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Over thousands of years, the average person lived out his or her life without buying a single item.People worked as serfs, slaves, or servants, for masters who owned the land and everything on it. In return, the workers were given free room in a hut and a tiny plot of ground where they could grow their own vegetables. But they didn't get a paycheck.Nobody complained about working for zero pay, because there was no place to spend it. Once in a while, a pack of traveling salesmen would come through town and set up a market, but a market was an isolated event. The kings, queens, princes, princesses, dukes, earls, and so forth, who owned all the property -- buildings, furniture, animals, ox carts, everything from gold jewelry to pots and pans -- kept it in the family. It wouldn't have occurred to them to sell off a piece of land, even if they could make a big profit and have less grass to mow. There were no "for sale" signs in front of castles. The only ways to acquire real estate were to inherit it or to take it by force.In many parts of the world, since the earliest days of Judaism and continuing with Christianity, business for profit was an X-rated activity and lending money and charging interest could get you kicked out of the church or the synagogue and guarantee you an eternal spot in hell. Bankers had an unsavory reputation, and people had to sneak around and visit them on the sly. The idea of benefiting from a transaction, or getting ahead in life, was regarded as selfish, immoral, and counter to God's plan for an orderly universe. Today, everybody wants to improve his or her lot, but if you had lived in the Midge Ages and you said your goal was to "get ahead" or to "better yourself," your friends would have given you blank looks. The concept of getting ahead didn't exit.If you want more details about what life was like before there were markets and before people worked for a paycheck and had the freedom to spend it, read the first chapter of Robert Heilbroner's classic book The Worldly Philosophers. It's a lot more fun than it sounds.By the late 1700s, the world had opened up for business with brisk trade between nations, and markets were cropping up everywhere. Enough money was in circulation and enough people could buy things that merchants were making a nice living. This new merchant class of shopkeepers, peddlers, shippers, and traders was becoming richer and more powerful than princes and dukes with all their real estate and their armies. Bankers came out of the closet, to make loans.Our Pioneer InvestorsThe history books give many reasons for America's great success -- the favorable climate, the rich soil, the wide-open spaces, the Bill of Rights, the ingenious political system, the nonstop flow of hardworking immigrants, the oceans on each side that protect us from invaders. Backyard inventors, dreamers and schemers, banks, money, and investors also deserve a place on this list.In the opening chapter of our story as a nation, we read about native Indians, French trappers, Spanish conquistadores, sailors who sailed in the wrong direction, soldiers of fortune, explorers in coonskin caps, and Pilgrims at the first Thanksgiving dinner. But behind the scenes, somebody had to pay the bills for the ships, the food, and all the expenses for these adventures. Most of this money came out of the pockets of English, Dutch, and French investors. Without them, the colonies never would have gotten colonized.At the time Jamestown got started and the Pilgrims landed at Plymouth Rock, there were millions of acres of wilderness land along the eastern seaboard, but you couldn't just sail there, pick your spot, clear a space out of the forest, and start growing tobacco or trading with the Indians. You had to have permission from a king or a queen.In those days, the kings and queens ran the whole show. If you wanted to go into business in the royal lands, which was most of the land on earth, you had to get a royal license, called a "charter of incorporation." These licenses were the forerunners of the modern corporation, and business people couldn't operate without a charter or a piece of somebody else's charter.Religious groups such as the Quakers in Pennsylvania got charters. So did groups of merchants, such as the ones that founded Jamestown. And once you had the royal permit to settle the land and start a colony, then you had to look for the financing. That's where the earliest stock market comes into play.As far back as 1602, Dutch people were buying shares in the United Dutch East India company. This was the world's first popular stock, sold on the world's first popular stock exchange, which operated from a bridge over the Amstel River in Amsterdam. Crowds of eager investors gathered there, trying to get the attention of a stockbroker, and when their pushing and shoving got out of hand, police were called in to restore the peace. The Dutch spent millions of guilders (their version of the dollar) for the privilege of owning shares in United Dutch East India, which today, with so many companies known by their abbreviations, might well be called UDEI.In any event, the Dutch company took these millions of guilders raised in the stock sale and used the money to outfit a few ships. These ships were sent off to India and points east to bring back the latest Far Eastern merchandise, which was the rage in Europe at the time.While optimists paid higher and higher prices for the shares of United Dutch East India, figuring the company would make them a fortune, the pessimists bet against the stock through a clever maneuver called "shorting," which was invented in the 1600s and is still being used by the pessimists of today. In the case of United Dutch East India, the optimists turned out to be right, because the stock price doubled in the first years of trading, and the shareholders got a regular bonus, known as the dividend. The company managed to stay in business for two centuries, until it ran out of steam and was dissolved in 1799.No doubt you've heard how Henry Hudson sailed his ship, the Half Moon, up the Hudson River in what is now New York, looking for a passage to India, thus repeating the navigational mistake made by Christopher Columbus. Have you ever wondered who paid for this wild goose chase? Columbus, we all know, got his financing from King Ferdinand and Queen Isabella of Spain, while Hudson got his from the aforementioned United Dutch East India Company.Another Dutch enterprise, the Dutch West India Company, sent the first Europeans to settle on Manhattan Island. So when Peter Minuit made the most famous real estate deal in history, buying Manhattan for a small pile of trinkets worth sixty guilders (twenty-four dollars in our money), he was acting on behalf of the Dutch West India shareholders. Too bad for them the company didn't stay in business long enough to get the benefit from owning all that expensive downtown New York office space.Seeing how the Dutch financed their New World adventures, the English followed their example. The Virginia Company of London had exclusive rights to a huge area that extended from the Carolinas through present-day Virginia and up into part of today's New York State. That company footed the bill for the first expedition to Jamestown, where Pocahontas saved Captain John Smith from having his head bashed in by her angry relatives.The settlers at Jamestown worked there but didn't own the place, a sticking point from the beginning. They were hired to clear the land, plant the crops, and build the houses, but all the property, the improvements, and the businesses belonged to the shareholders back in London. If Jamestown made a profit, the actual residents would never see a penny of it.After seven years of nasty disputes and complaints from the settlers at Jamestown, the rules were changed so they could own their own private property. It turned out not to matter at the time, because the original colony went bankrupt. But there was a great lesson to be learned from Jamestown: A person who owns property and has a stake in the enterprise is likely to work harder and feel happier and do a better job than a person who doesn't.The exclusive right to do business along the rest of the coastline from Maryland into Maine was awarded to yet another English company: the Virginia Company of Plymouth. The way the map was drawn in those days, most of New England was part of northern Virginia. When the Pilgrims landed at Plymouth Rock and stumbled onto shore, they were trespassing on property belonging to the Plymouth Company.Every schoolchild learns how the Pilgrims risked their lives to find religious freedom, how they crossed the cruel ocean in a tiny ship, the Mayflower, how they suffered through cold New England winters, how they made friends with the Indians and got their squash and pumpkin recipes, but nothing about the remarkable story of how they got their money.Let's back up for a minute to review this story. The Pilgrims had left England and taken up residence in the Netherlands, where the first stock market got its start -- not that the Pilgrims cared about stocks. After several years in the Netherlands, the Pilgrims got fed up and decided to move. They had three possible destinations in mind: the Orinoco River in South America; a section of New York controlled by the Dutch; or a parcel of land offered them by the Virginia Company of London.The one thing holding them back was a lack of cash. They needed supplies and a ship, and could afford neither. Without financial help, they would have been stuck in Europe forever, and we might never have heard of them. This is when Thomas Weston entered the picture.Weston was a wealthy London hardware dealer, or ironmonger, as they were called in those days. He had access to property in New England and he had access to plenty of cash, and he and his pals thought the Pilgrims would make an excellent investment: So they made an offer they hoped the Pilgrims wouldn't refuse.Weston's group, who nicknamed themselves "The Adventurers" even though they weren't the ones going on the adventure, agreed to put up the money to send the Pilgrims to America. In return, the Pilgrims had to agree to work four days a week for seven straight years to make the colony profitable. At the end of seven years, the partnership would dissolve and both sides would split the profits, after which the Pilgrims would be free to go their own way.The Pilgrims accepted these terms, because they lacked an alternative, and began packing their bags. Then at the last minute, Weston turned the tables on them and changed the contract. Now, instead of having to work four days a week for the good of the business, they were required to work six. This would give them no free time to plant a home garden, or mend their clothes, or practice their religion, other than on Sundays.After arguing with Weston and getting nowhere, the Pilgrims decided to set sail without a signed agreement and without any travel money, because although Weston had paid for everything so far, he refused to advance them another cent. They had to sell some of the butter they'd made for the trip so they could pay the port charges and leave the harbor in the Speedwell, the ship they had outfitted in Holland.The Speedwell leaked, so they were forced to return to port, suspecting all along that the captain and sailors were in cahoots with Weston and had deliberately sprung the leak. Most of them crowded into a second ship that was smaller and slower than the Speedwell -- the Mayflower.They were crammed into the Mayflower, on their way to their promised land in Virginia, when they drifted off course and overshot their destination. Realizing their mistake, they tried to turn south, but the rocks and shoals of Cape Cod blocked their passage. Rather than risk a shipwreck in these unfamiliar, rough waters, they dropped anchor in Provincetown harbor.From there, they moved to Plymouth, where they built their shelters and planted their crops. With Weston having cut off the money flow, the Pilgrims needed a new source of cash. They worked out a new deal between another group of investors (headed by John Peirce) and the Plymouth Company, which owned the land.The Pilgrims would get one hundred acres apiece to use as they pleased. Peirce would get one hundred acres per Pilgrim. On top of that, he and the other investors would get fifteen hundred acres apiece for paying the rest of the Pilgrims' moving expenses and for bankrolling the settlement.Among their many other worries, how to survive the winter, how to get along with the natives, and so forth, the Pilgrims had to worry about how to pay back the two groups of investors, Peirce's and Weston's, who had put up considerable sums to carry them this far. As much as we like to think of the Pilgrims as focusing only on God, they had the same problems as the rest of us: bills.After one year of the Plymouth colony's being in business, the Mayflower sailed back to England on a visit with an empty cargo hold: no furs, no gems, no crops, nothing the investors could sell. Plymouth was losing money and continued to lose money season after season, or as they say on Wall Street, quarter after quarter. This made the investors very upset, as investors always are when they get zero return on their money. Worse than that, they had to send more supplies back to the colony, so the costs were going up.By 1622, Weston was fed up with Pymouth and supporting the high-cost Pilgrims with nothing to show for it, so he gave away his share of the business to his fellow "Adventurers." Meanwhile, John Peirce was sneaking around the other investors' backs, trying to get control of Plymouth for himself so he could become the "Lord Proprietor of Plymouth Plantation." He didn't get away with it.For five years, Pilgrims and investors carried on their money dispute: the Pilgrims complaining about a lack of support and the investors complaining about a lack of profits. Then in 1627, the partnership was dissolved, with the exasperated investors selling the entire operation to the Pilgrims for the modest sum of eighteen hundred British pounds.Since the Pilgrims didn't have eighteen hundred pounds, they had to buy the colony on the installment plan: two hundred pounds per year. This was the first "leveraged buyout" in American history, a forerunner of the famous RJR Nabisco deal of the 1980s that became the book and the movie Barbarians at the Gate. (In a leveraged buyout, a company is purchased with borrowed money by people who can't really afford it.) The Pilgrims' leveraged buyout was the first time in our history that workers took over the company business.Now comes the most interesting part of the story. As soon as they had established themselves, the Pilgrims decided to live in a communistic way: They pooled their resources and no individual was allowed to own any private property. Governor William Bradford, the Pilgrim leader at the time, saw right away that the communist arrangement would fail. He realized that without private property, the people would have no incentive to work very hard. Why should they bother, when all the inhabitants of the colony got the same benefits (food, housing, and so forth) whether they worked or sat around doing nothing?A few farsighted residents of the colony petitioned Governor Bradford to set things up so farmers and fishermen were allowed to own their own farms and boats and to make a profit from their efforts. In return, they supported the community by paying a tax on their profits. This free-enterprise system that Bradford put in place was basically the same as the one we have today.Being independent did not solve the Pilgrims' money problems. In spite of their hard work, the debt of the colony increased from eighteen hundred pounds to six thousand. More Pilgrims were brought over from Holland to expand the fishing fleet. Their hope was to pay off part of the debt with the profits from fishing, but they never caught enough fish. For ten years, negotiations dragged on between the colony and its lenders, until the dispute was settled once and for all in 1642.The Pilgrims helped build the social, political, religious, and economic foundation of modern America, but to the investors, they were nothing but a bust. Weston, Peirce, and friends were the big losers in this venture, and they were no dummies, either, which goes to show that; investing is a tricky business, where the best-laid plans can often go awry. Or maybe they deserved what they got, for being so sneaky and underhanded, and for trying to renege on the original deal.This is one instance in which the general population could be happy it didn't have a chance to buy shares: The Pilgrims were not a public company, the way the Dutch West and East India companies had been. But there were other opportunities for the European masses to get in on the New World bonanza, and with equally disastrous results. There was the ill-fated Mississippi Company and the South Sea Company, both of which appeared on the scene in the early 1700s, selling shares to tens of thousands of gullible customers in the stock markets of Paris and London.The Mississippi Company was the pet project of a flashy wheelerdealer named John Law, one of the most interesting characters of his century. Law left his native Scotland, after he'd killed a man in a duel over a failed business venture, and moved to France. He wangled an introduction to the king; Louis XV, who was underage and left the royal decisions to a regent, the Duke of Orleans.Knowing a royal family was the only way to get ahead in those days, and Law convinced the regent that he, Law, could solve the problem of France's huge national debt.Law's plan was for France to hire a printing press and print paper money, which it could use to pay offthe debt. Paper money was a relatively new idea in the world, and the regent was very