

ARC Course on Money Creation **Session Four**

WORKING TITLE: "GOOD MONEY CREATION: The Capitalist Money Factory"

Or Good money creation and its productive consequences

Subject: Money Creation

Theme: Money creation resulting from sound investment decisions is legitimate because it is productive and non-inflationary, while money creation caused by the government is illegitimate because it is non-productive and inflationary.

Contrast: Money creation has little to do with productivity and inflation.

(link to Stack: [constructive or destructive?](#))

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So you think that money is the root of all evil?" said Francisco d'Anconia. "Have you ever asked what is the root of money? Money is a tool of exchange, which can't exist unless there are goods produced and men able to produce them. Money is the material shape of the principle that men who wish to deal with one another must deal by trade and give value for value. Money is not the tool of the moochers, who claim your product by tears, or of the looters, who take it from you by force. **Money is made possible only by the men who produce.** Is this what you consider evil? [bold added]

- Francisco D'Anconia, The "Money Speech," *Atlas Shrugged*

THIS CHAPTER IS ABOUT GOOD MONEY CREATION

In Lessons Two and Three, we delved into the mechanics of money creation in commercial banks. We discovered that the creation of bank deposits, a form of money that Von Mises called "fiduciary media," is the unique function of banks. Money creation is the characteristic that makes them "banks" as opposed to other non-bank financial institutions, such as financial intermediaries, that are often confused with banks.

A bank deposit, evidence of the bank's promise to pay out standard money on demand, is fully accepted as money because **customers have unwavering confidence in their bank's ability to keep this promise.** Only commercial banks have the public trust and the legal power to impart the confidence required for our monetary system to function.

Francisco rightly says productive effort is a prerequisite for sound money. The causation also works in the opposite direction: sound money creation enhances productive effort. As we'll see today, public confidence that the banks will create sound money is essential to a productive economy.

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I like to think of a bank as a capitalist money factory, as did the British monetary theorist Henry A. MacLeod, who wrote in 1894:

“A bank is therefore not an office for “borrowing” or “lending” money, but it is a Manufactory of Credit.”

-Henry A. MacLeod, *Theory of Credit*, Vol 2 Part 1, p. 594, Princeton Library, 1894

Macleod wrote when gold was standard money. But, as we learned last lesson, in today’s system, all new money, even standard money (paper cash), originates as credit in commercial banks.

Despite its uniform appearance, all money is not created equal. Just like the making of physical products, the production of money can be beneficial or destructive. Imagine a profitable factory operating in a free market, producing goods that consumers want to buy. Because of their success in the market, most of us agree these products benefit everyone involved in their production, sales, and consumption. (For example, practically everyone is happy with the existence of smartphones.)

Now imagine that same factory taken over by an authoritarian regime that requires the factory to produce things that benefit the government and its cronies but which the consumers would not buy voluntarily. For example, under the Soviet production system several decades ago, factories produced things based on quotas from a central planning committee. They would have factories producing vast quantities of ball bearings that no one needed, while ordinary consumer items, like toasters, were unavailable to the average person. Millions of useless ball bearings are not beneficial, at least not to the consumers who can’t heat a slice of bread for breakfast.

In the same way, money creation in a free market can be a good thing with positive economic effects. On the other hand, if the new money is created under duress or directed by the force of government, it can have very negative economic consequences.

The subject of this lesson is good money creation, by which I mean money creation that enables productive, non-inflationary economic growth. **The theme is that sound money production springs from free market-based decisions by bankers and borrowers guided by the profit motive.** Today, I aim to demonstrate that even an imperfect but mostly free banking system can produce *sound* money – money that is widely accepted and holds its value over time.

In Lesson Five, we’ll discuss the opposite side of this coin, bad money creation, which will allow us to understand the nature of inflation fully.

But today, the subject is money creation in the context of our semi-free economy, the actual economy we live in. As we’ll demonstrate, sound money is made possible by the natural market

discipline accompanying money produced by privately owned banks operating for profit. In such a system, there is a natural tendency to lend productively, and there are natural limits on money creation that prevent inflation from taking root.

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To flesh out our subject of good money production, we want to cover four main points today:

1. The historical roots of the American banking system – which gave us a good, if imperfect, banking system that worked well for decades.
2. Why and how profit-seeking banks make productive, non-inflationary loans. In explaining productive lending, we'll introduce an important concept called the Cantillon Effect, which accompanies all money creation, both good and bad.
3. How market forces limit banks' ability to create money. Theme: The profit motive in a free market makes banks self-regulating.
4. A short, practical exercise in judging when modern money creation is legitimate or illegitimate.

TOPIC ONE: A BRIEF HISTORY OF MONEY CREATION IN AMERICA

We do not live in a world of free market banking; as far as I know, an entirely free market in banking has never existed. To understand the real-world economy, it's essential to understand the real world of money and banking, including its free and non-free characteristics. Only by understanding our actual system can we hope to improve the soundness of our money.

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- **Gold was the “standard money,” so the creation of standard money was limited:**
 - **By the depositors**
 - **By the costs of producing more gold**
- **Banks were privately owned, so the creation of fiduciary media was limited**
 - **By the need to make a profit**
 - **By the limited lending opportunities.**

In preview, the American banking system, while never fully free, had two key characteristics that allowed it to create productive, non-inflationary money that was sound enough to power a dynamic, growing American economy.

The first important trait was using gold as standard money, or legal tender constituting full and final payment. The second was private ownership of commercial banks, which put money creation into the hands of profit-oriented bankers catering to profit-oriented borrowers and depositors.

