US-China Global Supremacy

George Monray, Ph.D.

ISBN: 9798343372632 (Paperback)

Edition I.
Publisher: KDP Publishing

DEDICATION

This book is dedicated to Talika

TABLE OF CONTENTS

ACKNOWLEDGMENTS

Thank you so much to Karla Romero, a remarkable student and intern at the Institute for American Universities. Karla, you did an impressive job collecting and organizing secondary data. This work belongs to you just as much as it belongs to me. I appreciate your positive attitude while working with me, and I know a great career awaits you. I am proud to have collaborated with you.

I would also like to thank Talika and Pix; you are my inspiration and my reason for writing. Thank you for your patience while I worked from home and couldn't spend much time with you. I love you both.

A big thank you to Dr. Ignasi Perez (Vice-President of International Affairs) and Dr. Carl Jubran (President), both from the Institute for American Universities and The American College of the Mediterranean (ACM). Your support is always greatly appreciated.

I can never express enough gratitude and love to those I consider my adoptive family: the Grose family—Larry, Nyla, Jason, and Jared. You are a constant source of inspiration for me. Thank you for sharing your life with me. I love you all.

To my father, who taught me how to fight until something is finally achieved, thank you. I miss you more than you can imagine.

To all my friends and people who still stay in contact with me after years of living far away from each other.

List of Figures and Tables (related to 100 economic indicators)

CHAPTER 1. INTRODUCTION

The economic rivalry between the United States and China is one of the most significant global phenomena of the 21st century. As the two largest economies in the world, their trajectories not only shape their futures but also have profound implications for global economic stability, trade dynamics, and international relations. This book aims to provide a comprehensive comparison of the economic systems, growth patterns, and energy consumption strategies of the United States and China, elucidating the underlying factors that have led to their current standings in the global economy.

At the core of this comparison lies the distinct economic models adopted by each country. The United States has historically embraced a capitalist framework characterized by free markets, innovation, and a relatively limited role of government in economic affairs. This model has fostered an environment conducive to entrepreneurship and technological advancement, contributing to the U.S. economy's resilience and adaptability (Khan, 2021). In contrast, China's economic model has evolved from a centrally planned system to a more market-oriented approach, particularly following the reforms initiated in the late 1970s. This transition has been marked by significant state intervention, particularly in key sectors such as energy and infrastructure, which has facilitated rapid industrialization and urbanization (Ikeda, 2019).

A critical aspect of the economic comparison between the two nations is their energy consumption patterns, particularly about electricity generation. China has emerged as the world's largest producer and consumer of electricity, driven by its heavy reliance on coal and substantial investments in renewable energy sources (Ikeda, 2019). The elasticity of electricity consumption to economic growth in China has been notably high, indicating that energy consumption is a significant driver of economic expansion (Milin et al., 2022).

Conversely, the United States has seen a decoupling of electricity consumption from economic growth in recent decades, reflecting a shift towards more energy-efficient technologies and a diversification of energy sources, including natural gas and renewables (Solangi et al., 2012). This divergence in energy strategies not only highlights the different priorities of the two economies but also underscores the broader implications for environmental sustainability and carbon emissions (Hu et al., 2021).

Furthermore, the demographic and geographic factors influencing economic growth in both countries cannot be overlooked. China's vast population and rapid urbanization have created an unprecedented demand for energy and infrastructure, propelling its economy forward at an extraordinary pace (He et al., 2016). In contrast, the U.S. economy, while still robust, faces challenges related to an aging population and regional disparities in economic development (Lin et al., 2020). These demographic trends have significant implications for labor markets, consumption patterns, and ultimately, economic growth trajectories in both nations.

The book will also delve into the impact of international trade and investment flows on the economic dynamics of the U.S. and China. The interdependence of their economies, particularly through trade relationships, has shaped their growth patterns and influenced domestic policies (Liu & Hu, 2019). The ongoing trade tensions and negotiations between the two countries further complicate this relationship, raising questions about the future of global trade and economic cooperation (Zhao et al., 2016).

Additionally, the role of technology and innovation in driving economic growth will be a focal point of analysis. The U.S. has long been a leader in technological innovation, with Silicon Valley serving as a global hub for startups and tech giants alike (Guo et al., 2017). Meanwhile, China has made significant strides in technology development, particularly in areas such as artificial intelligence and renewable energy, positioning itself as a formidable competitor on the

global stage (Yang & Zhao, 2018). The interplay between these technological advancements and economic growth will be explored in depth, highlighting the implications for global competitiveness and economic policy.

In conclusion, this book seeks to provide a nuanced understanding of the economic landscapes of the United States and China, examining the factors that have contributed to their respective successes and challenges. By analyzing their economic models, energy consumption patterns, demographic trends, trade relationships, and technological advancements, we aim to offer insights into the future trajectories of these two economic powerhouses and their roles in shaping the global economy.

Chapter Summary

In Chapter 1 the reader can access the Introduction of the book

In Chapter 2, an explanation of the analysis method used in the book and how the comparative research has been approached is provided.

Chapter 3 analyzes and forecasts three (3) economic indicators related to the category GDP and Economic Growth.

Chapter 4 provides the analysis of one (1) economic indicator that relates to the Business Cycles.

Chapter 5 provides an analysis of two (2) economic indicators that relate to the situation of labor markets.

Chapter 6 navigates into the topic of International Trade Investment and analyses a total of seven (7) indicators

Chapter 7 tackles the topic of Government presenting the evolution and charts about the topic. A total of seven (7) different indicators that relate to this category are exposed.

Chapter 8 provides the analysis taking into consideration the International Monetary Fund (IMF) perspective, an independent approach that must be taken into consideration to add independence and objectivity to the study. A total of three (3) indicators are evaluated.

Chapter 9 provides indicators about Governance and Business Environment, explaining to what extent both the US and Chinese governments facilitate or do not facilitate conditions for running businesses and economic activity. A total of fourteen (14) indicators are evaluated in this section.

Chapter 10 delivers information on the situation and forecasts of the Infrastructure and Transportation Characteristics of both nations. A total of five (5) indicators are analyzed.

Chapter 11 offers an analysis of the Energy and Environment Policies in both countries. A total of six (6) indicators are evaluated including renewable energy efforts and others.

Chapter 12 provides an analysis of the section Industry of oil, coal, and electricity. A total of seven (7) indicators are presented.

Chapter 13 offers information about the Banking System Access and Depth of both countries. A total of 9 indicators are evaluated here.

Chapter 14 provides an analysis of the evolution of the Banking Systems seen from a perspective of efficiency and stability, crucial for the economic development of each nation. A total of six (6) indicators are analyzed.

Chapter 15 delivers information on the situation and forecasts of the stock exchange mechanisms, insurance, and pensions. Two (2) indicators are analyzed.

Chapter 16, is the longest due to its number of indicators. This category is called Miscellaneous and provides indicators such as the

number of hospital beds/1000 people, happiness index, oil reserves, % of world FDI, or % of world imports/exports among others.

Chapter 17 illustrates the reader with tables of final results classified in terms of Performance-Based Winners, stating data about the performance of each country in each area and aggregated final data.

Chapter 18 runs a Monte Carlo simulation determining the possible scenario in and its uncertainties for 2030 of the US versus China. The data collected is used for the scenario creation.

Chapter 19, discusses the importance of unity for the US and China.

Chapter 20. Conclusions

CHAPTER 2. THE RESEARCH DONE

The research done here is extensive work developed over 2 years. It all started with the idea to bring light to the debate of the US versus China in an economic field. Most of the debate appears regularly on TV Channels, the internet, and all media presented in a biased manner. This occurs because most of the analysis is done only from one or two economic perspectives. In many cases, we see that the debate focuses on energy, labor, or GDP Growth, as an example, instead of covering the matter properly and in a wider way.

The research started collecting secondary data through well-known platforms such as The Global Economy, Trading Economics, or Global Edge among others, and comparing the available data of 100 economic indicators of the US and China.

Most of the collected information presents data from the last 20/ 23 years about the evolution of both nations in front of a particular economic indicator. To make the reading easier all these data have been presented in chart format so the reader can visualize easily the information.

Once all that data is collected, a basic mathematical forecast of the evolution of each indicator has been made. *(Note that not all indicators appear forecasted).* The reason for doing this is that not all of them are considered with the same importance. The total forecasted indicators are 71 out of the 100 used here. Most *(90%)* of the forecasted series include a second complementary forecast to 2050, these charts have been added to complement in some cases the information for the reader and to provide a visual trend long term although the forecast in such a long term cannot be considered, this is the reason why the book targets the year 2030 which is a much more realistic forecast.

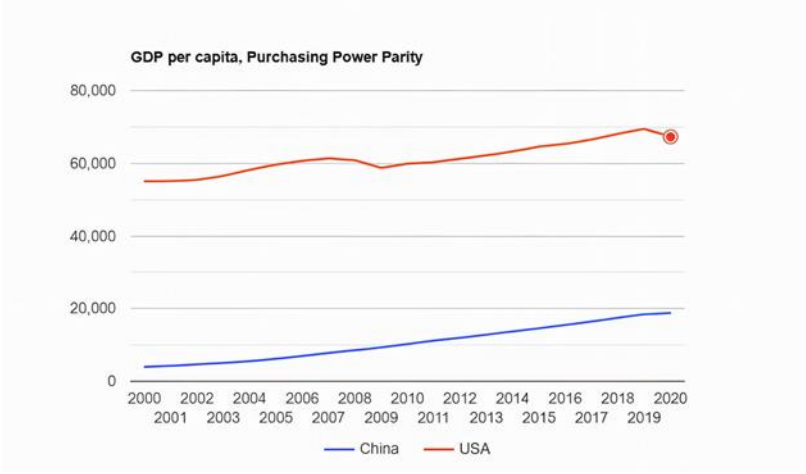
It is important to state that the provided forecasts for the year 2030 (or

2050 in some cases) are basic trend analyses in a linear regression, they do not intent to be anything else. The curves do and considering the "Ceteris Paribus" (all remains equal) approach the reader can see what might be the evolution of the indicator in each country.

How to read some charts

In each indicator analyzed there is a chart that compares US and China. In most cases, it is a retrospective analysis. If you are using this book E-Book version you will see different colors (blue and red) in each line. Still, in case you are reading a printed version in black and white you will notice that each graph will have similar lines but the one that refers to the values of the US has a dot on it.

See this illustration here: the values and the trendline market with the dot represent the line of the US, and the regular line represents China



CHAPTER 3. INDICATORS CATEGORY A: GDP AND ECONOMIC GROWTH

INDICATOR 1. GDP PPP

In this regard, the developments in the GDP per PPP for the United States and China create an exciting observation of the dynamics that have changed in the global economy. Quite simply, the PPP method of measuring GDP corrects only the variance in price levels across nations to make a more valid comparison of economic productivity and living standards. Historical context about the US: The US has been the largest economy globally, both in terms of nominal GDP and GDP at PPP. Its economy can be characterized by high levels of innovation, enormous service sectors, and a strong industrial base. On the other side is China, which started in the late 20th century and has been experiencing phenomenal economic growth from an agrarian-based economy to a robust industrial economy. This has been marked by phenomenal growth in the GDP at PPP, reflecting the rapid rise in both production and consumption.

Key Phases of Economic Growth The fact is that before the 1980s, the US-dominated global economic rankings, were far ahead of any other economy. Nobody will dispute that the real winner of WW2 was the US. China, in those days, had a relatively small economy, with its GDP PPP far below that of developed nations.

From the 80s to the 2000s, the US continued to grow steadily, though at a slower pace compared to the high growth rates of the mid-20th century, while China, under Deng Xiaoping, initiated economic reforms in 1978, thus bringing rapid industrialization and urbanization into full swing. China's GDP PPP started to show a sharp uptick, indicative of a roaring manufacturing sector coupled with an increase in exports.

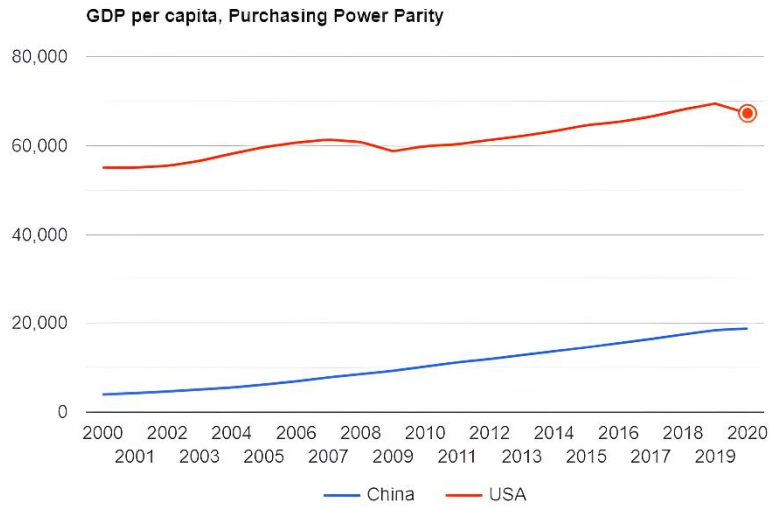
From the 2000s to the 2010s, the US witnessed loads of turmoil-from the dot-com bubble to the financial crisis in 2008-but still remained one of the world's leading economies. China, during the same period, saw phenomenal growth rates, often topping 8-10% yearly, more than quadrupling its GDP PPP. The GDP PPP for China finally rose and passed that of the United States in 2014, rising to number one in the ranking as the largest economy in the world based on this measure. by Karen M. Sutter and Michael D. Sutherland, 2015

From the 2010s to 2024, the US continued to grow, especially with a strong technology sector, though growth rates have been moderate, whereas China's growth rates compared to the earlier period have slowed. Nevertheless, its economy is large and diversified, with considerable investments in technology, infrastructure, and services.

Current Status and Projections

The US stays among the most powerful economies of the world due to the high GDP PPP that reflects productivity and strong household consumption. Further, the estimates are that China will keep the lead in GDP PPP, with its further growth. The concentration now turns to higher-added-value industries and technological aspects with growing domestic consumption.

However, some of the variables that determine growth include 1) Innovation and Technology-in this case, both countries have invested massively in technology and innovation, though traditionally the U.S. has led in this area; 2) Population Size and Labor Force: its large population has been the significant factor of China's GDP PPP growth, providing a vast labor force and a growing consumer base. In addition, one can perceive that the market reforms in China and policies supportive of innovation in the U.S. have been pretty decisive in setting their economic trajectories. Comparatively, we can therefore say that while overall GDP PPP is higher for China than for the U.S., according to Karen M. Sutter and Michael D. Sutherland, 2015, a higher per capita GDP PPP is enjoyed in the U.S., representing a



higher average standard of living. There are some structural differences between the two countries; this pertains to the fact that the U.S. economy is more service-oriented. China has a larger manufacturing base. Yet, in reality, China is increasingly moving towards a more service- and technology-intensive economy.

Coupled with Per Capita GDP More specifically, China's rise as the world's largest economy in PPP terms should be put into perspective, particularly because China's population is nearly 4.3 times larger than that of the United States. China's per capita GDP on a PPP basis, the standard gauge for international comparisons of living standards, is significantly below the U.S. level. The IMF puts China's estimated 2014 per capita GDP on a PPP basis at $12,893, 24% of the U.S. estimate ($54,678). Thus, even if China continues to experience rapid economic growth, living standards in that country are unlikely to approach U.S. levels for many years. The Economist Intelligence Unit also believes that by 2030,

Figure 1.1. US and China GDP PPP Evolution 2000-2021. Source World Bank

China's per capita GDP, on a PPP basis, will stand at only 39% of U.S. levels.

The IMF's World Economic Outlook states data and makes projections for countries several times a year. These include country measurements of gross domestic product (GDP) converted into U.S. dollars using nominal exchange rates. This organization estimated October 2024 U.S. and Chinese nominal GDP for 2013 at $16.8 billion and $9.5 billion, respectively, making them the number one and number two largest economies. At the same time, the IMF further projected the 2014 nominal GDP for each at $17.4 trillion and $10.4 trillion, respectively. These data could tell us that U.S. GDP is much larger than China's, 76.8% higher in 2013. Still, many economists maintain that using nominal exchange rates to convert foreign currency into U.S. dollars in comparing GDP is ambiguous. It is worth considering that China pegs its currency. Its evolution says that up to 2005, the RMB was tightly pegged to the USD with little fluctuation. Since 2005, we have seen a gradual move toward a managed floating system, allowing the RMB more flexibility. Yet, it is still under tight control by Chinese authorities.

More specifically, it is such that, although the RMB is not directly pegged to the USD anymore, its heavy management and influence through Chinese monetary policy and global market conditions persist.

Some observers appreciate that the RMB is undervalued against the dollar, which in turn would affect estimates of China's GDP. To illustrate, one U.S. dollar exchanged for RMB in China would buy more goods and services there than it would in the United States. This is because prices for goods and services in China are generally much lower than they are in the United States.

Some observers appreciate that the RMB is undervalued against the dollar, which in turn would affect estimates of China’s GDP. To illustrate, one U.S. dollar exchanged for RMB in China would buy

more goods and services there than it would in the United States. This is because prices for goods and services in China are generally much lower than they are in the United States. *(Karen M. Sutter and Michael D. Sutherland, 2015)*

US Forecast GDP PPP to 2030:

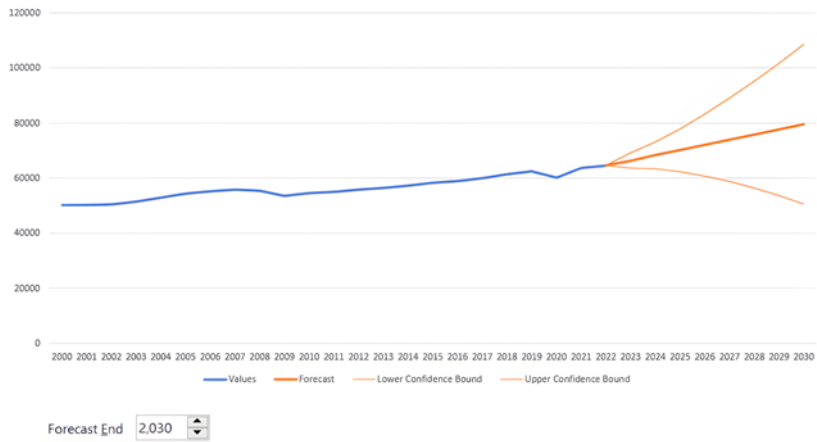


Figure 1.2. US Forecast to 2030. Source Own Elaboration

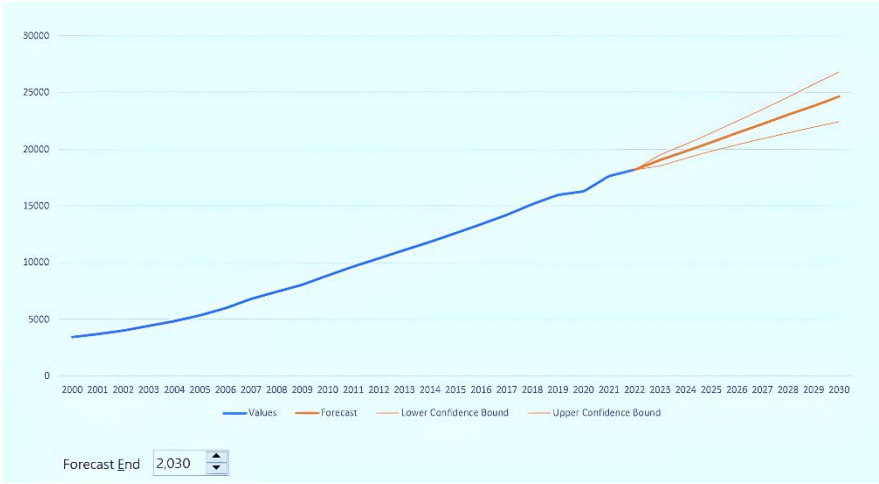


Figure 1.3. China Forecast to 2030. Source: own elaboration

As we can see the evolution of China is faster than the one in the US, easy to understand, and knowing that China has come to the race later and comes from lower positions. Still, differences apply setting aside former comments related to the adjustments of the PPP measurement system.

