

Digging Deeper into Debt-Money

The Bank of England's confessional isn't the whole story
by Paul Grignon, creator of the *Money as Debt Trilogy*

In his Guardian article of March 18, 2014 entitled *The truth is out: Money is just an IOU, and the Banks are rolling in it*, columnist David Graeber comments on the then recently published Bank of England Quarterly Bulletin, *Money Creation in the Modern Economy* by the Bank's own Monetary Analysis Directorate.

The Directorate's document clearly explains that money is *created* whenever it is borrowed from a bank. In my animated feature *Money as Debt* (2006), I had stated the same: "Banks can create as much money as we can borrow". Eight years later it is officially admitted by the mother Bank.

Graeber writes "politically, this is taking an enormous risk. Just consider what might happen if mortgage holders realised the money the bank lent them is not, really, the life savings of some thrifty pensioner, but something the bank just whisked into existence through its possession of a magic wand which we, the public, handed over to it." I assume the author expects a "revolution before morning" were the truth to be broadly realized that banks just create money when a borrower promises to pay it back.

However, with a deeper understanding of how banking works, "the life savings of some thrifty pensioner" and other deposits are still just as necessary to make loans as if the banks were actually lending depositors' money. This is because banks need their created money to come back to them as deposits in order to continue to create new loans.

Also, the bank's so-called "magic wand" is its ability to transform the borrowers' promises to repay into what we use as money. This is done by the bank taking the responsibility to extinguish the borrower's "loan" with the bank's own earnings if the borrower defaults and collateral is non-existent, as with lines of credit, or insufficient as in a real estate price collapse. That commitment requires banks to enforce individual debts through the courts. Thus the substantive base of this "money" is the borrower's promise of *future value creation for others* - guaranteed by the bank and the legal system. That actually makes sense, even if it *was* essentially a fraudulent pretence for banks to let us assume they are "lending" money when they are actually "creating" it. Now that the Bank of England has confessed that money is created by promising to pay it back to a bank, *that* fraudulent pretence is gone.

The bank enables the borrower to create money to be spent now and then earn it back and extinguish it over time. The bank charges interest to pay for its operations and to cover its losses. Bank earnings are spent or distributed to shareholders so that no mathematical shortage arises from the charging of bank interest and fees.

I know from experience communicating with economists and money reformers that although they understand that loans create deposits, they do not bother to think about what happens between money's creation and its extinguishment. I have challenged several to think it through as I have done. Those who said they would try gave up quickly, protesting "it's too complicated!". Instead, they continue to operate on the simplistic and unprovable assumption that all money created as a bank loan will be available to be earned on time and repaid by the borrowers that created it.

Deception by Omission

By omission of vital facts, the authors of *Money Creation in the Modern Economy* also imply that this unprovable assumption is how the banking system works.

It is another *fraudulent pretence*. The structure of banking itself, and, in the larger sense, lending itself, is easily proven to be a hidden game of musical chairs. To rephrase Graeber: just consider what might happen if mortgage holders realised the money the bank lent them is part of an invisible trap, a game of musical chairs designed by the bankers in which losers are mathematically predetermined to default whenever the creation of new debt to banks slows down, for *any* reason. The only way to keep the music playing is for all of us as a whole to go further and further into debt to banks forever.

People might get upset about being collectively tricked into a mathematical black hole of perpetual debt from which there is *no escape except mass default*. The consequence would be a legally justified *total debt jubilee*. A contract that is misrepresented by the party that is, or in due diligence, *should* be aware of the misrepresentation, is *invalid*.

Fraud in the inducement is a specific type of contract fraud. In these cases, the defendant uses deceit or trickery to cause the other party to act to their advantage. Fraud in the inducement means two things:

- The plaintiff was misled about the facts
- The plaintiff used the information to make a decision

Consider the plaintiff to be the people and economy in general, and the defendant to be the banking system as a whole as represented by the mother bank of them all, the Bank of England.

When a borrower signs for a bank loan, does the bank inform them that they are entering a game of musical chairs in which aggregate principal debt far exceeds the money available to pay it, causing mathematically inevitable defaults any time the growth of aggregate principal debt to banks slows down? If not, the contract has been misrepresented.

Not Interested

I sent a 3-page *Critique of Money Creation in the Modern Economy* to its authors and gave them 2 full months to respond. The following is the final email I received. Unsurprisingly, the authors declined my challenge due to their “work commitments”.

