Part 2. Proposals of a CBDC

6 Miguel A. F. Ordóñez

This presentation begins with Miguel's stated assumption that the problems have been identified. The retail banking system is "unsafe". To my mind, the cause of this condition wasn't convincingly established by any of the presenters in the first part of this conference. As Ulf said " "we still don't know what creates these financial crises". No one mentioned the fundamental structural problem I have identified.

This talk is by a senior banker making the case that the solution is a central bank digital currency (CBDC) being available to everyone. This is no surprise as the stated goal of this conference is to justify the introduction of CBDC.

My first impression is confusion. Miguel claims that commercial banks get the "seignorage" on the creation of money. But seignorage is defined as the profit made by a government by issuing currency, especially the difference between the face value of coins and their production costs. Commercial banks don't collect seignorage. Is Miguel saying that "seignorage" is the interest on the money commercial banks create as loans?

Miguel also refers to commercial banks using depositors' money to make investments for the bank. But a deposit is a liability of a bank to a depositor. Only the depositor can lend or invest it. Both Michael Kumhoff and Steve Keen commented that even at the top levels, bankers have misconceptions about their own business. Is this an example?

Next, Miguel talks about central bank money being "safe money" without telling us how it is created.

Currently, in all the banking systems I have studied, central bank reserves (potential legal tender physical cash) are created to buy, in normal times, national government debt. Interest is paid on this debt by the taxpayers which is used in part to fund the operations of the central bank, with the remainder returned to the national government.

To maintain the quantity of reserves and cash, the principal is almost never paid off and thus the "safe money" a central bank creates is, in practice, an interest-only loan to the national taxpayers. The taxpayers of the country are essentially renting the supply of legal tender cash and central bank reserves from the central bank.

Since quantitative easing began, central banks have been creating reserves to buy private debt as well. This means that the consumer or shareholder at the end of the line is paying the rent for this money because the cost of servicing these private bonds is passed on to the consumer in prices, or reduces the return to the shareholders.

How would this "safe money" enter circulation? I assume that "safe money" means "legal tender" and one way usually proposed by sovereign money advocates is that the government gets to spend "debt-free sovereign money" into the economy. This sovereign money promotional slogan ignores the fact that currently, legal tender is created as national taxpayer debt on which interest is paid. It also ignores the fact that in a no-growth situation, which is the real test for system stability, every money unit spent would have to be taxed back at the same rate to maintain a stable money supply. Thus, such sovereign money is just another form of money in circulation as debt.

If it enters circulation by being borrowed from the central bank directly, as mortgages for instance, it has to be paid back on time just like retail bank credit, and is therefore money as debt. By simple logic, any form of money, once lent, is money as debt. A gold coin lent into circulation is money as debt. It is an inescapable fact.

If lent long term, central bank money will be subject to being acquired and re-lent multiple times concurrently just as commercial bank credit is today. As a result, the same grow-or-collapse math will be created.

See my comment on Steve Keen's presentation for the analysis:
https://conference2019.positivapengar.se/steve-keen/

I found it most interesting the language Miguel used that gave no hint of the true nature of money, either central or retail bank credit. Central banks "register" money? What does that mean? According to my studies, the legality of today's money as third party debt, the foundational concept of our modern money system, was created by a series of legal decisions in the late 17th century, starting in England.

According to laws written shortly before the Bank of England was founded (1694), any third party debt, once accepted in trade for something of value (consideration), would, in future, be enforceable by the court. Previously, only the original parties to the debt could bring a claim before the court - because only the original parties knew the circumstances of the creation of the debt contract and could argue its validity before a judge.

In order to facilitate commerce, the law needed to be changed so that debt contracts could be used as money, a huge convenience. To accomplish this goal, the new laws assumed debt contracts to be valid if accepted for value by the holder, and therefore, enforceable by the holder against the debtor. Thus third party debt became functional as “money”, and the Bank of England, now creating third party debt money legally, became the “mother bank” to the global system we have now.

The same principle still holds today. That is why mortgage originators sell their mortgages to another legal party, often just a sibling company. It isn’t “money” until accepted for “valuable consideration” by someone other than the original two parties that agreed to the debt.

