

Money Matters: A Fulcrum for Change. Money Matters.



2. I have some new technology to help us out today...a time machine...



3. I've set the date...take a deep breath...



4. It's barely dawn on a day in early June, 1802. Early light sparkles on the dry grasses on the slopes of the volcanic mountain, Chimborazo. You're wearing your leather boots, shirt, sweater, and wool jacket...maybe you packed a stiff and heavy wax soaked waterproof coat? You've packed up instruments to measure distance, temperature, take specimens, draw detailed images. It snowed during the night and the air is cold. The mountain is shrouded in fog. Every now and then the fog lifts and you get a tantalizing glimpse of the peak.



5. It is going to be a long day climbing to the summit at 21,000 ft! A team of four of you and a couple porters start out. Beginning your ascent, you cross the grassy plains and slopes. Every few hundred feet you stop to take out and use your instruments. You make full notes in your diary.



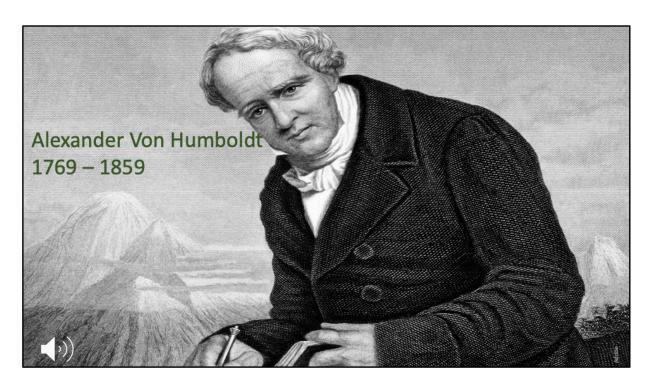
6. The rocks get steeper and when you reach 13,500 ft, you leave the portage animals behind.



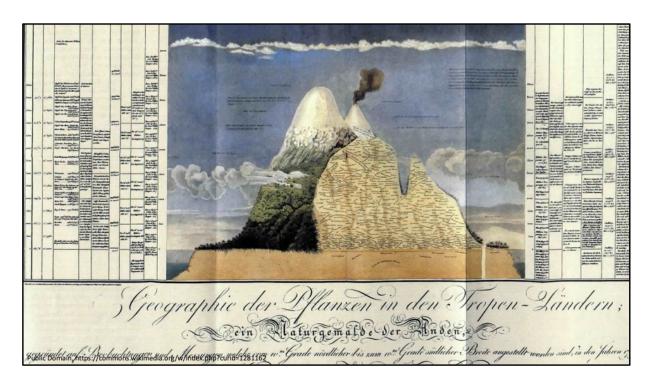
7. At 15,600 feet your porters refuse to go on. You and your 3 friends divide up the heavy instruments and continue. Your leather boots are shredded by the sharp rocks and jagged ice. It gets colder and colder.



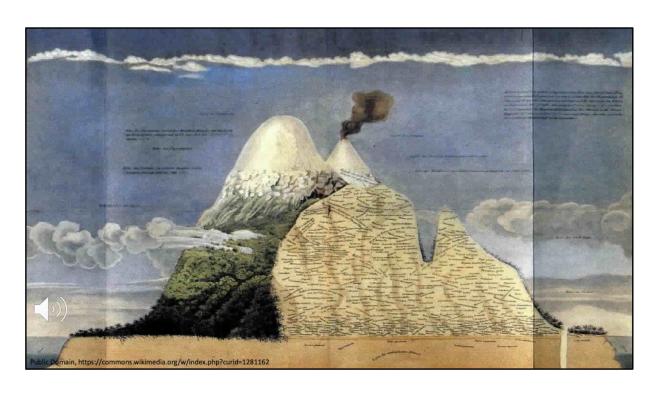
8. To reach the summit, you crawl on all fours along a high ridge that narrows to a dangerous two inches with steep cliffs falling away to your left and right. Cold is numbing your hands and feet. You're nauseous and dizzy with altitude sickness, eyes bloodshot and gums bleeding, you suffer constant vertigo.



9. Alexander Von Humboldt makes this difficult and extraordinary journey and traveled thousands of similar miles on several continents. He meticulously records his observations in difficult and dangerous circumstances.



10. He develops a strong sense of the natural world as a unified WHOLE that is animated by interactive forces. His observations inform his belief in human-induced climate change and the problems it is bringing.



11. Von Humboldt observes and popularizes this concept of interconnectedness in the natural world and the need for humans to avoid damaging ecosystems with industrial practices.



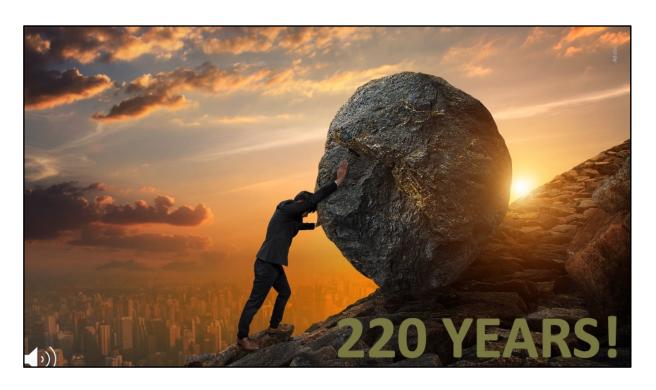
12. That was then...NOW Back to 2022...



13. TWO HUNDRED and TWENTY years have passed since Humboldt's astounding adventures brought him global fame and his ideas were broadly admired and discussed. Today, we have better gear and instruments, but the view, instead of being the same, has sadly deteriorated. We have NOT put his insights, his concerns, or his advice into practice.



14. I am humbled speaking to this impressive group. Having watched many of the previous presentations, I am grateful for the detailed, in depth, broad understandings of what is happening and the potential solutions to protect all life on the planet. And, I am grateful for those of you who have spent lifetimes dedicated to conservation, preservation, regeneration of the natural world and our communities.



15. For many of us in the environmental and social justice movements, it feels like we've been pushing a Sisyphean rock up a hill. Progress is made and then it feels like we're back at the beginning of our efforts. We succeed on one issue, and then like whack-a-mole or like the Hydra, two more problems appear. We struggle to make enough change to save ourselves and the planet.



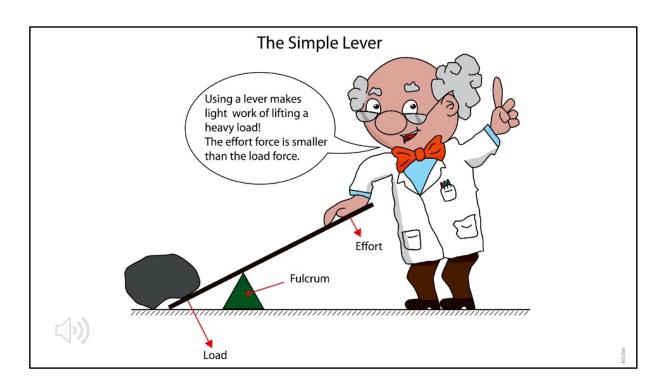
16. When we think about potential futures for our children and grandchildren it can be depressing! Many of us are afraid for the future.



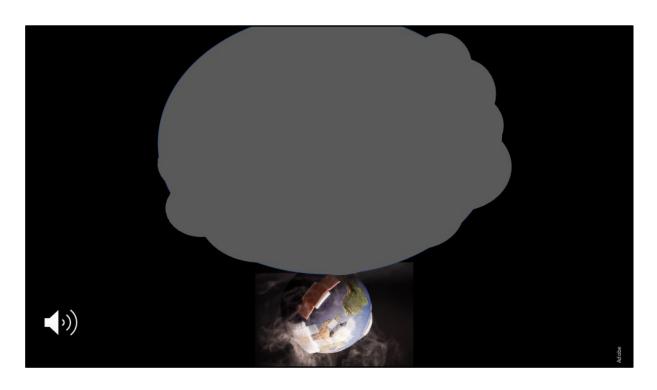
17. We're fearful, sad, angry, discouraged, and depressed. We're hungry for a powerful path to accomplish our goals. I loved Thomas Homer-Dixon's book on Commanding Hope which I was inspired to read by your group. As he eloquently explains, we have to be real about the dangers...



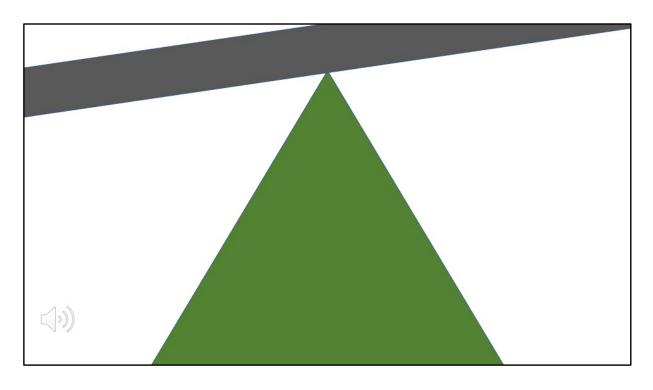
18. And, Yes! We must and CAN have hope that a better, sustainable world is possible.



19. We ask, Is there a fulcrum that will make light work of removing the obstacles to our success? Is there a fulcrum that can give us the greatest leverage and swiftest action toward a sustainable, healthy, and prosperous life on planet Earth?



20. What is the weight holding us in place? WHAT is sabotaging our progress toward a better world?



21. What strategy would give us the greatest leverage to lift this weight?



22. To understand the weighty obstacle crushing our hopes and dreams, \dots



23..... we must take another journey back in time to a seminal event.



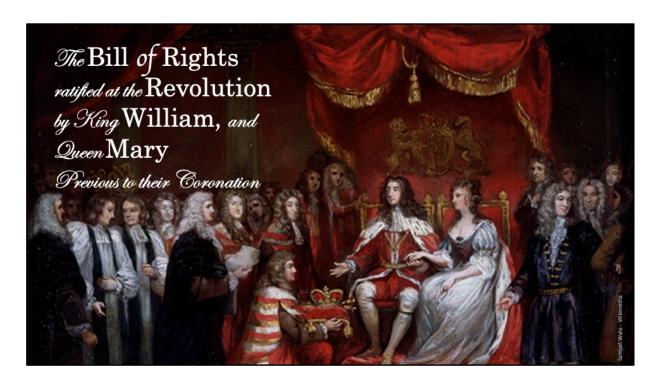
24. It's July 27, 1694, an ordinary summer day in London, cloudy, a bit of a drizzle. These are tumultuous times.

The_Pool_of_London_by_John_Wilson_Carmichael.jpg http://www.magnoliabox.com/art/215461/The_Pool_of_London, Public Domain, https://commons.wikimedia.org/w/index.php?curid=21244498



25. It's only been five years since the Glorious Revolution that unseated the Catholic James II and put Protestant William III and Mary II on the throne of England, Ireland, and Scotland

By Godfrey Kneller - https://www.rct.uk/collection/405675/william-iii-1650-1702-0, Public Domain, https://commons.wikimedia.org/w/index.php?curid=111000201 By Godfrey Kneller - The Royal Collection, Public Domain, https://commons.wikimedia.org/w/index.php?curid=18227339



26. Before the coronation, the Bill of Rights was signed - a landmark Act in the constitutional law of England that set out some basic civil rights and established Parliament's supremacy over the Crown. This was important for many reasons, not least because it shifted the power, privilege, and responsibility over the nation's finances from the Crown to Parliament.

