

**THE END OF MONEY**

**AND**

**THE FUTURE OF CIVILIZATION**

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CHELSEA GREEN PUBLISHING  
WHITE RIVER JUNCTION, VERMONT

SIX

## **Usury and the Engine of Destruction**

The growth god is dead. The era of seemingly endless growth is, in fact, coming to an end. Shall we lament its passing and try to sustain it a little bit longer, shall we passively watch as our world crumbles into ashes, or shall we welcome this crisis as the opportunity we've been hoping for to create the kind of world we want to live in and leave for posterity? That is not to say that growth per se has been all bad. The enormous expansion of economic output throughout the industrial era has provided material benefits and more comfortable lives for a substantial portion of the world's people. Yet billions of others have been excluded and exploited in the process. Our current system condemns them to ongoing destitution and drives the overall economy to grow for growth's sake. Like cancer, much of the growth now is the wrong kind of growth, out of control and in the wrong places, generating ever greater disparities of power and wealth, wasting valuable resources, and producing side effects that are ultimately harmful to the earth's capacity to support life.

### **Monetary Stringency, Past and Present**

In the era of Columbus and the conquistadors, the world was obsessed with gold and silver. The Old World was ready for an explosion of commerce and trade but governments were deeply in debt and there was a general lack of one critical element—money. As long as people could see only precious metals as acceptable forms of payment (money), it became imperative that they acquire more of them. When Columbus embarked upon his historic voyages, that is mainly what he sought. Thus ensued the tragic genocidal conquest of the American natives from whom the world has gained so much. As Jack Weatherford describes it, "The Europeans sought desperately for ways to increase the trickle of gold that flowed up so slowly from the Gold Coast [of Africa] to Europe, and they wanted to find ways to circumvent the numerous Moslem merchants who monopolized the trade at each stage."<sup>79</sup> The enormous amounts of gold and silver that

were plundered from the Americas and shipped back to Europe provided the metal required for a tremendous expansion of the money supply—which, in turn, fueled a revolutionary economic expansion by facilitating exchange and encouraging a further specialization of labor.

Today, we face a similar dilemma, except it is not precious metal money we are obsessed with, but a different kind of money—interest-bearing, bank-created, debt-money—and it is not Muslim merchants who make it scarce and expensive, it is a global financial cartel headed by a few elite bankers, finance ministers, and wealthy speculators. The world is now stuck, as it was five hundred years ago, awaiting the creation of a more adequate, abundant, and inexpensive medium of exchange that will allow the world to make the transformational leap into a sustainable steady state economy, a restored global environment, and a life of freedom and dignity for all.

### Increasing Instability

The recurrent disorder in the financial markets and the cascading failures of financial institutions should come as no surprise. It is not possible for humans to live sustainably on this earth under the present monetary regime. Why? The simple answer is, because money is credit created on the basis of loans made by banks *at interest*. Those who recognize the impossibility of perpetual exponential growth and who understand how compound interest is built into the global system of money and banking expect that there will be periodic “bubbles” and “busts,” each of increasing amplitude until the system shakes itself apart.

Engineers call this phenomenon “positive feedback.” Such a system cannot find equilibrium but eventually “explodes.” Imagine a heating system in which the thermostat, sensing a rise in temperature, calls for more heat instead of less. Such is the nature of the debt-money system. The imposition of interest on the debt by which money is created causes debt to grow exponentially with the passage of time. It therefore demands that more debt be created to enable the payment of the interest due. Such is the *debt imperative* that gives rise to a *growth imperative*. Among other things, it prevents the emergence of a steady state economy because no amount of production and increase in business activity can satisfy the lenders’ demands for repayment.

Is the final round at hand, or can the system be saved yet one more time? At

this writing, the U.S. government has just passed legislation empowering the treasury secretary to spend (initially) up to \$700 billion at his own discretion, including the financing of bank mergers and the bailout of bankrupt financial institutions by buying enormous amounts of their uncollectible junk, including that held by foreign institutions. Besides the \$700 billion that has been appropriated, it is likely that additional amounts will shortly be needed to keep the global banking system from disintegrating.