Before the central bank gets into the retail loan business, perhaps it is appropriate and prudent to take a critical look at how the money creation process works at retail banks.

First, the bank gets the borrower to pledge to surrender as collateral, the property the borrower wishes to purchase but does not yet own. The bank then writes the purchase price of the property into the bank’s asset column as if the borrower already had title to the property. This act is a violation of the natural law principle that one cannot give better title to something than one has.

Logically, the value of the “asset” should be zero because neither the bank nor the borrower have title to the property. The bank and the borrower have “hypothecated” the asset. This word comes from the word “hypothesis” which means a conjecture, not a fact, as in: *if* I owned the house I could promise it to the bank.

[addendum: the legal definition of hypothecate makes no distinction between pledging as collateral something the pledger owns as opposed to pledging as collateral something the pledger does *not* own.

> *Hypothecate:*
> *To give a security interest in specific real or personal property while* ***retaining possession*** *of the property.*

This would seem to make it clear that the pledger must own the property in order to pledge it. Natural law says that one cannot give better title than one has - in this case none.

But then the definition goes on to say:

> *The borrower hypothecates when he/she pledges the house as collateral for payment of the mortgage, or he/she may hypothecate the mortgage in order to borrow against the value of the house.*

The two situations above are *not* equivalent but the legal definition hides the fact that pledging something you don’t own is fraud while borrowing against a property you own is legitimate.]

To balance this as yet hypothetical “asset”, the bank simultaneously creates a matching liability by typing the purchase price into the so-called borrower’s chequing account. The real value of this chequing account should also be zero, but the seller, knowing that bank credit will be accepted by others as “money”, accepts the borrower’s cheque for these newly created numbers, and transfers title to the property to the buyer.

Legally, it is only the acceptance by the first seller that makes the borrower’s debt to the bank enforceable by the bank and any other holder against the debtor. This is the origin of the “money” that comprises almost all of our so-called “money supply” (actually total principal debt to banks).

Imagine a beggar promises to pay another beggar a million dollars. Is the second beggar now a millionaire?

How is money creation by retail banks any less fraudulent, as both the bank and the borrower came to the transaction with empty pockets? The only physical “valuable consideration” involved was supplied by the seller. What was the “valuable consideration” supplied by the bank? The seller has received brand new purchasing power to be spent in the real world.

The total money supply has increased by the price of the property without producing anything new, thus diluting the purchasing power of everyone using the same currency units. Therefore, by simple deduction, we see that the "valuable consideration" the bank put up was supplied, without our knowledge or permission, by the general public of the nation.

The bank calls this money creation process,"making a loan", leading the borrower to believe that he or she is receiving a loan of existing money entrusted to the bank by savers. But the truth is that the borrower has created brand new money by promising to pay it back to the bank in a process that is clearly fraudulent and misrepresented, but legal nonetheless.

So how different would it be to borrow money from a central bank? Miguel's presentation gives no details. Just an assurance that it is "safe" money. I would assume that it is "legal tender" itself rather than a promise of legal tender like retail bank credit. Whether it is physical cash or central bank cryptocurrency that comes out of it, it would be like a central bank ATM, drawing legal tender from a legal tender account, bypassing the retail banks.

One certainty is that if the structure of banking and savings remains the same, as seems to be what is being proposed, the overlooked problem of multiple concurrent principal debts of the same money, and all its inevitable effects, will arise just as surely as in the current system.

As we reach real world limits to growth, the inevitable result of a grow-or-collapse house of cards money system can only be financial and ecological collapse.

Our Money System is an Ecocidal Ponzi Scheme 55 minute animation.
https://www.youtube.com/watch?v=Hkk3T56-t7U&feature=youtu.be

Lastly, Miguel complains that the government enforces fiscal rules on banks it doesn't enforce on any other industry, as if that were exceptional and unfair.

It is not exceptional since governments enforce standards to ensure the safety of products in many industries. Given that the product of banks is money as principal debt to a bank, it is entirely appropriate and necessary to regulate the safety of the product, which requires fiscal regulation of banks.

