

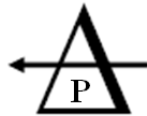
2100

**Life in the Late 21st
Century**

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Thanks Carolyn

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Preface

Before you read this book, I would like to state where I am politically. I consider myself overall politically moderate. I am fairly conservative on some subjects and somewhat progressive on others.

Throughout most of the book, I am not trying to express any political opinion. In fact, prior to writing this book, I did not have any particular opinion in regard to several of the subjects mentioned. I investigated and allowed the research to guide the conclusions. In some areas of this book, I found my opinion changed after researching the facts.

In the chapters entitled “American Society”, and “Education and Common Sense”, I will admit that some of my opinions surfaced.

I am not asking that you agree with me or my conclusions. However, I do hope you will enjoy reading this book and find it interesting and thought provoking.

Let us look together to the future and envision life in the late 21st Century.

Steve Priest

Introduction

If you are anything like me, you believe that current events and history are extremely interesting. Sometimes, I probably get too engrossed in politics or world events. Recently, my attentions have shifted to asking the question, “What will America and the world be like fifty or a hundred years from now?” I began to explore these questions at some depth. What will politics and government be like fifty years from now, and what sort of changes will America need to make to accommodate climate changes, and so on.

This provocative book will take you on a journey into the 21st century. It will explore the future world of your children and your grandchildren. We will keep away

from the “whiz bang” and science fiction. Instead, this book will paint a broad picture of the United States, in particular, and the world in general, and what the future will look like in the later part of the 21st century.

Back to 1900

My Grandmother was a good story teller. I vividly remember how she used to tell what it was like back in the early 20th century. There was no electricity or indoor plumbing, there were one-room schools, segregation, and as a woman, she couldn't vote. Later, there was the great depression and she lived through two World Wars. Her father was a preacher, so there were stories about church and religion. Later in life she saw men landing on the moon, automobiles traveling on interstate highways, global air travel, computers, microwave ovens, and more wars. She lived until she was ninety-six years old. Interestingly, when asked if she would like to return to the good old days; she emphatically said no!

I recently received some interesting trivia concerning the U.S. in the year 1909. It was just one of those random emails we receive. I do not know its origin, but here are the details.

America in 1909

- The average life expectancy for men was 47 years.
- Fuel for cars was sold in drug stores only.
- Only 14 percent of the homes had a bathtub.
- Only 8 percent of the homes had a telephone.
- There were only 8,000 cars and only 144 miles of pavement.

- The maximum speed limit in most cities was 10 mph.
- The tallest structure in the world was the Eiffel Tower.
- The average U.S. wage in 1909 was 22 cents per hour.
- The average U.S. worker made between \$200 and \$400 per year.
- More than 95 percent of all births took place at home.
- Ninety percent of all doctors had no college education.
- Sugar cost four cents a pound.
- Eggs were fourteen cents a dozen.
- Coffee was fifteen cents a pound.
- Most women only washed their hair once a month.
- The population of Las Vegas, Nevada, was only 30.
- Canned beer and iced tea hadn't been invented yet.
- There was no Mother's Day or Father's Day.
- Only 6 percent of all Americans had graduated from high school.
- Marijuana, heroin, and morphine were all legal.
- There were about 230 reported murders in the entire U.S.

How strange those 1909 facts seem to us now. In one sense, a century seems like a long time. A person is born, becomes an adult, gets married, has kids and then grandkids, grows old and dies all within 100 years.

One-hundred years flies by pretty quickly. Take my grandmother, for example. She remembered vividly when she was a child, the first family car, her marriage, birth of her children, World War I, the first time she voted, the great depression, World War II and so on.

So, in looking back on those 100 years, the changes that occurred from 1890 to 1990 were almost “obvious” in a way. If she had been so inclined, she would have envisioned the parks which President Teddy Roosevelt carved out would become national attractions, that automobiles would become faster, and they would need vast roadways to drive on, and there would be a network

of gas stations to refuel the cars that would take people to the parks, and so on.

The same approach can be used to “deduce” certain things regarding our government, politics, society, the economy, technology, etc. The same process can be used to project more globally. In fact, what happens globally affects the United States and what the United States does affects the world.

No one can predict exact dates or events that will occur in the future, however one can predict that certain things will happen in an approximate time frame. For example, experts predict the population of the earth will grow from the current 7 billion to about 9 billion by the year 2050. No one knows this for an absolute fact because the year 2050 is not here yet. However, there is a consensus of scientists who study these things, and that is what they tell us. Therefore, I accept their predictions.