### The Magic of Compound Interest

Here’s a little thought experiment. Take a dollar bill and bury it in the ground. Leave it there for fifty years, and then dig it up. What do you have? Depending on the care you took in burying it, you have either a dollar bill or a wad of soggy paper fragments. In the best possible case, you can go out and spend that dollar, but it probably won’t buy much given the prospect of continued inflation.

Now take another dollar bill and deposit it in a savings account at a bank. Leave it there for fifty years, then withdraw your money. What do you have? Assuming an interest rate of 6 percent per year, you have \$18.42. Amazing, isn’t it, how money can grow? Even more amazing, if the interest rate had been 10 percent, you would have \$117.39. How can this be? Well, that’s the magic of compound interest. By leaving the interest earnings in your account, you earn more interest on the interest.

This kind of growth is called *exponential* or *geometric*, as we discussed in Chapter 2. If you can wait a while longer, the growth becomes really astonishing. After two hundred years at 6 percent interest, for example, your single dollar will have grown to over \$115,000—at 10 percent interest, it will have grown to almost \$190 million. These are shocking figures, but they are correct. Get a financial calculator and try it yourself. You see, anyone can become rich; all you have to do is lend a little money at interest—and wait. “I should live so long,” you say. True enough. While these interest rates are pretty ordinary by contemporary standards, two hundred years is a long time for a natural person to wait—but it is not so long for a “legal person,” like a corporation or a government. The government of the United States is more than two hundred years old, and it has been in debt for most of that time. Debts grow exponentially in exactly the same way. If you had borrowed a dollar instead of deposit-

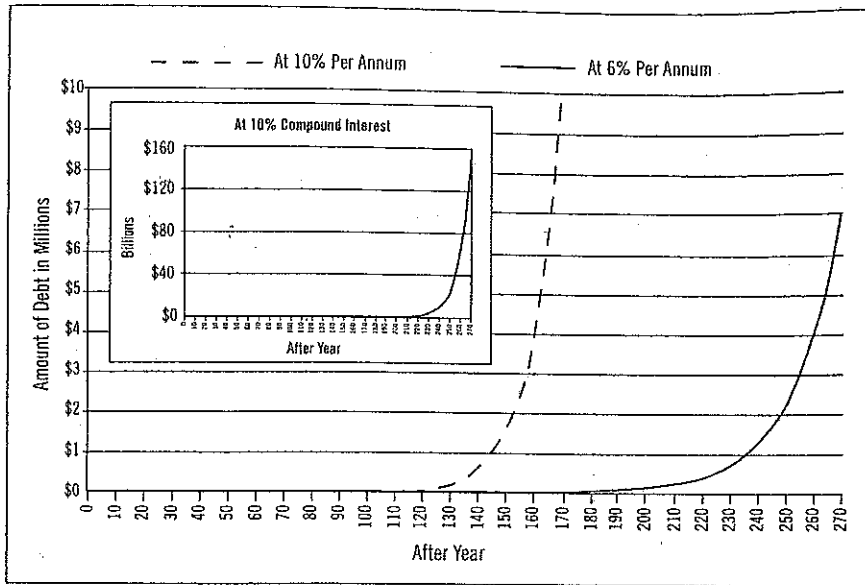


Figure 6.1 Growth of One Dollar of Debt at Compound Interest

ing a dollar, and never made any payments on the loan, your heirs would owe debts of these same colossal amounts. Which legacy would you prefer to leave them?

Now it's hard to criticize the taking of petty interest by individuals who need to save up for their education or retirement or to make some large purchase. Considering that in today's world the purchasing power of money is continually being eaten up by inflation, one needs to have an additional return just to maintain the purchasing power of their savings. Such a return can be considered as compensation for loss. The original distinction between interest and usury was just that—interest was compensation for loss. And who can argue against the obvious fact that any investment that is denominated in terms of a national currency experiences a loss as time goes on? The loss in the purchasing power of virtually every national currency results from the abusive way in which it is issued and managed. Today's dollar, for example, is worth but a fraction of its value just a few decades ago. The new car that I purchased in 1965 for two thousand dollars would cost ten times that amount today, even accounting for changes in the performance and features in today's cars. The preservation of capital therefore requires a rate of return sufficient to offset the loss due to inflation. That is not to say that I advocate a perpetuation of debt financing. It is said that "the borrower is servant to the lender." The interests