By Samuel Wale - Scanned from an original copy., Public Domain, https://commons.wikimedia.org/w/index.php?curid=45963089

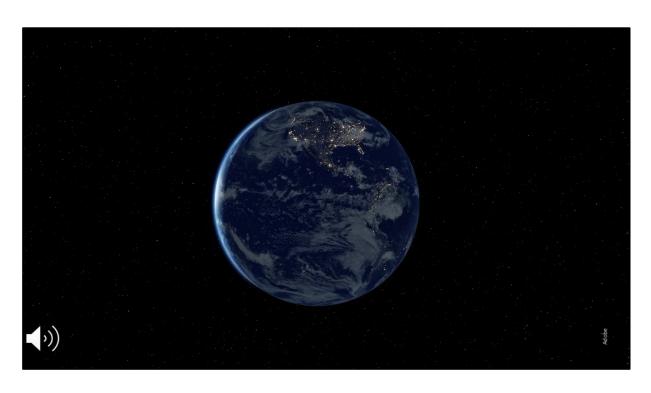


27. Four years ago in 1690, the English were defeated by the French Navy @ the Battle of Beachy Head. Rumors are that the French are planning to attack Holland next. The English Navy must be rebuilt and increased in size if England is to reign supreme. New to the throne, King William and Queen Mary have a reputation and power to establish! And, they need money to do it!

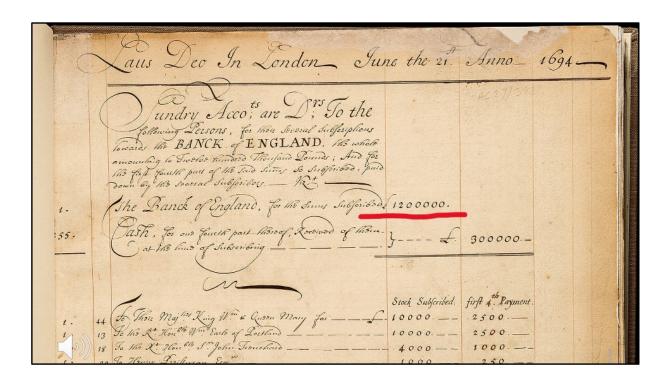


28. Parliament has voted to spend £5 million on an expanded army and navy, but both the Crown and Parliament are short funds and a financial crisis is looming. Charles Montagu, recently appointed chancellor of the Exchequer – that's the chief executive officer of the King's Treasury – has patched together some bold expedients for raising funds. One of them is to be chartered today – a privately-owned Bank of England.

By Peter Tillemans - Royal Collection RCIN 405301, Public Domain, https://commons.wikimedia.org/w/index.php?curid=42365279

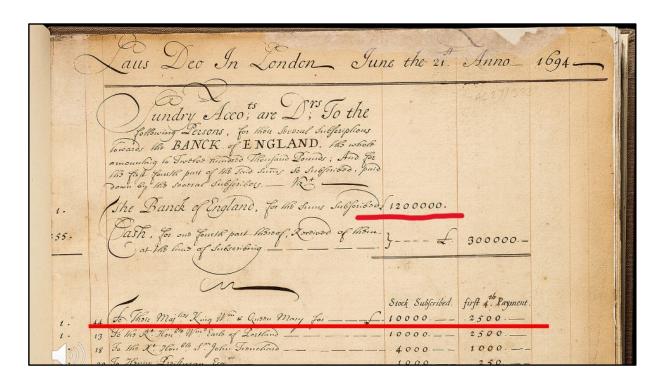


29. Centuries, even millennia of experiments and evolution in money, banking, and finance led up to this event. ...a fascinating history for another time.



30. A few weeks earlier, Parliament passed a bill allowing a special bank to form upon conscription of £1.2 million. The conscription has been satisfied; 1500 people have subscribed to the founding of the new Bank of England, raising £300,000 in cash of the £1,200,000 committed in subscriptions.

Image: Bank of England



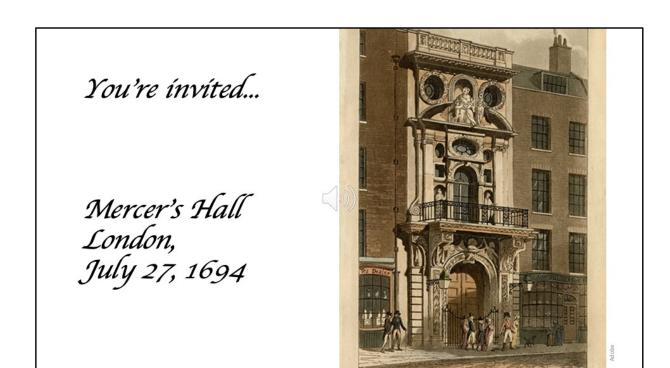
31. King William and Queen Mary were first to sign with a subscription for stock worth £10,000 and a down payment of £2,500, with the rest an IOU --- as most others have done. Operations are ready to begin and the Crown will be at the head of the line to benefit from the bank's issuance of debt-credit money – a loan for £1.2 million @ 8% interest, plus a £4,000 annual fee....which curiously is a lower rate than the goldsmiths have been charging the Crown for loans.

Image: Bank of England



32. Today, you've donned your fashionably big wig and heels, denoting your status as one of the 'bigwigs' — an important person at Court. You spend your morning at the coffee house with your financier friends. Bankers and merchants are excited about this afternoon's event. This new Bank will significantly increase the amount of debt-credit available for business investment and growth, and profits will follow for the early adopters and well connected.

(A London coffee house, circa 1660s, Public Domain, found @ https://www.businessinsider.com/images-old-london-2017-2#the-development-of-the-printing-press-in-the-early-15th-century-made-news-available-to-the-entire-city-and-improved-literacy-levels-coffeehouses-also-became-popular-spots-for-friendly-debates-9



33. You are invited to Mercer's Hall for the formal signing of the Charter of the Bank of England, and it's the talk of financial circles.



34. Mercer's Hall is the home of the fabric merchants' guild, incorporated in 1394. (A curious coincidence not lost on this fabric-buying, money-reformer-quilter!) This Hall is a lovely new building, rebuilt 20 years ago after the Great Fire of London destroyed the original in 1666. It's quite splendid. The Bank is renting the premises for the next six months for its first headquarters.

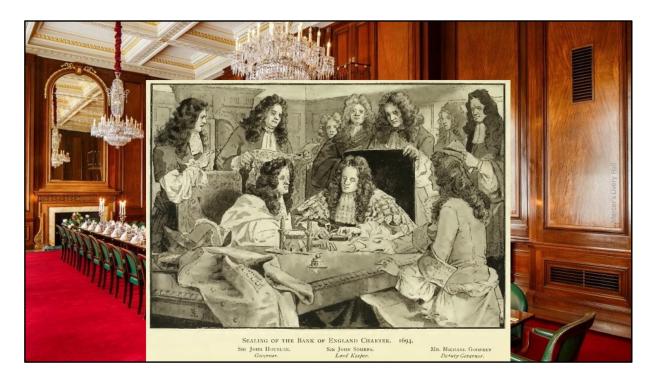
By Huligan0 - Own work, CC BY-SA 3.0, https://commons.wikimedia.org/w/index.php?curid=8850303 "Porch of the 1676 Hall, no in Swanage



35. Merchants, bankers, and representatives of the Crown are here today to sign a charter for the Bank of England.

By Huligan0 - Own work, CC BY-SA 3.0, https://commons.wikimedia.org/w/index.php?curid=8850303 "Porch of the 1676 Hall, no in Swanage

Over image: Bank of England



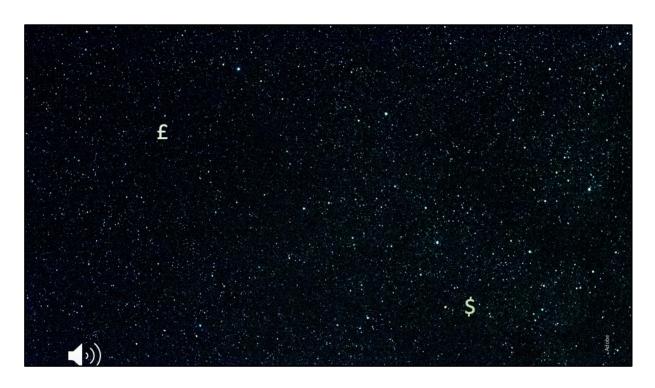
36. Though you cannot imagine the global consequences, this day in 1694 is the formal beginning of a monetary and financial revolution that will change the world.

Image from Mercer's of Livery Hall today.

Overimage: Wikimedia



37. This new Bank of England implements methods developed over centuries — methods brought to an exemplary standard of practice by the government-owned Bank of Amsterdam in the earlier 1600s in a system designed for society-wide benefit. But the Bank of England establishes, in law, a radical new combination of elements:



38. Let's step out of time for a moment to consider the elements of any money system, so that we can better evaluate options and historical precedence. We'll be quick. We want to be on the same page with our definitions. So, What is money? And what is a money system?



39. Even the bank of England was fuzzy in their descriptions about how money is created when the money reform group, Positive Money UK asked them about 10 years ago. So, PositiveMoney helped push a bill through Parliament requiring the bank to study the question of WHO creates the money supply and HOW do they do it, and to report on their findings.

https://www.bankofengland.co.uk/quarterly-bulletin/2014/q1/money-creation-in-the-modern-economy

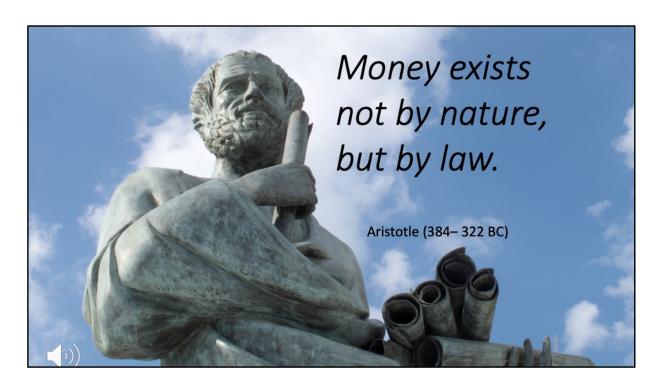


40. In 2014, they did so, and reported that, "The majority of money in the modern economy is created by commercial banks making loans." *Money Creation in the Modern Economy*, Bank of England Quarterly Bulletin 2014 Q1 If it took the Bank of England till 2014 to be clear in their public communications about what the banking system is doing, it's important we review it, because there is lots of misunderstanding and misinformation around and about!

https://www.bankofengland.co.uk/quarterly-bulletin/2014/q1/money-creation-in-the-modern-economy

MONEY Money is a human invention – a social *achnology – based on agreement and trust and used to represent value in the exchange of goods and services.

41. Money is a human invention – a social technology – based on agreement and trust and used to represent value in the exchange of goods and services.



42. This isn't a new realization or definition, though it's been obscured for centuries. Over 2,000 years ago, Aristotle noted that "Money exists NOT by nature, but by law."

MONEY CHARACTERISTICS

- Community-wide agreement
- A token
- Authentication and trustworthiness
- A way to add and subtract from the supply
- A steady, declining, or increasing value built into the system

43. Every money system has some basic characteristics: Community-wide agreement to use the money; a token or tokens; some way to authenticate and guarantee trustworthiness; a way to add and subtract from the supply; and a steady, declining, or increasing value built into the system.



44. And, what does money DO?



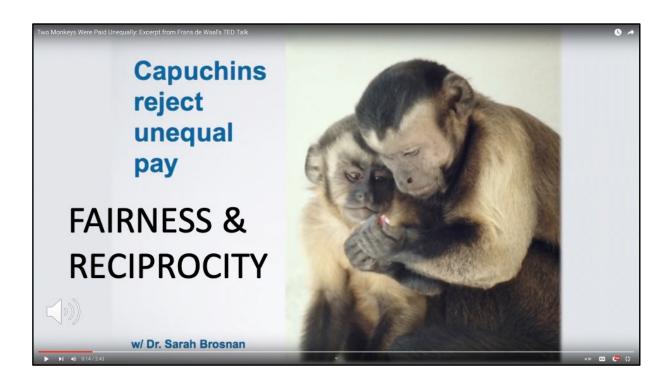
45. Money is a **medium of exchange**; a tool. Sometimes it's tangible, sometimes virtual. You may find it helpful to think of money as a kind of language. Language facilitates an exchange of ideas - some good and helpful, some horrible and destructive – and language expressions can come in multiple forms (think conversation, books, the internet).