Since the USA abandoned the domestic gold standard in 1933, the first half of this successful two-part formula has been lost. Cash reserves, or standard money, are created on the authority of the US Federal Reserve, on the statist premise that only government central planning can generate enough cash reserves to smooth out the booms and busts in a cyclical economy. So, as far as the creation of standard money is concerned, a statist premise has replaced a free market premise.

On the other hand, the second half of this successful formula – the private ownership of the banks – is still intact. It's true that government regulators and legislation increasingly influence money creation decisions; however, most of the money used in the economy is still created by the investment decisions of profit-seeking lenders working for privately owned banks.

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https://www.amazon.com/Fed-Unbound-Central-Banking-Crisis/dp/1735913707/ref=tmm_pap_swatch_0?encoding=UTF8&qid=&sr=

To understand this system – the system we have, not the system we want – we need to understand the historical development of the American banking industry. For this, we rely on Professor Lev Menand, a legal and monetary scholar at Columbia University. Menand's 2022 book, *The Fed Unbound*, explains the evolution of the US Federal Reserve Bank from its historical influences to its formal inauguration in 1913, then to its expanding mission in the mid 20th Century, culminating in its unprecedented, radical expansion of power following the Great Financial Crisis of 2009.

In Chapter Two, "Money and Banking In America," Menand provides a concise perspective on the thinking of Congress as it developed and refined the US banking system in the late 19th Century.

Quoting from that chapter:

"A defining feature of the American economy, from the turn of the nineteenth century to the present day, is that it relies on investor-owned banks to create the vast majority of the money that people use. For the government to delegate this sort of power to private shareholders is no small matter, and for most of American history it was a source of continuous political controversy."

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“...Proponents of investor-owned banks argued that the profit motive was indispensable: if the government issued the whole money supply, politicians would inevitably fall prey to the temptation to create too much money and the country’s economy would eventually stagnate.”

Menand, Lev. *The Fed Unbound* (p. 68). Columbia Global Reports. Kindle Edition.

[Interesting note: Menand himself is not a free-market advocate. He believes in a mixed economy. He recognizes the vast expansion of the Fed’s power, but he is not really afraid of it. Instead, he sees the Fed, and government power in general, as a tool to be regulated for the good of the people. So, in reading his book, don’t expect to be inspired by a ringing endorsement of free-market banking. But you will be informed about how central banks work.]

Like many legal and economic customs, **the American practice of using private banks to expand the money supply came from England.** During the 1690s, Parliament, the Crown, and London’s top businessmen devised a kind of public-private partnership agreement on money and banking. Parliament agreed to fix the amount of gold and silver bullion in the national currency and promised it would not issue pounds without backing them with gold or silver. To expand the money supply when needed, Parliament chartered a private, investor-owned corporation, the Bank of England, which it empowered to issue banknotes (paper promises to redeem gold on demand) and to maintain account entries known as deposits (ledger promises to redeem gold on demand). The Bank of England was set up as a “central bank,” providing settlement services for other private banks.

Footnote: Menand, Lev. *The Fed Unbound* (p. 70). Columbia Global Reports. Kindle Edition.

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<https://mashable.com/article/hamilton-jackson-bills>

But, the English banking system, while quite successful, was not applied directly in America because America lacked the political unity required to impose a uniform banking system. The years before the Civil War witnessed bitter political disputes over the structure of the banking

industry. Some leaders, like Alexander Hamilton, wanted a federal banking system with centralized regulation. Others, like Andrew Jackson, favored decentralized, competing banks. Despite the controversy, the US banking system grew during the early 19th Century and, while it experienced frequent troubles, was able to accommodate a growing, westward-pushing economy.

Between about 1840 and 1880, through a series of legislative efforts, what Menand calls “the American Monetary Settlement” took shape. The state legislators who initially developed its key features agreed with some of America’s founders that **giving politicians the power to expand the money supply would lead to a debased currency, corruption, and stagnation.**

American politicians of the 19th Century who crafted this monetary settlement deserve credit for preserving this free-market insight.

But they were also afraid that unhampered banking would allow influential politicians to concentrate financial power in the hands of a few unelected private banking executives. They feared the wealth concentrated in the financial centers, like New York and Boston, would dominate the country and impose undesirable political consequences. To counteract this danger, they attempted to spread the banks’ money-creating power across different entities and a vast geography.

Footnote: Menand, Lev. *The Fed Unbound* (pp. 70-73). Columbia Global Reports. Kindle Edition.

In 1864, Congress passed the National Bank Act, creating an office in the Treasury Department with the power to charter “national banks.” National banks, which remain the backbone of our monetary system even today, had the exclusive power to expand the money supply based on the lending decisions of privately owned banks. And owning a bank was not political – if you could comply with certain terms and conditions, you could apply for a banking license or permission to create money.

To avoid conflicts of interest, these bank charters prohibited banks from engaging in non-banking commercial activities; in other words, banks could not compete with the customers they loaned to. Bank charters were widely distributed geographically to avoid concentration in money centers and avoid the influence of local partisan politics. The government also established broad supervisory oversight to ensure banks operated in the public interest. And of course, these banks held their cash reserves in the form of gold, or notes and bonds convertible to gold, because gold was universally recognized as standard money, the only form of full and final payment.

My interpretation is that during the evolution of this so-called “American Monetary Settlement,” the better freedom-minded politicians implicitly recognized the essential difference between political power and economic power. They understood that political power derives from *force* while economic power comes from *choice*.