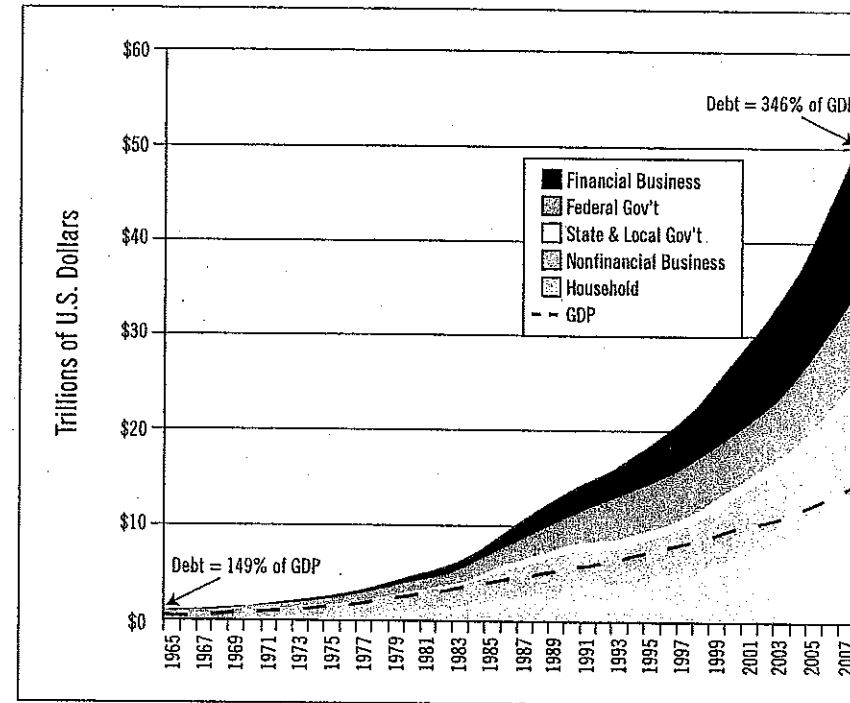


Figure 6.2 Actual Growth of Debt in the United States

of each party in debt transaction are antagonistic toward one another. For that reason, we would be better off seeing a general shift away from debt financing, toward temporary equity financing that shares both the rewards and risks involved in any venture.

### What's Wrong with the Global System of Money and Banking?

Adam Smith observed, more than two hundred years ago, that "When the division of labor has been once thoroughly established, it is but a very small part a man's wants which the produce of his own labor can supply."<sup>80</sup> Since Smith's time the sources of those supplies have become ever more distant and impersonal. Consequently, we have come to be increasingly dependent upon devices like money and institutions like banks to help us in getting what we want and need from others through the marketplace. Those devices and institutions comprise what we will, for convenience, call "the money system."

It is a system that has been constructed over time, and because of its str:

tegic importance has been an object of political contention. Today's centralized global money system (controlled as it is by a small elite class) is from the standpoint of equity, harmony, and sustainability, fundamentally flawed—and in my view, is a root cause of the mega-crisis confronting civilization. When that flawed money system is transcended, resolution of the other aspects of the mega-crisis will then become possible.

### How Debt-Money Is Dysfunctional

The truly devastating thing about the dominant monetary system is that usury has been built into its very foundation, resulting in a *debt imperative* and the *growth imperative* that derives from it. This dual imperative creates a Hobbesian war of “all against all” as those in debt to the banks vie with one another in the market to capture enough money from an insufficient supply to repay their loans with interest. This not only causes gross inequities and social strife, but it also drives the destruction of our physical environment.