46. As a social technology, money facilitates an exchange of goods and services – some exchanges are generous, some reciprocal, some extractive and predatory: some exchanges are solid objects passed from hand to hand; some are intangibles passed along virtual conduits.

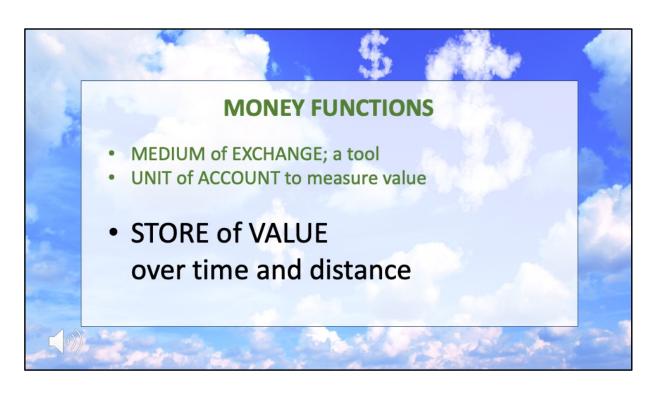
MONEY FUNCTIONS • MEDIUM of EXCHANGE; a tool • UNIT of ACCOUNT to measure value

47. Money is a **unit of account** to measure value. Just as words are not hard and sharp conveyors of meaningwe all get tangled in mixed connotations now and then, money is not a hard an sharp unit of value. It's a bit like having a ruler that can be stretched or shrunk. But, like words, it is serviceable and serves to express a context for value, fairness, and reciprocity.



48. Evaluating fairness and reciprocity is part of human nature. If you haven't seen the experiment with the monkeys and the cucumber or grape, it's worth a search. What is FAIR is in our DNA and money serves as a measure of fair. The development of money has roots in this aspect of our natures.

https://youtu.be/meiU6TxysCg



49. Money is a **store of value** over time and distance.



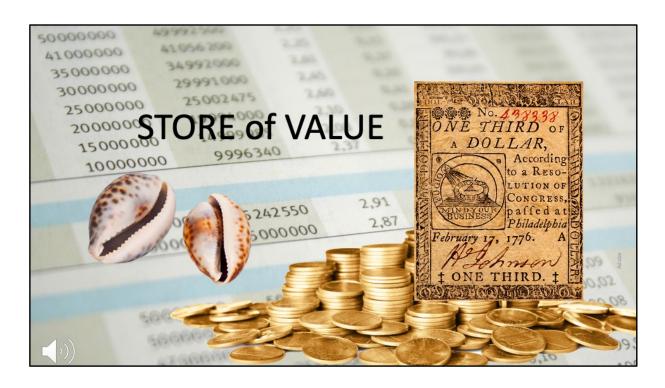
50. Money makes it possible to sell something one day, in one place, \dots



51. ...and with the income, buy something somewhere else on another day.



52. Today at the speed of light, we can make exchanges with people all over the planet, because we have a money system.



53. Storing value between exchanges makes money a form of wealth. But as some say, you can't eat money, so it's definitely not tangible wealth. However, like a book that stores a wealth of ideas that can transform lives, money stores value. So, it is a kind of wealth that is *INtangible*, and potential, and transitory.

Whether or not money is 'real' wealth was a hot topic of debate from the $17^{th}-20^{th}$ centuries, partly because the use of commodities for tokens obscured the nature of money and money systems (for example coins survive well through time; whereas, account books disintegrate and vanish, warping the historical record). Today, in a partially digital landscape, we are less likely to ask whether tangible, deteriorating-according-to-the-laws-of-thermodynamics things are the only form of wealth.

MONEY FUNCTIONS

- MEDIUM of EXCHANGE; a tool
- UNIT of ACCOUNT to measure value
- STORE of VALUE over time and distance
- A FORMATIVE INFLUENCE on economic and societal developments

54. Like a common language, money is a virtual tool at the **foundation** of culture; the values and processes of a given money system are the roots, the soil.



55. Money is a **formative influence on economic and societal developments.** The values inherent in a money system will seep into all aspects of a culture. A money system can support democratic, humanitarian, partnership values, OR a money system can support authoritarian, profit-centered, dominator values, OR a combination.



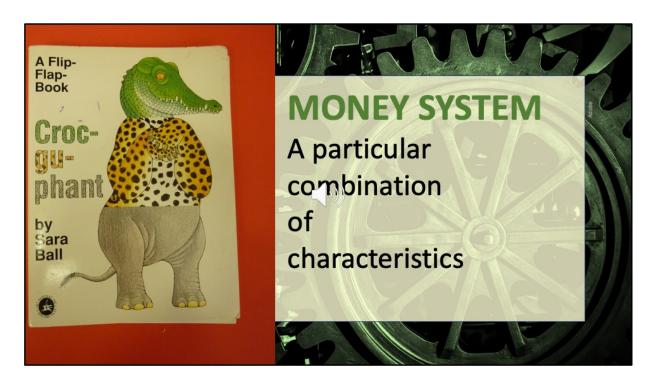
KEY QUESTIONS about a money system...

WHO creates the money supply?

HOW is the money supply created?

HOW is the money first introduced into the economy?

56. We defined what money does, and its basic characteristics. Here are the KEY characteristics and most important questions to ask of any kind of money system. Who creates the money supply? How is the money supply created? And, How is money first introduced into the economy?



57. These characteristics can happen in different ways and take different forms. The particular COMBINATION of characteristics establishes a money *system*. Money systems and "kinds of money" are often defined by ONE of their characteristics, which can lead to some confusion. For example, when people talk about returning to gold money, defining the system by the token, one must clarify whether this is gold coins or a fractional reserve system with gold reserves, and by reserves do they mean partial or 100%?



58. And, to finish up our review, here's what a money system is NOT...



NOT

Economic system

59. It's not the same as an **economic** system. Money is an important foundation and often ignored component of economics, determining or heavily influencing economic outcomes; but a particular kind of money system could serve in a capitalist or communist economy and has. It's worth noting that up until VERY recently most economists ignored the money system and considered it a neutral factor.



NOT

- Economic system
- Fiscal policy

60. The money system is not the same as **fiscal policy**. Fiscal policy is about what we should spend money on and when – the flows of money in the system. Who and how much should we tax. Who and how money is created has a determining influence on fiscal policy, but it's not the same thing.



61. I hope I've made the point that there are many kinds of money systems, and given you a frame to evaluate any and all system options. We have a choice!



62. Now that we're clear about we mean by money and a money system, let's step back in time again.



63. What was the money system chosen and enshrined in law on this July day in 1694 by the British Parliament? --- a system that would change the world profoundly?

Private banks create the money supply by making loans, and will collect interest on these loans. Money goes first to banker's choice, determined by profitability. Money is removed from the supply when a loan is repaid. The government makes this the national money, and guarantees its value.

64. This agreement is between the English Parliament, Crown, and private bankers - investors. The new privately owned Bank of England is given the power to create the national money by making loans and will collect interest on those loans. This will be debt-credit money. The bankers will determine the first use of this new money based on profitability for the banks and their investors. Money is removed from the supply when a loan is repaid. The Government will guarantee this new money with the full faith and credit of the nation, in exchange for the loans needed to build the military, political, economic, and social force to build the Empire they desire.



"...they give their Cashire's Notes
for all sums (ad infinitum which
neither charge the Fund nor the
Proprietors, which seems to be a
Credit beyond the Intention of the
Act of Parliament, and never
practiced before by any
Corporation, to give any Notes but
under their Seal; and is almost a
Fraud on the Subject."



1696



65. This new system immediately raises some eyebrows. In 1696, the writer of a broadsheet entitled, *The Mint and the Exchequer United* writes, "...they give their Cashire's Notes for all sums (ad infinitum which neither charge the Fund nor the Proprietors, which seems to be a Credit beyond the Intention of the Act of Parliament, and never practiced before by any Corporation, to give any Notes but under their Seal; and is almost a Fraud on the Subject."



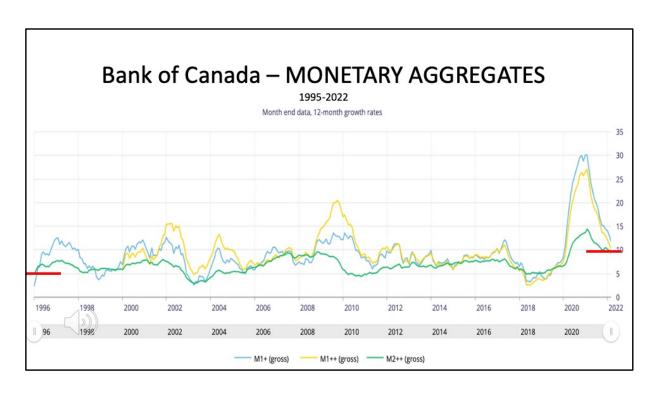
66. Now, step back into the time machine to return to the present....Over centuries there have been plenty of experiments with variations of one kind or another in all of the characteristics of money. There has been maneuvering for power between monarchs, governments, bankers, big bankers and little bankers, and central banks. Tokens have changed. Reserve requirements rose, fell, vanished, and shifted to equity requirements. Enormously complicated financial instruments and elaborate accounting rules have obscured the basic operations. There are a lot of great stories. I'm working on putting them into video vignettes. With minor variations, this basic framework, enshrined in British law in 1694 is a system that has spread via empire and now dominates the globe – with even today, mostly non-essential variations.



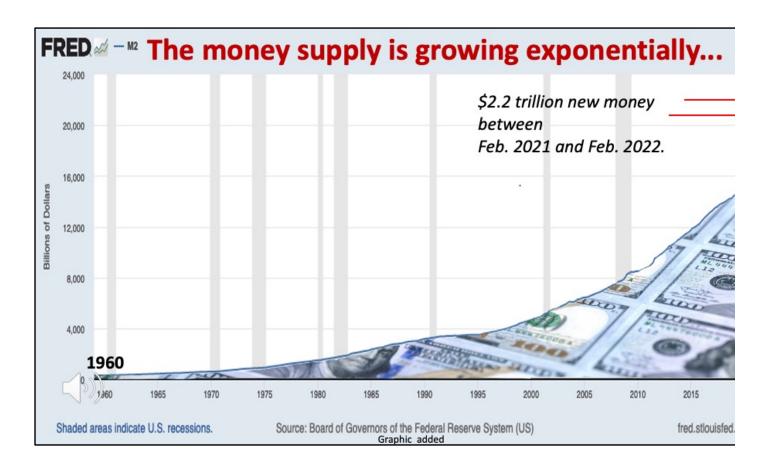
67. Back to 2022, as that journalist noted in 1696, and the Bank of England confirmed in 2014, the banks are creating a nearly unlimited number of bank notes with only the stamp of their seal – without taking money from their hard assets, nor from their shareholders. How do they do that? Well, let's return to the 21st century and take a look at how this system creates money.



68. First, I must apologize that my charts and numbers are nearly all of the US system. I'm not familiar with where to go to get readily downloadable charts on Canada. The charts that I have SEEN about Canada appear to echo the results of the US. However, your central bank is NOT privately-owned, so I'm curious about any other differences in our systems, and apologize for the necessary assumption that US facts are echoed by Canada and that your story is similar to ours. From what I know, it IS basically the same system with better oversight, better laws to mitigate iniquities and craziness, and elements of common sense (typically Canadian from an American's perspective). On to Main Street...



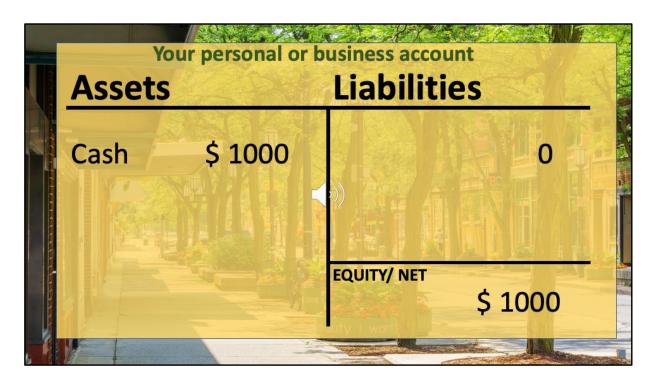
68. It's important to recognize that money supplies grow exponentially. Here's the growth in the Canadian M2 money supply. The supply doubles between 1996 and 2022. Doubling in 26 years suggests an average growth rate of about 3%.