The Art of Prediction - Reflection of the Past

This kind of predicting is similar to business planning. In making business plans, you first gather all the relevant facts concerning the business, make planning assumptions concerning sales, costs, etc., and project or model of the business. Businesses routinely use these techniques for sales forecasting and developing business plans. Let’s take a closer look at this process.

First, we will refer to history, and especially the 20th century as a benchmark. What events have a real

impact on the future? For example, the development of the internal combustion engine and electricity has made a big impact. Similarly, what President Kennedy and Khrushchev did during the Cuban missile crisis made a huge impact on history. What we are all doing at this minute could have been entirely different based on these events. The point is, it is important to distinguish between history altering events and the one's which are not. We will use this information to judge whether similar current issues will “bend the future” or not.

Next, we will use existing facts, and research current events. We will utilize science, economic data, and expert forecasting and modeling. We will also use any trajectory information to arrive at a probable outcome. Then, we will try to paint a broad picture of government, society, climate, or what ever the subject matter is.

Finally, having gained a general idea what the landscape is, we will project specific scenarios of what our country and the world will look like.

The predictions in this book are also based on what we refer to as “trajectory”. In ballistics, trajectory is used to calculate where a bullet will land taking into consideration the speed it leaves the gun, the angle the gun is pointed, the effect of gravity and air resistance, and the weight and shape of the bullet. We will consider trajectory when we look at world events and take this into consideration when we project, extrapolate, and forecast into the 21st century.

What this book it is not

There are no references to Nostradamus; no black holes eating the Earth, or other science fiction disasters. This is not a high tech, futuristic analysis. We will not cover religious views concerning an Apocalypse or the End of Times. The last major calamity was 64 million years ago when an asteroid destroyed the dinosaurs and fundamentally altered the earth. I am not taking any sides on these religious or fatalistic issues, but this book assumes that nothing like this will occur during the next 100 years.

I have to admit I have occasionally thought about George Orwell and his famous book *1984*. Orwell's classic was inspired from the looming Soviet Union and rise of totalitarianism. In addition to writing a high school book report, the subject of *1984*, was something that both young and old could day dream about. "What would it really be like in 1984?"

"2100 – Life in the Late 21st Century" is our opportunity to look into the future and make predictions. If you do not agree with some of the assumptions and trajectory, then make your own assumptions and predictions. You do not have to agree with the author's conclusions. This book will take you into the future where you can evaluate the assumptions and draw your own conclusions.

