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The Static Future of the International Financial System

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The Static Future of the International Financial System

A Thesis in
Economics and Finance

By
Brad M. Agen

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The Static Future of the Current International Financial System

Table of Contents

The Static Future of the Current International Financial System

List of Tables

The Static Future of the Current International Financial System

Section 1: Introduction/Thesis Discussion

There has been a great debate over the effectiveness and stability of the current floating exchange rate regime as the international monetary system (since its inception in 1973). Over the last thirty years, most economists have looked to amend, change, and overhaul the floating exchange system in favor of a pegged or rigid exchange rate system that characterized the predominate financial systems before 1973. The perceived decline of the American dollar as an international reserve currency has recently resulted in increased debate over the future of the international monetary system. The international financial system has gone through three major upheavals in its history and many economists have determined that it is due for a fourth. Many economists look to predict international finance's future in the golden ages of the past, while they should be concerned with the adaptability and strength of the current international monetary system. The thesis of this paper is that the ability to adapt to constant change and politically motivated economic decisions makes a floating exchange rate regime the best choice for the future of the globally interdependent international monetary system.

Many economists seem to think that the current monetary system is headed for instability, failure, and eventual change in the face of a weakening dollar, ever increasing capital flows, short term instability, and the always precarious euro. There will be a time when change overhauls the international monetary system, but that day has not yet come. No international monetary

system has been able to adapt to shocks better than the current floating exchange rate system and this paper analyzes why this trend, will hold steady. The future of the international monetary system will be one that is characterized by flexibility and an impending static trend.

The advent of International Finance was not a singular comprehensive economic event but instead a slow blossoming of interdependent financial relationships between governments around the world, as the result of trade and economic interaction on the national level. Slowly a framework of systems, money, and rules grew into what we characterize today as the international monetary system. The international financial system has had essentially three major regimes that have characterized its history and from which its future will most definitely be determined. The gold standard, the Breton-Woods system, and the floating exchange rate system have all experienced triumphs, weaknesses, changes, and evaluations. In this paper, I contend that the current managed floating monetary system will change over time, but remain the dominant international arrangement because of its proven flexibility and historical evidence that there is currently no better alternative. In this globally interdependent economy, countries act independently in their own best interest to create the best possible economic conditions domestically. A floating exchange rate is the only system that can withstand the uncertainty of the world's current economic decisions.

The long run cooperation between nations that it would take to usher in a new international finance system is not likely after so many years of

independence. The international financial system will remain static in the long run because the major economic powers of the world will not be able to agree on a system that is mutually and domestically beneficial for all the countries involved. The United States currently enjoys many benefits under the current system and it would have to be the catalyst of change in any scenario that would involve the upheaval and uncertainty a new financial system would bring upon the world. While Bretton Woods provides a historical example of such an agreement, such a scenario is not likely unless a major political and economic crisis vaults the current system into prolonged chaos and uncertainty. The interwar period that preceded the Bretton-Woods agreement was a unique time of international ambiguity in history that paved the way for an international agreement and will not likely be repeated anytime in the near future.

Direction of Paper and Argument

In today's international finance, conditions and circumstances change frequently and often times without notice, making economic research and data often times obsolete and inapplicable for use in the future because the system is in a state of constant change. One of the best ways to analyze the international monetary system is through its historical past because one can determine faults and weaknesses when change is held constant at one exact point of time. Constant change makes a monetary system that is adaptable a necessity in today's world and fixed exchange rates provide anything but flexibility as an exchange rate system. Fixed exchange rates put pressure on nations to maintain fundamentally flawed systems, which usually leads to the critical failure of an

economic system as we have seen with two previous exchange rate regimes before the adaption of the current floating system. Based on my analysis of the history of the international monetary system, a floating exchange rate system is the only economically responsible and viable choice for the future of the international monetary system.

The paper begins with a brief introduction and argument about the necessity of having a flexible exchange rate regime in the modern financial world and the positive economic attributes that define the current monetary system. Throughout the paper I analyze the history of the international financial system in an attempt to examine the future of the system and argue for the most adequate monetary framework going forward. Each of the three international monetary systems has unique strengths and weaknesses that supplement my argument throughout the paper. The paper is split up into seven sections, including the introduction. The second section of the paper examines the goals of the international financial system and what is expected of an acceptable monetary system. That section includes a discussion about all the major exchange rates regimes throughout international financial history and examines the theory behind the regimes.

The third section summarizes the history of the international gold standard, highlighting it strengths, weaknesses, and eventual downfall. The fourth section offers a description of the constant change, inflation, and war that transpired during the gold standard inter-war years. After the gold standard the fifth section talks about the accomplishment of international finance that was the

Bretton-Woods System. This part examines the tumultuous creation of the system by John Maynard Keynes and Harry Dexter White, its subsequent early history from the time it started until it actually began to work, and its dramatic end, characterized by the Triffen Paradox. The sixth section of this paper outlines the current floating exchange rate system and the inherent strength in the flexibility it has allowed the international monetary system. This part of the paper also analyzes the strengths, drawbacks, and the future of the system. The last and seventh section provides the conclusions of the paper and attempts to provide evidence to support the thesis, while deciding what the future of the international financial system might resemble.

Section 2: International Financial System goals and exchange rate theory

Direction/Description of the IFS

The history of the international monetary system is based on the attempts of the more powerful and prosperous nations of the world trying to build a stable system of trade and currency exchange, that promotes competitive equality between international economies while trying to battle the crises and inequality that results from the same competitiveness in the system.[1] The three major international monetary systems that have attempted to achieve this goal over the past hundred and fifty years were the International Gold Standard, The Bretton Woods System, and the current Managed Float System. Each of the previous and current international monetary systems had their flaws and strengths and served as the international monetary system for a number of years. It should be pointed out that the basis of all international monetary development is a form of capital or monetary instrument such as gold or the dollar. Without a form of payment and a unit of account the international monetary system or international trade would be a barter system economy.[2]

The international financial system is all the participating economies of the world acting independently, yet bound together by the need for trade and currency exchange. The roles of this monetary system, that links all participating nations, is to eliminate problems that arise from the balance of payments, protect

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[1] Paul De Grauwe, *International Money: Post War Trends and Theories*(New York: Oxford University Press, 1989), 10-12.
[2]Ibid., 1-3.

nations from monetary shocks by providing international credit, and most importantly of all, stabilize and prevent chaos in the foreign exchange markets.[3]To understand international economics and finance, it is essential to understand the development and functions of the monetary system that governs international finance.

Goals of IFS, Fixed vs. Floating, Stability, Macro-Policy

The international financial system can be loosely defined as a common institutional framework between the economies of the world within which international payments are made, movements of capital are accommodated, and exchange rate rates among different currencies are determined.[4] The goals of an international financial system are to create a stable set of rules, agreements, functioning mechanisms and institutions to regulate exchange rates, international payments, and capital flows. The international monetary system is always evolving and changing to work more effectively as powerful economic nations see fit.[5]

The ultimate goal is to create a permanent international monetary system that adapts to economic conditions over time while creating a stable system of exchange rates and capital flows that cultivate easy foreign trade and account between all the interdependent nations of the world. This ideal international monetary and exchange rate system has proved elusive over time and may

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[3] Barry Eichengreen, *Globalizing Capital: A History of the International Monetary System*(New Jersey: Princeton University Press, 1998), 3.
[4] Bruce G. Resnick and Cheol S. Eun, *International Financial Management*(New York: McGraw-Hill Publishing, 2009), 25.
[5] Ibid, Pg. 25-27.

never actually be realized. The constant change in international finance alone makes the development of a perfectly functioning and adjusting system unrealistic, contributing to a debate about what monetary and exchange rate system should be used as the international agreement.

To be effective, an international monetary system must accomplish three goals as they pertain to international finance. An international monetary system must have a method of determining exchange rates, an adjustment mechanism for the current accounts balance of trade, and be stable enough to promote trade and the movement of capital. While an international monetary arrangement has to meet all of these goals to function, some financial systems meet certain aspects of these goals better than others. All three international financial regimes from history have tried to accomplish these goals in distinctly different ways, which have created differing results, leading to debates over which system has met these goals best.[6] If a monetary system is successful in creating an effective exchange rate determination system, trade adjustment mechanism, and promotes trade and capital movement, there would be unfettered world economic growth. The problem is that presently, every monetary arrangement in history has had weaknesses in achieving at least one or more of the goals, resulting in wide sweeping change or the threat of such change across international finance.[7]

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[6] J. Lawrence Broz and Jeffery A. Frieden, " The Political Economy of International Monetary Relations," *The Annual Review of Political Science* Vol. 4 (June 2001): 319-321, accessed September 27, 2014, http://scholar.harvard.edu /files/jfrieden/files/annualreview2.pdf.

[7] Ibid Pg, 318-320.

The first goal of an international monetary system is to create an effective exchange rate system which is an establishment of price or value between two different currencies. There have been essentially 2 different kinds of exchange rate regimes used in the history of international economics. While there are many exchange rate choices that face national authorities, almost all exchange rate system are a variation of a floating or pegged system. A pegged or fixed system was used during the gold standard and Bretton-Woods era from 1880 to 1973, while a floating exchange rate has been used from 1973 to present. The Bretton Woods system had a similar exchange rate system to that of the gold standard. However Bretton Woods had a two-tier convertibility system in which the exchange rate was determined by pegging a currency to the dollar, which was in turned pegged to gold at a fixed price.[8]

A pegged currency is when a currency's value is fixed against another currency's value or another measure of value. An example of this is during the gold standard when all major currencies of the world were fixed to the value of gold. The exchange rate would be determined by how much one currency was worth in gold compared to another currency's value in gold. The exchange rate stays fixed at a set price unless a government has to change the price because of a problem in the central current account where there is either a constant deficit or surplus. When the exchange rate is fixed or rigid, the exchange rate is generally more stable because it isn't always changing. When countries and national businesses know that the exchange rate is going to be fixed at one

[8] Alan C. Stockman, " Choosing an Exchange Rate System." *Journal of Banking and Finance 23,* No. 1 (1999): 1484-1486, accessed December 20th 2013. JSTOR Archive.

price, there is less risk involved in doing business and losses due to exchange rate variability.[9]

A floating exchange rate in general terms, is when a currency is allowed to adjust or fluctuate against other foreign exchange currencies. Floating exchange rates theoretically adjust automatically to equilibrium over a short period of time. The exchange rates adjust as a function of inflation. When a country's currency is in surplus, it eventually becomes overvalued making buying that currency, and goods with it, undesirable. The value of the currency starts to diminish until the exchange rate adjusts back to equilibrium. If a currency is undervalued the currency becomes desirable to buy cheap goods. The currency is then bought by foreign exchange markets to obtain the cheap goods, altering the exchange rate back to equilibrium. Arbitrage is the process of taking advantage of the price difference between two markets. When a currency is valued low, the more valuable currency can buy more goods and products at a cheaper price leading to the eventual increase in value of the once low currency. Under the floating rate system, the exchange rate is allowed to be flexible and adjust to the demand for currency which theoretically leads back to equilibrium.

This automatic adjustability allows for governments to use monetary policy to follow domestic agendas instead of using them to adjust to balance their exchange rate.[10] Floating exchange rates are always changing which leads to

[9] Bruce G. Resnick and Cheol S. Eun, *International Financial Management*(New York: McGraw-Hill Publishing, 2009), 54-56.
[10] J. Lawrence Broz and Jeffery A. Frieden, " The Political Economy of International Monetary Relations," Pg. 321-323.

more risk in international business and transactions. This is because if a good, service, or investment is expected to be bought for a low price in the future and the exchange rate of the low price rises, the price of the good or service will also rise. This exchange rate and price instability make it hard to predict future investment in the international market, leading some to speculate that there is less investment in global business under floating exchange rates.[11]

A comparison can be drawn between floating exchange rates and fixed exchange rates. This also leads to the second essential goal of an international monetary system, which is that it must be stable enough to promote trade and the movement of capital. Floating exchange rates allow for more flexibility and governmental control over policy, while fixed exchange rates allow for more predictability which leads to greater stability, more global trade, investment, and growth. Under the gold standard system and Bretton Woods, when they were working appropriately, there was unprecedented growth and stability in international finance. One could assume that while stable and not beleaguered by negative shocks and fundamental flaws, fixed exchange rate systems like the gold standard promote more trade and greater prosperity in the international monetary system. Floating exchange rates are not as stable because of a constantly fluctuating exchange rate that can discourage international trade, especially in the long run. Floating exchange rates are more volatile but there are

[11] Ibid Pg. 322-324.

financial tools which have been created to mitigate the instability and risk in an international monetary system that uses a floating exchange rate.[12]

These derivative instruments allow participants in the global economy to safeguard against unstable exchange rates while national economies reap the reward of flexibility that floating exchange rates give them. International firms can hedge transaction exposure by using a number of different international hedging techniques that eliminate the risk of unstable exchange rates. Some of these hedging techniques used by international firms are the Forward Market Hedge, the Options Market Hedge, the Money Market Hedge, lead/lag strategies, and exposure netting.[13]

One hedging example a firm could use is the forward market hedge. In this hedging position a corporation that has a foreign currency dominated receivable, can hedge exposure by selling (buying) the foreign currency receivable forward. Basically the firm can lock in at the forward exchange rate hedging the risk of the volatile exchange market. The cost of this hedge is the bank transaction fee +/- the opportunity cost. If the spot rate in the future is less than the forward rate the firm locked into, the firm had a positive opportunity cost while the opposite is true if the future spot rate is better than the forward rate locked into. There are many different tools built into the financial exchange market that negate the slightly more unstable exchange rate regime that results from a floating system. While firms have to take a few extra steps to guard

[12]J. Lawrence Broz and Jeffery A. Frieden, " The Political Economy of International Monetary Relations," Pg. 321-323.
[13] Bruce G. Resnick and Cheol S. Eun, *International Financial Management*, Pg. 194-198.

against exchange rate instability, these derivative and hedging practices help the international economy to mitigate risk while realizing the reward of a flexible exchange rate system.[14]

Long and short term stability is an essential piece of having an effective international monetary system. Fixed exchange rate regimes offer more stability and growth for as long as they are able to be maintained but take away a government's ability to follow their own monetary goals. Floating exchange rate regimes are more unstable, but have options built into the markets to protect from this instability and allow governments to follow their own agenda. This constant trade-off between the benefits of each international exchange rate system and their respective stability is a debate that has persisted in international finance for half a century.

Regime Current Account Mechanism

The third essential goal for an international financial system is to have an effective adjustment mechanism for the current account balance. The inability of an international monetary system to adjust imbalances in the current account can lead to the failure of an international system. When nations have a deficit or surplus in the current account, there must be a mechanism or way for the deficit or surplus to eventually adjust back to equilibrium. The main difference between the current floating international system and the previous two fixed regimes is

[14] Bruce G. Resnick and Cheol S. Eun, *International Financial Management*, Pg. 194-198.

that under the international floating system, the current account balance adjusts automatically to correct surpluses and deficits when trade imbalances occur.[15] In fixed exchange rates systems like Bretton-Woods and the gold standard, governments have no choice but to use monetary policy and devaluation to correct imbalances. The floating systems automatic current account adjustment allows governments to use monetary policy for goals other than trying to adjust imbalances in the current account.