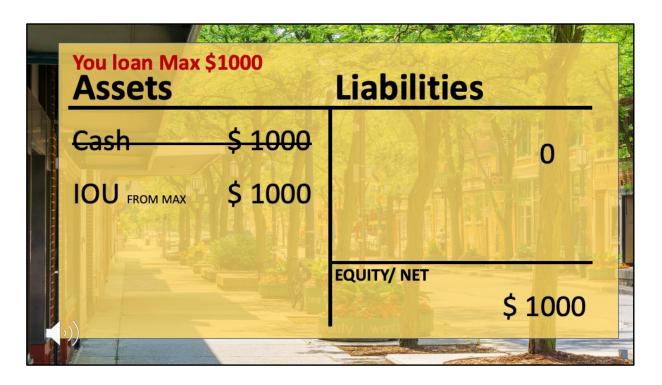
70. Here's a graph of the US Money supply from 1960 to the present. Note that between February 2021 and February 2022, the money supply grew by \$2.2 trillion. Both Canada and the US show increasing money supplies. Who should decide where this new money goes first? Should it go to financial players or for the common good? It is a choice, *built into a money system*.



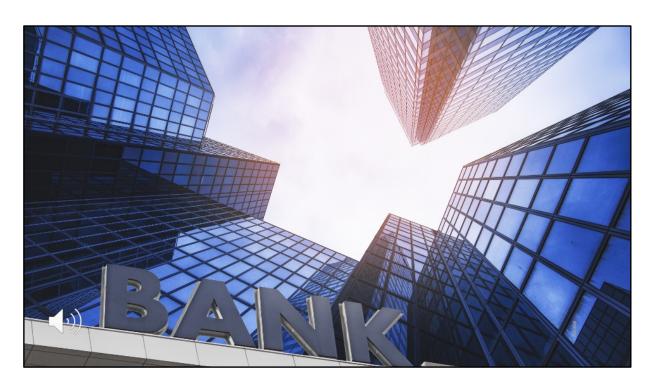
71. So, to learn how the system works, let's start on Main Street, where you and I, our businesses, and the businesses we frequent keep track of our money.



72. Businesses or individuals keep track of their money in the same way. Let's say you have \$1000 cash. In your records, in the Asset column, you have Cash - \$1000. You have no liabilities, so your net or equity is \$1000 (in traditional business accounting, your net equity sits on the liability side, because the assets belong to the shareholders or owners, so they're technically a liability of the business to the owners).



73. Now, let's say you loan your friend Max the \$1000. You take your \$1000 and give it to Max. That removes the cash asset. Then Max gives you his IOU for \$1000, and that goes in your assets. You exchanged your \$1000 cash asset for a \$1000 IOU asset. The net of your balance sheet did not change, you just changed the kind of asset you have. AND, the amount of money in the economy did not change. You lent Max existing money in your possession. So, that same \$1000 is in the economy whether it's in your hands or Max's.



74. How is this accounting different for commercial banks that create our money supply?



75. Let's look at the balance sheet of a bank that starts out with the same \$1000 as you did. (Of course banks have MANY more zeros!) Here is a bank in the same financial position that you were before you made a loan. This bank has \$1000 cash and no liabilities, so a net or equity of \$1000. Let's see what happens when the bank makes a loan.

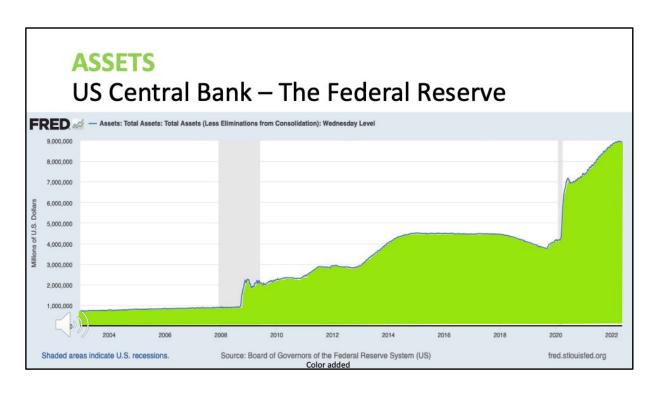


76. A bank does not need to use the \$1000 in existing money in its possession to loan Max \$1000. A bank takes Max's IOU and books it as a new asset. Then it puts \$1000 worth of new bank money on the *liability* side of the bank's ledger, in Max's deposit account. All deposit accounts are on the liability side of banks' ledgers because deposits are the bank's own IOUs, representing the banks' commitment to assure that Max can withdraw and spend those \$1000. (Of course, Max could take his money in cash, or deposit it in another bank, or spend it. As money circulates the banks function as a collective whole. It takes longer to explain what is happening technically; but fundamentally and systemically this is it --- all over the world.)

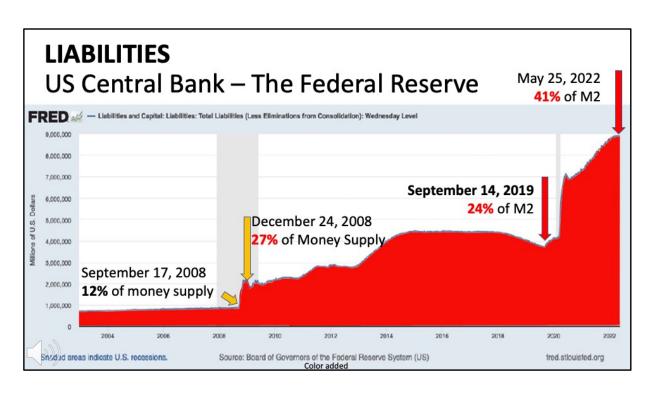
NOTICE: The net/ or equity of the bank remains the same, it is still \$1000. However, their balance sheet has lengthened. Banks' account assets and liabilities GROW line-by-line as they create money. Instead of one entry in assets, there are two entries, and assets have doubled to \$2,000. Liabilities have increased from nothing to \$1000. The money supply has grown. In this case, it has doubled from \$1000 in the bank's hands to \$2000 in the bank and Max's hands. Roughly 95% of the money that we use today is created in this way.



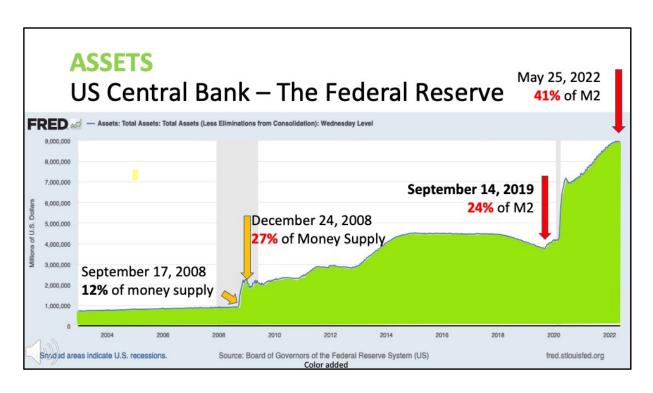
77. A smaller portion of this money creation is done by the central bank, as it functions as banker to the banks. In the same accounting manner that a commercial bank uses to create money in making a loan to you, the central bank creates money as it makes loans to its member banks. These central bank loans to members play a role in maintaining adequate liquidity for the banks as they transfer funds between each other and make investments, but the loans from the central bank are not needed by the commercial banks for their loans to the public. However, the interest rate that the central bank charges its member banks will influence what the commercial banks charge each other and their borrowers.



78. Here is a chart of the US central bank's assets from 2003 to mid-2022.



79. And here's the graph of Liabilities, which looks nearly identical ... demonstrating further how banks accounting generally adds an IOU asset at the same time that it adds a deposit liability. Central bank equity is 1-2%, so not of much relevance. If you're wondering what might be causing inflation...this image might suggest a strong possibility.



80. We can look at either bank assets or liabilities to get an idea of the changes over time. Now that you understand how a bank or central bank's balance sheet grows you know how much money this central bank created by making loans and accepting various forms of IOUs from their member banks.



81. To return to the commercial banks that create most of the money supply, so that you can get a sense of what this power and privilege to create the money supply looks like, ...



82. Here is a VERY abbreviated look at JP Morgan Chase's 2021 Financial report. JP Morgan Chase is the largest bank in the United States, and the second largest bank in the world (behind the Industrial and Commercial Bank of China).

JP Morgan Chase has total assets of \$3,744 BILLION, Liabilities of \$3,449 BILLION, giving them a net equity of \$294 Billion. That reported net equity includes preferred stock, goodwill, and other intangible assets.

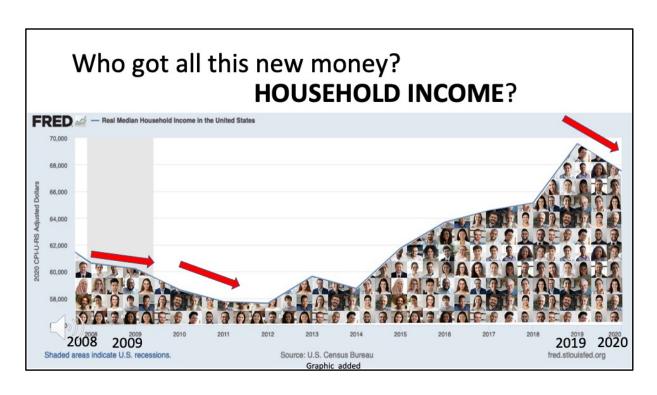


83. Removing the "intangible" assets —is their "goodwill" really worth billions? — Here's another way to look at that summary.

With \$211 billion in hard assets, the bank generates a NET income of \$48 BILLION. The return on tangible common equity is 23%. How many businesses on Main Street do you know that can bring in a 23% annual return on equity? The power to create the national money supply and collect interest on it is a privilege no other business has. It's easy to see why the financial sector dominates and controls the economy!



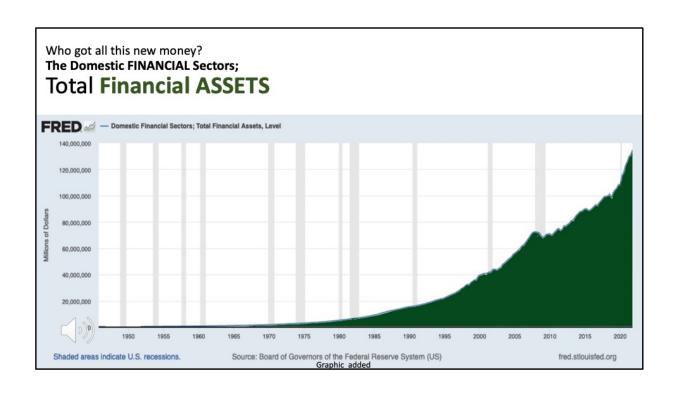
84. When we look at the total money supply created and consider that it was created as loans bearing interest, the transfer of wealth is staggering. The commercial bank deposit portion of the US Money supply was 19.5 trillion dollars in April 2022. This is money created by bank lending. Someone, somewhere borrowed this money and is paying interest on this debt. If we estimate an average interest rate of 5%, that would mean that banks and debt investors are collecting 975 billion in interest payments in one year. This is an enormous, and unnecessary burden on the productive economy. Imagine what that \$975 Billion could pay for in improvements to the commons! So where did all the new money go?



85. Did it trickle down from investment in new business and productivity and land in the pockets of US citizens? Did the US household income rise? Well no. In each of the periods when the money supply and central bank's balance sheet increased substantially, the income of households went down. So where did all that new money go?