impressed. So impressed, in fact, that he gave the immigrant from Scotland complete control over the Royal Bank of France, along with the royal printing press.Soon, Law's paper money was circulating everywhere. Almost overnight, he went from being a stranger in the country to being the king of French finance and the wealthiest inhabitant of Paris next to Louis XV himself.With his popularity riding high in the opinion polls, or however they measured it in those days, Law announced his second big project: the Mississippi Company. Its purpose was to bring back fantastic treasures from the vicinity of the Mississippi River. The Mississippi flowed through Louisiana territory, first visited by French explorers (Colbert, Joliet, Marquette) and later claimed by the French. The French people back home thought Louisiana was another Mexico, rich in silver and gold deposits just waiting to be carried away. Law himself had never been to Mississippi, or anyplace else in the New World for that matter, but he did a convincing sales job to make the public believe that the fantastic stories they'd heard were true.Like fans at a rock concert, hysterical Parisians rushed into the maze of narrow streets near Law's mansion. They had to apply to buy shares. Waving their new French money, they fell over themselves trying to get Law's representatives to accept their applications. The price of the shares rose and rose, until Law's company was worth more, on paper, than all the gold in circulation. And still the buyers kept coming.There was hardly a person alive in France who didn't catch the Mississippi fever and dream of Mississippi gold that didn't really exist. They had no information whatsoever about Law's company, other than what Law himself said about it, and there was no Wall Street Journal or Nightly Business News to tell them that Law's scheme had no chance of success. In fact, whenever people questioned him or his company, they were shipped out of town, to distant prisons.Whenever crowds of people bet their life savings on a hopeless proposition, it's called a "mania" or a "bubble." The pattern is always the same. Frantic investors pay ridiculous prices in order to get in on a spurious opportunity, and sooner or later, the prices come crashing down. After the Mississippi "bubble" burst, and people realized Law's company was a sham and Law himself was nothing more than a financial Wizard of Oz, investors tried to unload their shares and found no buyers. They lost their life savings, the French economy collapsed, and the banking system collapsed along with it. As quickly as Law had become a French hero, he became a French goat.England had its own version of the Mississippi Company, the South Sea Company, founded in 1711. The organizers copied all their moves from Law. They promised to pay off England's huge military debt if the English monarch would grant them a monopoly on trade with countries in the "south seas" -- particularly Mexico and Peru.In 1720, the South Sea Company announced a new plan to lend the British government enough money to wipe out its entire national debt, military and otherwise, if the government would agree to pay 5 percent interest on the loan. At the same time, the company began to sell more shares of its stock. Half of London headed for Exchange Alley, the hometown stock market, in their horse-drawn carriages, determined to buy shares. This caused a nasty carriage jam, and the streets were blocked for weeks.There was so much demand for these South Sea shares that the price tripled overnight, before the British Parliament had approved the debt deal. A British statesman even issued a warnlng: People should keep their money in their pockets. But during bubbles such as this one, nobody listens to a lone voice of reason.When the word got out that the organizers of the South Sea Company had gotten very rich by selling shares, other companies were quickly created by people who also wanted to get rich. There was a company for every wild scheme you could think of: a perpetual motion machine, salt farms in the Holy Land, importing walnut trees from Virginia, drying malt in hot air, making lumber from sawdust, inventing a new kind of soap. One company refused to tell investors what it planned to do with their money. It described its purpose as follows: "carrying out an undertaking of great advantage, but nobody can know what it is."Lords and laymen, merchants and menials, people from every profession and every rank in society got drawn into the London stock market expecting to strike it rich. When the bubble finally burst, the English suffered the same fate as the French. The price of South Sea shares took a nosedive, crowds of people lost their life savings, and the British financial system was on the brink of collapse.One by one, the directors of the South Sea Company were brought to trial, had their estates confiscated, and were sent to prison, some in the infamous Tower of London. Sir Isaac Newton was caught in the bubble and lost a lot of money. "I can calculate the motions of heavenly bodies," he said, "but not the madness of people."The South Sea fiasco gave the stock market such a bad name that Parliament passed a law making it illegal to buy or sell shares in any company, no matter what business it was in. The stock exchange was abolished and all trading, which back then was called "jobbing," was brought to a halt. The stockbroker went from being the most popular person in town to an outcast with a worse reputation than any pickpocket, highway robber, or prostitute. This was a sad beginning for stocks, but matters have greatly improved since then, especially in recent decades.Early EntrepreneursOn our side of the Atlantic, residents of the colonies who had come here as part of somebody else's business began to go into business on their own.Companies of many types were established in the early 1700s. Merchants who went into business for themselves, or with partners, soon discovered the advantages of forming corporations. Later on, after we got our independence, Americans took to the idea of incorporation far more readily than the Europeans had. None of the other major industrial nations -- Great Britain, France, Germany, or Japan -- produced as many corporations as we did.In fact, a few of the companies that opened their doors nearly three hundred years ago are still operating today! This is an amazing feat, when you think of all the wars, panics, depressions, and other calamities the country has been subjected to. Generations have come and gone, products drifted in and out of fashion, cities burned, forests deforested, neighborhoods destroyed -- hardly anything has lasted since the 1700s. But J.E. Rhoads & Sons has been around since 1702, when it manufactured buggy whips.Rhoads & Sons would have disappeared long ago, if it hadn't been for its clever managers from the 1860s, who saw the railroads coming and realized there was no future in making buggy whips in a world without buggies. They retooled the factory to make conveyor belts.The Dexter Company got its start as a gristmill in Windsor Locks, Connecticut, in 1767 -- two and a quarter centuries later, it's still in business, but not in the gristmill business. Like Rhoads, it was kept alive by quick-witted managers who knew how to change with the times. Milling was a dying industry, so Dexter got out of its mills and started to produce stationery. From statiotlery, it switched to tea bags, and from tea bags to glue. Today, it makes high-tech coatings and adhesives for airplanes.A Baltimore firm, D. Landreth Seed, has survived since 1784 -- on vegetable seeds. It sold seeds to Thomas Jefferson at his Virginia estate, and more than two hundred years later, it's still selling seeds to Jefferson's estate. If a company makes a good product that's never out of date, it can stay in business forever.Since none of these early companies was a public company, people couldn't own shares in them. (Dexter went public on its 201st birthday, in 1968.) At the time of the Revolution there was not one home-grown public company in the country. The earliest to appear on the scene after the Revolution was a bank -- the Bank of North America, founded in 1781. The Bank of New York (1784) was the first stock ever to trade on the New York Stock Exchange. It still trades there today.The Bank of Boston followed New York's lead and sold shares, as did the Bank of the United States, whose main purpose in life was to figure out how to pay off the debts from the Revolutionary War.In colonial America there had been no banks, because the British didn't allow them. We corrected this problem after the Revolution, but even so, there was a lot of fuss about the federal government sponsoring a bank. Some of the Founding Fathers, particularly Jefferson, distrusted bankers and their paper money.Taking their cue from their European ancestors, our earliest shareholders paid too much for their bank stocks, and they knew very little about what they were buying. The bidding went higher and higher until it got to the level of ridiculous prices, and on Wall Street, whatever goes up that high must always come down. Bank stocks landed with a thud in the Crash of 1792, the first crash in Wall Street history. As soon as the dust settled, the New York State Legislature passed a law, similar to the laws passed earlier in London, making it a crime to traffic in stocks. Stock trading went underground.This was a good lesson to investors in a young country, and it is a good lesson for young investors today. When you are an owner of a company, you only make money if the company succeeds. A lot of them don't. This is the risk of buying stocks: The company you own may turn out to be worthless. It is for taldng this risk that people are rewarded so handsomely if they pick the right companies to invest in.Investors were very happy to own shares in the company that built the bridge over the Charles River in Massachusetts. John Hancock was one of the founders. The sale of the Charles River Bridge stock was held on the eleventh anniversary of Bunker Hill Day, in 1786. There was a parade across the bridge, complete with the firing of cannons, followed by a party at which eighty-three original investors were treated to a banquet. It was a joyous occasion, followed by many joyous years in which investors were paid a dividend.These steady dividends came from the tolls collected from the people who used the bridge to get across the river. The customers of the bridge weren't nearly as happy as the investors in the bridge. Eventually, a second bridge, the Warren Bridge, was built across the Charles River to compete with the first. Once enough tolls were collected to pay off the costs of building this second bridge, the plan was to abolish the toll so people could cross the river for free. The owners of the original bridge objected to this plan, and filed a lawsuit that went all the way to the Supreme Court. They lost the case, and that was the end of their profitable monopoly.Another successful company modeled along the lines of the Charles River Bridge was the Lancaster Turnpike in Pennsylvania. The Lancaster Turnpike sold shares (through a lottery, as it turns out) and also paid a nice dividend. Again, the money came from tolls collected along this sixty-mile road from Philadelphia to Lancaster. The customers of this road didn't like the tolls any more than the customers of the Charles River Bridge did, but they preferred paying them to driving their buggies through fields.and woods.Turnpike, bridge, and canal companies were the forerunners of the trolley, railroad, and subway companies that came along a bit later.The Father of the Financial SystemWe all recognize George Washington as the father of our country, but Alexander Hamilton was the father of the financial system. That part gets lost in the history books, but without the financial system, the political system never would have worked. Hamilton deserves the credit for this. He's more famous for being a lousy shot and losing a duel to Aaron Burr, but he was also an astute economic planner and one of the founders of the Bank of New York.Hamilton realized that the country couldn't get along without money, and to have money, it needed banks. It seems obvious today, but back then, banking was a controversial subject.George Washington agreed with Hamilton about the banks, and even invested in one himself. Washington was a shareholder in the Bank of Alexandria, which opened near his home at Mount Vernon. But a lot of important people were opposed to Hamilton's ideas, and foremost among them was Thomas Jefferson. Jefferson was a gentleman farmer who believed there was virtue in tilling the soil and living off the land. He hated factories and the cities that grew up around the factories. To Jefferson, banks were the root of all evil, especially the government's bank.As it turns out, Jefferson was no expert on personal finance. He ran through a large fortune and died virtually bankrupt in 1826. He was a big spender, particularly on gadgets and on books, and his library had more volumes than Harvard College, which had been in existence for more than one hundred years before Jefferson was born. He was a tinkerer, a bookworm, and a farmer at heart -- the gentlemanly kind who left the farm work to others.Jefferson wanted America to be a nation of pastures and wheat fields, where independent "yeoman" farmers could dominate local politics and have the strongest voice in public affairs. He rejected the European idea that government should be run by a ruling class of snooty aristocrats.Never would Jefferson have imagined that the factories would lure millions of farm workers away from the farms and into the cities and the mill towns, or that factories would be their ticket to a better life, or that heavy industry with all its problems would provide Americans with the highest standard of living in the history of human beings. It couldn't have happened without the massive amounts of money that went into building the roads, canals, highways, bridges, factories -- and where did most of this money come from? Jefferson's dreaded banks!In spite of Jefferson's opposition, the first Bank of the United States got the congressional go-ahead in 1791 and managed to stay in business for twenty years, until 1811, when a new group of bank haters in Congress refused to renew the charter. The bank was shut down.A second Bank of the United States was chartered in 1816, this time in Philadelphia, but it ran into trouble a few years later when Andrew Jackson was elected president. Jackson was a rough character who came from the wilds of Tennessee. They called him "Old Hickory," because he was tall like a tree (six feet one inch, which was very big for those days), he had a thick skin like a tree, and he grew up in a log cabin. In spite of his outdoorsy reputation, Jackson was sick most of the time and stayed indoors. Like Jefferson before him, Jackson believed that the states should have more power and the federal government less.This second Bank of the United States was blamed for a nationwide financial panic in 1819, when a lot of businesses ;vent bankrupt and people lost their life savings and their jobs. (This was the first of a long string of panics, which created havoc around the country.) Western farmers joined with eastern factory workers in waggling their fingers at the "monster bank" that they said was the culprit of the panic.So when Jackson was elected president a decade after the panic, he listened to these people and took all the money out of the federally sponsored bank and shipped it off to be deposited in various state banks, and that was the end of the second Bank of the United States. From then on, the states controlled the banking business and gave out the charters. Soon, every John and Jane Doe with nothing better to do decided to start a bank.Thousands of banks appeared on main streets and side streets in big towns and little towns, the way chicken restaurants are cropping up today. And since every one of these state banks could issue its own paper money, it was very confusing to do business, because from state to state it was hard to tell whose cash was worth what, and a lot of merchants wouldn't accept any of it. Traveling within the country then was very similar to traveling abroad today: You had to worry about changing money from place to place.This is an area in which the United States and Europe have gone in different directions. Europe has always had a few banks with many branches, while we've always had a slew of different banks. By 1820, there were three hundred separate banks in the United States, as compared to a handful of banks in England. Today, there are over ten thousand banking institutions in the United States, if you add in all the savings and loans and the credit unions, while Great Britain has less than fifteen.Many of our local banks were shoestring operations that lacked the necessary capital to tide them over in an economic crisis, and there was always a crisis waiting to happen. Half the banks that opened their doors between 1810 and 1820 had failed by 1825, and half the banks that opened between 1830 and 1840 had failed by 1845. When you put money into a bank, it wasn't insured the way it is today, so when a bank failed, people with savings accounts or checking accounts had no protection and lost all their money. There was no such thing as a safe deposit.Banks were dangerous places to park cash, but that didn't stop Americans from putting their life savings into them. The banks would take these savings and lend the money to the bridge builders and the canal builders, the turnpike projects and the railroad projects that got America moving. When a bank loaned money to a railroad, or a bridge company, or a steel company, the money came from the savings accounts of the people who put money into the bank.In other words, all this high energy, this