Chapter 9 will provide a thorough explanation of the nature and evolution of money, but for the moment we will focus on one essential fact, which is that *virtually all of the money throughout the world today is created by banks as debt*. The various national currencies that we are so familiar with, the paper money we pass from hand to hand, are merely physical representations of some of that debt—but most of the money exists not as paper notes but as bank account balances (“deposits”). Those who borrow from the banks are required to pay interest on that debt. But compound interest is an exponential growth function. That means *the debt grows simply with the passage of time*, not at a constant steady pace (linearly) but *at an accelerating rate (geometrically)*. This feature means that the debt growth must shortly outrun the increases in economic output needed to support it. Banks must continually expand their lending in order to avoid collapse of the global monetary and financial system, and to do so they must find additional bases for putting new money into circulation. Monetization of government debts seems to be their ultimate choice.<sup>81</sup>

Kevin Phillips points out in his book, *Bad Money*, that over the past few decades there has been a reversal in the American economy. While manufacturing has declined from about 25 percent to 13 percent of GDP, financial services have grown from 11 percent to 21 percent.<sup>82</sup> And what is the stock in trade of the financial services industry? Debt. By promoting, packaging, and marketing

debt, the financial services industry has thrived while domestic manufacturing has been dismantled in favor of imports from abroad. Over only the past twenty years, total public and private debt in the United States has quadrupled to \$43 trillion. The money problem can be summarized thusly: *the way in which money is created by the banking system today causes a debt imperative, which drives a growth imperative—this forces destructive competition for the available supply of money, which is never sufficient to enable all debtors to pay what they owe*.

As borrowers compete with one another to try to meet their debt obligations in this game of financial “musical chairs,” they are forced to expand their production, sales, and profits. They must take measures to enhance revenues and reduce costs by controlling both the markets in which they sell their products and those in which they buy their productive inputs, including labor. A major reason why corporations merge and consolidate and increase in size is so that they can exercise both greater political influence and greater market dominance. The result of all this is ever-increasing environmental despoliation and social degradation. The rise of the power of corporations in relation to national governments has exacerbated the problems because legal restraints upon huge transnational companies are being systematically eliminated by politicians who are “hired” to do their bidding.

### Three Aspects of Money Dysfunction

Bank created debt-money malfunctions in three primary ways. First is its artificial scarcity. There is never enough money to allow every debtor to pay what is owed to the banks. The debt grows simply with the passage of time but the supply of money to repay those loans *plus the interest* can only be maintained by the banks making additional loans to either current or new borrowers. These new loans have the same problem. Thus, debt continually mounts up, and businesses and individuals are forced to compete for markets and scarce money in a futile attempt to avoid defaulting on their debts. The system makes it certain that some *must* fail. Capital wealth becomes ever more concentrated in corporate conglomerates that must seek higher returns on their investments. They are driven to expand their markets and dominate economies, often enlisting the support of governments to apply military power both overtly and covertly to ensure the continued flow of low-priced raw materials, availability of low-cost labor, and access to markets in which to sell their products.

Secondly, the requirement that interest be paid causes a net transfer of wealth from the debtor class to the moneyed class, or from producers to nonproducers. Besides the direct payment of interest on our own debts, we all pay the cost of interest that must be added at every stage of production to the price of everything we buy. It is easy to show statistically that lower- and middle-income households, because they are net debtors, pay much more interest than they receive; those in the highest income brackets, because they are net lenders, receive back more interest than they pay. Those who must earn their livelihood by selling their labor and talents in the market are kept at a disadvantage relative to those who live off returns from their capital.

Thirdly, the money created as bank credit is misallocated at its source. Much of it goes to finance government's deficit spending for weapons, military interventions, and transfer payments to corporate clients. The term "corporate welfare" has been used to describe not only direct government subsidies, but also "sweetheart contracts" to politically connected companies. Another large chunk is provided to the well-connected few who use it to finance such things as real estate developments, which are presumably well collateralized but are often supported by inflated land values and overblown prospects of profitability. Thus we find an abundance of hotels, resorts, and upscale residential construction but a chronic shortage of affordable housing.