Dear Mr Grignon

We are in receipt of your further emails of 18 and 24 January respectively with a reminder of your analysis on the modern banking system.

As previously mentioned, and as you had requested, I forwarded your critique and invitation to the authors here of *Money Creation in the Modern Economy* (2014) ‘to discuss this analysis in reference to their own description of the modern banking system’. I note that, in your view, this shows that the money system is inherently unstable.

As I stated in my reply of 30 November, however, the Bank of England receives many proposals and papers and, whilst we are always grateful to those who take the time and trouble to pass on their views, the work commitments of Bank staff mean that they are not able to comment on every matter, which remains the case.

Please therefore accept this as our response on the matter.

Thank you for your interest.

Yours sincerely

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Fraudulent Contracts are Invalid

Fraud in the inducement requires proof of:

- 1) a false statement of material fact;

Here, the omissions from the Bank’s description of the money system constitute a “false statement of material fact” as the conditions giving rise to mathematically inevitable default due to the design of banking itself were not explained in the document and are never explained to borrowers. Prior to the Bank’s admission that bank loans create new money, banks were content to let us believe that savings were actually being lent out. Both are false statements of material fact.

- 2) that the defendant knew or should have known was false;

If the Bank economists were innocent before reading my critique, they can no longer claim it wasn’t brought to their attention specifically as the reason the “money system is inherently unstable”. I first advanced this analysis in *Money as Debt II -Promises Unleashed* (2009). Continued refusal to acknowledge or refute my critique is obstruction and a dereliction of “due diligence”.

- 3) that was made to induce the plaintiff to enter into a contract;
- 4) and, that proximately caused injury to the plaintiff when acting in reliance on the misrepresentation.

The plaintiff must be the people and the economy as a whole, not any individual borrower. The “injury” is the enormous burden of impossible money debt under which suffer the most productive and inherently wealthy people history has ever known, now at risk of losing their deposits via bail-ins the next time the banking system’s mathematical black hole of debt brings a wave of grief.

For years now I have tried to get various economists and money reformers to examine this issue, to no avail. [Read about my experiences with economists.](#)

I begin my critique with facts now verified by the Bank of England itself. Then, I apply some simple grade school arithmetic and logic to the statistics reported by the Central Banks.

Conclusion

Scientific truth is established by analysis and conclusions that cannot be refuted. The same standards should apply to the money system and economics. Therefore, if my analysis and conclusions cannot be refuted, logic dictates they must be accepted as true. If they are false, then they must be proven false. Of course, scientific truth can be very unwelcome to practitioners of fraud.

The Bank of England’s Monetary Analysis Directorate has been challenged to refute the following analysis and has declined to accept the challenge, as have all of the economists and money reformers previously challenged.

In the spirit of establishing scientific truth, the reader is also challenged to refute my facts, logic and/or arithmetic.

TO:

The Bank of England Monetary Analysis Directorate
attn Michael McLeay, Amar Radia and Ryland Thomas

The simple analysis presented in the following critique
was first presented in my animated feature *Money as Debt II - Promises Unleashed* (2009).
It is also presented in several different forms at my website, moneyasdebt.net.

Since 2009, I have invited many economists and money reformers to refute my facts, logic and/or arithmetic.
Most have made no attempt. Those few that tried have failed to do so.

In the spirit of true scientific inquiry I invite the authors of
Money Creation in the Modern Economy (2014)
to discuss this analysis in reference to their own
description of the modern banking system.

Paul Grignon, creator of the *Money as Debt Trilogy*.

A Critique of Money Creation in the Modern Economy (2014)

authors Michael McLeay, Amar Radia and Ryland Thomas, Bank of England Monetary Analysis Directorate
by Paul Grignon, creator of the *Money as Debt Trilogy*

From what I have read, money reformers are generally delighted that the Bank of England has published this easily understood description of the modern money system. It is especially welcome to read the profession of economics being rebuked for spreading false ideas. I regularly refer people to this document myself as the final word on how the system is *designed* as the bankers themselves describe it.