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7 Carl-Andreas Claussen

"What is a Swedish Krona if there is no physical Swedish Krona?" Just what it has always been. A unit for measuring value. Value of what? That leads to the question why anything has value and the answer to that is demand.

The Swedish Krona is the unit used in Sweden to denominate the debt owed to the national government in taxes for the services the government renders to its citizens. This debt is what gives the Krona demand.

Unless Sweden plays by different rules than the central banks I have studied, the Swedish Krona, both physical cash and central bank reserves, are created as an asset/liability pair to purchase government bonds. Therefore, Swedish Kronas, both cash and reserves, are the perpetually unpaid principal debt of the national taxpayers to the central bank which is serviced as an interest-only loan.

The Swedish Krona is also the unit used in Sweden to denominate the value of the productivity of its citizens required to pay those taxes and any other debt. It is a uniform unit of measurement domestically and a comparative unit internationally.

Any existing cryptocurrency could define itself as being equal in value to a Swedish Krona, and by doing so, it becomes a de facto Swedish Krona.

Certainly the Bank of Sweden could offer Kronas as crypto legal tender, instead of or in addition to cash. Would you like your withdrawal in paper cash and coins in your pocket or cryptocurrency you can store on your phone? Given that we already do banking transactions instantly over our phones, where is the demand going to come from for a Bank of Sweden cryptocurrency to do the same thing?

Crypto enthusiasts don't want anything to do with banks or governments or centralized anything. How does a central bank set up a distributed ledger, a worldwide network of nodes, that exists independently outside of itself? What are the logistics? Who would trust its neutrality?

Lastly, despite the ideological "freedom" rhetoric, the enthusiasm for cryptocurrencies is mostly based on the desire to get something for nothing. I get lots of promotional materials in my email that prove the point. A stable value, or one tied to the national money unit, reduces the opportunity for "astronomical gains" to zero.

The main rationale for a CBDC seems to come from the central banks: reduced expenditure relative to the costs of maintaining physical cash. However, the problem of what to do when the power goes off won't be solved with CBDC or any other form of electronic network money. To continue the supply of physical cash seems prudent but it will cost more money to do both cash and CBDC. If customers don't care if it's CBDC or bank credit they transact with, as retail banking is already amazingly convenient, the demand for CBDC might not materialize.

A cautionary tale:
This past winter a brutal windstorm took out the electricity for up to 11 days in our area. We witnessed panic at the grocery store and gas station as people, on the first day, were unable to buy water, food or gasoline because they didn't have any cash at all put aside for emergencies - no water, food or gasoline either, apparently. These cashless people were reduced to begging for loans of cash from anyone they knew. Fortunately, we live on a small island. I am sure this must happen on larger scales in big cities hit by bigger disasters. Physical cash is an emergency preparedness measure that would be foolish to abandon.

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8 Martin van der Linden

I have a great deal of respect for someone who can get government to listen. Clearly it takes dedication and effort.

Unfortunately, when it comes to the "safe haven savings" that Martin refers to, my analysis shows that it is savings themselves that are the root cause of the problem - because savings are someone else's principal debt to a bank that is *not* available to be earned and extinguished.

Savings are therefore "impossible" principal debt, the built-in source of *instability* in the system, not the bedrock that conventional economics imagines. This is explained in just over 2 minutes in this cartoon:
Economists and a Pile of Nuts.
http://paulgrignon.netfirms.com/MoneyasDebt/MAD2016/economists_play.htm

If making savings safer increased the tendency to save, the result would be to worsen the root cause of system instability. Please read my comments on Steve Keen's talk for the explanation.
https://conference2019.positivapengar.se/steve-keen/

Central Bank "Money" is a Balance Sheet Entry
Martin concludes by recommending that central bank money be made an "asset class" without ever explaining what central bank money is now. Currently, central bank money is national taxpayer debt on which only the interest is paid. Central banks just create new reserves to buy this interest-bearing debt. Therefore, central bank money is currently an income-generating asset of the central bank that the central bank creates with a few keystrokes, some of which will get printed as physical notes, some will remain as reserves. From the point of view of the national taxpayer it is an interest-only loan, a perpetual liability.