This entire system favors authoritarian government, increasing concentrations of power and wealth, short-range planning, and the production of short-lived disposable junk over durable consumer products. That cannot continue. The global monopoly game is reaching its climax and coming to a close. As economist Michael Hudson concludes, "The economy has reached its debt limit and is entering its insolvency phase. We are not in a cycle but the end of an era. The old world of debt pyramiding to a fraudulent degree cannot be restored."<sup>83</sup>

### Moral Arguments, Laws, and Practical Solutions

Three major world religions—Judaism, Christianity, and Islam—all inveigh against the practice of usury. Volumes have been written about the morality or immorality of usury, the distinction between usury and interest, and the practical necessities of allowing it to enable industry and commerce to flourish. There has been no lack of arguments, well thought out and eloquently expressed, and legal statutes restricting the practice prevailed for more than

a millennium. It is John Calvin (1509–64) who has been, depending on one's point of view, either credited or blamed for the eventual relaxing of the moral and legal rigidities, arguing that "if all usury is condemned tighter fetters are imposed on the conscience than the Lord himself would wish." At the same time he warned that, "if you yield in the least, with that pretext, very many will at once seize upon unlicensed freedom, which can then be restrained by no moderation or restriction." Calvin has certainly been proven right in the latter regard. Citing the changed conditions from the time of Moses and the Prophets, Calvin asserted, "Therefore usury is not wholly forbidden among us unless it be repugnant both to Justice and to Charity."<sup>84</sup> And there lies the crux of the matter, as all considerations of justice and charity have been swept aside. Over time financial dealings have become ever more impersonal, economics has been separated from religion, and ethics has been separated from economics. Moral arguments have failed to hold sway, legal prohibitions have (rightly or wrongly) been totally obliterated, and usurious lending (even in its most oppressive form) has come to be part of the financial landscape. The "train of civilization" needs to be decoupled from the engine of destruction that is our present politicized system of money, banking, and finance. But if that is to be achieved, the problem needs to be framed not only in moral or ethical terms, but especially in practical terms.

### Keys to Transcendence

We have discerned the patterns of action and relationships that have brought us to this point of mega-crisis, and now it is imperative that people effectively address it—not by opposing what is, or reverting to past primitive forms, but by reenvisioning and reinvention. There are "leverage points" at which the application of small forces can produce massive effects. My intensive and wide-ranging research has convinced me that a primary leverage point is the process of economic exchange, and the device we call "money."

When the system spins out of control what will come out of the chaos? When the dollar crashes, the financial and political elite class will certainly try to orchestrate a new global monetary regime based on the same old mechanisms for centralizing power and concentrating wealth in their own hands, seeking to complete the new (feudal) world order that has been building for the past three hundred years. Indeed, some observers are arguing that we are experi-

encing the equivalent of a controlled demolition of the global financial system as part of the plan to grab control of ever more of the world's resources.<sup>85</sup>

But the way is open for us to realize another possibility, which is the emergence of a decentralized, democratic, and sustainable system of exchange—as well as more equitable methods of finance and investment, which can provide the solid foundation needed for a different kind of new world order.

### Exchange and Finance—Two Distinct Credit Functions

In achieving that, there are two basic questions that need to be addressed, one relating to the exchange function, the other relating to the finance function. Both of these involve the use of credit. The exchange function has need of short-term credit that bridges the gap between the delivery of goods to market and the sale of those goods. It is this credit, and only this credit, that should be embodied in modern money. Money, then, becomes a virtual representation of real value in the form of goods and services that is ready to be bought and consumed. The question is, “What is the proper basis upon which money should be issued? The principle that applies to proper operation of the exchange function is this: money should be created on the basis of goods and services that are already in the market, or shortly to arrive there. This is the essence of what is called “the real bills doctrine.”<sup>86</sup>

The finance function has need of long-term credit that enables “capital formation,” i.e., it provides the means by which production capability can be renewed or increased. The question here is, “How shall capital formation be financed?” The applicable principle in this case is that long-term uses of credit should be matched to long-term sources of credit. The logical conclusion is that investments should be matched to savings. To use a simplified concrete analogy, we might say that the seed that has been saved from the previous harvest is invested in producing a new crop. A corollary to this is that new money should *not* be created to finance capital formation. Why? Because money creation should be matched to goods and services that are in the market *now*, but capital investments deliver goods and services to market *later*. If more money is put into the economy but more goods are not, the value of a currency will be diluted. Under legal tender, that shows up as rising prices.