However, the report's description of banking is incomplete because money creation is followed by money destruction with no mention of what happens *in between*. I claim that this omission conceals, inadvertently or on purpose, the structural source of the grow-or-collapse instability of the money system that is supposedly so elusive. Economists generally correlate money system instability with high levels of debt but fail to provide a rigorous explanation. I contend that it is the *design* of banking itself that is the root of money system instability, and I offer the following simple yet rigorous explanation.

Savings are Principal Debt Interrupted

The clear intent and purpose of savings is to withdraw from active use, bank credit money that was created as someone else's principal debt to a bank. This makes it *unavailable* to the borrower that created it and needs to extinguish it on time. It also makes it a *deferred* liability of the bank. It won't be withdrawn as cash or spent while the depositor's intent is to save. Therefore, from the same base of reserves, a dollar of savings, especially savings of long fixed term and limited access, may safely be *replaced* with a new loan. In the USA, savings are specifically exempted from reserve requirements.

Once a dollar of savings is *replaced* with a dollar of new debt, there now exist *2 principal debts of the same dollar*, because the dollar in savings is *not a current liability of the bank*. Only *current* liabilities of banks are money that can possibly be earned by borrowers to extinguish their principal debt.

The bank's liability may be deferred but *the borrower's is NOT*. The dollar in savings continues to be its creator/borrower's *current* principal debt to a bank on which interest and principal payments must be made according to the current repayment schedule. Not only that, but the new replacement \$, already the only money available to pay \$2 of principal debt, can also be earned, saved and replaced over and over with no inherent mathematical limit. In this way, recursive re-lending/replacing creates *multiple principal debts of the same money*.

Multiple principal debts of the same money should not be confused with on-lending. On-lending would be Bank lends \$ to A, A lends \$ to B, B repays \$ to A, A repays \$ to the bank, and no mathematical problem arises no matter how long the string of on-lenders. This is because, when assets are compared to liabilities, the intermediaries all have an asset equal to their liability. Only the debtor at the end of the string is in net debt for a *single* \$ of principal debt. On-lending is entirely irrelevant anyway, simply because it doesn't apply to the real life situation.

This is because, as the evidence indicates, newly-created bank credit money is almost all borrowed to be *spent* on a house, a car, a business venture, an education, a vacation etc.. It can then be earned, saved and replaced by a bank or earned and lent again as existing money by the depositor. From the *borrowers' point of view*, replacement or re-lending are exactly the same, as is the inevitable result.

Replace

Bank lends \$ to A, A spends \$, B earns \$, B saves \$, Bank lends new \$ to C. How does A repay the bank? The only money available is the \$ owed to the bank by C. If A extinguishes its \$ debt to the bank, and B retains its \$ in savings, there is no \$ available to C until D borrows at least a \$ into existence, which also needs to happen *on time* to meet C's repayment schedule. Thus is created a *treadmill of perpetual debt* that can never slow down without a *mathematically-caused default*.

Re-lend

Bank lends \$ to A, A spends \$, B earns \$, B lends \$ to C. How does A repay the bank? The only money available is the \$ owed to B by C. If A extinguishes its \$ debt to the bank, there is no \$ available to C until D borrows at least a \$ into existence, which also needs to happen *on time* to meet C's repayment schedule. Thus is created a *treadmill of perpetual debt* that can never slow down without a *mathematically-caused default*.

No Escape

Conventional economist thought that I have encountered insists that this treadmill is not a problem because sooner or later B spends its \$ and makes that \$ available to D to repay its \$ of bank loan. Meanwhile, A has used C's \$ and C has used D's \$ for their repayments. In a nifty example like this it all works out. All of the principal debt and debt-money has been extinguished. Nothing is left in savings, or anywhere else. But, in the real world, *there is always money in savings*. In fact, in the USA, according to Fed statistics, the amount in savings always exceeds the amount in transaction accounts by at least 2:1 and usually 4:1

For this simplified model to be consistent with the real world, B must represent debt-free *perpetual savers* in the *aggregate*, *not an individual saver*. Individual savers come and go but always, in the aggregate, the \$ shortage remains. Therefore, once the picture of the banking system is made complete by including savers and private re-lenders of bank credit, it appears that, *by design*, banking itself creates a substantial *ongoing shortage* of money with which aggregate borrowers may extinguish their aggregate principal debt to banks.

