**Chapter 1: The Tale of 2 Premises**

Welcome to the world of money! It is a fascinating and exciting place. Money motivated the Crusades, Christopher Columbus, and the car airbag. The quest for profits brought us the American Revolution and the Civil War. It helped take Albert Einstein’s theory of relativity and turn it into the internet, GPS system, and a cancer-killing laser beam. Just like oxygen, money breathes life into all human ingenuity. The Egyptian pyramids, sonnets of Shakespeare, and Roman Senate never would have occurred without money. As time marches on, money continues to create a tidal wave that instills peace, motivates cooperation, and begins wars.

If money is the root of all evil, it is also the root of all good.

The world of money will force us to explore the Big Bang, parallel universes, the rivalry between the United States and China, man-eating robots, and medicine inspired by snake venom. When the super secretive Defense Advanced Research Projects Agency (DARPA), which is nothing more than a series of hidden government research labs, invented the internet no one expected it would lead to the invention of Google, Facebook, and cyber warfare. The resulting social media led to democratic uprisings in the Middle East and it helps the Center for Disease control (CDC) spot disease outbreaks minutes after they occur.

This is what money does—it funds, fuels, and propels human innovation.

Money is both a force of evil and good in this world.

Money touches us, for better or worse, all throughout our lives. No one has all the answers about money. If we did, no one would go homeless or hungry nor wonder why shopping sprees soothe stressful days at the office. Money has power of all of us, and most of the time people are clueless why.

If money controls you, you will be a slave to credit card bills and shopping mall splurges. If you control money, you will die having accomplished all your wildest dreams.

I couldn’t find a good textbook or even series of books that captures how powerful, exciting and a little frightening money can be. What was my only remaining option? I decided to write my own book. I had a great statistics
professor in college who typed up the textbook himself. It was very helpful for me to understand some very challenging stuff, so I thought I'd do the same.

Knowledge about money, how to spend it well, and turn money into more money allows you to finance all your dreams. This is what this book is meant to help you do.

As your teacher, I’ll make it funny, weird and interesting. Your financial behavior, however, is the real test of how financially secure and independent you will be. You can memorize all the facts and stories in this book, but it’s up to you, and you alone, to actually save each and every part of your paycheck, choose cheaper products over the luxuries, and invest.

This book provides the knowledge for wise financial decisions, but your behavior and whether you do or do not act appropriately on this knowledge, will determine how wealthy you will be.

You and I will always regret some decisions we make with money. Mistakes are natural. No sane person intentionally makes themselves miserable with a poor financial decision! (It appeared at the time fine to order pizza until you realized this would mean you would miss your phone bill.) I hope this book helps you grow from the errors you will inevitably make with money.

Each year I update this book because I get better at explaining how money works, managing my own money, and understanding how America and the interconnected, international monetary systems manage money.

But, before we talk about money, we must first discuss two different things. These two things are very important because they constitute the foundation of financial wisdom. Nothing about money will make sense without understanding these two things ahead of time. These two things are called premises.

If you need to understand something BEFORE you understand something else, then it is called a premise. A premise is like background information.

If you believe that your mom packed you a peanut butter and jelly sandwich for lunch today, then you also believe a whole host of other things:
1. Peanut butter and jelly is not going to kill me

2. Peanut butter and jelly is a food and NOT the name of two 2 hidden Russian spies hiding out in my kitchen

3. There will NOT be a zombie apocalypse during lunch time, so I can expect to eat my peanut butter and jelly sandwich.

Most times we never think of these things because they are so obvious: “Drink water,” “Work hard”, “You should not leave home without wearing shoes.” These are the background thoughts you learned earlier in life that allow you to think more complex things today.

But, sometimes, the most obvious of sentences—the things that seem the most unnecessary to think of—are wrong. When the obvious premises you have accepted for a while turn out to be false, well, you might enter a state of extreme surprise. Anyone who has learned of a parent’s divorce or a walked into a dimly lit living room for a surprise birthday party knows this.

“The world is not flat” is something you rarely think of, but saying it out loud just 1,000 years ago would get you killed!

