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The Gold Standard and Fiat Money System

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by

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Dedication

I would like to dedicate this project to Professor Liudmila Malyshava because her class "International Macroeconomics" extended a lot of information about the international monetary orders, which helped me to explore my interest in the world monetary systems.

Acknowledgements

I am deeply thankful to my father who supported me throughout this project. I am very grateful to him for letting me complete my project even during his business crisis, when he needed me the most. I would also like to extend my gratitude to Professor Liudmila Malyshava for guiding me throughout and this would not have been possible without her. I also want to thank my grandmother for always keeping me motivated with her insightful thoughts.

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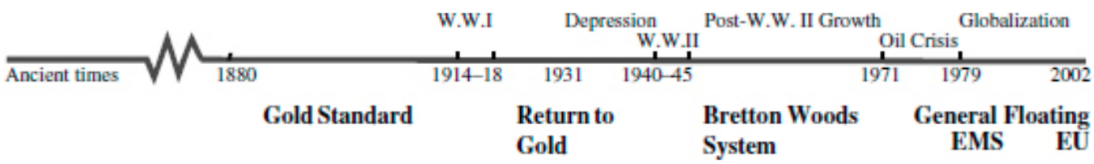
Introduction

The world has gone through three main monetary regimes, including the Gold Standard, the Bretton Woods system, and the Fiat Money system. The timeline below shows the dates of the different monetary regimes.



Source: Hendrik Van Den Berg, *International Finance and Open Economy Macroeconomics*, 2nd ed. (London: World Scientific Publishing Company, 2016), 23.

The Gold Standard regime started in 1880 and survived until 1944. The Bretton Woods system began in 1944 and remained an international monetary system until 1971. The Fiat Money system began in 1971 and is running till now. Each system had its advantages and disadvantages but to see which system has performed best overall, this paper will focus on two monetary systems, the Gold Standard and the Fiat Money. This paper will argue that the Fiat Money system is better than the Gold Standard monetary regime overall because the Gold Standard system keeps inflation low but increases the risks of deflation and reduces economic growth, unlike the Fiat Money system.

This project starts its discussion with the origin of the systems. It talks about the history of both systems in chapter one. For example, the Gold Standard system was adopted by most of the countries after the 1880s, it was adopted by Britain first and remaining countries adopted it later. The project moves forward and explains both monetary systems, it talks about policy and framework of exchange rate, gold/capital flows and monetary policy under both of the systems. It also talks about the lack of monetary policy freedom under the Gold Standard system. It talks about the fixed exchange rate under the Gold Standard and its constraint on economic growth. The project also discusses the problems the Gold Standard system created for traders and how the Gold Standard promoted the inefficient utilization of resources. The paper also argues that the Gold Standard system was established to maintain trust of people on central bank but it failed and made central banks vulnerable. The paper moves forward with the discussion of the Fiat Money system and discusses that economies are benefitted without the compulsion of fixed exchange rates under the Fiat Money system as it protects foreign reserves. It also argues that foreign reserves are utilized in a more beneficial way than they are utilized in the Gold Standard system because under the Fiat Money system the reserves are used for the welfare of the public. The Fiat Money system is also better than the Gold Standard because under the Fiat Money system trust in the central bank is easier to maintain and it also gives undeveloped economies the opportunity to grow faster. Finally, the paper comments on the performance of the economies under both monetary systems. It argues that the Gold Standard exposes economies to the risk of deflation which is way more damaging than inflation, it also states about high frequency booms and busts under the Gold Standard system such as the Great Depression and will also explain that trade barriers were quite high in the time of the Gold Standard. So due to policy frameworks of the system and performance of the system the project will argue that the Fiat Money system is better than the Gold Standard system.

Chapter One

History of the Gold Standard and Fiat Money Regime

The Origin of Money

Before moving to the Gold Standard system it is important to understand the origin of money because money was the tool in the gold standard system and the Fiat Money system to execute the transactions. The story of the origin of money that some economists tell does not seem to be correct. According to Adam Smith, money originated after the barter system. People used to trade goods with goods which created many problems such as store of value, medium of exchange, and unit of account. Executing transactions in barter was extremely hard to solve because people invented money. Van den Berg in his book "International Finance and Open-Economy Macroeconomics" writes,

> "If we were to reconstruct history along hypothetical, logical lines, we should naturally follow the age of the barter by the age of commodity money… . Historically a great variety of commodities has served at one time or another as a medium of exchange: cattle…, tobacco, leather and hides, furs, olive oil, beer or spirits, …, gold, silver, rings, diamonds, wampum beads or shells, huge rocks and landmarks, and cigarette butts … . Each of the above has some advantages and disadvantages … . Finally, along with the age of paper money, there is the age of bank money, or bank checking deposits"[1].

Also claiming that some anthropologists like David Graeber and Caroline Humphery do not agree with this story of money. They claim that no evidence signifies that money emerged from the barter system. This misconception of the origin of money is due to the term "finance" having many different meanings. As described by Van Den Berg, it is the inter-temporal exchanges that create debits and credits, In other words, inter-temporal exchange of purchasing power. Some

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[1] Hendrik Van Den Berg, *International Finance and Open Economy Macroeconomics*, 2nd ed. (London: World Scientific Publishing Company, 2016), 23.

anthropologists have traced tally sticks and clay tablets that were used to record future obligations in money terms dating back to 5000 years ago. While Van Den Berg claims that finance would have existed way before that[2].

The History of the Gold Standard System

The Gold Standard system became the international monetary system after 1870. Before it became the international monetary system, it was the national monetary system of Britain and Britain was the first country to adopt the system of the Gold Standard. It became the international monetary system after 1880's as the remaining world started to adopt this system. The article "*A New World Order: Explaining The Emergence of The Classical Gold Standard*" by Christopher M. Meissner comments on the origin of the Gold Standard system as it is stated "In 1870 only Great Britain, Australia, Canada and Portugal had the Gold Standard. Shortly thereafter, matters began to change. By 1910, most nation had come to adopt a gold-based system"[3]. This article also lists other countries' dates of adoption of the Gold Standard. The table below outlines the countries and their dates of adoption of the Gold Standard system.

[2] *Van Den Berg, International Finance, 23.*
[3] Christopher M. Meissner, "A New World Order: Explaining the Emergence of the Classical Gold Standard," *A New World Order: Explaining the Emergence of the Classical Gold Standard*, 2.

Table 1: Year in which Countries Adopted the Gold Standard

Country	*Year of adoption of gold convertibility*	*Country (cont.)*	*Year of adoption of gold convertibility (cont.)*
Australia	1852	India	1899
Canada	1853	Costa Rica	1900
Portugal	1854	Ecuador	1900
Argentina	1863, 1883, 1903	Philippines	1903
Uruguay	1863	Straits Settlements	1903
Colombia	1871	Siam	1903
Germany	1872	Mexico	1905
Sweden	1873	Brazil	1906
Denmark	1873	Bolivia	1908
Norway	1873	Greece	1910
Netherlands	1875	Nicaragua	1912
Finland	1877	Austria-Hungary	---
Belgium	1878	Santo Domingo	---
France	1878	Haiti	---
Switzerland	1878	Bulgaria	---
United States	1879	China	---
Turkey	1880	Guatemala	---
Italy	1884	Honduras	---
Egypt	1885	Indonesia	---
Chile	1887 & 1895	Paraguay	---
Romania	1890	Persia	---
Salvador	1892	Peru	---
Japan	1897	Spain	---
Russia	1897	Venezuela	---

Note: This table uses the date of adoption of the free convertibility of a currency exclusively into gold. The entry "---" means that the country did not adopt gold convertibility before 1913.

Source: *M. Meissner, "A New World," 7*.

The table above shows that most of the countries joined the Gold Standard system after 1870. It also shows that undeveloped countries joined the Gold Standard system late relative to developed countries. For example India, Philippines, Mexico, Brazil were among undeveloped countries and were late to adopt the Gold Standard system.

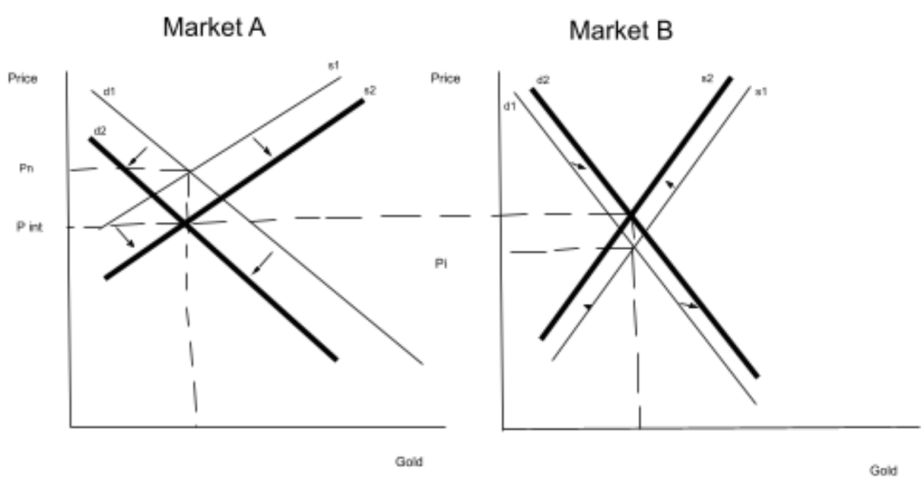
It is important to analyze why the world adopted the Gold Standard system and what were the reasons that the world felt the need for the Gold Standard system. As Britain was the first country to adopt the Gold Standard, it is better to start from Britain that why it adopted the Gold Standard system. Van Den Berg in his textbook "International Finance and Open-Economy Macroeconomics" tells why Britain felt the need for the gold standard system. As it is stated "The Gold Standard had its origin in the early 19th-century British Parliament's efforts to prevent inflationary monetary policy by the Bank of England".[4] Britain was suffering through high inflation. The book *"International Finance and Open-Economy Macroeconomics"* states that the parliamentarians in Britain were wealthy people and inflation was affecting them a lot. This is very true, inflation affects the wealthy people a lot because it decreases the purchasing power of them and diminishes the real value of their assets. Britain had high inflation and it was believed that high money supply causes inflation. Money supply is the cause of inflation according to Monetarists school of thought. Monetarists believe that a sharp increase in money supply leads to an increase in inflation because increase in money supply increases the aggregate demand. Increase in money supply increases the consumer spending which leads to higher aggregate demand that pulls up the price level in the market. It also increases the inflation rate because high money growth leads to a lot of money backing the less output. So to stop this the British Parliamentarians wanted to control the inflation through controlling the money supply and to control money supply British Parliamentarians went in favor of the Gold Standard. After the Gold Standard system was adopted the Bank of England was no longer allowed to print money limitlessly. I agree with this idea but through this policy only demand side inflation can be controlled not the inflation that is caused by supply side factors. So shifting the whole monetary system to the Gold Standard for just controlling demand side inflation is not a good idea. Because the monetary system should be the one that can support the economy at any time whether the inflation is from supply side factors or it is derived from demand side factors. For this reason the Fiat Money system plays a better role for economies.

[4] *Van Den Berg, International Finance, 23.*

The other reason why Britain opted for the Gold standard system was the price of gold relative to silver. The price of silver to gold was different in Britain than the other world. Van Den Berg writes,

> "One of Newton's jobs was to determine the prices that the mint would pay for gold and silver. For some reason, Newton set the price of silver relative to gold lower than the relative price of silver to gold in the rest of the world. This created a profitable arbitrage opportunity for anyone who bought silver in Britain, hauled it overseas to trade it for relatively less expensive gold, and then brought the gold back to Britain to be exchanged for the relatively cheaper silver"[5].