It then follows that successful repayment of existing principal debt to banks is entirely dependent on the *rate* of new bank credit creation never falling below the *rate* of repayment of existing principal debt to banks. Any slowdown in the rate of new bank debt creation by borrowers, for any reason, will cause *mathematically inevitable defaults*. The loans of non-bank lenders are also dependent on recycling the same bank-created debt money. Any shortage of or delay in new money creation by banks will *multiply itself in defaults* depending on how many times the same bank-created money has been *earned* and re-lent as existing money.

The only way to avoid default is to stay in debt forever, borrowing from one to pay the other and vice versa. Thus, the more principal debts of the same money that exist *simultaneously*, the more the "stability" of the entire system is dependent on there being no slowdown in either the creation or the *velocity* of money, the *rate* at which monetary exchange is conducted. By the simplest of arithmetic, the design of banking itself creates an invisible yet irresistible force drawing us inescapably into the numerical equivalent of a black hole.

Oversight?

On page 7 of the report, the authors avoid the possibility that the banking system itself is designed to *create* this hidden **mathematical trap** that I contend is leading the world to **mass bankruptcy**, and contributing to **planetary ecocide**:

"These two scenarios for what happens to newly created money — being quickly destroyed or being passed on via spending — have very different implications for economic activity."

Yes they do. So do the two events subsequent to spending that are omitted from the description:

1. The money is earned and put away in *savings*. A *permanent base of savings* is an inherent and essential part of the design of banking. An increase in savings allows an increase in new money creation as stated on page 5. This money in turn can be saved and replaced with new.

*"In a competitive banking sector, that may involve increasing the rate they offer to households on their **savings accounts**. By attracting new deposits, the bank can increase its lending without running down its reserves ..."*

2. Any depositor can *lend their existing bank credit privately*.

It needs to be acknowledged that both savings and re-lending of *earned* bank credit by non-banks follow inevitably from the money creation and savings services of banks. Both are integral parts of the money system as it is designed and deserve to be described accurately in addition to the creation/destruction mechanism.

Therefore, the authors should be required to answer the following three **elementary logic questions** and refute the seemingly inescapable conclusions before anyone should accept their implied assurance that the system is stable, fair and not in dire need of *radical redesign*.

QUESTION 1

STEP 1. A creates \$100,000 by borrowing it from a bank (for 20 years) and SPENDS IT .
STEP 2. After a number of buy/sell transactions it is EARNED by B who lends it to C who *spends* it
STEP 3. After a number of buy/sell transactions it is EARNED by D who lends it to E who *spends* it
STEP 4. After a number of buy/sell transactions it is EARNED by F who lends it to G who *spends* it
STEP 5. After a number of buy/sell transactions it is EARNED by A who pays it back to the bank and EXTINGUISHES IT.

Please total the outstanding principal debt and existing money available to pay it.

My total is \$300,000 in outstanding principal DEBT and ZERO MONEY available to pay it.

QUESTION 2

In the USA a deposit into a savings account does not require reserves because the demand for cash or reserves is assumed to be ZERO for as long as the deposit remains in savings. Therefore, banks can replace savings with new loans without having to increase the banks' reserves.
<https://www.federalreserve.gov/monetarypolicy/reservereq.htm>.

STEP 1. A creates \$100,000 by borrowing it from a bank (for 20 years) and SPENDS IT .
STEP 2. After a number of buy/sell transactions it is SAVED at a bank by B.
The bank replaces it with a new loan to C who *spends* it
STEP 3. After a number of buy/sell transactions it is SAVED at a bank by D.
The bank replaces it with a new loan to E who *spends* it
STEP 4. After a number of buy/sell transactions it is SAVED at a bank by F.
The bank replaces it with a new loan to G who *spends* it
STEP 5. After a number of buy/sell transactions it is EARNED by A who pays it back to the bank and EXTINGUISHES IT.

Please total the outstanding principal debt and existing money available to pay it.

My conclusion: There is \$300,000 in outstanding principal DEBT, and \$300,000 in savings *unavailable* to pay it unless SPENT ... which, in the aggregate, provably does NOT happen because there is *always money in savings*, and historically, aggregate savings *steadily increase*.

QUESTION 3

Using the US definitions...