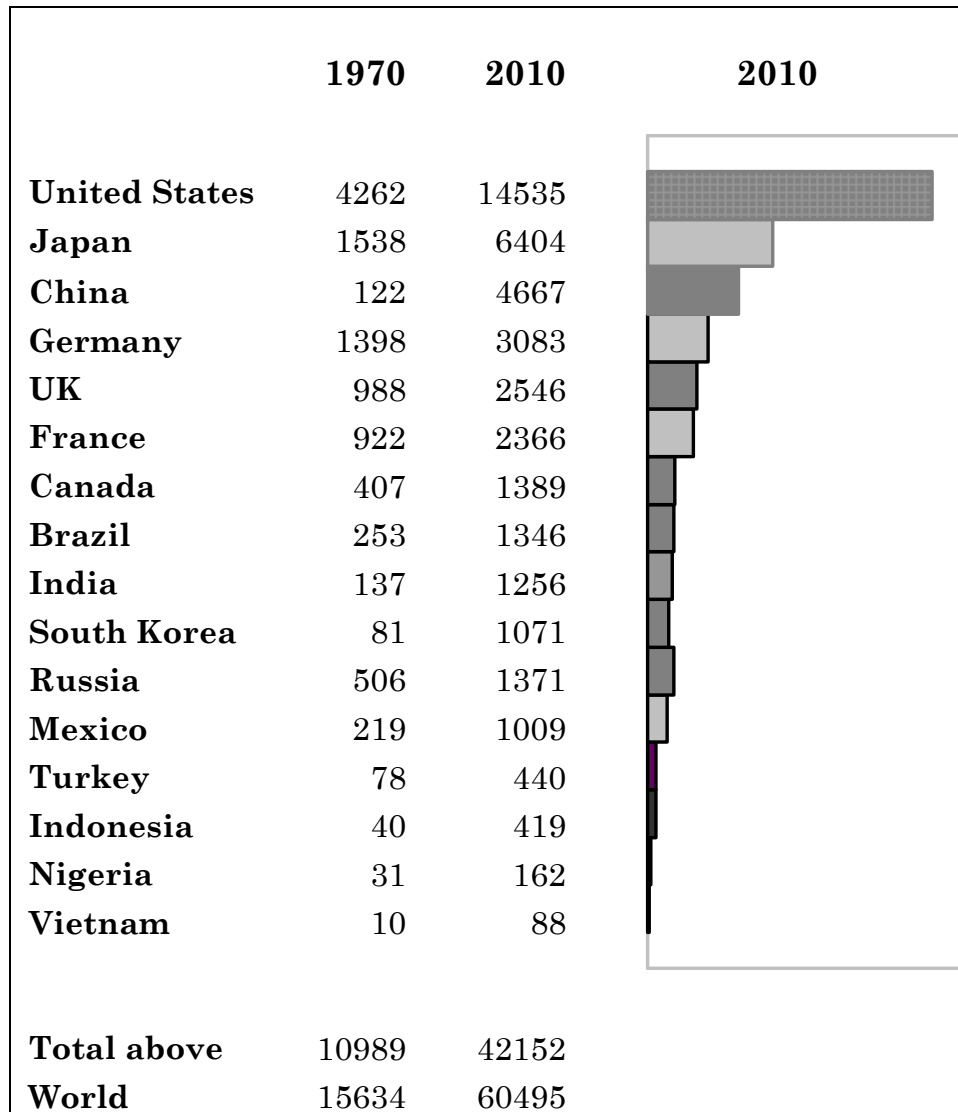
Economy

It appears there are many educated economists, each with their own predictions. The problem is there is very little consensus among them regarding what happened historically and what the reasons were. It is even more difficult for economists to project the next recession or economic meltdown.

On a global basis, and projecting out 50 years or 100 years from now, perhaps economists have a better chance. They seem to do a better job on a macro basis. So, let's turn our attention to our past history and examine what has happened over the past 50 to 100 years. We will take a look at where we are right now, see what the current trajectory is, and make some future predictions.

Global Economy

First of all, let's begin by focusing on the dominant economic countries. The following chart shows the GDP in billions of US dollars. For historical reference, year 1970 data is included.¹



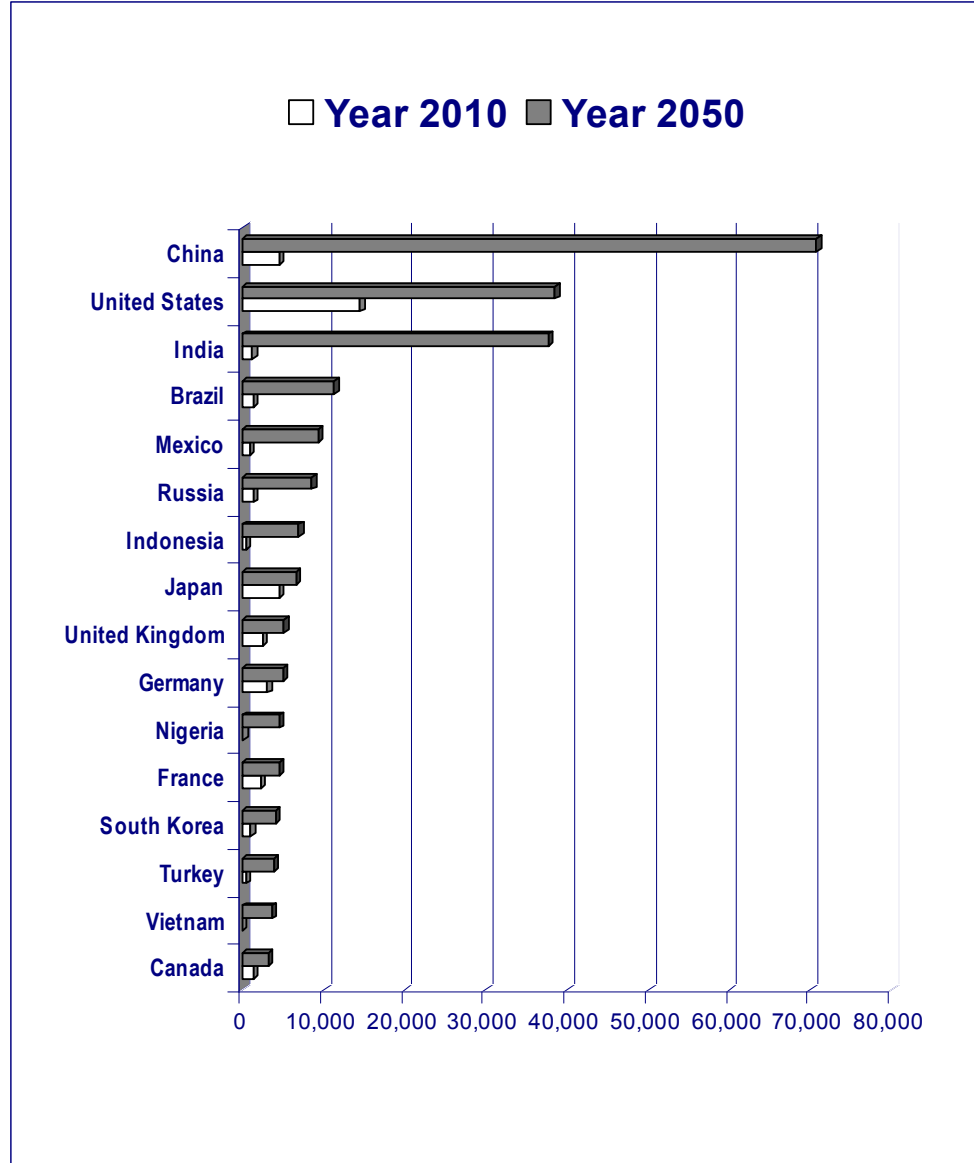
\$ Billion: 2010 figures in dollars US., 1970 baseline 2005 US dollars.
(Wikipedia)