Menand, Lev. *The Fed Unbound* (pp. 73-74). Columbia Global Reports. Kindle Edition.

Pure economic power relies on voluntary trade between parties acting in their own interest. Economic “power” does not involve using force; it is earned in the marketplace. But when economic power is contaminated by political power, i.e., through force, it ceases to be true economic power. The result is a mixed economy. [footnote Ayn Rand]

Very few people today distinguish between economic and political power, which is vital to understanding the thinking of our 19th-century politicians, who understood that money creation must not fall into the hands of the government.

I also believe America’s economic success over the last 200 years is evidence that this so-called American Monetary Settlement permitted a solid if imperfect, money-creation industry to grow and nourish the American economy through many decades of impressive economic growth.

By contrast, an oppressive, government-controlled fiat currency system would undoubtedly have inhibited economic progress. We have numerous examples of currency blowups and hyperinflation in the fiat currencies of Latin America. These countries adopted banking systems based mainly on political power, not economic power. And look at their historical results (e.g., Venezuela, Argentina, etc.)

The central point of this historical background is that the mostly free American banking system provided new money where and when needed to feed the American entrepreneurial business culture. Even after the Federal Reserve Act of 1913, which established the Federal Reserve banking system, the damage done by the U.S. central bank was not enough to prevent another century of positive economic growth. People always retained confidence in the US dollar even after the USA went off the gold standard.

This is important because it means we didn’t have to have a gold standard to produce generally sound money. We have done pretty well without it for nearly 100 years. I want to return to a gold standard, but I think things will not necessarily be hopeless if we do not.

TOPIC TWO: BANK LOANS CAN BE PRODUCTIVE AND NON-INFLATIONARY, EVEN UNDER A REGIME OF FIAT CASH RESERVES

To illustrate good money creation, let’s follow the money from a bank loan used to make a new investment. This will demonstrate the role new money plays, from its creation to its extinction.

Imagine a businessman, we’ll call him Mr. Chow, who wants to start a new restaurant. Mr. Chow goes to Advance Bank to borrow the money he needs. From what we learned in Chapters Two and Three, we already know how the loan works: Chow presents his business plan; Advance Bank agrees to the loan; Chow signs a promissory note; and Advance Bank purchases the promissory note by creating a new deposit in Chow’s account, which Chow is free to spend on business expenses.

From the bank's point of view, this loan will be successful only if it is profitable, i.e., if Mr. Chow pays back all the borrowed money on time, with interest. For Mr. Chow, the loan will be successful only if he can invest the borrowed money into a business that will generate enough revenue to repay the loan, plus earn a profit for Chow (and his shareholders, if any).

In other words, the bank's success depends on Chow's venture being profitable. How will Mr. Chow deploy his new money to make a profit?

Chow buys or rents real estate. He hires workers. He invests in equipment. Most importantly, he applies his energy and intelligence to create a restaurant offering that will bring in new business, that is, a revenue stream.

THE CANTILLON EFFECT

Remember that Chow buys all these things with new purchasing power (money) that came into being only after the loan was made. This new money gives him a temporary advantage over his competitors in that he can use it to out-bid them for the factors of production (rent, labor, and machinery) needed to build his new restaurant. After all, Chow has *new* money, and his competitors don't. Therefore, to some degree, Chow can buy labor and goods his competitors cannot afford.



Richard Cantillon

<https://catholicherald.co.uk/the-man-who-invented-economics/>

Chow's temporary pricing advantage from the new money is called the Cantillon Effect, named after the early 18th-century Irish-French economist Richard Cantillon. In his "*Essay On The Nature Of Trade In General*," Cantillon pointed out that new money raises prices unevenly by awarding a competitive advantage to the first person who receives it.

https://en.wikipedia.org/wiki/Richard_Cantillon

Let's pause our story to consider this "Cantillon Effect." We need this concept now to grasp how Mr. Chow creates value in the economy, and we'll need it again in Lesson Five to explain both asset price bubbles and rapid increases in consumer prices.

The main point of Cantillon's essay is that new money injected into the economy does not reach everyone simultaneously. It does increase the purchasing power of those who receive it first, enabling them to bid resources away from those who receive the new money later.

Before Cantillon's essay, economists had some understanding of the quantity theory of money, which states that prices rise when the quantity of money in the economy increases. According to Wikipedia, the fundamental quantity theory goes back to the Renaissance mathematician [Nicolaus Copernicus](#) in 1517 and was later restated by philosophers such as [John Locke](#) and [David Hume](#).

The naïve or "mechanical" version of the quantity theory holds that the general price level is proportional to the quantity of money circulating: if the quantity of money doubles, the "mechanical" version predicts that all prices will also double.

But this strictly proportional relationship between money and prices is purely imaginary. No one has ever *observed* that commodity prices fluctuate proportionally with the money supply because it never happens that way. So, the mechanical or strictly proportional quantity theory of money is nonsense.

But that doesn't mean the quantity theory is completely devoid of insight. All else equal, an increase in the quantity of money available for spending *does* cause spending to increase. **This means the prices of the goods the money is spent on will rise to a level higher than they would have without the injection of new money.**

Cantillon's important contribution to the quantity theory of money was the understanding that an increase in the quantity of money does raise prices, but not all at the same time or to the same extent. He expressed this principle with an interesting analogy:

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"The river, which runs and winds about in its bed, will not flow with double the speed when the amount of water is doubled."

-Cantillon, "Essai..."