The current account mechanism under the gold standard utilized central bank monetary policy to balance the current accounts and David Hume's theory of price specie flow. Price specie flow theory meant that when gold came into a country it would inflate the price. This makes goods from a domestic country expensive while foreign goods are made cheap, leading to an outflow of gold and an adjustment back to equilibrium in the current accounts. Under the gold standard some central banks would artificially try to maintain a positive current account by trying to hold on to old gold assets, creating long lasting imbalances in the current account.[16]

Under the Bretton-Woods system the main adjustment mechanism for the current accounts balance was central bank's monetary policy, borrowing assets from the IMF and creating financial capital restrictions. Monetary policy has difficulty correcting both internal and external imbalances alone. Many central banks would devalue their currency to balance domestic goals and the current

[15] J. Lawrence Broz and Jeffery A. Frieden, " The Political Economy of International Monetary Relations," Pg. 335-337.
[16] Barry Eichengreen, *Globalizing Capital: A History of the International Monetary System,* Pg. 25-28.

account. Central banks would tend to use monetary policy to correct domestic imbalances due to political pressure leading to long lasting imbalances in the international current account. Central banks using monetary policy to follow domestic policy left them unable to use the same monetary policy to correct exchange rates imbalances. This led to constant deficits and surpluses, unsettling the whole financial system, resulting in the United States dollar to be constantly overvalued after 1971.[17]

Central banks have to take action and use monetary policy to maintain balance in the current accounts under fixed exchange rate system. Under fixed exchange rate regimes central banks have to use their monetary policy tools such as increasing government purchases or decreasing taxes to achieve a balance in the international current account. If the exchange rate is pegged central banks will have to purchase or sell FX reserves. The purchasing of FX reserves acts like either increasing government purchases or selling government debt. Central banks, due to political pressure and other agendas however would rather use these tools to correct domestic imbalances such as inflation or unemployment. This handcuffed governments under the gold standard and Bretton Woods, leading to long lasting and frequent imbalances.[18]

Under the current floating international monetary system, if exchange rates are unhampered by government protection, the current account balances automatically due to inflation. When prices rise, exports become less attractive to

[17] J. Lawrence Broz and Jeffery A. Frieden, " The Political Economy of International Monetary Relations," Pg. 322-325.
[18] Alan C. Stockman, " Choosing an Exchange Rate System." *Journal of Banking and Finance*, Pg. 1488-1491

other countries leading to depreciation in currency, adjusting the current account back to equilibrium. Macro-monetary policy is not needed because theoretically prices and the current account adjust automatically which allows monetary tools to be used to follow domestic governmental economic goals.[19] This is one reason why, floating exchange rates are characterized as more flexible and conducive to central bank independence.

It is important that an international monetary system meet all three goals in order for the system to be successful. An international monetary system must have a method of determining exchange rates, an adjustment mechanism for the current accounts balance of trade, and be stable enough to promote trade and the movement of capital. While each system has had some semblance of these three characteristics, it is important to note that each system had its own particular strengths and weaknesses in accomplishing these goals. Every past international monetary system has had a fundamental trade off in which we have had to take the good with the bad. While no system comes close to being perfect, all three of the past systems accomplished the three goals of an International Financial System for at least a period of time.

Exchange Rate Schools of Thought

One of the most important aspects of an international financial system is its exchange rate mechanism and policy. The exchange rate is the rate at which

[19] Ibid Pg. 1485-1488

one country's currency can be converted to another country's currency for the purpose of trade and international transaction. Each of the three major monetary systems has had a unique exchange rate system based on the value of international currency. The Gold Standard System and Bretton Woods System were characterized by rigid or pegged exchange rate regimes while the current monetary system has a flexible floating exchange rate regime. Throughout this paper, there will be an examination of each of the three major financial system's exchange rate systems, including their strengths and weaknesses. We will evaluate each in order to determine which, is the best option for the future.

The predominant theory of international exchange rate over the past few decades has been the neoclassical Purchasing Power Parity model which assumes sufficient demand and eventual returns to equilibrium. This model assumes that the exchange rates between two nations are equal to the ratio of the nation's price levels. If one nation's goods become more expensive or cheaper, it is assumed that arbitrage will restore price equality. In the neoclassical model trade balance influences the exchange rate and it is expected that system will be balanced, or reach equilibrium in the long run. Capital flows have no function in this theory.[20] If the PPP theory holds true then differential inflation between countries are offset by exchange rate changes. There is evidence to suggest that the PPP theory doesn't always hold true due to fluctuating capital flows, which causes changes in the nominal exchange rate,

[20] John T. Harvey, " Post Keynesian versus Neoclassical Explanations of Exchange Rate Movements: A Short Look at the Long Run," *Journal of Post Keynesian Economics* Vol. 5 No. 2 (Winter 2005): 161-162. Accessed October, 13th 2014. http://www.econ.tcu.edu/harvey/workppr/wp8.pdf

also changing the real exchange rate. The real exchange rate is represented by the formula $q = \frac{1+\pi\$}{(1+e)(1+\pi£)}$ where q is the deviation from PPP, π$ and π£ are the inflation rates of two respective countries, and e is the rate of change. The real exchange rate measures deviation from Purchasing Power Parity. Changes in the real exchange rate affect the competitive position of nations in the exchange market and country's trade balances.[21]

While this paper will analyze the traditional Purchasing Power Parity model in greater depth, there are other influential models of exchange rate theory. The Neoclassical monetary model used by monetarists, takes into account Purchasing Power Parity while adding domestic modeling, possibly making it a more complete model.[22] The equation of exchange used in this model is the quantity theory of money or P=MV/y where P is the price, M is the money supply, V is the velocity of money, and y is real output.[23] It is assumed that real output is analogous to the natural rate of growth and constant in the long run. In this approach the three factors that determine exchange rate are the relative money supply, the relative velocity of the money supply, and relative national outputs. If all is held equal, an increase in the money supply of a nation will result in an equal depreciation against other currencies. An increase in the velocity of a currency has the same result as an increase in the supply. The monetarist model assumes that prices adjust fully and completely to equilibrium in the long run.[24]

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[21] Bruce G. Resnick and Cheol S. Eun, International Financial Management, 144-145.
[22] Ibid Pg. 166-167.
[23] [23] Bruce G. Resnick and Cheol S. Eun, *International Financial Management*, Pg. 164
[24] Bruce G. Resnick and Cheol S. Eun, *International Financial Management,* Pg. 164

There are many different competing theories of exchange rate that have been created to forward the beliefs of the many differing economic schools of thought. Each school analyzes exchange rates differently, putting emphasis on different factors that drive exchange rates. While the Neoclassical model and Monetarist model are similar, the Post Keynesian model, which is mentioned later in this section, focuses on the capital flows that PPP theory ignores. Going forward in this paper, we will analyze exchange rates through the mainstream neoclassical model.

Gold Standard Exchange Rate Theory

The gold standard exchange rate system was a rigid system based on any two countries' currencies in relation to the price that each currency would command in terms of gold. The prominent characteristic of the gold system was that each participating country in the system guaranteed the free convertibility of its money into gold at a certain fixed price. [25] The exchange rate is determined by their gold content and what one currency is valued at in relation to gold at a pegged price compared to the another economy's currency.

Basically people of the major participating countries were able to use their currency based on its convertibility to the price of gold to buy assets or currency of a foreign country. Under the international gold standard essentially every currency was an international currency and could be used in the international economy. If the British pound was worth 1 gram of gold and one unit of the

[25] John Charles Pool, and Steve Stamos, *The ABCs of International Finance*(Lexington: D.C Heath and Company, 1987), 50-52.

French franc was worth ½ a gram of gold, the pound would be worth twice as much as the franc. This means that one could convert the pound directly into French francs without having to actually buy gold and sell it, based on the price of gold.[26] In the gold standard, any disequilibrium in the exchange rate would be corrected by cross border flows of gold. Balance of Payments are also corrected automatically under the gold standard.

Bretton-Woods Two Tier Exchange Rate

The Bretton Woods system was described as a gold-exchange standard. The United State dollar became the international reserve currency, as it was the only currency directly convertible to gold. Nations held both gold and American dollars. Countries could convert their currency to U.S dollars which were backed and fully convertible to gold. The dollar was pegged to gold at 35 dollars per ounce.

The Bretton Woods international financial system was quite similar to the previous major financial system, the gold standard, but there were a few major differences. The major difference between the two was the choice of assets in which national currencies could be convertible. The United States guaranteed the convertibility of gold into the U.S dollar at a fixed price of 35 dollars per ounce of gold.[27] This convertibility rate was only held to foreign central banks, unlike the gold standard system, and a second private gold market was created with no assurance that the price of gold would be held at a constant rate. The second tier

[26] Paul De Grauwe, *International Money: Post War Trends and Theories*, 10-13.
[27] Paul De Grauwe, International Money: Post War Trends and Theories,15-20.

of the Bretton Woods financial strategy was that foreign countries participating in the system would convert their currency into dollars at a fixed price or the exchange rate. The exchange rate was supposed to remain fixed except when the official exchange rate was out of equilibrium, which was when it was determined a currency was either over appreciated or under appreciated.[28]In the case of prolonged disequilibrium, fixed exchange rates were allowed to be adjustable within a two percent band to compensate for over or under appreciation.

There were several reasons why the convertibility system was so complex in the Bretton Woods System and that a return to the gold standard would have been extremely difficult. The first problem was that the distribution of gold across the countries participating in the system was very uneven. The United States owned almost 70 percent of all the gold in the system and creditable gold conversion to other currencies would have required a massive shift in gold.[29] Another problem was the belief that the existing amount of gold was not enough to keep up with the growing demand for international liquidity. The fact that only one currency was set to gold and then the other currency set to the original currency, the dollar, would decrease the amount of gold used in the international Bretton Woods system but put more pressure on dollar eventually leading to lack of faith and crisis.[30]

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[28] Michael B. Connolly, editor, *The International Monetary System: Choices for the Future,*(New York: Praeger Publishing, 1982),280-285

[29] Paul De Grauwe, *International Money: Post War Trends and Theories*,17-23.

[30] Ibid, Pg. 21-23.

The Bretton Woods system differed from the gold standard system not just in its complex convertibility system, but in a number of other different major tendencies as well. One of the these major differences was the change from normal pegged exchange rates to more adjustable pegged exchange rates which were subjected to what is known as fundamental disequilibrium. There was no automatic adjustment system for the current account or exchange rates, which forced governments to use monetary policy to correct imbalance. Another major change that was not as heralded as the more adjustable exchange rates, were controls that were instituted to limit international capital flows from country to country. These controls were implemented to avoid the threat posed by the unpredictable capital flows that plagued the interwar period.[31]

Floating Exchange Rate Theory

The current floating exchange system is very different from its two predecessors and the most adaptable of all the exchange rates regimes. The floating exchange rate system has been the dominant exchange rate system for the last 30 years and this paper's analysis seeks to argue is the most adequate exchange rate regime for the future. The floating exchange rate is not fixed like the other two monetary systems before it, making it adaptable to changes in the monetary system. This gives governments the freedom to pursue their monetary objectives without causing the mass overhaul of the monetary system.

[31] Barry Eichengreen, *Globalizing Capital: A History of the International Monetary System,92-95.*

The current international monetary system allows for flexibility in governmental action because a flexible exchange rate is supposed to correct the balance of payments, allowing the central banks to pursue economic goals it chooses through fiscal and monetary policy.[32] If a country's currency is over-valued, then it will depreciate against other currencies without central banks having to make adjustments, and if the currency is overvalued, it will automatically appreciate against other currencies. The system is held in place by arbitrage and the major aspect of the determination of a country's exchange rate is inflation. In this current system exchange rates are driven by interest rates which in turn are driven by inflation or if a country's money is over or undervalued.[33]It must be noted however that it in today's global economy variables change fast, making it difficult to determine if a currency is over-valued or under-valued. The system also does not always adjust instantly as it does in theory.

Interest Rate Parity, the International Fisher effect and the theory of Purchasing Power Parity explains the over and under valuation of currency. High inflation rates in a country lead to high interest rate in that country. High interest rates in a country lead to the flow of foreign currency to that country depreciating the currency, returning it eventually, in theory, back to equilibrium with the foreign currency. The managed floating exchange system is very unstable and goes through cycles, and central banks often participate in the market to influence

[32] Paul De Grauwe, *International Money: Post War Trends and Theories*,55-62.
[33] Ibid, 58-62.

exchange rates.[34] There is some question and mixed results about whether Purchasing Power Parity and the International Fisher effect always lead to balance of payments equilibrium in a timely manner. There have been many cases where countries either maintain prolonged deficits and or prolonged advantages in the balance of payments.[35]

Interest Rate Parity theory is what drives the complex balance of payments equilibrium system in the floating exchange rate system. According to the Interest Rate Parity or (IRP theory), interest rates differentially determine the forward premium/ discount rate, and the currency of a country with relatively high interest rates, will depreciate against a country with relatively low interest rates, even though that is not always the case. Interest Rate Parity is an arbitrage condition that must hold when international markets are in equilibrium, meaning that all markets adjust until returns from investing in the foreign market equal domestic return. This can be shown in an equation as $F = S\left\{\frac{1+i_{\$}}{1+i_{l}}\right\}$, where F is the forward rate, S is the spot rate, $i_{\$}$ is the interest rate of one nation, and i_{l} is the interest of a second nation.[36]

The equilibrium between the foreign exchange markets is because of Covered Arbitrage Interest or CIA. Arbitrageurs try to make a profit by investing money and using the forward and spot rates to take advantage of countries with higher interest rates . The profits made by arbitrageurs keep the markets in

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[34] Paul De Grauwe, *International Money: Post War Trends and Theories*,55-62.
[35] Richard M. Cooper, *The International Monetary System: Essays in World Economics(* Cambridge: MIT Press, 1987), 112-116.
[36] Bruce G. Resnick and Cheol S. Eun, *International Financial Management,* 134-135.

equilibrium because the flow of money from the US to a foreign country causes US Interest rates to increase and the foreign interest rate to decrease. The CIA and flow of money also would cause the spot rate of the nation with the lower interest rate to decrease against the country with the lower interest rate. The opposite would be true of the forward rate because the money flow would cause the lower interest rate nation's forward rate to increase while the high interest's rate nation's forward rate would depreciate against the lower interest rate country. This promises that exchange rates reach equilibrium defined as IRP, across all markets, currencies, and interest rates.[37]

CIA causes the forward and spot rate differential to equal the interest differential. This means that because the equation $\frac{1\pm iF}{1\pm ius} = \frac{F}{S}$, the forward premium/discount rate is determined by interest rate differentials. The Interest Rate Parity relationship can be approximated as $E = if - ius$ where E is the exchange rate, if is the interest rate of one nation, and ius is the interest rate of a second nation. Changes in the spot rate are determined by the interest rate differential.[38]

Due to capital flows and the assumption of perfect capital mobility, interest rates not only determine the forward and spot rates but also drive exchange rates in the short run because the exchange rate depends on the relative interest rates between two countries and the expected future exchange rate.[39] In the end,

[37] Bruce G. Resnick and Cheol S. Eun, *International Financial Management,* 136-137.
[38] Ibid, 136-137.
[39] Ibid, 138-141

Interest Rate Parity determines that the currency with the high interest rate is expected to depreciate against the low interest rates nation as a result of covered interest arbitrage. Data shows that this does not always hold true and that often the higher interest rate nation's currency will continue to appreciate against the lower interest nation. This is the opposite result of the IRP relationship making the forward rate actually a poor predictor of the spot rate.[40] This anomaly in the IRP relationship is also known as the forward premium puzzle.