These countries account for 71% of the entire global gross domestic product. Approximately 180 other countries account for the rest of the world's GDP. So, these sixteen countries make up the lion's share of the world's GDP.

There have been several models which project the growth of the world's economy for future years. The one that we will use here is the "BRIC" model. The acronym stands for Brazil, Russia, India, and China. "The acronym was first coined by Goldman Sachs in 2001." The model has been subsequently updated and now includes additional countries. It takes into account over twenty factors which determine a country's economy and wealth. Examples are population, historical GDP growth, exports, imports, and many other factors.²

There have been some criticisms of the BRIC model suggesting overestimates or underestimates. The model does not talk about war. However, the model is highly respected for its unbiased conclusions and thorough analysis. As pointed out previously, this book is just trying to get close and it is not necessary trying to get too precise.

The GDP predictions are shown for the following countries. Illustrated is the projected GDP for the respective countries for the year 2050. The current GDP are shown for comparison purposes.



<http://en.wikipedia.org/wiki/BRIC>; Gross Domestic Product (nominal)
 “nominal” - effects of inflation have not been accounted for.

Why has the economic world changed so drastically?
 There are several basic reasons.

- First, the leaders of these countries took a look around and realized that other countries doing well economically were doing so by adopting free trade and capitalism. This has become the “accepted” form of economic advancement.

Interestingly, capitalism can even help to transform radical fundamental Islamic countries. Indonesia and Turkey are two examples.

- Second, especially in the case of “emerging market” countries, the nations have learned how to create a “critical economic mass”. This is like capitalism on steroids. They try to use the best parts of capitalism, add education, regulate by “decree”. And almost by magic, you have China!
- Third, having been harmed by unfettered capitalism, countries have realized that some moderate regulations are also necessary. Governments can raise interest rates, infuse credit into the economy, regulate markets, and have law and order.
- Fourth, out of necessity, they have figured out how to fine tune capitalism. Every one of the countries on the list used a stimulus in 2009 and very effectively avoided a global meltdown.
- The emergence of “state run capitalism” is a driving force for some of the fast growing countries. Countries such as China, Russia, Saudi Arabia, and others use this economic system. In effect, it is free trade to a point. However, when free trade begins to interfere with the overall goals of the country, the government makes a decision. State run capitalism is very efficient, but it can only work in a quasi totalitarianism country. It is probably

not possible for state run capitalism to work in a democracy.

U.S. Economy

The United States was in its economic prime in post WWII. We did not have any competition. Europe, Russia, Japan, China etc. were all devastated by World War II. Our manufacturing base was still intact, as were our universities, research and development. Our capital and credit structure was large. Additionally, we were producing babies which would later work in factories. We were building automobiles and infrastructure, and consuming products made primarily in the USA. Further, we had an adversary in the U.S.S.R. to motivate us to do everything bigger and better.

Economically, this was a perfect situation for high growth. Going forward, the U.S. still has great potential, but other factors will make progress more difficult than it was during the last sixty years. Examples are:

- Much of the U.S. manufacturing base has already been transferred to Asian countries,
- We have already outsourced countless jobs to other countries,
- The U.S. has more competition from other countries which have adopted capitalism and free markets,

- Other pressures as a result of globalization (refer to the last chapter of the book).

Predictions

The previous graph appears to show the U.S. economy shrinking. A closer look shows the U.S. actually growing, but just at a slower rate than some of the other economies. The growth rate of the emerging countries will eventually decrease as well, but in the mean time their growth will continue to surpass that of the United States.

