Controlling the Need to Implement New Taxes

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by

Sensible Money
A Better Way to Run a Digital Economy

Overview:

This document details the amount of digital money that exists and its prominence as a medium of exchange over cash in the modern Irish economy. The rise in our use of digital money has decreased our sale of new cash to banks and lowered seigniorage as a source of non-tax revenue.

The Document explains how unique this recession is in the context of how little of our money exists as cash and how the borrowing capacity of housebuyers has approached its peak. With mortgages having reached a natural limit of taking two concurrent careers to repay we argue a new source of publicly created digital money is needed to replace the loss of revenue from the loss of seigniorage and indeed the loss of revenue from the lack of change in tax residence rules.

About the Authors

Paul Ferguson has a background in engineering and mathematics and graduated from Trinity College Dublin in 2005 with a first class honours degree in both disciplines. He has studied economics informally for the last three years. He founded Sensible Money in January 2012 primarily to address the confusion over how digital money is created and destroyed and by which organisations. Sensible Money is also promoting what they feel to be the optimum solution to the European debt crisis taking into account the many factors involved.

James McCumiskey has a background in engineering and accountancy. He has also studied economics informally for over three years and shares the same concerns regarding the lack of understanding by politicians, the media and even some economists about the modern money creation mechanism. James has written a book, Real Honest Money, currently with the publishers proposing similar reforms to Sensible Money's.

Tony Weekes was a member of staff in the department of economics in the University of York from 1970. Since 1993 he has worked as an independent writer, lecturer and researcher. He was a non-executive director of the Ecology Building Society and a guest lecturer on the MSc course in Sustainable Development in Dublin Institute of Technology. He has worked on sustainability issues with Dublin City Council, the Northern Ireland Civic Forum, and the EU TAIEX project. His present interests centre around addressing the widespread problem of economic illiteracy which includes the issues of monetary reform and the reform of financial services. He has delivered short courses in *Economics for a Sustainable Future* at the Cultivate centre in Dublin and has organised two public events on the theme *Making our Money work for a Better World*. He is associated with the School of Environmental Planning in Queen's University, the training initiative *Sustain Ed* and the annual Drumalis *Environmental Conferences*.

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The Modern Medium of Exchange

1.1 The rise in prominence of digital money over cash

It is worth analysing why the Department of Finance should find itself in a position whereby it seeks to adjust to residence rules for the taxation of individuals. In an era in which there are more taxes than ever, even an adjustment in the residents rules will most likely still leave the Department of Finance with a significant budget deficit. The answer as to why the Department of Finance better balanced its books with less taxes in yesteryears may lie our increased use of digital money over cash.

As recently as the 1960s around 20% of the M3 money supply existed as cash[1] in Ireland and many other economies. The remaining 80% existed as bank-account money. i.e. As the balance of every current and savings account recorded in the ledgers of the banks.

Today the amount of cash in the Irish economy stands at only 6% of the total[2] with bank-account money, hereafter referred to as digital money since it exists primarily as data in the servers of the banking sector, taking a far more prominent role in economic activity.

1.2 The gradual decline in our use of cash

The rise in our use of digital money has happened through advancements in technology and not through careful consideration by economists. Indeed the digital money phenomenon has received very little attention from the economics profession.

However digital money has remarkably different properties to cash. These differing properties are rarely discussed in economics since cash and digital money are considered interchangeable, albeit in practise only in small quantities. Previous records in the Department of Finance will show an increase in the introduction of new taxes in line with an increase in the economy's use of digital money over cash. This document will attempt to explain why new taxes are required when our use of cash decreases.

1.3 The properties of cash

1.3.1 The origin of cash

Cash is created by the Central Bank, under the authorisation of the European Central Bank at very little production cost. It is then sold to the commercial banks in exchange for digital money at face value. This digital money is added to the Exchequer's account and becomes a source of non-tax revenue for the Department of Finance. The profit from the sale of newly printed cash to the commercial banks is known as seigniorage and at one stage it was a significant source of revenue for the Department of Finance.

1.3.2 The permanent nature of cash

Cash becomes a permanent addition to the economy's money supply since worn notes and coins are exchanged for new ones at face value and cash is rarely removed from the economy.