What will happen in 2050? Linear Regression is as follows:

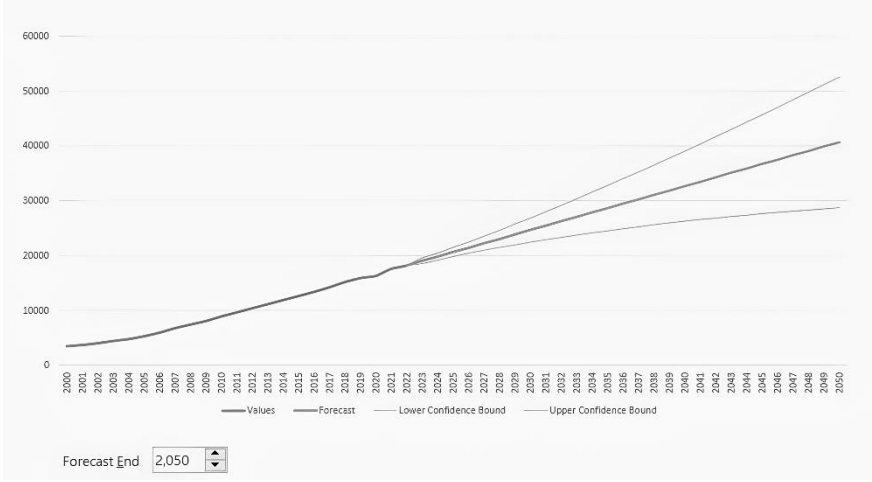


Figure 1.4. China forecast GDP PPP to 2050. Source: own elaboration.

As we can see in 2050 the best-case scenario places China in 50.000$/capita but indicates a forecast value of only 40.00$. Very far away from the expected value of 80.000$ in the US by 2030.

Even if the considerations of the value of the yuan and considering that since 2005 is no longer pegged against the dollar, the People's Bank of China (PBOC) carefully manages the currency's value, allowing it to float within a narrow range or "band." This exchange rate management regularly exposes China to charges of currency manipulation from critics, especially those from the United States.

Performance Based Winner: US

INDICATOR 2. ECONOMIC GROWTH: RATE OF CHANGE OF REAL GDP

Definition (The Global Economy, 2024): Annual percentage growth rate of GDP at market prices based on constant local currency. Aggregates are based on constant 2015 prices, expressed in U.S. dollars. GDP is the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products. It is calculated without making deductions for the depreciation of fabricated assets or for the depletion and degradation of natural resources.

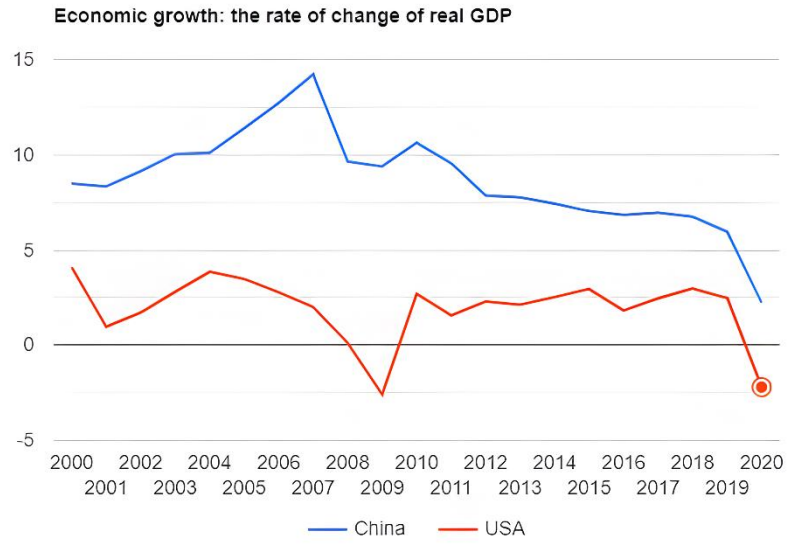


Figure 2.1. Economic Growth: the rate of change of real GDP.

Source World Bank.

Changes in the rate of GDP.

The US and China have suffered parallel evolutions due to recessions and crises although the growth rates of China always have been more impressive than the ones in the US.

Consequences for the economies of the world were far-reaching in the 2007-2008 financial crisis, which is also known as the Global Financial Crisis; however, there were sharp contrasts between the United States and China due to structural differences in their economies, policies, and integration into the global financial system.

This was also an economic consequence of the fact that the U.S. was the epicenter of the crisis, where the collapse of major financial institutions like Lehman Brothers and a mass of defaults in the subprime mortgage market started a severe recession. The GDP of the U.S. contracted significantly during this period. The unemployment

rate in the U.S. spiked, reaching over 10% at its peak in 2009. Several million Americans lost their jobs, and there was a significant slowdown in hiring. This created financial industry turmoil-the crisis led to a credit crunch, with banks becoming more reluctant to lend. Such liquidity and confidence in the financial system were then translationally reflected in the stock market crash and reduced consumer spending. Then, the government quickly acted to offer massive bailouts, including the Troubled Asset Relief Program or TARP, and implemented significant monetary easing through the Federal Reserve: lowering interest rates and launching quantitative easing programs to stabilize the financial system and stimulate the economy. Because of that, the housing market buckled, and home prices in the U.S. began a free fall into an unprecedented rate of foreclosure and loss of household wealth.

The results were very different in China. China did slow down but was less affected than the United States. China's economy kept growing, though at a much slower pace than before the crisis. For 2008, the Chinese government reported a GDP growth of about 9%, against 14.2% in 2007. However, demand for exports also declined because China, being one of the largest exporters, was severely impacted due to a contraction in demand from the rest of the world, primarily from Western markets like the U.S. and Europe. This, in turn, contributed to export growth decline, which was one of the main drivers of China at that time. It resulted in slowing down industrial production. A fall in global demand also contributed its share to slowing down the process of production and putting extra pressure on Chinese manufacturers, particularly those oriented towards export. The announcement by the Chinese Government Stimulus of a stimulus package of about 4 trillion yuan-about $586 billion-in November 2008 was in response. This stimulus was channeled into infrastructure projects, social housing, and supporting key industries that kept domestic demand stable and avoided a sharp decline in the economy. China's financial system was relatively insulated from the global crisis since it is more regulated and less open to the outside world. Chinese

banks were less exposed to the toxic assets at the center of the crisis in the United States and Europe.

Comparative Analysis

Regarding the intensity and extent, it can be concluded that the U.S., given the central role which it had occupied within the crisis, and its high degree of financial sector integration, has been hit harder and more directly. The real and immediate impacts of the crisis in terms of effects on capital markets, labor markets, and economic productivity are much more intense. With regards to policy, the two countries did wide fiscal and monetary policies to dampen the contraction. The U.S. took a more stabilized approach to the financial system and the industries that suffered together with the people. In the case of China, her efforts were more to keep the growth rate high through infrastructure investment and keeping the employment level intact. The long-term effects were such that the financial crisis motivated both countries to reassess their economic policies; increased regulation of the financial sector became more pronounced in the U.S., and in China, the efforts to switch towards a more consumption-oriented model of economic growth rather than export-oriented were accelerated.

While both the U.S. and China suffered from the financial crisis in 2007-2008, the nature and magnitudes affecting both countries had substantial differences, reflecting the specific features of their economies and financial systems.

The Impact of Covid 19 on Both Economies

The COVID-19 pandemic did bring impacts on the economy in very different ways between the United States and China, based on their economies, government responses, and societal structures.

The pandemic led to a steep and broad decline in economic activity in the United States. By the second quarter of 2020, GDP had significantly shrunk, seeing its most dramatic decline since recording began at 31.4% on an annual basis. Unemployment soared-for instance, the unemployment rate peaked at roughly 14.8% in April of 2020, though perhaps as high as 20% if one considers misclassifications in employment surveys. All put together, business closures, reduced consumer spending, and disrupted supply chains in this economic contraction. According to the St. Louis Fed, (via Census.gov): “The government of the United States also passed quite unparalleled fiscal measures targeting the CARES Act for more than $2.7 trillion for individual support, businesses, and the health system. The Federal Reserve has undertaken extraordinary actions: it has cut interest rates almost to zero, as well as introducing special facilities. St. Louis Fed”.

According to the Stanford Center for Conflict Ethics, the impacts of COVID-19 in China were equally extreme, but they were different in some ways. The economy contracted 6.8% in the first quarter of 2020, its first contraction on record. Still, consumer spending was sharply cut, especially offline retail consumption. For instance, offline consumption in the 12 weeks starting with the outbreak's onset in Wuhan shrunk by about 32%, corresponding to a loss of approximately 1.2% of the country's 2019 GDP. Meanwhile, China's economy was presenting a somewhat faster recovery due to the fact that the virus was brought under control sooner, so it could start returning to economic activities earlier.

China's response included stern lockdowns, mass testing, to even major fiscal and monetary policy support for stability and recovery of the economy. All these responses helped in cushioning the long-term impact; the economy started to grow by the third quarter of 2020, according to the World Bank.

On the whole, although the U.S. and Chinese economies both suffered greatly from the pandemic, the depth and length of economic

downturns have varied, reflecting the different public health responses and contrasting economic structures. The U.S. has seen wider economic disruption with a more gradual initial recovery, while in China, there has been a sharp but short contraction, followed by a comparatively quick rebound of the economy.

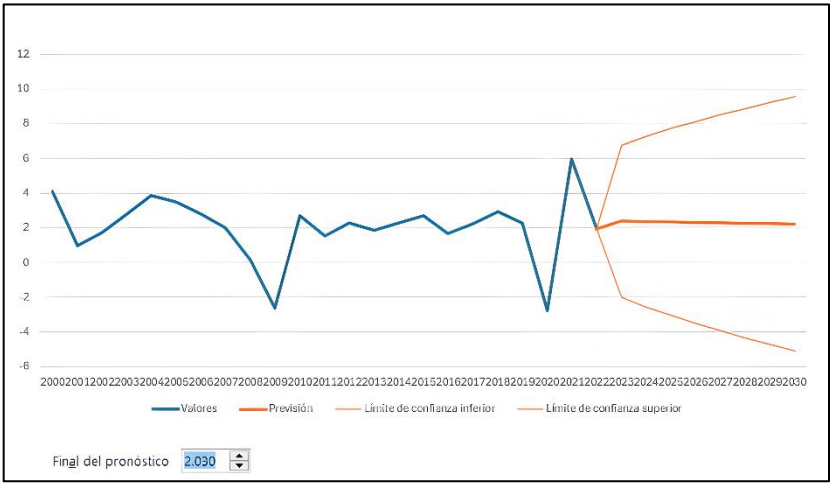


Figure 2.2 US Forecasts Economic Growth Change 2030. Own elaboration

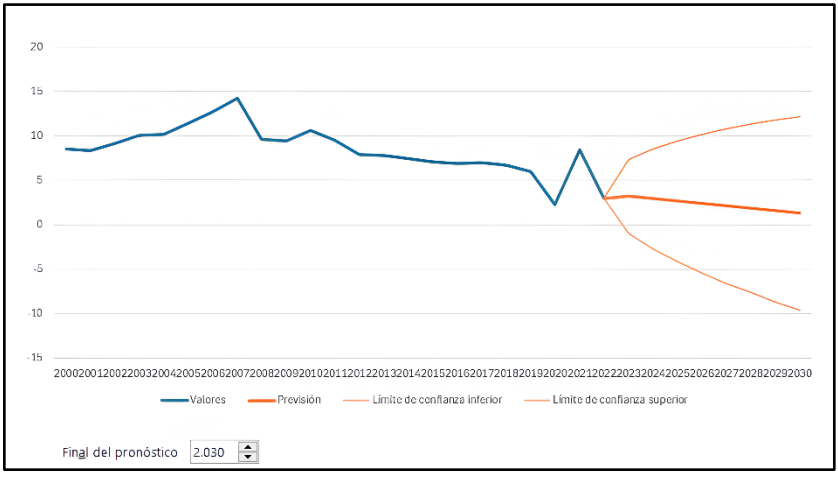


Figure 2.3. China Forecasts Economic Growth Change 2030. Own elaboration

It is this spectacular growth of China during the last decades that will not continue. The forecast to 2030 states that the US will be at the 2% level while China will be deciding progressively its growth from a 5-6% at 1- or even 0%.

I would like to address that the main important reasons for this economic decline are:

Global Trade Slowdown: The Chinese economy, being a major exporter, is pretty sensitive to changes in global trade dynamics. The pandemic led to a slowdown in global demand and hence affected Chinese exports. Also, geopolitical tensions-especially with the United States and disruptions in international logistics further added to these challenges (World Bank).

Debt Levels: High levels of corporate and local government debt have been considered a major economic stability concern in China. The pandemic situation worsened as revenue shortfalls led to increased borrowing.

The vulnerabilities in the property market also had a major role to play in China's economic growth, with regulatory measures given to the government for the purpose of housing price control and reducing speculation. These developments raise concerns about potential defaults and slowing property-related investments.

• China's aging population and declining birth rate present challenges to its long-term economic growth. As the workforce ages and population growth slows, demands on public resources increase. This can result in labor shortages that affect productivity and economic growth. As the World Bank reported,

These all together implied that China's economic growth faced short-term disruptions due to the pandemic and longer-term structural and policy challenges.

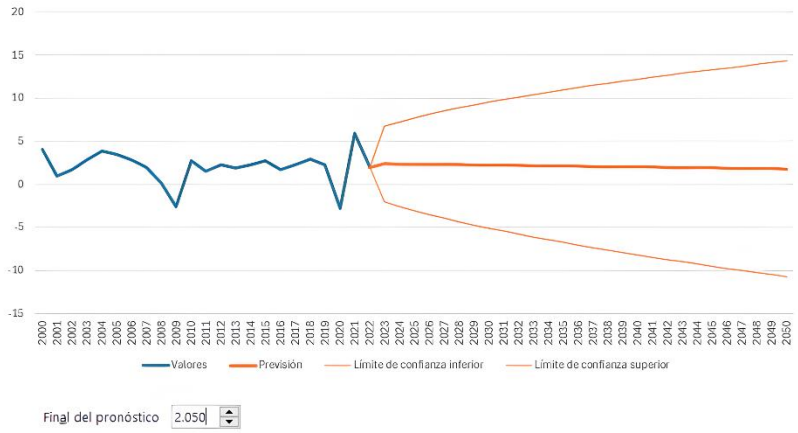


Figure 2.4. Forecast Growth of the US to 2050

Things do not change so much. The future U.S. economy faces several uncertainties that could influence its trajectory. These uncertainties stem from a combination of domestic and global factors, and they encompass a range of economic, geopolitical, and social dimensions. These uncertainties refer to Inflation and Monetary Policy, Global Economic Conditions, technological shifts, fiscal policy, and debt levels, environmental issues, labor market dynamics, and political uncertainty. The US economy's future will be shaped by how it navigates these uncertainties. Policymakers, businesses, and individuals will need to adapt to a rapidly changing landscape, balancing short-term challenges with long-term strategic considerations.

Performance-Based Winner: Tie

INDICATOR 3. GDP CURRENT USD

GDP at purchaser's prices is the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products. It is calculated without making deductions for the depreciation of fabricated assets or for the depletion and degradation of natural resources. Data are in current U.S. dollars. Dollar figures for GDP are converted from domestic currencies using single-year official exchange rates. An alternative conversion factor is used for a few countries where the official exchange rate does not reflect the rate effectively applied to actual foreign exchange transactions.

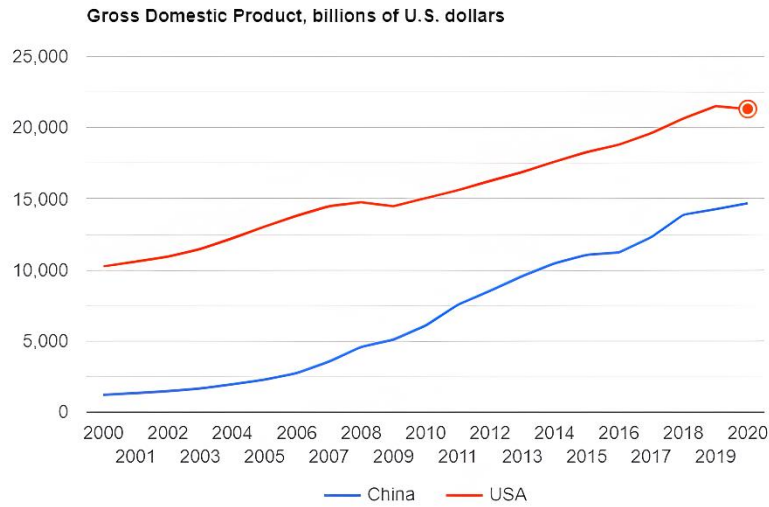


Figure 3.1.GDP comparative US-China 2000-2019. Source The Global Economy 2024.

The projections indicate that China and the US will move in similar directions tending to converge. Although as we can see in the next figure the US forecast for 2050 is not growing significantly by 2050. Growth rates of 1-2% should be expected if no big issues occur.