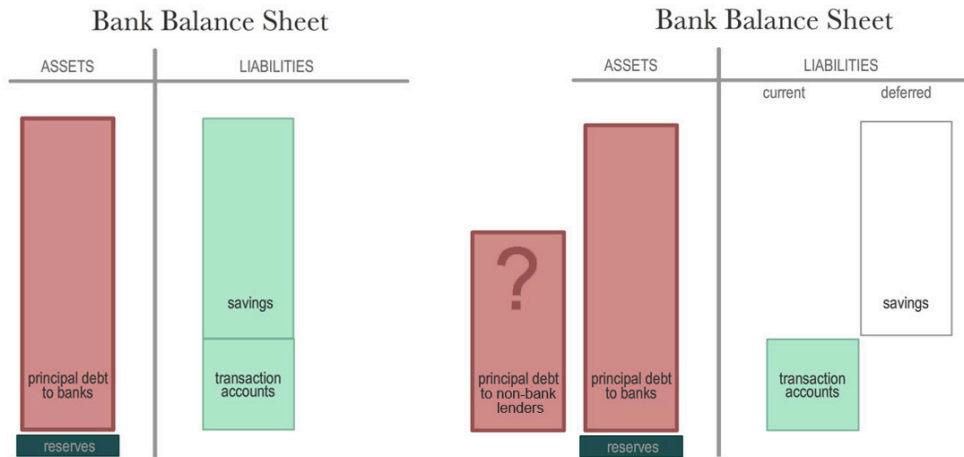
All bank credit money begins as an M1 transaction (checking) account.

M2 is the bank credit money in **savings** accounts *plus* M1, all the bank credit money in transaction accounts and cash in circulation.

When placed in savings, the amount saved can be replaced with a new M1 loan as in the second example above. According to statistics published by the Federal Reserve, in normal times M2 = 4 M1 approx.

Please describe how this is possible.

By my logic, every dollar created as M1 has to have been *saved and replaced* 3 times over. I maintain that no other explanation is possible. That means that every dollar possibly available to be earned by borrowers is simultaneously owed to 4 lenders just *within* the reported banking system. Given the significant dollar volume of non-bank lending, the actual ratio is undoubtedly much larger. This ratio hit an unprecedented 5.6 (Federal Reserve stats) in the USA just before the Crash of 2008. In stable times, the ratio of principal debt to money has been as low as 2:1. Observation thus correlates with the explanation. The root cause of money system instability is the design of banking itself, because it creates velocity-dependent **multiple principal debts of the same money**.



On the left is the standard and incomplete view that money in circulation is always equal to principal owed to banks and thus mathematically, repayment is not a problem.

On the right, savings are differentiated from transaction accounts and private lending of earned money (an unknown) is included, revealing the huge shortage of money available to borrowers at any given moment in time. This permanent shortage makes repayment of existing principal debt entirely dependent on the rate of new bank credit creation *never slowing down*.

Conclusion

When bank savings and re-lending of earned (not on-lent) existing money by non-banks are included, banking is revealed to be designed as a **mathematical trap**. This trap ensures that the *structure of the banking system itself* will forever necessitate the *maintenance and expansion of our aggregate principal debt to banks*.

Furthermore, it is shown that, in the current system as designed, what we use as money is actually *impossible aggregate principal debt to banks*, a mathematical black hole into which our lifeblood is continually sucked and from which there is absolutely *no escape except default*.

When inevitable cyclic downturns in human expectations occurs, bank credit expansion fails to keep up with the inherent mathematical *need* for bank credit expansion. The result is *mathematically inevitable default* and the loss of borrowers' real property to banks. The scale of the default is determined by the rate of slowdown and the number of times the same money is owed as principal debt to a lender.

The banks benefit very profitably from this arrangement until the plummeting values of their seized collateral no longer extinguishes their liabilities, as in *any kind of collapsing bubble*. Then they turn to the Central Bank and the taxpayer to pay off debt that can NEVER be paid off because, by the design of banking itself, ***un-payable perpetual debt is what money IS***.

This Bank report implies an assurance of stability and fairness. Keep calm - everything is under control. In light of the simple logic and real world observations offered above, such an implied conclusion must be seriously questioned.

It is this writer's opinion that the banking system needs fundamental re-design to address the inherent mathematical flaw that makes its contracts *impossible in the aggregate* and as *dependent on perpetual growth* as a *pyramid scheme*.

My proposal for a non-disruptive, evolutionary solution is described in great detail at moneyasdebt.net. Of specific interest might be the value proposition for banks.