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Fiat based currency systems underlie the cause of financial crises: A critical examination which identifies the failure to effectuate a durable monetary framework on the worldwide economy

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Candidate Number: 1545485

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I hereby confirm that this dissertation is my own work and that all sources quoted, paraphrased or otherwise referred to are acknowledged in the body of text as well as in the bibliography. Additionally, I have examined my work using the Turnitin software prior to submission.

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Abstract

In this day and age, the old adage – 'the rich get richer and the poor get poorer' – has been taken more factually than a mere idiomatic expression. The reason for inflation and place for its necessity, or lack thereof, is misunderstood by many, and common talk of wealth has been misdirected into a fleeting, but pervasive segment of economics. The focus of this research is in the area of monetary economics, namely involving a critical analysis on what money actually is, where its value derives from, and how it plays a crucial part in our banking system. Such a study is important in order to better understand money from legal and political perspectives so that individuals can be better informed when making select financial commitments. The research approach adopted in this dissertation includes a wide review of literature on monetary systems and banking practices, as well as statements and publications from leading financial institutions and political figureheads in the United States. The findings from this research provide evidence that our current monetary system is fraudulently built on debt knowingly and intentionally, with no anticipated plans for change. The main conclusions drawn from this study are that there is much confusion regarding monetary matters, and that this is partly the reason why financial crises are misunderstood by the public, and subsequently neglected for the true matters of what it is worth. This dissertation recommends that modern economies rid themselves of our current monetary system, and return back to the use of gold and silver as honest money.

Keywords: *Money, Currency, Banking, Fractional Reserve Banking, Federal Reserve Bank, Inflation, Financial Crises, Monetary Economics.*

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To my beautiful, selfless, loving, warm-hearted, tender and benevolent mother – to you I say a massive thank you for being the longest and most consistent person in my support network. Your sacrifices have played a huge part in my successes, and to you I am exceedingly grateful. I would also like to pay tribute to my siblings, Toluwa and Opeoluwa for their continued support and listening ears during my highest and lowest moments.

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Last but by no means least, to all my friends who have supported me and shown me consistent love throughout the years, forgive me if I have not mentioned you explicitly but I will always appreciate your service to my wants and needs – thank you also!

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Note: *'Figures' refers to all charts, graphs, photographs, drawings and other illustrations.*

Abbreviations

BofE	Bank of England
CB	Central Bank
FRB	Federal Reserve Bank
FRS	Federal Reserve System
FReB	Fractional Reserve Banking
IOU	I Owe You
UK	United Kingdom
US	United States of America

Chapter I

Introduction

1.1 Background

The overall aim of this research is to explore the question: *what are the differences between currency and money in the context of value, and how are we to perceive the potential risks of financial collapse under an oligopolistic banking system?*

In the light of the frequently occurring financial distresses the world economy finds itself in, it is vital that research is done into why this is fundamentally the case. As the realisation sets in that the economy is made up of individuals who are truly affected by ill-practices, mere regulation, governance and compliance has proven insufficient in getting to the bottom of the issue. Therefore, this research goes back to basics in understanding the operations of money. The main substance of this research will focus on the UK and the US in a historical examination that extends to the current era.

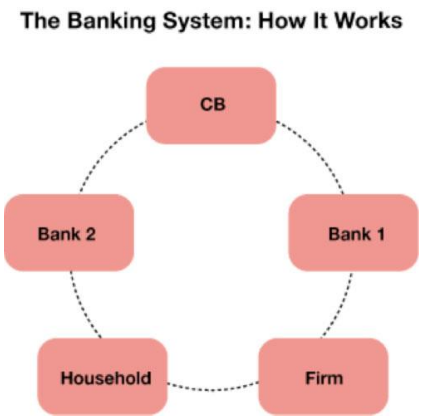

Figure A.1 Daily Reckoning
Source: http://dailyreckoning.com
Reproduced with permission of Daily Reckoning

The relevant themes cited in this chapter refer to CBs and reserves, government bonds, currency and money, bank notes, bank runs and hyperinflation. The common link between these subjects is that they are inter-related in formulating a rounded picture of the significant reasons as to why financial crises occur. The conventional view as to how banks operate in general, and the scope of their powers with regards to FReB[1] have been directly challenged by the staff of the BofE via the release of a paper titled *'Money Creation in the Modern Economy'*.[2] In this paper, three economists from the Bank's Monetary Analysis Directorate allude to the fact that banks are able to spring new money into existence by creating debt loans – the more loans banks make, the more money they make. Hence, the supply of money in circulation is determined primarily by the demand of borrowers to take out bank loans.[3] Bank deposits create reserves – this means a CB will accommodate the demand for reserves by issuing loans. As economist Randall Wray articulates, banks must then repay those loans [with interest] to the CB by returning the reserves to that CB as illustrated by Figure A.1 by Chris Mayer.[4]

Much of UK taxes are not directly used for schools, roads and public services as the government would have society believe, but rather to pay the principal and interest on the government bonds bought by private sector institutions such as pension funds, investment trusts and banks as Pettinger suggests.[5] The situation is not dissimilar with the US government in that the FRB prints money, which it then loans to the government in exchange for treasury bonds. Michael Maloney further explains this as resulting in

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[1] *Fractional reserve banking is a system in which only a fraction of bank deposits are backed by actual cash on hand and are available for withdrawal.*

[2] Michael McLeay, Amar Radia and Ryland Thomas. (2014). *Money creation in the modern economy* [online] Bank of England. Available at: http://www.bankofengland.co.uk/publications/Documents/quarterlybulletin/2014/qb14q102.pdf. Last accessed: 19 June 2016.

[3] Richard Werner, Tony Greenham and Josh Ryan-Collins. (2014). *Where Does Money Come From?*: *A Guide to the UK Monetary and Banking System*, London, England: New Economics Foundation.

[4] Chris Mayer. (2014). 'Why a Central Bank Can Never Run Out of Money' [online]. Available at: http://dailyreckoning.com/central-bank-can-never-run-money. Last accessed: 19 June 2016.

[5] Tejvan Pettinger. (2013). 'Who owns UK debt?' [online]. Available at: http://www.economicshelp.org/blog/1407/economics/who-owns-government-debt. Last accessed: 19 June 2016.

the government then taxing its citizens to pay the interest on those loans issued by the Fed.[6]

Up to this point, the manner in which money has been used in the opening statements of this thesis has been a misnomer for purposes of simplicity. As illustrated in Figures A.2 and A.3, there is a distinctive difference between currency and money, being that money is a store of value that maintains its purchasing power over a long period of time whereas currency is not.[7] It is the ability of governments to effectively print as much currency as they please; sequentially diluting the currency supply, which results in a relatively quick decrease in purchasing power.

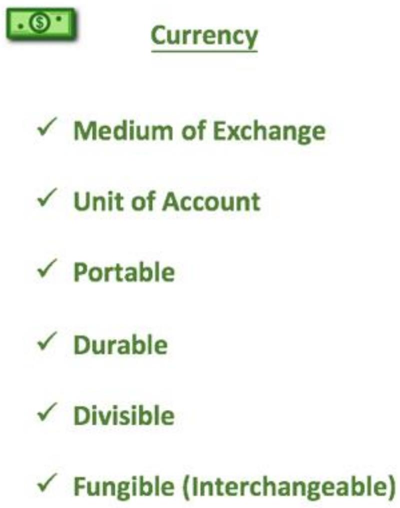

Figure A.2 Currency

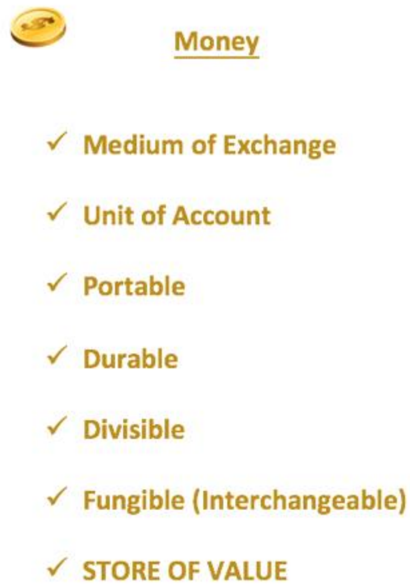

Figure A.3 Money

The first use of banknotes can be traced back to 7th century China where merchants would often leave their coins with a custodian in exchange for a slip of paper evidencing

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[6] Michael Maloney (2013). 'The Biggest Scam in The History of Mankind - Who Owns the Federal Reserve? Hidden Secrets of Money 4', 15 October 2013. Available at: https://www.youtube.com/watch?v=iFDe5kUUyT0. Last accessed 20 June 2016.

[7] Michael Maloney (2013). 'Money vs Currency – Hidden Secrets of Money Ep 1 – Mike Maloney', 26 February 2013. Available at: https://www.youtube.com/watch?v=DyV0OfU3-FU. Last accessed 20 June 2016.

how much money was left with that person.[8] Given that banks create currency through making loans, the numbers credited to an individual's account balance are actually accounting entries in the banks' computers. These numbers are electronic IOUs[9] from the bank to these account holders, but they are able to be utilised in the same way cash would be; effectively creating an indistinguishable substitute for currency.[10] This is essentially how the banks are able to create more IOUs than cash they actually hold in reserves, and if for whatever reason there is public uncertainty as to a banks stability, then this can cause a mass amount of people to attempt to withdraw their cash at the same time, triggering a run on the bank.

1.2 Research Focus

As previously mentioned, there has been some confusion as to what the difference is between currency and money, what the specific foundational causes of financial collapses are, and how perceptibly complex banking operations seem to those who are affected by it every day.

A major focus of this research will be on the very nature of currency and how it is used in our banking sector. *Fiat* is a Latin term for 'let it be done', and is an authoritative order or an official decree. Thus, *fiat* currency is simply currency which the government declares to be legal tender. The incontrovertible fact of the matter is that every past *fiat* currency created has had a track record of devaluation and eventual

[8] CountMoney (2010). 'History of Bank Notes' [online]. Available at: http://www.countmoney.co.uk/History-Of-Bank-Notes.html. Last accessed 20 June 2016.

[9] *IOUs are documents or instruments that acknowledges a debt owed.*

[10] PositiveMoney (2013). 'How Banks Create Money' [online]. Available at: http://positivemoney.org/how-money-works/how-banks-create-money. Last accessed: 20 June 2016.

collapse; and the economies which housed those currencies was not in any case unaffected by its downfall.[11]

Closely linked to this is the fact that economists use the term 'inflation' to denote an ongoing rise in the general levels of prices quoted in units of currency.[12] Whilst this is a commonly accepted definition of inflation, it is not entirely accurate.

The late economist and Nobel Prize Winner, Milton Friedman, helpfully described the true meaning of inflation in which he famously stated:[13]

> *Inflation is always and everywhere a monetary phenomenon in the sense that it is and can be produced only by a more rapid increase in the quantity of money than in output.*

Friedman later alluded to the excessive increase in the currency supply being the sole cause and identity of inflation – rising prices in products and services is merely a symptom of it.