excitement, this hustle and bustle that led to economic progress was financed out of the pockets of the man and woman on the street.Whenever the government needed money for a project, it had four choices of where to get it: taxes, bank loans, selling lottery tickets, or selling bonds. (More about bonds on page 104.) Whenever a company needed money, it could borrow from a bank, sell bonds, or sell shares of stock. But in the first half of the nineteenth century, stocks were a company's last resort. The idea of selling shares to the public caught on very slowly.The Father of Modern EconomicsMarkets were opening all over the place, and people were buying and selling at a furious pace, and to many people the whole situation was out of control. Never in history had masses of individuals been allowed to go their own way and work for their own benefit. There didn't seem to be any rhyme or reason to it.This is where the economists came in. They were a new breed of thinker. For thousands of years, religious philosophers had tried to figure out how mankind could live according to God's wishes. They debated politics and the best form of government, and who the leaders should be. But it took economists to describe what happens when individuals have the freedom to seek their fortunes.The first and the smartest early economist was a Scotsman named Adam Smith, a nerd of his day who lived at the time of the American Revolution. Smith avoided parties and picnics to stay at home thinking and writing, and he was so absorbed in his ideas that he got the reputation of being absent-minded. His great work was called An Inquiry into the Nature and Causes of the Wealth of Nations, which today goes by the shortened title, The Wealth of Nations.The Wealth of Nations was published in 1776, the year America declared its independence, and it's a shame that Adam Smith didn't get more credit for writing it. He deserves a prime spot in history along with John Locke, Benjamin Franklin, Thomas Paine, and other revolutionary thinkers who argued that political freedom is the key to a just society where people can live in peace and harmony. The others didn't say much about how to pay the bills -- but Smith did. He made the case for economic freedom.Smith argued that when each person pursues his own line of work, the general population is far better off than it is when a king or a central planner runs the show and dictates who gets what. His point seems obvious today, but in 1776, it was a novel idea that millions of individuals making and selling whatever they pleased, and going off in all directions at once, could create an orderly society in which everybody had clothes, food, and a roof over their heads. What if ninety-nine out of one hundred people decided to make hats, and only one out of one hundred decided to grow vegetables? The country would be flooded with hats, and there would be nothing to eat. But this is where the Invisible Hand comes to the rescue.There wasn't really an Invisible Hand, of course, but Smith imagined one working behind the scenes to insure that the right number of people grew vegetables, and the right number of people made hats. He was really talking about the way in which supply and demand kept goods and services in balance. For instance, if too many hat makers made too many hats, hats would pile up in the market, forcing the hat sellers to lower the price. Lower prices for hats would drive some hat makers out of the hat business and into a more profitable line of work, such as vegetable farming. Eventually, there would be just enough vegetable farmers and just enough hat makers to make the right amount of vegetables and hats.In the real world, things don't work out quite as perfectly as that, but Smith understood the basics of how a free market works, and they still hold true today. Whenever there's a demand for a new product, such as computers, more and more companies get into the business, until there are so many computers for sale that the stores have to drop their prices. This competition is very good for you, me, and all the other consumers, because it forces the computer makers to improve their product and cut prices. That's why every few months, they come out with fantastic new models that cost less than the clunky old models. Without competition, they could keep selling the clunky old models and consumers could do nothing about it.The Invisible Hand keeps the supply and demand of everything from bubblegum to bowling balls in balance. We don't need a king, a Congress, or a Department of Things to decide what the country should make, and how many of each item, and who should be allowed to do the manufacturing. The market sorts :this out, automatically.Smith also realized that wanting to get ahead is a positive impulse, and not the negative that religious leaders and public opinion makers had tried to stamp out for centuries. Self-interest, he noticed, isn't entirely selfish. It motivates people to get off their fannies and do the best they can at whatever job they undertake. It causes them to invent things, work overtime, put extra effort into the project at hand. Imagine what lousy carpenters, plumbers, doctors, lawyers, accountants, bankers, secretaries, professors, center fielders, and quarterbacks we'd have if people weren't allowed to profit from their talents, and success was never rewarded!Smith said there was a "law of accumulation" that turned serf-interest into a better life for everyone. When the owner of a business got richer, he or she would expand the business and hire more people, which would make everybody else richer, and some of them would start their own businesses, and so on. This is where capitalism created opportunities, unlike feudal agriculture, where a small number of big shots owned the land and kept it in the family, and if you were born a peasant, you would live penniless and die penniless, and your children and their children would be stuck in the same rut forever.At the time Smith wrote his book, and throughout the century that followed, great thinkers were trying to find laws for everything. Scientists already had discovered physical laws, such as the law of gravity, the laws of planetary motion, and the laws for certain chemical reactions. People believed in an orderly universe, in which, if therE; were laws for how the planets move and how apples fall from the tree, there had to be laws for business, and laws for politics, and laws for how people react in different situations. Once you figured out the formula for how money gets passed around, for instance, you could predict exactly who would end up with how much.It was one thing to say there was a law of supply and demand, or a law for how money travels, and quite another to find a formula that could nail it down. But economists kept trying, coming up with new theories to reduce the hustle and bustle of the marketplace to a single equation.Our First MillionairesAccording to the records, not a single millionaire existed in America in colonial times. Elias Hasket Derby of Salem, Massachusetts, a seafaring merchant who refused to get involved in the slave trade, was reputed to be the wealthiest person in the country. Today, his house belongs to the National Park Service and is open to the public. It's only a few hundred yards from the House of Seven Gables, the setting for Nathaniel Hawthorne's famous book. The fact that everybody knows Hawthorne and not Elias Hasket Derby tells you something about the relative importance of literature and finance in the schools.Several hundred miles to the south, a Baltimore merchant, Robert Oliver, had also collected a sizeable fortune, but during and after the Revolution, the richest person in America was thought to be Robert Morris.Morris formed a business syndicate that bought and sold ships. His ships sailed from the West Indies to Europe and back again, sending tobacco and foodstuffs in the European direction and bringing cloth and manufactured goods from them to us. He was chairman of a secret committee that supplied the revolutionary armies with coats, pants, shirts, and gunpowder, and his companies got the contracts to supply the army. Morris became superintendent of finance under the Articles of Confederation, and he was an avid supporter of Alexander Hamilton and of Hamilton's pet project, the first national bank.Morris believed that only the better class of people should run the country. He argued for the superiority of gentlemen such as himself, for there was no doubt in his mind he was one. He was entirely opposed to Jefferson's idea that the small independent farmer was the backbone of the nation and should be given the right to vote.Like many of the great wheeler-dealers who followed in his footsteps, Morris built his empire on money borrowed from the banks. He had many friends in high places, and since his biggest customer was the army, we could call him the original big defense contractor.Also like some of our modern wheeler-dealers, including Donald Trump, Morris overextended himself and borrowed more money than he could pay back. There was a lull in the shipping business, his financial empire collapsed, and Morris declared bankruptcy.In those days, declaring bankruptcy was a very serious thing to do, because owing money to people and not paying them back was a crime. Morris spent three years in a debtor's prison in Philadelphia, where one of his visitors was George Washington. From his jail cell, Morris organized a campaign to abolish this sort of penalty, and thanks to his efforts, we no longer lock people up when they can't pay their debts. If we still had debtor's prisons in the 1990s, they would be very crowded, because more than eight hundred thousand Americans file for personal bankruptcy every year. Most have gotten in too deep with their credit cards.By 1815, there were a half-dozen millionaires in the country, and most made their profits on ships and trading. Number one among them was Stephen Girard of Philadelphia, who died in 1831 at the age of eighty-two, the richest person in America at that time.Girard was born in France, the son of a ship captain. He went to sea as a teenager and later became an international trader and merchant. He came to America, invested in land, bank stocks, and government bonds, and managed to prosper in all these areas. Girard eventually started his own bank and joined a syndicate to do business with a younger wheeler-dealer named John Jacob Astor. More on him shortly.At his death, Girard left an estate worth $6 million, a vast fortune at the time, even though today it would barely pay a year's salary for a top baseball player. The bulk of the money was donated to a college for male orphan children. Girard was a confirmed atheist who despised religion so much that under the terms of his will, no minister of any faith could set foot on the college property.Girard's net worth was eclipsed by that of John Jacob Astor. Astor was a German immigrant who started out as a fur trader, then bought part interest in a ship that sailed back and forth to China -- that's where the big fortunes were still being made, in ships and trading. From one ship, Astor expanded to two, three, four, and eventually he had a fleet of speedy vessels known as clippers. For an American to build a fleet of this kind was a major achievement, because it had to be done with borrowed money, and the American banks had a limited supply of money to lend, as compared, say, to the British banks.During this period in history, money was backed by precious metals, so the amount of cash a bank could print depended on how much gold and silver it had in its vaults. In London, there was an ample supply, so the banks could roll the presses and create plenty of cash for their business tycoons to borrow. But the U.S. supplies of gold and silver were quite low, so the banks were often short on cash, and Astor and his fellow capitalists had trouble borrowing enough money to finance their grandiose projects.When he realized he couldn't beat the competition, Astor turned away from international trade and concentrated on the U.S. market, where he did well enough, because in 1848, when he died at the age of eighty-four, he left behind an estate whose assets topped $20 million, roughly three times the estate of his old friend Girard.Soon after Astor's funeral and all the articles that came out about his great wealth, people were furious to discover that his family inherited $19-plus million and only five hundred thousand dollars went to charity. This started a hot national debate: If you can't take it with you, who should get it? The public thought Astor should have left more to his fellowman in general, and less to his relatives, because capitalists were supposedly working for the benefit of society.This debate still rages today. Everyone seems to agree that working hard and getting ahead is a good thing, but people are divided on the issue of what to do with the proceeds. These days, Astor couldn't possibly have given 95 percent of his wealth to his children, because the estate taxes would have taken 55 percent off the top as soon as he was laid to rest. The contemporary rich have a different sort of choice: They can leave their money to private charities and foundations, including colleges, hospitals, homeless shelters, AIDS research, and food banks, or they can do nothing and let the government take the biggest chunk of it.A Slow Start for StocksBy 1800, there were 295 corporations formed in the United States, but most of these remained in private hands so the general public couldn't own them. Corporations were very controversial. Their fans and supporters saw them as an important ally of democracy that could benefit the community at large. Their critics saw them as undemocratic, sneaky, and subversive organizations that only cared about themselves.It was a frustrating period for any investor in stocks. The states already had passed laws to limit the liability of shareholders if a company got sued, so people could invest without fear of losing more than the value of their shares. But not many people did invest. It was hard to find friends or neighbors to share in the enthusiasm and chat about their favorite public companies, the way investors do today whenever we get the chance.There wasn't a business section of the newspaper, or a Money magazine, or books on how to pick stocks. In fact, there weren't many stocks to pick from: a dozen or so banks, a couple of insurance companies, a gas company or two, and that was it. In March 1815 the complete list was printed in the New York Commercial Advertiser, a popular paper of the day. There were twenty-four stocks, mostly banks. In 1818, there were twenty-nine stocks, and in 1830, thirty-one.The earliest buying and selling was done under a large button-wood tree on Wall Street, and after that, stocks were traded in small rented rooms or in coffeehouses. At one point, there was a fire in one of the rooms, and the traders moved into a hayloft and continued trading there.The New York Stock Exchange (NYSE) wasn't what you'd call an exciting hangout. You could stand around and twiddle your thumbs waiting for a stock to be traded. Business was so slow that the traders started buying and selling at 11:30 and were done for the day by 1:30. It got so dull that on March 16, 1830, a prime candidate for the slowest trading day on record, only thirty-one shares changed hands. This was a far cry from the 338 million shares that changed hands on an average day in 1995.The stock-trading business livened up a bit by 1835, when 121 companies were listed on the NYSE. The country was on the move with canals, turnpikes, and bridges. These fantastic improvements required money, and the money came from the sale of stocks and bonds. Bank stocks were no longer the hot items they had been a couple of decades before. The new hot item was railroad stocks and bonds. At one point, people were buying anything with the name "rail" in it, and not caring what prices they paid. They were also paying higher and higher prices for any piece of land near a railroad. If they didn't have the cash to buy the land, they could borrow it from the banks. Banks were lending huge sums on these real-estate deals, and large numbers of farmers were ignoring their crops and becoming real-estate tycoons.This was a home-grown bubble, similar to London's South Sea bubble from long before, and in 1836 it burst. Stock prices and land prices came down as fast as they had gone up, as investors tried to cash out. The would-be tycoons who had borrowed money to buy the stocks and the land were stuck with debts they couldn't repay to the banks. The banks ran out of money, and people with savings accounts lost their savings when the banks closed their doors and went out of business. Soon, cash was in such short supply that nobody could afford to buy anything. The financial system was on the verge of collapse. This was the Panic of 1837.The American economy (and the economies of most countries) lurched from euphoria to panic and back again. In the euphoric periods, when prices were rising and jobs were plentiful, speculators would spend their last paycheck, hock their jewelry, go into debt, do anything to buy stocks, or bonds, or land, and get in on the action. Then, in the panics, collapses, and depressions, the speculators got their comeuppance and people sobered up.The stock market crashed in 1853 and again in 1857, when shares in the popular Erie Railroad fell from sixty-two dollars to eleven dollars. Still only a tiny percentage of the population owned stock -- given the ups and downs in the market, perhaps this was for the best. The brunt of the losses was borne once again by the Europeans, who, not having learned an earlier lesson, were pumping money into U.S. investments. By the 1850s, nearly half of all U.S. shares were owned by foreigners, mostly British.American InventivenessThe