america-became-an-economic-superpower/384034/>
- Galama, T., & Hosek, J. (2008, June 19). *U.S. Competitiveness in Science and Technology* (Illustrated). RAND Corporation.
- House of Burgesses / History & Facts*. (2022, September 12). Encyclopedia Britannica. Retrieved September 12, 2022, from <https://www.britannica.com/topic/House-of-Burgesses>
- Hillstrom, K., & Hillstrom, L. C. (2005, April 25). *The Industrial Revolution in America [3 volumes]: Iron and Steel, Railroads, Steam Shipping* (Illustrated). ABC-CLIO.
- History.com Editors. (2022, May 31). *Gilded Age*. HISTORY. Retrieved September 17, 2022, from <https://www.history.com/topics/19th-century/gilded-age>
- Hindley, M. (2017). *World War I Changed America and Transformed Its Role in International Relations*. Humanities.

<https://www.neh.gov/humanities/2017/summer/feature/world-war-i-changed-america-and-transformed-its-role-in-international-relations>

History.com Editors. (2022a, May 9). *Great Depression History*. HISTORY. Retrieved September 17, 2022, from <https://www.history.com/topics/great-depression/great-depression-history>

Innovation in Transportation. (2022, January 28). IDCA. Retrieved September 17, 2022, from <https://iowaculture.gov/history/education/educator-resources/primary-sources/innovation-transportation>

Immigration Facts: The Positive Economic Impact Of Immigration. (2022, January 6). FWD.us. Retrieved September 22, 2022, from <https://www.fwd.us/news/immigration-facts-the-positive-economic-impact-of-immigration/>

Institute of Medicine, National Academy of Engineering, National Academy of Sciences, Committee on Science, Engineering, and Public Policy, & Committee on

Prospering in the Global Economy of the 21st Century: An Agenda for American

Johnson, P. (1998, February 17). *A History of the American People* (1st U.S. ed). Harper.

Kopf, D. (2017, June 3). *Places in the US that took in more immigrants in the 19th century still benefit economically from it*. Quartz. <https://qz.com/989099/the-places-in-america-that-took-in-more-immigrants-in-the-19th-century-are-richer-today-because-of-it/>

Lingenfelter, P. (2012, May 2). *The Knowledge Economy: Challenges and Opportunities for American Higher Education*.

<https://library.educause.edu/resources/2012/5/chapter-1-the-knowledge-economy-challenges-and-opportunities-for-american-higher-education>

McLaughlin, E. (2013, July 23). *Silicon Valley*. SearchCIO. Retrieved September 21,

2022, from <https://www.techtarget.com/searchcio/definition/Silicon-Valley>

Manyika, J., Pinkus, G., & Tuin, M. (2020, November 16). *Rethinking the future of*

American capitalism. McKinsey & Company. Retrieved September 20, 2022, from

<https://www.mckinsey.com/featured-insights/long-term-capitalism/rethinking-the-future-of-american-capitalism>

O'Donnell, E. T., & Courses, T. G. (2015, May 1). *America in the Gilded Age and*

Progressive Era. The Great Courses.

Overview | The Post War United States, 1945-1968. (n.d.). The Library of Congress.

Retrieved September 17, 2022, from <https://www.loc.gov/classroom-materials/united-states-history-primary-source-timeline/post-war-united-states-1945-1968/overview>

Ppi, W. (2018, December 19). *The Effects of Immigration on the United States' Economy*.

Penn Wharton Budget Model. Retrieved September 17, 2022, from

<https://budgetmodel.wharton.upenn.edu/issues/2016/1/27/the-effects-of-immigration-on-the-united-states-economy>

PETER, T.(1975). *causal factors in American Economic Growth in 19th century*. THE

MACMILLAN PRESS L TD. <https://doi.org/10.1007/978-1-349-02333-2>

- Quinn, A. (2019, December 19). *The Silicon Valley Economy Today and Tomorrow: Insights from JLL's Director of Research*. City of Fremont. Retrieved September 21, 2022, from <https://www.thinksiliconvalley.com/blog/the-silicon-valley-economy-today-and-tomorrow-insights-from-jlls-director-of-research/>
- Robert V. Remini.(2008). *A Short History of the United States*. HarperCollins.
<http://www.harpercollinsebooks.com>
- Riddell, T. (1988, May). *U.S. Military Power, the Terms of Trade, and the Profit Rate*. JSTOR. <https://www.jstor.org/stable/1818098>
- Science and Technology. (2007, March 8). *Rising Above the Gathering Storm: Energizing and Employing America for a Brighter Economic Future (Competitiveness)*. National Academies Press.
- Societal Impacts of the American Revolution [ushistory.org]*. (n.d.). ushistory.org. Retrieved September 10, 2008, from <https://www.ushistory.org/us/12.asp>
- Team, C. T. (2022, January 15). *knowledge economy*.
<https://corporatefinanceinstitute.com/resources/knowledge/other/knowledge-economy/>
- The Age of the Automobile*. (n.d.). <https://www.ushistory.org/us/46a.asp> *United States - The Progressive era*. (n.d.). Encyclopedia Britannica. Retrieved September 17, 2022, from <https://www.britannica.com/place/United-States/The-Progressive-era>
- The Postwar Economy: 1945-1960/ American History From Revolution To econstruction and beyond*. (n.d.-b). Retrieved September 17, 2022, from <http://www.let.rug.nl/usa/outlines/history-1994/postwar-america/the-postwar-economy-1945-1960.php>

Tozzo, B. (2020, November 13). *American Hegemony after the Great Recession: A Transformation in World Order (International Political Economy Series)* (1st ed. 2018). Palgrave Macmillan.

United States Economy - A Brief History - The New Nation's Economy. (n.d.). Retrieved September 12, 2022, from <http://countrystudies.us/united-states/economy-3b.htm>

United States - The United States from 1816 to 1850. (n.d.). Encyclopedia Britannica. Retrieved September 12, 2022, from <https://www.britannica.com/place/United-States/The-United-States-from-1816-to-1850>

Wai Li, K. (2017). *How Capitalism Works.* Science Direct.
<https://www.sciencedirect.com/topics/economics-econometrics-and-finance/g7-countries>