1.3.3 The debt-free nature of cash

New cash is added to the economy's money supply without any contractual obligation from the Department of Finance to repay any amount of debt. In short, new cash is created as and issued debt-free.

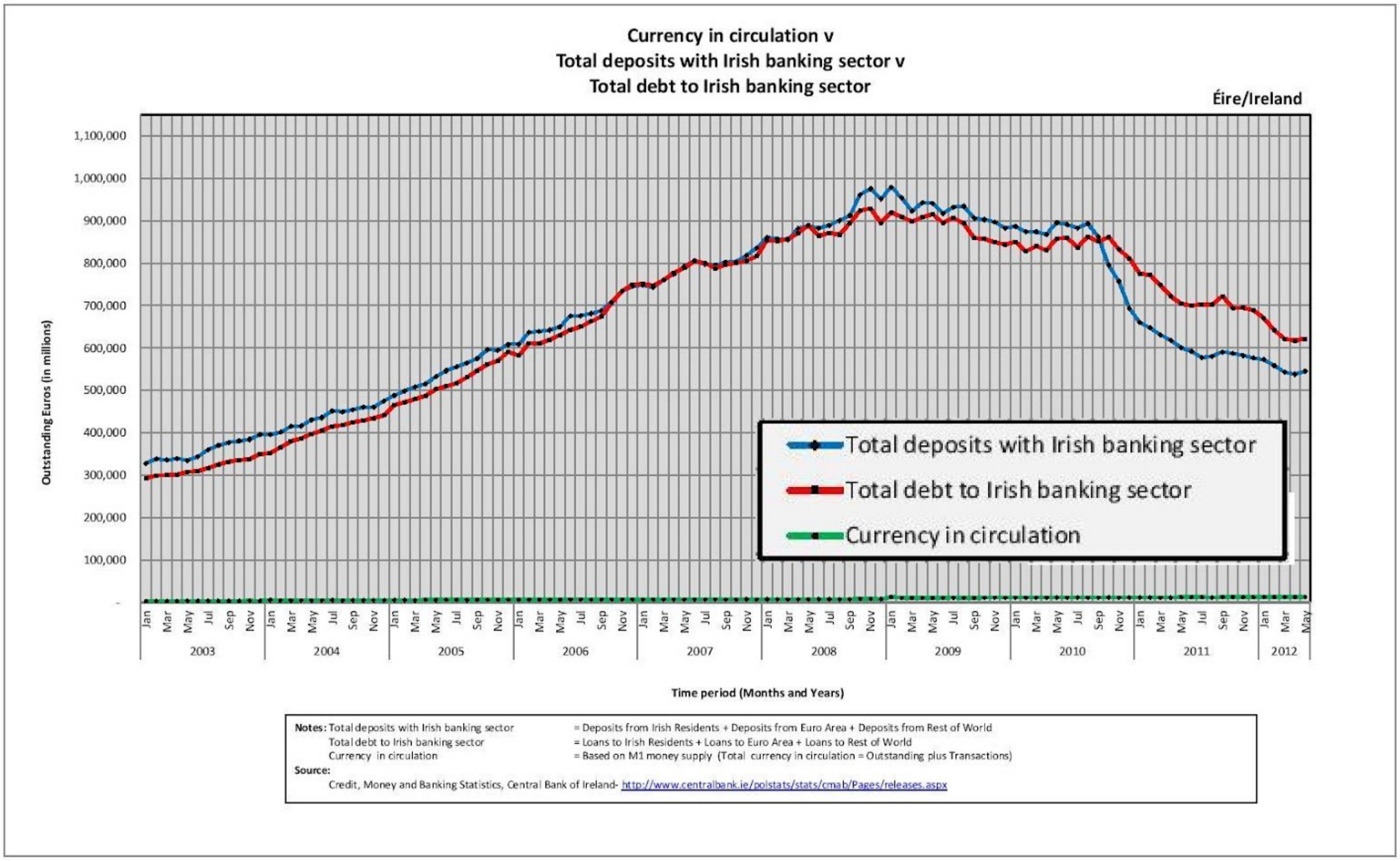
1.4 The properties of digital money

1.4.1 The origin of digital money

Digital money is created by banks through the bank loan process. When banks process loans they increase the borrower's account without decreasing any other customer's account or their reserve account. In this way banks have directly created 94% of the Irish M3 money supply.