How does one imagine turning a perpetual liability of the national taxpayer into an "asset class" for the "general public" (a.k.a. the national taxpayer)? It's still being studied, apparently.

Here is my understanding. Gold and silver are pure "assets" when first dug out of the ground for one reason and one reason alone - other people will trade another asset, like a house, or consumable goods like food, or labour to acquire them (demand).

The central bank and government have only two ways to make central bank or government money into an "asset":
1. redeem it for gold, silver or something else tangible that is in demand;

2. make it the medium of payment required to pay national taxes, in which case it is being redeemed for national government services. In this case, the asset is everything the national government supplies to its citizens which may range from universal education, health insurance and old age pensions to brutal police state repression and an overgrown military-industrial complex. Obviously, the verdict of "asset" versus "evil waste of money" is subjective to each taxpayer, but the demand is assured by law, both the legal tender status of cash and the required payment as tax.

Redemption for precious metals was abandoned as no longer feasible decades ago, and choice #2 is the current situation. Government is a service provider and can logically spend as many credits for these services as it will require back in taxes and fees from taxpayers. This guaranteed demand is the actual source of the national government's "monetary sovereignty". Note, that to preserve the value of these credits in a no-growth stability test, every money unit spent must be taxed back at the same rate at which it is being spent to keep the total stable. Therefore, sovereign money on a balanced budget is also money as debt on a schedule to be repaid, just like bank credit.

The Pointless Quest for "Debt-free" Positive Money

The quest for a "debt-free" or "positive" sovereign money is both unnecessary and futile. Our complex economic system runs on credit and necessarily so. Credit for what? is the question. What is the best source?

An unencumbered gold coin, about as positive and debt-free a form of money there is, only needs to be lent *once* into circulation to become "money as principal debt of a gold coin" until it is paid back. The gold coin has become "money as a debt-of-itself " as surely as bank credit is. Whatever form a "positive money" might take, once it is lent, it is money as someone's principal *debt* of that "positive money" .

The gold coin itself has been spent and is now a liability of the borrower to repay it on time. The gold coin could be acquired and lent multiple additional times while still being owed to the first lender. If the borrower's promise to pay the gold coin is also accepted as money, the money has doubled. The promise to repay could also be lent concurrently multiple times.

So, what difference would it make if all money were gold coins (or CBDCs) initially spent into circulation as a truly "positive" and "debt-free" asset?

1. If too many gold coins and promises to repay gold coins enter the money circulation relative to the real things needing to be bought, the value of gold will decline. This will rob savers of purchasing power they had previously earned, an injustice. If too few gold coins and promises to repay gold coins enter the money circulation relative to the real things needing to be bought, the value of gold will rise, causing borrowers to pay back more in real purchasing power than was received, also an injustice.

It is the concept of money as a single quantity made valuable by its own scarcity that gives rise to the inflation and deflation of any such currency, be it cowrie shells, gold coins, fiat cash or Bitcoin. The only ones well served by this scarcity concept of money are those who gamble on the money itself and, among those, for every winner there has to be a loser.

2. If all of the gold coins end up in the same state of being owed to multiple lenders concurrently, the money system becomes unstable in the same way that I describe in detail in my comments on Steve Keen's presentation. https://conference2019.positivapengar.se/steve-keen/

It doesn't matter what the 'scarcity model' money starts out as. Lent *once,* it becomes money as debt. Lent multiple times concurrently, as banking is designed to do, it is the cause of system instability and mathematically inevitable defaults, which is an injustice to those who lose their homes and businesses. That includes the banks that fail as well. It's the design of the system, the sole reliance on the scarcity model of money, combined with savings and re-lending that creates the inescapable arithmetic problems.

3. Being inelastic, the supply of gold coins cannot expand as bank credit does to prevent defaults due to impossible principal debt. In proposals for a return to a sovereign fiat money monopoly that I am familiar with, the supply of fiat money required by the economy is assumed to be determined by GDP, not impossible principal debt, which isn't recognized.