American people were regarded as an uncouth rabble by the more refined Europeans, and they saw us as poorly educated, roughshod Yankee doodles, but what a surprise they got when all the great inventions began to pour out of American heads. American ingenuity was a response to our lack of manpower. In a huge country with a small population we needed to invent machines to do some of the work. Though clever inventors were dreaming up machines, this didn't mean the machines would be brought to life. It was capitalism -- people willing to invest their money to manufacture the machines -- that led to the golden age of American invention.There was Fulton and his steamboat; George Cabot's mill; Francis Cabot Lowell's complete industrial factory; McCormick's giant harvesting machine, the reaper, that spared the farmers from back-breaking work. While serving as a tutor on a southern plantation, a Connecticut tinkerer named Eli Whitney invented the "gin" to remove seeds from cotton and single-handedly turned the South into a mecca for cotton production. McCormick's reaper, Samuel Colt's repeating pistol, and a new kind of padlock were the three American inventions that vowed the crowds at a famous exhibition of industrial machinery at the Crystal Palace in London in 1851. Europeans were amazed by American products, and just as amazed by our system of manufacturing that standardized the quality so each item that rolled out of the stop was exactly the same as the last.Again, it took money to get these inventions off the drawing boards and into production. Some of it was borrowed from banks, but more and more was raised in the stock market, as shareholding grew in popularity at home and especially abroad. Foreigners bankrolled our fantastic progress by investing in our emerging market, and 150 years later, we are returning the favor by investing huge sums in the emerging markets of Asia, Africa, and Latin America.On the farm, machines improved the life of the farmer, who up until the 1850s was still using the same primitive methods that had been used five thousand years earlier in Egypt. Farmers tilled the soil with plows pulled by animals, or with hand plows pulled by humans, and much of the stoop labor was done by slaves, who were victims of the system, the same as the slave in ancient Mesopotamia.Among the causes of slavery, primitive agriculture was a major culprit. Slavery was abolished when the bystanders came to their senses and raised enough of a ruckus to put a stop to this evil practice, but capitalism deserves some of the credit. It took investors and their money to build the factories that made the farm equipment (threshers, reapers, disk harrows, steel plows, grain elevators, and so forth) that changed agriculture forever. With new machines to do the backbreaking labor once reserved for slaves and serfs, there was no longer an economic benefit in forcing people into a life of servitude.Several of the companies that made farm equipment one hundred years ago are still with us today: Deere, International Harvester (now called Navistar), and Caterpillar. While they were inventing and selling the machines that could hoe, plant, and harvest, other companies were inventing herbicides and fertilizers to kill the bugs and the weeds and enrich the soil. The combination of new equipment and new chemicals turned the American farm into the most efficient food bank on earth, capable of producing more wheat, corn, and so forth, per acre than any other country's farms in the history of agriculture.True, ours was a fertile land, with hundreds of millions of acres of rich soil lying beneath the fruited plains, unlike the tired, leeched-out, pawed-over soil the farmers of Europe and Asia had worked mercilessly for centuries until it lost its fertility. Yet there's no denying that innovations and inventions kept our plains fruited, and made the American farm the envy of the world.While a million Irish people lost their lives in potato famines, Chinese people starved because of rice shortages, and starvation was a fact of life for much of humanity, the United States produced and continues to produce more food than its citizens could eat.Farm machinery changed the way farmers raised crops, but it didn't change the American diet, which was dreary and monotonous. Most families grew their own food. The basic menu was bread, potatoes, root vegetables, and dried fruits, livened up with the occasional slice of salted or smoked meat. People ate kidneys for breakfast. Kitchens lacked refrigerators, so fruits and vegetables could be eaten fresh only in the short stretches when the produce was "in season."In the winter, you got cucumber salad, pickled cucumber salad, or no salad at all. If you didn't live near the water, you couldn't get fresh fish. Lemons were a luxury, and an orange was something you found once a year in your Christmas stocking, if you had a Christmas stocking. The tomato was an exotic Mexican export, widely distrusted because it was thought to be poisonous. Grapefruits were generally confined to Florida.There were no refrigerated trucks or railcars to move vegetables from one place to. another, and the canning industry had not yet developed vegetables that could be kept on a shelf. People did their own canning at home, in glass jars, whenever they could get the extra produce. Cattle, sheep, and pigs were walking rib steaks, lamb chops, and pork roasts, transported live from the farms to the cities so their meat could be preserved "on the hoof."These days, we hear a lot of nostalgia about the "good old days" when life was "simpler" and more "natural," but the promoters of nostalgia might change their tune if they ever experienced what simple living was really about: sweat and backaches from dawn to dusk. Keeping a family fed, clothed, dry, and warm was a full-time job. Without our modern conveniences and products to help them along, women's work was never done, and neither was men's.Most of the houses were handmade, and so were the clothes, the drapes, the furniture, and the soap. The average person might spend weeks without buying a product made by a company, public or private. It took hours to make the food, and hours to tend the gardens, and more hours to cut the firewood for the stoves. The smoke from stoves and fireplaces was a major pollutant, both in and around the houses where people spent most of their time. So much for the fresh air that everybody supposedly enjoyed in those days.There was no TV, which might have been a blessing, because a lot of people had no time for TV. Today, we talk about "home entertainment," but in the old days, it really did come from inside the home: card games, puzzles, music making, storytelling, and jokes.If this sort of entertainment was so wonderful, then why did so many people turn to the radio and later to the television?Railroads and CommerceThe stock market continued to gain in popularity throughout the nineteenth century, thanks in part to Thomas Edison's first commercially successful invention, the tickertape machine. This was a printing device covered by a glass bowl that made it look like a bubblegum dispenser. Every time a stock was bought or sold, a record of the trade was sent via telegraph to tickertapes around the country and the world.It came out on the tape, an endless roll of paper that showed the stock symbol, the price, the number of shares that changed hands. Anybody with access to a ticker could watch the tape and keep tabs on stock prices, up to the minute.Before Edison invented this machine there was no way of telling what stocks were doing, unless you were standing on the floor of a stock exchange. But as soon as tickertapes were, installed, investors could follow theft favorite stocks right along with the insiders on Wall Street.The American economy grew eightfold between the 1790s and the Civil War. This meant that the population was making eight times as many products, and buying and selling them at eight times the rate of the colonial inhabitants. We were well on our way to becoming the world's greatest industrial power. With the Civil War behind us and slavery abolished (although racial discrimination clearly was not abolished), the population expanded westward, and the skylines of the cities expanded upward, as everywhere in the country people were on the move.By 1855, textile mills were popping up along the rivers in New England, and no fewer than forty-six cotton textile companies sold shares on the Boston stock exchange. When soldiers returned from the Civil War, where they'd gotten accustomed to wearing uniforms, they went out and bought a new kind of uniform, the ready-made suit. Soap and candles, leather and maple sugar, all traditional homemade products, could now be bought in stores. Trade barriers between one state and another were broken down so mass-produced goods could cross state lines.Two railroad companies, the Union Pacific and the Central Pacific, were chosen to extend the lines across the country to the Pacific. Occasionally, a fight would break out among the Irish, German, or Chinese workers along the line, but together they put their muscle into laying, the track and hammering the spikes.Congress granted 170 million acres to various railroads in different parts of the country -- this was the biggest gift of property in U.S. history, and a very controversial one. The railroads sold some of this land to farmers and used some of it as collateral for the huge loans they took out to pay the workers and buy the track, railroad cars, and other expensive equipment.Several of today's railroad companies still own vast tracts of valuable acreage from the original government land grants. It's an incredible asset for them. The trains carried the freight, plus the passengers, and they brought scores of new buyers into the stock market. In this second railroad boom, investors put $318 million of their own money into railroad stocks, and out came thirteen thousand miles of track. The federal government provided most of the land. It wasn't the cowboy and the six shooter that won the West as much as it was the railroads. Without this money and these breaks, who knows when the territory would have opened up?Railroad stocks, how could they miss! was the rallying cry of investors from coast to coast. People saw the rail lines fanning out to the far corners of the nation, and the locomotives puffing along, and they were convinced that railroads were a can't-lose proposition.A sizeable number of farmers were speculating in railroad stocks, in railroad land, and in the land companies created by the Homestead Act of 1862. Some of these railroad projects and land projects turned out to be fly-by-night schemes, as did many of the gold and silver mining ventures that came along behind the railroads.Mark Twain is said to have once described a gold mine as a "hole in the ground owned by a liar," and more often than not, that liar was selling shares. Far more money was made by the people who sold shares in unproven mines than was made by all the prospectors who brought their pans and their picks to California. The victims of fly-by-night schemes had no federal or state regulators to protect them, and the laws that prohibit companies from putting out false or misleading information were yet to be written.During the great era of the cowboy, which lasted only about twenty-five years, a slew of cattle-ranching stocks appeared on the stock exchanges. In the late 1860s, there were 38 million cows and 39 million people in the United States, or roughly one cow for every inhabitant. Cowboys made a big impression on the easterners who bought into this hot new field. By 1869, there were 145 different stocks sold on the New York Stock Exchange. Insurance companies had made their debut on Wall Street, along with the steel companies and the ironworks that grew into giants and dragged farmers off the land and lured immigrants from across the Atlantic into the factory towns.The railroads had extended their track to all corners of the country, and there was heavy traffic on the canals of the Great Lakes where barges delivered iron and coal to be remade in the bellies of the steel mills, which poisoned the air with their toxic belch, but still the immigrants arrived by the boatload, looking for factory jobs.They poured into New York harbor from Ireland, from continental Europe, from as far away as China, escaping potato famines, wars, secret police, injustice, intolerance, insecurity, upheavals of all kinds. They took low-paying jobs as garment workers, meat packers, welders, riveters, and grease monkeys, ? working long hours in 'unhealthy and often dangerous surroundings. They sought out these poor working and living conditions because however bad the situation was over here, it was better than the situation back home, where people were starving or were caught up in endless warfare. If life wasn't better over here, then why did so many make the trip?They also realized that if they stayed home in Poland or Greece or wherever else, they had little hope of advancement, because in every country a small group of aristocratic families owned the farms, hoarded the money, and controlled the government. In America, they had hope, and more than hope, they had expectations. Wasn't this the land of opportunity? Workers saw the growing prosperity in the neighborhoods around them, and they expected to share in it -- or if they couldn't, their children would and did.The offspring of immigrant factory workers had a chance to go to college and become doctors, lawyers, executives, and even owners of the very companies where their parents and grandparents worked long hours for low pay.By and large, the American workers of the late nineteenth century didn't blow the money on expensive vacations or champagne parties -- at least most of them didn't. They put the money in banks, where the situation had become somewhat less chaotic than it had been when banking was run by the states. The endless varieties of currency that made shopping so confusing disappeared in the mid-1860s when a new federal banking system was established. From then on, we had one national currency, the U.S. dollar.Americans stashed so much cash in the banks that from the Civil War to World War I they saved an amazing 18 percent of the country's total industrial output. Because the cash was used to build better factories and better roads to transport the goods from the factories, workers became more efficient. They could produce more goods for the same amount of work.The supply of money increased forty times over, but there was hardly any inflation. These days, when a would-be emerging nation such as Russia prints more money, we see an immediate collapse in the value of the money, and prices go through the roof. But in the second half of the nineteenth century, when the United States was an emerging nation, prices held steady, even though the banks had begun printing money like crazy. The reason this printing of money didn't cause inflation was that our industrial output was growing right along with the money supply.Another factor that may have contributed to the national prosperity is that our borders were effectively closed to many foreign-made goods by prohibitive tariffs. These days, we hear a lot about free trade and what a good thing it is, but during the heyday of the U.S. economy, when we had our fastest growth and our factories were running at full speed, foreign competitors had trouble entering our markets and our industries were somewhat protected from overseas competition.The inventions kept coming out of the American mind: the telegraph, the telephone, the automobile, the vulcanized rubber tire. People were inventing better mousetraps, better everything, a machine for every job that once had been done by human hands. In the 1880s, a bill was introduced in Congress to close the U.S. Patent Office, on the theory that every important invention had already been invented. How wrong that turned out to be!There was a machine to roll cigarettes, made by a company called Bonsack and first used by a Carolina tobacco farmer named James Duke -- the Duke of Duke University. There was a machine to make matches, a machine to make flour (Pillsbury got hold of that one), a machine to condense milk (the Borden milk company had the exclusive rights), a new method for making steel (the Bessemer process), and a machine for canning soup (first used at Campbell's). There was a machine to produce the floating Ivory soap that was created by mistake in a lab at Procter & Gamble.Once new machines were invented, somebody had to invent more machines to make the new machines, plus parts and tools to repair them. Instead of machines putting people out of work, as many critics of the machine age had predicted, they actually created work. For every job lost to a hunk of metal, a couple of jobs were opened up. And with each advance in the sophistication of machines, the work got easier. Factory-made goods were cheaper to produce than handmade goods, and in many cases they were superior to handmade goods, or at least the quality was more consistent. Cheaper goods could be sold more cheaply to the customers, who got more and more for their money whenever an industry was mechanized.The Growth of National BrandsWhen the twentieth century rolled around, there was a thriving snack-food industry, with all sorts of jellies, jams, biscuits, candies, and chewing gum being produced and distributed nationwide by companies that sold stock on the stock exchange. You could eat these things and invest in these things.We'd come a long way from the dreary days when the only choices in snack foods were pilot bread, cold-water crackers, butter crackers, square soda crackers, and round sugar biscuits. These had been made by neighborhood bakeries and sold out of cracker barrels at the local general store.The most famous cracker in the country was the Uneeda, a