Further, to gain a meaningful picture of how *fiat* currency and accounting entries can adversely affect our economy, it is important to refer to prior examples to illustrate the grave consequences of ill-advised banking practices. The hyperinflation in post-WWI Weimar Germany was a palpable and spectacular illustration of Friedman's observation of monetary economics. The government's plans for financing the war prior to the hyperinflation was to borrow the funds necessary by monetizing government debt

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[11] Nick Jones. 'Fiat Currency: Using the Past to See into the Future' [online]. Available at: http://dailyreckoning.com/fiat-currency. Last accessed: 23 June 2016.

[12] Lawrence White (2008). *The Concise Encyclopedia of Economics* [Online Encyclopedia], Indianapolis, USA: Liberty Fund Inc. Available at: http://www.econlib.org/library/Enc/Inflation.html.

[13] Milton Friedman (1970). *The Counter-Revolution in Monetary Theory*, London, England: Institute of Economic Affairs.

rather than through taxation or capital markets.[14] When Germany lost the war, the strategic financial moves they had depended on in the event of winning the war had been smote. The Weimar Republic was now burdened with a monumental war debt that it could not afford to pay, made even worse by the fact that it was printing currency without it being backed by sufficient economic resources.[15]

The unsustainable attempt to stabilise the economy and pay its reparations was demonstrated by runaway inflation which to the form of running the printing presses into the ground. Prices were rising so fast that workers were paid at half-day intervals; after which, they rushed to spend their wages before they lost their value. Customers at restaurants would also negotiate prices in advance because prices would often change before the meal was served.[16] Below is an example of what the exchange rate of the German marks were to one US dollar during this period:[17]

Figure A.4 Rare Historical Photos
Source: http://rarehistoricalphotos.com
Reproduced with permission of Rare Historical Photos
Bundles of worthless German papiermarks played with by children as they were cheaper than toys.

April 1919: 12 marks

November 1921: 263 marks

January 1923: 17,000 marks

August 1923: 4.62 million marks

October 1923: 25.26 billion marks

[14] Adam Fergusson (2010). *When Money Dies: The Nightmare of Deficit Spending, Devaluation, and Hyperinflation in Weimar Germany*, New York, USA: PublicAffairs.
[15] Richard Evans (2005). *The Coming of the Third Reich*, London, England: Penguin Books.
[16] Larry Allen (2009). *The Encyclopedia of Money*, Santa Barbara, USA: ABC-CLIO.
[17] Op. cit. n. 11.

December 1923: 4.2 trillion marks

The notion that hyperinflation can destabilise societies and destroy output is hardly up for contention – it is among the worst calamities that can befall any economy. It is potentially this kind of disaster that one could argue provides an opportunity for an uprising of an individual to capitalise on the fear and uncertainty of a nation for his or her own personal self-motivated agenda. Spiegel Online published a special issue titled *'Millions, Billions, Trillions: Germany in the Era of Hyperinflation'*, in which it explicitly linked the disaster of the early 20th century to Nazism:[18]

> *It's no coincidence that Adolf Hitler's inexorable rise to power began in November 1923, the highpoint of Germany's inflation, when he organized the abortive Beer Hall Putsch in Munich.*

Critical to the value and logic of the research in this study is the need to understand an economic debate which considers fundamental issues about money, currency and its quality, as well as the Federal Reserve's and CBs monumental role in manipulating the currency supply to our economic ruin.

The nature of this type of monopoly has been opposed many times, and dates back to the fourteenth century in the work of the earliest economists who documented the dangers of a system of inflation.[19] These same inflation trends were commented upon

[18] Alexander Jung (2009). 'Millions, Billions, Trillions: Germany in the Era of Hyperinflation' [online]. Available at: http://www.spiegel.de/international/germany/millions-billions-trillions-germany-in-the-era-of-hyperinflation-a-641758-2.html. Last accessed: 26 June 2016.
[19] John M. Keynes (1971). *A Tract on Monetary Reform*, New York, USA: Prometheus Books.

by John M. Keynes in his book titled *Economic Consequences of Peace*[20] where he wrote:

> *By a continuing process of inflation, the governments can confiscate, secretly and unobserved, an important part of the wealth of their citizens…*
>
> *While the process impoverishes many, it actually enriches some. The sight of this arbitrary rearrangement of riches strikes not only at security, but at confidence in the equity of the existi ng distribution of wealth.*

The importance of research in this field of *fiat* currency closely links with the problems posed in regards to FReB. Banking history has traditionally shown the desire for centralisation of power, and whenever an economy becomes unstable; rarely does economic society ask what the fundamental source of instability really is. Instead, the focus shifts to banking regulations and controls such as The Basel Accords[21] and other national regulations. The very nature of international standards such as the Accords is heavily primed on risk metrics and other statistical data which requires banks to ensure they are not faced with possible liquidation scenarios. This is not in line with the socio-political endeavour this research seeks to recognise. However, Jesús Huerta de Soto provides an answer to the previous question in that he places culpability on the institution of FReB[22] – the practice of banks loaning out depositors' cash for speculative

[20] John M. Keynes (1919). *Economic Consequences of the Peace*, South Carolina, USA: BiblioLife.
[21] Bank for International Settlements. 'Basel III: The Liquidity Coverage Ratio and Liquidity Risk Monitoring Tools' (2013).
[22] Jesús Huerta de Soto (1998). *Money, Bank Credit, and Economic Cycles*, Alabama, USA: Ludwig von Mises Institute.

ventures; only to be re-deposited in another bank. The workable nature of this system relies on individuals not withdrawing all of their cash at the same time, as permitted to them in their banking contracts. As is commonly known, the bank will face a choice of bankruptcy or suspension of payment in the event this is to happen. Banks may turn to other banks to provide liquidity in such demanding circumstances, and where economic failure becomes systemic; it falls into the hands of the government to deal with. In light of the research focus outlined above, *fiat* currency and its limited efficacy and extent of recorded failure is therefore a worthy area of study to better understand the famous quote that Charles G. Binderup attributed to Henry Ford[23] when he proffered:

> *It is perhaps well enough that the people of the nation do not know or understand our banking and monetary system, for if they did I believe there would be a revolution before tomorrow morning*.

1.3 Overall Research Aim and Individual Research Objectives

The overall aim of this research is to advance, with much credence, an in-depth understanding and answer to the question: *What are the differences between currency and money in the context of value, and how are we to perceive the potential risks of financial collapse under an oligopolistic banking system?*

However, in order to understand unconventional banking issues, it is felt necessary to gain insight into the forces which drive commerce and to explore why the barriers to the implementation of an ethical financial system exist.

[23] Congressional Record (1937). First Session of the Seventy-Fifth Congress in the *House of Representatives*, Washington, United States of America, Volume 81 Part 4.

In turn, two main research vehicles will be exploited to facilitate this study: an in-depth review of relevant literature and the collection and analysis of empirical data. The section entitled Research Methods contains the full details of both the research strategy and the data collection techniques to be used to obtain the empirical data.

Specifically, within the context of banking, the objectives of this research are to:

- *Identify* the differences in the nature of currency and money, when the distinction first appeared, and the potential reasons why they are erroneously used interchangeably.
- *Critically evaluate* a traditional monetary system against the present monetary system, and the benefits and explanations of its implementation.
- *Analytically Review* the banking framework of the US.
- *Formulate* recommendations on providing a more stabilised banking system.

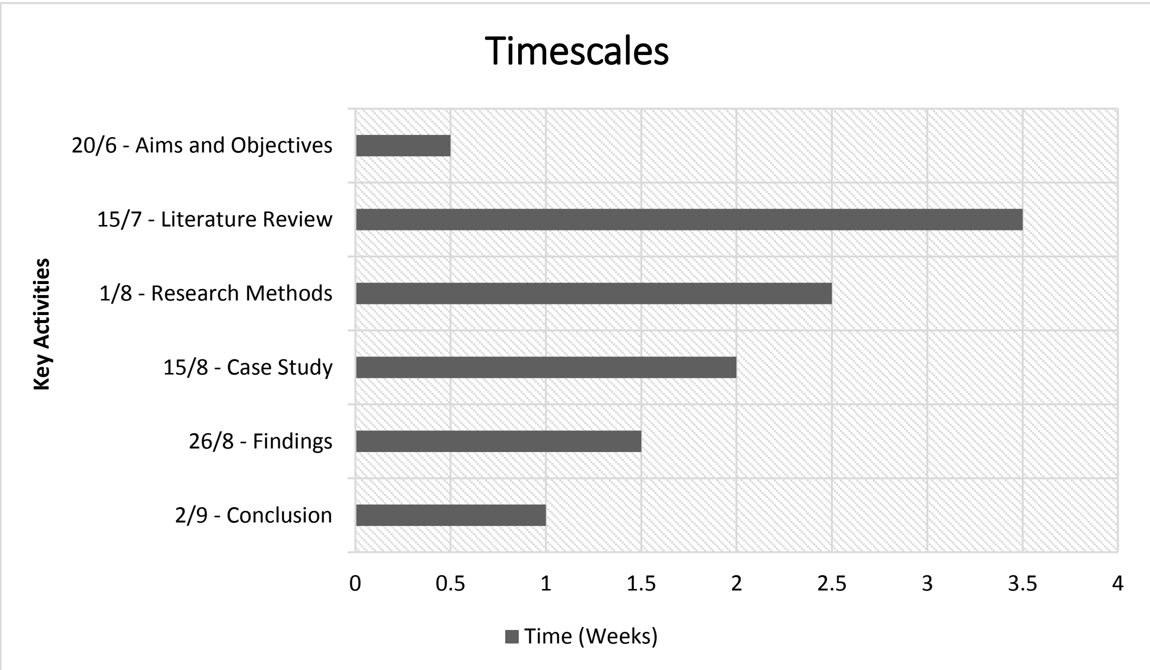
The first objective is necessary because the interchangeable use of 'currency' and 'money' can be at best, misleading and at worst, completely erroneous. The second objective will form the core of the Literature Review and will involve the study of areas such as the FRB, FReB, Progressive Legislation and Banking Practices. Finally, as a result of the review of literature and a critical analysis deriving from the collected empirical data – objective three, recommendations on the current banking and monetary system will be constructed. The objectives are not seen as independent of each other, but rather interlinked to issues surrounding banking and monetary issues around the world, with particular focus on the US.

This research will be particularly beneficial to the development and research of banking and monetary policies to the academic community. The findings and the arguments presented in this work can be used to enrich existing research schemas, particularly in relation to the framework of the banking and financial system, thus adding incrementally to the knowledge and original contributions to modern banking practices.

Furthermore, this research can also serve those who are merely interested in finding out more about economic issues and how they as individuals play a small but significant part in times of financial distress.