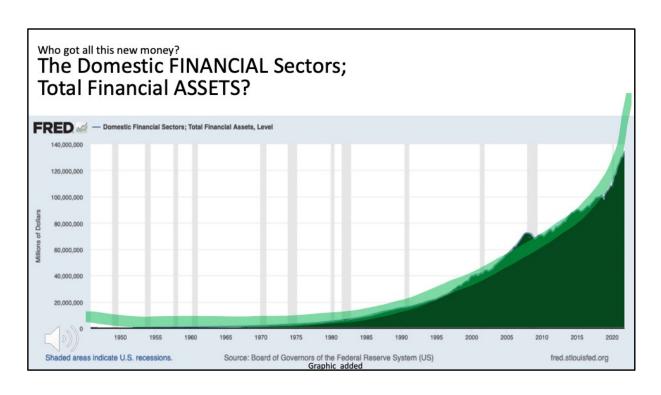


86. Well, here are the corporate profits over this time frame. Corporations definitely took hits with each depression, but they bounced right back up. So, some of the money went into the pockets of those who hold shares in corporations.



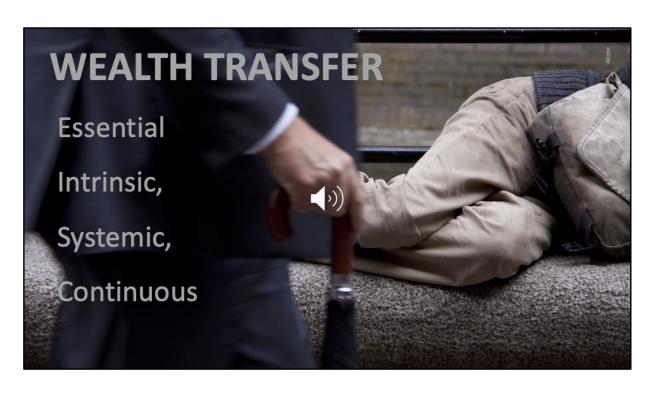
87. Now let's consider the exponential growth of ONE segment of the corporate sector – the **financial** sector. Here are the total financial ASSETS of the domestic financial sectors over the past 70 years. This graph is a different time scale than the previous.

Board of Governors of the Federal Reserve System (US), Domestic Financial Sectors; Total Financial Assets, Level [FBTFASQ027S], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/FBTFASQ027S, May 27, 2022.

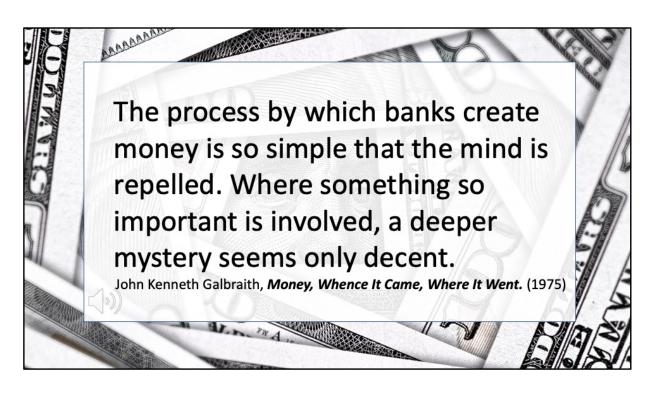


88. Notice the exponential curve of the growth in the financial sector's assets!

Board of Governors of the Federal Reserve System (US), Domestic Financial Sectors; Total Financial Assets, Level [FBTFASQ027S], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/FBTFASQ027S, May 27, 2022.



89. This system of privately-created debt-credit money is essentially, intrinsically, systemically, continuously a wealth transfer operation. Wealth is transferred from the many to the few.



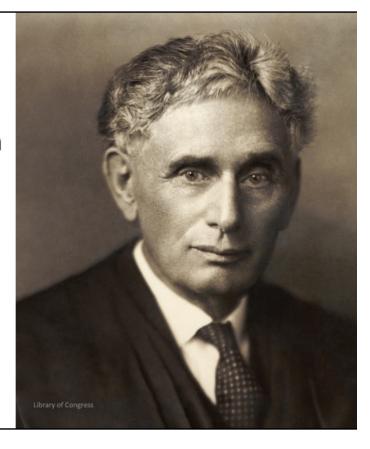
90. As economist John Kenneth Galbraith noted nearly 50 years ago, "The process by which banks create money is so simple that the mind is repelled. Where something so important is involved, a deeper mystery seems only decent."



91. In any money system, we want people to be able to excel and do well. But the top 1% of people cannot own 40% of the wealth in any nation, and take home 20% of all annual income, unless there is a SYSTEM to support this wealth transfer. That's what our money system today does! — all over the world!

We can have democracy in this country, or we can have great wealth concentrated in the hands of a few, but we can't have both.

Justice Louis D. Brandeis
(1856-1941)

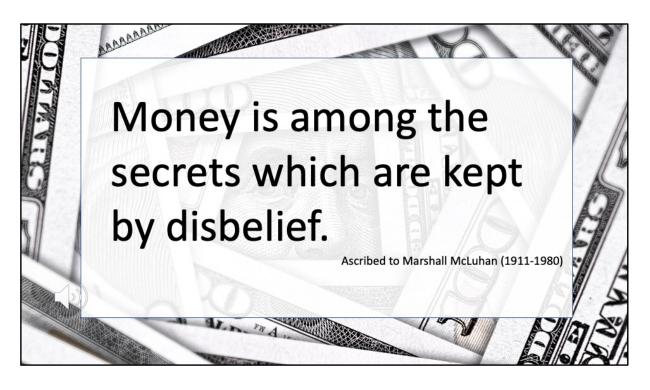




92. US Supreme Court Justice Louis D. Brandeis said, "We can have democracy in this country, or we can have great wealth concentrated in the hands of a few, but we can't have both."

By National Photo Company Collection - This image is available from the United States Library of Congress's Prints and Photographs divisionunder the digital ID npcc.31429. Public Domain,

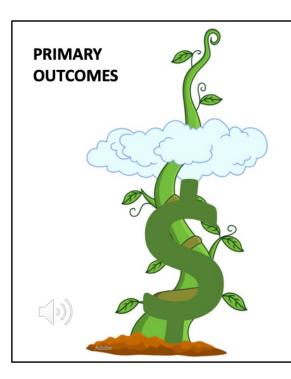
https://commons.wikimedia.org/w/index.php?curid=27230740



93. And ascribed to Marshall McLuhan, "Money is among the secrets which are kept by disbelief." I hope I've made it clear enough that you're all believers!



94. What does the evidence say about the primary outcomes of a privately created, wealth-transfer, debt-credit money system?

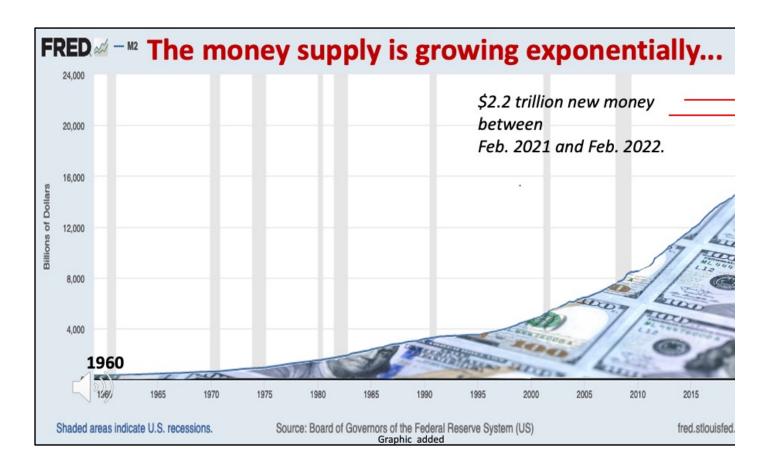


EXPONENTIAL GROWTH in...

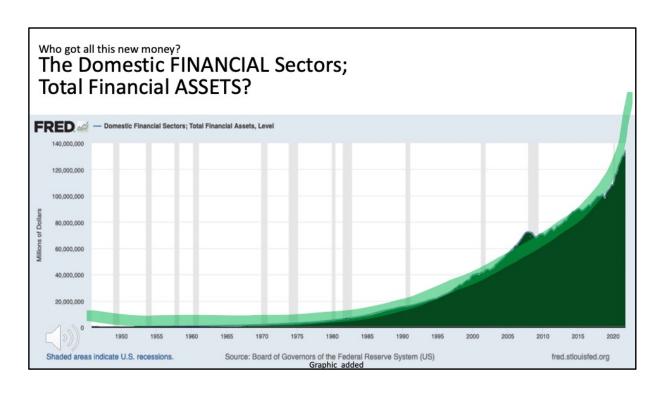
- The MONEY SUPPLY
- DEBT
- WEALTH CONCENTRATION

95. The evidence says the PRIMARY OUTCOMES of this money system choice are EXPONENTIAL GROWTH in...

The Money supply
Both public and private Debt, and
Wealth concentration

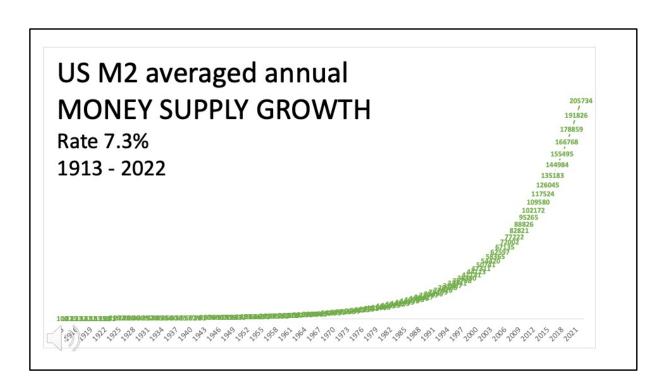


96. So here again is the graph of the US Money supply.



97. We can look back and compare it to the graph of growth in the Assets of the Financial Sector. The slope should look familiar.

Board of Governors of the Federal Reserve System (US), Domestic Financial Sectors; Total Financial Assets, Level [FBTFASQ027S], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/FBTFASQ027S, May 27, 2022.



98. The charts of money supply growth that I've found on the Fed's website only go back to the 1960s. I haven't found charts that go back to the establishment of the Federal Reserve System in 1913 – the US version of the Bank of England. However, I reviewed all their financial reports back to 1913, created a spreadsheet, and found an average of about 7.3% growth per annum in the reported money supply. If you chart the rise from 1913 to the present with that AVERAGE growth of 7.3%, this is what it looks like. The curve smooths out and details are lost, but it's a useful overview.

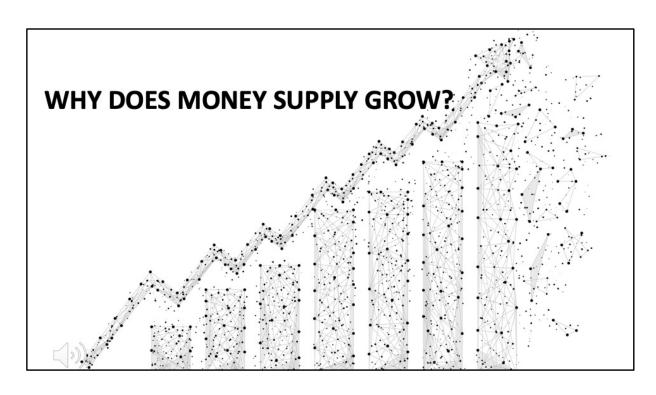


Exponential Growth

The averaged increase in the US Money supply from 1913 -1923

Sugar Rush to Oblivion, Quilt Virginia Hammon, 2018

99. Here's one of my quilts for Claire, (I have made a collection of about 50 quilts illustrating various aspects of the Money Question). This one is **Sugar Rush to Oblivion.** It shows the average rate of growth of the US Money supply with some fabric choice commentary.