The question is why the high interest rate nation's currency would depreciate. The high interest rate currency experiences depreciation to the country with the lower interest rate because of the relationship between the Interest Rate Parity, the International Fisher effect and the Purchasing Power Parity. Purchasing Power Parity tells us that the exchange rate between two nations should be equal to the ratio of their price levels. PPP comes from the law of one price applied internationally to a standard commodity of one basket.[41] The relative version of the PPP states that the rate of change in the exchange rate should be equal to the inflation rate differential between nations. PPP explains that a nation's goods are either undervalued or overvalued in relation to another country's goods, increasing exports or imports depending on the desire for imports of an undervalued good until that good is in equilibrium.[42]

Relative PPP tells us that the percent change in the spot rate is determined by inflation differentials between countries. Eventually relative PPP comes to the

[40] Bruce G. Resnick and Cheol S. Eun, *International Financial Management,* 138-142.
[41] Paul De Grauwe, *International Money: Post War Trends and Theories*, 62-67.
[42] Ibid,62-67.

simplified conclusion that $if - \pi f = id - \pi d$, which means the foreign interest rate minus foreign inflation equals the domestic interest rate minus domestic inflation. Now we have to take the International Fisher Effect into mind. The Fisher Effect holds that an increase or decrease in the expected inflation rate of a country will cause an equal increase or decrease in the interest rate of a country or $i = r + \pi$ where $i =$ inflation, $r =$ interest rate, and $\pi =$echange rate.[43]

The International Fisher Effect says that the nominal interest rate differential reflects expected change in exchange rate. If we tie the International Fisher Effect with IRP and relative PPP, we can began to see what causes a depreciation of a country's currency with a relative high interest rate compared to a country's currency with a relatively low interest rate.[44] If we tie all three together and change the Fisher equation to $r = i - \pi$, then the simplified PPP equation becomes$rf = rd$. This shows us that real interest rates of return are equal across countries and currencies, and that countries with higher inflation rates have higher nominal interest rates. A foreign interest rate is higher because the country's foreign inflation rate is higher.[45] If a country's goods are more expensive, they will have a higher exchange rate due to their higher price of currency. The country's currency would then be expected to depreciate against countries that have a low inflation rate and subsequently low exchange rate.

This means that Inflation is the underlying cause of why a country's currency that has a high interest rate depreciates. High inflation causes higher interest

[43] Bruce G. Resnick and Cheol S. Eun, *International Financial Management,* 142-143.
[44] Ibid, 148-149.
[45] Ibid, 149-151

rates in the high interest rate country or $if > id$ because $\pi f > \pi d$ where $f =$ inflation and $d =$ interest rate depreciation. IRP holds that the forward premium /discount rate should be equal to the interest rate differential. The forward premium/ discount rate is determined by interest rate differentials which are determined by the country's expected inflation rate. More money and capital flowing into the country because of greater interest rates means that the value of money in the high interest rate nation will decrease or depreciate against the United States because of an increase of the value of money as funds flow to the foreign country.[46]

Eventually if the IRP theory is right then exchange rates should return to equilibrium. IRP holds that exchange rates depend on the interest rate and forward rates between the two nations, so inflation also the determines exchange rates. Simplified, inflation causes higher interest rates causing an increase in the spot rate and a decrease in the forward rate of a country.[47] A decrease in the forward rate of the country leads us to believe that the strength of the dollar should increase and the foreign country's currency should decrease. The exchange rates should creep toward equilibrium if IRP theory holds true. As stated earlier, this is not always the case and the stronger currency often continues to appreciate resulting in the forward premium puzzle. To conclude in combining IRP, Relative PPP, and IFE theory suggests the high interest rate country's currency will depreciate because it has higher inflation.[48]

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[46] Richard M. Cooper, *The International Monetary System: Essays in World Economics,* 129-135.
[47] Richard M. Cooper, *The International Monetary System: Essays in World Economics,* 129-135.
[48] Bruce G. Resnick and Cheol S. Eun, *International Financial Management,* 136-141.

The Post Keynesians offer a different exchange rate model that focuses on capital flow and the fact that the PPP theory often doesn't hold true in the short and medium run, leading to periods of both over and under currency valuation. Post Keynesians, while having a tendency to examine the short run of exchange rate theory, believe that prices do not adjust automatically in long run and that portfolio capital flows are what drive exchange rates. The Post Keynesian's believe exchange rates are influenced by many factors. These factors include interest rates, macroeconomic growth and stability, inflation, and band wagon effects.[49] Instead of focusing on just inflation, arbitrage, and the money supply, Keynesians look at the role of capital markets, investor psychology, and financial variables that affect actions of market participants. All of these things can affect capital markets and flows, altering and driving exchange rates. Keynesian's tend to examine the short run because these many factors change in the short run, altering the long run.[50] The exchange rate is believed to be influenced by more than just price and arbitrage with most other factors held constant. While Purchasing Power Parity may have described long term exchange rates under rigid regimes, it does not hold true under flexible exchange rates which can be altered by many factors, in particular capital flows.

The flexible exchange rate that is a major aspect of the present international monetary floating exchange system is strong because it is adaptable, allowing governments to pursue their own economic agenda. The exchange rate also

[49] John T. Harvey, " Post Keynesian versus Neoclassical Explanations of Exchange Rate Movements: A Short Look at the Long Run," Pg. 175-176.
[50] Ibid, Pg. 163-165.

achieves balance automatically over the long run as long as the rates are allowed to be determined by the market. The drawback back of the floating exchange rate is short term uncertainty adversely affects international trade and investment with companies not wanting to lose capital due to an unstable fluctuating exchange rate.

It should be noted that while the majority of economic powers use a version of the free floating exchange rate system, there are still nations that do not have their own currency or follow a different exchange rate policy around the world. The most prevalent of these exchange rate arrangements are the crawling peg, currency board, crawling bands and or conventional fixed pegged arrangements.[51] While most major economies are an independent float, countries that want more short term stability, have weak or no existent currencies, or want to control their currency follow a broad spectrum of pegged and controlled floating exchange rate systems. An example of this is China which uses a crawling peg to adjust rates by a small and fixed amount as they see fit.[52] Many other currencies peg their currency to other major currencies like the dollar, or even use a strong currency as the legal tender of their own country. It can be more advantageous for weaker economies to peg their currency to strong onwa rather than face the pressure that come from powerful economies and more valuable currencies in the free float.

[51] Bruce G. Resnick and Cheol S. Eun, *International Financial Management,* 34-35.
[52] Ibid, Pg. 34-36.

The exchange rate is one of, if not, the key aspect when choosing an appropriate international financial system for the future. The only exchange rate that works in the real world is a flexible exchange rate system where countries are free to explore the monetary measures they want to use in their nation's best interest. While all of the known exchange rate regimes have their drawbacks, a flexible exchange rate system allows for stability in the long run, even though it may compromise some global trade and transaction in the short run because exchange rates are not guaranteed.

Section 3: The International Gold Standard

Bimetallism and Early Gold Standard

The most appropriate way to critically examine the international monetary system is by analyzing the economic history of the three previous prevalent international monetary systems. The analysis of the economic history of the international monetary system provides us with the context to explain the current floating exchange system and subsequently the future of the current international finance system.[53] The comprehensive examination of the economic history of the international monetary system proves that the dollar based floating exchange system will remain the dominant international financial system for the predictable future, despite the recent global financial crisis and economists who have recently theorized otherwise.

The oldest predecessor of the current managed float system and first real international financial system was the international gold standard monetary system. The second longest lasting of the systems, the gold standard can be traced back to the mid- eighteenth century until the international monetary systems initial change from the gold standard in 1914.

Before the international gold system really became the dominant international monetary system that some scholars are nostalgic about today, most countries including England were on a bimetallic standard that was based

[53] Barry Eichengreen, *Globalizing Capital: A History of the International Monetary System*(New Jersey: Princeton University Press, 1998),3-6

on silver.[54]Silver was the dominant metal form of species in the Middle Ages up to the eighteenth century because other metals were either too heavy or in the case of gold, much too light. Gold, despite being light, started to be used as currency throughout some of Western Europe and eventually a mix of gold, silver, and copper were used in international transactions. The standard of Bimetallism despite its inefficiency in balancing international debts was used by most of the world until the late 1800s.[55]

This system of Bimetallism was flawed because the ratio used to calculate value between gold and silver needed to adjust between devaluations and appreciations of both metals, but legislation used fixed prices and ratios that were not allowed to adjust. This leads to Gresham's law which maintains that when countries overvalue one money and undervalue another, the undervalued currency will leave the country while the overvalued currency will flow in.[56] Basically when countries used fixed ratios or price controls, currency will flow to a market where it is highly valued.

This policy of overvaluing and undervaluing different monies used in the system of bimetallism gave rise to the gold standard in Great Britain in the early 1700's when Sir Isaac Newton, who was head of the mint, undervalued gold compared to silver, inadvertently facilitating the exit of silver from Great Britain. This gave rise to the Gold Standard because gold was the viable currency left

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[54] Michael David Bordo, "The Classical Gold Standard: Lessons from the Past," in *The International Monetary System: Choices for the Future,* ed. Michael B. Connolly(New York: Praeger Publishers, 1982), 238-239.
[55] Barry Eichengreen, *Globalizing Capital: A History of the International Monetary System.,*9-13.
[56] Kenneth W. Dam, *The Rules of the Game*(Chicago: The University of Chicago Press, 1982), 19-23.

without a reserve of Silver.[57] Great Britain became the dominant financial world power in the 18th and 19th centuries propelled by the industrial revolution. Rationally other world powers who were major trade partners of Britain began to convert to more of a gold standard to make trade and the balancing of debts easier. Nations held to a bimetallism standard still, but the difference in values caused problems and threatened to flood countries such as France with foreign currencies that were more highly valued than their own. This led to the Latin Monetary Union between France, Italy, Switzerland, and Belgium to keep their silver on the same constantly maintained level.[58]

The Franco Prussian war however lead to further instability and Great Britain further became a symbol of monetary power and stability under the gold standard. Germany then adopted the gold standard because of its trade advantages and Great Britain's rapid growth leading to the other major powers to fall into the gold standard like a domino effect. The major countries of the world followed, not wanting to have a bimetallism standard fluctuate against, the world and most importantly Great Britain's Gold standard.[59] This is just one example of many where the dominant world financial power influences the creation of a world monetary system to its advantage.

While some countries lobbied for a return to silver, Great Britain, the major international power, dealt in gold and was committed to a gold system despite

[57] Barry Eichengreen, *Globalizing Capital: A History of the International Monetary System.,*7.
[58] Kenneth W. Dam, *The Rules of the Game,* 21-23.
[59] Barry Eichengreen, *Globalizing Capital: A History of the International Monetary System,* 17-18.

evidence of the inflationary and deflationary problems that it might cause.[60]Great Britain's world monetary dominance lead to the rise of the gold standard, which was the system that Britain preferred despite any flaws inherent in it, leading the rest of the world follow. It is impossible not to draw comparisons to the United's States hand in the creation of the Bretton- Woods monetary system after it became the major monetary power in the world surpassing Great Britain.

Gold Standard Golden Age and Decline

The year 1880 marks the beginning of the golden age of the gold standard international monetary system. By this time most of the world was operating on some form of a gold standard. England, the United States, Germany, and France had the closest thing to a hundred percent gold standard where gold coins were the dominant currency and all the rest of the currency circulating such as silver and paper had additional reserves of gold backing it.[61] Most of the rest of the major economic powers of the world took part in the gold standard monetary system by being ready to convert their monies to gold at a fixed rate on demand. The center of the gold standard international monetary system was in London and a key assumption of the gold standard was that all the governments within the system maintain the convertibility of their currency to gold.[62]

[60]Ibid., 18-20.
[61]Ibid., 22-24.
[62] Michael David Bordo, "The Classical Gold Standard: Lessons from the Past," in *The International Monetary System: Choices for the Future,* 238.

Probably one of the most accepted and long lasting theories explaining the gold standard is David Hume's *price-specie flow model*. This model explains the gold standard through the balance of payments and the effected corresponding prices and flow of money from country to country, correcting trade imbalances.[63] The entrepreneur exporting gold received payment in gold which was then turned to coin and acceptable money. It is assumed that the entrepreneur importing a trade item paid with exported gold. Countries with trade deficits under the gold standard imported more than they exported which means gold was flowing out of the country to the nations that were exporting the goods. This creates a self-correcting trade imbalance. With less gold in the importing country, available prices fall in the country with the deficit. With more money or gold flowing into the country, exported goods prices began to rise. With imported goods becoming more expensive, people in the country with the trade deficit reduce their buying. The countries with the rising prices, which originally had a trade surplus with the importing country, begin to import more goods themselves. The country who was in deficit is therefore importing less and exporting more, correcting the trade imbalance back to equilibrium. Hume's model does not take into account the effect of banks and assumes there is only gold money.[64]

Awhile after Hume's theory a group from Britain known as the Cunliffe Committee further elaborated Hume's model adding the actions of central banks and other forms or currency such as paper. The Cunliffe elaboration added to and included the major role of central banks to Hume's theory but still

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[63]Barry Eichengreen, *Globalizing Capital: A History of the International Monetary System,* 25-26.
[64]Ibid., 26-27.

underestimated the grand scale of transactions of gold that would come to characterize the late period of the gold standard system.[65]

Central banks had a number of tools at their disposal to affect their countries policies and the balance of payments equilibrium. The central banks could lend or advance money in what was called discounting a bill which was subject to a discounted interest rate.[66] By raising or decreasing the discount interest rate, making it cheaper or more expensive, the central bank could control the number of people using the advance for money and effectively the amount of credit being used in the country. This subsequently affected the ability to restore the balance of payments of the nation through credit or advances loaned out.[67]

Central banks of countries with high prices could anticipate gold losses and raise its discount interest rate which would reduce the amount of lending and advances. With less money being lent out, there was a decrease of cash available in the market, constricting the money supply and balancing payments without the process of gold flowing from importers to exporters. The central banks by this logic could then control fairly or unfairly the balance of payments by keeping themselves at equilibrium or additionally below or above equilibrium to maintain an advantage.[68]

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[65] Kenneth W. Dam, *The Rules of the Game,* 15-17.
[66] Barry Eichengreen, *Globalizing Capital: A History of the International Monetary System,* 28-30.
[67] Michael D. Bordo, and Finn E. Kydland, " The Gold Standard as a Commitment Mechanism." In *Modern Perspectives on the Gold Standard,* ed. TamimBayoumi, Barry Eichengreen, and Mark P. Taylor(Great Britain: Cambridge University Press, 1996),84-86.
[68]Ibid., 85-86.