Table A.1 shows the expected timescales for this dissertation, from clarifying the initial research objectives to its final submission.

Table A.1 Breakdown of dissertation timescales



The next chapter – Issues and review of related literature – examines literature pertinent to the objectives of this research, beginning with an investigation of the inception regarding the exchange of valuable money for paper currency.

1.4 Outline Structure

Chapter 1: Introduction

This chapter provides the reader with background information on the distinguishing features of money and currency, which directly influences how banking works in modern society. The focus of this research is discussed and justified, and the overall research aim and individual research objectives are also identified.

Chapter 2: Issues and Review of Related Literature

This chapter defines the terms ‘currency’ and ‘money’, discusses the potential reasons why the two terms are used interchangeably and thus erroneously, compares a traditional monetary system against the modern currency system, explores the case of the British Gold Sovereign, evaluates the arguments pertaining to the usefulness of *fiat* currency, and justifies the need for honest empirical data on the availability of gold and silver as money.

Chapter 3: Research Methods

This chapter caters the rationale and operational details of the engaged research strategy used in this research. It also addresses the limitations of the research strategy and encapsulates the approaches used in order to minimise potential criticisms.

Chapter 4: Case Study Results: Description, Analysis and Synthesis

This chapter produces the findings of the case study research related to the third objective. It also seeks to provide commentary on the results of the research for better understanding on how it closely relates with the literature review.

Chapter 5: Conclusions and Recommendations

This chapter summarises and concludes the research objectives sought out in completing this area of study. It also adds some self-reflection on what the researcher proposes as recommendations in reforming the banking system.

Chapter II

Literature Review

2.1 Introduction

This Literature Review will examine the main issues surrounding the economic differences between currency and money, the way and reasons for which the terms are used erroneously, and a comparative insight into our modern currency system against a traditional monetary system. The study of literature within this review focuses on the first and second objectives below (the third objective will be met through the vehicle of empirical data collection and analysis, while the fourth objective is derived as a result of the findings from the previous three):

I. *Identify* the differences in the nature of currency and money, when the distinction first appeared, and the potential reasons why they are erroneously used interchangeably.

II. *Critically evaluate* a traditional monetary system against the present monetary system, and the benefits and explanations of its implementation.

III. *Analytical Review* of the banking framework of the US.

IV. *Formulate* recommendations on providing a more stabilised banking system.

By exploring the areas of literature outlined above, a significant contribution will be made to this research. An exploration into the inner workings of the gold standard in the context of money within the UK will be evaluated.

Similarly, the global monetary system by which *fiat* currency is based will be examined, this includes the dependency its sustenance has on the 'faith' the masses will view *fiat* currency as a trusted store of value; and the consequences in circumstances where that faith fails will also be critically assessed. In effect, the value of studying the aforementioned literary areas will be to provide a meaningful discussion and analysis of the compositions of *fiat* currency, in a structured way, to facilitate a critical understanding of modern banking.

At the end of this major section it is hoped that a critical understanding of the key issues is exhibited, that the reader will be better informed in these areas and that there will emerge a clear focus, and justification, for more empirical research easily accessible to the public in the roles *fiat* currencies play in our banking system. In the first instance, a sensible starting point is to investigate what is meant by the term *currency*. Additionally, the financial phenomenon referred to as *money* – seen by many as an accurate synonym for currency – will be explored to help place in context the unobtrusive errors in daily speech and business relations.

2.2 The Distinction Between Currency and Money

Fiat currency does not have any intrinsic value; that is, it has no market value independent of a government decree establishing it as legal tender for private and public debts. The modern monetary systems in place today are sporadically referred to as inconvertible paper standards; meaning that bank notes and government issued currency cannot be converted into precious metal at an official market rate. Larry Allen alleges that this type of currency has value only because governments give themselves a monopoly on the privilege of its issuance, which enables them to create a need and limit its supply.[24] Although Allen's submissions are not widely disputed, it is not particularly precise in its reasoning as to why a currency has value. It can be argued that what actually bestows value upon government issued currency is the belief and trust the public has in that currency that it is worth something; for without that faith in the purchasing power of that currency, the so-called value of it collapses like a deck of cards. For example, after a period of only 12 years in the early 20th century; the French Franc was hyperinflated to the extent it lost 99 per cent of its value.[25] When a currency supply has been expanded in such vast amounts, it is only human nature that abundant and common articles will be seen as less valuable.

It has since been discovered that the inconvertible paper standard evolved directly from a standard which allowed conversion into precious metals. Originally, paper money circulated as a tradeable instrument which resembled receipts representing titles to ownership of gold or silver safely secured with a goldsmith. The possession of these receipts were synonymous with the title to the gold or silver held with the goldsmiths, and presentation of them would have warranted goldsmiths to exercise their obligations to deliver the precious metals to the possessor of those receipts – essentially performing functions of money.[26] Not only would it have been more practically feasible to regulate debts with these receipts, but it would have also been cheaper as transporting gold coins and bars was very costly, and also a risky venture.

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[24] Op. cit. n. 16.

[25] Charles P. Kindleberger (2007). *A Financial History of Western Europe*, Abingdon, England: Routledge.

[26] Maciej Szczepankiewicz (2013). *Money Innovation: Alternative and Complementary Forms of Money in the World* [Kindle Edition], Maryland, USA: Maryland UN Publishing. Available at: https://www.amazon.co.uk/Money-Innovation-Alternative-Complementary-Forms-ebook/dp/B00FDOLJBW/ref=sr_1_1?ie=UTF8&qid=1467798197&sr=8-1&keywords=Money+Innovation.+Alternative+and+Complementary+Forms+of+Money+in+the+World.

The first recorded use of paper currency dates back to Ancient China during the Tang Dynasty (618-907 A.D.), which were mostly in the form of privately issues bills of credit or exchange notes.[27] As China was a couple of centuries ahead of the rest of the world's economy regarding the use of paper currency; it experienced a fairly advanced financial crisis for its time. Hewitt adduces that by the early 15th century, the ratio of paper to coin had exceeded 300:1 causing inflation to soar and the currency to be extensively devalued.[28] As a result, China presumably removed its use from circulation in 1455 as there are no known references of its continuation for the next several hundred years. Instead, China functioned under a silver economy, which ended in the early 20th century under formation of a CB.[29] Although currencies are not inherently a bad thing, the challenges China faced during this period should highlight to all the potential implications of how this medium of exchange can very easily be grossly misused and abused. The extent of this misuse is what led to China banning the practice at the time, which was intended to be a permanent decision. However, that is not to confuse the pervasive impropriety with the convenience and practicality of trading with paper currencies; the problem, however, seems to be a monumental increase in the rate of inflation which is what threatens to destabilise economies.

The functions of money, on the other hand, are largely the same as those of currencies with one significant difference: they act as a reliable store of value over a long period of

[27] Coralie Boeykens (2007). 'Paper money, a Chinese invention?' [online]. Available at: http://www.nbbmuseum.be/en/2007/09/chinese-invention.htm. Last accessed: 6 July 2016.
[28] Mike Hewitt (2008). 'China's First Experience with Paper Money' [online]. Available at http://news.goldseek.com/GoldSeek/1216647867.php. Last accessed: 6 July 2016.
[29] Ibid.

time. There is no legal definition regarding what 'long' is to mean in this context, but if there ever was one; precious metals would be at the forefront of the queue for qualifying for the standard imposed. Gold is the most universally valued and sought after precious metal, and is the only commodity which has stood the test of time in being a store of value for thousands of years due to its untarnishable and non-corrosive properties. Allen articulates that gold's role as a monetary metal (from circa 630 B.C., when it became fungible) is likely to have its roots in the widespread perception of ancient cultures that gold was a divine substance.[30] This line of reasoning is not far from the truth – gold can only be created through a cataclysmic collision of two stars which have previously exploded as supernovae.[31] The significance of this is the clear and simple understanding that gold cannot be printed [or created] at the whim of an individual or institution, and is therefore a rare entity which increases its value; coupled with the fact that demand far exceeds supply. Further, the fact gold has an economically high value per unit of weight is what makes it more practically transportable than other commodities that might otherwise serve as money. For reasons such as this, gold became the centrepiece for the most renowned commodity standard in history - the gold standard; a monetary standard that dominated the world's monetary system from the 1870s until 1914.[32]

Anatolia, now modern Turkey, is considered by historians to be the first major source of mined silver, having provided the resource to craftsman throughout Asia minor for

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[30] Op. cit. n. 16.

[31] Harvard-Smithsonian Centre for Astrophysics (2013). 'Earth's Gold Came from Colliding Dead Stars' [online]. Available at: https://www.cfa.harvard.edu/news/2013-19. Last accessed: 7 July 2016.

[32] Nathan Lewis (2013). 'The 1870-194 Gold Standard: The Most Perfect One Ever Created' [online]. Available at: http://www.forbes.com/sites/nathanlewis/2013/01/03/the-1870-1914-gold-standard-the-most-perfect-one-ever-created/#5d51fc9150d8. Last accessed 7 July 2016.

the purposes of ornamentation and display articles. At this point in history, money was unknown, and after much deliberation and trial and error with items such as leather, shells, seeds and suchlike, the agreed money of choice of the masses was silver. Roy Jastram concocts the conclusion that this consensual desire for silver as money was not an arbitrary one by alluding to various reasons as to why this was so.[33] Some of which included the availability of silver across the world's surface, and the effective means of being able to separate it from complex base ores, via smelting, where it was usually found. Jastram also highlights to us that silver was known by ancient craftsmen to have many useful and desirable qualities.

Second only to gold, silver is the most ductile and malleable metal. It is also the whitest metal, has the highest reflectivity, and is a feasible material in being in able to melt it down to be utilised for other beneficial purposes.[34] It is conceivable that because of the exorbitantly high price of gold, silver was commonly used amongst the masses, whereas gold was the primary means of exchange amongst kings and rulers of nations in ancient times.

Although economic history already proves that gold and silver have been a reliable store of value for the last 5000 years and is widely considered money, any further doubts could potentially be eradicated after exploring the following question which reveals the truth of the matter, and will also test even the most sceptical belief system as per David Morgan, that is: *When or under what circumstances would silver (or gold) be the most valuable?*[35]

[33] Roy W. Jastram (1981). *Silver: The Restless Metal*, New Jersey, USA: John Wiley & Sons.
[34] Ibid.
[35] David Morgan (2001). 'Is Silver Money?' [online]. Available at: http://www.silver-phoenix500.com/article/silver-money. Last accessed: 10 July 2016.

Appendix A illustrates the prices of gold and silver on graphs in recent times where there has been either uncertainty in financial markets, or worse, a financial crisis.