Galileo Galeli, the dude who invented the telescope and launched astronomy, had to say, “I take it back! I was wrong; the world is not round. The world is flat!” to avoid being put to death.

He did not believe the world was flat but it was either that or get killed. (I think I'd do the same.)

What Galileo almost died for is the same thing that you don't even realize you are about to do. You are going to recognize the power and influence of questioning premises. To begin, we are going to discuss 2 premises that the whole book rests on.

I cannot turn you into a millionaire if you do not entertain these two things. Keep an open mind. For some readers, it will make you want to close the book, put it back on the shelf, and send me lots of nasty emails. As you read the paragraphs
below, you may immediately start to doubt every fact being presented to you. These two premises, however, will make the whole world of money make sense. Think of it as the glue that holds the entire universe of money together.

Two Premises of Personal Finance

<table>
<thead>
<tr>
<th>The Optimistic Universe</th>
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<tbody>
<tr>
<td>Over long periods of time, human society and civilization get better and better. The world is less violent, more peaceful, more ethical, and more kind with every passing century. Sometimes, we do not even have to look at timelines going back 100 years at a time. Sometimes, we see the progress and improvement of civilization in 30-year increments or less. Humans can be vicious and cruel; we can do more hateful things than anything else in the animal kingdom. We can have a bad 5 years, 10 years or more. But, the piece of evil that lurks in all of us is small compared to the good.</td>
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<tr>
<th>Wealth and Well-Being Work Together</th>
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<tr>
<td>Our job on planet earth is to find happiness. This does not mean just eating junk food and playing video games (although that is important). We are actually happiest when we discover our potential, leave an impact on the world, and be all-we-can-be. This is not easy! It takes hard work. Helping others, finding a good job, and pursuing our interests and passions take money! When we have enough money to reach our dreams, we are wealthy. In fact, the best way to make others and other countries wealthy is first by you becoming wealthy. Your wealth can make the world better. Money has actually done more good than bad throughout history.</td>
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The next two chapters explore these 2 premises in detail. It’s okay if you doubt them. In fact, being skeptical of everything you learn is a good thing. But, for now, treat the next 2 chapters as fact because it will make the rest of the book easier. If you finish the book, then you can go back and disagree with these two premises.
Chapter 2: The Optimistic Universe

The Universe

This chapter details the journey of the universe\(^1\). When humans come into existence, a lot of time passes before we create “human civilization” with the invention of writing around 3,000 B.C. Once we figure out writing and usher in “civilization,” thousands of years pass before we become “modern” with medicine, cars, human rights and courtrooms.

Humans make a lot of mistakes during our time on the planet, such as extreme violence and war. Such mistakes, however, are far rarer than the good things we do. The story of human civilization is mostly a good one. Let’s start at the beginning.

The Big Bang occurred 13.8 billion years ago. If we were going to make a timeline from the Big Bang to the point when life appears, it would be a microscopic dot. That’s right—on the timeline of the universe, the part where living things (including humans) exist would take a microscope to see.

13.8 billion years ago, imagine a microscopic dot to represent when life first comes into existence as bacteria, plants and animals. That’s how new life is in the history of the universe.

This is what earth looked like with boiling oceans and an atmosphere of poisonous gases. No living thing existed yet.
You might be asking yourself: How in the world can science give us this information?? Good question! Physicists, astronomers and mathematicians are able to measure the length, size and chemical composition of the universe doing some super smart things I barely understand. They argue:

1. Space and time are the same thing, apparently, which means if you can measure the space of the universe you can also measure the time it existed. (Or something like that.)

2. You can see the stars at night in the countryside but not in a big city. Why? Light, during the day, creates pollution blocking the night sky in cities. This (apparently) enables scientists to measure the distance light can travel. If we can measure “light pollution” on earth then we can measure it in space.

3. Really fancy and complex telescopes help us see parts of the universe. The color of stars and planets, resulting partially from air pollution, helps determine the time they existed. Time affects space which affects light which affects color.

Much smarter people than me use this information to prove the Big Bang and when humans came into existence.