With the study of the gold standard there came a popular phrase or notion coined by John Maynard Keynes known as “the rules of the game”. Many scholars believe that the gold standard system was maintained because of all the participating countries played by these “rules of the game”.[69] The main rule of the game was that central banks were supposed to change the discount rate to speed up and adjust the balance of payments. The goal of this and of the central banks was to maintain the convertibility of gold at a fixed rate. Following the “rules of the game” and properly adjusting discount rates supported and maintained the gold standard which was the purpose of England’s, if not all central banks.[70]

There has been much speculation over the past decade if the “rules of the game” were really followed or if, as some influential economists suggest, it was an exaggeration made after the actual gold standard golden age, that doesn’t particularly hold true. The major consensus among economist is that the rules of the game were constantly violated except in the case of England and to an extent France.[71] Economist’s like Barry Eichengreen, Michael D.Bordo, and Michael B. Connolly, who have written in depth on the issue, all cite and relate to the study carried out by Arthur Bloomfield in 1959 which contends; with the exception of a few countries, the “rules of the game were frequently violated, meaning that

[69] Arthur I. Bloomfield, *Monetary Policy Under The International Gold Standard: 1880-1914.(*New York: Federal Reserve Bank of New York, 1959),46-47.
[70] Michael D. Bordo, and Finn E. Kydland, “ The Gold Standard as a Commitment Mechanism.”, 85-88.
[71]Ibid., 87-88.

discount rates were not always changed in the required direction, and that a number of countries used practices to prevent gold from leaving.[72]

While it is true that not all countries played by the rules of the game during the golden age of the gold standard, it is true that none of the major economic powers central banks broke the rules to the extent that it challenged the overall objective of the system, which was the maintained pegged convertibility of gold. Scholars who advocate for a return to the gold standard almost see the gold standard system as an entire world system that ran without any problems with all countries having the same goal during that period.[73] These are the same scholars who contend a return to a form of the gold standard is the best option for the international monetary system moving forward in the present day. This assumption of a single entity of the gold standard running smoothly is flawed, as Bloomfield showed in his 1959 study. The nations under the gold standard were all acting in their own best interest, or what the central banks believed was their own best interest at the time.

The gold standard did not run smoothly outside of the major European financial powers and the "rules of the game" were not always followed. The major financial powers of the day maintained the gold standard system and loosely yet unknowingly followed this "set of rules" because during the time of prosperity that characterized the golden age of the gold standard. It was in those individual

[72] Arthur I. Bloomfield, *Monetary Policy Under The International Gold Standard: 1880-1914*, 50-51.
[73] Barry Eichengreen, *Globalizing Capital: A History of the International Monetary System,* 30-31.

nations best interest to follow the dominant power of the time, Great Britain, and maintain the gold standard system which relied on gold convertibility.[74]

The system was maintained because it was in the best interest of the powers of the world to maintain the gold standard even if it wasn't followed to an exact degree of comprehension by all nations participating. England, with its currency being protected by the gold standard, and the advantage of having the sterling as the reserve currency, had no reason to not follow the "golden rules" of the gold standard. Most other countries loosely adhered to the rules because of England's financial dominance and fear of policies by England hurting their interests if "the rules" weren't followed. Many developing countries would not be able to maintain gold reserves without the pegged London Gold exchange.[75]

The Gold Standard led the world or international economy into a period of unprecedented growth and free trade that lasted from the 1880's to 1914.[76] The strength of the gold standard was that it assured long term price stability which led to an opening of free trade in the world. The main criticism of the gold standard is that in the short run, the system was very prone to real and monetary shocks making the prices of gold in the short term very unstable and unpredictable. Another criticism of the gold standard system is that central government can do very little to protect from these shocks, and it is incredibly expensive to produce a real gold coin standard.[77]

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[74] Michael D. Bordo, and Finn E. Kydland, " The Gold Standard as a Commitment Mechanism.", 86-87.
[75] Ibid., 87.
[76] Paul De Grauwe, *International Money: Post War Trends and Theories*, 11-14.
[77] Ibid

The decline of the golden age of the gold standard started in the early 1900s. The growth of political and military pressures by dominant and periphery countries started to challenge the system. The political and international monetary goals of the countries on the gold standard started to change and would have provided a challenge to the system if not for the rise of the First World War.[78]

In the end, the demise from the gold standard came from the high inflation rates caused from war, in particular World War One. Pressure to finance war production or activities was incredibly high, resulting in the fact that governments eventually financed military expenditures by issuing fiat currency. Eventually the amount of money produced greatly exceeds the amount of gold a country has in supply, and the confidence in the ability of that country to back up their money with gold is shaken, causing people to cash in their money in for gold, further running down the gold supply.[79] When war would lead to this inflationary confidence problem, countries would close or effectively stall the international monetary system. When the main countries who took part in the gold standard international system went off the gold standard in response to the first World War, inflation in these countries increased sharply.[80]

The gold standard international system that was characterized by a fixed exchange rate system was not abandoned suddenly with the start of the cataclysm that was the First World War. While the gold standard that existed

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[78] Barry Eichengreen, *Globalizing Capital: A History of the International Monetary System,* 43-45.
[79] Paul De Grauwe, *International Money: Post War Trends and Theories*, 14-15.
[80] Barry Eichengreen, *Globalizing Capital: A History of the International Monetary System,* 43-45.

from 1880 to 1914 would never again operate as an international money system as it did during those of its golden age, a form of the system would be carried on throughout the inter-war period with many attempts to create a new international monetary gold standard system.[81]

Transition from one international monetary system to another is not something that comes about with one major world event but through years of trial and error which is characterized by the borrowing of traits from the old international monetary systems into the new. The gold standard system throughout the interwar periods of international instability was constantly in the process of being reworked as a system, and it took many years of transition before the next real international monetary system took hold.[82] Those scholars who recently expected the sudden decline and fall of the current managed float monetary system in the wake of the 2008 global financial crisis were greatly mistaken. It takes many years of transition, negotiation, study, and agreement before a new international monetary system can be instituted, and even after this time, as history demonstrates, it takes many years before the system really goes into effect as intended.[83]

Every nation wants the international monetary system to work to their respective country's advantage which gridlocks the process of creating a new international monetary system. Great Britain was the preeminent world power during the gold standard and it was in their best interest to maintain the gold

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[81] Kenneth W. Dam, *The Rules of the Game,*38-40.
[82] Michael David Bordo, "The Classical Gold Standard: Lessons from the Past," 238.
[83] Paul De Grauwe, *International Money: Post War Trends and Theories*, 235-240.

standard as it benefited them. Eventually after the inflation and external shocks of World War One, the sterling lost its reputation and the protection the gold standard had once offered it. A new economic power would arise to replace both Great Britain and the gold standard. Only when the most dominant and elite country both economically and militarily wants to undertake a change will there be any chance in changing the international monetary system. Nationalism is the main and constant force that prevents a dynamic international monetary system.

Section 4: The Inter-war period Gold Standard

Inflation and World War One

The unstable time between the decline of the classical gold standard and the rise of the Bretton Woods system is often referred to as the interwar period. This period was characterized by global economic instability and failed attempts to return to the classical gold standard after it was abandoned in the wake of World War One.[84] In late 1914 major powers like Great Britain, Germany, France, and Russia enacted embargos on the export of gold and stopped the redemption of banknotes for the metal. The main assumption that was maintained under the classical gold standard, which was each country's willingness to covert paper and other currency to gold at a fixed rate, was utterly abandoned as gold became an integral part in the wartime nations being able to purchase the merchandise of warfare that was necessary.[85]

The stoppage of convertibility of currency to gold, by most countries in the beginning of 1914, led to a limited floating exchange rate during the First World War period, until 1925 when Britain resumed the Gold Standard. The rates were limited because of lack of any foreign exchange of money. Nations created new taxes and war bonds to fund their war efforts and eventually printed money to fund the war that was not actually backed by gold. Each country printed different amounts of fiat that was not backed by gold which would lead to problems after

[84] Bruce G. Resnick and Cheol S. Eun, *International Financial Management*(New York: McGraw-Hill Publishing, 2009), 29.
[85] Kenneth W. Dam, *The Rules of the Game,* 44-46.

the war and caused the exchange rates between different countries to be vastly different, covering a wide range.[86] The drastic printing of fiat to finance the war, led to hyper-inflation in many countries, such as the classic example in Germany.

The United States supported France and the aging dominant world power that was Great Britain during the war allowing them to artificially depreciate their currency against the dollar.[87] This period can be seen as a transition on the world stage as the previous dominant Great Britain was starting to give way to the emerging economy of the United States, which would essentially create the next international monetary system after the Second World War. This transition probably would have been expedited if not for the global economic crash that was the Great Depression. The United States would withdraw its currency support of the European economic powers after the war, leaving them to the widespread gold losses incurred from the war. Instead of attempting to maintain the greatly inflated and overvalued pound, Great Britain abandoned its pledge of convertibility to gold. The dollar was the only major currency to retain commitment to the convertibility of gold after the war.[88]

Directly after the war almost all countries were on a managed float system which was characterized by great diversity between exchange rates. Both proponents and critics of the floating exchange system use the first few years of the 1920's and the floating exchange system that was shortly the predominant international monetary system as evidence in cases for and against the system.

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[86] Barry Eichengreen, *Globalizing Capital: A History of the International Monetary System,* 46-48.
[87] Ibid., 47.
[88] Ibid.,47-48.

The very influential Milton Friedman was of the opinion that many negative reviews of the floating exchange based on its volatility and instability were off base and unfounded.[89] The political and economic instability that hampered the floating exchange system would have also had a harmful effect on the pegged gold standard system because of the inherent instability of the era.[90]

Crisis and the Great Depression

Trying to eventually convert back to the gold standard in the late 1920's was not the cure that many economists thought it would be, and the political turmoil and capital flow problems that were prevalent during the brief floating exchange rate system in the 1920's were just as pervasive and problematic when a new pegged gold standard was created. As the 1920's progressed, countries began to try and restore the gold standard system back to its golden age dominance.[91]

In 1925 Great Britain went back on the gold standard and lifted its embargo on the export of gold. The gold standard exchange rate between Britain and the United States returned to what it was before World War One, at 4.86 dollars to 1.0 pound.[92]The exchange rates may have drastically overvalued the British sterling which laid some of the seeds of the demise of the renewed gold standard. In addition to this, the French franc, which also returned to the system, was drastically undervalued, giving the French an unfair advantage, skewing the

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[89] Ibid,54-57.
[90] Barry Eichengreen, Mark W. Watson, and Richard S. Grossman, " Bank Rate Policy Under the Interwar Gold Standard: A Dynamic Probit Model," *The Economic Journal 95*(September 1985), 725-726.
[91] Kenneth W. Dam, *The Rules of the Game, 45-46.*
[92]Ibid., 45.

balance of payments, leading into a massive flow of gold into the central bank of France.[93] France then kept its currency low maintaining its competitive advantage against the dollar and the British Sterling in policies that would not be considered as playing by the "rules of the game" which characterized the first classical gold standard period. France then proceeded to convert its foreign exchanges into gold in the late 1920s.[94]

This put great pressure on the Bank of England which as stated earlier served as the major world gold exchange and guarantee of convertibility to gold. Despite these pressures, the return of the world to the gold standard and stability briefly provided relief and recovery to the world which was still economically recovering from the First World War. This stability would not last as pressures continued to increase on the Bank of England with gold flowing out of England to France and Germany. The United States central bank which held the most gold in the world was reluctant to help because of a boon in the stock markets, and country in general, that threatened to exceed the established ratio of gold reserves to money.[95] The Federal Reserve refused to bring down its interest rates and let gold flow to other countries; which both hindered the expansion of the United States domestic economy and put great pressure on countries like Britain that were running a constant Balance of Payment deficit.[96]

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[93]Ibid., 46-47.
[94] Barry Eichengreen, *Globalizing Capital: A History of the International Monetary System,* 64-66.
[95]Ibid., 68-69.
[96]Ibid., 69.

Countries running theses deficits had to respond by raising their discount rates to counter the constant loss of gold that was rapidly leaking from their countries to more attractive nations. The new interwar international gold system was broken. Throughout the late 1920s, countries like the United States and Germany ran a constant balance of payments and gold surplus year after year, while countries like England ran a constant deficit.[97]

The species flow model of the gold standard, where the constant adjustment of discount rates restored the balance of payments, was not working correctly under the new international gold standard. Nations running a deficit constantly did so and did not have gold flowing in return in order to create balance of payments neutrality. In the United States prices never increased because they were exporting or lending the currency and gold coming into America, back to countries who were hit hard by the World War One. The United States kept exporting at a constantly high rate and their prices in turn did not rise as they should have.[98] They were exporting many goods and services but the price of the dollar didn't increase, creating a constant surplus.

America increased the interest rates during 1920's stock market boom to contend with the gold to currency ratio. This made foreign lending less attractive and brought a stop to massive amounts of foreign lending coming from the United States. Without constant lending there was less demand for US exports. This resulted in a fall in the price of goods that foreign countries produced,

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[97] Kenneth W. Dam, *The Rules of the Game, 46-48.*
[98] Barry Eichengreen, *Globalizing Capital: A History of the International Monetary System,71-73.*

correcting the Balance of Payments imbalance, allowing for the new 1920s gold standard to actually operate as it should. The issue righting the Balance of Payments however would become insignificant with the start of the Great Depression. The Great Depression would be the demise of the new 1920's interwar gold standard international monetary system.[99]

Decline and Transition

The demise started with the less important countries that were not international powers. The worst global crisis in history sent the international financial system into shock causing great damage. The capital and commodity shocks that plagued ill-prepared developing nations left developing countries with the choice of abandoning convertibility of their currency to gold or defaulting on their foreign debt. In 1929 and 1930 most developing countries chose to abandon convertibility to gold and let their currencies depreciate.[100] Countries like Canada, Argentina, and Brazil suspended the gold standard at the start of the Great Depression. External shocks from the slumping world economy led to the weaker economies having to choose between protecting their national banking systems and protecting the gold standard. Nations will do what is best for their economy and ignore what is best for the world, taking a nationalist view to the international financial economy.

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[99]Ibid., 71-72.

[100]Barry Eichengreen and Peter Temin, "The Gold Standard and the Great Depression."*Contemporary European History* vol. 9, No. 2(2000), 188-190.

Nations such as Austria, which was one of the first affected by external shocks and a weakening of their national banks, are a great example of doing what is best for one's individual country. Austria, when faced with the choice of protecting the gold standard or protecting their national banks, conceded to the rational choice and protected their banks, abandoning convertibility to the gold standard.[101] When depositors and creditors lose faith in the capital reserves of a country, a rapid exodus of gold and confidence from that country lead to the abandoning of the gold standard. Germany, the most industrial country in Europe would soon fall to the same fate as Austria. Germany, who earlier had the fourth highest gold to currency ratio, lost 10 percent of its gold ratio in a year. Germany was denied a loan and a respite on World War 1 reparations leading to them also abandoning the gold standard.[102]

A sterling crisis in Great Britain during the early 1930s would lead to the beginning of the end to the interwar gold standard monetary system. The bank of England, since the return to the gold standard in 1925, suffered constant balance of payments deficits. When the Great Depression started, countries all but ceased trade and imposed tariffs to protect national products. The trade imbalance of Great Britain's central bank continued to grow causing gold to leave the country at a rapid pace and eventually in late 1930 there was not enough gold in England to facilitate appropriate conversion to the Sterling. At the time,

[101] Barry Eichengreen, *Globalizing Capital: A History of the International Monetary System,* 78-79.
[102] Ibid., 78-79.

the United States and France had to support the sterling to prevent an all-out crisis, and the Sterling recovered slightly in 1931.[103]

During this time the dollar was beginning take the place of the pound as the most important world currency and would eventually succeed the pound as the second international reserve currency. An international reserve currency is forged over a long period of time by the direction and will of the World's major economic powers. Recent history has shown that the international currency is the money of the world's preeminent political, military, and economic power. This has been true of the last and only two international currency regimes, the pound and the dollar. An international reserve currency is really whatever money the majority of international transactions are completed or settled with. The first and longest reigning international money was gold. Even when the pound and dollar became the prominent international money, they were backed or supported by gold until 1972. Most transactions were settled in exchange of gold since the advent of central banks and the gold standard in the mid-1800.[104]

The Bank of England was among the first and the strongest making the United Kingdom the hegemonic economic power of the time. The United Kingdom was politically and economically the strongest nation of the world making the sterling the safest, most available, and most stable currency to settle international transactions. Eventually the small island nation would politically and

[103]Barry Eichengreen and Peter Temin, "The Gold Standard and the Great Depression." 201-203.
[104] Barry Eichengreen, *Exorbitant Privilege: The Rise and Fall of the Dollar and the Future of the International Monetary System*(New York: Oxford University Press, 2011), 39-45.

economically take a back seat to the United States as it steadily grew into its superpower role.[105]

World War One and inflation left the sterling pound weak while the war had cemented the United States as the world's leading nation. While the gold standard and the pound continued to flounder during the interwar period, the dollar's might continued to grow. By the end of the Second World War the dollar had cemented its place as the international reserve currency because it was the safest, most available, and most stable currency.[106] The world's dominant economic power can provide the most stable and available currency which makes their currency the most sought after to settle international transactions. An international currency does not decline rapidly to be succeeded by a new stronger international currency, rather it steadily loses its place as its nation steadily loses its place as the world's dominant power and economy. Whatever nation is the consensus world power will have the advantage of having the consensus international currency, using its economic dominance to establish its legitimacy as world money.