The data from the graphs incidentally compliment the beautifully-worded explanation given by Maloney when he identifies that the mass movement out of currency into precious metals causes the price of gold and silver to rise exponentially in order to account for the huge quantity of currency that was created. He then goes on to remark on the fact that this process creates a transfer of wealth to those who had the foresight to position themselves beforehand in "real money, gold and silver."[36]

2.3 The Potential Reasons for Erroneous Use

In modern society, many err in their use of the terms *currency* and *money* in everyday speech. The more common practice is to refer to currency as money. One can reasonably attribute the misinformed impressions society carries as resulting directly from the ill-advised guidance of leading financial institutions. *Exempli gratia*, the BofE, the world's first CB, confuses these two terms under its website's monetary policy page.[37] The BofE explicitly states in the opening paragraph on monetary policy that 'Monetary stability means stable prices and *confidence in the currency*.' For the enlightened few, they may see to interpret this as being a sure indication that the BofE is asserting its position on the deceptive nature of *fiat* currencies, as reliance on the faith it purchases something is an integral piece of its function.

[36] Michael Maloney (2013). 'Seven Stages Of Empire – Hidden Secrets Of Money Ep 2 – Mike Maloney', 13 August 2013. Available at: https://www.youtube.com/watch?v=EdSq5H7awi8. Last accessed 10 July 2016.
[37] Bank of England. 'Monetary Policy' [online]. Available at: http://www.bankofengland.co.uk/monetarypolicy/Pages/default.aspx. Last accessed 11 July 2016.

However, at the end of the next paragraph there appears to be a blatant contradiction to this supposed assertion, i.e. the BofE juxtaposes its position by stating '…it would start to inject *money* directly into the economy by purchasing financial assets – often known as quantitative easing.' What this does is create the notion to all laypersons (and many professionals) who access their pages that both currency and money are synonymous. This may be genuine confusion on the part of the BofE, but given the expertise and understanding of economic matters, the inclination is rather to believe that there is a more cynical interest at bay. Even if the case is whereby a major financial institution, such as this, disagrees on what they deem to be 'money' if at all, it will still remain of vital importance and moral obligation that they communicate the differences to economic society of the nature of the currency they create against a long-proven store of value. Doing this will allow for individuals to have greater influence in adjusting their own financial portfolios and decisions.

This is merely one of a worryingly large number of leading financial institutions and governmental agencies who engage in this disconcerting and inaccurate application of the two terms. It is therefore foreseeable that society will 'follow the lead' of the experts so to speak, and become misguided in understanding the wider financial matters. The reason that this is particularly disturbing is because of the fact that individuals are being blindsided from making important decisions regarding their financial position, only to find out the reality of their situation when the proverbial hits the fan. For instance, let us use the example of the hypothetical man who was hoping to retire in 1980 on his life savings to the amount of £100,000 – equivalent to a prodigious purchasing power of £457,285.50 in 2016.[38] In his case, he would have been distraught and terribly grieved to find out that what should have been able to purchase almost half a million pounds worth of goods and services, can now only serve him to the extent of £21,868.18 due the ongoing increase of inflation.[39] Providing there was no altering of the initial £100,000, this would mean that the owner of these sterling would have suffered a 95.2 per cent loss in purchasing power in that capital over the period of 36 years.

2.4 Traditional Monetary System vs. Modern Monetary System

Traditional:

Today, banking can seem very complex and contradictory, but the original idea was to make life simpler. The previous introduction of the tale of the goldsmith banker illustrates a very workable and simple system by which a bank was initially an honourable custodian of a person's wealth. That was, of course, until the unethical side of human greed was able to bear fruit; interfering in affairs it had no business dealing with.

The narrative that the goldsmith received the gold, gave a 'receipt' to the depositor, and took care of the gold is not merely a fictitious account of events. Indeed, it is quite the opposite. Appendix B is an exemplar of observable and fairly recent history that this was very much the case in the US during the early 20th century. Series of 1928 gold and silver certificates were essentially 'receipts' for a fixed weight of those precious metals.

[38] Richard Browning (2012). 'History inflation calculator: how the value of money has changed since 1900' [online]. Available at: http://www.thisismoney.co.uk/money/bills/article-1633409/Historic-inflation-calculator-value-money-changed-1900.html. Last accessed 13 July 2016.
[39] Ibid.

The gold and silver were deposited with the US Treasury, and were redeemable to the bearer upon demand. Therefore, these circulating certificates made them a valuable commodity because of the resource they were backed by – a clear example that currency represented **VALUE**.

In the past, the total amount of money in existence was limited to the actual physical quantities of whatever commodity was in use as money. For more gold and silver to be created for the use of money, more would have to be found, dug out of the ground, and then created into rounds or similar units for purpose of fungibility.

Modern:

The metal and paper symbols of value, usually thought of as money, have long been produced by an industrial facility agency of a federal government called The Mint, and still is the case. However, the vast majority of currency is not created by The Mint – it is created in huge amounts everyday by private corporations, commonly known as banks.[40] Banks do not actually lend out their depositors' money, but instead create money resulting directly from the borrower's promise to repay – usually, but not always, in the form of a signature. As a result of the borrower's promise to repay, there is then an obligation upon the borrower to pay the bank the amount of the loan plus interest, or he will lose the collateral pledged as security for repayment of the loan. A typical example of this is the mechanisms of a mortgage, where the risk is the potential repossession of one's home. This equates to a huge commitment from the borrower.

[40] Op. cit. n. 1

The bank, on the other hand, is legally allowed to conjure into existence the amount of the loan by simply creating an accounting entry into the borrowers account of the agreed amount.[41] Whilst the borrower may have a lot to lose in the event of default, the bank who has created this credit, seemingly through prestidigitation, will not only suffer no loss in the same circumstance of default, but it will also have had – sometimes substantial amounts of – credit reinvested into its own accounts.

Gregory Mankiw gives an exemplary starting point in understanding FReB in his book where he delineates precisely how it works.[42] FReB and its integrated network of banks backed by a CB have become the dominant monetary system framework of our world. In order to understand FReB, there is the need to consider the fundamental aspects of its systematic operations.

The fraction of total deposits that a bank holds is called the reserve ratio, which varies between banks, and is determined by a combination of government regulations and bank policies. For illustrative purposes, "London National Bank" will be used to demonstrate how FRB works. Let us suppose that London National Bank has a reserve ratio of 10 per cent – meaning that it keeps 10 per cent of its deposits in reserves, and lends out the remaining 90 per cent.

London National Bank

Assets		Liabilities	
Reserves	£10.00	Deposits	£100.00
Loans	£90.00		

Table A.2 Illustration accounts of London National Bank

[41] KL Gan (2013). 'How Modern Money and Bank System [*sic*] Really Works [*sic*]' [YouTube]. 7 February 2013. Available at: https://www.youtube.com/watch?v=nSiijmkzPe4. Last accessed: 15 July 2016.
[42] Nicholas G. Mankiw (2011). *Essentials of Economics*, Tennessee, USA: South-Western College Publishing.

London National Bank still has £100.00 in liabilities because making the loans did not alter the bank's obligations to its depositors. However, the bank now has two types of assets, it has the reserves of £10.00 in its vault as well as the loans of £90.00, which will need to be repaid with interest – they may be a liability to the borrower, but they are assets of the bank.

If the supply of credit and currency in the economy is considered, it makes the sustainability of FRB, or lack thereof, easier to conceive. Before London National Bank made any loans, the supply of legal tender in the economy to be used for trade was only available to the extent of the £100.00 deposited in the bank. Yet when London National Bank made these loans, the currency supply increased. The depositors still have the right to demand deposits totalling £100.00, but now the borrowers also hold £90.00 in currency – this means the currency supply now equals £190.00. This effectively means that when banks hold only a fraction of deposits in reserve, they create "money".[43]

Initially, the thought of the banks' ability to create credit out of thin air through the means of FRB may seem exciting and perhaps too good to be true. Regardless of how one looks at it, the truth of the matter is that when banks issue credit in this way, it is not actually creating any wealth. As a matter of fact, what the borrowers are doing is taking on debts which do not result in making them any richer. The real consequential result of FRB is that the economy is more liquid in the sense that there is more of the accepted medium of exchange to be used for goods and services, but the economy as a whole is no wealthier than before, it is actually quite the contrary – it becomes more indebted each day as new loans are created.

[43] Ibid.

THE "MONEY" MULTIPLIER

When a commercial bank loans out funds, it is highly probable that it will be deposited in either the bank making the loan, or another commercial bank. In either case, the receipt of this loan will equate to a deposit in the bank holding the funds. Once again, the bank is only required to keep a fraction of the new deposit, and will then be legally allowed to lend out the remainder, therefore creating a second loan.[44]

Bank deposits which are generated in this way ultimately cause a magnified expansion of the currency supply. This expansionary process becomes a perpetual occurrence as the proceeds of one loan will, in all probability, land in a commercial bank as a deposit, giving that bank the implied permission to start the process all over again. Given that each subsequent deposit deriving from a loan is smaller than the previous deposit, the cumulative expansion of the initial deposit slows to a halt. In finding out what determines the size of the money multiplier, the answer is simple: The money multiplier is the reciprocal of the reserve ratio. If R is the reserve ratio for all banks in the UK economy, then each pound of reserves generates $1/R$ pounds of currency. In our example, there is a reserve ratio of $R = 1/10$ (10 percent), which means that the bank must hold £100.00 in reserves for every £1,000.00 it holds in deposits. The higher the reserve ratio, the less of each deposit the banks loan out, and the smaller the money multiplier.

[44] Campbell R. McConnell and Stanley R. Brue (1999). *Economics: Principles, Problems and Policies*, New York, USA: McGraw-Hill Education.

In the special case of Full Reserve Banking, the reserve ratio is one, the money multiplier is one, and banks do not make loans or create currency.[45]

In explaining our modern banking system, it is evident that currency now represents **DEBT**. A paper or digital pound sterling can only be redeemed for another paper or digital pound sterling.

Presently, currency is literally created as debt, and as a result, the total amount of currency that can be created has only one real limit: The total amount of debt – which is an ever increasing ceiling.

The evaluation of these two systems accentuates one main issue in regards to the modern system of currency creation. That is, in order for a bilateral agreement between the borrower and the bank to be a lawfully binding contract, it is mandatory that certain criteria is met which could not have been fulfilled upon a completed application for a loan.

There must be a strict duty of disclosure and good faith material to the contract, especially in situations pertaining to most financial products since *Carter v Boehm*.[46] In our case, the borrower has not been informed that by signifying his promise to repay the loan, he has effectively already created the credit.

There must also be equal consideration given at the time of the agreement as illustrated in *Re McArdle*.[47] When the banks make these loans, they bring nothing valuable (or worthless) to the table, and hence have nothing to lose.

[45] Nicholas G. Mankiw (2014). *Principles of Macroeconomics*, Tennessee, USA: South-Western College Publishing.

[46] Carter v Boehm (1766) 97 ER 1162.

[47] Re McArdle (1951) Ch 669.