Now, let’s return to our timeline stretching back 13.8 billion years.
Imagine a microscope that focuses on the part of the timeline starting 500 million years ago. At this time earth’s oceans stopped bubbling, toxic gas left the atmosphere, and the planet stopped resembling an extreme case of indigestion.

This is 500 million years ago on the timeline we were just looking at.

500 million years ago we finally have animals on earth. Most of them will go extinct. In fact, “mass extinctions,” where 80% of the entire world’s living organisms dies, happen about 5 times during this 500-million-year period. Wild, right?!

Humans came into the picture just 2 million years ago.

This diagram came from the Department of the Interior’s U.S Fish and Wildlife agency but I altered this diagram to better reflect when we first found confident evidence of our “human” ancestors.
Lamprey, dinosaurs, and the continents break apart all before humans enter the scene.

500 million years ago
Again, to see the above timeline, you would need a microscope.

13.8 Billion Years Ago
Earth is formed

Across this vast amount of time, humans appear and finally leave Africa only 2 million years ago. We spend most of this time discovering fire, hunting wild animals, and fighting each other. Life as a caveman was NOT peaceful. It was violent. Today, the average life expectancy of a person living in America is around the age of 80. As a caveperson, it was only 25 years! If you want to live a full and long life, be grateful we are no longer the hunter and gatherer cavemen and cavewomen of our ancestors.

Humans ended their nomadic lifestyle, built written languages and houses and invented civilization only 5,000 years ago. To review: The Universe exploded into existence with the Big Bang 13.8 billion years ago, life appeared 500 million years ago, humans appeared 2 million years ago, and only 5,000 years ago did we become “civilized” with agriculture, language, hunting tools, and peace treaties.

Life moves at accelerating speeds.
In those 5,000 years we accomplished an outrageous amount: robots and buildings, religion and science, medicine and helicopters. Literally everything, other than clothing and spears, was made within 5,000 years. That is fast!

The rate at which humans develop civilization is important. When humans figure out writing and start building cities, the speed at which humans invent, innovate and create is astronomical. This is the Optimistic Universe.

### Helpful information about timelines

If you know anything about history, then you have experienced our super goofy timeline system. In super awkward fashion, we set a middle period of Ancient Rome as zero. Before 0, we call it BC or BCE (BCE is the “politically correct term”) and numbers are higher as we move back in time (left). Similarly, as we move toward the present (right), we call it AD or ADE (ADE is the “politically correct term”).

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
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<tbody>
<tr>
<td>3,000 BC</td>
<td>First evidence of writing in both Mesopotamia and China</td>
</tr>
<tr>
<td>2,630 BC</td>
<td>Egyptian pyramids are built.</td>
</tr>
<tr>
<td>0 AD</td>
<td>Ancient Rome (Jesus of Nazareth came into the picture around this time)</td>
</tr>
<tr>
<td>2019 AD</td>
<td>Modern medicine, smart phones, and the relatively new belief that it’s NOT okay to invade and conquer people who look different than you.</td>
</tr>
</tbody>
</table>
The “Optimistic Universe”

When humans enter the picture, unlike microbes or animals, we learn, develop and build a better world\(^2\). And, very importantly, we do it fast. It took humans so long to go from the Big Bang to the time of writing. But, in just 5,000 years we move from writing to modern medicine, super computers, and airplanes.

During this 5,000-year timespan, humans become increasingly peaceful and cooperative. The life of cavemen and women required constant warfare with animals and other tribes. Slavery, rape, torture, murder, and death by disease were MORE COMMON in ancient civilizations, such as Ancient Egypt and Rome, than in the Middle Ages. Those same atrocities became LESS COMMON in the 17\(^{th}\) century, 18\(^{th}\) century, 19\(^{th}\) century, 20\(^{th}\) century, and 21\(^{st}\) century.

There has never been a better time to be alive than today and, very sadly, this fact is often not taught in schools or colleges.