High interest rates, a budget deficit, an unemployment rate of 20 percent, and the collapse of the gold standard in Germany led to the anticipation that England could not maintain the gold standard and interest rates leading to the mass selling of the sterling in late 1930 and 1931.[107] The mass loss of

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[105] Ibid Pg. 36-41.
[106] Barry Eichengreen, *Exorbitant Privilege: The Rise and Fall of the Dollar and the Future of the International Monetary System,* Pg. 62-66.
[107]Barry Eichengreen, Mark W. Watson and Richard S. Grossman. 730-732.

confidence in the gold standard leading to an exodus from sterling forced interest rate increases that could not be maintained with an extremely high unemployment rate. On September 19, 1931 Great Britain was forced to stop convertibility to the gold standard which caused the ultimate death of the interwar gold standard international system.[108]

The sterling, which had been one of the most powerful currencies in the world lost a great amount of its value and caused a weakening of confidence against other currencies such as the dollar. Fear of the dollar being devalued lead to a mass selling of the dollar, forcing the Federal Reserve to increase its interest rates. At the end of 1931, a dozen or so more countries left the gold standard, and in 1932, with the election of Franklin D. Roosevelt, the United States suspended convertibility to the gold standard after numerous bank runs. The rest of the world was soon to follow.[109] The fall of the second international gold standard led to another period of managed float until after the Second World War. The volatility that plagued the floating exchange system during the 1920's was much more tame and controlled during the 1930's and governments could do what was best for them and did not have to worry about maintaining a world gold standard system.[110]

The devaluation and depreciation of currency led to aid in the recovery process from the Great Depression. Despite the less volatile and consistent

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[108] Michael David Bordo. " The Classical Gold Standard: Some Lessons for Today." *Federal Reserve Bank of Saint Louis Review* 63, no. 5(May 1981), 7.
[109]Barry Eichengreen and Peter Temin, "The Gold Standard and the Great Depression." 204-206.
[110] Barry Eichengreen, *Globalizing Capital: A History of the International Monetary System,* 86-87.

performance from the new managed float system of the 1930's, the world viewed it as unstable with memories still lingering from the 1920's floating system that was characterized by high inflation and political instability.[111] Another reason why a new system would eventually be implemented was the protectionist currency policies economists believed that the managed float system led too. Exchange rate fluctuations were seen by many as a potential source of conflict. After the Second World War the United States had emerged as the preeminent world power and sought a new system with a stable exchange rate and greater longevity.[112]

The Gold Standard System was the first definable and manageable international financial system, and it shaped the future of the international economy and the two future international financial systems. As we will see the Bretton Woods System would actually be pegged at a certain rate to an established price of gold. The gold standard and the advent of the international finance system lead to the establishment of the central banks which now dominate international finance and international transactions. The gold standard for the first time allowed focus on monetary adjustments and national management instead of just national accumulation of capital.[113]

As nations' monetary focus started to shift to exchange rates and gold flows monetary policy became suited toward an adjusting circulation of currency

[111]Ibid., 88-89.
[112]Ibid., 90.
[113] Samuel Knafo. " The Gold Standards and the Origin of the Modern International Monetary System." *Review of International Political Economy*, vol.13, No. 1(February 2006), 96-98.

in the economy and the balance of payments.[114] The gold standard set the foundations for stability and interdependence globally which is what is still strived for today. The gold standard is an important part of economic history and had a direct influence over future international monetary systems such as Bretton Woods. The creation of central banks alone could be counted among one of the greatest innovations not only in international finance but economics as a whole.

No matter what financial system is put into place, the key is creating an atmosphere that leads to interdependence of countries and coordination between powers in international finance. This is only possible if countries, or at least countries that are a major power in international finance, have the same goals and interests. Even allies with the same political aspirations can come to a crossroads when it comes to international economic policy and the implementation of an international financial system. Countries are going to act in a way that best suits their interests economically within reason. High inflation and constant crisis did not give the interwar gold standard much of a chance to survive. The turmoil of the inter-war period would lead to the creation of a more stable international system that tried to correct the shortcomings and instability of the previous era.

[114] Ibid.,97.

Section 5: The Bretton-Woods System

Transition from War

The second major international financial system that would forever change the course of modern international finance came out of the Bretton Woods Agreement. The Bretton Woods System, which dominated the landscape of the international financial system for almost thirty years, was one of the most grandly coordinated economic agreements or treaties between major countries in history. Much of the architecture of the Bretton Woods system is borrowed from the gold standard system and the Bretton Woods system relied on domestic currencies being made convertible at a fixed price into an asset.[115] One of the main points of the Bretton Woods System was that there would be an international currency which all currencies could be fixed to, considering that currency an extension of their own. This would mean that there is in fact one world money that would greatly promote trade and development among the countries using the system.[116] The creators of the Bretton Woods system saw the easy convertibility of international currencies as an essential part for confidence in the stability of the national currencies and international currency, but also wanted to use the previous gold standard as a basis for the system.

One crucial difference between the gold standard and the Bretton Woods System was the creation of a new institution that would become known as the International Money Fund (IMF). The IMF would function to sanction

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[115] Paul De Grauwe, *International Money: Post War Trends and Theories*,15-20.
[116]Ibid.

governments that were fiscally irresponsible and hurt the international system while advocating for countries that were hurt by such actions.[117] The IMF was a line of defense for those adhering to the Bretton Woods Financial system. All of these policies came out of deficiencies of the gold standard and interwar years to try and provide a stable monetary system that was better able to police itself and deal with both internal and external shocks prevalent in the world economies. Unfortunately these changes, which tried to safeguard from instability, did not function as effortlessly as scholars thought they would on paper when they were thrust into action.[118]

The Bretton Woods System was an achievement even when considering its weaknesses and eventual downfall because of the monetary collaboration between many sovereign nations with their own agenda that the Bretton Woods System represented. An agreement like Bretton Woods is so rare and extraordinary because of the unprecedented cooperation between world powers that have their own interests at heart. It is arguable that the rebuilding climate in the early 1940's resulting from the end of World War Two led to the right atmosphere for such an agreement as Bretton Woods. It is unlikely that there will ever be such collaboration of nations on an international finance system like there was at Bretton Woods in the near future, if ever again at all.

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[117] Ibid, 92-95

[118] Barry Eichengreen, *Globalizing Capital: A History of the International Monetary System,92-95*

The Bretton Woods system was being developed by the United States and Great Britain as early as 1940.[119] Great Britain and the United States started working toward a joint agreement during this time to create a new international financial system that fixed the problems of the gold standard and led to stable world trade and currency exchange. The United States emerged as the strongest economy in the world after the 1st World War and Great Britain, which was the predominant economy before that, was still one of the most powerful and influential economies in the world.[120]

Bretton Wood Meeting: Keynes and White

The leading British financial official working to create the Bretton Woods system was John Maynard Keynes whose book *The General Theory of Employment, Interest, and Money* is one of the most widely regarded economic works of the time. Keynes was maybe the most well-known and greatest economist the world had to offer. Leading the negotiations for the Americans was Harry Dexter White, a lesser known former academic and United States Treasury economist. The goals of the economists in regard to the International Financial System was to create a system that would have stable fixed exchange rates, allow national currencies to be converted to gold or an international currency, provide the liquidity that gold standard previously lacked, and have an effective mechanism to adjust exchange rates correcting disequilibrium in the balance of

[119]Ibid 96.

[120] Francis J. Gavin, *Gold, Dollars, and Power: Politics of International Monetary Relations, 1951-1978*(Chapel Hill: University of North Carolina Press, 2004), 17-18.

payments.[121] As stated earlier, these goals remain true for any international monetary system.

The IMF was created to help adjust the balance of payments for nations that ran a deficit. The IMF helped to correct deficits and was created to protect countries from external and internal shocks. The existing amount of gold in the world was believed to be too low to have a great amount of pressure put on it, so the two- tier system was created with a major currency being convertible into acting as an extension of currency to settle international payments and transactions.[122] This major extension or acting international currency would conserve the gold stock and make the international markets more liquid.

John Maynard Keynes and Harry Dexter White each had a plan for the international financial system after the war and those two plans differed in many ways. One thing the two plans had in common is that they each had the interest of their respective countries; Great Britain and the United States, in mind, trying to get the other nations to agree to a plan that would most protect and advance its country's financial priorities. Keynes wanted to try to preserve what was left of Great Britain's dwindling economic power, while White wanted to exercise the United States' economic dominance over the rest of the world to gain favorable conditions after World War II for the nation that had become the premier world economic giant.[123]

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[121]Ibid 20-21.
[122]Ibid 20.
[123] Benn Steil, *The Battle of Bretton Woods: John Maynard Keynes, Harry Dexter White, and the Making Of A New World Order*(New Jersey: Princeton University Press, 2013), 3-7.

Keynes took a more civilized approach into the Bretton Woods talks but was not an able enough politician to sway the Americans in Washington, while White was gritty, determined, and very brash often clashing with Keynes. Keynes and White's visions for the world economy were vastly different. White wanted to take advantage of the opposite directions of power that the two economic giants were headed in.[124] White saw a world that did not have many controls in it with a pegged currency exchange rate presided over by an international institution that had the power to veto changes. Keynes wanted to allow countries to be able to change and alter exchange rates to let countries reconcile a balance of payments with full employment.[125]

Keynes had a focus on the balance of payments financing plan that held a country like the United States accountable to finance the drawing rights of other countries. White championed the American dollar as a possible world currency but also believed that it had to be backed by metal. Keynes had a more non-traditional idea about the international currency he called bancor.[126] In Keynes' plan the national central banks, and not an international bank, would buy and sell their currencies amongst themselves to settle credits and debts. Their own currencies however would be denominated in international money that Keynes called the bancor which was to have its own fixed exchange rate with gold and all participating currencies.[127]

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[124]Ibid 131-134.
[125] Barry Eichengreen, *Globalizing Capital: A History of the International Monetary System,*94-97.
[126] Benn Steil, *The Battle of Bretton Woods: John Maynard Keynes, Harry Dexter White, and the Making Of A New World Order,* 139-142.
[127] Ibid, 140-141.

Basically the national banks would exchange their currency or gold to bancors to settle balance of payments credits and debts with other countries. Limits would be imposed on the spending and accumulating of bancors in Keynes plan so countries did not have too high a surplus or deficit. This idea was sympathetic to British interests in that they had little gold but needed lots to trade.[128]

Both plans were built around a new international monetary institution but were different in what that institution would have the power to do. White was stoutly against Keynes new international currency, predictably wanting a dollar based system. Both White and Keynes plan looked to reduce trade barriers and tariffs. Going into the Bretton Woods talks the United States had all the leverage because they had all the gold and were the most powerful economy in the world, while Britain only had the advantage of not taking part in an international plan trying to destroy a new global architecture which would not be creditable without the perceived power that was the former economic goliath of the British Empire.[129]

Keynes wanted to make the major creditor nations solely responsible for settling the balance of payments. The United States would have been the nation most adversely affected by this policy that Keynes saw as crucial to the new monetary system because they had ran a constant payments surplus in the 1930's. This would have made the United States responsible for 23 million

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[128] Ibid, 142-143.

[129] Benn Steil, *The Battle of Bretton Woods: John Maynard Keynes, Harry Dexter White, and the Making Of A New World Order,* 153-154.

dollars to help settle the balance of payments. Keynes was confident that he could convince the other international powers of the world to adopt many of his ideas for the post war world.[130] Keynes stated that "I have considerable confidence that something very like this plan will be in fact adopted, if only on account of the plain demerits of the alternative of rejection."[131] Keynes underestimated the international political power that was the United States in the post war period and the bargaining dominance that came with that position. In the end the Americans refused to pay more than 8 million to settle the balance of payments.[132]

What Keynes did have in common with the rest of the world, though, was his insistence that the rigidity of the gold standard was outdated and a return to the gold standard would be a grievous mistake.[133] Keynes knew that a new more flexible international system was needed but had to concede to the American's anywhere in the plan where the American delegation thought the United States would be at a minor disadvantage. Keynes essentially created the outline of the Bretton Wood's system which then over months of deliberation was amended by White and the American contingent to reflect America's prominence and power. Keynes was forced to concede on his balance of payments accountability plan and want for an international currency. The American's defiantly benefited from the new system but did not have exactly the completely flexible system free of

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[130] John Maynard Keynes, *The Collected Writings of John Maynard Keynes XXVI: Activities 1941-1946: Shaping the Post War World, Bretton Woods and Reparations, ed. Donald Moggridge(* New York: Cambridge University Press, 2013), 12- 16.
[131] Ibid Pg. 15
[132] Ibid Pg. 100
[133] Ibid Pg. 17

controls, which White had imagined. In the end the greatest achievement of Bretton Woods was the short period of international cooperation. Keynes said it best when he stated that "We have shown that a concourse of 44 nations are actually able to work together at a constructive task in amity and unbroken concord."[134] In my opinion, this kind of international cooperation was an aberration in history and might never again be obtained.

Description of the System and Flaws

The system that was created at Bretton Woods, New Hampshire in July of 1944 was a system that championed the American agenda and would reign supreme as the international monetary system for the next 27 years. Harry Dexter White and the Americans dominated the negotiations and were able strike a deal with representatives from 44 other nations, including Great Britain, which was favorable to the United States. After lengthy bargaining and intellectual discussion, the representatives signed the Articles of Agreement of the IMF.[135]

The newly created International Monetary Fund represented a set of rules and guidelines to govern the international monetary policies of the central banks. The International Monetary Fund was basically created to enforce the "rules of the game" that characterizes the interdependent monetary relationships between the economies of the world. The IMF was created to keep a strong balance in the international economy, something that the Gold Standard System always lacked.

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[134] John Maynard Keynes, *The Collected Writings of John Maynard Keynes XXVI: Activities 1941-1946: Shaping the Post War World, Bretton Woods and Reparations, Pg.* 103.
[135]Bruce G. Resnick and Cheol S. Eun, *International Financial Management,* 29-30.

The International Bank for Reconstruction and Development was also created to aid in reconstruction of European economies after the Second World War and would later become known as the World Bank.[136]

The representatives at Bretton Woods wanted to stop the economic nationalism that was a main flaw in the Gold Standard system and interwar years. This was a misguided attempt that was doomed to fail as economic nationalism is still a tenet of today's international economic system and is nearly impossible to eliminate from the international economic and political arena. Even the representatives and countries at the Bretton Woods Conference were exercising a form of economic nationalism by trying to support an agreement that would leave their country in the best international economic position possible.[137] This economic nationalism was true in the case of both Keynes and White whose plans and bargaining characterized two men who were trying to gain favorable international economic advantage or in Keynes case salvation for their respective countries.