brand name as popular as Coca-Cola is today, made by the National Biscuit Company, otherwise known as Nabisco. Nabisco was the end result of decades of mergers in which many small family bakeries were consolidated into two regional bakeries: the American Biscuit Company in the Midwest and the New York Biscuit Company in the East. These two megabakeries joined forces to become Nabisco, which went public around the turn of the century by selling $30 million worth of stock. There were thirteen hundred original shareholders, including several celebrities, but anybody could have bought a share.rUnder the clever leadership of Adolphus Green, Nabisco put an end to the cracker barrel as an American institution and put some fun into snack foods. It began to package the cookies and crackers to keep them crisp and dry and to protect them from being contaminated by dirty hands in the cracker barrel. While continuing to make the bland Uneeda biscuit, Nabisco produced a string of new products: Fig Newtons (named for Newton, Massachusetts), Premium Saltines, Barnum's Animal Crackers (1902), Lorna Doones and Oreo cookies (1912), and Ritz Crackers (1934).The Oreo became the world's best-selling cookie, and it still is today. The Oreo has been around so long, we forget that it was produced in a Nabisco lab. Nabisco also acquired the rights to the first interesting snack for dogs, the Milk Bone.There were the Planter's peanuts, invented by a pushcart vendor named Amadeo Obici, who worked the streets of Wilkes-Barre, Pennsylvania, at the turn of the century. Obici decided one day to sprinkle his peanuts with salt. His salted peanuts were such a big hit that in 1906 Obici joined with a partner to form the Planter's Nut & Chocolate Company, later to become the Planter's Life Savers Company, which grew up to become a world-famous brand name, a part of RJR Nabisco. There was Heinz ketchup, concocted by a Pennsylvania pickle maker, Henry J. Heinz. Heinz, who was wiped out and went bankrupt in the Panic of 1873, went on to become the world's pickle king, sauce king, and popularizer of ketchup. He derived his formula from "ketsiap," an Oriental recipe whose main ingredient was pickled fish. Heinz left out the fish and added the tomato.In colonial times and into the nineteenth century, Americans were convinced tomatoes were poisonous, even after a brave military man, Colonel Johnson, ate one on the steps of the county courthouse in Salem, New Jersey, to prove it wasn't fatal. But once Heinz put tomatoes in a bottle, people got into the habit of squirting ketchup on everything, a practice that has continued to this day. President Nixon squirted ketchup on his scrambled eggs.Ketchup, mustard, olives, pickles, relish, everything you put on a hamburger was first mass-produced by Heinz. He had branch factories in six states, distribution centers and sales reps around the world, twenty-eight hundred full-time employees, plus twenty thousand farmers given contracts to grow the crops he put into his sauces.While Heinz was busy making his ketchup and fifty-six other varieties of sauces, Sylvester Graham was inventing his famous cracker. A minister and lecturer for the Temperance Union, Graham spoke out against liquor, meat, mustard, and even Heinz's ketchup (which he said caused insanity) and in favor of cold showers, hard mattresses, fruits, raw vegetables, and whole wheat flour, which went into his new snack food. The way he saw it, the Graham cracker was no ordinary cracker. It was a cure for lust and a tamer of teenage hormones, which Graham thought were riled up by a diet of meats and fats. According to his theory, the teenager who ate Graham crackers was calmer and better behaved and could more easily concentrate on homework.While Graham was on his cracker crusade, Dr. John Kellogg was also fighting teenage lust (the so-called "dangerous desires") with cornflakes. A vegetarian and a health fanatic who ran a famous sanitarium in Battle Creek, Michigan, Dr. Kellogg was experimenting with a bread recipe one day, trying to make a new kind of toast that was easier to chew than the popular "zwieback" that was so hard people chipped their teeth on it. He left the oven on too long and his experimental bread was reduced to flakes. Soon, Kellogg was convinced that a regular diet of these flakes could douse the flames of the hottest romance and keep the youth of America out of trouble.Not too many people agreed with Kellogg, or for that matter, with Sylvester Graham, but that didn't stop the entire nation from falling in love with Graham's crackers and Kellogg's cereal.Kellogg made the acquaintance of C. W. Post, a fast-talking promoter who was a patient at Kellogg's sanitarium. Post went there looking for a cure for his nervous exhaustion and ate his first bowl of Kellogg's flakes. He liked the cereal, but he hated the caramel coffee that Kellogg served at breakfast. So that he'd have something better to drink, Post invented Postum, a grain-based grog that tasted like coffee -- at least Post thought so. Post set up a company to sell Postum on a grand scale, along with a couple of cereals he developed -- Grape Nuts and Post Toasties.There was Hershey and his candy bar -- Milton Snaveley Hershey, to be exact, the owner of a tiny caramel store who went to the 1893 Chicago World's Fair and saw the demonstration of a German chocolate-making machine and ordered one for himself. Hershey used the machine to churn out chocolate-covered caramels, followed by the first mass-produced chocolate bar, followed by Hershey's Kisses in 1907 and the Hershey's Goodbar with peanuts in 1925. Hershey stock began trading on the New York Stock Exchange in 1927.There was Jerome Smucker, who sold apple butter and apple cider made from trees planted by Johnny Appleseed in Ohio. In 1897, Smucker founded the J. M. Smucker Company, which a century later sells more jellies and jams than anybody else in the country.At this point, a thousand trademarks were registered in the United States, and slogans and jingles had entered the American vocabulary, such as "absolutely pure," which came from the Royal Baking Company; "you press the button, we do the rest," from Kodak; "it floats," from Ivory soap; "the beer that made Milwaukee famous," from Schlitz; "all the news that's fit to print," from The New York Times; and "pink pills for pale people," from the ads for a vitamin concoction sold by a medicine man known as Dr. Williams.The invention of all these products led to the creation of new stores where they could be sold. As late as the mid-1800s, the country had no supermarkets. Nobody had thought of a mass-market grocery until a couple of tea lovers, George Gilman and George Huntington Hartford, opened a tea shop in New York, near the site of today's World Trade Center, in 1859. It was a small business with a big-sounding name: the Great American Tea Company. Later, the name was changed so it sounded even bigger: the Great Atlantic and Pacific Tea Company.One tea shop in New York led to five tea shops in New York, then tea shops out of state, and by that time Gilman and Hartford had put coffee, butter, and milk on the shelves. In 1912, they had a chain of four hundred stores, the first mass-market grocery, and by the late 1920s, they had fifteen thousand stores nationwide with $1 billion in annual sales. It would have been hard to find a serious shopper anywhere in the country who hadn't heard of the A&P.Thanks to a growing number of chain stores and mail-order catalogues, people could buy mass-produced goods of reliable quality and at much lower prices than the prices charged by itinerant peddlers or local independent merchants. In small towns and on farms, the arrival of a package in the mail was an important event, especially if it came from Montgomery Ward (named for its founder, Aaron Montgomery Ward, who formed the first mail-order company in Chicago in 1872), or from Sears Roebuck and Company, which sent out its first catalogue in 1887.At first, Sears only sold watches, but it quickly expanded into general merchandise. The story goes that a prospector in Nome, Alaska, sent Sears a prepaid order for one hundred rolls of toilet paper. Sears wrote back that it couldn't accept any order that didn't come from the catalogue. The customer replied, "If I had the catalogue, I wouldn't need the toilet paper."As more merchandise was sent through the mail, the railroads had more freight to deliver, and the mail played a bigger role in people's lives. The mail was crucial to capitalism, because it was the most effective way to get mass-produced goods into the hands of the masses. Even then, the post office had a reputation for lousy service, and the producers of goods were upset about it. Speedy delivery was so important to business that Adolphus Green took time out from running Nabisco to spearhead a campaign to reform the post office.The Industrial Era and the Robber BaronsCorporations had built the factories, the girders, the underpinnings of modern America. By the mid-nineteenth century, less than a quarter of the country's business was done by corporations, but moving toward the twentieth, companies were having an impact on every aspect of domestic life.Mass production was the watchword of the day: The goods could roll from the factories into the railroad cars to be distributed across state lines, reducing regional markets and the need for much of what used to be neighborhood markets of small shops, with little variety in the merchandise. This expansion of markets was a revolutionary change in society, which affected people's lives as much as or more than the American Revolution itself. Whereas before 1820, two-thirds of the clothing worn in the United States was made at home by hand, by the end of the century most of it came from factories.Company names and brand names such as Diamond, Pillsbury, Campbell, Heinz, Borden, Quaker Oats, Libby, and Procter & Gamble became household words. Household products became celebrities, just as famous as well-known writers, painters, entertainers, or politicians. By the 1880s, Ivory soap was recognized from coast to coast. In 1884, George Eastman came up with a way to mass-produce the film to make photographs, and ten years later, taking pictures with Kodak film and Kodak cameras had become a national pastime.The machine age and mass production came along so fast that people hardly had time to prepare for it. Property laws had to be rewritten, new rules of commerce established, new business arrangements entered into. A small group of people took advantage of the situation and enriched themselves beyond the wildest dreams of their contemporaries. These men amassed fortunes that dwarfed the fortunes of the richest pharaohs, sultans, potentates, kings, queens, conquistadores, and empire builders in all of history. They were known as the robber barons, a term coined by historian Matthew Josephson in the late 1920s.The robber barons were not robbers in the traditional sense, nor were they lawbreakers, although some of them bent the laws, and even had the laws rewritten, for their own benefit. They were high-rolling speculators, most of them raised in poverty, who struggled, connived, and strong-armed their way to the top of American industry. They stretched the envelope of money.Among them were Jay Gould, the son of a poor farmer in upstate New York, who by hook and by crook built a fabulous railroad empire; Andrew Carnegie, the son of Scottish weavers, who also owned railroads and became the nation's most powerful iron magnate; Cornelius Vanderbilt, a roughneck on the docks of New York, who built a fleet of steamships, controlled the shipping industry and after that railroads, but in spite of his success and his wealth, lived for many years in a small house with a ratty old carpet; Daniel Drew, a cattle drover who was a master at manipulating the stock market for his own benefit; J. P. Morgan, the devout churchgoer whose bank became so powerful he was once asked to bail out the U.S. government; Jay Cooke, the eternally optimistic stock and bond dealer whose investment company was so big and powerful that when it collapsed, the country almost collapsed with it; "Diamond" Jim Fisk, a former pushcart peddler and circus fancier who wore loud clothes and rings on every fat finger; Russell Sage, a crafty stock speculator and railroad tycoon; Leland Stanford, who became governor of California and used his political clout to build the railroads there, enriching himself and later Stanford University, which took his name and his money.Last but not least was John D. Rockefeller, son of a snake-oil salesman, and himself a devout Baptist, a combination that produced a shrewd and fearsome capitalist, who gathered all the oil companies into a giant monopoly that could raise prices at will and force all its rivals into submission. More on this later.With one or two exceptions, the robber barons were conservative in their personal lives, often devoutly religious, and oddly frugal given the size of their bankrolls. Most of them built or owned railroads, and they were plotting constantly to take over each other's rail lines. They knew how to control the stock market to make the prices of railroad stocks zig and zag, and they made millions on the zigs and the zags.Diamond Jim Fisk wasn't called "first in the pockets of his countrymen" for no reason, and Jay Gould was a champion at talking up his Erie Railroad stock, so people would pay much more than these shares were worth. It was because of Gould that the Erie was called the "Scarlet Woman of Wall Street" -- a company with a ruined credit rating that paid no dividend to shareholders between 1873 and 1942.When Jay Cooke closed the doors of his banking offices because his railroad investments had soured, he triggered the Panic of 1873, which brought down several brokerage houses and almost put Wall Street out of business.While the population doubled from 1864 to the early 1900s, the rail network increased sevenfold, and every American was within earshot of a railroad whistle. A twenty-two-year-old veteran of the Union forces, George Westinghouse, invented the air brake; electric lights replaced the gas and kerosene lamps; and Pullman came along with his manufactured rail cars.Even though the railroads were everywhere, people lost money on the stocks. There was always a crisis or a scandal that wiped out the small investors, while the robber barons managed to rake in the profits. In 1877, one of the most successful among them, Cornelius Vanderbilt, died in New York, leaving his entire fortune, a whopping $100 million, to his son William Vanderbilt. The elder Vanderbilt was considered the richest man in American when he died, and he made his pile on shipping and then on railroads, particularly the New York Central. As often as he was praised as a titan of commerce, he was cursed as an aristocratic ingrate who gave nothing back to the people whose sweat had built the railroads and created his fortune.The public was outraged that he departed from life having left nothing to the community. Vanderbilt himself believed he had done enough good by creating the railroad, and his money was his own business. His son William was more blunt about it. "The public be damned," he once said.In the emerging market of the United States, things didn't happen in an orderly fashion. The same is true in many contemporary emerging markets. Every couple of decades, the economy broke down, and people would panic and rush to the banks to retrieve their money, most of which had already been loaned out. The banks couldn't possibly pay back all their depositors at once, so they collapsed. Once the banks collapsed and entire communities were left without money, all sorts of businesses would fail, and the financial system would go into the tank. The stock market would crash, and so would the bond market, because the organizations that issued the bonds couldn't make the interest payments.The Europeans were big losers in the Panic of 1873, just as they had been in earlier such calamities. Because of our frequent crashes and panics, the United States got the reputation of being a nation of sharpies who couldn't be trusted in a business deal, the same sort of thing that's recently been said about some of the Chinese and Russian entrepreneurs. We were the deadbeats of yesteryear.In the Panic of 1893 (the big ones seemed to come at twenty-year intervals) one-fourth of the railroad companies were forced into bankruptcy. There was a lesser panic in 1903. Panic or no panic, some great companies that got their start in this period are still great companies today, employing hundreds of thousands of workers and making money for the shareholders. Half the countries that appeared on the world maps of 1900 have disappeared, but Hershey's, Quaker Oats, Wrigley's, AT&T, Du Pont, the Bank of Boston, American Tobacco, U.S. Steel, and the various spinoffs of Standard Oil (Exxon, Chevron, Mobil, Amoco, and so forth) are going strong.The Dreaded MonopoliesWhen the twentieth century rolled around, it was obvious that something was wrong with the way capitalism was going. It had started out as a free-for-all when anybody with a good idea had a chance to succeed. It was turning into a rigged game dominated by a few giant businesses. These were called monopolies.You could make the case that monopolies are as big a threat to our way of life as any America ever faced, short of Adolf Hitler and communism. If you've played the game Monopoly, you understand the concept. The goal is to buy up the properties so that people who land on them have no choice but to pay outrageous rents. A player who can do this ends up with all the money.In the real world, a monopoly is exactly the same, but it doesn't just happen with real estate. It happens when there's one big shot in an industry that controls everything and sets the prices. In a bakery monopoly, for instance, there's