There was an arbitrage opportunity for the investors as Newton kept the relative price of silver to gold lower in Britain which brought a lot of gold into Britain. Arbitrage occurs when the price of the same product is different in two different markets. So investors buy the commodity for the market that has low price and sell the commodity in the market that has a higher price. The graph below explains the arbitrage opportunity.



[5] *Van Den Berg, International Finance, 23.*

The graph above shows how arbitrage creates an opportunity for profits. As there are two markets, market A and market B. In market B the price of gold is Pi which is lower than market A where price is Pn. Investors go to market B to buy gold and sell that gold in market A where price is higher. As this happens it increases the demand in market B for gold which shifts the demand curve to the right. The demand in market A falls as people are going to market B to buy gold so demand curve in market A shifts leftwards and decreases the price of gold in market A. The supply curve is also affected as the gold is flowing out from market B to A, the supply curve shifts leftward in market B and rightwards in market A. It shifts leftwards in market B because the gold is going to market A so the supply of gold is decreasing in market B and increasing in market A. This leads to higher price in market B and lower price in market A and prices equalizes. Arbitrage happened in Britain and opened an opportunity for the investors to profit by bringing that gold to Britain and exchanging it with silver. Executing this kind of trade, investors ended up in profit and Britain ended up with a big stockpile of gold. Due to this big stockpile of Gold, Britain was most comfortable with Gold Standard and that is why it adopted the Gold Standard system.

It is necessary to talk about why other countries adopted the Gold Standard system. It was was not considered ideal system by the undeveloped countries but it became necessity for them to follow the Gold Standard system after the major countries started following the Gold Standard because it would have been very inconvenient for them to trade goods and services and get loans while following different monetary system. Kris James Mitchener, Masato Shizume and Marc D. Weidenmier in their article *"Why Did Countries Adopt the Gold Standard? Lessons from Japan"* take the case of Japan and analyze why a country like Japan adopted the Gold Standard. It discusses and states “Although some participants in the parliamentary debates suggested that Japan would benefit from lower rates of borrowing, we find no discernible trend in the bond prices that would indicate that investors anticipated lower rates of borrowing”[6]. It is also written “Japan policymakers also suggested that going inky gold would affect trade, but the were decidedly mixed as to whether it would increase it or reduce it”[7]. Rate of borrowing was one of the reasons for countries to adopt the Gold Standard system. Countries predicted that implementing the Gold Standard system would decrease the cost of borrowing. This notion was correct because under the Gold Standard system the exchange rate was fixed and that eliminated the risk of volatility or fluctuation. As the risk is reduced the rate of return that the lender requires is lower than in the case of floating exchange rate. The countries did see an advantage in following the Gold Standard system because major countries were following it and small countries were not left with any option and if they had followed some other system which was against the world monetary order it would have made it difficult for that country so it is also right to say that following the Gold Standard was not preferred option for these small countries but became a necessity for them to follow even if they did not see it as a ideal system.

The article *“Why Did Countries Adopt the Gold Standard? Lessons from Japan”* also tells that international trade was one of the reasons for Japan to join the Gold Standard. The government in Japan argued that joining the Gold Standard would lower down their cost of transaction and would boost trade. The article says that it proved to be true. After joining the Gold Standard Japan’s exports grew a lot and the transaction costs decreased drastically. The reason for the growth in the export could also be the reduction in transaction cost. This article

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[6] *Kris James Mitchener, Masato Shizume, Marc D. Weidenmier, Why Did Countries Adopt the Gold Standard? Lessons from Japan, 29, https://www.jstor.org/stable/25654068*
[7] *Mitchener, Kris James, et al, Why Did Countries, 29.*

also tells that Gold Standard in Japan was also introduced because the government forecasted that implementing Gold Standard would flourish the industry[8]. The argument that government had for this result was "If we introduce the gold standard, foreign capital will invest in the japanese markets and buy Japanese commerce and industries will be booming"[9] Japan was correct on this, as investing in foreign countries is risky because of the exchange rate volatility and risk averse investors do not favor foreign investments so when the Gold Standard would be implemented it would eliminate the risk of exchange rate and that would have attracted risk averse investors to invest in Japan. In short, countries like Japan joined or adopted the Gold Standard because they believed that the Gold Standard would reduce the borrowing costs, lower transaction costs, increase exports and flourish the local industry.

Samuel Knafo gives a different perspective on why the Gold Standard system was adopted. Samuel Knafo makes the adoption of the Gold Standard system a political matter. In his article *"The Gold Standard and the Origins of the Modern International Monetary System"* argues that the Gold Standard system was adopted to give a viable framework to the fiduciary money and give the control of creation of money to the state. He writes

> "First, I argue that the gold standard marked a profound institutional shift that was partly aimed at establishing a viable framework for using fiduciary money. As I will show, a monetary system based on fiduciary money proved to be markedly more flexible than previous monetary systems heavily relying upon metal coins. The gold standard thus consisted in an attempt to institutionalize the creation of fiduciary money by imposing the convertibility of banknotes and establishing a central bank. It was born out of a desire to make the creation of money a public matter and subject its management to a certain control by the state"[10]

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[8] *Mitchener, Kris James, et al, Why Did Countries, 32.*
[9] *Mitchener, Kris James, et al, Why Did Countries, 32.*
[10] *Samuel Knafo,The Gold Standard and the Origins of the Modern International Monetary System*, 80, https://www.jstor.org/stable/25124062.

I do agree with Knafo's logic that adoption of the Gold Standard was a political reason because the system of Gold Standard expanded more power to developed countries. As this system started from Britain when the advanced countries were adopting the Gold Standard the remaining world had no choice other than the Gold Standard. It was the only option for the remaining world to adopt. All the economic well-being was related to this system because major countries of the world adopted that system. The major countries' adoption forced smaller countries to adopt the Gold Standard and the delay in their adoption clearly shows that this system was not a good system for poor countries as they were struggling to even comply with it. So it is right to say that it became a political issue which helped major countries to gain more power in terms of strong economies than the undeveloped countries.

The different dates of adoption raises a question: what were the reasons that delayed the adoption of the Gold Standard system in some countries? One of the reasons that we get to know from the literature is that some countries delayed the adoption of the Gold Standard due to incapable financial institutions. The article "*A New World Order: Explaining the Emergence of the Classical Gold Standard*" by Christopher M. Meissner tells why it was difficult for countries to join the Gold Standard that had weak financial institutions. As it is claimed "Under the gold standard, spendthrift governments and/or poorly-designed, badly regulated banking systems could thwart convertibility or bring on a costly financial crisis if convertibility was enacted. So, to adopt the gold standard early on, it appears sound government finances that allowed for a solid banking system were necessary"[11]. Poorly designed banking systems did not allow governments to adopt the Gold Standard system and the article says that for a strong banking system a

[11] M. Meissner, "A New World," 14.

government needs to have strong finance that would improve the financial institutions. This reason is very strong and justifies why countries delayed the adoption of the Gold Standard as we see from the stats that undeveloped countries joined the Gold Standard very late. This article also tells that strong financial institutions were necessary to adopt the Gold Standard system. Central banks needed to gain trust of the public for the convertibility of money into gold, and if the financial institutions were weak people did not trust. The countries which had weak financial institutions such as financially weak banks could not adopt the Gold Standard early.

This article moves forward and also tells other reasons for the delay, which was the silver reserve. The countries that have high silver reserves could not quickly change their system to gold because quickly changing to the Gold Standard would have forced them to sell silver in the market which would depress the prices of silver and a high silver reserve economy would have to incur the loss by selling the silver reserve at low price. The other countries that were late to adopt the Gold Standard were the countries that had low value of transactions. More developed countries were early to join the gold standard system because the countries with high value of transaction could save more in transaction cost than the less developed countries[12].

The Gold Standard system ended in the 1970s. The United States was the last country to suspend the Gold Standard. The remaining world exited from the Gold Standard in 1944 during World War II and the Bretton Woods system was implemented in the remaining world.

The History of the Fiat Money System

[12] M. Meissner, "A New World," 15.

The Bretton Woods system was implemented after 1944 during World War II. Many economists came to the conclusion that the Gold Standard was not the solution to the problems that the world was facing, so they decided to replace the Gold Standard system with Bretton Woods monetary system. It was the system in which all the currencies were pegged to the US Dollar and the US Dollar was pegged to gold. But the system of Bretton Woods also failed and it was suspended by the US government in 1971. The system that the whole world followed after the suspension of the Bretton Woods system is called Fiat Money. Fiat Money is a system in which there is no guarantee of convertibility into gold or any other commodity by the central bank. In this system the government declares a currency or note/bill as a legal tender and applies a value to it. The word "Fiat" is a Latin word which means "It shall be". The meaning of this word itself explains what Fiat Money system is as in the Fiat Money system a government declares a value of a paper bill and it is considered to be that.

The Fiat Money system was not a new invention in 1971. It existed in the world in the past as well. In the past people used commodity money to execute the transaction and it was very difficult for people to carry heavy metal coins to execute a large transaction. As the article "*The Life-Cycle of Fiat Money : An Insight Into Its History and Evolution*" by Farah Yassen Durani states "It is reported that a housewife needed to carry one and half pounds of iron to the market just to buy a pound of salt"[13]. From here we see that it would be really difficult for people to carry out the big transaction if one had to carry one and half pounds of iron just to buy a pound of salt. This article also tells that paper notes emerged for the first time in the history of the province of China, Szechwan. Szechwan is a really important example in the development of the

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[13] *Farah Yassen Durani, The Life-Cycle of Fiat Money : an Insight into Its History and Evolution 3 (October 2015): 4.*

Fiat money system because paper currency is the first step towards the Fiat Money system. The article also says that Szechwan was facing a shortage of copper, which was a metal used for minting coins so the authorities started looking for alternatives. The best alternative that authorities had at that time was iron. Iron was cheaper than copper and had ⅓ value of copper. After the iron was used as money in Szechwan, it was very hard for people to carry heavy weights of iron so people wanted to resolve this problem. The article tells us how people solved this problem and states "Paper seemed to be the panacea to all money problems; people started getting paper receipts against iron money from money shops. Sixteen merchant houses collaborated in 1011A.D., agreed to accept and honor each other's receipts and later initiated a single uniform paper note. *Chiao-tzu* was the name given to them; these were block printed carrying a watermark to identify the issuer"[14] The first ever paper currency in the world was called *Chiao-tzu; it* was sold through money shops in Szechwan. This article also tells that *Chiao-tzu* failed due to money shops, they over supplied the money and they were unable to redeem it into iron which left people with zero confidence in *Chiao-tzu.* This system in Szechwan is not the exact Fiat Money System which we have today but development of the Fiat Money system started there as they invented paper money. The other insight we get from this article is that as the system in Szechwan was quite similar to the gold standard system as in Szechwan people could convert money into commodities, we see that the convertibility rule created problems at that time too. So this also reflects that the Gold Standard system was not ideal because it had the convertibility rule.