It is the elasticity of bank credit that allows the can to be kicked down the road as long as the total principal debt to banks keeps increasing. The result to be expected of an inelastic supply would be much higher interest rates as distressed borrowers get extorted by those who own the limited supply of gold, and a much higher ongoing rate of default and/or much more frequent small crashes as more and more impossible principal debt is created by savings and re-lending. The end result would be to accelerate the transfer of real wealth to the gold owners, the already wealthy.

If the money supply were a sovereign fiat monopoly, as many propose, the need to forever expand the money supply to prevent defaults due to impossible principal debt would continue regardless of GDP. This course leads to perpetual devaluation of the real purchasing power of money holders, in other words “savers”. Failure to do so would result in mathematically inevitable defaults of “borrowers”. It is all in how the system is designed.

Change the Design
According to my analysis, the true ‘safe haven” for savings are Producer Credits, collateralized short-term claims on current production, redeemable only in the goods and services of the issuer and thus *removed* from the problematic mathematics of payback in ‘scarcity model’ money.

I repeat the word “collateralized”. Producer Credits are contracts - the holder has pre-ownership of the Producer’s production and, in the event of default, a claim on the equity of the Producer. The Producer is thus borrowing directly from their own customers to fund production.

I also repeat that this credit is “short-term” as in a year’s duration or less. Unlike bank credit, money isn’t created by vulnerable individuals facing a 30-year payback period during which anything could happen. Producer Credit is the promise of a Producer, most often a large and enduring corporation. The Producer is affirming that it intends to stay in business in the immediate future by delivering the goods and services it promises in the immediate future. Producers are the most *valid* source of credit in a society. Demand creates credit creates money.

When Producer Credits are bought as savings with conventional money, the conventional money is spent back into active circulation, solving the mathematical design problem with savings in the current system. Producer Credits are themselves an alternate form of money that may be traded or spent.

With todays’ technology, a Producer Credit system could be scalable from an individual producer like a local farmer to a behemoth like Amazon. Commercial circulations could be local or global, all created voluntarily in the same manner as social media networks. With a convenient and trustworthy global exchange network in place, a credit for a local business with assured demand and proof of performance could be reliable money anywhere in the world.

All customer reward points, like Air Miles and Canadian Tire Money, are “Producer Credits”, already legal and well understood by consumers. What is required is to expand the use of Producer Credits and integrate the Producer Credit system into conventional banking as the appropriate vehicle for savings initially, and ultimately, as a complementary medium of exchange with its own very different rules. This page describing how mortgages would work in a Producer Credit system is the best illustration of how different this would be:
http://paulgrignon.netfirms.com/MoneyasDebt/MAD2014/solution7mortgages.htm

In the Producer Credit “alternate universe” I describe in great detail at my website moneyasdebt.net
the need for credit rating agencies is eliminated. Only 2 simple common sense regulations are required to ensure honest behaviour by all parties. Honest broker is the role I propose that banks take on.
http://paulgrignon.netfirms.com/MoneyasDebt/MAD2014/solution8.htm

I am not alone in making this recommendation. A 2011 report published by the City of London proposed that credits payable only in the goods and services of the issuer be the new future of money and that such a system be integrated within the regulated banking system. The authors estimate that 20% of world trade in real goods and services is currently being done with mutual credit systems.

The following is the 2011 report mentioned above:
Capacity Trade and Credit: Emerging Architectures for Commerce and Money
http://paulgrignon.netfirms.com/MoneyasDebt/BC_RS_CapacityTradeandCreditSummaryFindings_web.pdf

excerpts:
"Reciprocal trade is made possible on a multilateral basis by allowing counterparties to defer ‘payment’ for goods

and services through a mutual credit system – i.e. a form of money – that is redeemable only in other goods and services and not in sovereign currency. Such money might be referred to as ‘common tender’ – a means of exchange that is widely accepted without legal coercion. Mutual credit brings participants back to the multilateral network to redeem their common tender since it is typically not redeemable for cash."

"Multilateral reciprocal trade using common tender is not new, but information technology is transforming its ease, familiarity and potential to develop at scale.”

"Capacity exchanges which create alternative credit and reduce reliance on conventional credit could be very attractive in today’s business environment, and countercyclical to sovereign currency credit cycles.”