In practice today, these principles are commonly violated by banks. Banks provide both functions by making loans, and make little distinction between

	Exchange Credit	Finance Credit
Duration	Short term	Long term
Purpose	To facilitate exchange	To fund capital development
Relationship to money	Newly created money	Reallocation of existing money from savers to entrepreneurs

them. As banks of issue, they create money; as depositories, they reallocate funds from savers to investors. But as Ralph Borsodi observed, “Most [present-day money] is ‘backed’ by loans which should never be made—loans made to monetize the debts of government; loans made to finance war and the military-industrial complex, monetize the securities of giant corporations which should not exist at all, and to finance speculations in securities, commodities, and land.”<sup>87</sup>

All of those improper bases of issue are not only inflationary (when a currency is given legal tender status), but also are preferential toward the centers of power and wealth and against the interests of legitimate business, tending to create ever greater monopolies and divisions among the classes. In today's world, credit is the substance of money and the means of payment. Precious metals no longer play a monetary role. But credit is monopolized by a banking cartel that keeps it scarce. As Riegel put it, “The political money system starves productive enterprise but finances lavishly the destructive activities of war.”<sup>88</sup>

The most damaging aspect of the political money system, as described earlier, is the fact that the debts owed to banks and subject to compound interest grow with the mere passage of time, but the money needed to pay those debts does not. Additional money comes into circulation only as the banks make additional loans. This is the engine of destruction that injures not only the debtor, but also the entire society and the physical environment. The solution for the exchange function under the old paradigm would be the creation of money by the discounting of “real bills.”

On the other hand, a new paradigm approach to the exchange function, which will be described in detail in later chapters, is to provide *interest-free credit* to producers within the process of *mutual credit clearing*. That is the process of offsetting purchases against sales within an association of merchants, manufacturers, and workers. It will eventually include everyone who buys and sells, or makes and receives disbursements of any kind. The costs of operating such credit clearing exchanges can be managed by small fees applied to each transaction.

The solution for the finance function would seem to lie mainly in making a shift from debt financing to *temporary* equity financing. Whereas debt makes borrowers and lenders antagonistic toward one another, equity (being shared ownership) tends to harmonize the interests of the user of capital with those of the provider of capital in that both the rewards and the risks are shared. But to make a permanent sale of one's future fortune for the sake of a temporary financial need is in most cases odious, hence the need that such investment claims be temporary. There are, to be sure, cases in which permanent equity shares might be appropriate, but these need not concern us here.

The solutions we propose here are based on private, voluntary initiative. So long as the right of contract and freedom of association are preserved, there is a chance that the "great leap forward" in exchange and finance can be made. We need not reopen the political debate about what constitutes usury, nor lobby for the restoration of usury laws, for these and other political solutions have receded far beyond our present grasp. But once these proposed approaches begin to gain a foothold, the distinction between usury and interest and debates about what levels of interest are justified will become moot. The problem of how to transcend the engine of destruction will have been elevated to a plane on which we may converge toward a solution.

I have only outlined a rough sketch of these ideas in this chapter. The remainder of the book will provide essential background and further elucidation that will enable a deeper understanding. For the moment it suffices to say that the most urgent need is for the implementation of new exchange systems (money systems) that do *not* force perpetual economic growth. Such exchange systems are a prerequisite for achieving the emergence of a steady state economy that can provide to every member of the human family the material benefits needed for a dignified and fulfilling life, while at the same time nurturing the natural systems that support all life on our planet. Along with the elimination of the growth imperative from the exchange function, it is also necessary to shift the finance function away from interest bearing debt contracts toward equity investments that harmonize stakeholder interests. Economic development efforts must inevitably change their emphasis from quantitative to qualitative. Instead of aiming for ever greater quantities of output and consumption, the object should be to improve the quality of life—not only for a few, but for everyone. The prescriptions offered in the later chapters of this book are intended to accomplish those objectives.

Compound interest arises when interest is added to the principal, so that from that moment on, the interest that has been added also itself earns interest. This addition of interest to the principal is called compounding. In definition, this seems pretty straightforward. Paradoxically, the math is exponential, a difficult concept to wrap our minds around. This handout is my best attempt to simplify the concept so it can be conceptualized or possibly visualized.