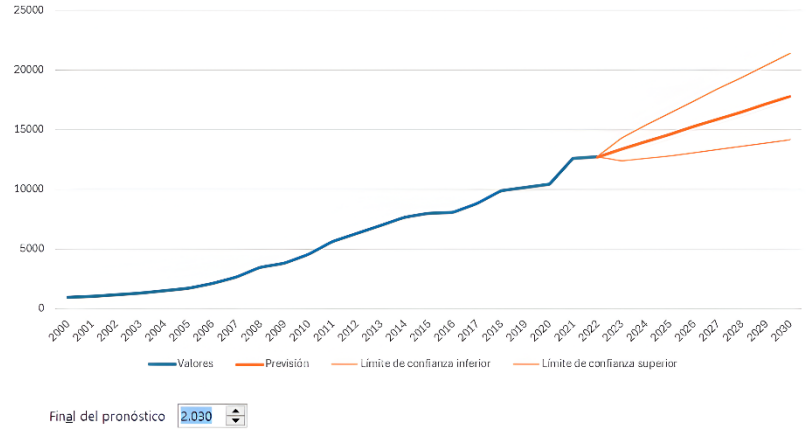


Figure 3.2. Forecast GDP in Current USD. China Forecast 2030. Source Own Elaboration

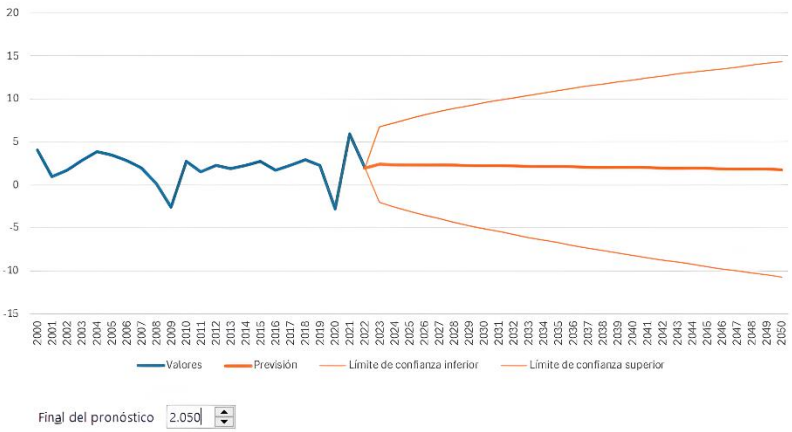


Figure 3.3.US Evolution expected until 2050. Source Own Elaboration

Performance-Based Winner: US

CHAPTER 4. INDICATOR CATEGORY B: BUSINESS CYCLE INDICATORS

INDICATOR 4. HOUSEHOLD CONSUMPTION AS A PERCENTAGE OF GDP

Household final consumption expenditure (formerly private consumption) is the market value of all goods and services, including durable products (such as cars, washing machines, and home computers), purchased by households. It excludes purchases of dwellings but includes imputed rent for owner-occupied dwellings. It also includes payments and fees to governments to obtain permits and licenses.

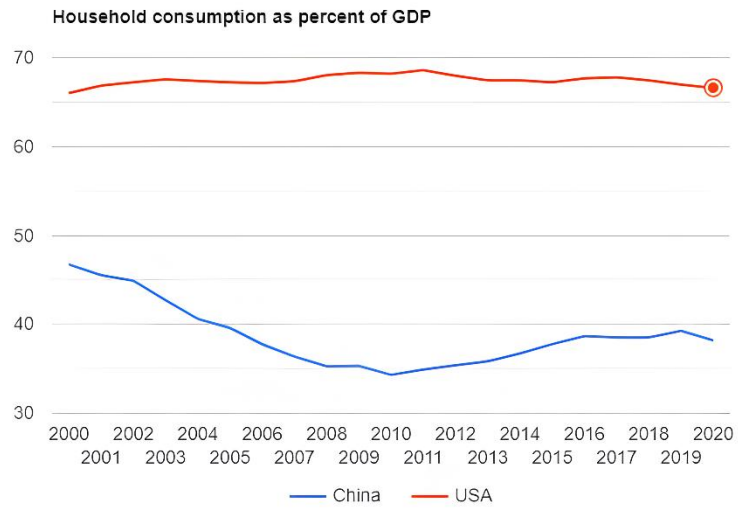


Figure 4.1. Comparative US-China 2000-2021. Source The Global Economy

Here, household consumption expenditure includes the expenditures of nonprofit institutions serving households, even when reported separately by the country. This item also includes any statistical discrepancy in the use of resources relative to the supply of resources.

Over the last two decades, Chinese household consumption has undergone striking changes. Growth in household consumption expenditures was initially relatively modest compared with China's rapid GDP growth.

Household consumption expenditure has been increasing in this period, though at varying rates dependent on a raft of influencing factors. For instance, per capita consumption expenditure increased by 9.2% in 2023, with the growth rate for rural households being slightly higher than that of urban households *(National Bureau of Statistics)*. However, consumption has not kept pace with the economic growth of the country due to incomes and returns on household assets that were relatively lower compared to other large economies. Part of this is attributed to financial policies that bring out a scarce supply of investment opportunities and an overly higher apportionment of household wealth to unproductive ones, like vacant real estate. Another influence on consumption has been the considerable role of the government in the economy. For years, overall, policies have favored investment and export over domestic consumption in suppressing household spending in its percentage of GDP. While this has seen the growth of retail sales and spending of households, consumption as a contribution to GDP remains lower compared to most Western economies. Such changes in the economy's structure could be financial liberalization and efficiency-enhancing reforms in the social safety net that spur more domestic spending, on which may hang the future of Chinese household consumption.

In the last twenty years, the consumption patterns of households in America have bled into a spate of remarkable growth and change. The value of goods and services consumed by households has become one of the primary gauges of economic activity. From 2003 to 2023, the

U.S.'s Personal Consumption Expenditures (*PCE)* increased from about $8.5 trillion to roughly $19.4 trillion, reflecting economic growth but also inflation. *BEA (FRED).*

During this period, several trends have shaped consumer spending. The financial crisis in 2008 drastically reduced household consumption as people tightened their purse strings; spending, however, managed to recover in later years. More recently, the COVID-19 pandemic initially disrupted patterns of consumption early, thus reducing spending on services such as travel and entertainment, but it increased spending on goods related to home improvement and groceries (BEA).

Not to mention inflation, which has also been a major concern lately due to rising prices of goods that affect consumer behaviors. It is expected that in 2024, while the labor market is strong and with improving economic conditions, inflation remains a critical issue in household consumption choices. Trading down from expensive brands or waiting for non-essential purchases are some of the changes which have impacted spending habits among consumers.

While inflation and economic uncertainties will continue to pose some challenges to consumer spending, it has remained strong in the U.S., buoyed by factors such as low unemployment and economic resilience. According to long-term trends, household consumption appears to be continuing on an upward trajectory but might shift in what is consumed due to changing economic conditions.

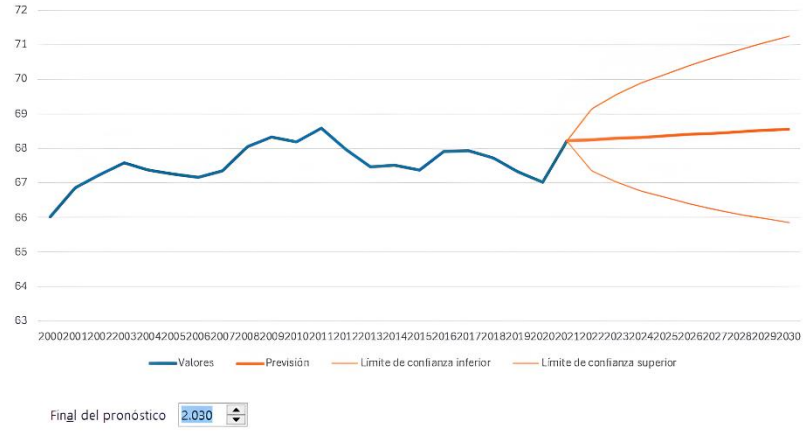


Figure 4.2 US Forecast Household Consumption for 2030 expressed in %. Source Own elaboration.

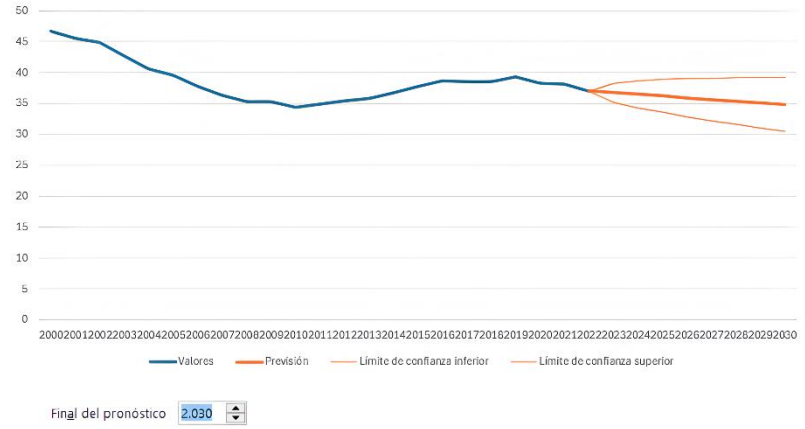


Figure 4.3 China Forecast for Household Consumption 2030 expressed in %. Source Own elaboration.

Due to specific economic, cultural, and social reasons combined, household consumption is significantly higher in the USA. In a

nutshell, some of the key reasons include the following: high living standards, which normally mean that people are earning relatively good incomes with very commanding purchasing power; this enables household expenditure to go up on goods and services.

The US has a Consumer Culture. Americans stress consumerism and material success. Happiness and social status often appear linked to the acquisition of goods and services through advertising and media. Americans also have access to Credit. The radical availability of credit cards and loans makes it easier for households to spend beyond their immediate income. It may well raise consumption levels but is also one of the factors contributing to higher debt levels.

The US Economy is based on Convenience and Service: dining out, entertainment, and personal services. The convenience and variety offered foster higher consumption in these categories. The US cultural interest in Technology and Innovation develops rapid technological growth; frequent new product releases and updates bring frequent consumption to keep up with the newest gadgets and technologies. Companies like Apple have verified this during years of operation. In addition, the US has high health care costs, accounting for a significant proportion of household expenditures, which include out-of-pocket costs about services consumed as well as insurance premiums. Social and Cultural Expectations: Social norms and peer pressure drive consumption higher as most people often feel obligated to keep up with their peers or participate in a trend. Finally, there are US Economic Policies in terms of tax cuts, subsidies, and government programs that have been used to impact disposable income and consumption patterns. All these and possibly more make a high level of household consumption something of a norm and expectation within the

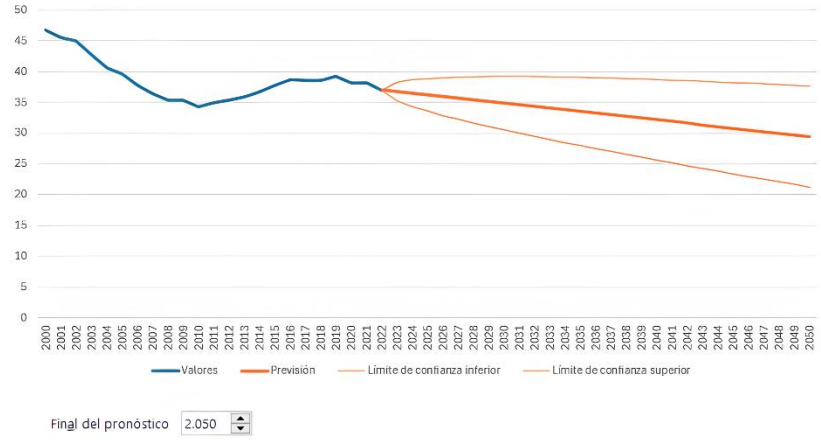


Figure 4.4. Forecast for China in Household Consumption. 2050. Source Own elaboration

China will not increase dramatically its household consumption in 2050 according to the exposed forecast.

Performance-Based Winner: US

CHAPTER 5. LABOR MARKET INDICATORS

INDICATOR 5. UNEMPLOYMENT RATE

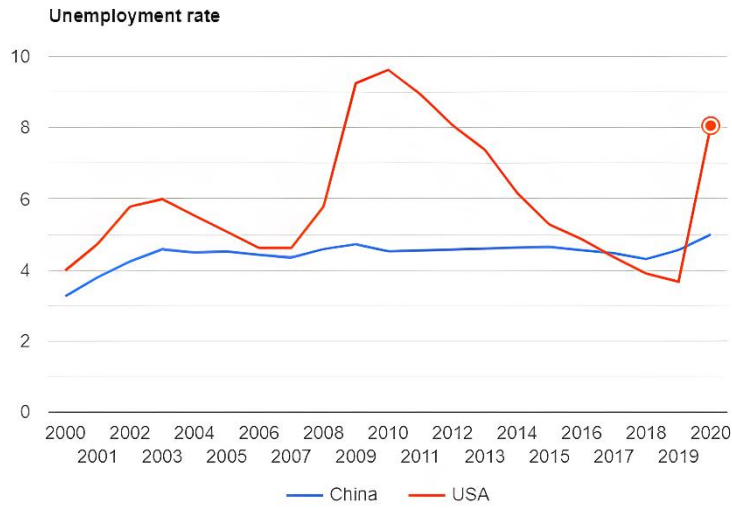


Figure 5.1. Comparative US-China 2000-2019. Source World Bank

Unemployment is the percentage of the labor force that is unemployed but available and seeking work. Unemployment in China has been very low historically, considering it is based on a number of key factors, even though the figures presented may fail to show the true reality of the labor market. Some reasons behind the case of low unemployment in China are given below:

Chinese Economic Growth has created many job opportunities in several industries, including manufacturing and services, which helps China keep its unemployment rate low. In addition, the Chinese government has taken some measures to keep employment stable-for instance, through programs of job creation, support to SMEs, and

investment in infrastructure projects that might create new jobs and make the labor market more flexible.

Bearing in mind the specific features of China's economy state-owned enterprises are very important and among the biggest employers-the government often supports those companies to avoid huge layoffs and maintain job levels. China also experienced a movement from rural to urban areas where employment opportunities exist. Some of the issues that the international community is concerned about includes the underreporting of Unemployment rate: Because of under-reporting or because of differences in the measurement and definition of unemployment, there can be a gap between the true and official unemployment rate. Some kind of under-employment or work on an unofficial basis cannot be captured in an authoritative count.

While these factors have kept unemployment extremely low, China's labor market has its set of problems concerning job mismatches, discrepancies in urban and rural employment, and the economic transition. Additionally, official unemployment at times may be different and doesn't allow for a thorough understanding of the entire ramifications of unemployment issues in the country.

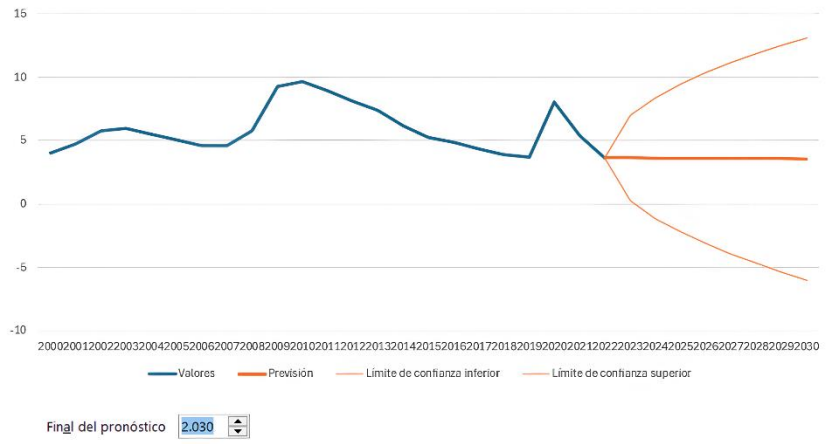


Figure 5.2. US forecast for 2030. Unemployment rate. Own elaboration

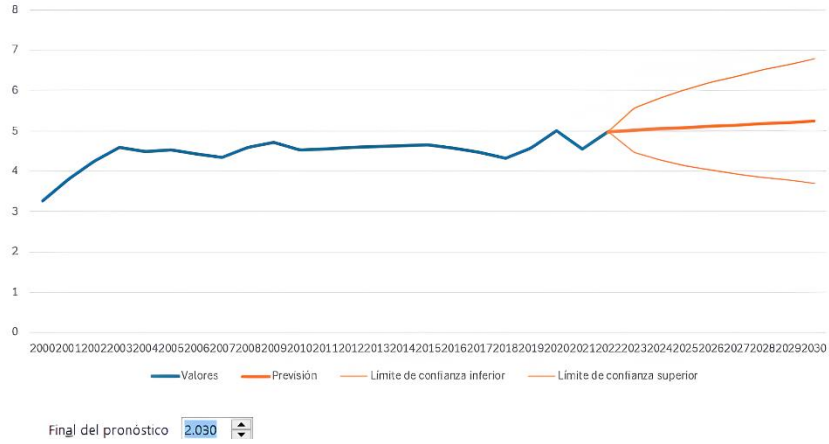


Figure 5.3. China Unemployment Forecast 2030. Own elaboration

Both countries present quite low unemployment because their economies are very dynamic. In contrast with the EU countries which present high levels as we can see in the next figure:

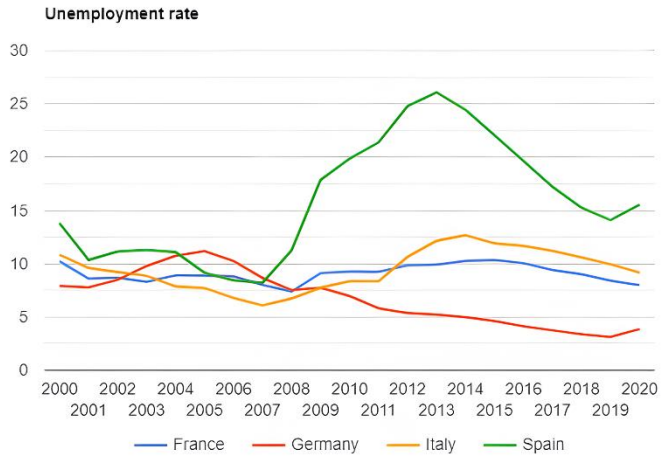


Figure 5.4. The high unemployment percentages in the main countries of the EU. Source World Bank 2024

Why does the rate of unemployment continue to soar in Europe?

High unemployment rates in Europe have their origin in structural, cyclical, and policy-related reasons. Here are some key reasons:

The European Labor Market is very rigid. Relatively rigid labor markets in some countries of Europe are due to strict employment protection laws, high minimum wages, and strong labor unions. Such protection, no doubt, helps workers, but at the same time, it restricts the ability of businesses to shed labor when the economy starts to slow down, which may further elevate unemployment. The problem with youth unemployment persists in Europe. The reasons partly lie in the mismatch between the supply of skills of young people and the demand for skills in the labor market, and partly in limited job opportunities for inexperienced labor. Additionally, regional disparities and a complex Economic Integration Policy, along with high levels of taxation and welfare costs are the reasons why, in some European countries, these high levels of taxation and social welfare spending can act as disincentives for employers to hire additional workers or for the unemployed to look for work, thus perhaps distorting employment rates. Barriers to entry, whether high education costs, a lack of vocational training, or bureaucratic hurdles regarding start-ups, would only increase unemployment in the labor market.