100. WHY does our current money system have to grow the supply exponentially?



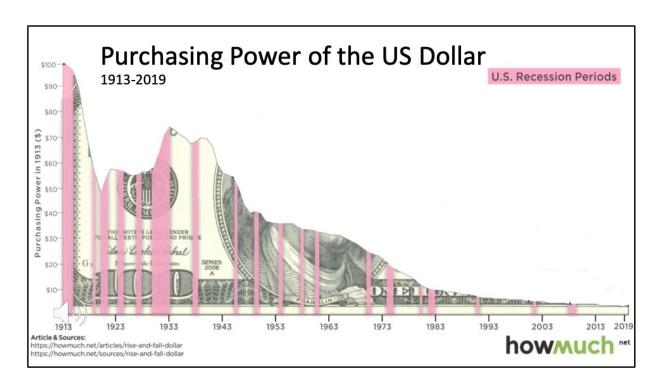
101. **ALL** money supplies must grow to accommodate increases in population and productivity. For example, our grandparents didn't need to budget for a fancy phone and international telecommunication service.



102. But in addition to this basic growth, when banks create money by making loans, they only create the amount of the principle. The borrower must increase his income enough (GROW his income or business!), to draw the money out of the general economy supply to make the interest payment. When you multiply the need to grow and make more money to pay back interest by a majority of people and businesses, this SYSTEM exerts a pressure and imperative for growth and for profits. This establishes a growth imperative in the whole economy. It also pushed profit-making into the top priority slot.

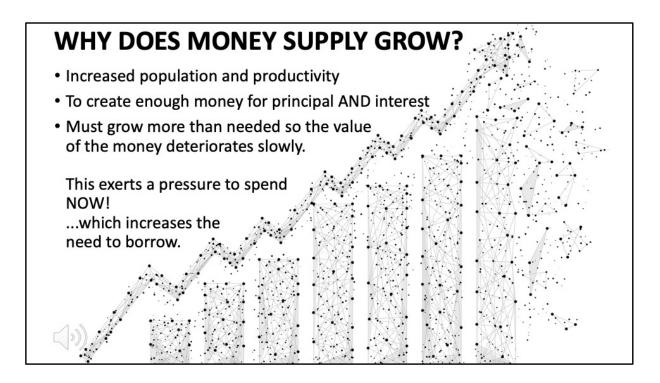


103. The supply also has to grow to support central banker's goals of maintaining a slowly deteriorating value of the dollar – otherwise known as "inflation." When money is going to be worth less, it puts pressure on everyone to spend NOW. This keeps money circulating, increases economic output, and borrowing (which of course is needed in order to keep the money supply increasing). In the US, the Fed, our privately-owned central bank, sets a goal of 2% annual inflation – as do most central banks in a debt-money system. And what is the result?

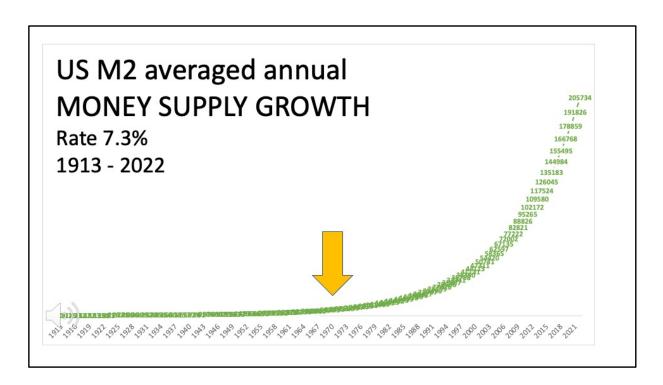


A04. Here is the purchasing power of the dollar since we passed the Federal Reserve Act in 1913. Notice if you smoothed out the big drop in the early 1900s, you've got the general shape of that same exponential curve. It's simply reversed.

https://fred.stlouisfed.org/series/CUUR0000SA0R

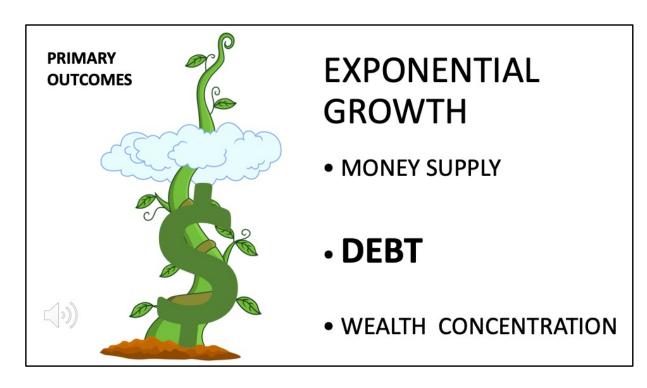


105. So, in summary, the money supply grows to match increased population and productivity, to create enough money for principal and interest, and to grow more than needed so the value of the money deteriorates slowly, exerting pressure to spend NOW! ---which increases the need to borrow as the system demands.

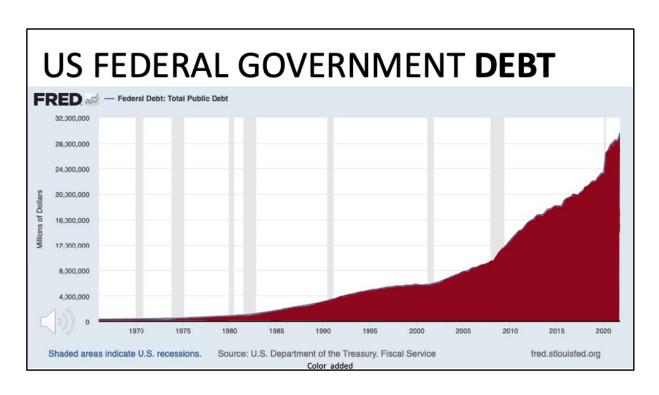


106. And something worth considering...On the chart of averaged money supply growth, notice that up to about 1970, the chart is relatively flat. That annual increase of 7.3% doesn't mean so much when the supply is small. As the supply increases, it compounds, and still at the same rate of increase, the chart begins to head up much more sharply. Hold the image of an exponential curve; the slow, almost flat beginning, the gentle swing upward, then the nearly vertical line off the chart. At first exponential growth appears deceptively slow, manageable, and even something to celebrate...until it's not.

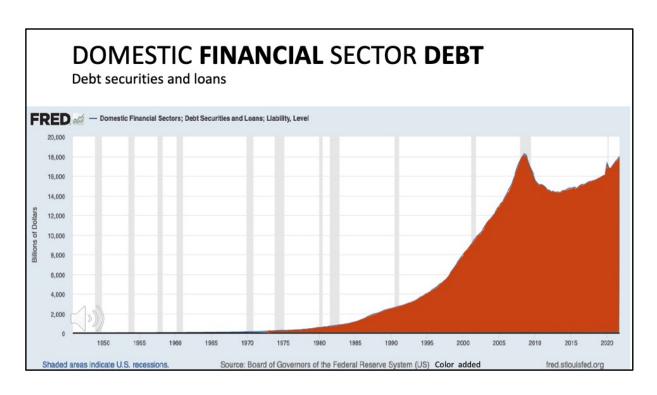
When we look at social, societal, and economic changes over the past century, keep that curve in mind when searching for correlation and causation. Many people who advocate for returning to a money system that links money to "anything real," – a commodity or commodity-based money, point to 1971, when President Nixon took the US off the gold standard. They say, "Look at this pivotal point"!...concluding there is causation present. It is much more likely that changes made in these years were to accommodate the growth imperative... the money system dog, wagging the economy tail.



107. The next **primary outcome, and core problem** of this money system is exponentially increasing DEBT. In this money system, having a supply of money means having debt. Of course, every debt has a corresponding credit, and some people call this kind of money, *credit* money. But they're two sides of the same coin. Let's look at the growth of DEBT.

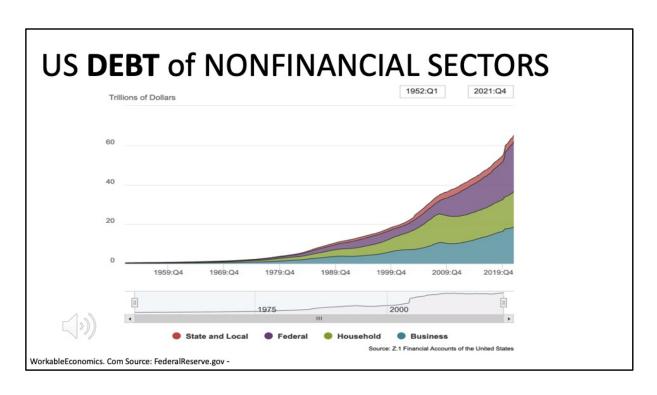


108. Here's the US Federal **GOVERNMENT DEBT** from the 1960s to the present. Notice the increase in the debt roughly follows the curve of the money supply.

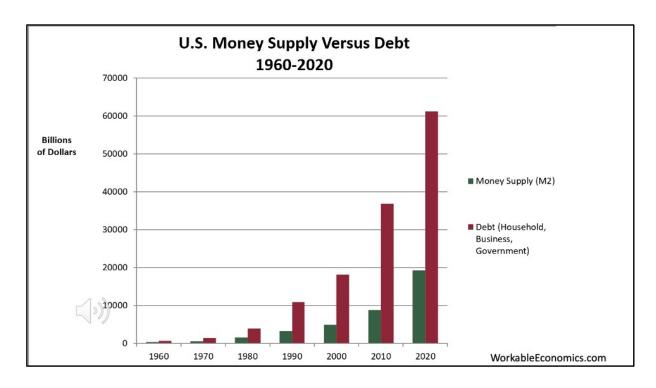


109. Here is the **US DEBT** of the **financial** sector. You can see that they are highly leveraged, and that the 2008 depression caused an "adjustment" in their debt levels that now returned to its previous height.

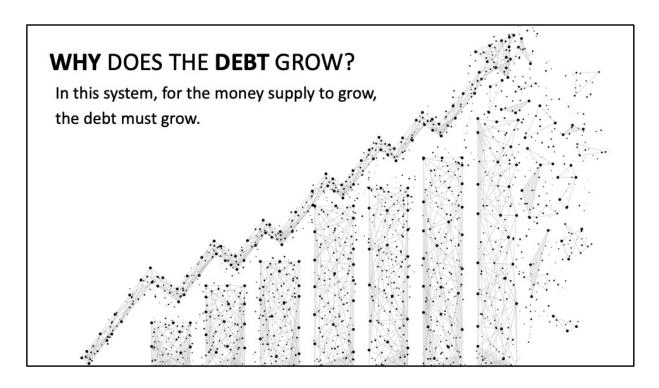
Board of Governors of the Federal Reserve System (US), Domestic Financial Sectors; Debt Securities and Loans; Liability, Level [DODFS], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/DODFS, May 28, 2022.



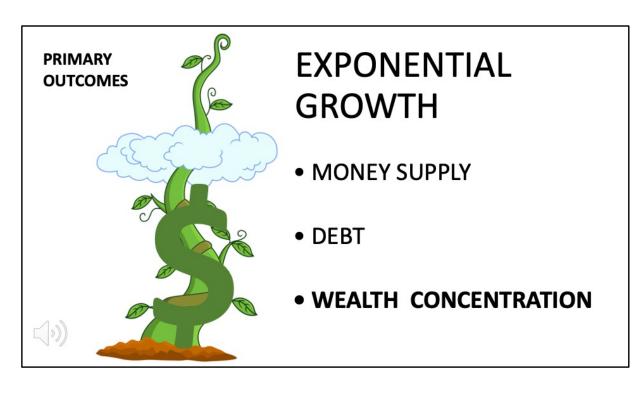
110. Here is the debt of the **nonfinancial** sectors of the economy from the 1960s to the present. Again, notice the curve.