[14] *Durani, The Life-Cycle, 4.*

We see the footprints of today's kind of system of the Fiat Money in the Sung Dynasty (960-1126 A.D). The article states "As Sung dynasty took the credit of issuing first national paper money, its imperial treasury began to circulate *Chiao-tzu* in 1024 A.D. In the province of Szechwan"[15]. So as we have a national currency in almost every country now of the world, the Sung Dynasty introduced the first national currency but it also promised the redemption of the currency into copper. This article later tells that after some time when the authorities were convinced that people trust *Chiao-tzu,* they changed the law and only backed 29% of the currency against copper. We can say that the first step towards unbacked money, which is one of the characteristics of the Fiat Money system, was introduced in the Sung Dynasty. As during this time in the Sung Dynasty 71% of the currency was just a legal tender, it didn't have guaranteed convertibility into any commodity and had its value because the government claimed it to be.

The pure replica of today's Fiat Money system was introduced in China during the Chin Empire (1127-1234 A.D). The same article *"The Life-Cycle of Fiat Money : An Insight into its History and Evolution"* states "The Chin started issuing paper currency called *Chiao-Ch'ao* in 1153 A.D. It was for the first time that a currency was issued without setting a time limit, and secondly the laws were enacted against refusal of state currency"[16]. This article moves forward and explains the monetary system of the Chin Dynasty which illustrates that the system in the Chin Dynasty resembles most to the current Fiat Money system in today's world. It claims "In reality, the Chin paper money was supported by the government authority only"[17]. According to these statements it is not wrong to say that the Fiat Money System which countries follow today originated in the Chin Dynasty. In the Chin Dynasty, authorities or the government had full

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[15] *Durani, The Life-Cycle, 4.*
[16] *Durani, The Life-Cycle, 6.*
[17] *Durani, The Life-Cycle, 6.*

control over the money supply. The national currency was declared as legal tender and everyone had to accept it and most importantly it was not backed by any commodity which is exactly the same system that we have today.

This paper also tells about another Dynasty in China, The Southern Sung Dynasty also implemented the Fiat Money system very similar to today's Fiat Money system. It is stated "The pace with which the money was printed outnumbered the absorption capacity of the economy and hence *Hui-tz*u started falling. Government tried to appeal to the senses of people by making paper notes more attractive and giving rebates on payments made by paper money"[18]. *Hui-tzu* was another currency which was a fiat currency and was not backed by any kind of commodity. In short, the invention of the Fiat Money system was between 1127-1275 A.D.

The life of the paper currencies in these dynasties had a similar end; they faced inflation and lost their values but I think this was happening because at that time there was no proper institution to manage the money supply or the monetary system. So it can be said that the Fiat Money system itself did not have a problem but the governments were not capable of running it properly. As all of the currencies lost their value drastically due to inflation at the end. The article "*The Life-Cycle of Fiat Money : An Insight into its History and Evolution"* says the price level in the Sung Dynasty surged due to an increase in the money supply of *Chiao-tzu.* People lost their confidence in *Chiao-tzu and Chiao-tzu's* worth plummeted. The Chin Dynasty's paper currency had a similar end, the government of the Chin Dynasty also printed a lot of paper money to finance their defense and they got trapped with high inflation which reduced the value of their currency *"Chiao-Ch'ao".* The fall of *Chiao-Ch'ao* was the biggest reason for the fall of

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[18] *Durani, The Life-Cycle, 7.*

the Chin Dynasty. The Southern Sung Dynasty also suffered through inflation due to high circulation of money in the dynasty[19]. All these examples show that the Fiat Money system always had a problem of inflation whenever there was no solid institution to manage it but if the countries had the proper institution at that time to run this system they would not have faced these issues under the Fiat Money system.

The West transition from commodity money to paper money was later than China. As the article "*The Transition from Commodity Money to Fiat Money in Western Economies*" states "In 1844 the Bank of England was granted a monopoly over note issues apart from the grandfathering in of existing issue"[20]. It also states, "In the United States the establishment of the National Banking system in 1863 created a unified currency and, since the notes were to be 110 percent backed by government bonds, provided a ready market for government securities"[21] Most of the western economies adopted Fiat Money as national currency in the 1800s. The United States and Britain declared their currencies a legal tender but they were backed by some instrument. As British currency was backed by gold and the US Dollar was backed by bonds and securities. The system that Britain and the United States had is not the system that the world is following today.

France's adoption of the Fiat Money system illustrates that it was among the first countries that implemented the true Fiat Money system in the 1800s and its adoption also shows that the Fiat Money system has always been a good support for economies in hard times. As it is stated in the article "The bank obtained a monopoly over note issue in 1848 when, in a liquidity

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[19] *Durani, The Life-Cycle, 7.*
[20] *Angela Redish, Anchors Aweigh: The Transition from Commodity Money to Fiat Money in Western Economies, 783, https://www.jstor.org/stable/135820.*
[21] *Redish, Anchors Aweigh, 784.*

crisis, the provincial banks of issue asked that their notes be made inconvertible legal tender and the government decided this was only possible if they merged with the Bank of France"[22]. This proves that governments always looked upon the Fiat Money system whenever they were suffering through tough times. It is right to say that according to history the Fiat Money system has been a good monetary system for all times.

The example of France tells that the first step towards the Fiat Money System was to declare the paper currency as a legal tender. The Fiat Money system also became the national system first before becoming an international monetary system. The Fiat Money system did not emerge at once but it was gradually adjusted and amended. China was the first country to introduce paper currency in Szechwan. Szechwan was not the first one to introduce the complete Fiat Money system which also includes the nonconvertibility of paper notes into commodities and the currency should be declared as legal tender. We see from history that the Sung Dynasty was the first one to introduce national currency and the Chin Dynasty was the first Dynasty which implemented the complete Fiat Money system. They printed money without limit, there was no guarantee of convertibility and the currency was declared as legal tender nationally.

The Fiat Money system became the world monetary order after 1971. In the 1970s the United States suspended the Bretton Woods system and conversion of their currency into gold. Whole world started following the Fiat Money Standard. There were many reasons for the suspension of the Bretton Woods system and adoption of the Fiat Money system. The article "*Anchors Aweigh: The Transition from Commodity Money to Fiat Money in Western Economies"* tells that Fiat Money was adopted after the collapse of the Bretton Woods system because there

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[22] *Redish, Anchors Aweigh, 784.*

was trust in the power and capability of bureaucrats to manage the economy and the money supply. In the past the central banks were producing money without any limit, but by the time of the end of the Bretton Woods, bureaucrats learnt how to manage the money supply which would not impact the economy negatively. That was the reason there was more trust in the bureaucrats/system and there was no need for any kind of restriction other than setting the rules.

The other reason for transition to the Fiat Money system was the acceptance of the devaluation of the currency as a policy tool. As it is stated in the same article "(3) the greater acceptance of devaluation as a policy too"[23]. In previous monetary systems the currencies were pegged to commodities or the US dollar which kept the currency stable but transiting to the Fiat Money system currencies were allowed to float. In a free floating system the currency value could depreciate, this policy was not favored in the previous monetary regimes before the Fiat Money system. Devaluation policy has been favored after the Gold Standard and the Bretton Woods because it brings some benefits to the economy too. Especially when the economies are open to trade. As the Mundell-Flemming outlines the impact of depreciation on the current account balance. The book *"International Finance and Open-Economy Macroeconomics"* outlines the Mundell-Flemming model and states "For example, a depreciation of the exchange rate will shift the entire current account balance (CAB) downwards and to the right because depreciation is assumed to cause exports to rise and imports to fall all other things equal, thus causing the current account deficit to shrink for all levels of income"[24]. The depreciation of the currency makes a country's exports relatively inexpensive which leads to an increase in exports.

[23] *Redish, Anchors Aweigh, 790.*
[24] *Van Den Berg, International Finance, 17.*

This could be the reason why the governments accepted devaluation as the policy tool. Increase in exports brings foreign reserves into the country and helps economies to grow as well.

Governments were foreseeing many benefits in the system of the Fiat Money and suspension of the Bretton Woods system after increased international capital flows. In the Fiat Money system many central banks agreed to adopt the free-floating exchange rate. In the Bretton Woods system the currency's exchange rates were fixed. Fixed exchange rates influence domestic fiscal and monetary policy. In other words central banks do not have policy independence during the Bretton Woods system when the capital flows were high. For example if the government increases spending, it increases the aggregate demand. A change in fiscal policy leads the economy to an imbalance in foreign payments and causes exchange rates to change. In a fixed exchange rate system the government will have to intervene to stabilize the exchange rate, but this policy is not sustainable because foreign reserves are limited and governments run out of the reserves. For this reason countries started transitioning to the Fiat Money system which is sustainable and does not require a lot of intervention from the central banks and governments have freedom on their domestic policy. We see that due to increase in international capital flows the Bretton Woods system was not sustainable.

The Chilean government used foreign reserves to keep their exchange rate fixed, leading to a high trade deficit. The surplus in the financial account supported their high trade deficit but the surplus in the financial account continued until the lenders could loan. As the financial market shrank in 1982, Chilean borrowers could not get further loans, and the Chilean government had to spend more foreign reserves in the market to keep the exchange rate stable. The Chilean government soon ran out of foreign reserves. Due to that reason, the Chilean peso fell in value, which led to an increase in foreign liabilities and economic recession. So the Bretton Woods system was not sustainable and central banks wanted to transition to the Fiat Money system to avoid a crisis and achieve freedom of domestic policies[25].

The Gold standard developed gradually and it became the national system to counter inflation in Britain. Other countries also adopted the Gold Standard to improve economic growth and reduce inflation in the country. Some of the countries faced some difficulties in adopting the Gold Standard due to weak financial systems and high silver reserves. The Fiat money system also has a similar story. It also developed gradually and became a national system in the Chin Dynasty and then it traveled to the western world. The Fiat Money system was adopted because in 1971 people had trust in the bureaucrats and central banking instituition to manage the economy and money supply so there was no need for any commodity to back the money. The other reasons were to provide freedom to the central bank to regulate their domestic fiscal and monetary policy and in 1971 most of the governments accepted the devaluation of currency as a policy tool and the world adopted the Fiat Money system.

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[25] *Van Den Berg, International Finance, 22.*

Chapter Two

Policy Mechanism of the Gold Standard and Fiat Money

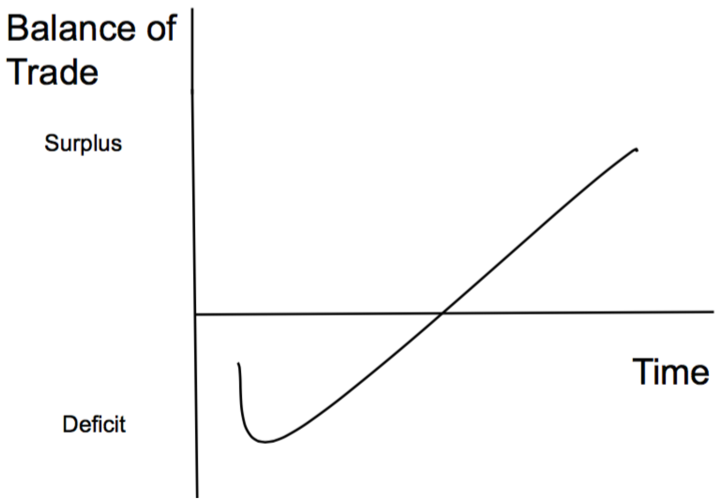
The effective functioning of the monetary regimes is the factor that guarantees the durability and success of the system. It will help us understand what factors contributed to the failure of the Gold Standard system and what factors helped the Fiat Money system to be a successful monetary regime of the world. This chapter will discuss the trading framework, exchange rate policies, monetary policy and capital/gold flows under both of the monetary regimes. These variables and their functioning will tell that Fiat Money is better than the Gold Standard regime.