1.4.2 The existence of digital money with a corresponding debt

Since it is only commercial banks which create digital money, and they can only do so through the loan process, all digital money is created with a corresponding debt. Indeed, the debt to the banking sector fluctuates almost perfectly in line with the money supply as shown in the graph below.



Graph of total deposits with, and total debts to, the Irish banking sector over time

1.4.3 The temporary nature of digital money

When processing a loan repayment, banks lower the borrower’s current account without increasing any other account. They then lower the borrower’s debt to the bank and in doing so banks effectively delete the money used to settle the debt. Indeed during a recession the amount of new money/debt created by banks can be less than the amount of money/debt extinguished through loan repayments and this is why there can be less money during a recession.

1.5 The loss of revenue through the loss of seigniorage

The ability to print money was once a significant power of the Central Bank and was one which the Department of Finance benefited from greatly. However in today's digital world, whereby 94% of the Irish economy's money exists as accounting entries on a computer screen, the ability to print money is negligible. The revenue from the sale of new cash has also become negligible. Hence the invention of new taxes. In 2011 for example non-tax revenue, which may include sources other than seigniorage, was less than 6% of total revenue[6]. When the economy relied more heavily on cash this would have been a much higher figure.

1.6 The gradual decrease in cash

It is worth bearing in mind that nothing has changed conceptually in how we run our economy over the time in which cash has become a less convenient method of payment. Improvements in our electronic payments systems have provided many efficient means of payment. However they've had dramatic effects on our national budgets as a result - Effects which have seemingly gone unnoticed by economists. Economics still teaches the outdated cash version of money creation through the money multiplier for example. Few economists understand that money is canceled out of existence through loan repayments.

1.7 The unsustainability of this system of money creation

This system of money creation/destruction, whereby banks create almost all of the money in the economy in line with debt is unsustainable. The system can only function well if we take on more debt than we repay. Indeed as the graph in section 1.6.2 shows an exponentially growing money supply is what we've had since the amount of cash in the economy has become negligible.

1.8 Delaying the Inevitable

Given the unsustainable nature of this system we'll now analyse what has kept it functioning until now. Prior to the 1960s the amount of cash in the economy was around 20% of the total money supply and bank-account money, almost all of which carried an equal debt, formed the remaining 80%. The significant amount of cash in the economy somewhat negated the effects of money/debt created by banks. From the 1960s onwards we've had a number of indirect sources of debt free money as replacements for this 'cash buffer'. These are discussed below.

1.8.1 The national debt

The national debt, despite its name, can act like a source of debt free money to the economy. This is because it can grow without being repaid in full. If it weren't for the national debt, businesses and households within the economy each have to incur a debt to have any money to trade. 'Idle' Money reentering the economy through the national debt is money that neither businesses, nor households, have had to borrow into existence. And yet it circulates between them as effectively debt free money.

Expanding the national debt as a source of debt free money is no longer feasible as countries worldwide concentrate on reducing growth in their national debts.

1.8.2 An accelerating money supply

The digital money supply has increased dramatically globally in developed economies since the 1970s. For many European economies the money supply has doubled about every ten years, or quadrupled about every twenty years[3]. If a loan is organised early under such conditions it can prove quite manageable to repay.

An exponentially growing money supply can feel like a source of debt free money to the economy if the amount of new money created through loans dwarfs previous bank loans and loan repayments, which cancel this money out of existence, are spread over many years.

1.9 Why the effect of changing the rules regarding tax exiles will be negligible

Regardless of how an economy is taxed it is either the Government, businesses or households that acquire the loans for new digital money, and its debt, to come into existence.