<https://www.adamsmith.org/blog/the-cantillon-effect>

Cantillon's unique insight is that **market prices are derived by comparing the supply of the specific goods offered for sale in a market to the demand for those goods – the demand being the total quantity of money offered for the specific goods for sale.** It is not true – as the mechanical interpretation of the quantity theory implies – that all the goods in the economy are for sale against all the money in the economy all of the time. The particular goods offered for sale and the quantity of money offered for them determine the prices of these (and only these) goods.

[Note: The mechanical version of the quantity theory is an example of the “fallacy of composition,” in which the characteristic of a single part of a system is assumed to apply to the entire system.]

Cantillon pointed out that the first recipients of new money will benefit the most from it because, having more money, they will be able to spend money on the goods *they* want before their prices increase. In doing so, those with the new money will increase demand and thus bid up the prices of these goods at the expense of those who do not have the new money.

As the new money is spent and re-spent more widely in the economy, each successive recipient benefits less than the previous recipient as the pricing effect dissipates. As a result, relative prices will change, resources will be reallocated, and income will be redistributed during the time interval between money injection and its final permeation in the economy. Cantillon pointed out, for example, that the original recipients of new money sometimes enjoy higher living standards at the expense of later recipients.

We can understand the Cantillon Effect intuitively by considering how prices might react near a gold mine that has made a new discovery. With abundant new gold circulating in the local trading area, the price of an egg might rise to a dollar per egg near the mining camp, while hundreds of miles away, the price of an egg remains unchanged.

This is because new money is spent first by specific parties with specific spending preferences. The new money is then passed on to other new parties with their own specific (but different) spending preferences. As in Cantillon's river analogy, the new money tends to raise prices via successive transactions over distance and time, its pricing effects changing and dissolving along the way.

A feature, not a bug

Economists sometimes cite the Cantillon Effect as inflationary, but it is important to note that it **accompanies all new money creation**, both good and bad. It's the natural consequence of introducing new money into an economy, just as the changing pattern of flowing water is a natural consequence of adding more water to a river. **The Cantillon Effect is a feature, not a bug, of money creation.** Depending on whether money creation is productive or non-productive, the Cantillon effect can be positive or negative. **The Cantillon Effect is neither good nor bad; it just describes how people behave when they have new money.**

(In normal, competitive lending, the Cantillon effect from any one loan is small, perhaps even unnoticeable when the quantity of new money issued is small relative to the spending in a large industry or a large economy.)

Now, back to our capitalist hero, Mr. Chow. According to the Cantillon Effect, Chow's new money gives him a temporary advantage in acquiring scarce factors of production. But he also has a big challenge to overcome. Chow has to generate a new income stream to pay his bills, feed his family, and make enough profit to repay the loan. To do this, he has to offer his customers a product they want more than the one they already spend some of their money on. After all, the customers have only so much money to spend, so buying Chow's product means *not* buying another product. This means Chow must make a better product – cheaper, faster, friendlier, more delicious, whatever combination of values his customers will pay for. To pay back his loan, Chow must create these kinds of improvements when he invests the new money.

And note that Mr. Chow is not just competing against other restaurants, but ultimately against any other use of his customers' money. For example, if his product is good enough, some people might even choose to save or invest less money just to eat a meal at his establishment. Chow's product might even be so good he expands the market, causing people to eat less at home and more in restaurants. (This was the story of McDonald's, which accounts for 20% of meals eaten away from home today.)

THE CANTILLON EFFECT DOES NOT CREATE AN UNFAIR ADVANTAGE IN A FREE MARKET

The question might arise: Does Advance Bank's creation of new money confer an unfair advantage on Mr. Chow? After all, Chow got something few others got – new purchasing power.

But the bank's granting of new money to Mr. Chow was not an arbitrary gift. Chow had to earn the bank's trust and compete against other borrowers to get the loan, and now he must earn revenue from the public to make a profit. **Mr. Chow has a temporary advantage in purchasing power, but he earned this advantage.** Moreover, Chow's monetary advantage, conferred by the Cantillon effect, comes with a big challenge because he now must generate revenue to pay for his expensive purchases.

He did not get "something for nothing" when the bank created new money, as some free-market economists who oppose fiduciary media like to say. Bank loans are a scarce resource, just like all other factors of production. Chow had to compete with other potential borrowers for the loan. So, there is nothing "unfair" about what has happened.

Moreover, if the loan is successful, Mr. Chow will pay it back in full. When he does, **the new money will be retired or extinguished, but the new and improved product will remain.** Over the full life of the loan, from the time it is granted until it is paid off, no net new money will be created, but the new or improved products will add permanently to the pool of real wealth of the economy. By his ability to make a profit, Chow is raising the quality of the average offering of the entire restaurant industry to everyone's benefit.

Suppose the customers choose Chow's new restaurant. In that case, they may spend less on the old offerings, thus **requiring competing restaurants to improve** if they want to stay in business, thereby improving the entire industry.

Chow's success also improves the overall economy by putting other less desirable restaurants out of business. That's because older businesses that can no longer satisfy consumer demand will no longer be able to generate the revenue to pay for their rent, labor, or equipment. Some will go out of business, and as they do, these factors of production are liberated to be employed in projects the market deems more important.

This shift in consumer preference is part of the process F.A. Hayek called "creative destruction," in which companies that can no longer satisfy the changing desires of consumers are liquidated, freeing up their economic resources (labor, equipment, land, etc) to be put to better uses. This example shows how bank lending helps to facilitate creative destruction, meaning it's an important factor in an advancing economy.