The Gold Standard

Policy and Framework of Exchange Rates and Trading

During the time of the Gold Standard the exchange rate used to be fixed between the currency and it would have helped the traders in both of the countries. They were relatively safe from exchange rate uncertainty and it would have made it easier for them to trade, as less fluctuation in exchange rate reduces their shoe leather cost. It also enables the trader to involve in a long-term high volume business translation because their costing will not fluctuate as it can fluctuate under the free floating exchange rate. Similarly, in the Fiat Money monetary system there is no compulsion for exchange rates to be fixed. Exchange rates can be free floating exchange rates and due to this traders are exposed to exchange rate risks and that actually becomes a barrier for capitalists to involve in trade. Floating exchange rate makes profits uncertain, for example if an importer imports goods from a foreign country and by the time the goods arrive the exchange rate of domestic currency falls. It can reduce the profits of importers because at the time of payment they will have to pay more because of the depreciation of the local currency.

Having said that, keeping the exchange rate fixed is not always a good idea because it can also reduce one's potential economic growth. Another way to say increase in Y is when $Y = C + I + G + (X-M)$ by this equation we know that X are the exports of the country and whenever exports increase it contributes to the economic growth. There are so many mediums to increase exports such as export subsidy, improving quality through research, increasing lending in export oriented industries and also through depreciation of the currency, which is a very common method to boost exports. As when the currency of one country depreciates relative to the currency of another country, the goods and services of the domestic country become relatively cheaper for the foreigners and it increases the exports of the domestic country and improves its Gross Domestic Product. The depreciation of domestic currency also makes imports expensive for domestic consumers because they have to pay higher for each unit of foreign currency, which leads to lower imports. The J-Curve illustrates this idea and shows how the depreciation or devaluation of a currency increases the exports of that country.



The balance of trade is affected by the depreciation or devaluation of a currency. As a currency depreciates the balance of trade moves into more deficit, the exports take time to increase and at the current volume of imports the imports value will be higher immediately after the depreciation. The low exchange rate results in higher value of imports in terms of local currency. If all other factors remain constant the exports will become relatively cheaper than their trading partners. The depreciation of the currency does make the exports relatively cheaper for the foreign country and can increase exports due to this reason but the trade balance improves due to the depreciation if Marshall-Lerner condition is satisfied. Marshall-Lerner condition outlines that if the sum of elasticities of imports and exports is greater than one the devaluation or depreciation of the currency will improve the trade balance. As the Marshall-Lerner condition is satisfied and the currency depreciates the trade balance improves because after the depreciation the imports will become expensive for local consumers so they will demand less and the exports will become cheaper for foreigners which will lead them to shift their demand to cheaper goods and services. So a country with a fixed exchange rate would stay deprived from this benefit of the floating exchange rate. So same would be the case when the exchange rate is fixed under the Gold Standard system, the countries potential growth will shrink due to this factor

The gold standard used two payment methods: gold was shipped to the exporting countries or money was transferred. Money transfer and gold shipment were considered to be equal because every country was adhering to the rules so the exporting countries did not have any reservations on accepting the foreign currency as payments, they would consider it equal to gold reserve because that foreign currency or note was backed by gold by some central bank in some country. The actual shipment of gold, which was very expensive, was dependent on the exchange rates of currencies of trading partners and the exchange rate of those currencies against the gold[26]. For example if we assume that the United States had a convertibility rate of an ounce of gold at a rate of $20 and on the other hand Britain had a convertibility rate of an ounce of gold at a rate of £4. The exchange rate of $/£ is $5 or in other words $5 = £1. If the exchange rate remains same as $5 = £1 the countries involved in trading will just buy and sell goods and services against the payment in terms of the currencies but if the exchange rate changes the payment terms could also shift to the gold. For example if there is an increase in the demand of the dollar in foreign exchange market and the dollar exchange rate increase to $4 = £1 this situation will force the Britain importer to pay in gold rather than buying dollars from the market because if an Britain importer, imported a shipment of $20 they would have to sell £5 to buy $20 and if the importer directly buys gold and pays gold to the United States, the importer just have to pay £4 to get an ounce of gold and pay to the United States's exporter and that exporter can convert that gold into dollars at United States central bank rate which is $20 per ounce of gold.

[26] *Van Den Berg, International Finance. 23.*

This process under the Gold Standard would have caused problems for the traders during that time. Firstly, it is a lengthy process. Secondly, shipping gold had a high cost back then, and high transaction cost makes markets inefficient.

<u>Trading and Gold Flow</u>

Trading of goods and services under the gold standard system was a tool for inflow and outflow of gold for the countries. As gold was the backing asset that would allow the central bank to print money and run the economic cycle, the gold inflow and outflow was majorly dependent on the exports and imports of the goods in the country. Higher exports would bring the gold inflow to the country. If one country exported goods and services to another country that country was liable to pay the exporting country in gold and that would bring gold reserves to the central bank. Let's recall the rules of the game in the Gold Standard. Van Den Berg tells six rules under the Gold standard system in his book book “International Finance and Open Economy MacroEconomics”, the price of an ounce of pure gold was fixed against the national currency, the government allowed conversion of gold into national currency or conversion of national currency at fixed price without any limit, there were no restriction on foreign exchange transactions and import and export of gold was also permitted in any quantity, the amount of money in circulation was based on the gold reserve and the currency was fully backed by gold, the demand and supply of gold globally determined the price level in the country and central bank was the lender of last resort for the commercial banks and the cost of funds on central bank were always higher than the normal interest rate that was charges in the markets[27]. All the countries having the Gold Standard were required to follow these rules of the Gold Standard. As stated one of the rules of this regime was that the money supply would be backed by gold and the central bank would guarantee the convertibility of that money into gold whenever the bearer of the currency wanted to convert. This was the only asset that would allow the central bank to print and supply money into the economy that would allow people to produce and consume. The increase in the gold reserve of the central bank and more money supply in the economy would lead to higher consumption and higher economic growth. When a country would end up having more gold reserves, high money supply and higher aggregate demand it would also face inflation. Rishard H. Timberlake Jr. also claims in his article “Alternatively, when additional gold enters the monetary system from whatever source, it tends to raise money prices”[28]. As the new gold will raise the prices it will make exports less competitive again and the gold will outflow due to lower exports. So it is not wrong to say that Gold Standard was not good at having sustainable growth or price level.

The Gold Standard regime is not sustainable because the complete process of gold inflow and outflow does not allow economies to achieve growth for the longer term. It would bring increased production and inflation for a very short period. Knafo explains that “ Ultimately, a gold inflow will thus result in a decline of the commercial balance of a country, leading gold to flow back out until a monetary equilibrium is re-established”[29]. The quotation illustrates that

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[27] *Van Den Berg, International Finance, 23.*

[28] Timberlake, Richard H. “Gold Standards and the Real Bills Doctrine in U.S. Monetary Policy.” *The Independent Review*, vol. 11, no. 3, 2007, pp. 325–54. *JSTOR*, http://www.jstor.org/stable/24562376. Accessed 7 Nov. 2022. 327.

[29] Knafo, Samuel. "The gold standard and the origins of the modern international monetary system." *Review of International Political Economy* 13.1 (2006): 78-102. 81.

when the exports of a country grew in the times of the Gold Standard, it would allow gold to inflow into the country and due to the inflow of the gold the gold reserves of the central bank would increase. Higher gold reserves with the central bank would enable the central bank to increase the money supply in the economy. Increased money supply would increase the demand for consumption because people will have more money in their hands and due to increased demand and spending the price level. Due to higher price levels in the economy the price of local goods will also increase for foreigners and it would become less price competitive for foreigners and exports would fall which would lead the net export balance to shrink or turn into negative. The demand for imports would also increase because higher money supply results in higher income. The imports of the country would increase and it would lead to outflow of gold, recall that payments for the goods and services were done in terms of gold. So as the gold will outflow the central bank's commitment of convertibility would go at risk and that would force the central bank to cut the money supply in the economy to maintain the convertibility. Decreased money supply would bring down the inflation rate which was coming due to higher demand and also would bring the output of the country down too. So the final effect of this whole process will be that the economy will go back to almost the same level as it used to be before the inflow of gold. So attracting gold reserves to your country would not benefit an economy for the long-term while following the Gold Standard regime.

Since moving gold from one country to another country was very difficult and very expensive, Later on, shipping from one country to another became very cheap due to the invention of steamships[30]. When the shipping cost was reduced it gave an opportunity to

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[30] *Van Den Berg, International Finance, 23.*

speculators to make profit out of it. Whenever this kind of discrepancy among the exchange rates happened, it gave an opportunity for arbitrage to the people. For example if we use the same as assumption as we did before where the convertibility of an ounce of gold in United States was \$20 per an ounce of gold and in United Kingdom the convertibility rate of an ounce of gold was £4 per an ounce of gold which replicates to \$5 per £1. If we assume that in late eighteen hundreds when the shipping cost of gold was less and even lesser than the profits by the arbitrage, the demand for British Pound increases in the foreign exchange market and due to that the exchange rate of british pound increases to \$6 per £1, this situation would give a profit opportunity to the people in Britain to buy US Dollars against british pound and then use dollars to import gold and convert that gold into British pound. In this case an arbitrageur would end up with more gold, almost 0.05 more ounces than it would have got without the arbitrage opportunity. Without an arbitrage opportunity the arbitrageurs would have got 0.25ounces of gold because the convertibility of an ounce of gold against dollars and pounds was 20 and 4 respectively but after the exchange rate of pound increased in terms of dollars it would allow pound holders to get more dollars. It could buy more gold from the United States because the US dollar and gold parity is fixed so the arbitrageur would get the gold at the same rate and then convert that into pounds. Exercising this process it would end up arbitrageurs with 0.3ounces of gold where before they were getting 0.25ounces of gold at zero arbitrage price. As the arbitrage was happening under the Gold Standard system we can make the Gold Standard system accountable for that or blame the Gold Standard system for creating an arbitrage that encourages inefficient utilization of resources.

Without a doubt arbitrage has a negative impact on the economy, one of the disadvantages of arbitrage is that it encourages the inefficient utilization of resources. In other words it utilizes capital very inefficiently. As arbitrage opportunity is for a very short time it leads the capital to a transaction that just creates profit for arbitrageurs and does not benefit other people in the economy much. Arbitrage does not create jobs or does not increase the output of a country. It just moves the money and goods around and through that the transaction creates profits. The opportunity cost of arbitrage transactions to the economy is no more output and no more job creation in the economy. If the money was invested in other businesses of the economy rather than in the arbitrage opportunity, it could create more jobs and output for the economy. Then if the Gold Standard regime was creating these kinds of arbitrage opportunities, it would be having negative impacts on the economy. The other negative impact of this kind of arbitrage under the Gold Standard system is that it also increases income inequality in the economy. As these arbitrage transactions require a lot of money, the rich class can take advantage. The rich would make profits just by circulating their money without creating jobs resulting in inequality in the economy

Central Bank and Monetary Policy

Under the Gold Standard system the central bank guaranteed the convertibility of notes into gold anytime at a fixed rate. The policy of convertibility of the notes into gold by the central bank imposed a limit on the central bank's freedom to issue the amount of currency. This policy was made to control inflation through limiting the money supply. I agree that this could have controlled the inflation and only the demand pulled inflation but not the cost pushed inflation. Economies do not alway have the inflation that is led by demand, it also faces the inflation that is induced by the supply side factors. So following the Gold Standard system just to control inflation is not a good idea. This policy of limiting the money supply would not be effective in the times of supply side inflation and it will not be very effective for the economy. As during the time of supply side inflation the reduction in the output is the cause of inflation because if everything else is constant and supply declines it will cause the price level in the economy to rise and if the central bank reduces the money supply in times of supply side inflation, it will not reduce the inflation rate but can increase the inflation. As banks decrease money supply by increasing the interest rates, and increasing interest rates will increase the cost of production for producers which will discourage them to produce more. Through this the supply will decline further and will result in higher inflation. As under the Gold Standard system the central bank targets inflation through money supply it is not able to counter supply side inflation because supply side inflation would require higher money supply in the production sector, and under Gold Standard system central bank freedom to increase money supply is limited by the gold reserve. In other words, central banks do not have sufficient power to manage the supply side inflation under the Gold Standard system.