An artful way one could also attempt to refute the existence of an enforceable contract in this context of loans is to bring to attention that there needs to be signatures of both parties, or at least sufficient evidence of a meeting of the minds, which banks will ultimately lack as they have no right or mind to contract because they are simply soulless legal fictions. As plausible as this may sound, trying to run this argument through a court of law will undoubtedly prove to be ambitious at the least.

Although the traditional system may not be an entirely perfect one, it is very simple to understand. Not only does it pose less threats to our economy than our modern day banking system, but it also refrains from swindling the economy of its prosperity, and putting it in a never ending crucible of debt and lack.

2.4.1 A Short Study: British Gold Sovereign

In evaluating the traditional monetary system which was replaced, the British equivalent of a precious metals based system will be examined – the British gold sovereign. This coin was the pride of the British Empire during the 1800s; achieving international stature which contributed to the recognition of London's status as one of the main financial centres of the world. The sovereign was the most successful coin ever issued by the Royal Mint, and was minted almost continuously from 1816 until 1931 when Britain was unpegged from the gold standard.[48] MoneyWeek proposes the estimate that only 1% of all gold sovereigns that have ever been minted are still in collectible condition. It is this relative rarity in relation to bullion

[48] Randall E. Parker and Robert Whaples (2013). *Handbook of Major Events in Economic History*, Abingdon, Enlgand: Routledge.

coins and bars that leads to leverage whereby, in gold bull markets, the value of these coins increases by more than the actual price of gold.[49]

MoneyWeek then further asserts its position on the sovereign's value today by stating that British gold sovereigns 'have a real and permanent tangible value', unlike paper investments or speculations. It is suggested that they offer two ways in which one can build wealth: the best of bullion and numismatics in one investment, and the intrinsic security of bullion or precious metal in a pure form, which can also offer additional profit potential due to their aesthetic and historical appeal.[50]

Having said that, the opposing view to the framework of a gold standard economy presents the unglamorous calculus of impracticality. This is to mean that the gold standard specifically is actually seen by some as an impediment to a stable economy, courtesy of The Great Depression. It is widely accepted that the abolishment of the gold standard in the 1930s helped the UK recover from the crisis they were facing. This is because the government were then able to use new tools to steer the economy, namely the use of *fiat* currencies which allowed for the government to increase the amount of currency in circulation, resulting in a more liquid economy. They were also able to adjust interest rates accordingly.

Michael Kitson, Senior Lecturer at the University of Cambridge, alludes to the aforementioned impression when he alleges that the countries that were committed to gold when Britain had already removed themselves from their monetary marriage to gold, were hindered by the both the constraints of the gold standard and by

[49] MoneyWeek (2014). 'Why you should buy gold sovereigns' [online]. Available at: http://moneyweek.com/why-you-should-buy-british-gold-sovereigns-16088/. Last accessed: 25 July 2016.
[50] Ibid.

increasing overvaluation of their exchange rates.[51]

This view is widely accepted by a number of economists, and appears to be a very plausible and logical rationale to base an argument that the gold standard is an inherently flawed system. Yet, there seems to be one overlooked, misunderstood and integral aspect of this whole debate – the gold-exchange standard. Once again, leading experts in the field of economics and finance have confused the distinction between the gold standard and the gold-exchange standard; the latter of which, is the standard *actually* being referred to during the Great Depression. Earlier in this chapter, explicit mention was made of the gold standard to sharpen the picture on the type of system which was being used, i.e. there was existence of a 100 per cent reserve ratio. The gold-exchange standard does not work in quite the same way. To put it simply, it is essentially where the government was able to print more 'claim cheques' (currency) than there was gold available in their vault.[52] This ultimately means that any loss of confidence in the currency, and subsequent destabilisation of an economy must *bona fide* be attributed to the this gold-exchange standard which, by design, was destined to fail.

2.4.2 Explanations and Usefulness of Currencies

Randall Wray puts forth some convincing arguments in his economics text, *Modern Money Theory*[53], which suggests that States are not like other currency users, and

[51] Op. cit. n. 48.

[52] Editors of Encyclopædia Britannica. 'Gold-exchange standard' [online]. Available at: https://www.britannica.com/topic/gold-exchange-standard. Last accessed: 26 July 2016.

[53] L. Randall Wray (2015). *Modern Money Theory: A Primer on Macroeconomics for Sovereign Monetary Systems*, Hampshire, England: Palgrave Macmillan.

that *fiat* currency is not inherently a bad thing; criticizing the notion of commodity money from a radical and progressive economic perspective. Wray holds the view that it is not necessary to "back up" a currency with a metal in order to ensure acceptance in payment, citing that even legal tender laws are insufficient in explaining why *fiat* currency is accepted – highlighting the example of US dollars circulating in a number of countries in which It is not legal tender. Instead, Wray argues that a governments sovereign power to levy and collect taxes is the driver of domestic currencies. If tax obligations are levied in a national money of account (e.g. Yen in Japan), this creates a no-brainer regarding what a sovereign government will determine is to be delivered to satisfy the tax obligation. In most developed countries, it is unsurprising that it is the government's own currency that is accepted in payment of taxes.

The upside to a system such as this is that it enforces a level playing field in which governments remain in control with regards to how domestic currency is being utilised, the other side of the coin is the fallible nature of currencies which one becomes subject to.

In examining the feasibility of currencies, there is a case to be made that the beneficial aspects of their use extends to the general public's preference over them than gold and silver; providing society is not ignorant of their differences. This ideology can be attributed to Gresham's law, formulated by Thomas Gresham, which is often described in a simple aphoristic form as "bad money drives out good money." It is applicable to circumstances where there are coins containing metal of a different value, but has the same value as legal tender. In such situation, Gresham's law proposes that the coins composed of the cheaper metal will be used by the public to discharge debts and pay for goods and services, whilst those made from the more expensive metal will be hoarded or exported, and thus will disappear from circulation.

The 'bad money', sometimes referred to as 'debased currency', is the currency with a face value greater than the market value of its precious metal content, and it becomes the accepted medium of circulation. In contrast, the 'good money' is the money whose face value has direct correlation to the market value of its precious metal content, and consequently the holders of good money are reluctant to give it up.[54]

Although Gresham received the credit for hypothesising a law still discussed in modern economic textbooks, he was not the first to put the tenet into words. Aristophanes, the great comedic playwright of ancient Greece, who, in *The* Frogs, remarked concerning Athens: "In our Republic bad citizens are preferred to good, just as bad money circulates while good money disappears". There was also a French theologian, Nicholas Oresme (*c.* 1320–1382) who wrote a book, *A Treatise on the Origin, Nature, Law, and Alterations of Money*, in which he explained the operation of Gresham's law as one of the consequences of debasement.[55]

The benefits of using a *fiat* system is palpable when being compared to the gold-exchange standard. Namely because, any event which triggers a bank panic is highly likely to cause a banking collapse when depositors try to redeem their gold-receipts

[54] Op. cit. n. 16.
[55] Ibid.

for the gold held in the banks' vaults. Under this standard the banking system as a whole will not have enough gold to honour these redemptions, and therefore a *fiat* currency system provides more stability in that respect. For example, under a *fiat* system, the government is free to create currency and/or credit and then lend it out temporarily to distressed banks. These distressed banks can take this currency and give it to the people who wish to withdraw their funds, thereby accommodating the temporarily elevated demand for currency. When the public perceives and conceives the idea that they can withdraw their cash with little or no likelihood that a bank is going to run out of the medium of exchange, the panic eventually subsides and then the short term loans can be repaid to the government who issued them.

The power a government has to issue currency is an incredibly tremendous capability; one with the scope to handle economic matters appropriately and fairly. The proviso to this is that the governing bodies in charge of such a system are indeed seeking the welfare and prosperity of the economy (and the individuals in it) rather than for cynical gain that resembles an oligopoly.

Moreover, some would argue that backing a currency with specie (gold coin) constrains the growth of an economy and a State as a whole because of the relative scarcity of precious metals, particularly gold. The argument here is that governments would have to continually adjust the amount of specie one could redeem as the population grows, or else the notes would become incredibly scarce and commerce transactions could not occur very frequently, and thus the present system should be seen as the more favourable option.[56]

Having said that, it is worth noting that many of the arguments in favour of the present system seem to prioritise making a point of criticizing unknowingly the gold-exchange standard, instead of the actual gold standard itself. Additionally, even in cases whereby the point being made is one which can be accurately applied to the gold standard, the opposition to it seem to disregard the presence and workability of silver as a use of money. Silver is much more available than gold, and is still considered increasingly more valuable than the debased currency being used at the present moment, also making it an exemplary substitute for a *fiat* currency system.

2.5 Pertinent Issues and the Need for Empirical Research

The study of relevant banking and finance literature revealed that the topic of money and currencies is a simple but evolving landscape. To begin with, there is no universally agreed definition of what money is, and the arguments for and against regarding what should constitute money are in ample supply.

The review of literature stressed the need to have in place a means by which the public can be kept informed on how the features of government issued currencies differ from a reliable store of value because of its far-reaching and grave effects. Similarly, a need to understand why *fiat* currency is so readily accepted, which Wray refers to as ‘infinite regress’, is integral to the public making better and more informed economic

[56] Contributor (2014). ‘Pros and Cons of a Fiat Money System’ [online]. Available at: http://superforty.com/pros-and-cons-of-a-fiat-money-system/. Last accessed: 28 July 2016.

decisions.[57] Following on from this, there appears to be a tendency to shy away from honest empirical data on the availability of gold and silver as money in an economics context.

Instead, it is quite the contrary. It became increasingly apparent to governments that they could not afford to allow people to own and keep their gold. Government realised very quickly that it could never cement its power over a nation's currency, if the people, when in need, could repudiate the *fiat* paper and turn to gold for their money.[58]

To arrive at a deeper understanding as to the legal aspects of banking and finance, empirical research will be implemented. Specifically, such research will attempt to find and explore the revolutionary changes and opinions in the banking framework of the US. The next stage of this research will detail the Research Methods that will be used to capture the empirical data, including details on the research strategy to be adopted, data collection techniques, sample selection and management of the researcher's role.

[57] Op. cit. n. 53.

[58] Murray N. Rothbard (2010). *What Has Government Done to Our Money*, Alabama, USA: Ludwig von Mises Institute.

Chapter III

Research Methods

3.1 Introduction

This research study has a number of inter-related objectives set within the context of Banking and Monetary Policy:

- *Identify* the differences in the nature of currency and money, when the distinction first appeared, and the potential reasons why they are erroneously used interchangeably.
- *Critically evaluate* a traditional monetary system against the present currency system, and the benefits and explanations of its implementation.
- *Analytically Review* the banking framework of the US.
- *Formulate* recommendations on providing a more stabilised banking system.