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Richard Werner says it differently:

When bank credit is used for productive investments, such as the implementation of new technologies, measures to increase productivity, or the creation of new goods and services (whose value is higher than the mere sum of their inputs, thus adding value), then such new money creation – which always happens when banks grant credit –**will not result in any form of overall inflation – neither consumer price inflation nor asset price inflation. This is because the new purchasing power created is used to produce higher value-added output and hence the extra demand due to the money creation is met with a higher supply.** <https://professorwerner.org/category/articles-essays/>

Alternative quote (Cantillon Effect is implied):

“ Credit creation for GDP transactions that increases the amount of goods and services available ... generates income streams that can service and repay the new debt created, which is thus sustainable. It is also non-inflationary since increases in purchasing power will be met by an increased offering in goods and services or their value.”

- Richard Werner, *The Quantity Theory of Credit and Some Of Its Implications*, 2012

To sum up our restaurant venture, Mr. Chow's restaurant project is a clear example of "good" money creation, that is, money creation that results in non-inflationary growth.

Loans that create a new income stream sufficient to pay off the loan are productive, but what about consumer loans? Let's see why loans paid back from an existing income stream can also be productive.

CONSUMER LOANS CAN ALSO BE PRODUCTIVE

[slide on types of loans]

Types of bank loans

- Commercial and industrial (direct loans to businesses, syndications, current asset financing such as receivables, lines of credit e.g. payroll financing, etc.)
- Residential home mortgages
- Commercial real estate mortgages
- Consumer loans: credit card financing, autos

Commercial banks make many types of loans. The loan to Mr. Chow would be classified as a “commercial or industrial” loan. Banks also hand out new money for lines of credit to fund commercial needs like financing payrolls; commercial real estate; residential mortgages, automobile loans, other consumer loans, and more. The proceeds from these loans are not always invested in a project that will create a *new* income stream but are often paid back with funds from an *existing* income stream that both the lender and borrower believe will be sustained into the future long enough to pay off the loan.

The question might arise, since these kinds of loans create money to fund present-day consumption, to be repaid by a future income stream, are they productive or non-productive?

I say these loans are also productive when we consider what “productive” really means. In the case of Mr. Chow, “productive” meant the creation of something new (his restaurant) that didn’t exist before. But creating something entirely new is not the only way to be productive.

Consider a car loan or a home mortgage loan for example. **The bank loan allows the borrower to enjoy the fruits of his labor today instead of saving for many years to pay cash for the item in the future.**

Let’s compare a productive business loan with a consumer loan. In both cases, the bank is competing for a portion of the borrower’s productive, income-producing ability, enough to pay off the loan. In both cases, the bank rewards those with productive ability by lending its scarce loanable funds to borrowers who want to trade their future earnings for money today. **By choosing to buy solid productive ability (lending to those who can produce) while not lending to those who cannot produce, the bank is making loans that support positive production.** In the business loan and the consumer loan, the transaction produces a better economic condition for both the banker and borrower.

Consumer loans in a free market are not only productive, they are also not inflationary. It’s true that a surge in consumer borrowing can cause a surge in demand for consumer goods, raising their price. However, this type of money production is limited by incentives in the market.

First, the amount of money banks can lend to consumers is limited by the amount of loanable funds as well as the number of credit-worthy borrowers. These factors limit the amount of money banks can create, which puts an upper limit on aggregate spending and prices.

Second, as consumers pay back their loans, their payments compete with other uses of their money, suppressing demand for other goods. For example, a person who takes on a large mortgage payment has less money to spend on vacations or an additional car. So, the alleged inflationary effects of consumer loans are limited by automatic spending adjustments elsewhere in the market.

Moreover, these kinds of loans are “productive” in the eyes of the borrower in that they enhance his life. By improving the consumer’s quality of life, money creation for the consumer might very well incentivize him to be even more productive, earn more money, work harder, etc. So overall, we have to say profitable consumer lending supports production and may lead to further improvements in production.

To see this more clearly, imagine the banker loaned money directly to a home builder, who uses the money from the loan to build or buy a house for the purpose of renting it out to tenants to earn income. The borrower (home builder) provides the renter with a new product (the house) while the renter provides a new income stream to pay off the loan. Under our previous example, this is clearly a productive loan.

But on close examination, a home mortgage loan accomplishes the same thing. The borrower (homeowner) uses the money to build or buy a house, but instead of renting it to someone else, he pays off the mortgage over time. In effect, he is renting the home to himself. As he extinguishes the money loaned, pays for a place to live while gaining full ownership of the house. When the loan is fully extinguished, he will have a valuable asset with no debt attached to it.

Money creation that is not backed by real economic activity will cause prices to rise.

Richard Werner says, and I agree, that the best loans are paid off by a reliable future income stream. But there is another possibility.

What if banks lend for speculative reasons? In these cases, the bank would lend on what it thinks is good collateral, but the lender and the borrower expect to repay the loan when the price of the collateral asset rises. There was a lot of this during the early 2000s housing bubble, even though the banks would not admit it at the time.

These kinds of loans might be considered productive if they enable a profitable transaction – for example if a loan was made to purchase assets in bankruptcy and the assets are temporarily mispriced. But note that the interest on the loan is paid out of price appreciation, which could be a result of pure speculation. These kinds of loans, made in excess, have been the demise of many banks and even of entire banking industries. Banks would be well advised to avoid this

kind of lending most of the time, and deposit owners at such banks should be wary about the safety of their deposits. We'll learn a lot more about speculative bank lending in the next lesson.

Money lent against rising asset prices on a continuous basis is dangerous for the banks because it uses the rising asset prices as collateral, justifying greater loan amounts, which creates more money, which pushes asset prices higher, in a speculative spiral that never ends well. Thus, money creation used to finance speculative asset purchases can lead to an asset bubble.