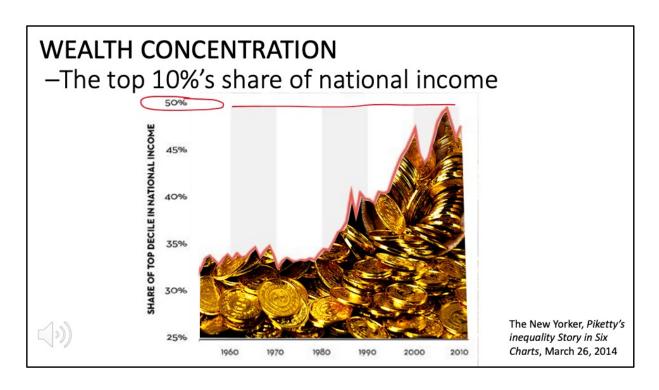
111. One important point about debt. There is nothing wrong with debt itself. It can be extraordinarily useful for people seeking to make major purchases or for businesses making investments. However, this could all still happen with a money system that uncouples debt from money creation. Here is a chart comparing the US MONEY supply to the US debt of households, businesses, and government. Notice that the debt is many times the money supply. This is because debt can stack or nest. The bank loans me \$1000, creating \$1000 in the money supply. I loan 500 of it to you. Now we have \$1500 in debt, but only the \$1000 in the money supply. This chart unfortunately leaves out the financial sector debt, which is a maze of interconnecting debt, on debt, on debt...some creating new money, some not.



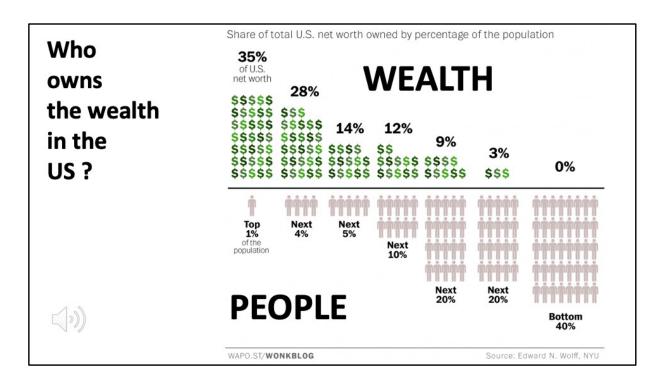
112. Why does the debt grow? Simple answer. Since the money supply is created as debt, DEBT must also increase exponentially. This means there must be more borrowers. It means the need to borrow must be increased; the things we borrow to buy must increase; people who cannot pay for basic living expenses must increase. More and more borrowers must be found or created. For debt to increase people must spend more and spend more money than they have. What do you think this does to society's value base?



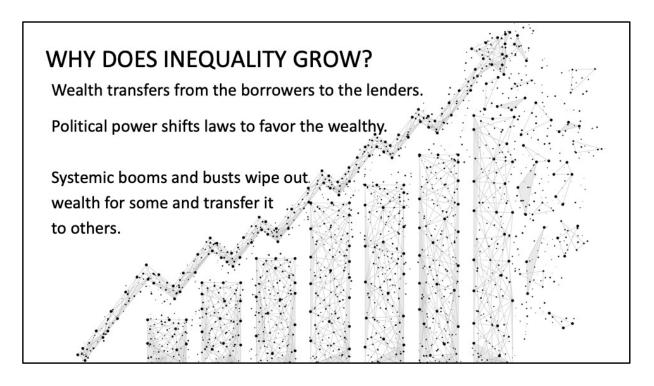
113. The third **important outcome** or consequence of a privately-created debt-based money system— and critically important for the maintenance of any kind of just **government and democratic practice**— is that it is a **wealth transfer.** It increases the concentration of wealth in fewer and fewer hands. Economic inequality increases. The rich get richer, and the poor get poorer, and the middle class shrinks.



114. This graph is a bit jagged, with ups and downs, but smooth it out and it's the same exponential curve. The share of the national income going to the top 10% has been going up steadily and exponentially. The wealthiest 10% of households today control 70% of all the wealth. How much greater does the shift need to go before there is an inevitable violent revolt?



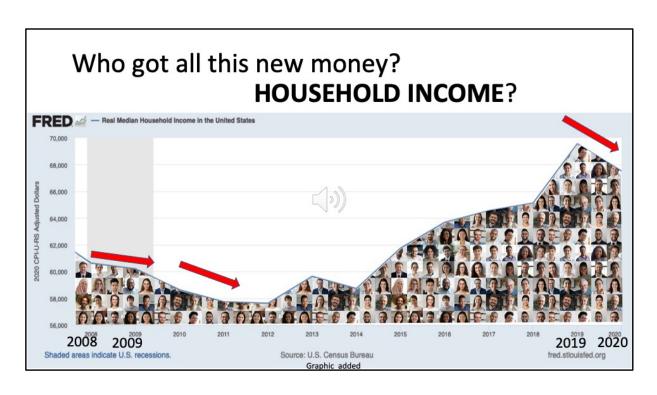
115. Here's another way to look at who owns the wealth. This chart by Edward N. Wolff @ NYU, shows the percentages of national wealth on top and the percent of the population that owns this wealth. You can see the squeeze on the middle class.



116. Why does this inequality grow? Wealth transfers from borrowers to lenders. When money is created as debt by private banks who will collect interest on this debt, that systemically transfers money from borrowers to lenders, from the general public to the financial sector, from those who owe to those who own.

Political power shifts laws to favor the wealthy

Additionally, banks generally demand some kind of asset collateral to make significant loans. This creates a boom-and-bust cycle that also benefits the wealthy few, who can buy up properties on the downturn, and sell at the next peak.



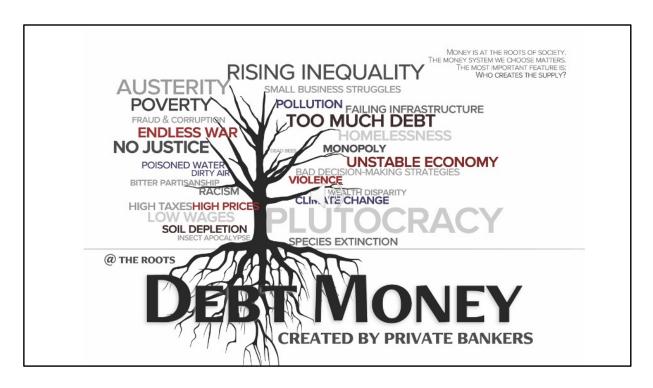
117. As you could see from the earlier graphs of Household and Corporate income, households suffer most and take the longest to recover in these boom-and-bust cycles.



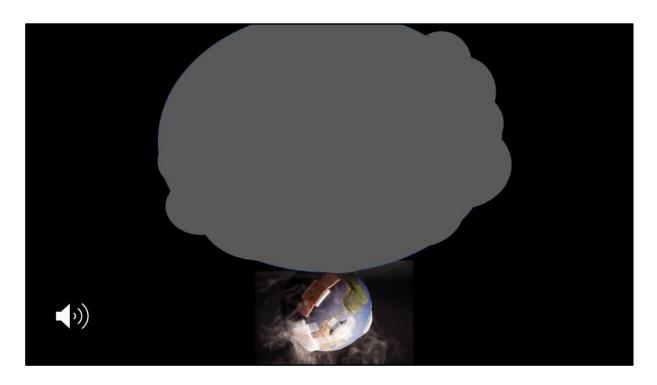
118. (no comment)



119. I was tempted to go into some of the secondary consequences for you today, but this audience could write books – and some have – about the state of the world in quite specific terms.



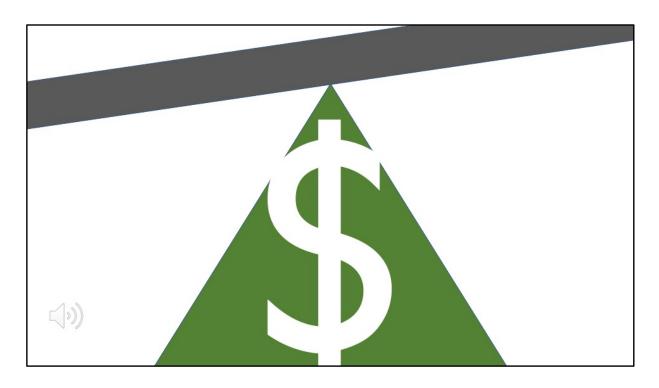
120. My thesis is that nearly every issue we face has A root in the money system — who has access to money and decides how it is used, the role of debt, and wealth transfer, the impact of a society that must make profit its highest priority, and that glorifies financial speculation, perpetual war,... A debt-based and speculative mentality that asks how much debt can we get away with now, what's the "carrying cost" in the short term? False scarcity that demands our government borrow, pay massive amounts of interest, and practice austerity when times are tough, and we need money the most...AND most importantly the demand for continuous exponential growth on a finite planet.



121. We asked at the beginning, what is the blight, the obstacle weighing down and sometimes blocking the implementation of all our good ideas for a better world?



122. I hope I've shown that the specific money system that we use today is a substantial part of this dark weight which we have been struggling against in our quest to make a better world.



123. So, is there an alternative? Is there a different money system that could serve as a fulcrum for leveraging our efforts to best advantage? Could a change in our money system leverage our energy and make change happen faster? YES! Certainly.



124. Here's a set of features of a desirable money system prepared by a study group of the Athens, Ohio, League of Women Voters that will be presented for consideration at the League's National Convention in June 2022 – an effort in which I participated.



A. The money system will provide a convenient MEDIUM of EXCHANGE with ease of use for all.

125. The money system will provide a CONVENIENT MEDIUM of EXCHANGE with ease of use for all. We do this pretty well today.



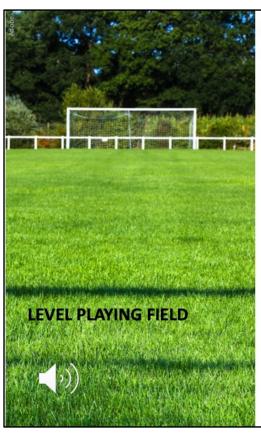
B. The money system will assure a STEADY VALUE of money, providing economic stability – free from economy-wide inflation or deflation, regardles of increases or decreases in the productive output of the economy.

126. It will assure a STEADY VALUE of money providing economic stability – free from economy-wide inflation or deflation, regardless of increases or decreases in the productive output of the economy.



- C. The money system will ALLOW for INCREASES or DECREASES in the money supply as needed by the economy in ways such that...
 - 1. The economy is STABLE, eliminating extremes of economywide booms and busts, including recessions and depressions.

127. With regard to money CREATION. The money system will ALLOW FOR INCREASES OR DECREASES in the money supply as needed by the economy in ways such that... ... the economy is STABLE, eliminating extremes of economy-wide booms and busts, including recessions and depressions.



- C. The money system will ALLOW for INCREASES or DECREASES i the money supply as needed by the economy in ways such that...
 - 2. No one is systemically privileged; money creation is FAIR & EQUITABLE and BENEFITS ALL, not primarily a subset of the population.

128. No one is systemically privileged in the money creation process; money creation is fair and equitable and benefits all, not primarily a subset of the population.



C. The money system will ALLOW for INCREASES or DECREASES in the money supply as needed by the economy in ways such that...

3. The nation is able to spend what is needed to MEET HUMAN NEEDS and ADDRESS CLIMATE CHANGE – limited only by the productive capacity of the economy.

129. The nation is able to spend what is needed to meet human needs and address climate change – limited only by the available resources and productive capacity of the economy.



C. The money system will ALLOW for INCREASES or DECREASES in the money supply as needed by the economy in ways such that...

4. The creation of the nation's money is not used for private profit-making or gain. The benefits of FIRST USE of money go for the COMMON GOOD.

130. ...the creation of the nation's money is not used for private profit-making or gain. The benefits of the first use of money go for the COMMON GOOD.



- **C.** The money system will ALLOW for INCREASES or DECREASES in the money supply as needed by the economy in ways such that...
 - 5. The creation of the national money supply does NOT require increasing DEBT.

131. ...the creation of the national money supply does not require increasing DEBT.



C. The money system will ALLOW for INCREASES or DECREASES in the money supply as needed by the economy in ways such that...

6. The creation of money is NOT dependent upon economic growth for system stability and can accommodate an economy without growth.