only one company making and selling cakes and cookies, so customers have to pay whatever the company wants to charge, or give up cakes and cookies. Whether it's bakeries, toy makers, or airlines, when a monopoly is formed, the customers have no choice. There's no other baker, toy maker, or airline they can go to, because all the competitors have either joined the monopoly or been driven out of business.The trading companies you've already read about -- the Virginia Company, the United Dutch East India Company, and so forth -- were all monopolies. Their charters, granted by the kings of Europe, gave them the exclusive right to do business in huge expanses of territory in the New World. For a thousand miles along the coastline of America, these companies controlled farming, fishing, and trading with the Indians. Nobody could compete with them -- without their permission.The first person to understand that monopolies posed a threat to the future prosperity of the world was Adam Smith, the author of The Wealth of Nations. Smith realized that competition was the key to capitalism. As long as somebody else could come along and make a product better and cheaper, a company couldn't do a lousy job and expect to get away with it. Competition kept companies on their toes. They were forced to improve their products and keep their prices as low as possible, or they'd lose their customers to a rival.By the middle of the nineteenth century, when the U.S. economy was booming along, there were many companies in every industry and the competition was fierce. The owners of the companies didn't necessarily like this situation, even if it was a good thing for society, as Adam Smith said. In fact, they thought competition was a menace. They were tired of having to fend off competitors by improving their products. They were looking for a chance to charge higher prices for things, prices customers would be forced to pay no matter what.If they'd been allowed to, all the owners in a given industry, say bakeries, could have gotten together in a room somewhere and decided to charge the same high prices for their cookies and their cakes. They could have made deals to avoid competing with one another. They could have formed strategic alliances. In fact, price-fixing cartels were established in the United States in the 1870s and 1880s, but such cartels were what are called -- "pools," as they were called -- illegal.In the early 1880s, a clever lawyer named S. C. T. Dodd figured out how companies could get around the laws against cartels by forming trusts. A trust was an ancient method of putting a group of properties under the control of one manager. While working in the legal department at John D. Rockefeller's oil company, Dodd brought his idea to Rockefeller's attention. Why not put a bunch of oil companies together in a trust? That way, the owners could fix prices, make deals, and avoid having to compete -- and it would all be completely legal.Rockefeller immediately set out to organize a Dodd-style trust among his forty biggest competitors in the oil business. He invited them to participate, although they didn't have much choice. Any companies that refused the invitation, Rockefeller threatened to put out of business, by selling oil at such low prices they couldn't afford to compete with him.His tactics were far from friendly, but they were effective. He and his forty cohorts, some of them reluctant, formed the Standard Oil Trust. Overnight, it became the largest and most powerful oil producer in the world, controlling most of the U.S. oil wells and 90 percent of the refineries. Rockefeller and his closest advisors were now dictators of oil, raising prices at will. Customers had no choice but to pay Rockefeller's high rates -- otherwise, they'd get no oil.The dictators also used their newfound muscle on the railroad companies, forcing them to lower their prices for transporting the oil. They didn't have much choice, either. Any railroad that refused to ship for less, Rockefeller could drive out of business. After all, if they didn't ship his oil, they didn't ship any oil, because more than 90 percent of the national output was refined by the trust.Standard Oil extended its monopoly over every aspect of the business. From the wells to the refineries, Rockefeller was in charge. And once they'd heard of his success, the owners of other kinds of companies began to form trusts. There was a sugar trust, a whiskey trust, a cotton oil trust, a lead trust, and a tobacco trust created by James Duke and his rival tobacco farmers, who joined forces to become the American Tobacco Company.There was a ham trust (Swift Brothers), a fruit trust (United Fruit), and a cookie-and-biscuit trust, (Nabisco). Companies that didn't form trusts could link themselves in a different way, by merging. Several companies could merge into what was called a conglomerate. Mergers produced International Harvester, Du Pont, Anaconda Copper, Diamond Match, and American Smelting and Refining now called ASARCO. The railroads got into the act, with several of the bigger ones involved in mergers and takeovers. Dozens of railroad lines were consolidated into a few big groups: the Vanderbilt roads, Pennsylvania roads, Hill roads, Harriman lines, Gould roads, and the Rock Island system.When railroads got into financial trouble, as they so often did, banker J. P. Morgan was there to reorganize them.Morgan, a formidable presence on Wall Street in his vested suits and his top hat, took eight small steel companies and merged them in 1901 to form the giant U.S. Steel, the most powerful conglomeration to date and America's first billion-dollar enterprise.One-third of all public companies in the United States disappeared into trusts and mergers between 1895 and 1904. In most major industries, trusts and conglomerates were raising prices at will. They were throwing their weight around in all areas of commerce. The American people saw what was happening, competitors disappearing in one industry after another, the owners of trusts raking in the millions and building summer "cottages" as big as army barracks along the coast at Newport, Rhode Island. So the public turned against the trusts.People realized that the giant companies would tighten their hold on the smaller companies, forcing them to join trusts or be driven out of business, and if this trend were allowed to continue, prices for everything would jump through the roof, and the wallets of the nation would be sucked dry. With a few insiders controlling both prices and wages, free-market capitalism would cease to exist.This was one of the scariest periods in American history, and it is rarely discussed. Here we were, a 125-year-old country going into a new decade after a tremendous spurt of growth and prosperity, and we were losing the economic freedom we had worked so hard to gain, losing it to a bunch of trusts.There were scandals everywhere: writer Upton Sinclair exposed meat-packing houses that sold tainted meat -- this sort of journalism was known as "muckraking." People joined unions to fight for better pay and reverse the drop in wages imposed by the trusts. Where trusts controlled the jobs, individual workers had no leverage. They couldn't very well quit and find jobs elsewhere -- there was no elsewhere.The unions, the newspapers, the courts, and some courageous political leaders all had a hand in foiling the trusts and rescuing the country from the greedy few. If it hadn't been for these trust busters, we could have gotten ourselves into a situation in which the average person in America was no better off than a Russian peasant. Then we might have had a revolution like Russia's, and what a tragedy that would have been.Fortunately for everyone except the owners of the trusts, the courts and the government fought hard against the trusts. In 1890, Congress passed the Sherman Antitrust Act, but several big offenders wiggled out of it by turning themselves into "holding companies" and moving to New Jersey. New Jersey had passed its own law making it easy for would-be trusts to organize as holding companies and avoid the federal regulations. The giant U.S. Steel was a holding company.In 1904, the U.S. Supreme Court struck another blow -- it outlawed one of the biggest holding companies in the country. Teddy Roosevelt was president at the time. He revived the Sherman Act by bringing suit against forty-four major trusts. A camper, hunter, and all-around outdoorsman, Roosevelt was nicknamed "Rough Rider" after his famous charge up Cuba's San Juan Hill in the Spanish-American War. But far more important than winning that war was winning the war against the trusts. He became the nation's "Trust Buster." In 1914, Congress passed a second antitrust act, the Clayton Act.Beginning with Standard Oil in 1911, many of the nation's biggest trusts were broken up, and competition in the major industries was restored. The government has been on the lookout ever since for companies that get too big and too powerful and threaten to monopolize an industry. Whenever that happens, the government can file an antitrust suit, and if it wins, the courts can force the company to divide itself into smaller companies that are independent from one another. That way, competition is restored.At one point, Alcoa controlled the U.S. aluminum industry, until it was forced to break itself up. The same thing happened to AT&T, which was the only phone company of any consequence until Judge Harold Green, in a famous decision, forced AT&T to divide itself into eight parts, with Ma Bell, the parent company, keeping the long-distance business, and the seven Baby Bells getting the local business. Since that crucial ruling, dozens of other companies have come along to compete with Ma Bell and the Baby Bells, which is why phone calls are getting cheaper and cheaper every day. It's great for long-distance romance and keeps many couples in constant communication, so they won't have to break up the way AT&T did.The AT&T case is a good example of what's wrong with monopolies and why competition is in everyone's best interest. Before the AT&T breakup, the company employed I million people -- one out of every one hundred American workers had a job with Ma Bell. Today, Ma Bell and the seven Baby Bells together employ only six hundred thousand workers, while the volume of phone calls has more than tripled.Competition has forced the phone companies to cut costs and become more efficient. They still have to comply with certain regulations, such as offering phone service to everyone in the region -- otherwise, people who live in the boonies where it's expensive to string a phone line would never get a phone. But we can thank competition for the fact that more calls can be made with fewer workers, and we pay lower rates on our phone bills as a result.Microsoft, as you probably know, is the world's largest software company. Recently, it announced a plan to take over another large software company, Intuit. The government objected to this plan, on the theory that a Microsoft-Intuit combination would create a monopoly. After learning of the government's disapproval, Microsoft decided not to pursue Intuit. Nobody likes to fight the trust busters in Washington.The one monopoly that has been allowed to survive with the government's blessing is major league baseball. Because it's the national pastime, Congress gave it an exemption from the antitrust laws. The players have complained bitterly about this, and after the recent baseball strike, Congress threatened to take away baseball's exemption. It hasn't happened yet, but someday it might.Dow's Famous AverageIn 1884, a journalist named Charles Henry Dow invented a way for fans of stocks to follow the overall stock market. He put together a list of eleven important stocks, and at the end of each trading session, he took the closing price for each one, added them up, and divided by eleven. This gave him an average, which he published in a news bulletin called the Customer's Afternoon Letter.At first, Dow's average was nothing more than a curiosity, but eventually it gave him a place in history. It became known as the Dow Jones average (Jones being Dow's partner in the news business), which has been the financial yardstick for stocks for more than a century. Even today, 110 years later, when people ask "What is the market doing?" or "where did the market close?" they are talking about the Dow Jones average. When somebody says: "It's up thirty points," or "down fifty points," they are using Dow's number.The original Dow Jones average included nine railroads, because the railroads were held in such high esteem on Wall Street, and people believed that the railroads would dominate American business forever. Twelve years later, Dow put together another average, the industrials, for the gritty businesses (oil and gas refiners, coal producers, smelters, and so forth) that turned raw materials into the fuel, steel, and rubber on which the entire economy depended. The earliest Dow industrials were dominant companies in their own right, big, powerful enterprises that were the Microsofts and the Wal-Marts of their day, but most of them have disappeared without a trace.Who's ever heard of American Cotton Oil, Chicago Gas, Laclede Gas, National Lead, Tennessee Coal & Iron, or U.S. Rubber? All these companies made the Dow's original list of industrials. The only name you'd recognize is General Electric, which has kept its place on the list over the years.This is an important lesson for investors. Business is like sports, in that the winning teams and successful organizations don't necessarily stay on top forever. As the competition gets tougher, it's harder to stay there. The New York Yankees found that out after their dynasty came to an end in the 1970s. So did the Pittsburgh Steelers and the Boston Celtics. So did Tennessee Coal & Iron, Laclede Gas, and American Cotton Oil. General Electric is a rare example of a winner that manages to keep winning.You can see how much America has changed by comparing the earliest Dow industrials to today's expanded list of thirty. McDonald's is on today's list -- but what is a hamburger? Not very, unless you figure it takes a cast-iron stomach to digest one, but McDonald's is such an important company that it's been included. When Dow chose his original industrials, no restaurant company was big enough to make the list. Coca-Cola is included in today's Dow. A company as far-reaching and as powerful as Coke belongs on the list. It's come a long way from the 1920s, when it was so small that most investors wouldn't have noticed it. Disney is in the Dow, but it didn't get started as a public company until 1940. When Clarence Dow invented the Dow, Walt Disney hadn't drawn the first Mickey Mouse.The modern Dow is proof that America is no longer the gritty industrial giant that lives off the output from coal mines, ironworks, and steel mills. As factories and mills have faded into the background on Main Street and on Wall Street, the restaurants, banks, mass merchandisers, entertainment companies, and lately, the computer and software companies, have taken their place at the forefront.Company TownsThe number of Americans who worked on farms was dropping fast. After 1920, most people lived in cities, because that's where companies did most of their business, and that's where the jobs were. Some companies even built their own towns so the workers would have a nice place to live. U.S. Steel created Gary, Indiana, and the Hershey Chocolate Company designed Hershey, Pennsylvania, from the ground up -- not with gingerbread and gumdrop houses and lollipops for streetlights, the way Willy Wonka would have done it, but people liked it anyway. Hershey is still a nice place to live today, but several other company towns came to a bad end. One of the best examples was Pullman, Illinois, located on the rim of Chicago.To live in Pullman, you had to be employed by the Pullman company that made passenger cars for the railroads. Nearly nine thousand Pullman employees and their families were lodged in identical houses, built around a park and a lake. Pullman was a model for environmental planning long before the word "environment" had entered the popular vocabulary. The lake served as a cooling basin for the factory power supply. Sewage from the town's toilets was used for fertilizer.The schools were good, the landscaping was nice, the people were well taken care of, so Pullman was a happy town, until the train car business went sour and the company stopped making money. Pullman did what anybody does when it stops making money. It cut back on expenses, including wages and benefits for the workers. The workers got mad and went on strike. The strike and the bitter feelings against the company destroyed the town. In the end, the company sold the houses and the rest of the buildings, and eventually the whole operation was shut down. Pullman went bankrupt.There's a danger to having companies provide housing, education, medical care, and the other life-support systems that people depend on. As long as the company is doing well, it has no problem providing social services, but what if it falters? Then it has two choices. It can lay off workers and cut back on its spending to stop the flow of red ink, in which case the schools, hospitals, and parks may have to be shut down so the company can survive. Or it can keep all the services going and spend itself out of business and into bankruptcy.Capitalism works best when a company that's losing money has a chance to try to turn things around, and if that doesn't happen, it can put itself out of its misery. That way, unproductive businesses can die, and the workers can go on to some other industry that's healthier. But when a company has a second role as the doctor, teacher, and caretaker for its workers, then it may have to stay in business just so its employees can continue to get all