The free market cure for this mistake is to let the offending banks fail without bailouts. When depositors lose money, they will learn to use a different bank or get their deposits out of the banking system altogether. The most important market regulator is the prospect of a bank failure, in which case all parties – depositors, bank owners, borrowers – lose. But to prevent many banks from failing, it's important that some be allowed to fail. This keeps the other banks honest, which means it requires them to be careful. The real possibility of losing money in a bank failure, without a central bank to create cash reserves to paper over their mistakes, would teach both borrowers and lenders to avoid reckless lending.

Whether they are lending to businesses or to consumers, as long as they have to answer to the discipline of the market, privately owned banks cannot *continually* create new money to fund unproductive spending, because the borrowers have to be productive enough to earn the money needed to pay back the loan.

Only the government can pay back loans by doing unproductive things. To do so they must resort to force, like taxing people to pay back loans that could not produce their own income stream. We'll have more to say about the government's influence on money creation in Lesson Five.

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New money creation in a free market is not inflationary:

- Because new goods and services are created along with the new money
- The surge in prices caused by lending is limited by market forces;
 - o Successful loans, when paid off, extinguish money.
 - o Speculative bank lending is discouraged in a free market

In sum, new money creation under an economy regulated by a free market is not inflationary for two reasons. First, because new goods and services are created right along with new money; second because there are limits to the inflationary surge caused by lending for consumer spending or for speculation, so price increases cannot continue chronically.

[optional: In fact, when banks are actively creating new money to fund rapid economic progress, prices may actually decline over time if productivity is high. This was the case in the USA during the period from about 1870 to 1900, when money supply was increasing but production increased even faster. So during that period, we had a rising standard of living even as prices were steadily falling.

<http://socialdemocracy21stcentury.blogspot.com/2014/06/a-us-wholesale-price-index-18601914.html>

(According to Reisman, the fall in prices came to an end with major discoveries of gold in Alaska and Australia, and the development of processes which made possible the commercial exploitation of a vastly increased portion of South Africa's deposits.)"

Reisman, George. *Capitalism: A Treatise on Economics* (p. 397). TJS Books. Kindle Edition.

It is also likely the reason that consumer price increases from 2000 to 2020 were very modest. Even though money creation increased during this period at 7 to 8% per year, outstripping real GDP growth, increasing productivity from global trade kept consumer prices low or falling, resulting in lower annual price increases (1-2%) than would have occurred in the absence of this increased productivity.]

TOPIC THREE: HOW FREE MARKET FORCES REGULATE THE QUANTITY OF MONEY BANKS CAN CREATE, EVEN UNDER A FIAT RESERVE SYSTEM

As we saw in Chapter Three, a free-market banking system operating cannot create new deposits without limit. This is because as long as the amount of cash reserves in the banking system are limited, as in a gold standard, the amount of additional money the banks can create is also limited. Recall that under a gold standard, the level of a bank's cash reserves are limited, first, by the choice of gold owners to deposit their gold in the bank or to hold it elsewhere; and, ultimately, by the total amount of gold available, which in turn is limited by the output of gold mining and refining. Because gold is a scarce resource requiring the expenditure of real capital (wealth) to produce it, there is a self-regulating limit on the amount of gold that can be produced in a given period. Historically, the increase in the worldwide gold stock has typically been 1-2% per year.

Under our fiat reserve system, cash reserves could theoretically be limited by the currency's monetary authority, which is usually a central bank. However, as we learned in Chapter 3, central banks do not limit reserves to impose discipline on their banks. The resolve of central banks to limit cash reserves is constantly tested, and often, especially during difficult financial times, they cave in and create cash reserves to bail out their constituent banks.

A prime example of this tendency was after the 2009 financial crisis. Many banks in the USA held "toxic" assets – mortgage loans that should never have been made and which could not be repaid. The Fed's response was to purchase these assets from the affected banks at full price, allowing them to pay out all depositors who withdrew their money. They did the same thing to save depositors when Silicon Valley Bank blew up, buying the bank's government bonds at face value instead of their fair market price, allowing depositors to get all their money out.

But despite this flaw in the modern banking system, there are still many effective market-based safeguards that prevent banks from creating new money without limit. As we would expect

from a semi-free, semi-fiat system, it is not all good and not all bad. Let's review the market-based limitations on money creation that still exist.

[slide: limits on money creation in a fiat reserve system:

- Limit on profitable lending opportunities
- Financial incentives for owners
 - To make a profit
 - To avoid bankruptcy
- Constraints imposed by depositors' demand for money

First, there is a *limit on profitable lending opportunities*. As long as banks must make loans that are paid back at a profit, their ability to expand credit is limited by the real economic potential of their borrowers. As the best loans get funded first, the creditworthiness of the remaining potential borrowers increases, increasing the risk of additional credit expansion. Increasing credit risk of the marginal borrower thus becomes a natural barrier to further lending.

Closely related is the risk of bankruptcy faced by any privately owned bank. The bank's shareholders want a steady stream of dividends from their capital, not the destruction of their capital. So they will want to steer a prudent course to maintain that dividend stream.

There are also *constraints arising from depositors' (households and firms) desire to hold money*, i.e., their demand for money. Limits on demand for money affect loan demand. If people want to hold higher cash balances, they may be willing to pay higher interest rates in order to have more cash, in which case they would expand borrowing and new money creation would accelerate. On the other hand, they might be in a "pay-off" mode, which means they want to pay down their debt, not take on new debt. In that case, new money creation would slow down.