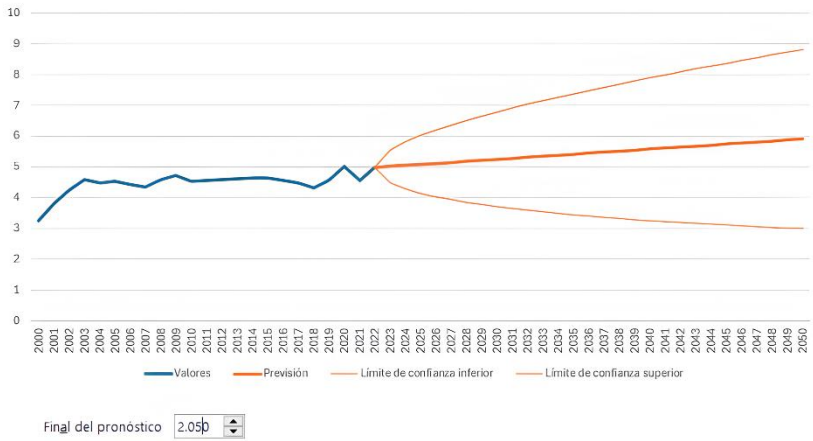


Figure 5.5 China Forecast Unemployment for 2050. Own elaboration

The degree of unemployment throughout Europe, for instance, may vary substantially between and within countries, with some posting a relatively low level of unemployment and others exerting excessive difficulties. As a matter of fact, such a high level of unemployment can only be approached effectively with an economic reformist agenda, appropriate training programs, and active job-creating policies and economic growth.

As we can see China will face slight increases in unemployment in 2050 due mainly to an aged society and a lack of immigrants who can compensate for the situation

Performance-Based Winner: tie

INDICATOR 6. SELF-EMPLOYMENT AS A PERCENT OF TOTAL EMPLOYMENT (ENTREPRENEURSHIP LEVELS)

Self-employed workers are those workers who, working on their account or with one or a few partners or in a cooperative, hold the type of jobs defined as "self-employment jobs." i.e. jobs where the remuneration is directly dependent upon the profits derived from the goods and services produced. Self-employed workers include four sub-categories of employers, own-account workers, members of producers' cooperatives, and contributing family workers. *(The Global Economy)*

Chinese youth are entrepreneurial; they are risk-takers. According to *Rizvi, 2024,* the phenomenal success of Chinese entrepreneurs is not

accidental but the result of a potent combination of cultural, economic, governmental, and governmental factors including an emphasis on STEM. A fast-paced innovative culture, and adaptability to market trends, will also work when there is an assurance that the entrepreneurial attitude will always be motivated by a society encouraging risk-taking and resilience; it will always be supported by a sufficient work ethic. An enabling startup ecosystem-also in terms of incubators, accelerators, and corporate partnerships-provides nascent entrepreneurship with resources and guidance. Thirdly, regular advances within the regulatory environment and IP protection are lending a great deal to making a safe haven for innovation and investments.

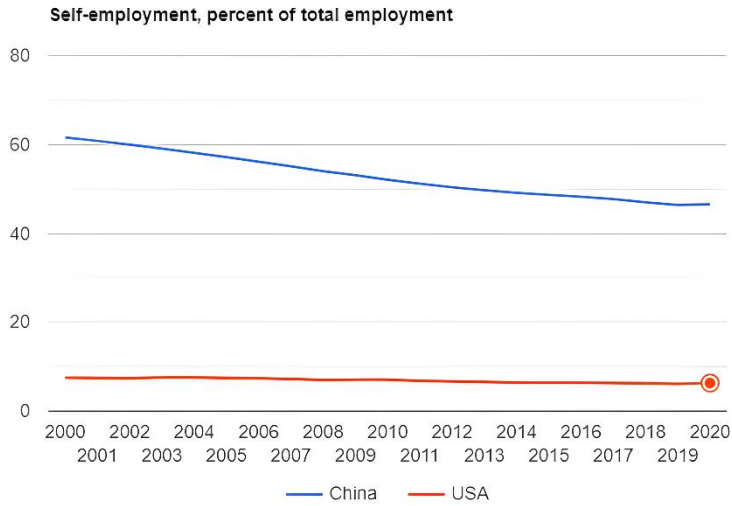


Figure 6.1. Comparative US-China in Self Employment. Source The World Bank.

From the above chart, it has been observed that the level of self-employment in China is far higher than in the US economy.

The motivation for entrepreneurship can come from the fact that Chinese people are risk-takers. There are a number of cultural, economic, and historic reasons for this. Certainly not true for every individual, here are some broad trends that can help explain why risk-taking behavior may be more pronounced in China:

1. Amazingly Fast economic growth in China over the last decades, has driven immense opportunities for the creation of wealth. Former leader Deng Xiaoping's policies encouraged entrepreneurship through an ambitious program of privatization. During this period the spirit of risk-taking was fostered, as individuals and businesses sought to capitalize on new opportunities in a rapidly changing market.

2. Cultural Factors: Traditional Chinese culture, with its complex array of Confucianism and Taoism, easily absorbs the dynamics of adaptability and resilience. Such a cultural backdrop indeed may nurture the willingness to embrace uncertainty and take calculated risks, particularly in business and investment.

3. High Savings Rates and Investment: Despite high saving rates, a large part of the population in China is even willing to invest in some risky assets like real estate, stocks, or even the venture of their own business. The desire for better returns, coupled with limited investment options, may drive people to take risks.

4. Social Mobility and Status: Contemporary Chinese society stresses success and mobility upwards. The pursuit of higher economic standing may also urge individuals to undertake risks through entrepreneurial ventures, education, or even a change of job.

5. Entrepreneurial Environment: Most of the time, the policy environment in China was favorable for entrepreneurship, whereby innovation and the creation of new ventures were encouraged. This added to a relatively large domestic market makes for an enabling environment in which business risks could be undertaken.

6. Competition and Pressures: The competitive nature instilled in them

through Chinese society, especially regarding education and the job market, eventually pushes individuals to take risks and make themselves stand out in order to achieve success for themselves. It may include migration into new cities, career changes, or investment in education and skills.

7. Globalization and Exposure to New Ideas: Increasing exposure to global markets, ideas, and technologies has expanded the horizons of many Chinese people, encouraging them to take risks that potentially lead to higher rewards.

8. Government Policies and Incentives: The Chinese government has put in place a set of policies intended to spur sectors in the economy such as technology and manufacturing. This sets up certain incentives for risk-taking by individuals and businesses in new industries.

9. Urbanization: With fast urbanization and migration to cities in China, a large number of people are exposed to novelty in lifestyles and opportunities. The urban environment often encourages more risk-taking behavior, particularly with regard to career and investment decisions.

10. Historical Resilience: Perhaps China's long history of facing adversities, including economic hardship, political upheaval, and social changes, has instilled a sense of resilience and adaptability in its people. That resilience surfaces in taking risks given uncertainty.

Performance-Based Winner: China

CHAPTER 6. CATEGORY D: INTERNATIONAL TRADE AND INVESTMENT

INDICATOR 7. TERMS OF TRADE (BASE YEAR 2000)

Definition (The Global Economy, 2024) of Terms of Trade: Net barter terms of trade index is calculated as the percentage ratio of the export unit value indexes to the import unit value indexes, measured relative to the base year 2015.

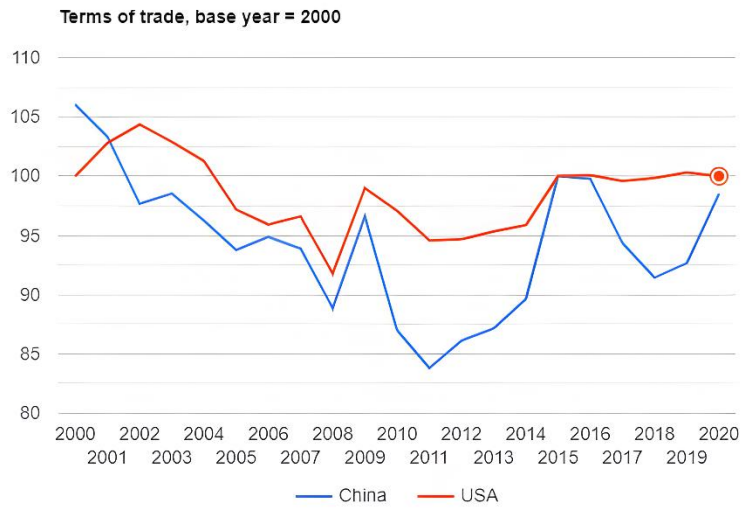


Figure 7.1. Terms of Trade (TOT) 2000-2021. Source United Nations.

As we can see the evolution of the TOT in the US has been at the 100

level and a bit over, showing a good evaluation after the year 2007. The US presents positive values in the TOT around 2%-5% while China still presents a lower value for exports than for imports.

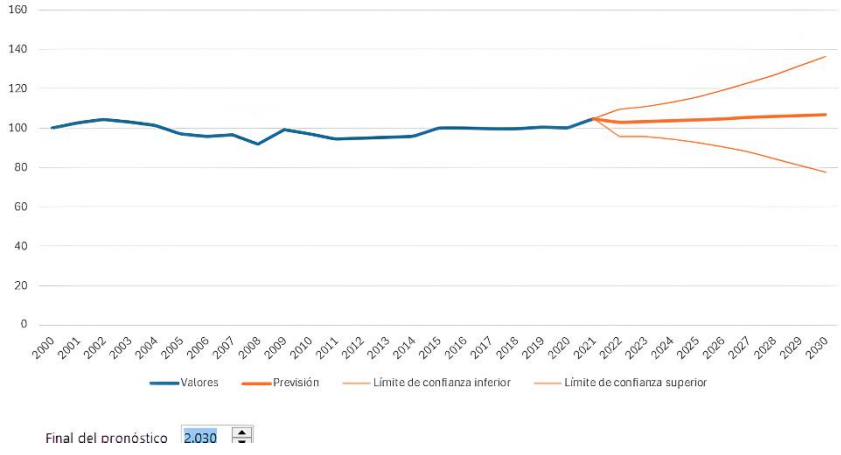


Figure 7.2. US Forecast for 2030. Source Own elaboration

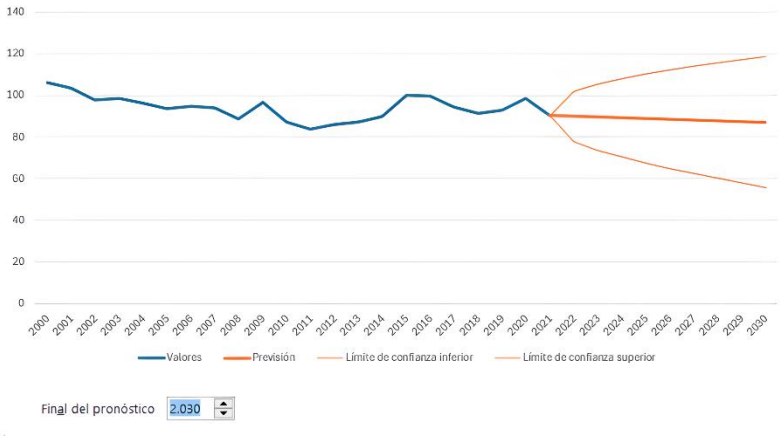


Figure 7.3. China Forecast for 2030. Own elaboration

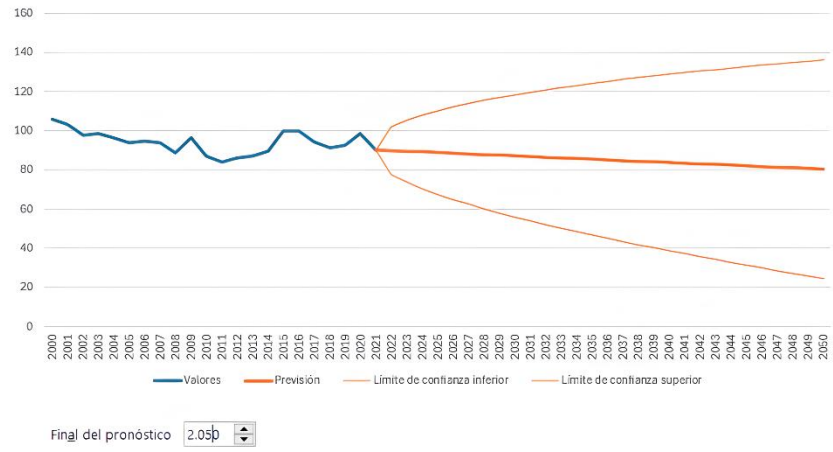


Figure 7.4. China Forecast for 2050. Own elaboration

Several factors contribute to low terms of trade in China:

The export composition of China is manufactured goods and low-cost Production. The economy of China heavily relies on the export of manufactured goods, many of which are produced at comparatively low costs due to the availability of cheap labor. This would, therefore, mean that such goods are cheap and hence the contribute to low terms of trade. As much as China exports some commodities, it actually imports vast amounts of these primary products. The prices for such commodities are sometimes volatile and high, hence making China's terms of trade worse if the price for its manufactured exports does not increase proportionately.

Also, the Global Value Chains of China referring to the production and assembling of such intermediate goods often involve China. The added value during these processes is sometimes relatively small compared to the price of the final product and, thus, the final prices of Chinese exports can be lower.

Exchange Rate Policy and Currency Management. Traditionally,

People's Republic of China has kept the value of the yuan low relative to other major currencies.

This has been among the main promoters in making China an attractive site for export-oriented companies; thus, making their exports quite competitively advantageously priced in the international market. However, such a policy creates a tradeoff between volumes and prices that eventually impinges on the terms of trade.

Source dependency is high in China because of its imported commodities like oil, iron ore, and other minerals in large volumes. Global commodity prices are high, volatile, and surge upwards more rapidly than the price of manufactured exports which could turn against China in any moment.

Changes in worldwide demand and international economic slowdowns also affect China's TOT. In general, international slowdowns are periods where the demand is low for most of the commodities exported by China, most of which are consumer goods, leading to lower prices and hence worse terms of trade.

Trade policies and tariffs play a key role as well, due to the trade tensions between the US and China, tariffs were imposed on imported Chinese goods in the US, decreasing the demand for Chinese exports or pushing China to sell cheaper in order to compensate and be at a competitive advantage, which will result in a negative impact on the terms of trade.

It does not seem that China is going to beat the improvements of values of its TOT, either in 2030 or in 2050, expecting levels of 80-90% value.

Performance-Based Winner: US

INDICATOR 8. TRADE OPENNS, EXPORTS PLUS IMPORTS AS A PERCENT OF GDP

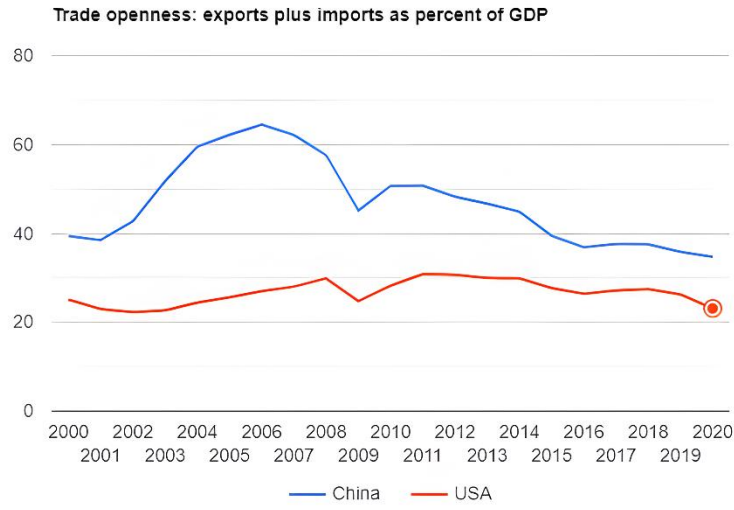


Figure 8.1. US-China Trade openness. Source The World Bank

Until today both countries have navigated in parallel. Still, China represents much more trade openness with +60% in its peak time against a maximum of 30% in the US.

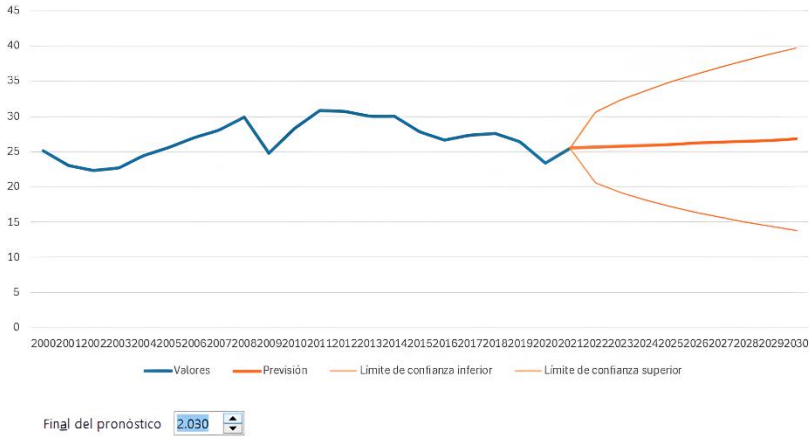


Figure 8.2. US Trade Openness Forecast 2030

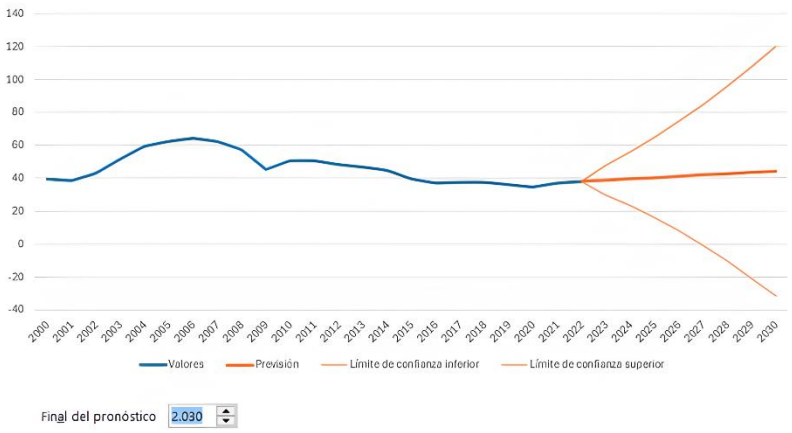


Figure 8.3. China Trade Openness Forecast 2030

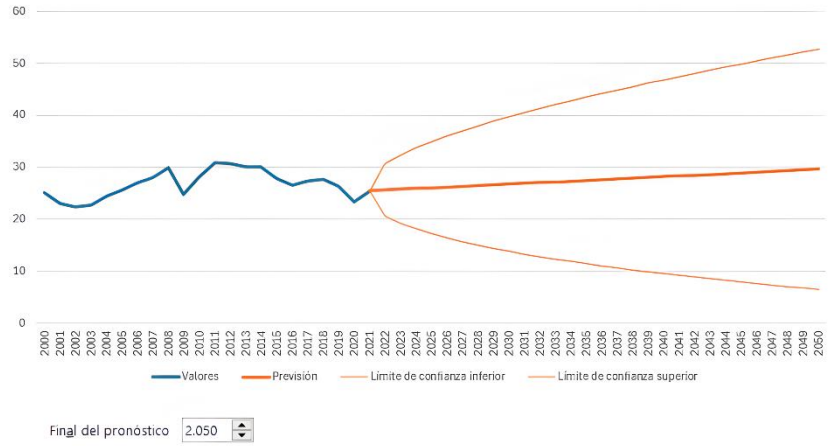


Figure 8.4. China Trade Openness Forecast 2050

It looks like the Chinese economy open as the US economy or even more. We must keep in mind that the most influential country in the world in the representation of Top Multinational Countries is the US *(Monray, 2018).*

According to the distribution of the research done *by (Monray, 2018)* of the trading zones, NAFTA presents results that value 7 times higher value than the average, while the group of countries (pushed by the USA mainly), "Rest of the World category" represented by a total of 32 countries covers 90% of the index, while the 18 countries of the EU covers only 56%, so less participation than expected of the EU-27, which questions today´s hegemony of the EU as one of the Top 3 top territories of GDP (together with USA and China). It will be important to follow its evolution longitudinally in the future.