What came out of the Bretton Woods agreement was an adjustable pegged system that was a compromise between the Keynes' plan and White plans, resembling more the American proposal than Great Britain's. Keynes plan focusing on the Bancor, had an international clearing union that would take payments and deposits in Bancor to settle the international balance of payments

[136] Ibid, 29-30.
[137] George Schild, *Bretton Woods and Durban Oaks: American Economic and Political Postwar Planning in the Summer of 1944*(New York: Saint Martin's Press, 1995), 110-113.

between two countries.[138] The American's put forward a plan that championed a currency pool, in which each country participating paid into so they could later borrow that money when a short term balance of payments defecit period arose.[139]

There was as previously stated a slight compromise between the British and American plans, but the American plan, enjoying America's exorbitant privilege mostly won out. What came was an international monetary system where each country would establish a par value pegged to the American dollar which was pegged to gold at the rate of 35 dollars per ounce.[140] This new dollar pegged gold system or gold exchange standard relied heavily on the dollar despite Keynes' reservations making the dollar essentially the international currency.[141]

Each country in Bretton Woods had to maintain one percent of the par value buying or selling in the foreign exchange market as needed to stay within the one percent of par value. Only a country that had a constant disequilibrium in the balance of payments would be allowed to change the par value of its currency to move back into equilibrium. The United States dollar as the international reserve currency was the only currency convertible to gold and each country had to hold a stock of dollars to settle international transactions.[142] This

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[138]Bruce G. Resnick and Cheol S. Eun, *International Financial Management,* 29.
[139] Ibid, 29-31.
[140] Barry Eichengreen, *Globalizing Capital: A History of the International Monetary System,* 98-101.
[141] Francis J. Gavin, *Gold, Dollars, and Power: Politics of International Monetary Relations,* 19-21.
[142]George Schild, *Bretton Woods and Durban Oaks: American Economic and Political Postwar Planning in the Summer of 1944,* 123-125.

would be a flaw of the system in the future and put a tremendous amount of pressure on the American dollar to maintain its convertibility at a constant price.

Although the Bretton Woods System was first conceptualized in the mid 1940's right after the Second World War, it really did not take hold as the international system to around 1958. After the war, the international financial system was a mess and the British sterling was still very strong in the market, because in the past, with Britain as the major super power for a number of years, it had been the dominant currency.[143] It took a number of years for the dollar to take its place and for the Bretton Woods system to go into effect. The United States dollar was so strong that as a result of its emergence as a super power and Europe's need to rebuild, the United States had to actively pursue the policy of running a deficit for a number of years to weaken the dollar and improve international liquidity.[144]

The Marshall and Dodge plans provided aid to Europe and Japan to rebuild their economies and currencies. As a result the period from the end of the war to the late 1950's was characterized by controls on exchange transactions. European nations maintained overvalued currencies to allow residents to be able to buy dollars cheaply in this period to stimulate trade.[145] As a result there was a constant demand for dollars and not enough dollars to

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[143] Barry Eichengreen, *Exorbitant Privilege: The Rise and Fall of the Dollar and the Future of the International Monetary System*, Pg. 48-51.
[144] Ibid
[145] Paul De Grauwe, *International Money: Post War Trends and Theories*, 19-21.

appease demand which brought about the regulation of dollars resulting in currencies not being freely convertible.

This led to the creation of the European Payments Union and the Bank for international settlements. These institutions made the system of payments that were multilaterilized. After a month a country would either pay or receive gold or dollars for its international transactions. Only a fraction of the exchange however was paid in actual dollars or gold and the rest was converted to a loan to the creditor country.[146] The fraction to be settled in gold or dollars was steadily increased from month to month. This allowed the liquidity of currency and by the late 1950's the European and Japanese economies were substantially stronger allowing the conversion of their currency to dollars to take place effectively bringing a start to the new monetary Bretton Woods system as originally conceptualized.[147]

During the late 1940's and through the 1950's there were cracks in the Bretton Woods system because of the financial crisis that major European economies found themselves in after the war. One such crisis happened in 1947 when Great Britain tried to restore the convertibility of the artificially inflated Sterling because of a loan agreement with the United States.[148] The sterling was only able to stay convertible for 6 weeks because of massive reserve losses that nearly depleted all of Great Britain's reserves including the multibillion dollar American loan that convinced the British to make their currency convertible. After

[146]Ibid 20.
[147] Ibid20-21
[148]Francis J. Gavin, *Gold, Dollars, and Power: Politics of International Monetary Relations,*27-28.

the conversion crisis in Great Britain the United States no longer put pressure on other nations to make their currencies convertible until they had been sufficiently recovered by the Marshall Plan.[149]

During the early 1950's the gap between the strength of the dollar and other world currencies continued to widen until 1953 when the European and Asiatic economies' trade balance slowly continued to strengthen. The steady flow of aid provided by the Marshall Plan and the struggled but continuous growth of economies around the world, closed the dollar gap and allowed previously devastated economies to recover and have a positive trade surplus.[150] The United States finally, after years of artificially weakening its currency, slipped into a trade deficit in 1958, and the rest of the world's economies began restoring current account convertibility. The Bretton Woods System finally began working as designed and following the Bretton Woods agreement characterizing the end of a financial reconstruction period.[151]

Even though the Bretton Woods System began to work as designed, problems continued to persist with the international financial system and flaws became apparent during the 1960's. The Bretton Woods System required credit to finance imbalances which was the job of the IMF. One problem was that weak currency countries always lobbied for high IMF quota's to increase international reserves while strong currency countries opposed international reserve countries

[149] Barry Eichengreen, *Globalizing Capital: A History of the International Monetary System,* 104.
[150] Barry Eichengreen, *Global Imbalances and the Lessons of Bretton Woods*(Cambridge: MIT Press books, 2007), 13-14.
[151] Ibid, 14-15.

to prevent the weaker currencies taking what they believed was too much credit from the reserves to correct imbalances.[152]

Another problem with the international reserve system under Bretton Woods was that it was dependent on the availability of dollars allowing the United States to dictate international liquidity for the other world economies. The "scarce currency clause" was a stipulation in the IMF that if it ran out of stock of a particular country's currency, that the currency would be considered a "scarce currency", resulting in the expected discrimination against the goods of the "scarce currency's" country. The "scarce currency clause" and IMF quotas were supposed to make the system more compatible for currency exchange as time went on and economies recovered from the war. The recovery of European and world currencies actually led to more dependence on the dollar. The dollar would continue its strength throughout the Bretton Woods era, remaining the supreme leading currency reserve over the entirety of the system.[153] This was a problem because it led to pressure on the dollar as an international reserve currency. The United States had to make dollars readily available to the rest of the world while maintaining confidence that the dollar would always be convertible to gold at 35 dollars per ounce of gold. This was also a problem because the United States had a tremendous amount of economic power. Some countries, such as France, wanted to act in the best interest of their country, and did not care for their setting policies that were constantly dependent on the United States decisions.

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[152]Barry Eichengreen, *Globalizing Capital: A History of the International Monetary System, 115.*

[153] Jeffry A. Frieden, *Global Capitialism: Its Fall and Rise in the Twentieth Century*(New York: W.W Norton and Company Inc., 2006), 290-291.

Basically under the Bretton Woods System, the liquidity and conversions of the world's reserve assets depended on the policy of the United States and their willingness to make the dollar more or less available to the other economies of the world. Many scholars refer to this dilemma as the "de Gaulle problem" because French president Charles de Gaulle was usually the greatest detractor from the inherent American power built into the Bretton Woods System.[154]

The Bretton Woods System was the most ambitious and perhaps the most flawed of all the international financial systems. Once the Bretton Woods System began to work as designed a number of flaws and weaknesses became apparent to the system.[155] While the pegged dollar exchange rate provided a stable environment for trade and economies to grow for a number of years throughout the 1960's, it had many weaknesses. The system's shortcomings in the balance of payments adjustment process, its lack international liquidity, and the Triffin Dilemma lead to an eventual breaking down in the stability and growth of the system.[156]

Bretton Woods Decline

The Bretton Woods system had major flaws that eventually brought the system to an end as the acting international financial system in the late 1960s and early 1970s. The Bretton Wood system assumed that the dollar was as good as gold, and as the ailing economies recovered and the supply of dollars

[154]Francis J. Gavin, *Gold, Dollars, and Power: Politics of International Monetary Relations,* 27-29.
[155] Barry Eichengreen, *Global Imbalances and the Lessons of Bretton Woods,* 11-12.
[156] Francis J. Gavin, *Gold, Dollars, and Power: Politics of International Monetary Relations,* 184-185.

increased, this no longer became the case.[157] Eventually American liabilities to foreign countries came to exceed the amount of gold that United States actually held. This is a flaw in the Bretton Woods system because while one currency supply is elastic the other currency is fixed. The dollar is elastic while gold is fixed. This leads to the Triffin dilemma which is if the United States refused to provide dollars to other countries, then trade would become stagnant; but if the United States did supply an unlimited amount of dollars, eventually confidence in the United States to back up its dollars would diminish causing the international financial system to become unstable.[158]

Eventually the United States would not be able to maintain a 35 dollar fixed gold price. As long as countries came to an agreement not to convert their currencies to gold, the system could be maintained. France in particular was against this idea of maintaining the Bretton Woods system and refused to play by the new rules of the international monetary game, not wanting to be second rate to any country in any aspect, while others like Germany wanted to maintain in the current system.[159] There was a great range of views by the participating countries in the Bretton Woods system on what action to take on solving the problems with the Bretton Woods financial system.

Special drawing rights or (SDR'S), were issued in 1969 in order solve the problem and linked to gold at the value of one U.S dollar. While at first opposed

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[157] Paul De Grauwe, *International Money: Post War Trends and Theories*, 48-53
[158]Ibid, 48-53.
[159] Barry Eichengreen, *Exorbitant Privilege: The Rise and Fall of the Dollar and the Future of the International Monetary System,* 52-56.

to the idea of the SDR, the U.S would eventually change it position and accept the SDR. Without the United States support, the SDR would have never been approved. This did very little to curb the problem however, because governments could not use the SDR paper currencies with the private sector and only with other central governments. The second problems with SDR's are that there had to be a consensus among different countries on whether to issue the currency, which rarely happened.[160] These two aspects combined to give the SDR little merit and effectiveness as an international reserve currency. The SDR had too many restrictions and could not act as an international reserve currency without the confidence of the private sector. Creating a legitimate currency takes time, and the SDR was too little, too late to take pressure away from an already embattled dollar.

In the end the Triffin Dilemma and Bretton Woods many other flaws would bring the system down and make upholding the system dependent of the "rules of the game." Just as in the gold standard system, it was only a matter of time before major economic powers would refuse to follow the rules of the game, taking the action that was best for their individual constituents at the behest of international finance system. Weaknesses in an international monetary system led to instability that resulted in dependent international relationships breaking down, causing the collapse of the international financial system.

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[160] Barry Eichengreen, *Exorbitant Privilege: The Rise and Fall of the Dollar and the Future of the International Monetary System,55-57.*

In 1967, Great Britain in the face of rising oil prices resulting from the closing of the Suez Canal, devalued the pound, resulting in a sharp rise in the price of gold. A two tier gold system was eventually created by the ten major powers under the Bretton-Woods system after the United States had to close the European gold market in the late 1960's. This system created a fluctuating private gold market and a steady gold market for the central banks still held at 35 U.S dollars. The flaw in this was any country could buy gold from the United States at 35 U.S dollars and sell it for much more in the gold market.[161] This would lead to constant runs on gold and the needed constant support of foreign nations supporting the dollar to maintain the gold convertibility rate. There was not enough gold to back the dollar leading to the instability of the whole financial system. This Triffin Dilemma was unavoidable and the actions of the United States in the 1960's further exasperated the problem. The Kennedy and Eisenhower, administrations instead of seeking to fix the Triffin Dilemma problem, patched the undesirable outcomes of the dilemma, not actually solving any problems inherent in the system. When inflation finally resulted in nations devaluing and withdrawing their support from the dollar, the United States had no choice but to close the gold window and salvage their international economic position.[162]

When Richard Nixon came to be president in 1968, he tried scaring the European nations into tactics that would help the Unites States international financial system, and when these tactics backfired, the United States devalued

[161]Ibid 57-59.
[162] Barry Eichengreen, *Globalizing Capital: A History of the International Monetary System,* 132-133.

the dollar, stopped converting dollars into gold and put a 10 percent surcharge on imports to make sure American products would not be influenced by unfair exchange rates. This shrewd financial move won the United States a newly created exchange rate system, much like the old one except with the dollar being devalued and the U.S Treasury not responsible for exchanging gold for dollars in 1971. Continued policy decisions by the Nixon administration led to the printing of more money and higher inflation leading the price of gold to also increase to over 70 U.S dollars per ounce.[163] Countries began abandoning the pegged exchange rate system in effect ending the second major international financial system known as the Bretton Woods System even though this took a number of years to accomplish. In 1973 the Bretton Woods System effectively came to an end and a few months later, the world converted to a floating exchange rate system.[164]

The Bretton Woods System provided stability and growth to an International finance system that had previously been chaotic and unstable. The currency pegged gold system had miraculously held together for 30 years despite constant weaknesses and problems that kept arising. It is an amazing accomplishment that a number of different countries with different economic goals compromised and played by the rules of the game to maintain the Bretton Woods System for so long.[165]

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[163]Ibid 60-64.

[164] John Charles Pool, and Steve Stamos, *The ABCs of International Finance,* 50-52.

[165]Richard N. Gardner, " The Bretton Woods-GATT System After Fifty Years: A Balance Sheet of Success and Failure', Sterling- Dollar Diplomacy: The Origin and Future of the Bretton Woods-Gatt System," in *The*

Cooperation between governments during the 1960's and 70's to keep the Bretton Woods System afloat for so long is a feat that had never been previously accomplished and might never be accomplished again on an international level. The cooperation of countries with different economic goals to maintain a comprehensive international monetary system was the most impressive aspect of the Bretton Woods System.[166] Different countries working together to maintain the international monetary system is what led to the stability that grew the international economy for two decades despite the inherent weaknesses of the system. While at first different governments banded together in a common strength, eventually domestic economic goals and countries doing what was best for them led to an abandoning of the international financial system.[167] In international finance, stability, which comes from a group of different countries upholding the same rules in the same system, is always fleeting.

In the end despite a constant patching together of the many weaknesses that characterized the Bretton Woods international monetary system the lack of an automatically adjustable balance of payments mechanism and the Triffin paradox lead to the demise of Bretton Woods. Constant deficits by the United States put pressure on the dollar, and despite patchwork agreements like the Smithsonian Agreement, the United States central bank closed the gold window

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Reconstruction of the International Economy, 1945-1960, edited by Barry Eichengreen (United Kingdom: Edward Elgar Publishing, 1996), 617-621.

[166] Ibid 620-621

[167] Barry Eichengreen, *Exorbitant Privilege: The Rise and Fall of the Dollar and the Future of the International Monetary System,* 134-135.

to protect the dollars' international advantage.[168] The Bretton Woods System corrected the instabilities of the international gold standard but possessed its own disadvantages which led to its demise. The two tier convertibility system that defined Bretton Woods had just as many outlying weaknesses as the gold standard. International cooperation would follow the normal pattern of history and fold under the challenges that were presented with maintaining a stable international financial system over the long run.