A valuable aspect to this work of research relates to the third objective: the opportunity to decipher the role and functions of the FRS, and precisely what the documented consequences are for the major changes in its system. The aim, therefore, to gain a variety of stakeholder views coupled with factual evidence ought to contribute significantly, not only to the study of Banking and Monetary Policy in general, but to a richer understanding of the issues pertaining to how modern finance works in the US and our world economy.

Chapter two ('Issues and Review of Related Literature') identified a gap in existing research in that there was the need to comprehensively establish the economic position on the world's only superpower – The United States of America.

An important contribution of this research will be the study and analysis of empirical data on the functional operations of the FRS. The first and second objectives were initially addressed in the previous section in the form of a review of literature in the field of *fiat* currencies and monetary policy; objective three takes this research one step further through the collection and analysis of empirical data such as legislation, reports and other official data. By comparing theory with practice – i.e. comparing the Literature Review findings with the real banking operations of the US – the researcher will gain a fuller understanding of the issues surrounding the implementation of a *fiat* currency system and so be better placed to contribute useful knowledge in relation to the current monetary framework and its proposed reforms.

This section – Research Methods – will provide the details of the research strategy adopted to address the research issues identified above; together with the means of collecting data for analysis. In addition to that, the reader will be directed towards the issue of potential limitations and problems with the chosen research strategy and its implementation.

3.2 Research Strategy

When deciding the research strategy to be employed in this study, it was imperative that it was to be consistently aligned with the chosen objectives, per Saunders *et al*: 'what matters is not the label that is attached to a particular strategy, but whether it is appropriate for your particular research…'.[59] The third objective of this research sets out

[59] Mark Saunders, Philip Lewis and Adrian Thornhill (2000). *Research Methods for Business Students*, London, England: Pearson Education.

to provide an analytical review of the US banking framework, and this will be implemented through the collection and analysis of empirical data.

The research strategy adopted to meet the third objective is interested in an in-depth study (*Analytically review* the banking framework…) within the context of the US jurisdiction on various issues with regards to monetary policy. Therefore, the chosen research strategy will be a case study; described by Cohen *et al*[60] to:

> [observe] *the characteristics of an individual unit – a child, a class, a school or a community. The purpose of such observation is to probe deeply and to analyse intensely the multifarious phenomena that constitute the life cycle of the unit.*

The *type* of case study research reflected upon in pursuit of this objective is a *descriptive* study, as opposed to an *explanatory* or *exploratory* study.
Descriptive case studies hone in on producing a full description of a phenomenon, such as an organisation or an event, within its context[61], and do not seek to answer questions regarding cause and effect. Rather, their primary function is to gain a deeper understanding of some phenomenon.

3.3 Data Collection: Sources and Material Selection

The conducted case study is generally considered to be qualitative in nature. The central ambition to the empirical aspect of this project is: to review the prolific opinion on the

[60] Louis Cohen, Lawrence Manion and Keith Morrison (2013). *Research Methods in Education*, London, England: Routledge.
[61] Robert K. Yin (2003). *Case Study Research Design and Methods*, London, England: Sage Publications.

operations of the FRS, to identify whether the they are consistent with issues previously mentioned, to pinpoint the position the FRBs assert themselves, and to present information which directly explains the role the Federal Reserve has had in major economic affairs. To understand instances of the workings of the FRS – a centralised piece of the US banking framework – and seek explanations, an in-depth analysis that is more than a rigorous compilation of academic opinion is required. Nonetheless, the primary focus of this research strategy is the gathering of qualitative data.

The selection of material was decided to constitute mainly of official reports and/or verifiable information from the founding fathers of the US, the American Constitution, and the statements and publications issued by the FRBs themselves. It is convenient and practical because the researcher has been able to have easy access to this material through online databases and renowned libraries. However, this does mean that the sources of information have been intentionally identified and handpicked and therefore a case can be made that there has been failure to achieve a representative view to the broader financial community. Instead, this research has as its focus the aim of achieving a thorough and reliable insight into the core of the banking system in the US by citing the most important and influential members and institutions of society when it comes to the salient points raised. This serves to mitigate the potentially important effects of under-representation.

The variety in sources when selecting the nature of information to be included for this research introduces the concept of *triangulation*, which is where different accounts of the same phenomenon can be compared and contrasted resulting in a more rounded perspective of the forming picture. Cohen *et al* explain triangulation to happen when there is the 'use of two or more methods of data collection', such as official documents and questionnaires, but can also be used, as intended in this case study, to 'map out, or explain more fully, the richness and complexity of human behaviour by studying it from more than one standpoint'.[62]

3.4 Framework for Data Analysis

To help focus the documented sources in terms of reflecting the main objectives of this research, and to ease the analysis of qualitative data, the sources will be structured according to themes. These themes ultimately reflect the overall objectives in this research and also echo the main aspects presented in the literature review: *The Distinction between Money and Currency*, *The Potential Reasons for Erroneous Use*, *Modern Day Currency System* and, to conclude, *Explanations of Currencies*. It is important not to view these themes as separate topics, but rather as an inter-related and holistic play on the overall research aim. For example, the FRBs propose their position on their operations from a perspective based on economics. The politicians, who are hardly economic gurus, naturally build their arguments from a legal front. The themes are there to aid the reader's focus, and the researcher's analysis and evaluation of the documented sources.

[62] Op. cit. n. 2.

Qualitative Analysis Process

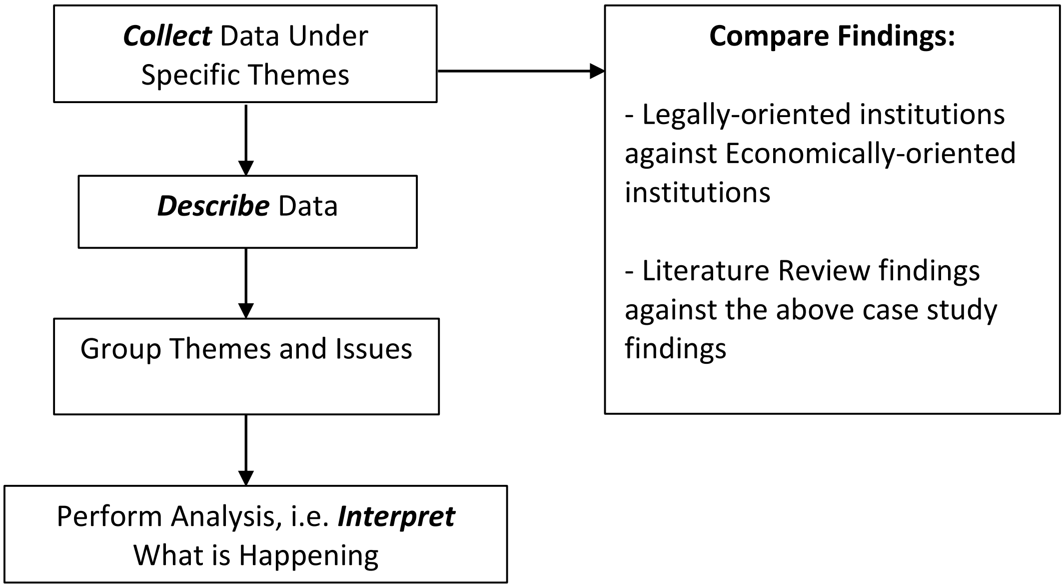

Table A.3 Qualitative Analysis Process

Table A.3 graphically illustrates the approach that will be taken to analyse data from this case study, based on the iterative process of description, analysis and interpretation of the gathered data, particularly with regard to extracting, digesting and making sense of emerging themes. The important part of this research which compares and contrasts the attitudinal arrangements between the senior members of the legal economic society in the US is illustrated by the over-arching reflective process in the table above.

In terms of analysis, there will be a dual-approach: firstly, Federal Reserve statements and publications will be described and analysed; secondly, the case study findings of political references and legal treatises will also be described and analysed, not only comparing the political and legal references against each other, but also comparing them with the accounts issued by the Federal Reserve. For the sake of clarity, it will also be in this [second] phase that relevant literature review findings will also be compared against the findings of the case study (this is so that repetition of commentary in the Literature Reviews is avoided).

3.5 Limitations and Potential Problems

There are some limitations to this research, as well as issues related to implement a case study in the manner one was employed. The results of this case study cannot necessarily be generalised to the wider research community in the sense of consensus generality on the views unveiled. Indeed, the results of this research cannot even be generalised to represent the individuals in the economic institutions under study: although, publications and reports were deemed to represent the principles of their very existence – reference will also be made to strategic documentation in order to better understand the monetary side of economics. The question of validity when it comes to case study research regarding the view that generalisations cannot usually be made, has already been discussed and addressed. The researcher is using a tried and tested approach, appealing to the concept of *deductive reasoning* rather than *generalisability*, although it has been argued that generalisation can take place over time – incremental generalisability – as more empirical research case studies are implemented. Unfortunately, this is unlikely with regards to the nature of this case study as it will likely cause a general reaction which will adversely interfere with modern economics. Thus, the researcher is sacrificing immediate generalisability for depth of study.

Additionally, there is also the question of *reliability* of using the adopted research strategy, particularly with unsubstantiated reports. It is for this reason why official documentation has been used and appendices have been present where suitable to ensure objectivity. As a result, the researcher has taken as many operational steps as possible when conducting the research. Full transcripts are also either provided and/or referenced as reliability is sought through a highly structured, transparent and detailed piece of work.

Another potential barrier that was a bittersweet hindrance to the smooth implementation of the empirical research was surprising. The difficulty encountered did not actually relate to the lack of material in achieving the third research objective, but rather it was the overwhelming abundance of information and sources which appeared to, in some fashion or another, echo the very basis by which the findings were arrived at. Some of the conclusions drawn upon using these methods would require, either some logic, or at least a slight cognitive bias as to how the information and sources are to be read.

In confronting these perceived limitations, the researcher has rectified this issue by meticulously hand-picking only the most relevant material which directly seeks to achieve the fulfilment of the third objective. Furthermore, the conducted research primarily focuses on information from sources which cannot be reasonably be disputed, discredited or overruled for the reason that those sources have a high (or the highest) degree of authority in the land regarding the relevant matters.

Chapter IV

Case Study Results: Description, Analysis and Synthesis

4.1 Introduction

This chapter reveals the results of the case study described in chapter three. The research concentrates on providing a deeper understanding to the position of important institutions and individuals with a prolific stranding with regards to the third objective. For the purpose of readability, it is intended that the write-up of these findings will be classified under the headings of ‘Economic Perspective’ and ‘Legal and Political Perspective’. It should be appreciated that financial institutions are perceptibly complex organisations and that this research is not concerned with *explaining* the FRS or fully describing its operations, but merely placing this study in context. The transcripts referred to in the results can be found onwards from Appendix C.