Still, the Chinese supremacy in this point versus thew US is out of the question.

<u>Performance-Based Winner: China</u>

INDICATOR 9. FINANCIAL OPENNESS INDEX

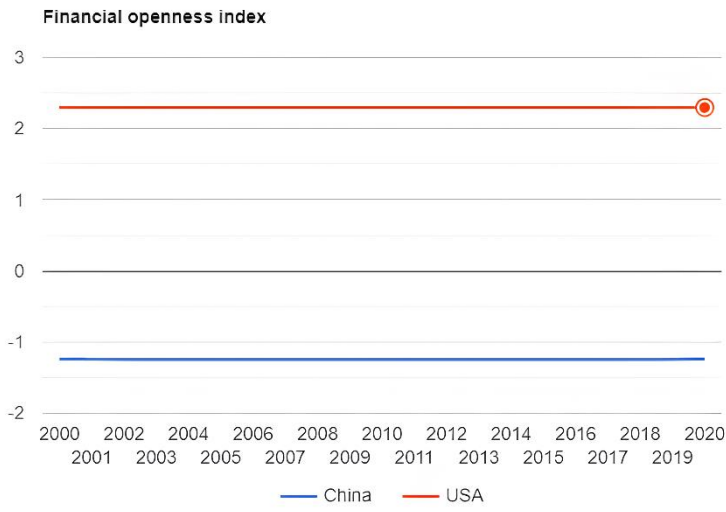


Figure 9.1. Financial Openness Index 2000-2021. Source Chinn-Ito Index. 2024

Index Definition: According to The Global Economy, (2024). The Chinn-Ito index serves as a proxy for the degree of capital account openness. According to Chinn and Ito in the Journal of Development Economics, 2006, it is derived from the variables recording the presence of restrictions on cross-border financial transactions reported in the IMF's Annual Report on Exchange Arrangements and Exchange Restrictions. The scale goes from zero to a maximum of 100-fully open markets with no capital controls. (Menzie D. Chinn, 2008) The authors give concluding remarks, stating that Many researchers have tried to capture the complexity of real-world capital controls, with varying degrees of success, and varying degrees of coverage.11 Given the complexity of capital control policies and regulations, the measurement of financial openness continues to challenge researchers.

The main advantages of our index are the relative transparency of construction, ease of updating, and wide country and time coverage.

According to, the importance of the global economy for the United States is one-of-a-kind. The primary explanation for this is its size and scope, and the United States finds itself in the midst of global trade and financial networks. U.S. multinational corporations and their affiliates abroad are deeply integrated into global supply chains. In recent years, financial linkages between the United States and the rest of the world-including the emerging market economies-have grown rapidly, widening the potential for spillovers in either direction. These two-way channels mean that as important as the U.S. economy is for the global economy, the U.S. economy is correspondingly influenced by developments in the rest of the world.

Forecasts for 2030 and 2050

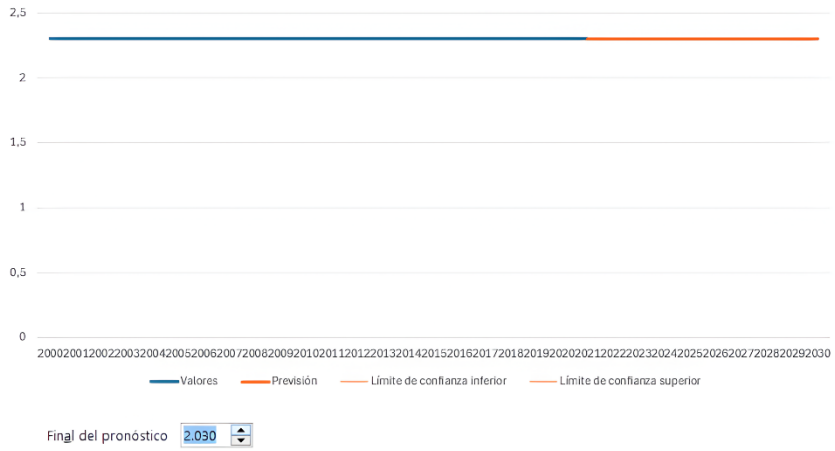


Figure 9.2. US Financial Openness Forecast 2030. Own elaboration

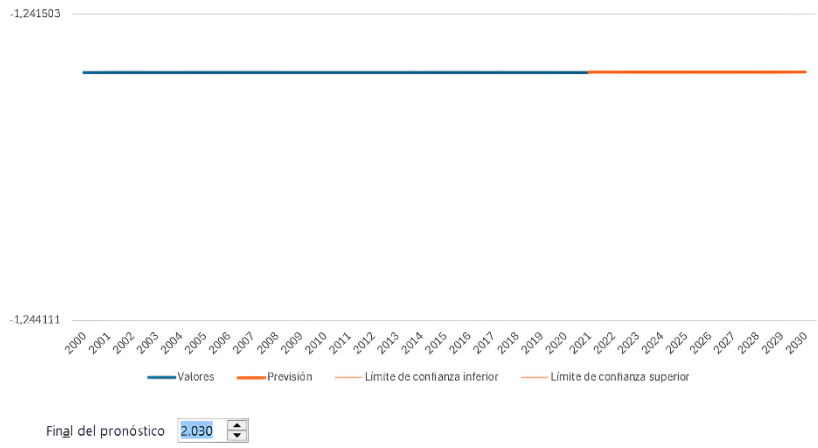


Figure 9.3. China Financial Openness Forecast 2030. Own elaboration

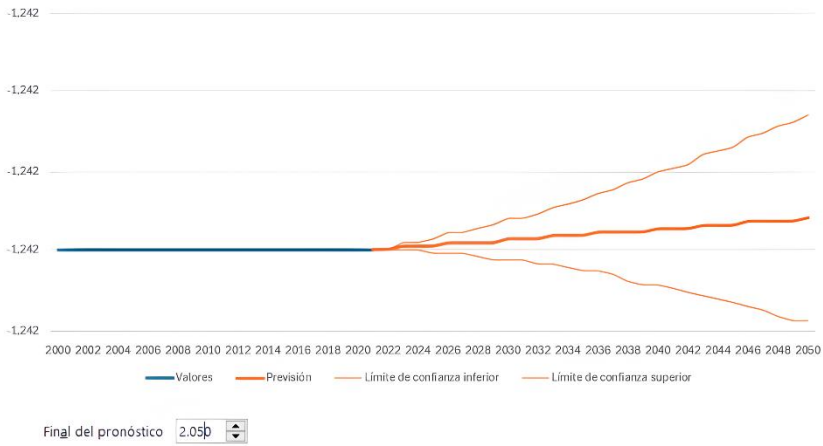


Figure 9.4. China Financial Openness Forecast 2050. Own elaboration

We see that China won't catch up with the U.S., neither in 2030 nor in longer forecasting periods. Maximum forecast value in the best-case scenario at 1.42 against the US values of 2.3. - Double

China's financial openness is low due to the cautious approach by the government while managing capital flows and maintaining financial stability. The capital account is tightly controlled by Chinese authorities to avoid large and volatile inflows or outflows of money that might destabilize the economy. At the same time, this is one more tool for having greater control over the exchange rate and securing the domestic financial system against external shocks. Another important priority of the government is gradual reform, which allows it to avoid all those risks related to sudden financial liberalization, such as speculative attacks and financial crises.

This means that the US economy is far more open than the Chinese one. It is not so easy for China to have the export culture of the US; furthermore, pre-made bilateral relations and the strongest global network of US multinational companies make the US a real winner as compared to China in this particular indicator.

Performance-Based Winner: US

INDICATOR 10. EXPORTS OF GOODS AND SERVICES

For a variety of key reasons reflecting differences in economic structures, manufacturing capacities, labor markets, and government policies exports are far larger than those of the United States. Following are some of the main factors:

1. China is a Manufacturing Powerhouse. China has also been termed the "world's factory" due to its vast capacity in manufacturing.

Infrastructure concerning manufacturing is well laid out with extensive chains of supply, a large labor force, as well as heavy investment in technology and equipment. This makes the country very efficient in producing goods on a large scale and relatively at a low cost, hence exporting them all over the world.

2. China Provides Cost Advantages Regarding Labor Costs Traditionally, the Chinese labor costs have been pretty low compared to that of the U.S.A. Although wages in China have been rising over time, they are normally much lower than the U.S.'s, especially when it comes to finished products. Besides, Economies of Scale China, due to its high productive capacity, benefits from economies of scale, that reduce the per unit price of goods and this way makes the different Chinese products very competitive on the international market.

3. Trade Policies and Agreements existing in the world, especially in Asia and Africa. The country had been active in regional trade plans, including the Regional Comprehensive Economic Partnership, or RCEP. Also, the Chinese government had given support to exporters in many ways, including in the form of tax rebates and subsidies.

The other reasons that make the country have a competitive advantage in its export industry include a diversified export portfolio, the Global Supply Chain Integration advantage, good Infrastructure and Logistics, a Large Domestic Market and Export-Oriented Strategy, and advantages in its Currency valuation. In regard to the valuation of currency, the Chinese yuan has been a subject of international debate. At times China's currency policies make the Chinese exports more competitive by keeping the yuan relatively weaker against the other major currencies thus making the Chinese goods cheaper for the foreign buyers.

We can see the historic differences in the next chart:

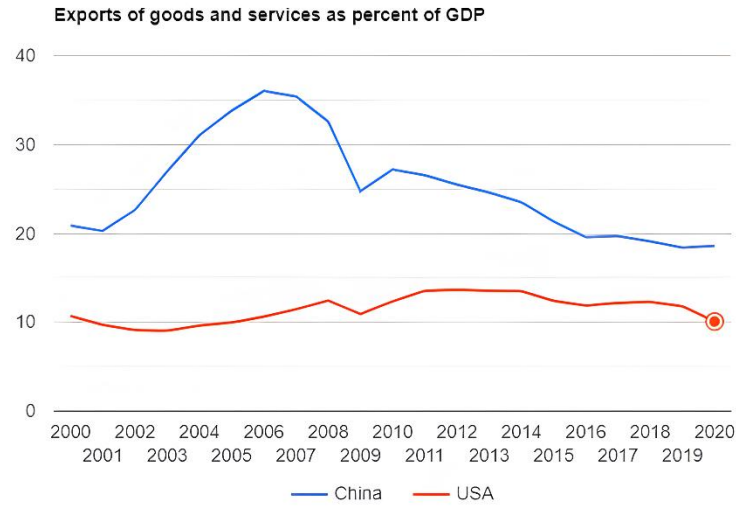


Figure 10.1. Export of goods and services US-China 2000-2021. Source The World Bank

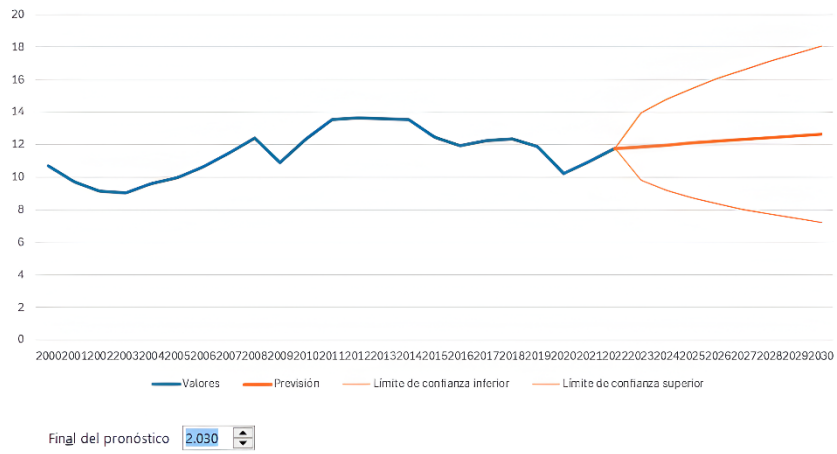


Figure 10.2. Forecast of Exports goods and services US 2030. Source Own Elaboration

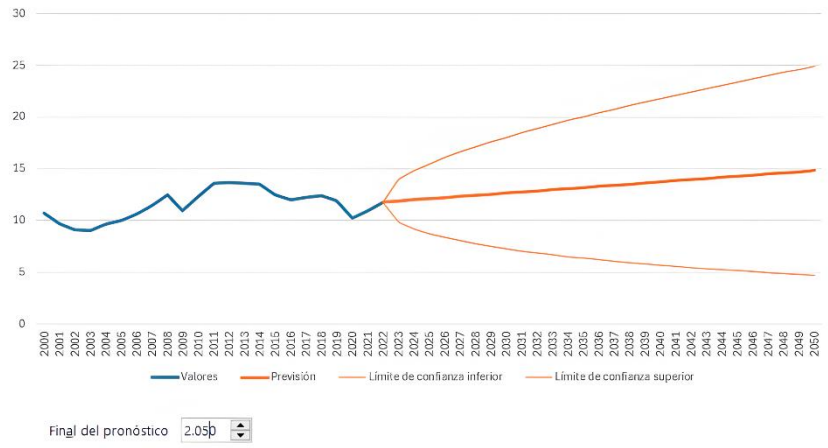


Figure 10.3. Forecast US Exports Goods and Services. 2050. Source Own Elaboration

It is expected that the US will increase its international presence as an exporter (mainly in case the USD devaluates). Still, differences are quite relevant and it makes sense to think that in 6-26 years the situation will not change dramatically.

Performance-Based Winner: China

INDICATOR 11. IMPORTS OF GOODS AND SERVICES AS A PERCENT OF GDP

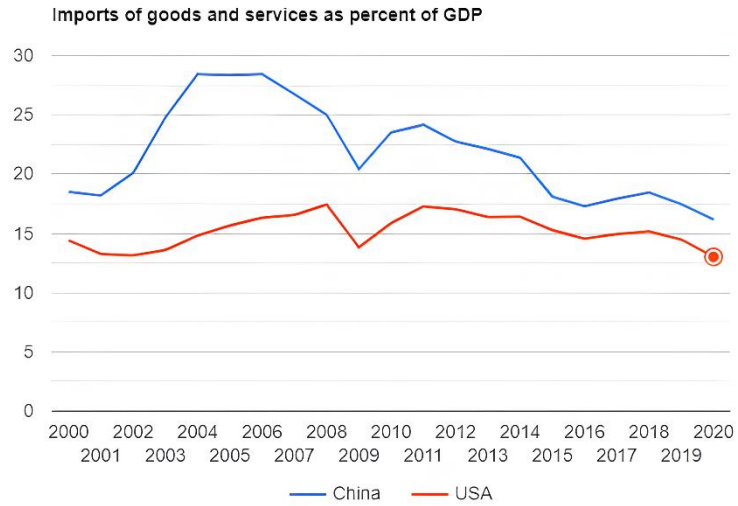


Figure 11.1. Imports of Goods and Services 2000-2021. Source The World Bank

The convergence of the levels of importation of goods and services between the U.S. and China results from a few factors that are interrelated, reflecting economic growth, shifting consumption patterns, and the reordering of the positions of both countries in the world economy. The four crucial reasons are as follows:

1. Economic Growth and Rising Incomes

China increasingly faces runaway economic growth over the last decades, which has set up considerable increases in both income and wealth. An expanding Chinese middle class is putting greater demands on many products and services such as luxury items, high-quality foodstuffs, and sophisticated technologies, much of which are imported. On the other hand, the U.S. economy has also undergone consistent growth, but it is growing at a much slower pace compared to the rapid expansion being considered lately by China. The American consumers are highly diversified and rich; hence they

demand a pretty assortment of goods starting from electronics, clothes, to automobiles - most of which are imported from many different countries, including that of China.

2. Industrialization and Global Supply Chains

But as China's economy has matured, it is importing more and more raw materials, components, and capital goods to feed its manufacturing sector to produce goods for domestic consumption or for export. Much of the imports into the United States are comprised of the intermediate goods and raw materials used in manufacturing. The United States imports many of the goods at an early stage in their value chains, which are then further processed into final products by U.S. manufacturers for domestic consumption or export.

3. Trade Liberalization and Policy Shifts

China has gradually opened up its market to foreign goods and services, part of the greater reform and opening up to the world economy. Accession into the WTO in 2001 and subsequent trade agreements lowered tariffs and other barriers, thus making access for foreign goods and services into the Chinese market easier. The US has always been one of the most open economies in the world, with rather low trade barriers. Generally, trade policies that were adopted and promoted imports became part of a broader strategy to integrate into global supply chains and tap the comparative advantage of other countries.

4. Comparative Advantage Shifting

Comparative advantages between the US and China have continued shifting as the two economies develop.

Therefore, the country is now under rapid growth in high-value-added industries and technology-driven production. This growth demands a high level of sophistication in machinery, technologies, and high-quality middle-level goods, which are usually imported from the

advanced economies, such as the U.S., Germany, and Japan. The continues to lead in high-tech industries, innovation, and services but relies on imports for many consumer goods, electronics, and other products that are more cost-effectively produced in countries like China and other emerging markets.

We might thus infer from this that convergence in the level of imports between the United States and China represents part of a broader trend in economic development and globalization and shifts in comparative advantage. Since both countries are in a continuous state of change, economically, their import patterns will likely reflect these ongoing changes in consumer preferences, industrial needs, and global trade dynamics.