1. China is projected to equal the U.S. in GDP about 2025 to 2027 according to the current trend. China will have doubled the U.S. GDP in 2060. One of the ways that China is achieving the spectacular growth of about 8% annual GDP is their very efficient government. Their economic system is state run capitalism as opposed to the U.S. form which is democratic capitalism.

It is difficult to say if the autocratic government will give way to the democratic government. According to an article “The Other Middle Class” featured in Newsweek magazine, there is an emerging middle class in China, Brazil and some other growing countries. “They have fared well in the (recent) financial crisis, and there is a feeling that the Western models are no longer something to emulate.” And these countries “may continue to do more state control, rather than less.”³

2. China, India and Brazil are certainly three countries destined to be economic powerhouses in this century.

They will increasingly become rivals and compete for exports and recognition as leaders in the new technology development. China and India will be elbow-to-elbow with the U.S.

3. China will continue to exert increasing authority over world affairs. The Chinese yuan will replace the U.S. dollar as the monetary standard. And, gradually, China will have more power over trade, international law concerning patents, territorial boundaries, global standards for pollution and climate issues, cloning, space law and satellite rules, transmission and bandwidth policy. Her systems and strategies may frequently conflict the U.S. wishes, but there will be no provocations leading to armed conflict. The Chinese government appears to be too smart for that.

4. How will the new emerging economies in Africa perform; like Nigeria and Egypt? They have natural resources, a stable government, an education system and an ample population. They, as well as some other African countries, have all the necessary tools to become a global economic player. However, climate changes and limited fresh water supplies will be very harsh to most African countries.

5. Canada should flourish in the 21st century. They have great natural resources and a stable government. They also have one other unique advantage over many other countries. That is, Canada has the geographical advantage to capitalize on global warming. (We will discuss this much more in the chapter on climate change.) The milder weather and longer growing season will be ideal for a growing economy. For economic growth they may need to stimulate immigration to compensate for 1% population growth.

6. Several predominately Islam countries will also gain economic stature like Indonesia and Turkey. These moderate governments have learned the benefits of capitalism and free markets. It is too soon to tell if some of their Islam neighbors will overcome their tyrannical past. Iraq and Iran will certainly be two countries to watch.

7. Mexico has the potential to become an economic leader, but that is where it may end. One thing that may continue to impede Mexico is the drug traffic and the gangs. They may be able to get this under control, but their neighbor to the north will continue to require illegal drugs. The second impediment is climate change. Geographically, Mexico is in the crosshairs for a potential climate disaster.

8. Russia is a very unique country. They have tremendous economical potential, but seem to be their own worst enemy. On the one hand, they have great natural resources, capitalistic and free market inclinations and a geologically ideal location to embrace climate change. On the other hand, the government constantly seems to want to misbehave. It is sometimes like the old Soviet Union and on the brink of imploding. Maybe the expressions "Russian roulette" is appropriate. Do they want to continue to bully the world or work with it? Furthermore, they have a shrinking population which is not healthy for economic growth. Also, the rate of alcoholism is crippling a major portion of the population. Economically, Russia will continue to capitalize on its oil and natural resources, but the

prospects are not especially good for Russia into the middle of this century.

9. Japan, United Kingdom, France, Germany, and South Korea will continue to grow their economies well into the 21st century, but at a comparatively slow pace. It is estimated that the average GDP growth for these countries will average between 1.5% and 2.5%.⁴

10. Australia is projected to contract relative to the U.S. economy by 2050. This is due in large part to their slower population growth. The country is also vulnerable to the effects of climate change. There is a large portion of the population on low elevation coastlines, and they are threatened by shortages of rainfall.⁵

11. In the very short term, the U.S. economy will have to come to grips with a growing national debt and recovery from a severe recession. This is not going to be easy, but a growing crisis will force the government's hand. There are many constituencies that have vested interests. For example, the seniors don't want to change Social Security or Medicare benefits. The wealthy don't want to pay more taxes. There are many other constituencies.

The economists are divided. Some argue that we need additional government stimulus. Other economists argue that the U.S. needs more austerity. Predictions are that by 2020, a crisis will arise when China or other debt holders begin to tighten U.S. credit. It is likely that our elected Congressmen and Senators will feel compelled to work together to solve this problem.

12. In the longer term, the United States economy is still very robust. The U.S. has a gross domestic product that is more than double our nearest competitor, which is now China. Our manufacturing base is still good, innovation is the best, we have good trade agreements, and historical favorable capital base. We have everything we need to sustain a GDP growth of 2% to 3% per year. This is exactly what the U.S. is doing and it is not likely to change.