In addition, there is a limit on demand for loans based on the limited ability of the market to repay them. There must be an income stream to repay the loan, so the aggregate income stream in the economy limits the aggregate amount that can be loaned against it.

Finally the behavior of depositors can limit credit creation in the banks. Depositors will move out of banks where they perceive excessive risk. Banks are constrained by the need to maintain a prudent level of cash reserves. Loss of deposits means loss of reserves, which restricts the banks ability to expand its loan book further. To attract new deposits (and thus cash reserves) the bank will likely have to offer higher interest rates to depositors.

Thus, market constraints on lenders, borrowers, and bank owners converge to limit credit creation. These dynamics of the lending marketplace tend to be self-regulating. For example, if a bank tried to continually increase lending by lowering its lending rates, it would have to attract new reserves by continually increasing the rates it pays its customers' deposits. This would decrease profitability and eventually stop the bank from expanding its loans. So, competition for limited lending opportunities, the need to make a profit and avoid bankruptcy,

and the competition for limited cash reserves (and deposits), all act to limit money creation by banks.

As evidence that we can still have sound (or sound enough) money in a system of fiat cash reserves, look at the economic history of the United States under this system. For the most part, since the fiat reserve system was established in 1933, economic growth and prosperity have prevailed. This could not have happened if our money production system was completely unsound. A completely unsound system would have led us to serial monetary crises and poverty, as in Argentina and other Latin American countries.

Look at history where the fiat reserve system produced money that stayed relatively sound for nearly 50 years. Sound means it is accepted everywhere in commerce and retains its purchasing power over time.

If monetary authorities could only restrain themselves from intervening by creating excessive cash reserves every time a crisis comes along, it's possible that a fiat reserve system could work well indefinitely. In fact, it has worked reasonably well for about 90 years (since 1933). In my view, an example of how money production should work is the US's small and regional banks, the specialized lenders that fund small businesses and a large portion of commercial real estate transactions. They play a vital role in economic progress.

But logic and my understanding of human nature say, this fiat reserve system cannot last indefinitely. Controls lead to more controls, and bailouts lead to more bailouts. Governments always eventually intervene to avert disaster or alter or "improve" the market process. When government officials are granted excessive power, we can expect them to use it. Problems always arise when they do this because they interfere with the beneficial cleansing effects of market discipline. To an interventionist, there is no "creative" destruction. All he sees is destruction, when some constituent company goes out of business or doesn't get the loan he wanted, so the bureaucrat intervenes in the credit creation process. The interventionist wants to avoid all such "destruction" by saving uncompetitive, dying industries from their natural demise. This is something like trying to save the rotting flesh of a gangrene patient.

I would argue we took a significant further detour away from sound money with the advent of radical central bank activity, which became obvious in the QE years of 2009 to 2022. We'll talk about QE in detail next lesson.

So far, the government has so far not completely killed economic progress by its intervention into money production. They have done a lot to corrupt it, but a lot of productive and non-inflationary money creation still goes on today.

The fact that the economy is still productive tells us we can still have a good degree of soundness in our money as long as money creation is accomplished by private bankers who make decisions with the purpose of making profits.

Would there be so many bank failures and mistakes if banks were not protected against failure? Do we really need government safeguards against bank failure? Wouldn't people learn to read a bank balance sheet before they deposited their gold?

[slide – The Forgotten Depression]



https://www.amazon.com/Forgotten-Depression-Crash-Cured-Itself-ebook/dp/B00IWTWSS8/ref=tmm_kin_swatch_0?encoding=UTF8&qid=1696873904&sr=1-1

Of course they would, and they used to do this. Yes, there were booms and busts in a young economy with an untamed banking system, but many of these inflationary booms and busts can be attributed to wars financed by inflation or some other kind of government intervention. And industry often intervened to right the ship.

There is good historical evidence that both banks and the rest of the economy can heal itself with no intervention from the central bank. For details, see *The Forgotten Depression*, by James Grant. This was a the post-WW1 depression of 1921-22 in which GDP declined by over 40 percent, prices declined by over 20 percent, and unemployment went above 20 percent. But the Fed was too new to do anything about it. Within 18 months, the economy was fully recovered and growing because prices and wages adjusted by themselves.

TOPIC FOUR: PRACTICAL EXERCISES IN JUDGING MONEY CREATION

The opening quote from Francisco said that money is made possible only by those who produce. When the government causes banks to make unproductive loans, thus bestowing purchasing power on the undeserving, it is counting on the production of others to give its counterfeit money value. This is what Francisco meant when he said money is made possible only by those who produce.

The government gets away with selective control of money creation only to the extent that there is legitimate money creation going on somewhere else. The government can camouflage its unproductive spending under the veil of bank credit creation. This is why you need to be able to judge whether money production is legitimate or not.

Are these examples of money creation legitimate? (productive and non-inflationary)

So let's look at a few examples of money creation to judge whether it is legitimate or not.

How do we judge this? Here's a simple framework consisting of three questions that will help you decide if the loan is honest and justified or not. When examining a bank transaction involving money creation, ask the following three questions:

[slide]

How to decide if money creation is legitimate:

1. Who decided to create the new money?
2. Who benefits from the new money?
3. Was force or fraud employed in creating the new money?