[168] Bruce G. Resnick and Cheol S. Eun, *International Financial Management,* 30-31.

Section 6: The International Managed Float System

Description and Different International Arrangements

What emerged from the failure of the Bretton Woods System was not a system with more control but instead an international finance system with more freedom and less controls. In the mid- 1970's the managed floating exchange rate system came into existence and has persisted as the international monetary system. Under this floating exchange rate system money flows freely, but there is no price guarantee.[169] A floating exchange rate is where a country's currency is not fixed to any other nations' and the exchange rate between two countries is allowed to fluctuate against each other. When the United States stopped the dollar's convertibility to gold, which caused the collapse of the Bretton Woods System, the nation went to a managed floating exchange rate system. After the United States abandoned the Bretton Woods Systems, the major economies of the world followed its example, all converting to a managed float system. The strength of this system is that rates automatically adjust to equilibrium and countries can lessen the impact of shocks, and avoid the balance of payment and natural resource problems inherent in gold based fixed exchange rates.[170] Countries can control and create policies to affect exchange rates relative to other countries hence the term "managed float".

Countries with large economies that could handle the exchange rate uncertainty and major capital outflows that were persistent in the managed

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[169] Paul De Grauwe, *International Money: Post War Trends and Theories*,55-62

[170]Paul De Grauwe, International Money: Post War Trends and Theories,55-62.

floating exchange rate system let their currencies float while economically weak countries adopted the policy of pegging their currencies to a stronger floating currency like the dollar.[171] These developing countries, who could not tolerate the uncertainty of an ever changing exchange rate, established the fixed currency peg and maintained tight controls to help maintain exchange rates against major economic trading partners. As time went on however more and more countries opted to let their currency float freely against other countries because pegging the exchange rate became increasingly costly with technological progress, a decrease of capital controls, and the risk of losing foreign financial investments to other financial centers with less restrictive controls.[172]

An example of this is the arrangement that was known as the European Snake. In the European Snake the independent countries of Western Europe tried to keep their respective currencies pegged within a 2.25 percent exchange rate fluctuation band that had been outlined in the Smithsonian Agreement in the early 1970's.[173] The removal of capital controls in the late 1980's made (what was known as) the European Monetary System problematic and costly to operate. Keeping up with exchange rate parity that increased with time and the technological advance of the floating exchange system was difficult if not almost impossible. The Western European countries had to keep widening the band of allowable fluctuation until it eventually hit 15 percent in the early 1990's.[174]

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[171] Barry Eichengreen, *Globalizing Capital: A History of the International Monetary System,* 136-138.
[172] Barry Eichengreen, *Globalizing Capital: A History of the International Monetary System,* 140-144.
[173] Ibid, 152-153.
[174] Henry C. Wallich, " The Evolution of the International Monetary System" in *The International Monetary System: Choices for the Future,* ed. Michael B. Connolly(New York: Praeger Publishers, 1982), 284-286.

Some small countries have tried to maintain an adjustable exchange rate peg by creating currency boards which adopt constitutional laws or amendments requiring the central banks of the corresponding governments to peg their currency to that of a major trading partner. This takes away political pressure to do anything but maintain an adjustable peg, but it takes away the ability of the country to act as a lender of last resort to intervene in their economy. This makes currency boards with maintained exchange rate pegs only viable in small countries that depend on foreign support and have undeveloped financial markets, if the currency board is in fact viable at all.[175]

Another option is to try to maintain a pegged exchange rate in an unpegged world. Moving toward or participating in a monetary union, such as the European Union has done recently with its origin in the European Central Bank that was established in the early 1990s. The euro has been a relatively successful endeavor even with the recent pressure put on the currency from the 2008 financial crisis. The monetary union really remains essentially the only acceptable option to independent free floating exchange rates.[176]

Inception, Stability, and Different Crises

The floating exchange rate system was ratified by the IMF in 1976 resulting in the Jamaica Agreement. The details of the agreement included the declaration that flexible exchange rates were acceptable, that central banks were allowed to intervene in exchange markets, and that gold was officially abandoned

[175] Barry Eichengreen, *Globalizing Capital: A History of the International Monetary System,* 156-159.
[176] John Charles Pool, and Steve Stamos, *The ABCs of International Finance,* 48-51.

as an international reserve asset.[177] The non-oil exporting and weaker economies were also given more access to IMF funds and help. As time has gone on, exchange rates have become more unpredictable. With the central banks being able to control the monetary supply in the late 1970's central banks started printing money to finance deficits, and the importation of oil, helping to lead to the period of inflation that characterized the late 1970's.[178]

Some economists of the time had predicated absolute chaos in the foreign exchange markets after the world adopted the free floating system. While there was much greater exchange rate volatility than with the Bretton Woods fixed exchange system, there was no chaos and collapse of the exchange rate system as some economists had feared.[179] Despite external oil shocks, no major currency was extremely under or over-valued during the 1970's which can be considered a general success for the beginning of the floating exchange system. A big part of this success was domestic policy adjustments that caused countries to intervene in the exchange market to forward their domestic economic goals and keep their exchange rates appreciating or depreciating toward equilibrium depending on an economy's particular goal.[180]

The first case of prolonged overvaluation without a return to equilibrium came in the early 1980's in the United States. Paul Volcker let interest rates rise and the growth in the money supply fall to facilitate a decrease in the high

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[177] Jacob A. Frenkel, "The International Monetary System: Should It Be Reformed" *The American Economic Review* 77, No. 2. (May 1987):205-210. Accessed November 20th 2013, JSTOR Archive.
[178] Ibid, 205-210.
[179] Barry Eichengreen, *Globalizing Capital: A History of the International Monetary System*, 140-145.
[180] Ibid, 145-151.

inflation that plagued the United States in the late 1970's. According to Interest Rate Parity theory, the United States high interest dollar should have depreciated against other country's low interest rate currency. In this case the Interest Rate Parity did not hold true. The United States interest rates and value of the dollar rose as compared to other major powers currencies.[181] The United States left it to the market to push the dollar back to equilibrium, but instead it continued to appreciate and maintain a period of overvaluation. Even when the United States Interest rate began to fall, the currency still inexplicably appreciated. In 1985 the five major G-5 countries met in New York City and agreed to try and depreciate the dollar against other major currencies and solve the U.S trade deficit in what was known as the Plaza Accord. The dollar started its decline in 1985 due to the five major powers intervening in the exchange markets to depreciate the dollar.[182]

The dollar would continue to rapidly depreciate throughout the 1980's which would lead to another problem in the international exchange market. The Dollar was allowed to depreciate too far leading to the dollar being undervalued for a period of time. When the dollar continued its decline instead of trending back toward equilibrium in 1987, a meeting of the G-7 nations was called at the Louvre. The meeting at the Louvre created an agreement known as the Louvre Accord which ushered in a more managed free floating system.[183] The G-7 countries agreed that they would cooperate to achieve greater exchange rate

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[181] Paul Davidson, *International Money and the Real World*(New York: St. Martin's Press, 1992), 228-229.
[182] Paul Davidson, *International Money and the Real World,* 229-233.
[183] Richard M. Cooper, *The International Monetary System: Essays in World Economics*, 34-39.

stability and more closely align their macroeconomic policies. This lead to an increased stability even though the dollar continued to be undervalued throughout the early 1990's because a lack of policy implementation that was previously agreed to in the Louvre Accord. The dollar finally began to appreciate again in the late 1990's due to a technology boom where foreign investment reached a high rate in the United States.[184]

European Union and Corresponding Table

While the United States and many of the major Asian economies followed an unfettered but "managed" free float system, the European nations continued to focus on monetary unification. The European nations replaced their original snake agreement with the European Monetary System in 1979. The EMS was created to ensure a region of monetary stability paving the way for a system of combined currency for the nations of Europe. The two main mechanisms of the EMS were the European Currency Unit and the Exchange Rate Mechanism. The European Currency Unit was a kind of basket currency that took into account weights based on each currency's GNP and share in the EU trade. The Exchange Rate Mechanism or ERM was the procedure by which the nations of the EU managed their exchange rates. The mechanism is a parity based system in which par values are computed in terms of the European Currency Unit.

[184] Barry Eichengreen, *Globalizing Capital: A History of the International Monetary System*, 150-152.

Throughout the 1990's the European nations coordinated their fiscal and monetary goals to try and achieve a union of their economies.[185]

On January 1st 1999 what has become known as the European Monetary Union adopted the euro as a common currency to rival the dollar and other major currencies of the world.[186] While the euro has run into weaknesses exposed by the 2008 financial crisis with its stronger economies having to support its weaker ones, the euro has remained a viable currency. While it has not become the rival to the dollar that many economists thought it might be, it is still one of the most used and significant currencies in the world. The euro has been a nice experiment and has shown decent resolve in the recent financial crisis when many thought it might fail. This is demonstrated in Table 1.

Table 1.1: Currency Composition of Official Foreign Exchange Reserve 2008-2012

Claims in Currency	Data Source	Unit	Scale	2008	2009	2010	2011	2012
Claims in U.S. dollars	Currency Composition of Official Foreign Exchange Reserves (COFER)	US Dollars	Billions	1477.437	1583.921	1764.447	2006.002	2051.665
Claims in pounds sterling	Currency Composition of Official Foreign Exchange Reserves (COFER)	US Dollars	Billions	59.063	67.742	68.165	76.702	99.568
Claims in Japanese yen	Currency Composition of Official Foreign Exchange Reserves (COFER)	US Dollars	Billions	93.869	95.251	121.146	132.512	165.266
Claims in Euros	Currency Composition of Official Foreign Exchange Reserves (COFER)	US Dollars	Billions	514.359	620.637	650.831	675.781	800.492

[185] Richard M. Cooper, *The International Monetary System: Essays in World Economics*, 190-195.
[186] Barry Eichengreen, *Exorbitant Privilege: The Rise and Fall of the Dollar and the Future of the International Monetary System,* 130-135.

Claims in other currencies	Currency Composition of Official Foreign Exchange Reserves (COFER)	US Dollars	Billions	53.882	62.947	105.155	124.253	96.195

Source: "Currency Composition of Official Foreign Exchange Reserve," International Monetary Fund: Data and Statistics, last modified 2011, accessed August 19th, 2014, http://www.imf.org /external/data.htm

As long as the political and economic agendas of the European powers continue to be the same, the euro will survive. Eventually though, as history has shown, a nation will follow its own economic agenda in the face of repeated economic pressures. When a crisis arises that leads one of the major powers of the EU (such as Germany) away from maintaining the euro, and in a different direction, the EU will be hard pressed to maintain the status quo, resulting in possible collapse or change. History has shown that no political economic alliance, no matter how strong, lasts forever.

There have been two other major crises under the floating exchange finance system. The Mexican peso crisis started in 1994 when the Mexican government decided to devalue the peso against the dollar by 14 percent. This devaluation caused a run on selling peso as well as Mexican stocks. The peso fell against the dollar by as much a 40 percent and forced the peso or Mexico to enter a international float. Investors turned away from Mexico and other Latin American markets.[187] The United States and the IMF eventually would have to bail out Mexico, for its government to avoid default. This crisis would lead to a 50

[187] Andreas F. Lowenfeld, " The International Monetary System: A Look Back Over Seven Decades." *Journal of International Economic Law* 13 No. 3 (October 2010):575-578. Accessed December 12th 2013, JSTOR Archive.

billion dollar bailout fund for the IMF who could bailout countries who face turmoil and default. This crisis led to the realization that a single country could not handle a global crisis alone in this age of interdependent global economies.[188]

The Asian currency crisis was another period of fragility during the 1990's. The Thai baht, which had been fixed or pegged to the U.S dollar, was devalued leading to a global crisis. Countries in the Asiatic and in Latin America saw their currencies start to dramatically depreciate against the major currencies. Many institutions in these countries were forced to default leading to a long lasting recession in Asia and South America.[189] In a globally interdependent world the effects were felt all over and even in the United States as the government had to bailout Long Term Capital Management, a hedge fund company that invested heavily in Russian stocks and bonds. The crisis was caused by a weak domestic financial system using inconsistent economic policy and spread through the free flows of capital that define the floating exchange rate system and a globally dependent economy.[190] The IMF would have to bailout the hardest hit countries before they would start to recover. Weak currencies and financial systems combined with the increased freedom of financial markets have created currency crises under the flexible exchange rate system.[191]

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[188] Ibid, 585-588.
[189] Ibid, 586-587.
[190] James Tobin, " Financial Globalization: Can National Currencies Survive?" (paper presented at Cowles Foundation for Research in Economics Conference, New Haven, Connecticut, July 1998).
[191] Barry Eichengreen, *Globalizing Capital: A History of the International Monetary System*,188-190.

Strengths, Weaknesses, and Future

The world continues to adhere to the managed floating exchange system which has both its strengths and weaknesses. Despite what I have described to support the system, many economists claim that the current International financial system of managed floating exchange rates has been detrimental to the growth of the global financial system and is too unstable. In the floating exchange system countries are forced to move through cycles where their currencies are either overvalued or undervalued for long periods of time. Interventions by countries in their international exchange rates and monetary policies have often caused declines in trade and have held trade between countries back.[192] Countries like China can use unfair monetary policies to keep the value of their currency low compared to other countries and stimulate exports for example. Many economists thought that the balance of payment problems that affected the Bretton Woods system and brought its demise would not affect the floating exchange rate system. Large amounts of debt and deficit have been collected by major industrial nations threatening financial viability during the last couple decades which has not been quickly corrected by arbitrage.[193]

One reason for this is that countries influence their own decisions more in this system and there is no agreement on what is good for the world economy but instead only national economies. The second reason is that the high variability of exchange rates has reduced the effectiveness of nations in changing

[192] Paul De Grauwe, *International Money: Post War Trends and Theories*, 239-242.
[193] Paul De Grauwe, *International Money: Post War Trends and Theories*, 239-242.

prices and quantities in international trade.[194] These are some of the reasons some economist and nations have lobbied for a fixed exchange rate system or a system like the gold standard. A Fixed international financial system leads to long term stability and curbs the cycles the floating exchange rate system goes through. Many economists have proposed going back to the gold standard system because of its simplicity and stability. They seem to ignore the fact that gold is a limited resource that cannot be readily made like currency and eventually confidence in the currencies pegged gold will decline as more currency needs to be printed in continually growing economies.[195]

The development of the current managed float international finance system is the culmination of a history of change in international finance that progressed from the gold standard and fixed exchange Bretton Woods System and will eventually result in further change to international finance. The history of the international financial system can help us to critically examine the current and past systems of international finance determining the strengths and flaws of each system. The international financial system has gone through perpetual changes throughout its history and will continue to go through small and large changes, even if those changes aren't in the near foreseeable future.[196] In this ever growing global economy, philosophies over the best global monetary system are

[194]Ibid 240-245.
[195] Richard M. Cooper, *The International Monetary System: Essays in World Economics*, 13-26.
[196]Robert A. Mundell, "The Case for A Managed Gold Standard" in *The International Monetary System: Choices for the Future,* ed. Michael B. Connolly(New York: Praeger Publishing, 1982), 5-11.

abundant and controversial making the only thing certain about the future of the international economy is that nothing is certain.