As we have discussed, the money was backed by the gold reserves in the Gold Standard system and the Gold Standard system became the monetary order of Britain before it became the monetary order of the world. We have also discussed that Britain adopted the Gold Standard in the times of high inflation and they believed that backing their money to gold will help them reduce the money supply leading to low inflation in the economy. Backing money to gold was not the only solution to reduce the money supply in the economy. Also, the central bank had many other options to reduce money in circulation like higher taxes and less government spending could be the possible ways then, so I think establishing gold to back the money was also a means to gain the trust of the public in the central banking institution. Gold reserve was a big source to gains public trust in the institution, As Knafo in his article states "Adopting convertibility was often a means to gain the credibility necessary to issue banknotes"[31]. I agree with Knafo because gold is a metal that has a very rich history and it has maintained its value for centuries. It is also used as a tool for savings in so many developing countries. So it is true that gold would have maintained trust of people which could have made it easier for central banks to run the economy. Trust in the central bank as an institution is very important for the economy because if people do not trust the central bank the whole system can collapse. This claim is proven by a real time example from current affairs too. This year Pakistan's economy was not performing well, the exchange rate of Pakistani Rupee was consistently depreciating and the inflation rate in the economy was very high and many people in Pakistan were predicting that it might default. Due to that reason the exchange rate of the rupee fell away below its fair value. The article "PKR gains Rs1.8 against Dollar in interbank as IMF approves disbursement" by Talqeen Zubairi also talks about his situation of Pakistan he wrote "The rupee's recovery comes after the International Monetary Fund's (IMF) Executive Board completed the combined 7th and 8th reviews of a loan facility for Pakistan, allowing immediate disbursement of $1.1 billion to the country, said an official IMF announcement"[32]. When the International Monetary Fund

[31] Knafo, The gold standard, 93.
[32] (https://www.dawn.com/news/1707543).

disbursed the loan to the state of Pakistan, the central bank gained the trust of people and the Rupee started to be appreciated. So even if the economy is doing very well and people start to doubt the credibility of the central bank, a well functioning economy can also be affected negatively. This also proves that the trust of people was very important even in the time of the Gold Standard system and central banks adopted the Gold Standard to gain trust but I think maintaining trust is more important than only gaining trust. As maintaining trust helps institution to run longer and the Gold Standard rules would never help any country to maintain the trust on the institution because of fixed exchange rate rule and convertibility rule because to maintain these rules central bank would always need high amount of gold reserves which is impossible because reserves fluctuate depending on the economic conditions, no bank can keep high reserves all the time.

Central banks in the Gold Standard monetary regime had the responsibility to manage the money supply, they printed and supplied money not equal to the gold reserve. Indeed, they were allowed by the Rules of Game to supply money equal to the reserves of gold but they actually supplied less amount of money and used the remaining money as a buffer stock. This policy of the central bank was made to save the economy from fluctuations of money supply. As it is stated in the article "Monetary Policy Under the Gold Standard - Examinig the Case of Norway, 1893-1914" Lars Fredrik states in this article

> "In order to avoid a situation where external constraints might force the bank to an unwarranted curbing of domestic credit, Norges Bank aimed at sheltering the domestic money supply from fluctuations in the external balance. The bank did this by keeping relatively large reserves of legally backed notes not in circulation and foreign securities as buffers against fluctuations in the gold balance. A part of this policy included monetary sterilisation and husbanding with gold

> resources. The result was interest rate smoothening and a note circulation mainly determined by the domestic demand for money"[33].

So as Fedrik says that central banks used to keep legally backed notes as a buffer stock or out of circulation, they do not have to change interest rates often. Guaranteeing the convertibility of notes into gold already makes the central bank very vulnerable. This would have helped the central bank to maintain the convertibility without changing the interest rate often. As in the times of decreasing gold reserves the central bank would have to increase the interest rates to cut down the money supply. If the central bank had a stock of uncirculated money, this would help them to keep their interest rates smooth, beneficial for the economy, as fluctuation in the interest rates can damage the economy. Fluctuation in interest rates makes it harder for the producers in determining their cost reducing their production level which leads to higher unemployment and lower living standards in the economy.

This policy of the central bank to keep stock of uncirculated money also has some drawbacks. As they used to keep huge amounts of money uncirculated, this would be limiting the economic output as well. The central banks were trying to keep the economy smooth by keeping a stock of uncirculated money but at the same time this economic smoothness was coming at the cost of low economic output. As the money not being in circulation did not generate any kind of value for the economy or people. I think the central bank at that time miscalculated one point that even if they circulate the large amount of money it would not have led them to curbing money supply if they would have taken into account that all of the money would not be converted into gold at the same time. So when in reality, the convertibility of total notes into gold does not

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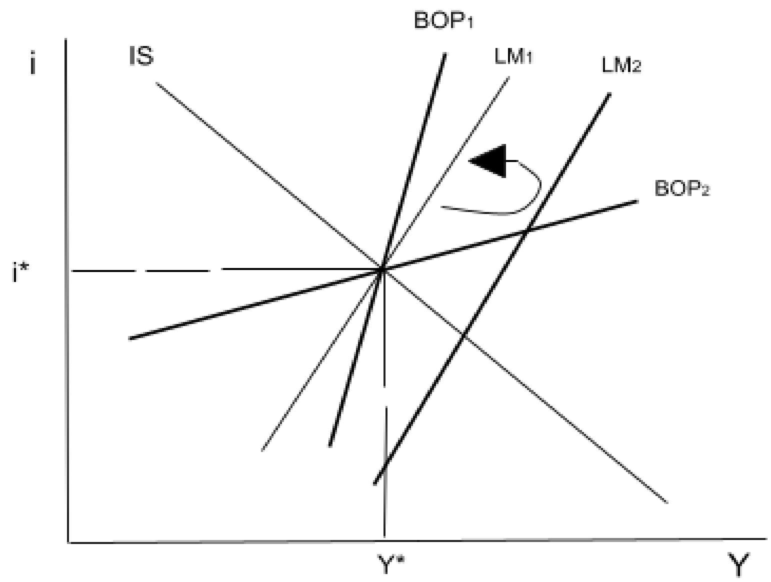
[33] Øksendal, Lars Fredrik. *Monetary policy under the gold standard-examining the case of Norway, 1893-1914*. No. 2008/14. Working Paper, 2008. 4.

happen at a single point in time, the central bank should have been able to maintain the money supply and the convertibility of notes into gold even by bringing the uncirculated money into the circulation as well. With that happened, it could also have helped to increase the economic growth of the economy so having this policy under the Gold Standard system was also a constraint to the economic growth.

Domestic monetary policy under the Gold Standard monetary regime is very important to understand because it gives a lot of information to us about how it also contributed to the failure of the Gold Standard system. As we have discussed in the beginning of this chapter, the central banks kept the exchange rate fixed against the gold which means that the exchange rate was fixed directly against each other too. When the exchange rates are fixed, the domestic monetary policy becomes ineffective. The Mundell Flemming model is the best representation of how domestic monetary policy becomes ineffective when the exchange rates are fixed. The diagram below shows that when the central bank increases the money supply, the LM curve will shift rightwards. Due to this the interest rate will decrease and the production in the economy will also rise. The increase in money supply will also exceed its demand and this will cause depreciation of the exchange rate. As the exchange rate is not allowed to change in the fixed exchange rate regime, the central bank will again intervene in the foreign exchange market by selling foreign reserves to buy the domestic currency. As this happens, it will reduce the money supply in the economy and the LM curve will shift back to the left where it was before. The diagram below depicts this scenario.



The fixed exchange rate under the Gold Standard regime also had a drawback of making the domestic monetary policy ineffective.

The Fiat Money Regime

<u>Policy and Framework of Exchange rate and Trading</u>

The Fiat Money system became the world monetary order after the Bretton Woods system failed. The Fiat Money monetary system has been followed by all the countries since 1971 until now. No country has abandoned it and moved back to the Gold Standard. This system has never been suspended by the central banks, showing that the system is still considered to be successful for the economies. The Gold Standard Monetary system was adopted in 1880 and was suspended in 1914 during World War 1, this means that the Gold Standard system lasted almost

34 years in its first period whereas the current Fiat Money system has been followed for almost 51 years and it has not been suspended for a single time till now. This comparison also shows the success of the Fiat Money Regime. This chapter will compare and discuss reasons to adopt the Fiat Money system. International trading, exchange rate policy, central bank's policies and capital flows will be explored under the Fiat Money system.

In the Fiat Money system free floating exchange rate is allowed rather than compulsion of fixed exchange rate. The difference is that under the fixed exchange rate the exchange rate of currency is not allowed to change. If it changes, the central bank intervenes in the market to bring the exchange rate back to the desired or target level. The free floating exchange rate under the Fiat Money system is determined by the market forces demand and supply. Although the demand and supply of currencies comes from different sources, the major source of demand and supply is import and export of goods and services. If countries' exports increase it appreciates the value of that currency because an increase in exports means higher demand for the currency of the country that is exporting goods and services. Whenever the exporter is selling goods or services to another country, the importer will pay the exporter in the exporter's local currency. Even if the importer pays in their own local currency, the exporter will sell that foreign currency in the market as a payment for its exports. So in either case, if there is an increase in the exports of a country it will increase the demand of its currency and the exchange rate will increase.

As under the free floating exchange rate the exchange rate of the currency is allowed to depreciate it benefits the country by increasing exports. When the domestic currency depreciates, it makes one country's exports relatively cheaper, giving a advantage to the country. The other benefit of free floating exchange rate under the Fiat Money system is that the central banks intervenes less in the foreign exchange rate market which also protects their foreign reserves. For example when a domestic country's exchange rate appreciates under the fixed exchange rate regime, the central bank intervenes by selling the domestic currency in the market against the foreign currency. This intervention leads to increased supply of the local currency and the exchange rate of local currency falls. When a domestic country's exchange rate depreciates under the fixed exchange rate regime, the central bank intervenes again by selling the foreign currency to buy the local currency and through this the local currency exchange rate moves upwards. Central bank will continue this process until the exchange rate is equal to the target value.