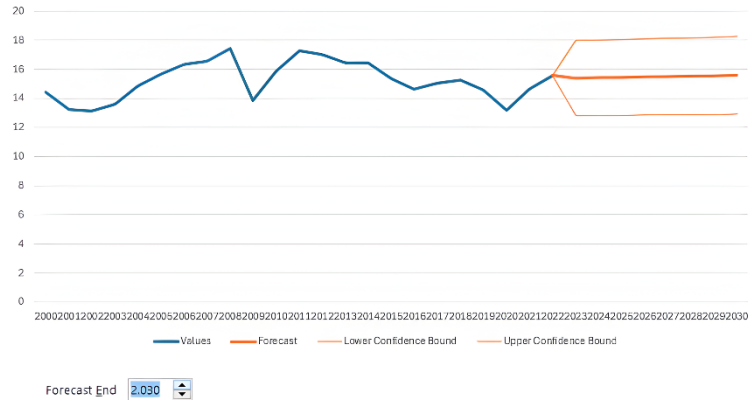


Figure 11.2 US Imports Forecast 2023. Source Own Elaboration

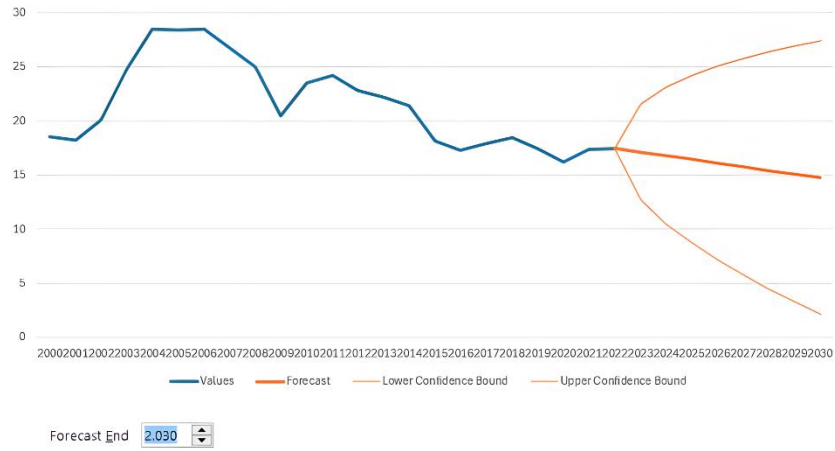


Figure 11.3 China Imports Forecast 2023. Source Own Elaboration

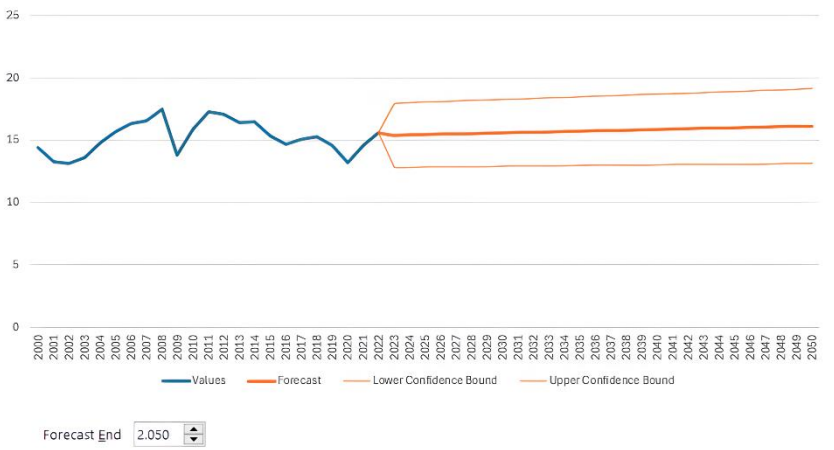


Figure 11.4 US Imports Forecast 2050. Source Own Elaboration

It is expected that in the future both countries face less trade unbalance. This variable has no performance-based winner since both countries will perform similarly in the future.

Performance-Based Winner: tie

INDICATOR 12. FOREIGN DIRECT INVESTMENT AS PERCENT OF GDP

Definition (The Global Economy, 2024), Foreign Direct Investment (FDI) is the net inflows of investment to acquire a lasting management interest (10 percent or more of voting stock) in an enterprise operating in an economy other than that of the investor. It is the sum of equity capital, reinvestment of earnings, other long-term capital, and short-term capital as shown in the balance of payments. This series shows net inflows (new investment inflows less disinvestment) in the reporting economy from foreign investors and is divided by GDP.

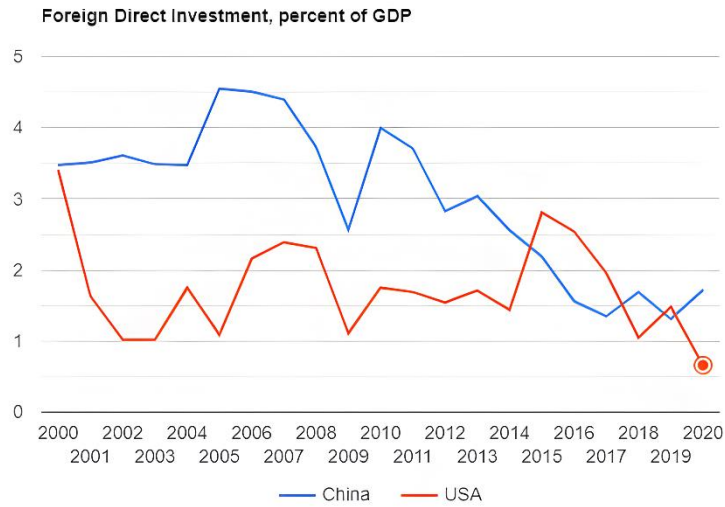


Figure 12.1. US-China FDI received compared historical data 2000-2021. Source The World Bank

In the year 2003, China joined the WTO, and consequently, we see its economy opening to the world very fast. As we can see years 2004 and 2005 China experienced a peak in the FDI received.

Expressed as % of its GDP. Still, the flows have decreased from the year 2010 showing that the Chinese economy is not so dependent on the FDI exterior flows.

At the same time, the values expressed in % of the GDP in the US seem to decrease (with a few peaks as exceptions), still, the absolute values must be taken into consideration during the years 2000 to 2010 approximately when the US still had a superior GDP than China. Today both magnitudes are much closer.

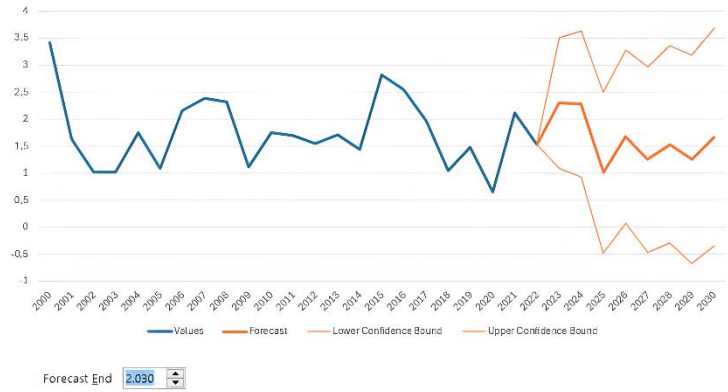


Figure 12.2. US Forecast 2030. Source Own Elaboration

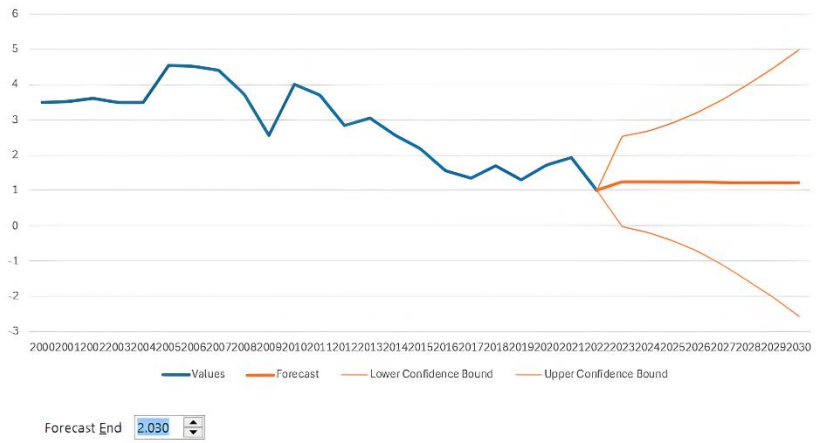


Figure 12.3. China Forecast 2030. Source Own Elaboration

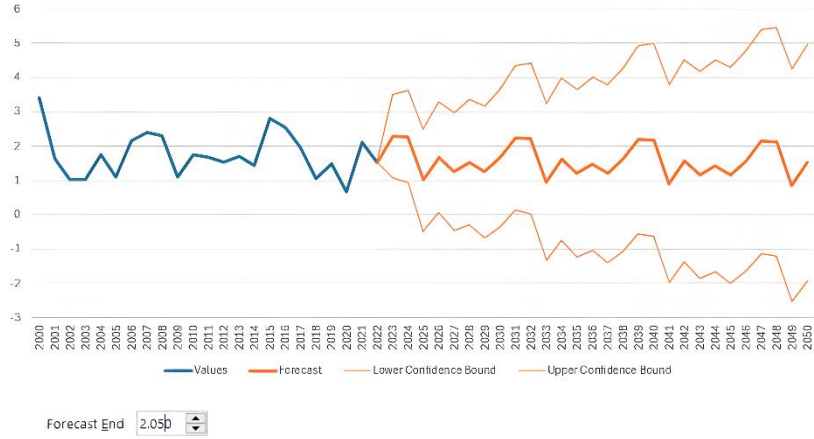


Figure 12.4. US Forecast 2050. Source Own Elaboration

Following are some of the key trends likely to shape the future development of FDI received by China and the U.S.:

From China's side:

Smudging Global Value Chains: As companies move to diversify their supply chains to reduce dependence on China-a process accelerated by the COVID-19 pandemic and geopolitical conflicts outward FDI in low-cost manufacturing will likely decline proportionally. Meanwhile, China will contribute to further developing an innovation ecosystem and a green economy, and so its outward FDI in high-tech industries and green technologies may rise.

Further FDI can be attracted to those areas if China continues liberalization in certain sectors, especially finance, healthcare, and technology. However, the overall growth might be tempered by state interventions and regulatory uncertainties.

These geopolitical and regulatory risks are significant, as the

unrelenting U.S.-China tensions, combined with the increasingly stringent regulatory environment of China, may eventually discourage some foreign investors, particularly those in tech and data-sensitive sectors, which may result in more discreet and cautious FDI inflows.

U.S. Side:

Such a strong innovation ecosystem could position the United States as a continuing destination for significant FDI in high-tech industries, particularly emerging ones such as artificial intelligence, biotechnology, and clean energy. This would be determined by the Technological and Innovation Leadership. Additionally, there could be one of economic nationalism. Policies of reshoring manufacturing and a lesser reliance on foreign supply chains would therefore see increased FDI within certain sectors, such as advanced manufacturing and infrastructure.

Regulatory Environment: The U.S. is likely to remain a hospitable destination for investment, but there would be increased scrutiny of FDI coming from China and other countries perceived as strategic competitors, which may imply a selective inflow of FDI into certain sensitive industries like technology and defense.

Both countries are expected to continue receiving substantial FDI but with a more pronounced sectoral shift. China may see slower growth in FDI due to geopolitical risks and the diversification of global supply chains, while the U.S. might attract more high-tech and strategic investments but face potential reductions in FDI from countries it perceives as competitors.

As we can see in both charts China will decrease FDI received while the US is still attractive for many foreign investors.

Performance-Based Winner: US

INDICATOR 13. CURRENT ACCOUNT BALANCE AS A PERCENT OF GDP

Definition (The Global Economy, 2024), Current account balance is the sum of net exports of goods and services, net primary income, and net secondary income. Net primary income includes the net labor income and net property and entrepreneurial income components of the SNA. Labor income covers the compensation of employees paid to nonresident workers. Property and entrepreneurial income cover investment income from the ownership of foreign financial claims (interest, dividends, rent, etc.) and nonfinancial property income (patents, copyrights, etc.). Data are in the current local currency. (The World Bank, 2024)

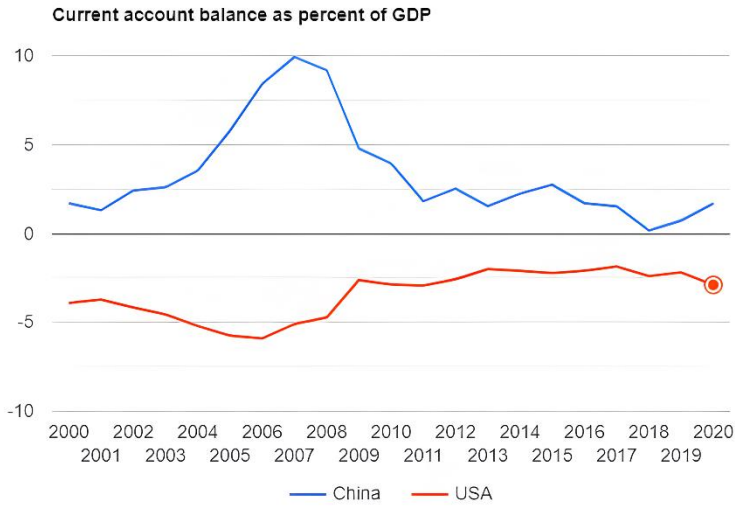


Figure 13.1. Current Account Balance US-China 2000-2023. Source The World Bank

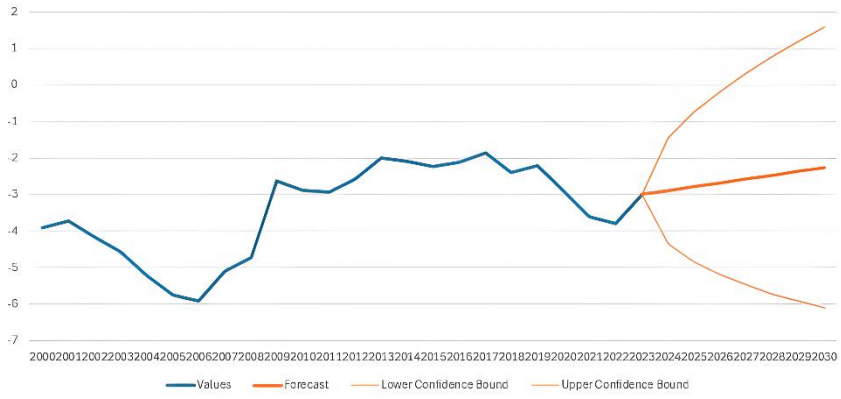


Figure 13.2. Current Account Balance US Forecast 2030. Source Own Elaboration

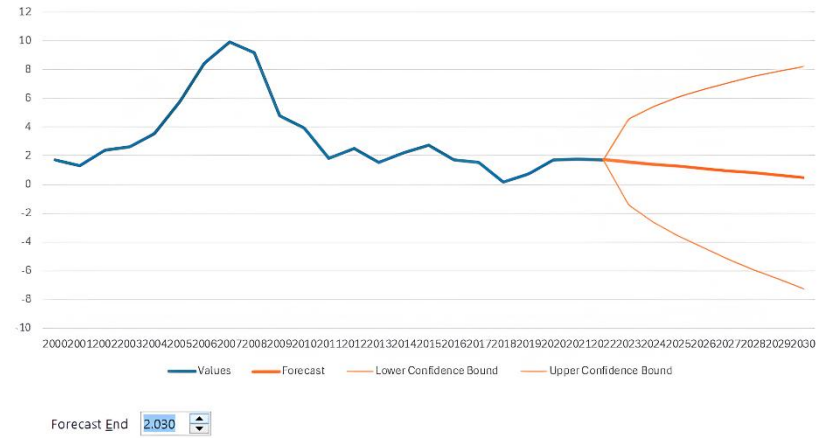


Figure 13.3. Current Account Balance China Forecast 2030

The future of the current account balances for both the USA and China will be shaped by complex and interrelated factors. For the U.S., maintaining a current account deficit is likely, but the magnitude will depend on trade policies, technological advancements, and global

economic conditions. For China, a gradual reduction in the current account surplus is expected as the country transitions towards a more consumption-driven economy, but this will also depend on its ability to maintain export competitiveness and manage global trade relations. Both countries will need to navigate these factors carefully to achieve their economic goals.

Performance-Based Winner: Tie

CHAPTER 7. CATEGORY E. GOVERNMENT

INDICATOR 14. GOVERNMENT SPENDING AS A PERCENT OF GDP

Government spending refers to the total expenditure by government entities on goods, services, and public projects. This includes spending on infrastructure, education, healthcare, defense, and social services, aiming to promote economic stability and growth, provide public goods, and support social welfare.

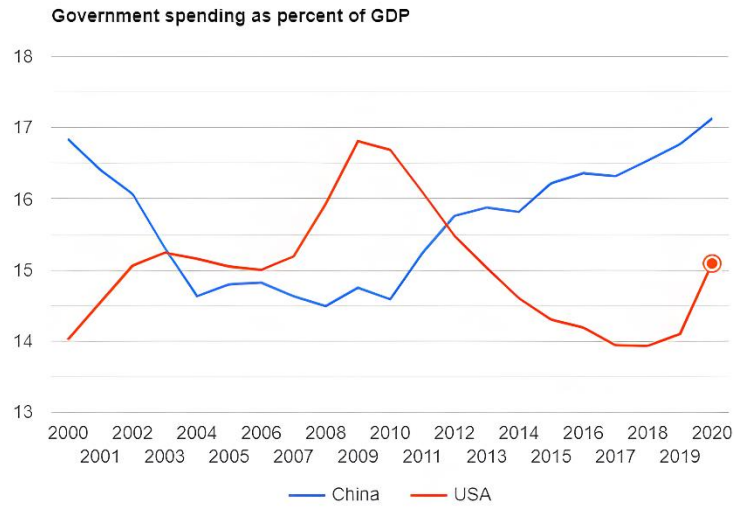


Figure 14.1. Comparative Gov. Spending US-China, 2000-2021. Source The World Bank

Comparing government spending between the USA and China from 2000 to 2021 reveals significant differences in both the scale and the areas of expenditure. Here are some key points and trends over these two decades:

United States Government Spending

Its main trends and key areas are defense, social security, and healthcare. These are huge chunks of federal expenditure, with more continuing to rise as the population ages and health costs increase.

Not to be left out of consideration is the Economic Stimulus Packages. In 2008, there was a rather serious amount of stimulus spending after the financial crisis, especially under ARRA, or the American Recovery and Reinvestment Act, of 2009. COVID-19 Response: Government spending hit enormous proportions in 2020, for stimulus checks, unemployment benefits, and support for businesses.

Also, one can't help but bring up fiscal Policy and Debt. In this period, the U.S. national debt was very high, since the tax cuts and high expenditures on social programs and defense were partly to blame. The federal deficit peaks and troughs; it notably rises during the 2008 financial crisis and again in 2020 due to spending related to the pandemic.