**INTERSTING FACTOID:** Compound interest was once regarded as the worst kind of usury (charging of interest on loans), and was severely condemned by Roman law, as well as the common laws of many other countries. (WIKIPEDIA)

For simplicity, the scenarios below are based upon \$1.00 borrowed 10 for years and no payments  
 Simplified Formula:  $(\$1.00 + \text{interest rate}) \times (\$1.00 + \text{interest rate}) \times \dots$  repeat number of years

Year	Rate	Debt Increase	Debt Balance	Debt Increase
1	1%	\$0.0100	\$1.01	1%
2	1%	\$0.0101	\$1.02	2%
3	1%	\$0.0102	\$1.03	3%
4	1%	\$0.0103	\$1.04	4%
5	1%	\$0.0104	\$1.05	5%
6	1%	\$0.0105	\$1.06	6%
7	1%	\$0.0106	\$1.07	7%
8	1%	\$0.0107	\$1.08	8%
9	1%	\$0.0108	\$1.09	9%
10	1%	\$0.0109	\$1.10	10%

**"The Math"**  
 1.01  
 1.01\*1.01      1.01 squared  
 1.01\*1.01\*1.01      1.01 cubed  
 1.01\*1.01\*1.01\*1.01      1.01<sup>4</sup>  
 1.01\*1.01\*1.01\*1.01\*1.01      1.01<sup>5</sup>  
 ...where n is the # of years      (1+.01)<sup>n</sup>

1% interest doubles debt in approx 72 Years

Year	Rate	Debt Increase	Debt Balance	Debt Increase
1	3%	\$0.030	\$1.03	3%
2	3%	\$0.031	\$1.06	6%
3	3%	\$0.032	\$1.09	9%
4	3%	\$0.033	\$1.13	13%
5	3%	\$0.034	\$1.16	16%
6	3%	\$0.035	\$1.19	19%
7	3%	\$0.036	\$1.23	23%
8	3%	\$0.037	\$1.27	27%
9	3%	\$0.038	\$1.30	30%
10	3%	\$0.039	\$1.34	34%

**"The Math"**  
 1.03  
 1.03\*1.03      1.03 squared  
 1.03\*1.03\*1.03      1.03 cubed  
 1.03\*1.03\*1.03\*1.03      1.03<sup>4</sup>  
 1.03\*1.03\*1.03\*1.03\*1.03      1.03<sup>5</sup>  
 ...where n is the # of years      (1+.03)<sup>n</sup>

3% interest doubles debt in approx 24 Years

Year	Rate	Debt Increase	Debt Balance	Debt Increase
1	7%	\$0.07	\$1.07	7%
2	7%	\$0.07	\$1.14	14%
3	7%	\$0.08	\$1.23	23%
4	7%	\$0.09	\$1.31	31%
5	7%	\$0.09	\$1.40	40%
6	7%	\$0.10	\$1.50	50%
7	7%	\$0.11	\$1.61	61%
8	7%	\$0.11	\$1.72	72%
9	7%	\$0.12	\$1.84	84%
10	7%	\$0.13	\$1.97	97%

Rate	Years to Double
100%	1
50%	2
25%	3
13%	6
7%	10
3%	24
2%	36
1%	72

7% interest doubles debt in approx 10 Years

I've included a hypothetical 100% interest scenario to help visualize the exponential math since it works out to 2<sup>n</sup>

Year	Rate	Debt Increase	Debt Balance	Debt Increase
1	100%	\$1	\$2.00	100%
2	100%	\$2	\$4.00	300%
3	100%	\$4	\$8.00	700%
4	100%	\$8	\$16.00	1500%
5	100%	\$16	\$32.00	3100%
6	100%	\$32	\$64.00	6300%
7	100%	\$64	\$128.00	12700%
8	100%	\$128	\$256.00	25500%
9	100%	\$256	\$512.00	51100%
10	100%	\$512	\$1,024.00	102300%

**"The Math"**  
 2  
 2\*2 (area 2D)      2 squared  
 2\*2\*2 (volume 3D)      2 cubed  
 2\*2\*2\*2 (4<sup>th</sup> dimension)      2<sup>4</sup>  
 2\*2\*2\*2\*2 (5<sup>th</sup> dimension)      2<sup>5</sup>  
 ...where n is the # of years      (1+1)<sup>n</sup> or 2<sup>n</sup>

100% interest doubles debt in 1 Year

"Life is really simple, but we insist on making it complicated." -Confucius