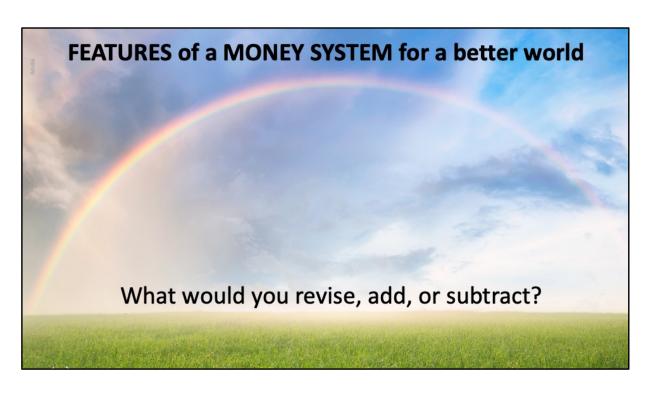
132. ...the creation of money can accommodate a growth, slow-growth, degrowth, OR no-growth economy



C. The money system will ALLOW for INCREASES or DECREASES in the money supply as needed by the economy in ways such that...

7. The national system of money connects to the global and other national systems in a way that privileges no nation, allows the people of all nations to benefit from the first use of their national money, and supports a sustainable future for all.

133. The national system of money connects to the global and other national systems in a way that privileges no nation, allows the people of all nations to benefit from the first use of their national money, and supports a sustainable future for all.



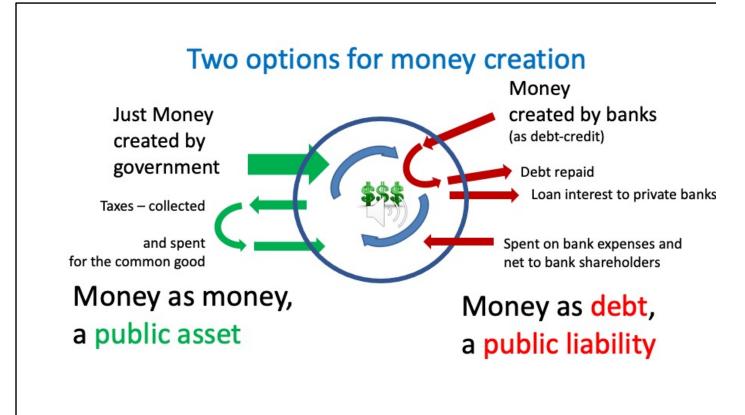
134. What would you add or subtract? I think I'd add that the system must respect privacy and have built in protections for individual autonomy.



135. From my study, there is one system that stands out in best meeting all these criteria. It is called a Just Money System



136. It is called Just Money because it privileges no one. And, it is just money, because no debt is involved.



137. John Howell of the Athens, Ohio League of Women Voters created this graphic to show the basic difference between the existing system and a Just Money system. I've modified it slightly. In a Just Money system, money is created by government, and circulates in the economy. Some is taken out in taxes but re-spent into the economy to continue circulating. This money is a public asset, no debt is involved.

On the other side, as it is today, money created by banks as debt-credit is loaned into the economy. When the debt is repaid, the money is removed from circulation, though the banks keep up a steady increase in more and more money-creating loans, which we've noted causes increasing overall debt. This is an extractive system, and interest payments are acquired from the general circulation and paid to the banks, who then use it for their expenses, with a significant net profit going to shareholders. Banks deserve a fee for intermediating between saver-investors and borrowers, and in a Just Money system, they would receive fees and interest on existing money that they lend out. (This is what many people believe happens today). But they would NOT be making money on the creation of the people's money supply; which produces a transfer of wealth.

JUST MONEY

- Money is created by an Act of government as a public asset
 Private commercial banks will no longer be able to create money
- Money goes first for the common good
 Money first goes to banker choice, based on profitability and growth
- Federal Reserve system is nationalized and moved to Treasury
 The Fed is privately owned and serves bankers first and foremost

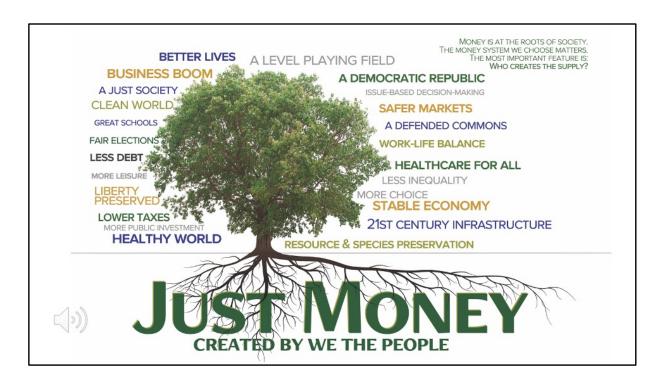
138. To summarize a Just Money system, WE the people create additions to the money supply as a public asset, with an Act in law. Private commercial banks no longer have the privilege and power to create money. Money is created as an asset, entered as income and a cash asset on the government's accounts at Treasury. No debt is involved.

The first use of new money is for the common good. Government can equitably GIVE some of the money as a universal dividend or income. Government can SPEND some into the economy, adding to the amounts already dedicated to healthcare, education, the transportation and communication networks, etc. Government can also LEND some of the money to the private bankers in local communities to make more funds available for entrepreneurship and small business. The government makes this the national money and guarantees its value.

Just Money can be part of the solution instead of the source of many of the problems.



139. And Just Money, created by We the People, could be the fulcrum that makes change easier.



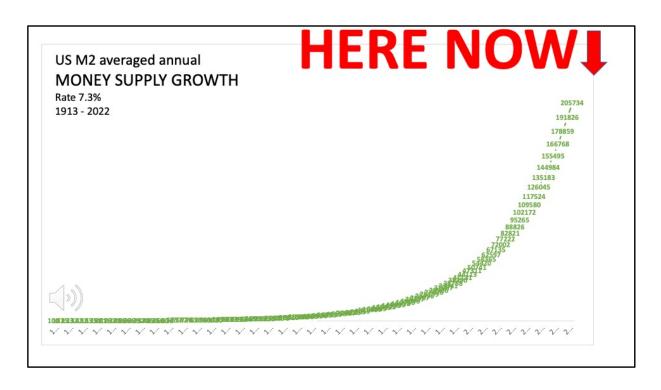
140. While Just Money cannot fix all our problems, it can make fixing them possible.



141. I wish I had time to take a few more trips in the time machine. This kind of money – Just sovereign Money isn't new. It has a long history of successful implementation – in all but a few cases, put to an end by a powerful financial elite. We could step back in time to the US Colonies, to a couple periods in Canada's history, to the Revolutionary and Civil Wars in the US. To the Isle of Guernsey in 1815, or Worgl, Germany in 1932.



142. But it's Back to our Future...I hope each and every one of you will add a slice of your energy to bringing awareness to the power of the money system to either DRAG DOWN or SUPPORT our goals for a better world. Please explore our options and speak up for change.



143. We're here now, and all of us can feel the tension. The number and level of crises are increasing. History tells us some *adjustment* is on its way no matter what we do.



144. AND, we have an opportunity to facilitate change, to choose.



145. This makes this a time of opportunity. Be prepared. As the debate picks up, there will be strong opposition from those vested in the current system, and from many who simply do not know how money works or how important it is to every other concern. Many with deep pockets and will be working to stay ahead of the movement for real change and a democratized money system. Naomi Kline in her 2007 book, *The Shock Doctrine*, shows how some people and agencies have prepared in advance for crisis – and sometimes even created them! –so that they can sweep in with prepared changes that suit their own interests.

This time, let those of us dedicated to a better world that recognize the interconnection of all living systems and the importance of building in sustainability, regeneration, renewal, a just and equitable economy—let us be the ones who are prepared!



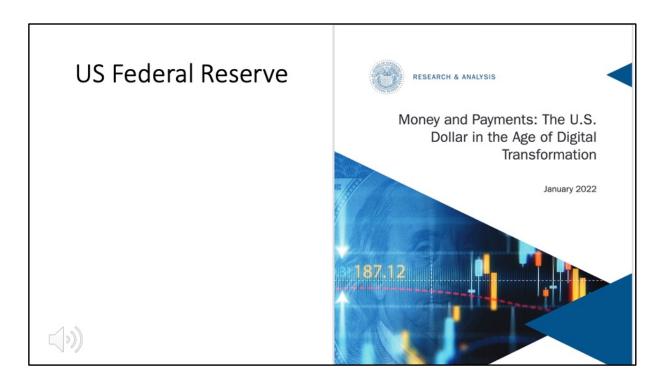
146. The conversation about changing the money system has been heating up over the last decade, with potential solutions abundant. There is a lot of dialogue and deliberation happening on possible alternatives to our present system — at surprising levels of community and governance. Share what you know with the people with whom you work and live; PLEASE add the importance of the money system to your conversations.



147. Here's a bit of what's happening. None of these groups bear any responsibility for any errors I may have made in this presentation. We'll start with your home group, Progressive Money, Canada. They're a good place for you to begin for Canada specific information.



148. I joined a webinar last year given by the US Fed on their efforts to assure that our money system was ceasing to work against minority populations. It was an impressive and diverse group of presenters, and one heard a sincere effort happening at our Fed to rectify previous injustice.



149. In mid-MAY 2022 the US Federal reserve closed requested PUBLIC comments on a study of Central Bank Digital Currency, which they are contemplating. They are responding to the very real threat of further privatization of the money system via cryptocurrencies.



150. A few years ago, Harvard Law established an entity studying "Democratizing Money" – JustMoney.org – providing a gathering place for scholars from all over the world for deep and detailed discussion.



151. In the US, the American Monetary Institute, and its founder Stephen Zarlenga, were an early leader in bringing a discussion of the money system to the fore, and in promoting a "sovereign," Just, democratized, public money to Congress.



152. The Alliance for Just Money is following in their footsteps with an emphasis on education and political action. The Alliance has an extraordinary biography of resource materials, sorted from the simple and clear to the down-the-rabbit hole esoteric. They also hold reading groups on professional papers, and coffee houses on money topics. It's well worth a visit.



153. Positive Money – an incredibly effective promoter and educator on the money system, branched out to Positive Money EU, and in May 2022 to PositiveMoneyUS. It is now focused on pushing the EXISTING system toward more spending on the common good. It has a wealth of materials about the existing system and how it works.



Public Banking Institute

1154. Ellen Brown and the Public Banking Institute has played a starring role in bringing awareness of the role of the banking system to the US Public. Establishing public banks with the same money creation privileges that the commercial banks use can cut the costs for long-term public investments almost in half, freeing up billions to pay for prevention, crisis management, regeneration, and sustainable system installation. Public banks are an excellent next step and while they will NOT stop the inexorable exponential growth curve that results from debt-credit money, they can at least slow it, and shift more funding toward the common good. And public banks can be an integral component of a just money system.



155. Many of these organizations belong to the International Movement for Monetary Reform, which includes groups from 30 countries.

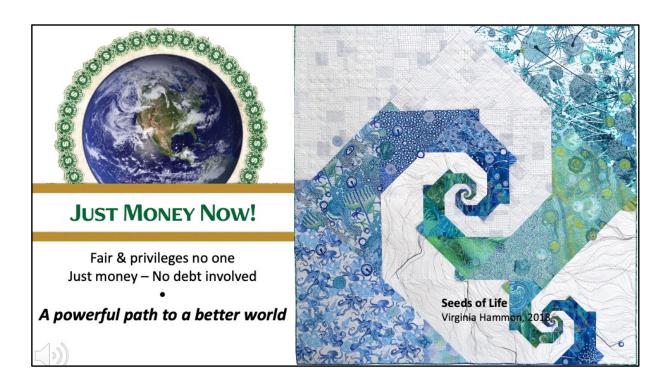


156. I have two websites that have the contents of both my books available on line ...HowWePay.US and USMoney.US.

A variety of other solutions can be found with Google searches for Local Exchange Trading Systems, Cryptocurrencies, no money, gifts only, and so on – interesting options that we haven't time for today.



157. To conclude, changing the money system will not fix our problems, but it will make fixing them possible! LEVERAGE your work for a better world.



158. We all have particular issues that are dearest to our hearts. I hope I've convinced you that the money system as it is today, is an obstacle to your success in ANY field that requires public decision-making or public funding or people with the free time and energy to dedicate themselves to the tasks at hand.

Please add your voice for a money system that serves our goals for a better world.



159. Thank you for staying through! That's All! I'm ready for questions!



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