In the year 2019, Jeff Bezos (founder of Amazon) and Elon Musk (founder of Tesla) are each creating companies to colonize the moon. Right now, we have the least amount of poverty, violence, and war than ANY OTHER PERIOD IN HUMAN HISTORY. Five-thousand years ago we were a tribal, war-torn world where we had kings and queens, and we enslaved other humans. Today, we have modern nation-states with democracies, advanced economies, and international governing boards like the International Criminal Court and the United Nations. Five-thousand years ago we believed the reason you were sick was because the clan on the other side of the river put a curse on you. Today, we have vaccinations by changing the genetic
material of viruses so we can inject it into our blood to protect us from getting sick. That is progress!

Modern-day evils still exist but those who lament how humans used to be more peaceful in earlier times are undeniably wrong.

To be an optimist is to believe the future will be better. If you are an optimist about tonight’s dinner, then you think it will be tasty and something to look forward to. If you think your own future will have success and contentment, then you are an optimist.

All the evidence in the world suggests we should be optimistic about being human and that we can keep making a better world. This is the Optimistic Universe.

Even the story of Genesis (the first story among Jews, Christians, Muslims and even Zoroastrians) watches God kick out Adam and Eve but continue to improve human society with the help of His prophets. We can continue to be optimistic. We will only get better at making the world more peaceful.

Life between 1910-2019, those 110 years, are the greatest century for all humans on record. This universe is an optimistic one.
Steven Pinker is one of the world’s leading psychologists. He writes dozens of books, fills lecture halls with international audiences, and advises politicians. He teaches at Harvard University, has some wild hair, and is a leading scholar on human progress. Call him the Kanye West of psychologists.

He argues3:

1. Over 200 years ago, 90% of the world’s population lived in extreme poverty. Today, it is just 10%! Wealth has not only increased in America and Europe but Asia and Africa too.

2. We spend more on helping others than we used to. (For example, 100 years ago, 1.5% of Europe’s budget went to poverty relief. Today, it’s 22%.)

3. In America, 30 years ago there were 60% more murders, 70% more poverty, and much more pollution than there is now.

4. Across the globe, within just the past 30 years, the percentage of humans living in extreme poverty declined from 37% down to 10%.

5. We have 1/6 the number of nuclear weapons and almost half as many wars raging across the planet than we did 30 years ago.

Life in 2019 is the greatest time you could have ever been born! We have less disease, fewer children dying of malnutrition, and even less violence and war than we did decades ago. In fact, life 100 years ago was better than life 200 years ago.
The Renaissance, Wild West, and the millennia as hunter-gatherers may invoke a romantic sense of peace and tranquility, but no evidence suggests that to be the case. The greater the distance into the past, the higher the chances of any early death from disease, slavery, violence, or poverty.

Our world has a long way to go to see an end to racism, genocide, violence, environmental damage and human suffering, but we are getting there! Allow yourself to be optimistic about this journey. There are many reasons humans have progressed, and the list below only covers 3:

<table>
<thead>
<tr>
<th>The idea of “universal human rights” where all humans deserve humane treatment.</th>
<th>Companies make more money, governments become more efficient and people become more peaceful when innovations, technology and inventions are all shared.</th>
<th>Human knowledge allows us to invent better and better things.</th>
</tr>
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<td>In the times of Ancient Egypt, it was commonplace to invade neighboring tribes and regions for food, take neighbors as slaves and literally say out loud: “Clearly you deserve to be a slave because we just surprised and invaded your village so successfully!” There was a time when this was common sense.</td>
<td>America invented the first car and now dozens of countries have their own versions of cars. If you need to go to a hospital or want to find a better job, the car has allowed you to do that. If you want to drive to community college to save money or take a better job a little further away, cars let you do that.</td>
<td>We have medicines with fewer side-effects, cleaner forms of energy, and an internet that lets us share literature, scientific discoveries and new ways of thinking with everyone across the globe in an instant.</td>
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The first section of this book argued that the reader needs to accept two premises. If you accept these two premises, the steps to managing money and
becoming a millionaire become much easier. This chapter explored the first premise--the Optimistic Universe--which is summarized below:

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