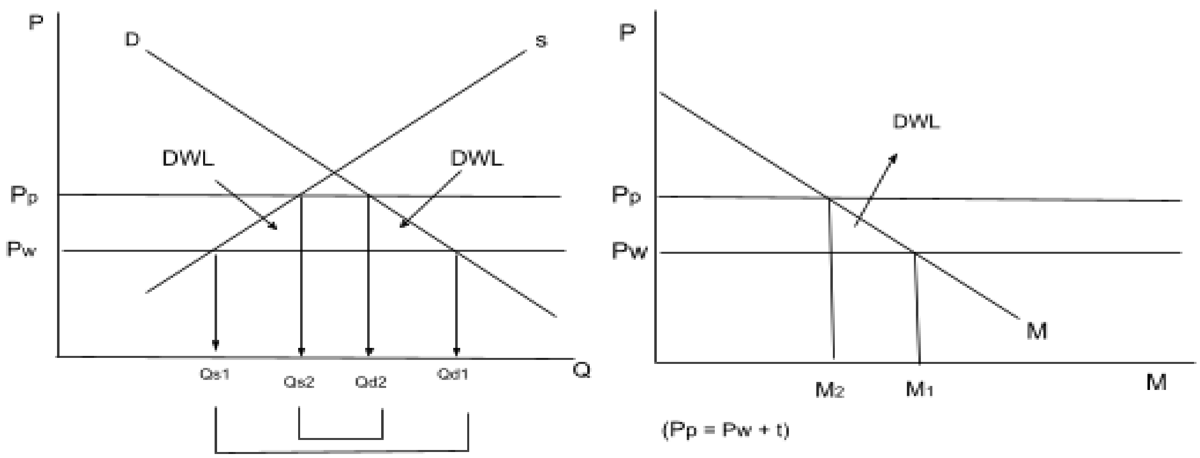
The issues that central banks face under the fixed exchange rate regime are not present under the free floating exchange rate regime. The first issue with the fixed exchange rate is that the central bank cannot not sell the foreign reserve limitlessly because every central bank has a limited amount of foreign reserves and if the central bank keeps on intervening in the market they can run out of the foreign reserves. After they run out of foreign reserves the domestic currency will again depreciate because it was upheld due to the intervention but the market was not valuing it at that price. when the central bank runs out of the foreign reserves, payments against the imports would also stop and if the import is stopped people of that country could lose the basic necessity of life. This currently happened in Sri Lanka as the article "With no fuel and no cash, Sri Lanka Grinds to halt" states "A shortage of foreign currency to finance even the most essential imports has led to the country's worst economic crisis, with its 22 million people facing severe hardships daily"[34]. Sri Lanka's example shows how low reserves can cause problems for the country and under the fixed exchange rate policy the reserve depletes very

[34] https://www.aljazeera.com/news/2022/7/4/with-no-fuel-and-no-cash-sri-lanka-grinds-to-a-halt

quickly. So due to this reason it is beneficial for central banks to have a policy of free floating exchange rate because it somewhat covers central banks from the risk of shortage of the foreign reserves.

Free floating exchange rate has many advantages to the economy but sometimes the tables can turn around too. Under the free floating exchange rate the exchange rate can be manipulated. Speculators with huge amounts of money and volume manipulate the exchange rate either by dumping the currency in the market or by increasing the demand for currency in the foreign exchange market. This speculation leads to an unfair price of the currency and creates uncertainty in the market. Uncertainty in the exchange rate of domestic currency also causes it to depreciate as people holding the domestic currency would lose trust in it and will convert that currency into foreign currency that is more stable.

Central banks also do not fear much from free trade under the current regime because their money supply is not dependent on the gold reserves. It is right to say that the current monetary regime is not just pro free floating exchange rate but it is also very much inclined towards free trade. In the current monetary regime we also see the trading blocks, the countries create the trading unions or have an agreement among them to promote free trade. In free trade, all the trade barriers are removed such as quotas or tariffs. Quotas and tariffs are used by countries to limit their imports. These trade barriers are highly required when central banks become vulnerable like they are under the Gold Standard system. So the Gold Standard system rules forces countries to impose trade barriers but the Fiat Money system wins again by not forcing its followers towards the barriers. Tariffs and Quotas are not beneficial for the economies. As quotas are implemented on imports, it makes it illegal for the traders to import more than the allowed quantity into the country. On the other hand, tariff is a tax duty levied on the imports in the country which also discourages the import. These kinds of policies can be fruitful for a country in the short-term but it creates disadvantages for the countries too. The diagram below explains this.



The diagram above is for a small country when it implements the protectionist policy. The Pw is the price of a commodity without trade protectionist policy and the distance between the Qs1 and Qd1 illustrates the imports. After the government pursues the trade protectionist policy the price of commodities rises to Pp and import falls as depicted by the distance between the Qs2 and Qd2. After the trade protection policies are implemented it creates deadweight loss in the economy. On the other hand even if the large country imposes trade protectionist policies it will also create deadweight loss or will result in world welfare loss. So trade protectionist policies are not beneficial for the world economy. The “DWL" area in the diagram above shows the loss. Free trade is encouraged and easier under the Fiat Money regime to escape deadweight loss.

Under the Fiat Money system the country can face higher price levels in the country due to the depreciation of the currency. So when domestic currency depreciates relative to other currencies the imports become expensive as one would have to pay more amount of domestic currency to buy a single unit of another currency. If the prices of goods being imported remain the same but if the domestic currency depreciates, the price of the imported goods and services will increase in terms of domestic currency in the country. This can also increase the general price level in the economy as well, for example, most of the developing countries import oil from oil producing countries and when their currency depreciates it increases the price of oil domestically. As oil is a very important resource and prices of almost every good is dependent on it, if the oil prices increase domestically, the transportation or carriage cost increases which is passed on to the consumers and the price level in the economy will increase. As the article by Dawn News states “In a phone interview, Mr Abbas said the government may find some fiscal space to reduce petrol pieces “in the next fortnight”. “It’s yet to be seen if — and to what extent — the government passes on this benefit to the consumers. If that happens, it’ll reflect in the next month’s inflation number,” he said”[35]. Pakistan also saw a high inflation rate due to the oil prices. So it is not wrong to say if the domestic currency depreciates it can translate into a high inflation rate of the economy too.

[35] https://www.dawn.com/news/1712344

Central Bank and Monetary Policy

In the current monetary regime, the Fiat Money system, the central bank is the custodian of the foreign currency reserves of the country. The website of State Bank of Pakistan describes this process and says “As the custodian of a country's external reserves, the State Bank is responsible for the management of the foreign exchange reserves and repayment of external debts”.[36] Being the custodians of the foreign reserve, central banks always want to have high foreign reserves because high foreign reserves is also an indicator of good economic performance. The foreign reserves of countries are positively correlated with the exports and negatively correlated with the imports. The increase in the exports increases the foreign reserves of the country. Mostly the payments received against exports are in terms of US Dollars. When the exporter receives the payment in terms of foreign currency and they keep that amount in local banks, the local banks would sell the foreign currency to the central bank against the domestic currency and that is how the central bank’s foreign reserves increases due to exports.

Central banks keep hold foreign reserves for a number of reasons. The International Monetary Fund website outlines the purposes of holding the foreign reserves, the first reason is that central banks hold reserves to maintain public confidence in the institution’s capability to manage the exchange rate and keep it safe from speculative attacks. The other reason for the central banks to hold the foreign reserves is to use them in times of crisis when their country is not able to secure financing from international institutions. The foreign reserve is also held by the central banks because it gives a positive sentiment to markets and provides satisfaction that the country can fulfill its external obligations. Foreign exchange reserve is also kept for countries

[36] https://www.sbp.org.pk/dfmd/FS-Exg.asp

foreign exchange needs such as for imports and they are also maintained for the times of natural disasters or any emergency[37]. This shows that central banks under the fiat money system accumulate the foreign reserves for the betterment of the economy. The foreign reserve in the fiat money system is used for the economic welfare and is not limiting central banks like the gold reserve where central banks had to cut down the money supply when the gold reserves depleted.

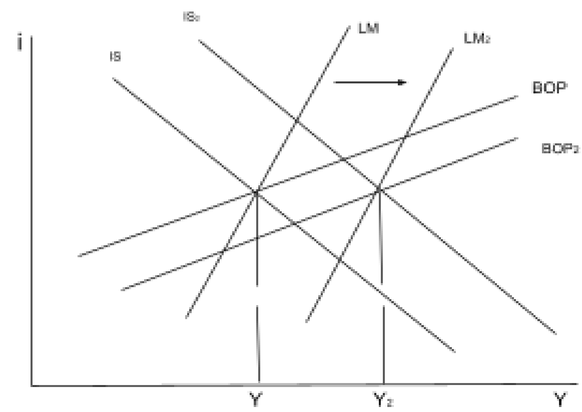
The monetary policy deals with money supply in the economy. When central banks pursue monetary policy it is managing the money supply in the economy. Under the Fiat Money regime the central bank has no limit on printing money unlike under the Gold Standard system. Central banks print as much money as they can but it has some constraints, increasing money supply can lead to inflation as well. As it is claimed in the article "The Effects of Money Supply on Inflation in Tanzania" by James Ezekiel Mbongo "Since money supply and exchange rate affect directly the inflation in the long and short run, it is evident that the instability of the inflation in Tanzania for a long time is caused by excess supply of money and the deterioration of the exchange rate in Tanzania shilling against foreign currency"[38]. Central banks under the fiat money system can also protect the economy from this kind of inflation by spending the money in the proper way, like increasing the money supply towards the supply side that can cause an increase in supply. As this will lead to higher employment and output in the economy. So it is not wrong to say that under the Fiat Money system central banks have more freedom to pursue the monetary policy as it is not constrained by the reserves but the central bank only has to search for

[37] https://www.imf.org/external/np/mae/ferm/eng/index.htm
[38] Mbongo, James Ezekiel, Felician Mutasa, and Robert Ebihart Msigwa. "The effects of money supply on inflation in Tanzania." *Economics* 3.2 (2014): 19-26. 25.

the right way to spend in different economic times which can lead to stability and growth of the economy.

Central banks under the Fiat Money monetary system also use interest rate as a tool to increase or decrease the inflation rate of the economy. It is a common belief among many countries that interest rates can affect the inflation rate but some schools of thought do not agree with this policy. The mainstream belief is that increasing interest rates bring the inflation rate down. The economists who believe this, argue that increasing interest rates will lead people to save more and spend less. Increasing interest rate would increase the opportunity cost of spending, which will lead to low demand and when the demand decreases the price level decreases too. Whereas on the other side some of the economists argue that increasing interest rates can fuel inflation as well. High interest rates can increase the borrowing cost or financial cost of businesses in the economy which will force them to increase the prices and that would result in higher inflation. Both of the beliefs are correct because higher interest can encourage people to save more and spend less or can also increase the cost of business and due to that the higher cost can be passed on to the consumer which can increase inflation. But it is not that simple as it really depends on what kind of inflation the economy is facing, this should be the basis to decide whether to increase the interest rates or to decrease the interest rates. If the economy is facing the demand pull inflation increasing the interest rate can help to control the inflation. Increasing the interest would encourage savings so demand will decrease and will bring the price level down in the economy. If the economy is facing supply side inflation, the policy of increasing the interest rate to control inflation can be very ineffective in fact damaging to the economy. During the supply side inflation increasing interest rate will reduce the supply in the economy and increase the inflation. This clearly shows that under the Fiat Money system the central bank has an advantage due to freedom of their monetary policy that can control both types of inflation. On the other hand under the Gold Standard system, central banks were only effective to counter the demand side inflation as demand side inflation is controlled by money supply.