4.2 Findings

4.2.1 Economic Approach

The process of currency creation alluded to previously is explicable in the eyes of the FRB of New York, where they state:[63]

> *'Currency cannot be redeemed, or exchanged, for Treasury gold or any other asset used as backing. The question of just what assets 'back' Federal Reserve notes has little but bookkeeping significance… Banks are creating money based on a borrower's promise to pay (the IOU) … Banks create money by 'monetizing' the private debts of businesses and individuals'.*

Interestingly, when it comes to the issue of *fiat* currencies and their deposits in other banking institutions, the FRB of Chicago asserts its position as the following:[64]

> *'In the United States neither paper currency nor deposits have value as commodities. Intrinsically, a dollar bill is just a piece of paper. Deposits are merely book entries. Coins do have some intrinsic value as metal, but generally far less than their face amount.*
>
> *What, then, makes these instruments – checks, paper money, and coins – acceptable at face value in payment for all debts and for other monetary uses? Mainly, it is the confidence people have that they will be able to exchange such money for other financial assets and real goods and services whenever they choose to do so. This partly is a matter of law; currency has been designated "legal tender" by the government – that is, it must be accepted.'*

[63] David H. Friedman (1977). *I Bet You Thought*, New York, USA: Federal Reserve Bank of New York.
[64] Federal Reserve Bank of Chicago (1982). *Modern Money Mechanics: A Workbook on Bank Reserves and Deposit Expansion*, Illinois, USA: Federal Reserve Bank of Chicago.

As if that was insufficient, there is a similar and slightly more acute insight into the explanation of the FRS, as explained by the FRB of St Louis:[65]

> *'Modern monetary systems have a fiat base – literally money by decree – with depository institutions, acting as fiduciaries, creating obligations against themselves with the fiat base acting in part as reserves. The decree appears on the currency notes: "This note is legal tender for all debts, public and private." While no individual could refuse to accept such money for debt repayment, exchange contracts could easily be composed to thwart its use in everyday commerce. However, a forceful explanation as to why money is accepted is that the federal government requires it as payment for tax liabilities. Anticipation of the need to clear this debt creates a demand for the pure fiat dollar.'*

As the knowledge of currency being based primarily on debt itself unfolds, it is consistent reasoning in assuming that the FRS is not interested in seeing a reduction in debt at all, but if assumptions are nothing to go by then here is what the FRB of Philadelphia had to say on this issue:[66]

> *'A large and growing number of analysts, on the other hand, now regard the national debt as something useful, if not an actual blessing… [They believe] the national debt need not be reduced at all.'*

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[65] Mack Ott (1982). *Money, Credit and Velocity*, Missouri, USA: Federal Reserve Bank of St. Louis.
[66] Federal Reserve Bank of Philadelphia. *The National Debt*, Pennsylvania, USA: Federal Reserve Bank of Philadelphia.

The FRB of Chicago puts it more succinctly:[67]

> *'Debt – public and private – is here to stay. It plays an essential role in economic processes… What is required is not the abolition of debt, but its prudent use and intelligent management.'*

It is clear to be seen that the Federal Reserve on a number of occasions has confirmed, what some would call, the ill-use of *fiat* currencies and in some cases has even merrily accepted them as a necessary evil in society. What the Federal Reserve has done by issuing these declarations is put the world on notice that what is commonly referred to as 'money', is not only backed by nothing, but is created as debt, sustained as debt, and relies on fickle public confidence that it can purchase something. This is heavily driven by what Wray identified as tax obligations accepted in the form of a government's own currency; a phenomenon seen as a sure tactic by the FRB of St Louis in driving a demand of the US dollar. It is incredibly unlikely that the Federal Reserve will explicitly admit in any form that their system is based on dishonesty, deception and deviant behaviour, so it is up to one to read between the lines and get to grips with how they are affected by such clever sleight of hand.

4.2.2 Legal and Political Approach

The most highly regarded piece of law in the US is the American Constitution. This is arguably the best place to start when enquiring about the status of money in the US. As a matter of fact, it is still written in sections 8 and 10 of the Constitution that:[68]

[67] Dorothy M. Nichols (1953). *Two Faces of Debt*, Illinois, USA: Federal Reserve Bank of Chicago.
[68] "The Constitution of the United States," Article 1, Section 8, Clause 1-5; Article 1, Section 10, Clause 1.

> *'Congress shall have the power –*
>
> *To borrow money… to coin money, regulate the value thereof, and of foreign coin, and fix the standard of weights and measures;… [and] to provide for the punishment of counterfeiting…*
>
> *No state shall… coin money; emit bills of credit; [or] make anything but gold and silver coin a tender in payment of debts.'*

Even prior to the delegates signing the Constitution in 1787, George Washington voiced his reasons for rejecting *fiat* currency, and when opposition presented to him the argument of there not being enough specie to satisfy the needs of commerce, he replied:[69]

> *'The necessity arising from a want of specie is represented as greater than it really is. I contend that it is by the substance, not the shadow of a thing, we are to be benefited. The wisdom of man, in my humble opinion, cannot at this time devise a plan by which the credit of paper money would be long supported; consequently, depreciation keeps pace with the quantity of the emission, and articles for which it is exchanged rise in a greater ratio than the sinking value of the money. Wherein, then, is the farmer, the planter, the artisan benefited? An evil equally great is the door it immediately opens for speculation, by which the least designing and perhaps most valuable part of the community are preyed upon by the more knowing and crafty speculators.'*

[69] "From George Washington to Thomas Stone, 16 February 1787," *Founders Online,* National Archives, last modified July 12, 2016, http://founders.archives.gov/documents/Washington/04-05-02-0032. [Original source: *The Papers of George Washington*, Confederation Series, vol. 5,*1 February 1787 – 31 December 1787*, ed. W. W. Abbot. Charlottesville: University Press of Virginia, 1997, pp. 37–39].

US history prior to the enforceability of the US Constitution had ample example of the dismal failures and calamities that the use of *fiat* currency brought upon the nation. This would explain why the delegates were so adamant to prevent its resurgence, and communicated so in unmistakable language.

Oliver Ellsworth, who later became the third Chief Justice of the Supreme Court, profoundly stated:[70]

> *"This is a favorable moment to shut and bar the door against paper money. The mischief of the various experiments which have been made are now fresh in the public mind and have excited the disgust of all the respectable parts of America."*

It is no secret that today politicians are seen to have notoriety in lacking virtues of honesty, probity and equitable treatment, but from the early days of the US it is gathered that the case was somehow quite different. It follows from the reasoning of these political figureheads that their reason for intending to bring about the demise of paper currency was simply because of its nature as not being 'honest money'. Further to that, it was clearly understood that while currency circulating in the economy may represent an asset to select individuals, when it is considered as an aggregate of the total currency supply in the economy, it is not an asset at all. Every bit of it is owed by someone. Some will owe nothing. Others will owe many times what they possess. All added together, the national balance is zero.[71]

This empirical research is what makes it easier to draw the lines to what was

[70] G. Edward Griffin (1998). *The Creature from Jekyll Island: A Second Look at the Federal Reserve*, New York, USA: American Media.
[71] Ibid.

analysed in the literature review. The delegates of the US Constitution understood and believed, not only the value of gold and silver, but the honest nature of it – the government cannot print it. It is the free markets which determine the worth of its trade. As a final point, the analysis into the grave effects of issuing currency on the basis of debt is met with a candid and matter of fact submission by Marriner Eccles, the former Governor of the FRS in 1941. Eccles gave a testimony before the House Committee on Banking and Currency, which had the purpose of obtaining information regarding the role of the Federal Reserve leading up to the Great Depression of the 1930s. In the meeting, Eccles was incredibly frank about the fallible nature of *fiat* currency.[72]

[72] See Appendix E.

Chapter V

Conclusions and Recommendations

5.1 Research Objectives: Summary of Findings and Conclusions

5.1.1 Research Objective 1: Distinction between Currency and Money

The literature review identified the difference in the nature of currency and money, namely that money is truly rooted in the form of precious metals – gold and silver. Currency, on the other hand, is seen to be a government created mechanism to exercise vast control over monetary economics for the benefit of a few. The reasons currency and money is often deemed to mean the same thing was also noted. This was concluded to be due largely to leading authorities not clarifying the difference between faith based currency and money which has a proven record as a reliable store of value.

The main conclusion, and lessons, that can be drawn from this research on these issues is that a lack of communication and understanding is at the heart of the confusion as to what constitutes integral monetary matters. Therefore, it is beneficial for one to do his or her own diligence and travel farther back into the past to better understand the present-day and future events regarding financial matters.

5.1.2 Research Objective 2: Monetary System Vs. Currency System

The workings of a system which was known as the gold standard was examined against the floating exchange rates that is now present. From this analysis it is clear where the idea of pure *fiat* currencies came from in that they were originally used as a characterisation of something more valuable than itself to be held on trust for the bearer of that paper receipt. The creation of currency was also explained in a way which is easy to conceive on a scalable level. From this, it was understood that what is known as money is in fact created on debt.

The main conclusion to be taken from this is that the economy has spiralled into a cyclical cataclysm which results in one unnecessary and preventable financial crises due to the ever increasing amount of debt. This consequently produces either a distressed economy which cannot meet its financial obligations, or a variety of situations in which financial assets abruptly lose a large part of their nominal value. It must also be noted that by no means is the gold standard a fool proof system, but the lack of calamitous reports behind it is a testament to its practicality.

5.1.3 Research Objective 3: Banking Framework of the US

Here, there was the revealing of the sentiment behind the Federal Reserve and political figureheads who were knowledgeable on the dangers of implementing a system whereby government could control and issue credit. The findings allayed some concerns in that it is no secret that the in vogue monetary system was frowned upon by even the most important individuals who formed the Constitution of the US. However, concerns are still prevalent due to the negligible effect that it had on the Federal Reserve’s power to control and issue credit to banks and the US Government.

The main conclusion drawn from this research is that the banking framework of the US is inherently flawed and unconstitutional. The US is not alone by any means in the monopoly that a private institution holds such vast powers to issue credit at the flick of a pen, and it is necessary that the public educate themselves on financial matters so they are not so easily swept with the wind as and when the economy starts to crumble. If there was ever a reason to believe governments are typified by cynicism and self-interest, this would be it.

5.2 Recommendations

5.2.1 Recommendation I: Gold and Silver as Money

The use of gold and silver should be returned to as money, and the gold standard should be forgotten about completely. Education and public awareness will undoubtedly help individuals better understand the risks involved in our current monetary system, as well as inform them of the way in which gold and silver could be efficiently utilised in modern economics. Understandably, the governments will still continue to govern the oversight and implementation of laws and regulations pertaining to the exchange of precious metals, but the nature of financial risk metrics will take on a whole different meaning, and its management *should* be more undemanding and straightforward.

5.2.2 Recommendation II: Custodian Vaults

Vaults should be used as a candid means for storing precious metals for the public to limit the peril of their articles being lost or stolen. They should also be weighted into nanograms, grams, ounces and kilograms so that all may have an opportunity to own the specie. In making payments, it is simply a case of transferring ownership of the money in the vault from one account to another via the means of cheque, debit/credit card or any electronic platform which allows you to do this over secured internet connection.