"Some interesting propositions for multilateral reciprocal trade using newer forms of common tender have also been more widely publicized.”

Mine was been published in 2011 as a 2 1/2 hour animated movie
http://paulgrignon.netfirms.com/MoneyasDebt/MAD2016/MAD3.htm

The link below is to my 6-minute animation explaining why Producer Credits are the next conceptual step beyond mutual credit and necessary to ensure full-circle reciprocity across the entire system.

Credits - 3 Kinds (6:01)
Bank credit, mutual credit and producer credit are distinctly different. This short cartoon explains.
http://paulgrignon.netfirms.com/MoneyasDebt/MAD2016/credits.htm

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9 Jon Helgi Egilsson

If I understand him correctly, Jon proposes that a private company take on the technical challenges of producing a central bank digital currency (CBDC). The private company would then sell the CBDC for conventional money. The conventional money (retail bank credit) would be held in trust in a reliable investment, “safeguarded from lending” and thus risk of loss. Presumably the private company collects its needed revenues from the investment.

Debt Interrupted
Let us examine this idea from the perspective of endogenous money, that is to say, what we now know to be true: essentially all conventional money is already owed to a bank by the borrower that created it. Therefore, to complete the circle from bank credit creation to bank credit extinguishment, the bank credit the borrower created needs to be available to be earned by the borrower.

Of course, anyone’s money can be used to pay the bank, but because almost all money is owed as principal debt to a bank, there is no “other” money - it is all committed to the debt that created it. Therefore, it is valid to picture bank credit as being like a yo-yo, spun out into circulation when initially spent, circulating while interest is most of the payment, and then drawn back to the bank as accelerating principal payments. What makes our money system dysfunctional is someone else grabbing your yo-yo so you can’t earn it back.

Jon then mentions that the private company would invest the bank credit in a “money market mutual fund”, the business of which is the buying of relatively safe short term debt. This puts the bank credit back into circulation as someone’s debt to the mutual fund.

Logically, as long as the CBDC stays in existence, the conventional bank credit it was bought with will remain *unavailable to the borrower that created it.* Jon’s private company will have grabbed the yo-yo and the original borrower will never get it back unless someone, Borrower 2, makes it available to earn by borrowing it from Jon Co. via the money market fund. Assuming that happens, the original borrower earns the bank credit, pays it back and extinguishes it. Note that Borrower 2 still owes that same money to Jon Co..

Note also that there is now a crypto-Krona in use as money that can be used to pay off Jon Co., and eliminate the otherwise impossible principal debt, but only provided the new crypto-Krona is never *lent*. However, Jon proposes that retail lending be done with crypto-Kronas, and there is nothing stopping either Krona from being acquired by a lender and lent again, and again, resulting in multiple concurrent principal debts of the same money.

The money system becomes unstable in the “grow-or-collapse” manner I describe in detail in my comments on Steve Keen’s presentation. https://conference2019.positivapengar.se/steve-keen/

This process also doubled the amount of Kronas in existence. Would it not, by simple logic, also result in devaluation of the Krona at the same time as *creating* system instability?

Local Currencies
The truth is that anyone can double a Krona right now, all quite innocently and legally. It is the basic principle of local community currencies that trade a note with only limited circulation within the community for conventional bank credit that is held in trust in perpetuity at a bank. The purpose of a local community currency is to prevent money leaving the community, a commendable goal for creating more self-reliant communities. Disregarding the nature of endogenous money as someone’s principal debt to a bank, it looks like a simple substitution of a local Krona for a conventional one.

However, taking the true nature of money into account, it is clear that community currencies grab other people’s yo-yo’s and make them permanently unavailable. At the same time, these captured yo-yos, the deposits held in trust by the community currency organization, provide the bank with “offsets” that enable the creation of equivalent *new* bank credit. The result is one Krona has become 2 Kronas: the local one that was originally someone’s principal debt to a bank and a new conventional one owed to the community currency’s bank.

There are now two concurrent principal debts to a bank of a conventional bank credit Krona and only one conventional bank credit Krona with which to pay them. This is the persistent problem with our current money system - it always creates multiple concurrent debts of the same money due to its design.