The free floating rates also makes the central banks more efficient. For example, under the Fiat Money regime when the central banks do not have to focus on keeping exchange rates fixed, it can focus more on achieving full employment, economic growth, and price stability. Central bank domestic monetary policy becomes effective unlike the domestic monetary policy under the Gold Standard regime. Van Den Berg in his book " International Finance and Open Economy Macroeconomics" explains this idea. Van Den Berg explains this by creating a case, when the central bank wants to increase the money supply to achieve higher employment. It is written that when the central bank wants to increase the money supply it can do it by participating in the open market operations by purchasing bonds which leads to higher output and aggregate demand. As the central bank purchases the bonds, it increases the amount of cash in the hands of public which leads to the depreciation of the currency but as central bank under the free floating regime is not keen to keep it fixed the depreciated exchange rate increases the net exports of the country and also the total output of the economy. So it clearly shows that the domestic monetary policy is very effective under the system of Fiat Money.



The diagram above illustrates the case of mobile capital as the BOP curve is flat. As the central bank increases the money supply in the economy the LM curve shifts rightward to the LM_2 and due to higher money supply the currency depreciates that increases the exports which leads to higher demand and the IS curve shifts rightwards to IS_2. The BOP also shifts to the right due to increase in net exports and the new equilibrium is determined at Y_2. So it shows that the output of the economy has increased. So we can say that under the Fiat Money system the central bank has the freedom to exercise the domestic monetary policy in an effective way that can lead to higher output and lower unemployment in the country.

Till now in this part we have talked about how the monetary policy works under the fiat money system like it uses interest rate to manage the inflation rate in the economy, it keeps floating exchange rate which provides freedom to the central bank to efficiently execute the monetary policy, it is also important to talk about how central bank manages the money supply under this system. Managing money supply is also part of the monetary policy so it is relevant to talk about it in this section of this paper. The Article by Ljubica Janjić and Tanja Spasić states

"Central banks in developed economies use six basic instruments for the implementation of monetary policy: required reserves, discount rate, open market operations, rediscount loans to banks, special deposits and directive measures. The discount rate is one of the traditional quantitative monetary policy instruments, considering that it has a global effect"[39]. Generally the central bank manages money supply in three ways: policy rate, open market operations and reserve requirement. Policy rate is the discount rate at which the central bank lends to the commercial banks. In other words it is the interest rate that is charged by the central bank on extending credit to commercial banks. When the central bank wants to increase the money supply in the economy under the Fiat Money system, it decreases the policy rate which encourages the commercial banks to borrow more from the central bank and allows commercial banks to lend more which increases the money supply in the economy. The other way to manage money supply under the Fiat Money system is central bank participation in the open market operations. When the central bank wants to increase the money supply in the economy it purchases the bonds from the market and when it wants to reduce the money supply from the economy, the central bank sells the bond in the market. When the central bank buys the bond from the market they pay the par value to the bond holders which results in more cash in the hands of the people. Reserve requirement for the commercial banks is also the way to manage money supply in the economy. Reserve requirement is a policy set by the central bank that commercial banks have to follow. When the commercial banks take deposits they are not allowed to lend the whole amount. As this reserve requirement is kept to meet the withdrawal commitment. The higher the reserve requirement is the lower the bank can lend further. Central

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[39] Janjić, Ljubica, and Tanja Spasić. "MONETARY POLICY INSTRUMENTS OF DIFFERENT ECONOMIC SYSTEMS." *Management & Education/Upravlenie i Obrazovanie* 10.1 (2014). 23.

bank reduces the reserve requirement when the central bank wants to increase the money supply in the economy and increases the reserve requirement when it wants to reduce the money supply.

All monetary systems require public trust of the public in the institution of the central bank. The Gold Standard and Fiat Money system requires trust. It is much easier for the central bank to gain trust in the current Fiat Money system. Under this current monetary system the central bank is in more control of their foreign reserves. The central bank does not guarantee to convert the local currency into the foreign currency under the Fiat Money system so this protects their foreign reserves. Selling the foreign reserve against the local currency is at the discretion of the central bank. Central bank does not have to suspend the whole system as it did under the Gold Standard regime. Central banks do put a limit on local people's purchases of foreign currency in times of economic crisis. So as the central banks are in more control of their foreign reserves this helps the central bank to maintain the trust of the public. Under the Fiat Money system people trust central banks capability to run the economy unlike under the Gold Standard when people trust the reserves of gold.

Capital Flows

As we discussed in chapter one, increased capital flows was one of the reasons for countries to shift to the Fiat Money system. Under the Fiat Money system Interest rate is a tool to manage inflation under the current monetary system. It is also used as a tool to manage the international capital flows. In today’s monetary system when the technology has improved transferring money has become very convenient for everyone. The commercial banking system is very strong and the capital has become very mobile. If the central banks want to increase the capital flows into their country they increase the interest rate which attracts the foreign investors to invest in that country where the interest rates have increased. When the foreign investors invest in countries abroad it increases the foreign reserve of that country and leads to economic growth. Increment in capital mobility is also because of the Fiat Money system, as this system gives an equal opportunity to every country to grow as it allows central banks to increase capital inflows that can contribute to economic growth.

The history tells that the countries that had weaker economies delayed the adoption of the Gold Standard so it clearly tells that one country needs to be economically strong to be part of the Gold Standard regime. Whereas the Fiat Money system is much easier for developing countries because they can run the system without assuring the guarantees that were given under the Gold Standard system. So when the poor countries were having that much difficulty in adoption of the Gold Standard they would be facing many difficulties in simply running the system. The Fiat Money system is easier to run even for the developing countries which could have provided the banking system a space to develop and become strong rather than just focusing on maintaining the reserves and fixed exchange rate. The Fiat Money system provided a space to the banking system which improved capital mobility. It is not wrong to say that capital mobility is a byproduct of the Fiat Money system.

Capital flows under the Fiat Money system occur in many ways. Capital flows around the world because of international trade as payments are done against the shipments. The capital also flows in terms of remittances and foreign aid. These are known as the Unilateral transfers. The other way of capital moving around the world is when foreign investors invest in the financial markets abroad and international fixed assets. Foreign investments of the government into foreign securities also contribute to the capital flows. The capital flows except that are done on the basis of trade help the countries to finance its current account balance too.

Capital flows have benefits as discussed but it can be problematic for some countries at times. As increased capital flows bring growth to the economies but it can also cause volatility in the prices of assets in that country. Increased capital inflow into the country can hike the prices of assets and the outflow of capital can plummet the prices of assets. This can cause uncertainties in the market and can shake the investors confidence. The capital flows can also cause fluctuations in the exchange rates as inflow of capital can appreciate the exchange rate and outflow can depreciate the exchange rate and this can also affect the current account balance too. Capital flows also affect the interest rates, it can cause variations in interest rates. High volume of capital flows also expose countries to a risk. It can allow foreign investors to control the strategic industries. If a foreign investor invests in the weapon industry in some country which can increase the risk of their national security. Due to this reason many countries have regulations on capital flows too. But in general capital mobility has helped many developing economies to grow.

Chapter Three

Economic Outcomes of the Gold Standard and Fiat Money System

Deflation Under The Gold Standard

The performance of both of the systems will help answer which of the monetary systems is better for the world. Inflation and economic growth are directly linked with the welfare of the people and the international monetary system is responsible for it. Both of the systems, the Gold Standard and the Fiat Monetary regime have advantages and advantages but this paper will analyze which of the systems is has best outcomes overall that can increase the welfare of the global economy. The Gold Standard system and Fiat Money system both had inflation in their periods. It is not wrong to say that the Gold Standard kept inflation drastically low. But keeping inflation extremely low is not necessarily a good sign always. During very low inflation rates, central banks are left with very small room to manage that inflation which can turn the economy into deflation. On the other hand, Fiat Money has a tendency of having high inflation relative to the Gold Standard. The historical literature accounts that the Fiat Money system makes it easier for central banks to keep inflation in good range as it is stated in the article “Although the average inflation rate was higher during the fiat standard, the short run predictive uncertainty was lower”[40]. The Fiat Money system just not keeps inflation in a good range but also helps the governments to achieve economic growth.

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[40] Bordo, Michael D., Robert D. Dittmar, and William T. Gavin. "Gold, fiat money, and price stability." *The BE Journal of Macroeconomics* 7.1 (2007). 6.

The Gold Standard system did keep the inflation low but it also increases the risk of having deflation in the economy. During the Gold Standard period, even strong countries like the United States faced the problem of deflation. In the article, *Deflation, Productivity Shocks and Gold: Evidence from 1880-1914 period* Michael D. Bordo writes, "The broad picture is of deflation followed by inflation: Prices in the US fell by about 22 per cent from 1880 to 1896, and in the UK, Germany and France by about 10 percent, 6% and 13% respectively."[41] The 1880s were the time period when the Gold Standard was being followed and deflation occurred in the United States, Germany and France during this period. This clearly depicts that deflation was an outcome of economies adhering to the Gold Standard system.

The United States, United Kingdom, France and Germany were considered to be strong economies of the world as far back as that period. Due to the Gold Standard, even these economies could not prevent themselves from deflation. If these developed economies were not able to prevent deflation, it would have been very difficult for the undeveloped economies to escape deflation. Developed economies have more resources than the undeveloped economies; developed economies have higher amounts of reserves through which they can prevent their economies from having deflation. Having a high amount of reserves can help the government to increase the government spending if the deflation is caused by lower aggregate demand. An underdeveloped economy has very little power to spend due to limitation of the funds. The example of developed countries facing deflation itself proves that the Gold Standard system is not a good system for undeveloped countries as it causes deflation.

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[41] Bordo, Michael D., John Landon-Lane, and Angela Redish. "Deflation, productivity shocks and gold: evidence from the 1880–1914 period." *Open Economies Review* 21.4 (2010): 515-546. 520.

Deflation emanated by the Gold Standard system is detrimental for the economies because it reduces the investments in the economy which turns into low economic growth. Decrease in the general price level in the country over a period of time increases the value of the domestic currency. When the domestic currency is increasing day by day people tend to save more and buy less because the same amount of money will provide them with higher utility in future when the price level of goods and services decrease. In other words buying goods and services with that amount will result in loss to them because in the time of deflation, goods and services decrease their value. Due to this reason the consumers reduce their consumption and investors resist investing in the economy. Reduction in consumption and investments decreases the aggregate demand and the economic growth is halted as well. Article “Deflation and the Real Economic Activity Under the Gold Standard system” by Christopher Joseph Neely states “For this test, however, aggregating the observations across countries leads to the conclusion that output growth was significantly lower in a statistical sense during periods of deflation”[42]. The price level and the output growth has a positive correlation because when the prices are declining the profits of the business are also decreasing which discourages the entrepreneurs to produce more. As in the times of deflation producing more would mean higher losses. As the Gold Standard system derives deflation and deflation derives low output, it is right to say that the Gold Standard system is responsible for both of the problems.

Low economic growth also increases unemployment in the economy. Neely in his same article also comments on this as he writes “If wages and/or prices are sticky downwards, a

[42] Neely, Christopher J., and Geoffrey E. Wood. "Deflation and real economic activity under the gold standard." *Federal Reserve Bank of St. Louis Review* 77.September/October 1995 (1995). 33.

negative demand shock will tend to cause persistent unemployment as prices and wages are slow to fall as required to clear markets"[43]. I agree with Neely's statement because when the investment reduces it would translate into lower job opportunities. Increase in unemployment also results in lower living standards of the people. According to Keynesian school of thought the wages are downward sticky, as in they do not fall right away so if this idea is considered the unemployment due to deflation would take a lot of time to adjust to come back to the normal level. Increased risk of deflation due to the Gold Standard system also impairs the living standards of the people.