In clarifying what a ‘cheque’ is supposed to mean in regards to the proposed recommendations, it is not intended to be used as a substitute for *fiat* currency. A cheque book should be issued by the custodian which holds the precious metals, and upon processing of the signed promissory note; ownership should immediately transfer to the payee’s account.

Chapter VI

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Appendices

A - E

- **Appendix A:** 20-Year Gold and Silver Prices
- **Appendix B:** Series of 1928 Gold and Silver Certificates
- **Appendix C:** I Bet You Thought (Federal Reserve Bank of New York)
- **Appendix D:** Money, Credit and Velocity (Federal Reserve Bank of St Louis)
- **Appendix E:** House Committee on Banking and Currency Transcript

Appendix A

20-Year Gold and Silver Prices

Source: http://therealasset.co.uk

<u>Appendix B</u>

Series of 1928 Gold and Silver Certificates

Source: http://oldcurrencyvalues.com

Appendix C

I Bet You Thought (Federal Reserve Bank of New York)

Gold "backing" gives the dollar its value. Until 1968, U.S. currency had to be partially backed by gold. However, gold never gave the dollar its value. The dollar's value always has been determined by the amount of goods and services it can buy — its purchasing power.

Gold backing was required through most of U.S. history as a means of restraining Government overissuance of paper money and improving public confidence, and, therefore, the acceptability of paper money.

When the Federal Reserve was established, Congress required the 12 Reserve Banks to back their currency, known then as Federal Reserve Bank notes and today as Federal Reserve notes, with 40 percent gold and 100 percent "eligible paper" (short-term IOUs of businesses and farmers). The eligible paper requirement was reduced to 60 percent in 1917. Gold was bought from the Treasury. Eligible paper was obtained from commercial banks that presented these customer IOUs as collateral for loans. Essentially, only those IOUs representing commercial bank loans made to expand manufacturing or farm output were designated "eligible" as collateral by the Federal Reserve.

The backing requirements on Federal Reserve notes were designed to regulate currency issuance automatically to the pace of the economy's growth, since only increased business activity and bank lending could generate the collateral necessary for more note issuance.

Backing requirements were liberalized and reduced over the years, as we gained better insight into how the economy works and how money should be regulated.

By the 1930s, Congress allowed Reserve Banks to use assets other than eligible paper, such as U.S. Government securities, to back currency. By the 1940s, Congress slashed the gold requirement to 25 percent and in 1968 eliminated gold backing entirely.

Federal Reserve notes are still "backed" dollar-for-dollar by the assets of the Reserve Banks. About 85 percent of these assets consist of Government securities the Federal Reserve purchased over the years. The remaining 15 percent consists of gold certificates representing pledges against the Treasury's gold supply. Reserve Banks no longer have to use their gold certificates this way, but many still do.

Currency backing isn't relevant in today's economy. Currency cannot be "redeemed," or exchanged, for Treasury gold or any other asset used as backing. The question of just what assets "back" Federal Reserve notes has little but bookkeeping significance.

Money's value, however, is highly relevant. Maintaining the dollar's value means maintaining its purchasing power. Rising prices — inflation — reduce purchasing power; stable prices keep purchasing power strong.

Too much money results in excess spending. When consumers, businesses and governments spend excessively, they compete for the available supply of goods and services and force prices up. When prices rise, the purchasing power of money falls. To keep purchasing power strong, then, the supply of money must not increase too rapidly.

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Appendix C (cont'd)

Checkbook money is "created" by currency deposits.

Commercial banks create checkbook money whenever they grant a loan, simply by adding new deposit dollars to accounts on their books in exchange for a borrower's IOU

Money creation bookkeeping isn't gimmickry Far from it Banks are creating money based on a borrower's promise to repay (the IOU), which, in turn, is often secured or backed by valuable items the borrower owns (collateral)

Someone obtaining an auto loan, for example, might use the new car as collateral A home improvement loan might be secured by the value of the house being improved Business loans may be secured by physical assets, such as machines, factories and inventories, or may be "unsecured," backed only by the company's earnings record and expectations or general credit worthiness

Banks create money by "monetizing" the private debts of businesses and individuals That is, they create amounts of money against the value of those IOUs

To create money, however, banks must have "excess" reserves, funds exceeding those they are legally required to hold Banks belonging to the Federal Reserve System must abide by the System's requirements. Banks that aren't members are subject to the reserve requirements of the state that chartered them.

Even without legal rules, prudent banking dictates that some "required" reserves be held. Bankers know that, on any given day, they will have to pay out coin and currency to people cashing personal checks They also know that they will have to transfer reserve balances as checks drawn against accounts they hold are presented for payment by other banks. Meeting these routine transactions requires that banks hold some reserve funds.

If a bank has excess reserves, it can create an amount of money equal to that excess; it can grant a loan Borrowers write checks against their new deposits When these checks are deposited at other banks, those banks collect payment from the borrower's bank Bankers know that when other banks present borrowers' checks for payment, they will have to transfer reserves on a dollar-for-dollar basis

If a bank creates an amount greater than its excess reserves, it also would lose some required reserves and face temporary violation of requirement rules Prolonged violation of requirement rules subjects banks to penalties So they tend to match lending to excess reserves A bank short of required reserves usually will borrow from another bank Member banks can also borrow from the Federal Reserve

As newly created checkbook dollars move from bank to bank, banks gaining excess reserves can make additional loans As a group, banks are capable of creating money in a multiple way. Currently, our banking system theoretically can generate a sevenfold increase in total money creation with a given amount of excess reserves.

Money multiplication, rather than currency deposits, accounts for most of our $230 billon of checkbook money Banks hold only about $34 billion in reserves. Only $8 billion of that total is cash, the remaining reserves are deposit balances at Federal Reserve Banks Reserves are the base on which the banking system has generated the bulk of the nation's checkbook money.

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Appendix D

Money, Credit and Velocity (Federal Reserve Bank of St Louis)

Credit and Money Creation

In contemporary market economies, the money supply grows through two types of credit transactions: the central bank creating deposits (money) and bank reserves by buying government securities, and depository institutions creating deposits (money) from increased reserves by granting loans.[16]

Of course, not all credit extensions entail monetary expansion. There are three distinct sources of credit extension: (1) bank and non-bank depository institutions (commercial banks, savings and loans, credit unions, mutual savings banks); (2) non-depository financial intermediaries (finance com-

[16] In other words, modern monetary systems have a fiat base—literally money by decree—with depository institutions, acting as fiduciaries, creating obligations against themselves with the fiat base acting in part as reserves. The decree appears on the currency notes: "This note is legal tender for all debts, public and private." While no individual could refuse to accept such money for debt repayment, exchange contracts could easily be composed to thwart its use in everyday commerce. However, a forceful explanation as to why money is accepted is that the federal government requires it as payment for tax liabilities. Anticipation of the need to clear this debt creates a demand for the pure fiat dollar, guaranteeing its exchange value. See Abba P. Lerner, "Money as a Creature of the State," *American Economic Review* (May 1947), pp. 312-17; and Ross M. Starr, "The Price of Money in a Pure Exchange Monetary Economy with Taxation," *Econometrica* (January 1974), pp. 45-54.

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Appendix E

House Committee on Banking and Currency Transcript

"CHAIRMAN MARRINER S. ECCLES' TESTIMONY ON NO DEBTS, NO MONEY, IN HIS TESTIMONY ON THE PRICE-CONTROL BILL BEFORE THE BANKING AND CURRENCY COMMITTEE

"Chairman Eccles, of the Federal Reserve Board, testified as follows, page 1338 of the hearings, September 30, 1941:

" 'Mr. PATMAN. * * * You made the statement that people should get out of debt instead of spending their money. You recall that statement, I presume?

" 'Mr. ECCLES. That was in connection with installment credit.

" 'Mr. PATMAN. Do you believe that people should pay their debts generally, when they can?

" 'Mr. ECCLES. I think that depends a good deal upon the individual; but, of course, if there were no debt in our money system——

" 'Mr. PATMAN. That is the point I wanted to ask you about.

" 'Mr. ECCLES. There wouldn't be any money.

" 'Mr. PATMAN. Suppose everybody paid their debts, would we have any money to do business on?

" 'Mr. ECCLES. That is correct.

" 'Mr. PATMAN. In other words, our system is based entirely on debt.'

"Mr. Speaker, there can be no dispute about the statement that our system is based entirely upon debt, and if a person and corporation paid their debts we would not have sufficient money to do business on.

"If we were to change that system the Government would pay its own money into circulation, and the people would be saved billions of dollars a year in interest.

"The Federal Reserve Banking System is privately owned. Not $1 of the stock is owned by the Government or by the people; it is owned by private banking corporations. It is a corporation owned by corporations. Many people believe that the Federal Reserve Banking System is owned by the Government because it is named Federal, but of course this is not true.

"CREATE MONEY, BUY BONDS, AND COLLECT INTEREST

"When the Honorable Marriner S. Eccles, Chairman of the Federal Reserve Board, was before the Banking and Currency Committee of the House, of which I am a member, on Tuesday, September 30, 1941, I interrogated him about how he obtained for the 12 Federal Reserve banks the $2,000,000,000 in Government bonds, which the System is now holding and charging the Government interest thereon. The questions and answers appear in the printed testimony, volume 2, page 1342, and is as follows:

" 'Mr. PATMAN. * * * How did you get the money to buy those $2,000,000,000 of Government securities?

" 'Mr. ECCLES. We created it.

" 'Mr. PATMAN. Out of what?

" 'Mr. ECCLES. Out of the right to issue credit, money.

" 'Mr. PATMAN. And there is nothing behind it, is there, except the Government's credit?

" 'Mr. ECCLES. We have the Government bonds.

" 'Mr. PATMAN. That's right; the Government's credit.'

"Mr. Speaker, the Government is now paying between forty and fifty million dollars a year to the Federal Reserve Banking System as interest on these bonds. The expenses, dividends, and profits of the System are paid in that way. It would be just as reasonable for each department of our Government to be allowed to purchase enough Government bonds to pay their expenses the same way. It would be just as reasonable for the Government to set aside enough interest-bearing bonds to each Federal employee to pay the Federal employee interest sufficient to pay his salary as it is for the Federal Reserve Banking System to get their expenses paid in that way.

"Under our present system the Federal Reserve banks can purchase twenty-five or fifty billion, a hundred billion, or an unlimited amount of Government bonds the same way they purchased and then held the $2,000,000,000. The System now owns about $6,000,000,000 in United States securities acquired the same way. Officials of the Federal Reserve System are paid salaries up to $50,000 a year.

"Commercial banks that obtain a large part of their earnings from United States bonds bought with created money paid their officials up to $175,000 a year."

(Article from the Congressional Record submitted by Mr. Patman follows:)