Government Spending in China

Trend and major heads of infrastructure and development: A major chunk of the money is spent on infrastructure, such as roads, railways, airports, and urban development, on account of the "Go West" policy and programs such as the Belt and Road Initiative, which many take with a pinch of salt.

The other big head constitutes Defense: The military spending by China has surged remarkably in correspondence with its rising global ambition and regional security concerns. China has introduced a series of stimulus programs to Social Welfare and Healthcare, underlining the extension of social welfare quality, including healthcare and pension systems, because China tries to improve living standards and reduce inequality. After the global financial crisis in 2008, China began a big stimulus package that was focused on infrastructure and industrial investment so as to keep growth rates high.

Contrarily, China's fiscal Policy and Debt reported that government debt, particularly local government debt, has also grown. The country's debt burden finances China's massive infrastructure programs, mainly managed through a mix of central and local government policies. Today, the fiscal deficit has become a concern.

With the slowing economy, measures on how to balance growth with financial stability are particularly needed.

Comparative Analysis US-China

The absolute levels spent by both governments are huge reflecting the large size of their economies and the extensive role of governments. The United States has generally maintained a relatively high share of expenditure on defense and social services in relation to GDP whereas China has largely concentrated on infrastructure and economic development.

From an economic perspective, the spending of the US Government has been geared towards the needs of advanced economy-social services and global military commitment-while that of China forms part of a broader strategy to transition its economy away from manufacturing and exports towards services, consumption, and infrastructure that will underpin long-term growth.

Both countries increased spending significantly in 2020, but the nature of spending is very different between the U.S., with a clear direct economic support, and China, mainly public health and economic stabilizations. These two economies have experienced large increases in government spending since 2000. The composition and drivers of such spending, however, were fairly different, reflecting their different economic structures, policy priorities, and roles in the world economy.

What Figure 14.1 shows us is that during the last 20 years, Government spending has been shrinking in the US while it has grown in the case of China.

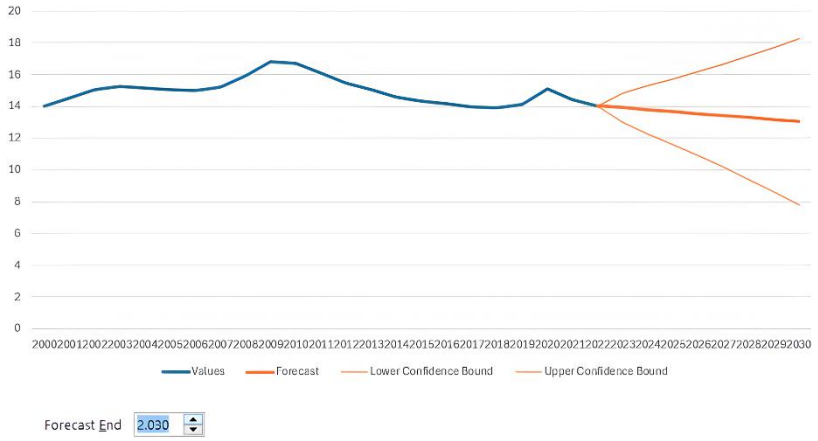


Figure 14.2 US Forecast Gov. Spending for 2030. In % of GDP. Source: own elaboration

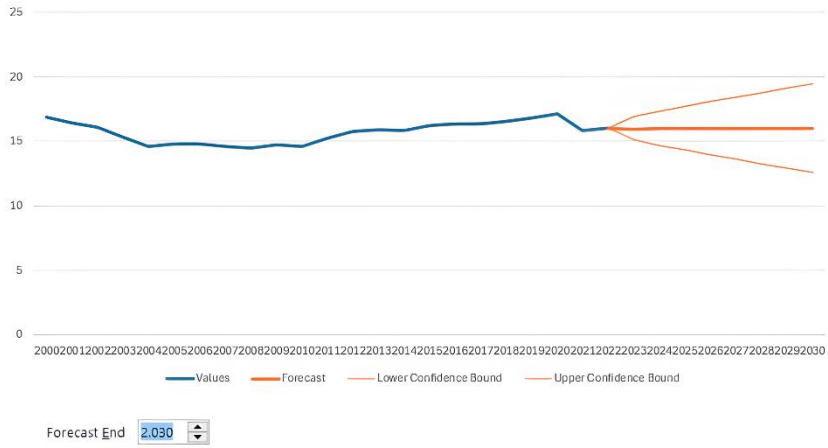


Figure 14.3. China Forecast Gov. Spending for 2030. In % of GDP. Source own elaboration

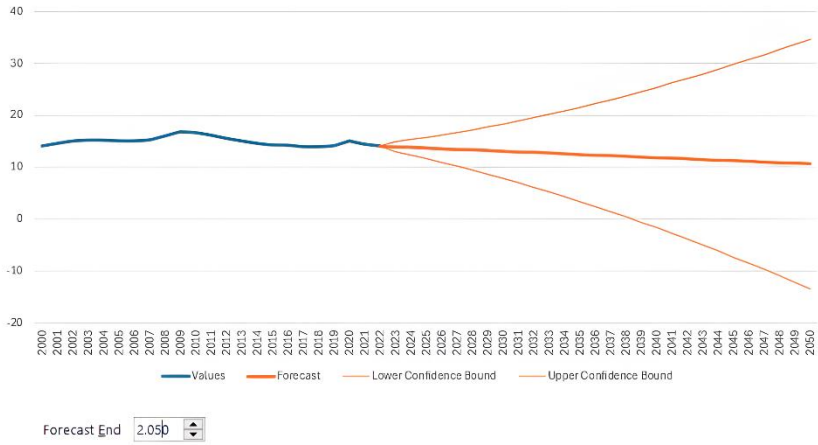


Figure 14.4 US Gov Spending Forecast for 2050. Source Own Elaboration

Following the Committee for a Responsible Federal Budget 2024, US will take some key highlights into account such as the recorded rise in spending is due to the cost of mounting interest payments on the national debt and non-health, non-Social Security mandatory spending. Also we must consider that spending is projected to remain relatively flat through 2029, then rise to 24.9 percent of GDP in 2034. US Social Security costs, health care, and interest costs are all projected to rise by about 1% of GDP each by 2034; all other spending is projected to decrease by 2% percent of GDP.

While long-term spending will vary and is dependent upon political parties and their policies, it is difficult to forecast what China will do.

Following Huang's 2024 statement, with China announcing its ambition to reach a growth target of around 5 percent this year, 2024, the government needs to fully spend its budget to help reach that goal. This means that, in the process of budget execution, either because of the shortfall in revenue from land sales or the lag in local special bonds utilization, readjustments in the budget have to be made, just like what

happened in late 2023, to ensure the realization of planned spending.

Performance-Based Winner: tie.

INDICATOR 15. CORPORATE TAX RATE COMMERCIAL PROFITS

The Corporate Tax Rate in the United States stands at 21 percent. The Corporate Tax Rate in the United States averaged 32.08 percent from 1909 until 2024, reaching an all-time high of 52.80 percent in 1968 and a record low of 1.00 percent in 1910. Source: Internal Revenue Service

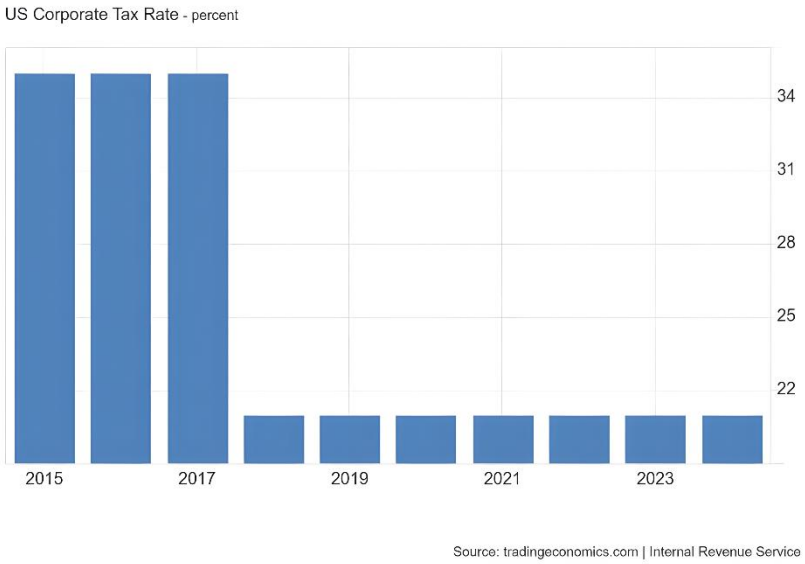


Figure 15.1 Tax rate corporate tax rates in the US. Source IRS.

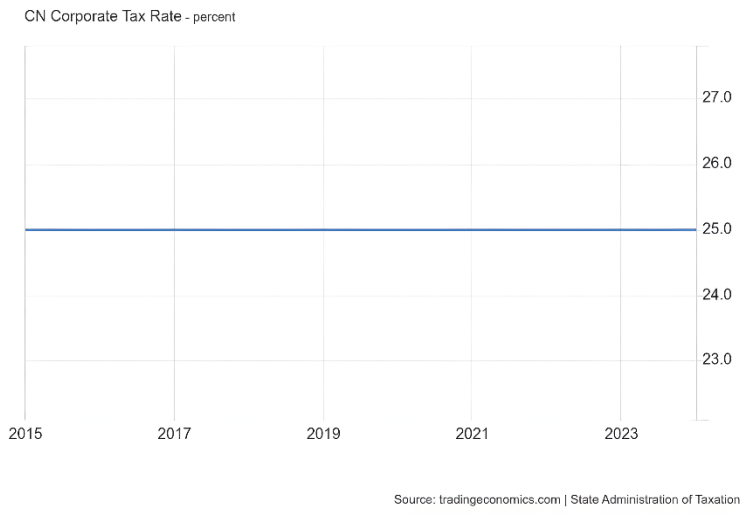


Figure 15.2. China Corporate Tax rates. Source State Administration of Taxation (China)

The forecast of corporate tax in China: according to (PWC, 2024), the tax resident enterprises are liable to pay the CIT on their income derived from sources within and out of China; a non-TRE without an establishment or place in China is subject to tax only with respect to its China-sourced income. A non-TRE with an establishment or place in China shall pay CIT on income derived by such establishment or place from sources in China as well as income derived from outside China that effectively is connected with such establishment or place. In accordance with the CIT Law, the standard tax rate is still 25%, while a lower CIT rate is available for the following sectors/industries at the national level, foe example companies determined to be qualified new/high-tech enterprises may enjoy the reduced CIT rate of 15%, qualified designated key software companies will be allowed to enjoy a reduced CIT rate of 10% after the first five-year period with CIT exemption.

In the near future, there will be significant developments in corporate tax policies of China due to various economic, environmental, and technological factors. As the Chinese government is working towards stimulating high-quality development, tax policies are very likely to focus on improvement in innovation, supporting green causes, and filling gaps between SOEs and non-SOEs.

The key focuses are on promoting technological innovation through tax incentives. Recent studies indicate that preferential tax policies, especially for high-tech enterprises, are a major factor in stimulating innovation. For instance, Liu identifies the rebate policies of taxes, since their effective provision of working capital for the manufacturing firms improves their innovation and investment capabilities. Ding et al. add that tax preferences are very important in motivating technological advancement by enterprises, the focus being on the GEM in China. The reform of VAT was found to have a positive effect on corporate innovation; thus, it can be said that tax policy will be very instrumental in driving technology.

In addition to achieving innovation, it is of paramount importance that environmental considerations are inculcated into tax policy. The Chinese government faces pressure to meet carbon neutrality goals, for which the prevailing tax structure would have to be reviewed. It has been determined that research supports that carbon trading policies have been initiated, while it has also been established that, without the simultaneous, accompanying institution of a carbon tax, reduction in emissions is very minimal. A well-designed carbon tax can act in concert with trading systems to further improve corporate social responsibility for sustainability performance. Wang et al. (2022); Zhao et al. (2023). Moreover, it has been proved that shifting from environmental protection fees to taxes will, in the long run, encourage firms toward environmentally friendly practices and line up corporate behavior with national sustainability goals.

The disparities in the tax burdens between the SOEs and the non-SOEs are also one of the focuses that should be included in future tax policy

adjustments. According to Fang et al., there are always heavier tax burdens on non-SOEs as compared to the SOEs due to support policy provided by the local government to state enterprises. Such unfairness in the tax system has great potential for certain adjustments within the realm of tax policies, with the potential of creating a just competitive environment. In this case, the competitiveness among the firms can be aroused for the good of the whole economic entity.

More recently, the debates concerning property tax reforms have also indicated a shift toward wider taxation systems that encompass the distribution of wealth and economic bubbles in the real estate market. *As Huang et al. (2022) and Wei et al. (2022)* establish, the institution of property tax would even further stabilize the real estate market and provide local governments with a more stable source of tax revenue, independent of business taxation.

In the long run, it is expected that innovation, environmental sustainability, and equity between different enterprise types will be put front and center in the policy considerations for corporate taxation in China. The integration of these elements into the tax policy will need furtherance if the transformation of China's economy and its long-term development are to be supported.

Performance-Based Winner: tie

INDICATOR 16. TAX PREPARATION TIME IN HOURS

According to research done formerly by the institution *World Bank, 2024-in its DB Project*, time for tax preparation is recorded in hours per year. The indicator measures the time taken to prepare, file, and pay three major types of taxes and contributions: the corporate income tax, value-added or sales tax, and labor taxes, including payroll taxes

and social contributions. Preparation time includes time needed to gather all the information required to compute the tax payable and also to calculate the amount payable. Where different books of accounts have to be maintained particularly for tax purposes, or where different calculations have to be made, the time used for these processes is added. This additional time is allowed only in cases where the routine accounting work is insufficient to meet the requirements of tax accounting. Preparation time is the time required to prepare all tax return forms and payment slips, and also labor hours needed to file the relevant returns at the tax authority. Payment time is the time it takes to make the payment online or in person. Where taxes and contributions are paid in person, the time includes delays while waiting.

Improving administrative processes in China is directly related to the number of hours of tax preparation and public administrative processes efficiency.

Improvement in the efficiency, transparency, and responsiveness of government and business operations aspects has been given effort by Chinese administrations. The following section explains various key areas and strategies taken up to improve administrative processes in China:

Digitalization and e-government are then applied to online services by reducing paperwork and direct visits. Integrated Platforms: The development of a unified platform for the range of government services aims at smoothing interactions and reducing redundancy. In fact, AI and Big Data play an important role in optimizing administrative services.

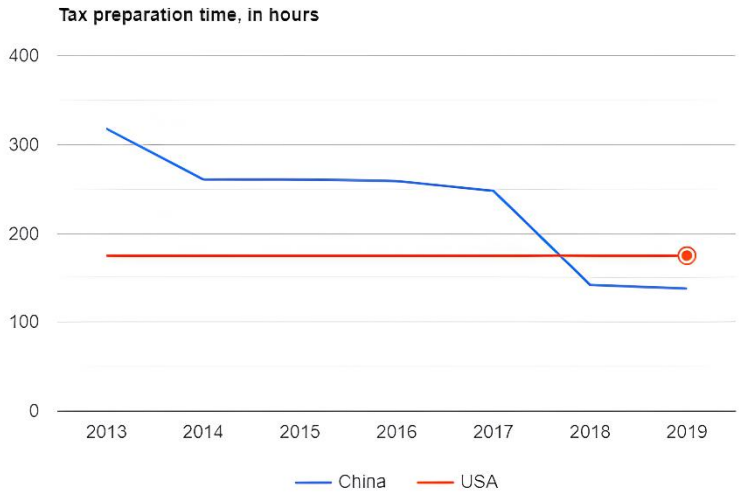


Figure 16.1. US-China tax preparation time in hours 2013-2016. Source The World Bank (Doing Business Project)

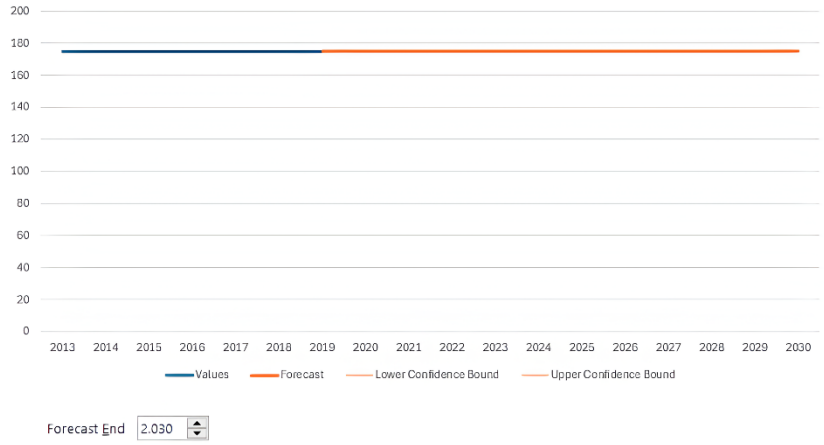


Figure 16.2 US tax preparation time in hours Forecast. 2030 Source Own Elaboration

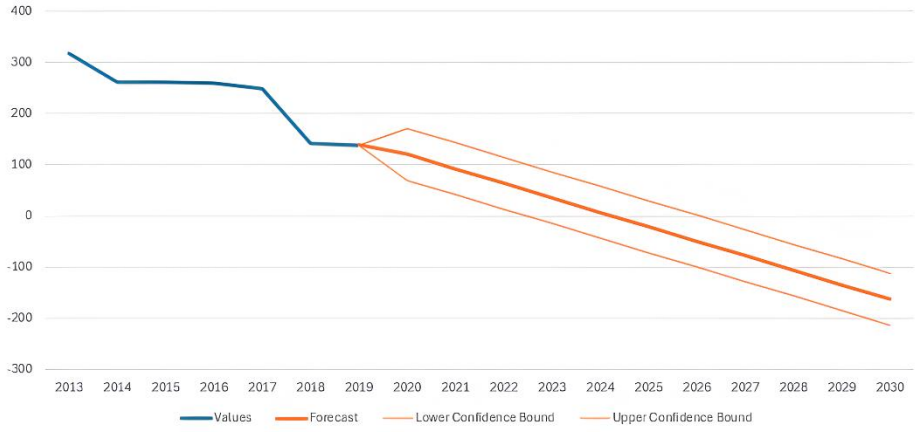


Figure 16.3 China tax preparation time in hours. Forecast. 2030
Source Own Elaboration

Simplification of Procedures: In effect for a decade, this decreases bureaucracy and simplifies the processes of business registration, permits, and licensing to promote entrepreneurship and investment.

Regulatory Reforms. Simplification of Approvals: This includes measures adopting the promotion of speed in projects and investments approval processes to avoid delays. Clear Guidelines: To avail transparent and clearly stated regulations for compliance by businesses.