Anwar Hasan Abdullah Othman argues in his article "The Impact of Monetary Systems on Income Inequality and Wealth Distribution: A Case Study of Cryptocurrencies, Fiat Money and Gold Standard" that Gold Standard reduces income inequality. He writes "The study also found that the gold standard is negatively associated with global income and wealth inequality. This is because the gold standard is a deflationary system and provides better purchasing power over time"[44]. I do not agree with Othman's logic, first deflation does increase the value of money in hand but at the same time increases unemployment due to closure of businesses. Second, rich people always have more money in their hands than the working class so deflation again benefits the rich and contributes to the inequality.

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[43] Neely, Christopher J., and Geoffrey E. Wood. "Deflation and real economic activity under the gold standard." *Federal Reserve Bank of St. Louis Review* 77.September/October 1995 (1995). 28.
[44] Othman, Anwar Hasan Abdullah, et al. "The impact of monetary systems on income inequity and wealth distribution: a case study of cryptocurrencies, fiat money and gold standard." *International Journal of Emerging Markets* (2020). 15.

The monetary system of Gold Standard also impairs the ability of borrowers in an economy to pay their debts. The article "The Gold Standard, Deflation, and Financial Crisis in the Great Depression: An International Comparison" by Ben Bernanke and Harold James reflect on this idea. It is stated "By increasing the real value of nominal debts and promoting insolvency of borrowers, deflation creates an environment of financial distress in which the incentives of borrowers are distorted, and in 2 3 which it is difficult to extend new credit. Again, this provides a means by which falling prices can have real effects"[45]. The borrower's capability is reduced under the deflation because the borrower's asset value declines which leave them with less net worth. Even if they sell their assets to pay off their debts they are not able to do that. When they are not able to pay off their debts it also puts the financial sector at risk and banks who lend the money to the businesses. The banks also have liabilities on their part, so if they do not receive payments from their debtors they might default on their loans which can replicate into their default as well. Gold Standard was also responsible for reducing the borrowers capacity to pay their loans.

Booms and Busts Under The Gold Standard

The Gold Standard system is also held responsible for the Great Depression that occurred from 1929 to 1939. The Great Depression, as the name suggests, destroyed the world economy. The United States stock market plunged during this time and the stock prices plummeted. The Great Depression did not only affect the financial markets but it also impacted other parts of the

[45] Bernanke, Ben S., and Harold James. "The gold standard, deflation, and financial crisis in the Great Depression: An international comparison." (1990). 2.

economy. During the Great Depression the trading of goods and services fell globally. The unemployment rose exponentially and the personal incomes dropped. The Great Depression affected almost every sector of the economy, since it was one of the bad outcomes of the Gold Standard system.

Many economists believe that the Great Depression was an outcome of the Gold Standard. The article “Great Depression” by “Chritina D. Romer” mentioned that the Great Depression in the United States happened due to decline in aggregate demand, leading to decline in the production level in the economy. The reduced output also occurred due to the tight monetary policy which led to sharp decline in the stock prices in the United States capital markets. As the stock market crashed it reduced the investor confidence and decreased the investments too. People in the United States expected their future incomes to be low and they started to purchase less which resulted in low consumer spending. The crash of capital markets also induced Banking Panic which led depositors claiming their deposits in large amounts that made banks insolvent. During this time the Federal Reserve contracted the money supply to reduce the panic by increasing the interest rate. The contraction of money supply contracted the output further and added deflation to the economy. Contraction of money supply by the Federal Reserve was done to maintain the Gold Standard system. Because if the Federal Reserve would not have raised the interest rates it would have led foreigners to lose confidence over the United States and that would have flowed gold outside the United States[46]. So this is the reason why the Gold Standard is held responsible for the Great Depression.

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[46] Romer, Christina D. "Great depression." *Forthcoming in Encyclopedia Britannica. Retrieved* 4.5 (2003): 11. 3-5.

In addition, I think reduction of the aggregate demand and increased interest rate by the Federal Reserve impacted the financial markets negatively which would have led to low production levels and high unemployment. As unemployment was rising, people would have been uncertain about their future incomes prompting them to spend less. This would have decreased the aggregate demand further. As the aggregate demand was low this led the economy to deflation and would have led the people to doubt the banking capability to pay their deposits back. Then, claims for deposits would have risen, increasing the risk of the United States's economy where people would wish to hold gold except currency. People's demand for gold rather than the currency was also a problem for the United States to stabilize the economy.

The evidence above clearly shows that the Gold Standard system was not a very stable system, it was creating booms and busts in the economy, draining almost every economy into depression. This system would have made many people vulnerable due to fluctuations of the economic cycle, as booms and busts create cyclical unemployment in the economy. Cyclical unemployment occurs when a person is willing and able to work but does not have a job due to the downturn of an economy. I think cyclical unemployment is more destructive for the working class because they do not lose the job on the basis of their performance but they lose the job because of the macro problems.

On the other hand the Fiat Money regime also has structural unemployment. This kind of unemployment occurs when economies transit from one sector to another, and people lose jobs because they do not have enough skills to work in the new sector. For example if an economy transits from primary sector to secondary sector, in other words from agriculture based economy to industrial based economy. When this transition happens many people lose their jobs, but this is not all of a bad thing for the economy, because this transition shows the development of the economy and its progress. This structural change in the economy increases the total output as well and motivates people to learn new skills which is beneficial for the economy. So Fiat Money performance is better than the Gold Standard in this case too.

Price Stability Under the Gold Standard and Fiat Money System

Price Stability under the Gold Standard system was also a problem. Gold Standard system did not have short run price stability as the article "Gold, Fiat Money, And Price Stability" by Michael D. Bordo, Robert T. Dittmar and William T. Gavin states "Klein (1975) noted that although the gold standard was associated with long-term price stability, there was more short-run price uncertainty then than there was in the post-WWII era"[47]. There could be two reasons for short-run price volatility under the Gold Standard system. First reason for it could be that the Gold Standard system was an automatic stabilizer. As the inflow and outflow of gold was affecting the money supply so there could have been price volatility in the short run. Because when gold would inflow it would increase the aggregate demand in the economy for a short period and that would have led to increased price level and then when it would outflow, it would lead the price back to the original levels. Second reason which I think can explain the short run price variability is that as the Gold Standard was not good at countering the supply side inflation so anytime under the Gold Standard system an economy would face inflation through supply side factor it would lead to fluctuation in price and as supply is elastic in long term, the

[47] Bordo, Michael D., Robert D. Dittmar, and William T. Gavin. "Gold, fiat money, and price stability." *The BE Journal of Macroeconomics* 7.1 (2007). 6.

supply in the economy would adjust according to the demand bringing the price level back to normal in long-run. So it is right to say that the Gold Standard system was not not good at solving the problem itself which problems can be solved under the Fiat Money system.

Trade Barriers Under The Gold Standard

The Gold Standard is never an ideal system to achieve economic growth. Main source of the economic growth that is considered to be stable is trading of goods and services. Trading of goods and services provides many benefits as through exports it brings foreign exchange in the country that can finance the imports. On the other hand, trading also allows the economies to import goods and services that cannot be efficiently produced in the domestic economy, this gives an opportunity to countries to utilize their resources efficiently and produce goods and services in which the domestic country has comparative advantage. As trading is so important, trade barriers are very much discouraged because they bring inefficiency in the economy and the Gold Standard system forces governments to impose trade protection measures. The article "The Slide to Protectionism In the Great Depression: Who Succumbed and Why?" talks about the trade protectionist measures under the Gold Standard system and states "The Great Depression of the 1930s was marked by a sharp outbreak of protectionist trade policies. Governments around the world imposed tariffs, import quotas, and exchange controls to restrict spending on foreign goods. These trade barriers contributed to a sharp contraction in world trade in the early 1930s beyond the economic collapse itself, and a lackluster rebound in trade later in the decade, despite the worldwide economic recovery"[48]. Under the Gold Standard system it was necessary for the

[48] Eichengreen, Barry, and Douglas A. Irwin. "The slide to protectionism in the great depression: who succumbed and why?." *The Journal of Economic History* 70.4 (2010): 871-897. 872.

governments to impose trade barriers otherwise they were not able to run the Gold Standard system. As governments needed to save gold to maintain money supply they were forced to impose trade barriers which helped them reduce imports and save their gold reserves. So the Gold Standard system once again failed to help economies to improve their economic growth and also became a hurdle for countries to produce goods and services in which they were efficient.

As countries were forced to impose trade barriers under the Gold Standard system which impacted the economies financially had other negative impacts too like it spoil countries foreign policy and also forces trading partners to retaliate. As trade barriers reduce the exports of foreign countries which lead them to retaliate against the domestic country which again turns into financial loss for both of the countries. It is also right to say that trade protectionist measures can lead to economic war in which no country is the winner. Trade Barriers also impair the foreign relations among countries which also lead to reduction in total output of economies, higher unemployment and lower income. The discussion above shows that the Gold Standard system is not a good system for economies because it impacts the economies negatively either directly or indirectly.

Conclusion

The Gold Standard monetary system was first adopted by Britain as a national monetary system. The reason for adoption of the Gold Standard was to control inflation in Britain but the Britain parliaments failed to take into account the risk of deflation posed by the Gold Standard system. Adherence to the Gold Standard system was also political because developed countries were comfortable in implementing this system. Thus, they were among the first lot of countries to adopt the Gold Standard. The Gold Standard system provided more power to the strong countries. Undeveloped countries were not left with the choice to choose any other monetary regime after the major countries followed the Gold Standard so they had to follow the Gold Standard system even if they did not consider it an ideal system for their economies. As the paper explains that their adoption of the Gold Standard was later than the developed countries which shows that they struggled to adopt the system of Gold Standard. The history of monetary regimes also shows that governments always took support of the Fiat Money system in the times of economic crisis which itself proves that the Fiat Money system is beneficial for economies in terms of achieving economic growth and keeping inflation rate in good range, which does not increases the risk of deflation. The policy mechanism of the Gold Standard system contributed to its failure. The fixed exchange rate rule under the Gold Standard contracted the potential growth of the economies. The Gold Standard system also did not favor traders because it had a high cost of shipping of gold and when the transaction costs are high it increases the inefficiency in the market. The Gold Standard system was not good at controlling supply side inflation because limiting money supply is not a very effective tool when the inflation occurs due to supply side factors. This paper concluded that central banks became vulnerable due to convertibility rule and their domestic monetary policy under the Gold Standard was ineffective due to the fixed exchange rate rule. The Fiat Money system policy mechanism is beneficial for the economies because it does not have a compulsion of fixed exchange rate that leads to the protection of foreign reserves. The utilization of foreign reserves under the Fiat Money system outweighs it against the Gold Standard system because it is used for the welfare of the people rather than just holding the reserves to maintain the convertibility unlike the Gold Standard. The Fiat Money system provides freedom to the central banks to exercise domestic monetary policy efficiently and makes it easier for central banks to maintain trust in the institution. The outcomes of the Gold Standard are not appealing as it caused deflation that led to high unemployment in the economies. Even the economically strong countries were not able to prevent inflation under the Gold Standard system. The Gold Standard system is also responsible for the high frequency of booms and busts as it also caused the Great Depression. As governments were keen to maintain their gold reserves under the Gold Standard system, they were forced to increase the trade barriers which are really harmful for the economies. The findings in the paper suggest that, policy mechanisms under the Gold Standard system were not efficient whereas the Fiat Money policy mechanisms are very effective to run the economy smoothly. The paper also found out that the performance under the Gold Standard was not good at all as it caused deflation, boom and bust and promoted trade barriers.

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