their benefits.That's one of the reasons communism broke down and socialism has problems. Communist businesses weren't really businesses at all. They existed because the communist bosses, also known as central planners, decided they should exist. For instance, the Russian central planners liked the idea of building steel plants, and at one point, the Russians got very good at making steel. There were steel plants all over the place.Meanwhile, there were very few factories that made shoes or clothes for the people. This created shortages and long lines at the shoe and clothing outlets. There was a huge potential market for consumer goods in Russia, and people would have been delighted to have more to eat and more to wear, but the planners didn't care. They built more steel plants. Maybe they thought millions of Russians would start wearing steel pants.In a communist economy, all the resources -- everything that's made, bought, or sold -- are controlled by a small group of managers. In a capitalist economy, if there are too many steel plants, we'll have an oversupply of steel, the price will go down, the steel companies will lose money, people will stop buying steel stocks, and the banks will stop lending money to the steel companies. The steel plants will be forced to cut back their production, and without money to expand, they'll stop expanding.Consequently, the money that isn't spent investing in steel companies will be used elsewhere, to build shoe factories, jeans factories, malls, water slides, or housing developments -- products that haven't saturated the market and are still in demand. Smith's Invisible Hand has never lost its touch.Karl MarxThe most influential communist economic theories came out of the head of Karl Marx, a philosopher who was born in 1818. Marx was German, but he developed most of his ideas in London, where his wife and children were stuck in a cold apartment with little to eat. Even though his favorite subject was economics, he was never a success at managing his own finances. He got some help from his friend Friedrich Engels.Marx said he hated capitalism and wanted to reduce capitalism to a formula, the way Newton did with gravity. His book Das Kapital became the Bible of communists everywhere, and outside the Bible, one could argue it was the most influential book ever written. It convinced Lenin and other influential Russians to set up a communist state after they won the Russian Revolution.According to Marx, capitalism was doomed, because as business grew, and more and more people were harnessed to machines, the value of their labor was bound to decline. Workers of the world would be forced to work longer and longer hours for less and less pay, until eventually they would get mad and burn down the factories and join the Communist party.It's true that it was no fun to work in a factory at the time Marx was writing his book. Factories were dark, noisy, dirty, and dangerous. Women and children were forced to put in twelve to eighteen hours a day tending the machines, and they earned very little for their efforts. Some were herded into factories against their will, and many caught diseases there. The air was polluted from the smokestacks that blackened the sky with soot.Marx saw all this and hated what he saw, (even though his family was no better off than the average factory worker's), and he was determined to prove that the factories wouldn't last. But his theories were totally out of whack. Instead of people having to work harder and harder for less and less money, their hours got shorter and their paychecks got bigger, because factories installed updated equipment, which enabled each worker to produce more merchandise in the same amount of time.With more efficient machinery, the workers' time became more valuable, not less, and the factories could afford to raise the workers' wages. These wages weren't always raised without a fight, but often enough, they were raised, and instead of the working class being doomed the way Marx said it was, the working conditions got cleaned up a bit, and the workers took home more cash.That's how prosperity came to the countries with the most factories -- England, the United States, and those of Western Europe -- while the rest of the world was stuck in a rut with a few farmers owning everything.So much for Marx and his fancy equations. It was communism that was doomed, because the standard of living in communist countries continued to decline, while in capitalist countries, it continued to rise. It was the Russian and Eastern European workers who eventually overthrew the communist system, in favor of ours.Before the Famous Crash of 1929Just before the famous Crash of 1929, Wall Street was a busy place, especially for clerks, because most of the paperwork was done with primitive tools such as adding machines and typewriters. This work was very time-consuming, and the brokerage firms needed large warehouses to store the records.The value of all the stock in all the companies that traded their shares on the New York Stock Exchange was $87 billion, a drop in the bucket compared to the $5.4 trillion that the NYSE shares are worth today. Exxon alone is worth more than $87 billion. It has more shareholders than any other public company.In 1929, AT&T had the most shareholders. It was the biggest company in the world, but the railroads were still the biggest industry, followed by oil, and then steel. If you wanted a safe, secure investment you didn't have to worry about, you bought a railroad stock. They paid a nice, steady dividend, a role later taken over by the electric utilities.Like AT&T, the railroads held up pretty well during the Crash, but they didn't do so well on the rebound. Few economists and fewer fortune-tellers would have predicted that in the long run, railroads would lose their leading role and shrink into the shadows of public life, and that their stocks would be mediocre investments for decades to come. Whether a stock is good or bad depends entirely on the time frame.The auto industry that would contribute so much to the decline of the railroads had caught the attention of investors. Its development was typical of a new enterprise. At the outset, auto manufacturing was a mom-and-pop business, and cars were made in garages across the country. At the turn of the century, auto manufacturers were located in New England, the Middle Atlantic states, and the Midwest.Along came Henry Ford, who put cars on the assembly line and mass-produced them, just as Duke had done with cigarettes and Heinz with pickles. He made a generic car of high quality with a low price, and the public loved it. They bought all the Model Ts that Ford could make, but they couldn't buy the stock, because Ford was private, owned by Ford, his family and friends, and nobody else. On the other hand, General Motors was a public company, and by 1929, it was a popular stock to own. So popular, in fact, that investors had made it the third largest, behind AT&T and U.S. Steel. While Ford was sticking with the Model T, GM made a variety of models to give customers a choice. In fact, GM roared past Ford, but Ford saw the light and added new models of its own. Lesser competitors in the industry were Chrysler, Hudson, and Nash.By now, chain stores were familiar sights in cities and towns across America. The most prominent was Woolworth from Pennsylvania, founded in the nineteenth century and the earliest variety chain on record, followed by McCrory, Kress, and Kresge. A&P had its nationwide chain of supermarkets. The first shopping center, Country Club Plaza, was built near Kansas City, in 1922.Many of today's biggest names in drugstores, candy stores, department stores, and grocery stores were small companies in 1929, insignificant when measured against such industrial giants as U.S. Steel, or such powerful railroads as the New York Central. The leading food companies of 1929 were United Fruit, National Dairy Products, and Borden. General Mills and Pillsbury Flour Mills were relative newcomers in the cereal and baking businesses. The total value of Coca-Cola's stock was $134 million; Wrigley's, $136 million; Gillette's, $226 million, and Procter & Gamble's, $345 million. To put this in perspective, in 1994 Coke made a profit of almost $7 million a day!Sears was the dominant force in retailing, followed by its longtime rival, Montgomery Ward, which customers liked to call Monkey Ward. Woolworth had a nationwide network of its five-and-ten-cent stores, where everything sold for a dime or less.Suburbs had begun to spring up around cities, but there were no malls in the suburbs, because the roads and highways hadn't been built to connect one suburb to another. Out of Boston, for instance, you could get from downtown to Brookline or to Natick on a train or a trolley car, but there was no way to get from Brookline to Natick. So if there had been a mall in Brookline, only the residents of Brookline could have reached it. Roads were lacking, and cars were in short supply.People went shopping in the cities, in the downtown department stores, or in the towns and villages at the local mom-and-pop stores where the prices were high and the merchandise was limited, or if they lived far out in the boondocks, they shopped from the Ward catalogue or the Sears catalogue.Today there's a store on every corner and a new mall at every other exit on the turnpike, so it's hard to imagine that a single retailer could win the hearts of shoppers the way Sears did. In remote areas of the country, Sears was much more than a mail-order catalogue. It was a source of excitement and a relief from boredom, and to its millions of devoted followers, Sears was nothing less than a commercial godsend. The governor of Georgia, Eugene Talmadge, in a campaign pitch to area farmers, once said: "Your only friends are Jesus Christ, Sears Roebuck, and Gene Talmadge."Fast-growing small companies come out of nowhere to become the billion-dollar companies of tomorrow. It's happening in the 1990s, just as it happened in the 1920s and in every decade in between. Office equipment was no more than a cottage industry in 1929. The five biggest names in that business were Addressograph-Multigraph, Burroughs Adding Machine, International Business Machines, National Cash Register, and Remington Rand. The total value of each company ranged from $9 million to $65 million. Four out of the five (Addressograph-Multigraph was the exception) became corporate giants.A lot of investors lost everything in the Crash of 1929, but the brokerage firms that sold them their stocks survived the calamity. A few lesser-known brokerage houses went bankrupt, but the majority stayed in business. In those days, people could buy stocks for 10 percent down, which is why the Crash wiped them out. They ended up owing much more money than they had invested in the first place. The brokerage houses had to collect on these debts, and they went after their customers' assets with a vengeance. Wall Street firms also bought stocks on borrowed money, but the banks that loaned it to them were sympathetic and gave them extra time to pay their bills. Individual investors weren't so lucky.Fear of CrashingNo event in American history has worried more people over a longer stretch of time titan the Crash of 1929. People who weren't even born in 1929 were worried about it. The children of people who weren't born in 1929 have worried about it as well.The United States has managed to survive a Civil War, a Revolutionary War, two world wars, Korea, Vietnam, and many smaller deadly conflicts. We've survived the Chicago fire, the San Francisco earthquake and fire, the Los Angeles earthquake, plus numerous lesser earthquakes and dozens of major and minor hurricanes. We've survived typhoid epidemics, tuberculosis epidemics, the polio epidemic, droughts, floods, riots, work stoppages, and the St. Valentine's Day massacre. But we have not yet gotten over the 1929 stock market crash.It's the most pernicious collective phobia on record, and it has kept millions of people from buying stocks and making a profit they could have used. The idea still lurks in the back of many brains that the stock market is headed for another crash that will wipe out everybody's life savings, and the suckers who put in their money will be roaming the streets, wearing old blankets, sleeping in homeless shelters, eating cold beans, and selling apples and pencils. That's what people said in the 1930s: "Uncle Joe is out selling apples and pencils." It was a major industry in those days.Of course, there could be another crash. We had a big one in 1987, a smaller one in 1981-82, and another big one in 1973-74, but stocks bounced back, as they always do, eventually. Looking at the positive side, a crash is a unique opportunity to buy stocks cheap.The major problem with crashes is how long it takes stocks to recover. The Dow Jones Industrial Average hit one thousand in 1972, and at one point ten years later it fell below eight hundred. Investors' patience was tested over this stretch, but not as sorely tested as it was after the Crash of 1929. Then, it took nearly twenty-five years for many stocks to recover. That's when people got tired of waiting and vowed never to buy a stock again.But that slow recovery can't be blamed on the Crash itself. It had to do with the Great Depression. There was nothing really great about it, except the great amount of trouble it caused, but we call it that nonetheless. Sometimes we just call it the Depression, even though there had been many panics and depressions in the preceding century.During the Great Depression, which lasted about ten years, money was scarce, and jobs were scarcer. Stores went out of business and the employees lost their jobs and their paychecks, which meant they couldn't buy anything, so more stores went out of business and their employees lost their paychecks. The economy was falling into a catatonic state. Companies couldn't earn a profit, and when that happened, the stock prices went down and stayed down.Most historians will tell you the Depression wasn't caused by the Crash of 1929, although it often gets blamed as the cause. Only a tiny percentage of Americans owned stocks at the time, so the vast majority of people didn't lose a penny in the Crash. The Depression was brought about by a worldwide economic slowdown, coupled with the government's mishandling of the money supply and raising interest rates at the wrong time. Instead of putting more cash into circulation to perk up the economy, our government did just the opposite, pulling cash out of circulation. The economy came to a screeching halt.Fortunately for posterity, the government learned from this mistake. Now when the economy slows, the government is quick to pump up the cash supply and lower the interest rates so there's more money around and it's less expensive to take out a loan. Cheaper loans encourage people to buy houses and make other expensive purchases and encourage businesses to expand. A good jolt of home buying and business expansion can shock the economy into action. It may take several drops in interest rates before the economy revives, but we've had nine slowdowns since World War II and in all nine cases, the economy has come back.Before 1930, depressions and panics were a common occurrence, but since the Great One, we haven't had a single repeat. So in the last fifty years or so, the odds of a slowdown turning into a depression have been quite remote -- in fact, they've been zero in nine chances. Nobody can be sure you'll never see a depression in your lifetime, but so far, in the past half-century, you would have gone broke betting on one.Is it possible that we've found a permanent cure for economic depression, the way we have for polio? There are several reasons to think so. First, the government, through its Federal Reserve Bank system, stands ready to lower interest rates and pump money into the economy any time it begins to look sluggish and to jolt it back into action. Second, we've got millions of people on social security and pensions, with money to spend no matter what. Add in the 18 million employees of government at all levels, from federal to local, and you've got an army of spenders. As long as this huge group is throwing its money around, the economy can slow, but it can't come to a complete halt, the way it did in the 1930s.Third, we've got deposit insurance at the banks and the savings and loans, so if the banks go bankrupt, people won't lose all their money. In the 1930s, when hundreds of banks shut their doors, their depositors lost everything. That in itself was enough to drive the country into a catatonic state.The big change that underlies all these other changes is the government's rise to stardom. Today, it has the leading role in the economy, whereas in the 1930s it had only a supporting role, and before the 1900s, it was a bit player. When you hear people complain about big government that's ruining our lives, remember it's the same big government that runs the air traffic control and keeps the planes from colliding, and whose massive spending power keeps us from going into a second Great Depression.If you buy the argument that we're not likely to suffer a relapse into depression, then you can be a little more relaxed about drops in the stock market. As long as the economy is alive and kicking, companies can make money. If companies are making money, their stocks won't go to zero. The majority will survive until the next period of prosperity, when stock prices will come back.History doesn't have to repeat itself. When somebody tells you that it does, remind him or her that we haven't had a depression in more than a half-century. People who stay out of stocks to avoid a 1929-style tragedy are missing out on all the benefits of owning stocks, and that's a bigger tragedy.Folk Tales from the CrashA lot of hoodoo, folk tales, and nonsense have