Principles of Transparency and Accountability: Open Data Initiatives should be done to increase access to government data for more transparency and for businesses and citizens to make decisions based on facts. In this regard, the introduction of performance metrics and public reporting for government agencies can be proposed with the purpose of being accountable and assuring effectiveness. Thirdly, anti-corruption measures are to be strengthened to build trust in the government and ensure fairness in administration.

Improvement of administrative procedures is a holistic process relating to digital transformation, regulatory simplification,

transparency, capacity building, and citizen engagement in China. If these areas are addressed with prominence, the country will improve its administrative procedures and thus enhance the environment for economic growth and public service delivery. The understanding of such improvements and adaptation to new processes by both businesses and individuals will be paramount when working with Chinese administrative systems.

The US, although having applied significant changes to help reporting and tax preparation, has not done as fast and efficiently as China does. Figure 16.2 describes that the forecast for 2030 should be negative; of course this will never be possible, but we see that compared with Japan and Germany, China converges with Japan while the US is still in the middle. between the most uncompetitive country which is Germany and the best (China and Japan).

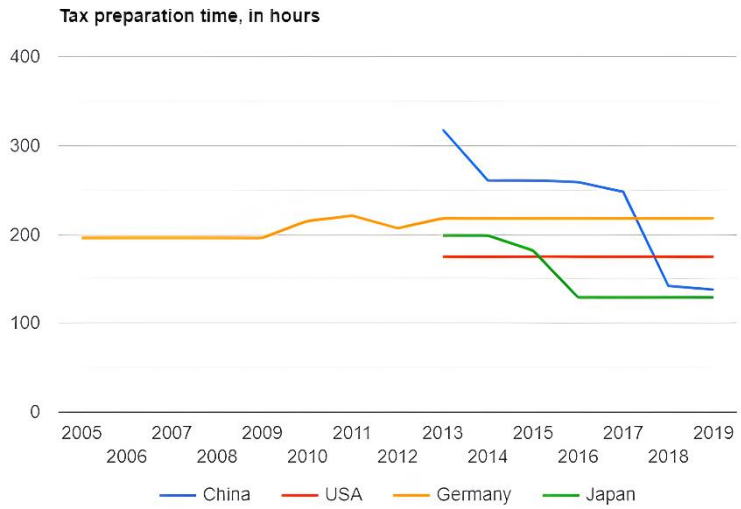


Figure 16.4. Comparatives US-China-Germany-Japan. Source The World Bank

Performance-Based Winner: China

INDICATOR 17. NUMBER OF TAXES PAID BY BUSINESSES

Definition: Tax payments by businesses are the total number of taxes paid by businesses, including electronic filing. The tax is counted as paid once a year even if payments are more frequent.

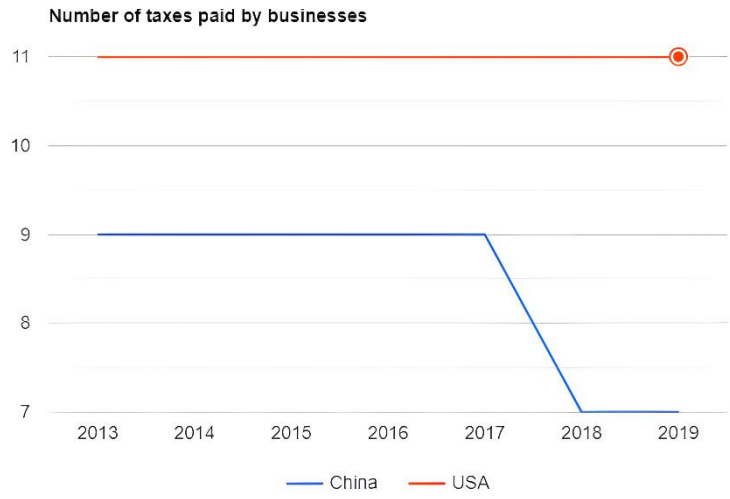
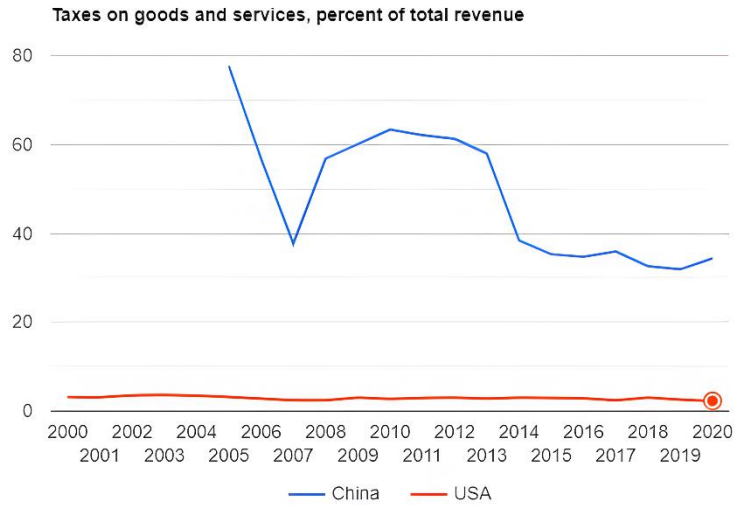


Figure 17.1. US-China number of taxes paid by companies. Source The World Bank

As we see the number of effective taxes paid in China is less than in the US. 7 in total against 11 in the United States, this alleviates pressure mainly on SMEs.

Performance Based Winner: China



INDICATOR 18. TAXES ON GOODS AND SERVICES, AS A % OF TOTAL REVENUE

Taxes on goods and services include general sales and turnover or value-added taxes, selective excises on goods, selective taxes on services, taxes on the use of goods or property, taxes on extraction and production of minerals, and profits of fiscal monopolies.

Figure 18.1. US-China comparative of taxes on goods and services. 2000-2019. Source The World Bank

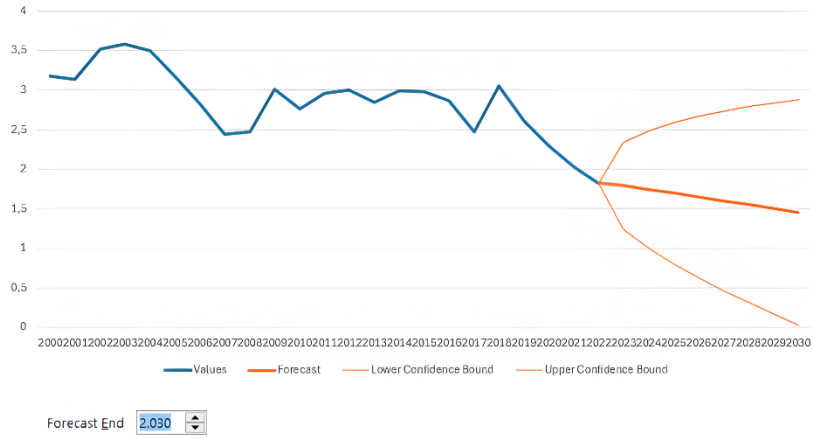


Figure 18.2 US Forecast taxes on goods and services. 2030 Source Own Elaboration

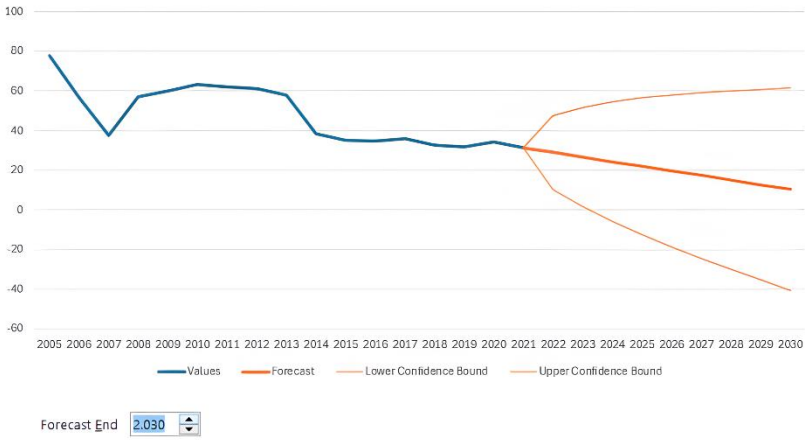


Figure 18.3. China Forecast taxes on goods and services. 2030 Source Own Elaboration

As we can see China is reducing its tax pressure as well. Still, the US presents a less aggressive tax policy in general which brings clear

benefits to the US economy.

Performance Based Winner: US

INDICATOR 19. TAXES ON INTERNATIONAL TRADE (PERCENT OF TOTAL REVENUE)

Definition according to *(The Global Economy, 2024)*, taxes on international trade include import duties, export duties, profits of export or import monopolies, exchange profits, and exchange taxes.

Figure 19.1. US-China taxes on international trade compared 2000-2021. Source The World Bank

According to *(Frank Bickenbach, 2024)* China uses subsidies extensively to take a leading role in the global markets of green-tech products such as battery electric vehicles and wind turbines. Against the background of the current EU investigations into Chinese subsidies in these sectors, this article takes a careful look at the Chinese subsidy system and provides new data on direct government

subsidies to leading Chinese producers of electric cars and wind turbines. Extensive government support has allowed Chinese companies to scale up rapidly, dominate the Chinese market, and expand into foreign markets. The article concludes that the EU should use its strong bargaining power due to the single market to induce the Chinese government to abandon the most harmful subsidies.

As we can see in the former chart China presented negative taxes in the period 2004-2006 (subsidies), which remains the same. Still, the taxes on International Trade have been historically higher in China than in the US although they tend to converge.

Future forecasts will depend on the economic policies and strategic outlook of each country and type of government (mainly in the US).

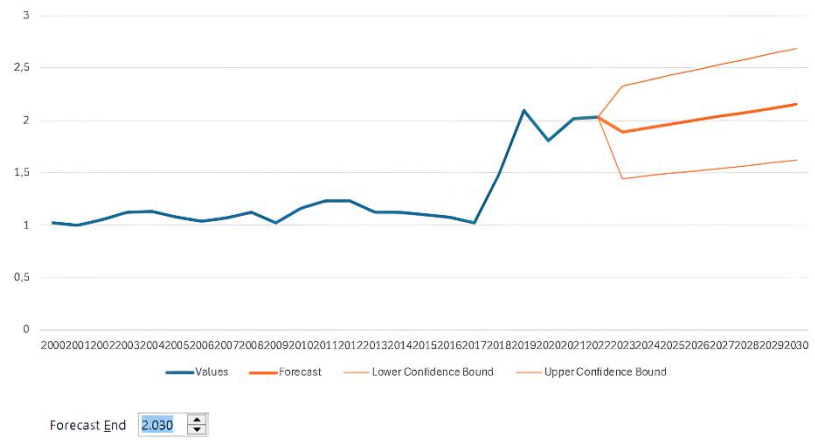


Figure 19.2. Forecast US taxes on international trade 2030. Source Own Elaboration

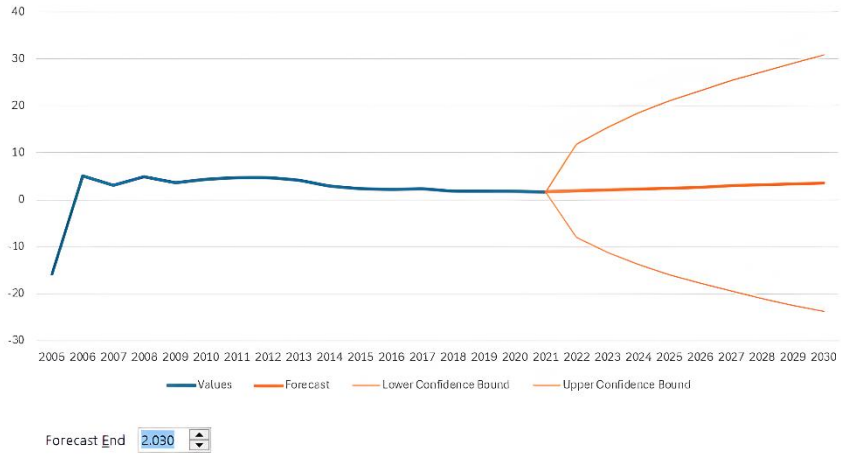


Figure 19.3. Forecast China taxes on international trade 2030. Source Own Elaboration

Performance-Based Winner: tie

INDICATOR 20. INCOME, PROFITS, AND CAPITAL GAINS TAXES AS A PERCENT OF VALUE.

Taxes on income, profits, and capital gains (IPCGT)are levied on the actual or presumptive net income of individuals, on the profits of corporations and enterprises, and on capital gains, whether realized or not, on land, securities, and other assets. Intragovernmental payments are eliminated in consolidation.

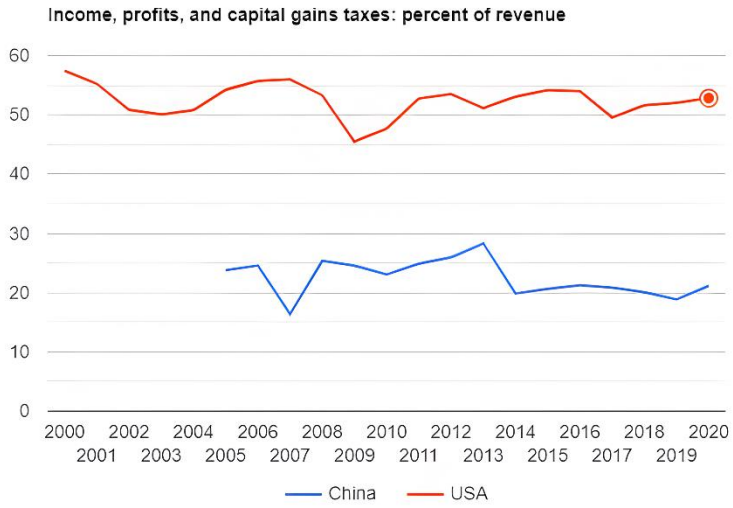


Figure 20.1. US-China IPCGT as a % of revenue. compared 2004-2021. Source The World Bank

As we can see the pressure in the US is much more than in China, indicating different economic models. While the US is around 50%, China is about 20%. Now let's see what happens with the forecasts:

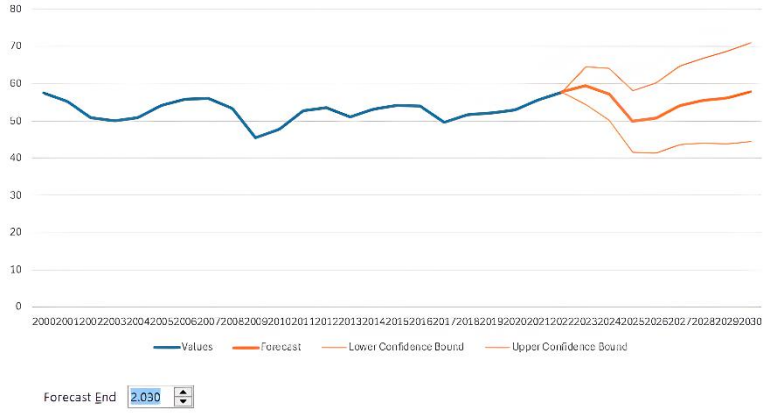


Figure 20.2. US Forecast 2030 IPCGT as a % of revenue. Own elaboration

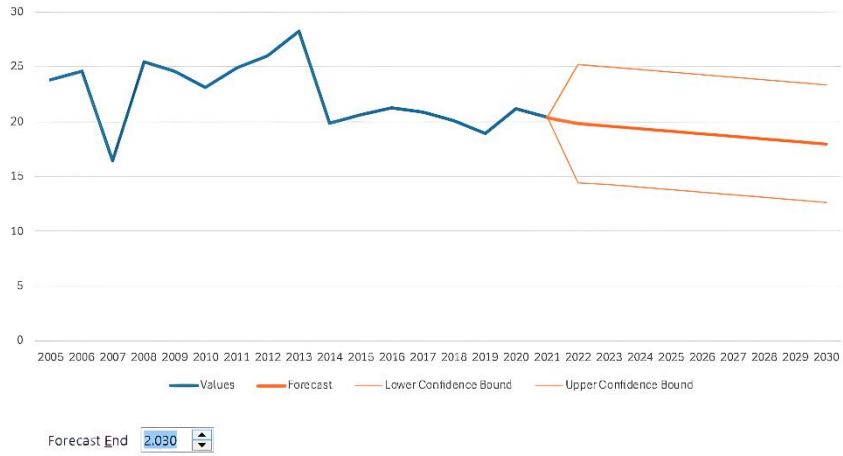


Figure 20.3. China Forecast 2030 IPCGT as a % of revenue. Own elaboration

The forecast still shows significant differences between countries in favor of China.

Some factors to consider are:

• Some U.S. federal policymakers are considering legislation to promote U.S. competitiveness specifically versus China. Some of the key takeaways from that follow are that the current U.S. tax code discriminates against investment in capital, and it is set to worsen over the coming decade. If tax increases included in President Biden's budget proposal were enacted, tax bias against domestic investment would be furthered.

• The federal corporate income tax rate in the United States now stands at 21 percent, reaching 25.8 percent when accounting for the average of state and local statutory corporate tax rates combined. The tax rate on the profits earned from highly mobile intangible assets that were meant to support exports was lower-13.125 percent-fawning the deduction for Foreign-Derived Intangible Income (FDII). The standard headline corporate tax rate in China is 25 percent, though there are lower rates of 5 percent to 15 percent applying in certain districts.

Tax policy: Rather than seeking subsidies for favored U.S. industries, Congress should look at ways through which the basic tax treatment of U.S. investment could be improved so as to make the United States a more competitive locale compared with China and other countries.

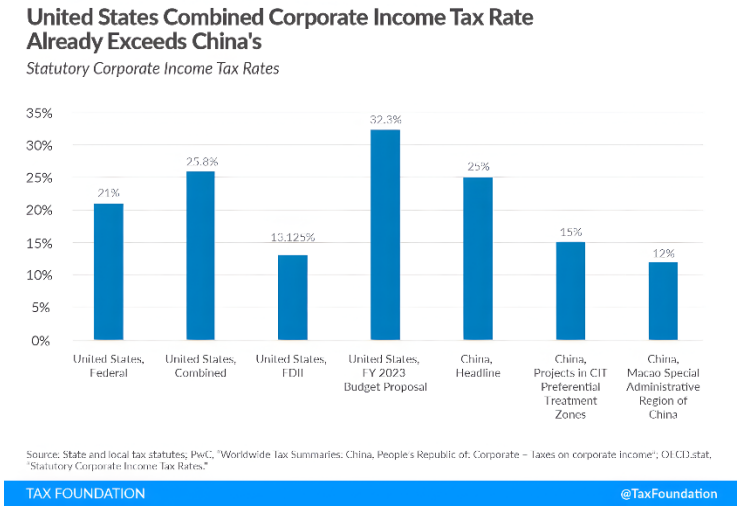


Figure. 20.4. Statutory Corporate Income Tax. Source Tax Foundation

Performance-Based Winner: China