Example One: Consider the loan taken out by Mr. Chow in our example. Answering the three questions makes clear it's a legitimate act. Advance Bank decided to make the loan as a business decision. In the context of a free market, all parties benefit from the loan – Chow, the bank, and the economy at large (the consumers). Some of Chow's competitors may have to work harder or find different work, but we all agree this is a long-term benefit from a free market. And of course, no force or fraud was involved. So we can declare this loan legitimate.

Example Two: Our consumer loan from Chapter Three, where the consumer borrowed \$2000 for a vacation, then paid it off. The bank decided to make the loan. Both bank and the borrower benefited. Again, all parties benefit from the new loan. Finally, no force or fraud was involved, so we can **declare this loan legitimate.**

Now let's look at some different kinds of money creation involving the purchase of government securities.

Example Three: Suppose Advance Bank buys a Treasury bond for its own portfolio from an investor. The purpose is simply to acquire a good income-producing investment. This action creates new money in the bank account of the bond seller. Both parties to the transaction – both the bank and the seller of the bond – believe the transaction benefits them. No force or fraud was involved unless this purchase was required by government, which in this case it was not. Although banks creating money to purchase government bonds sounds fishy at first, there is no force or fraud here. **This transaction and its associated money creation seem fully legitimate.**

I will add that in some countries, like Argentina, the monetary authority *requires* commercial banks to purchase government bonds as a way to fund profligate government spending by monetizing its debt. This is government borrowing that creates money directly. So far, to my knowledge, US commercial banks have never been forced to do this, but do not rule it out as a possible way for the government to finance itself in the future. If our government did this, I would rule it illegitimate, as it is in Argentina. You should be on the lookout for this type of thing as sovereign governments scramble for more money.

Example Four: Now, suppose the Federal Reserve Bank of New York directs Advance Bank to conduct a QE transaction. To review how this works, in step one, the Fed offers to buy a Treasury bond from a private investor, say a pension fund, and the pension fund agrees to the transaction. To conduct the transaction, the Fed directs Advance Bank, where the pension fund already has an account, to buy the Treasury bond, crediting the fund with new money. Simultaneously, the Fed purchases the bond from Advance Bank, paying with new cash reserves. The Fed now owns a new asset, the bond, and a new liability called “reserves due to Advance Bank.” Advance Bank now owns a new asset, cash reserves, and this asset is offset by its new deposit, a liability to the pension fund. The pension fund has traded its bond asset for a cash asset, which it can spend on a new investment.

Who decided to do this transaction? Clearly, it was the Fed who made the offer, and the pension fund accepted. The commercial bank had no choice – it was directed by its regulator, the Fed, to conduct this transaction. **Who benefits?** The Fed benefits because it achieves its policy objective. The pension fund benefits because it now has new money to spend for further investment. Advance Bank perhaps receives a small benefit because it earned a small fee or markup on the transaction, and now it has more cash reserves, even though it may soon lose them because the new deposit is not likely to remain with this particular bank for very long. **Was force or fraud involved?** Advance Bank was directed by the Fed to participate, so there was definitely coercion involved. **How about fraud?** The Fed caused the pension fund to get new money, which was reinvested, raising demand for other similar investments, thus raising their price via the Cantillon Effect. The net effect was an increase in the purchasing power of the pension fund through no effort earned by its investment policy. This means the fund can outbid other investors, like you and me, for valuable financial assets – simply because we did not get invited to the QE party. It amounts to a direct subsidy to the professional investment community, transferring wealth to the investor class. The transaction also puts downward pressure on bond yields because as bond prices rise, bond yields (interest rates) must decline, making it harder for the average person to accumulate savings. This act of *money creation through a bank's security purchase* was instigated by the central bank. Is this a form of theft? Is it fraudulent? Is it deceptive if most people don't understand it? What do you think?

Example Five: This is hypothetical but possible. **The Fed, reacting to new legislation from Congress, adopts new lending standards for all the banks it supervises. The new legislation restricts lending to fossil fuel companies and encourages lending to green energy companies that, as part of the new law, are being subsidized by new tax laws and government loan guarantees.** In this case, Advance Bank lends money to a green energy company it would not have funded before the Fed imposed its new lending standards.

Who decided to make this loan? Clearly, Congress and the Fed made a lending decision that Advance Bank would not have made without this legislation, because the market would never have decided to use these lending standards. **Who benefits? Obviously, the green energy company benefits via the Cantillon Effect. Advance Bank also benefits if the green company can repay the loan, which is only possible due to the government subsidies.** The previous

borrowers, the fossil fuel companies that are favored by the market, clearly suffer, as they must now get their funding elsewhere at a higher cost. **Finally, is force or fraud involved? There is obvious force in the legislation that mandates the loan.** This act of money creation was instigated by force, by Congress, not by the bank. **There is also fraud by anyone who represents the green loan as beneficial for the economy and society.** In my view, this loan is clearly illegitimate.



These last two examples illustrate an important trend. Under our system, the money supply has to be created in and by the commercial banks. However, the *decision* to create the money is increasingly influenced or even controlled directly by politicians and bureaucrats.

By analogy, the bank is the rifle that always fires the bullet. But increasingly it's the government, not the bankers, who give the orders to pull the trigger. The officer who orders the execution, not the firing squad, is responsible for the consequences.

I encourage you to consider these three questions when you are judging a bank's actions, or judging the regulatory actions of the central bank or the government.

Next time we are going to the "dark side" of money creation, discussing the damage done when government directs or influences the money-creation decision. We'll do that by examining two real-world asset bubbles that left a lot of harm and destruction in their wake. In the process we will also justify what I think is the **proper definition of inflation, which is an increase in the quantity of money caused by government action.**

[END OF MANUSCRIPT]