been passed along from generation to generation about the Crash of 1929. You may have heard the one about all the distraught investors committing suicide by jumping out of windows of tall buildings in New York. But according to a book called 1929: The Year of the Great Crash, by William Klingaman, there was no increase in the national suicide rate in the weeks following the calamity on Wall Street; only a few people jumped from windows, and not necessarily because they lost money in stocks.The vice-president of Earl Radio Corporation leaped to his death from the eleventh floor of the Hotel Shelton on Lexington Avenue, but that was in early October, a couple of weeks before the Crash. On October 24, a few days after the Crash, a crowd gathered around a construction project where a man was sitting on a girder. They thought he was a prominent investor about to do himself in, but he turned out to be a construction worker having his lunch.British statesman Winston Churchill was staying at the Savoy Plaza Hotel, directly under a room where another man hurtled himself out a window fifteen stories to the ground and was dashed to pieces. This incident was counted as a stock market fatality, although there was no evidence it had anything to do with stocks. Most of the business types who committed suicide during this period shot themselves, stuck their heads into ovens, or chose other methods besides jumping out of windows without a bungee cord.For instance, James Riordan of the County Trust Company bank put a bullet into his head; Harry Crew Crosby, a married man, died in an opium orgy with his girlfriend (this was publicized as a Wall Street scandal, because Crosby was the son of an investment banker at J. P. Morgan, but he was a writer and had nothing to do with the bank, nor did the bank have anything to do with him); the wife of a Long Island stockbroker shot herself in the heart (nobody knows why she didn't shoot him); an electric utility executive in Rochester, New York, gassed himself in his bathroom; a Philadelphia financier shot himself in his athletic club; a Providence, Rhode Island, investor dropped dead in his broker's office watching the tickertape; a Milwaukee investor turned a gun on himself and left a note that said: "My body should go to science, my soul to Andrew W. Mellon (the famous Pittsburgh tycoon) and sympathy to my creditors."So where did we get the idea that victims of the Crash were throwing themselves off ledges in New York? The main source seems to be comedian Will Rogers. Soon after the Crash, Rogers said, "The situation has been reached in New York hotels where the clerk asks incoming guests, 'You wanna room for sleeping or for jumping?' And you have to stand in line to get a window to jump out of."But Rogers was just trying to get a laugh. He could afford to make jokes, because he followed the advice of another famous Wall Street tycoon, Bernard Baruch. Baruch was smart enough to get out of stocks entirely before the market crashed, and Rogers did likewise. Other entertainers, such as Eddie Cantor and Groucho Marx, weren't so lucky.The real victims of the Crash were the people who bought stocks with borrowed money, or "margin." In those days, you were allowed to invest with only 10 percent down. So if you had $10,000 you could borrow $90,000 and buy $100,000 worth of stocks. When the Crash cut the prices of your stocks in half, you were left with $50,000 worth of stocks and a $90,000 debt you couldn't pay back.Good News in the DepressionEven the Great Depression wasn't equally depressing for everybody. Money was scarce and millions of people lost their jobs, so by and large, conditions were pretty bad. But for certain companies, and their employees and investors, business was OK.The A&P grocery store company is a prime example. When everybody else was closing stores, the A&P was bucking the trend and opening new ones. It grew its sales and its earnings, because no matter how bad things got, people still had to buy groceries. The national income had fallen by half from 1928 to 1933, but whatever income they had left, people were spending on food.Certain kinds of companies can ride out depressions and recessions and other periods when money is scarce. These are called consumer growth companies. They sell inexpensive items: beer, soft drinks, snacks, and so forth, or necessities, such as medicines that people can't live without. Chewing gum and candy companies, such as Wrigley's, can thrive on recessions, because as Mr. Wrigley himself once said: "The sadder they are, the more the people chew."So it should have been no surprise that Business Week magazine reported in 1932 that A&P was in fine shape. But in business there's always a threat lurking around somewhere. The tricky part is, you never know exactly what the threat will be. This is one of the biggest mistakes investors make. They focus on what they think is the big threat, the one that everybody's talking about (global warming, nuclear warheads going off, the war in Bosnia, trade problems with Japan), while they ignore the little things that can make or break a company in which they've invested.A&P had no problem coping with the Depression. It was the Piggly-Wiggly threat they had to worry about. A merchant in Memphis, Tennessee, had opened the original Piggly-Wiggly self-service store. Instead of asking the clerk behind the counter to pick items off the shelf, the Piggly-Wiggly shopper could roam the aisles and grab what she wanted (most shoppers were shes in those days) and bring it to the checkout line. This was new. Self-service meant that stores could operate with fewer clerks, and shoppers could be exposed to more items.This was a dramatic moment for A&P. If the company's management had left well enough alone and ignored the challenge of Piggly-Wiggly, A&P would have gone the way of the dinosaurs. This is often the case with companies: Depressions they can handle, wars they can handle, the hole in the ozone layer doesn't bother them, but competition can do them in.A company must quickly adapt to changes in the market, or it won't survive. A&P saw what it had to do and did it. It closed thousands of its small shops and opened a few supermarkets of its own.In 1935, there were only ninety-six supermarkets in the entire country, and only twenty-four cities had one. But the Piggly-Wiggly idea was catching on fast, and by switching its strategy from small stores to big stores, A&P put itself in a position to take advantage of the boom in grocery stores that happened after World War II.The American RevivalAs horrible as it was for civilization in general, World War II brought the U.S. economy back to life. Soon after the GIs came home, the suburbs opened up in the countryside around the cities. People were buying cars, houses, refrigerators, washing machines, electrically powered vacuum cleaners, and other labor-saving devices at a rapid rate. What machines did for the farm in the nineteenth century, they did for the house in the twentieth.With every new discovery, every time-saving appliance, every innovation and product that saved toil and trouble, there were traditionalists who sat back, scoffed, and bemoaned the passing of the simpler existence when meals were home-cooked, and motels were owned by moms and pops, and life was more natural, but they were swimming against a great tide of progress, because people knew a good thing when they saw it. Housewives preferred the vacuum cleaner to the simplicity of the broom, and the washing machine to the simplicity of the chum tub, and the processed foods to slaving over a hot stove. On the road, families looked forward to staying in the chain motel and eating at the chain restaurant, because there they knew what they were getting. Kids were excited to see a Howard Johnson's, a Holiday Inn, or a Golden Arch.The postwar period was a busy one for public companies, with hundreds of new ones formed every year, but the vast majority of Americans avoided stocks. People remembered the Crash of 1929 and were determined not to risk their life savings in the market, at the very time shares of great companies were selling at bargain prices. The brave minority that bought stocks was well-rewarded.Investor ProtectionWhen you buy stocks, bonds, or mutual funds, you're taking enough of a risk already, without having to run the risk of being misled by false information or of being cheated. Investors deserve to be protected from fraud, hype, and shoddy merchandise, the same as customers in a retail store.When you're buying a jacket, you want to know it's the kind of jacket the salesman says it is, that it's made out of the material listed on the label, and that you're paying a fair price. That's why the government has passed truth-in-advertising laws. when you're buying a stock, you need to know that the company is doing as well or as poorly as it claims to be doing, that its financial reports are reliable, and that in general you're getting what you pay for. That's why the government has passed strict rules for stockbrokers, traders, mutual funds, professional money managers, corporate executives, and companies themselves.Prior to the Great Depression, many of these safeguards didn't exist. Companies weren't required to file detailed reports, and by not saying anything, they could hide their problems from investors. The so-called insiders -- people who had advance notice of positive or negative developments in a company -- could buy or sell shares before the news got out and make big profits from this "insider trading." Insider trading was frowned upon in theory, but a lot of insiders did it anyway.Before the Crash of 1929, it was common practice for some of the robber barons and their cronies to run the price of a stock up and down for their own benefit. They knew how to manipulate the market in their favor, scaring the public into selling stocks at a low price, then luring them back to buy those same stocks at a ridiculously high price.Few investors bothered to learn much about the companies they owned, because they realized that the gyrations in any stock had little or nothing to do with the fundamentals of a company. Instead, investors tried to figure out which way the smart money was betting -- an impossible task, unless you were one of the insiders. Buying stocks in those days was like being in a poker game with the pros, where the pros could look at their cards, and you had to wear a blindfold. They should have put a warning label on the stock market: Invest at your own risk.It was after the Crash that Congress held hearings on the various forms of Wall Street hanky-panky, and the government stepped in to put a stop to them. An agency known as the Securities and Exchange Commission (SEC) was established to lay down the law and punish the violators. The SEC has done such a good job that it is admired all over the world, where other stock markets may not be as fair and honest as ours is, and where small investors suffer as a result.The situation on Wall Street is far from perfect, and you still hear about cases of insider trading, but these days, the perpetrators usually get caught and punished. It's against the law for employees of a company, from the top executives down to the mail clerks, to buy or sell shares when they know something's about to happen that will affect the price. Friends, relatives, bankers, lawyers, even people who overhear the inside information in the men's room or the ladies' room aren't allowed to profit from the tip. The SEC is very strict about this.Let's say you're a vice-president of Boeing and you've just heard that China has agreed to buy five hundred new jumbo jets. Your first instinct is to rush to the phone and call your broker to put in an order to buy five thousand more shares of Boeing, but you can't. You can't even call your wife, husband, girlfriend, boyfriend, children, grandchildren, aunts, uncles, cousins, or racquetball partners to tell them to buy Boeing, because that would be insider trading and you'd be involving those people in a serious crime.How do people get caught for something like this? The stock exchanges and the SEC have their own police forces and Sherlock Holmeses who watch the patterns of trading in a stock, and if there's an unusual amount of buying and selling, the alarm bells go off and the investigators jump into action to find out who's doing it. If they discover that the big buyers or sellers have any connection to the company or are related to people who do, they'll sniff around some more and collect enough evidence to file charges.The SEC also supervises all the reports, statements, and other information that companies, brokerage houses, mutual funds, and so forth, release to the public. Every three months, a company has to release a short report on its progress, and once a year, it has to release a longer annual report. It has to tell the whole truth and nothing but the truth. Otherwise, the company can be fined and its officers or directors taken to court.These officers and directors must also notify the SEC any time they buy or sell shares of the company's stock, and this information is available to the public. It's quite useful to know what these insiders are doing with their own investments, because they're involved with the company on a day-to-day basis. If several of them are selling their shares all at once, they can't be very optimistic about the company's prospects. On the other hand, if they're opening theft wallets to buy more, they have to like what's going on.The stock exchanges themselves are monitored by the SEC, and also by theft own compliance departments. These people are the stock police. They watch the trading floor and the computers, looking for suspicious activity.The Typical ShareholderThe NYSE does some checking every few years to find out who owns stocks and who doesn't. Since the 1950s, there's been a gradual increase in the number of people buying shares. This is a positive trend, because the more shareholders there are, the more the wealth gets spread around.Twenty years after the Great Depression, the vast majority of Americans was afraid of stocks and kept theft money in the bank, where they thought it was safe. You've heard the expression, "I'd rather be safe than sorry"? In this case, the money was safe and the people were sorry, because they missed the fabulous bull market in stocks during the 1950s. There were only 6.5 million shareholders in 1952, only 4.2 percent of the population, and 80 percent of those shares were in the hands of 1.6 percent of the population. All the gains went to a small group of people who weren't afraid of stocks and understood that the benefits far outweighed the risks.In 1962 (the 1960s were another good decade for stocks), the number of shareholders had tripled, and 17 million Americans owned stocks. This was roughly 10 percent of the U.S. population. The more stock prices rose, the more people jumped on the bandwagon, and by 1970, there were 30 million shareholders in the country, 15 percent of the population.No longer was the stock market the well-kept secret it had been in the 1950s. The record number of shareholders was good news in the long run, but the eager buyers had pushed prices to dangerously high levels, so by 1970, most stocks were fatally overpriced. By almost any measure, people were paying far too much for the companies they were buying. They lost their heads and fell in love with everything that was sold on a stock exchange.This sort of craziness happens a few times in a century, and whenever it does, the market "corrects," the prices drop to more sensible levels, and the people who bought at the top are stunned and depressed. They can't believe they've lost so much money so quickly. Of course, they haven't really lost anything unless they sell their shares, but many investors do just that. They dump their entire portfolio in a panic. A stock they acquired for one hundred dollars when it was overpriced, they unload a few weeks later for seventy dollars or sixty dollars, at a bargain price. Their loss is the new buyers' gain, because the new buyers will make the money the sellers would have made if they'd held on to their investments and waited out the correction.There were so many sellers during the brutal stock-market correction of the early 1970s that 5 million former shareholders, 3 percent of the population, exited the market en masse. It took five years for enough people to come back to stocks so that once again, the United States had 30 million shareholders.By the mid-1980s, the ranks of shareholders had swollen to 47 million. One out of five Americans owned stocks, and 33 percent of those owners had invested through mutual funds. The market value of all stocks on the NYSE passed the $1 trillion mark.By 1990, there were 51.4 million shareholders, an all-time record, and the number of people who invested through mutual funds had quadrupled in a decade. The average investor was no longer interested in picking his or her own stocks. The job was turned over to the professional fund managers at the nearly four thousand funds in existence at the time.The typical shareholder in 1990 was a forty-five-year-old man or a forty-four-year-old woman. The man had a $46,400 annual income; the woman $39,400. He owned $13,500 worth of stocks, while she owned $7,200 worth. Lately, there's been a big jump in the number of young investors, with 3.7 million shareholders, or 7 percent of the total, under the age of twenty-one. This is a very positive development.In 1995, the market value of all the stocks on the NYSE topped the $5 trillion mark, a long way from the $1.2 trillion these same stocks were worth in 1980. While investors large and small were working, playing, sleeping, and getting on with their lives., the money they put away in stocks had made them at least $4 trillion richer in a decade and a half. Talk about letting your money do the work!