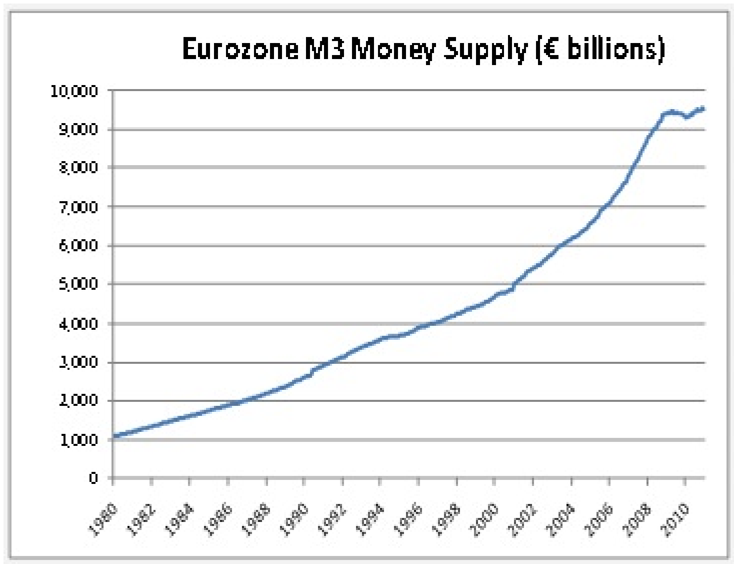
Until the 1930s businesses took on a significant portion of the debt required for money to enter the economy. For example in the US in the 1930s business debt comprised 50% of that in the economy. Household debt comprised less than 20%[4].

Since the 1940s Governments and households have become the main sources of borrowing money into existence. However Governments in developed economies are concentrating on reducing budget deficits and so their contribution to taking on more debt is declining.

Perhaps more worryingly, mortgages in general now require two earners and two careers to repay. They cannot increase in duration having hit their natural limit of taking around thirty years to repay. House buyers can no longer be relied upon as ever-increasing contributors to creating new money through borrowing.

For the first time in history Governments, businesses and households appear to have no further borrowing capacity. This is a very unique recession and one in which changing the rules on tax exiles will make little difference to.

To demonstrate just how unique, a graph of the Eurozone M3 Money Supply is shown below. From the 1980s onwards we can see a doubling of the money supply about every 10 years. This 'decade doubling' explains the apparent functionality of the economy despite a decline in our debt free cash supply. To return to 'business as usual' would require a similar doubling about every decade. Extrapolating circa €10trillion in 2010, we could expect the total money supply around Europe to be around €160trillion in 2050. Regardless of how inflationary this would be, a doubling of the money supply every decade is not realistic. We believe a return to business as usual is not possible until a publicly created source of debt free digital money is introduced to stimulate the economy.



Eurozone M3 Money Supply from 1980 to 2011[5]

1.10 A possible solution replacing the lost revenue from tax exiles

If the Department of Finance did not adjust the rules surrounding tax exiles, one possible solution to replacing the potential revenue would be to declare all digital money as legal tender. This would give the Central Bank the authority to create both cash and digital money for the Government depending on the demand for each. Nothing would change conceptually with regards the Central Bank authorising money creation for its Government.

With digital money as legal tender all digital deposits, which are liabilities of the banks, could be removed from that side of the banks' balance sheet. This would automatically restore the health of the banking sector.

Finally, with digital money as legal tender banks would no longer be able to create and destroy it and would have to deal with existing money only. Financial institutions would become the intermediaries that most of our models for the economy assume they are. This would alleviate the primary cause of the great recession since bank loans would no longer be the main source of new money for economy. We could never get to the point whereby the entire money supply had an even higher debt.

Conclusion

Our recommendation is that the Department of Finance should not change the rules regarding tax exiles. The Department of Finance should instead recognise the effects of our increased use of digital money and the Central Bank's inability to create it for the direct benefit of the Department of Finance. The Department of Finance should explain the uniqueness of this recession to the Central Bank and request the creation of digital money for their benefit.

References

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4. U.S. Census bureau data from 1916 to 1930. E.g. In 1929 Industry debt equated to 51.3% of total debt, personal debt equated to 17.2%.

5. European Central Bank, 1980 - 2011, *Historical monetary statistics*, European Central Bank

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