Section 7- Conclusions and the future of the IFS

Arguments for a Floating Exchange System

The international financial system can be characterized in the current world of interdependent economies as the loosely maintained trade and monetary arrangement in which countries act independently in their best interests, affecting other economies and the financial system as a whole. The international monetary system it seems is always on the precipice of change, with economists forever arguing about which international system worked best in the past and will perform best in the future, meeting the needs of an ever evolving economic system. History has demonstrated to the modern world that there is no perfect system and that the world usually trades one set of economic weaknesses for another set of economic weaknesses. While most economists try to research and persuade others on which economic system is best, it is probable that, as a whole, the world should be arguing about which system can we live with and maintain to cultivate stability in a system that has proved to be inherently unstable in the long run.[197] The system that has been the most flexible allowing for nations to act independently while maintaining some stability in the interdependent world economy is the floating exchange system.

[197] Milton Friedman, *Capitalism and Freedom*(Chicago: University of Chicago Press, 1962.), 67.

While it is impossible to argue that the current floating exchange system would be the best international system in every situation and every circumstance the future might hold, a system with free floating exchange rates allows for flexibility, use of effective monetary policy, and does not fail or breakdown from a currency crisis. In the floating exchange rate system countries do not have to follow what is known as the "rules of the game" and can instead make the best choices for their economy independently through monetary policy.[198]

Some of the blame for the failure of the gold standard and Bretton Woods Systems respectively has to be attributed to different countries having to work together economically and politically to ensure the survival of the system due to currency crisis and a lack of confidence in currency. Once a major economy decided that the current system did not benefit their economic goals, they would abandon the "rules of the game" and act in their own best interest placing stress on the international financial system. This stress, with a multitude of other factors and weaknesses, would lead to the abandonment of the system and implementation of a new system. This is both evident in the high inflation and confidence problem that doomed the gold standard and the Triffin Dilemma which outlined the weaknesses inherent in the Bretton Woods System. Despite constant calls for a different international monetary arrangement, the floating exchange system has been maintained for over 30 years due to its political economic flexibility and adequacy as an international finance system.

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[198] Alan C. Stockman, " Choosing an Exchange Rate System." *Journal of Banking and Finance 23,* No. 1 (1999): 1489-1490, accessed December 20th 2013. JSTOR Archive.

When a fixed regime rate is adopted, such as the Gold Standard and Bretton Woods, the central banks of the world must interact following a set of international rules known as the "rules of the game." If these rules are abandoned by one or more countries, it puts pressure on the remaining central banks trying to maintain an international system. In some cases this diversion from the "rules" can, with other factors, result in the failure or abandonment of an international monetary system.[199] One example of divergence occurred in the early 1970's under Bretton Woods. One can analyze this through the classic economic game theory known as the "Prisoners Dilemma."

"Prisoners Dilemma"

In the "Prisoners Dilemma" two prisoners convicted of a crime are offered a deal. If the prisoner confesses he will receive a lighter sentence and the other prisoner will receive a harsher sentence. If neither prisoner confesses, sentences would be lighter than if both confessed. The rational outcome is that the prisoners try to procure the lightest sentence for themselves and confess. The rational outcome results in a slightly harsher sentence then if both prisoners were silent but a more lenient sentence than if both confess.[200]

In international finance the same theory can be applied to central bank's following the rules of the game. If country A diverts from the "rules of the game," following their own best interest, it is able to grow and benefit from a positive

[199] Robert S. Pindyck and Daniel L. Rubinfeld, *Microeconomics* 7th Edition(New Jersey: Pearson Education Inc. 2009), Pg. 462-466
[200] Ibid Pg. 462-463

economic reward, as long as country B continued to follow the “rules of the game”. If central bank A and B follow the rules of the game, economic growth will remain positive but not as positive as if one country diverted from the rules while the other country followed. If central banks A and B don’t follow the rules, the result is worse than if both followed but better for either bank A or B if they upheld the rules while the other bank broke them. The rational outcome is that both central bank A and B will break the rules, and follow their own agenda because they don’t want the worst outcome which is if they followed the rules, while the other bank broke them. This happens even though the best outcome is clearly for them both to follow the “rules of the game.”

This is what eventually happened under the fixed rate regimes of the past. The logical outcome is for rational countries to break the “rules of the game” at the risk of another central bank doing this and reaping the rewards. Eventually as central banks start to divert and break the rules, pressure is put on central banks that remain true to the rules, resulting in the failure of the fixed regime rate system. There can be no “rules of the game” present in an international monetary system because central banks will rationally do what is best for their country and break those rules. One advantage of free floating exchange rate systems is that there are no rules, and central banks are allowed to follow their own best interest.

Before the Bretton Woods System met its final demise, many economists thought floating exchange rates were a lunacy that would result in pure chaos of

the international financial system.[201] Many thought floating exchange rates would make the market so volatile and unpredictable that trade would be impacted and that there would be no sustained international economic growth.[202] While an International managed float is prone to greater amounts of fluctuation than pegged or fixed exchange rate system, the difference is not very dramatic and is a small price to pay for the greater flexibility and prospective longevity without failure that the current floating exchange rate system can provide. Hedging and derivative tools in the foreign exchange markets also provide a way to protect against instability and loss, promoting international trade.

Criticisms and Defense of Floating Exchange

Critics of the current floating exchange system have offered the same criticisms since the beginning of the floating exchange. The first major criticism of the free floating exchange regime is that it does not provide stability for trade and economic growth. This phenomenon is greatly exaggerated and has been even before floating exchange rates were prevalent in the international economy.[203] Floating exchange rates do have greater variability and are hard to predict in the short run, but rigid exchange can't be counted on to be upheld for a long period of time without faltering like the gold standard and Bretton Woods Systems.

There is major criticism of the current international managed float financial system, but a better system has not been created. The future of the international

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[201] W.M Scammell, *The Stability of the International Monetary System*(New Jersey: Rowman and Littlefield Publishers, 1987), 45-47.
[202] Ibid. Pg. 45-47
[203] Alan C. Stockman, " Choosing an Exchange Rate System." Pg. 1488

financial market looks remarkably like it does today with not much change in the short or long run. Even if a new system was created by the international community which it won't be according to the history of other changes in the financial system, it would take about ten years to actually take effect. In the long run, cooperation between countries is not likely after so many years of independence. Even with the global economy struggling from the recent depression, the fact remains that countries don't work well together and cannot abide by the rules necessary in a fixed rate system. In this globally interdependent economy countries act independently in their own best interest to create the best economic conditions possible domestically. This resulted in the downfall of the gold standard based financial system and would lead to the failure of any future systems created that depend on an agreement between nations.

Nations have been conditioned to act in their own best interest over the last four decades of the independent float system, and the ever changing capital flows that have characterized the current system make it difficult to go back to a pegged exchange world. Such collaboration between countries is extremely rare unless it benefits all countries. While short term pacts between countries are possible, they are inherently doomed to fail in the long run.

Another criticism of a floating exchange rate is that the balance of payments mechanism does not adjust instantly to the market, creating prolonged deficits and surpluses in the current accounts of countries.[204] This is fundamentally true despite the fact monetarist and proponents of the floating

[204] Alan C. Stockman, " Choosing an Exchange Rate System." Pg. 1488

system have ignored this fact. One reason the floating exchange system does not automatically adjust in the short run is because of government intervention in the adjustment system. International capital flows can be distorted by governments who constantly try to maintain more exports than imports and a positive current account or even from uncontrolled private capital flows that are constantly growing.

Many argue that under floating exchange rates there are constant misalignments in which currencies are overvalued and undervalued. There were also misalignments under the pegged system and the pegged system is also not well equipped to deal with these currency misalignments.[205] Breakdowns of currency during pegged exchange rates are much more costly. With floating exchange rates, the currency can adjust more fluidly to equilibrium, and exchange rates can adjust to different market conditions. Periodic crisis is an inevitable part of real world economics in a pegged system as well. The pegged system is not equipped to handle these times of turmoil resulting, in high cost and their eventual demise. Economists can design pegged exchange rate system models that don't experience such flaws, but those models do not work when applied to the real and many fluctuating variables in the actual world economy. Under floating exchange rates, countries create their own predicaments by not exercising discipline. However, their problems are more easily correctable as the exchange rate eventually adapts to different market conditions.

[205] W.M Scammell, *The Stability of the International Monetary System,* Pg. 154-156.

These countries are following rational expectations and doing what is best for their country's economic situation. What critics like Joseph Stiglitz seem not to realize is that countries didn't exercise discipline under a fixed exchange rate system either. The fact that countries like France did not exercise what some economists consider discipline and follow the "rules of the game" led to the demise of the Bretton Woods System.[206] Many would argue that using the dollar as the international reserve currency was the critical flaw of Bretton Woods, but these failures are unavoidable no matter what currency is used if a major economic power is in disagreement at any time during a currency's existence. The major world powers could not maintain a prolonged agreement even when most nations were increasing their GNP yearly under the Bretton Woods System.[207] It seems pure lunacy that the major economies of the world would be able to maintain an agreement today to maintain a fixed currency after more than 30 years of acting independently.

Inherent Flexibility in the System

Milton Friedman stated, "Our problem is not to "solve" a balance of payments problem. It is to solve the balance of payments problem by adopting a mechanism that will enable market forces to provide a prompt, effective and automatic response to changes in conditions affecting international trade."[208] The floating exchange rate does not adjust automatically as it should because central governments try to control their exchange rates to gain an advantage to achieve

[206] Jacob A. Frenkel, "The International Monetary System: Should It Be Reformed" Pg. 208
[207] Alan C. Stockman, " Choosing an Exchange Rate System." Pg. 1490-1493
[208] Milton Friedman, *Capitalism and Freedom,* Pg. 67

a constant surplus and constantly increasing uncontrolled capital flows. The dilemma is that the floating exchange rate system allows countries to use monetary controls to pursue economic goals resulting in what some might consider unethical actions by central governments. The fixed exchange rate system does not allow countries to act in their best interest resulting in the divergence of major economies in the fixed system, eventually contributing to its unavoidable downfall. There is no easy solution to this problem unless a utopian system was to be created combining the floating system's flexibility with the fixed systems stability and cooperation. Basically that would mean the creation of a system where it was advantageous for every economy to act in the best interest of all economies.

While it is nice to dream of such a perfect scenario, the fact is that the floating exchange rate system, while not being the perfect system, maintains somewhat of a balance and does not crumble under the pressure of countries diverging from the support of a fixed exchange rate. The eventual solution to the government export interference problem is the mounting pressure that will continue to be placed on countries unfairly maintaining positive capital flows by other major economies and world powers. While applying this pressure is often held up in bureaucracy and world politics, once powerful economies pressure artificially bolstered divergent economies to the point where it is not economically and politically advantageous to artificially maintain such a system, divergent countries will relent back to normalcy.[209]

[209] W.M Scammell, *The Stability of the International Monetary System,* Pg. 124-127

While many would see the IMF or another international economic agency have the power to pressure and sanction countries who unfairly maintain a balance of payments surplus, it would not be ideal because it would again be proposing a veritable "rules of the game."[210] This would result in the dissolution of the floating exchange rate system's flexibility and lead to the demise of the current and most well suited international system. If there was no government interference and unrestricted capital flows, the balance of payments mechanism might adjust more appropriately and immediately in theory, but because of government interference it only adjusts appropriately in the long run.[211] While it is not the perfect system the current floating exchange rate system is the most complete and maintainable of all the previous international financial systems.

Over the past 20 years, increased global monetary integration and rapidly adjusting international transaction have led to a major increase in international capital flows. Capital flows have increased by over 300 hundred percent while trade flows have increased by a small margin comparatively of 26 percent.[212] With external shocks affecting economies quicker than ever because of the increase of capital flows it is important to have an adjustable exchange rate system that allows governments to better deal with volatility. A rigid exchange system with a finite amount of currency such as the gold standard and Bretton

[210] Alan C. Stockman, " Choosing an Exchange Rate System." Pg. 1495-1497
[211] Milton Friedman, *Capitalism and Freedom,* Pg. 73-75
[212] Martin D.D. Evans, and Victoria Hnatkovska, "International Capital Flows, Returns and, World Finical Integration." *Journal of International Economics,* 92, No.1(October 2005): 14-16, accessed August 15th 2014, http://www.nber.org/papers/w11701.pdf

Woods System would fail as a result of the challenges of increased capital flows in an increasingly globally interdependent world.

A pegged or rigid exchange rate regime also limits the tools available to a government that is trying to reduce the economic shocks as a result of the volatility of increased capital flows. In fixed exchange systems, monetary policy is needed to adjust the exchange rate and balance the current accounts. If monetary policy is used domestically, then it can't be used in bringing equilibrium to international agendas and long term imbalances in the current account occur. Theoretically, flexible exchange rate systems automatically adjust, balancing the current account, leaving fiscal policy free to use on domestic economic agendas. In today's world of instant international trading and constantly increasing capital flows, there is no returning to fixed exchange rate system.[213]

The Future of International Finance

A major focus of many economists recently has been predicting the future of the international finance system and asking what is the most desirable system? In the near future it is prudent to think that the international monetary system will look and operate the same as it does today. The international financial system will still be under the regime of the current floating international financial system. Over the past 30 years the system has evolved into more of a

[213] Martin D.D. Evans, and Victoria Hnatkovska, "International Capital Flows, Returns and, World Finical Integration." Pg.16-19.

"managed float" instead of what economists like Milton Friedman had envisioned when championing the free floating exchange rate system in the 1950s and 1960s.[214] This trend will continue and the floating system will tend be more managed and the exchange rate kept within more strict bands resulting in more stability perhaps, but also more balance of payment and capital flow distortion.

The flexibility of the floating system allows it to evolve in the interdependent world but, for the most part, the international financial system will look remarkably the same in the next 10 to 15 years. As history has demonstrated to us over the past 150 years, the international financial system does not change rapidly overnight. Even though there has been a constant call for change in the international system by many economists, change will take a major economic crisis that results in political pressure and upheaval in one of the major world economies. The United States, still the dominant economic power of the world despite recent opinions that China is slowly becoming dominant, would probably have to be on board with such a change.

A change in the international economic system has to result from the major world economic powers thinking that it is the best course of action for their nation resulting in some sort of agreement, which of course would eventually be broken, resulting in more change. An example of this is the two major economic powers of the day, creating the Bretton Woods System after World War II. Even after such a system was created, it would take 10 to 15 years to go into effect and work properly, as we saw with Bretton Woods and the current floating

[214] Alan C. Stockman, " Choosing an Exchange Rate System." Pg.1490-1493

system.[215] Between the development and implementation of a new international finance system, it would take 15 to 25 years to become fully functional depending on the amount of dissent between economic powers when the system is created.

Based on historical evidence, it is almost certain that the ever fluctuating international monetary system will change from the managed float to a new system eventually. In the immediate future however the floating exchange rate system is the best option and will be maintained until a major crisis and economic consensus among world powers leads to a gradual overhaul of the current system. For the foreseeable future however, the floating system will remain dominant and be argued over incessantly.

An important part of the floating exchange rate system moving forward is what will be used as global currency. Since the end of the World War I and the blossoming of the United States economy, the dollar has been essentially the predominant international currency. The United States has reaped the reward of seigniorage and the benefits that come with printing the international currency. Many economists see the dollar's reign coming to an end in the near future and the rise of China's renminbi and the still remaining albeit diminished present threat of the euro. While economists tend to overstate the threat of other currencies to the dollar's premier global position, the dollar has been considerably weakened against other currencies over the past decade.[216]

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[215] George Schild, *Bretton Woods and Durban Oaks: American Economic and Political Postwar Planning in the Summer of 1944,* 123-125.

[216] Barry Eichengreen, *Exorbitant Privilege: The Rise and Fall of the Dollar and the Future of the International Monetary System.* Pg. 4-8.

America remains the strongest political and economic power in the world presently, and the dollar will follow suit as international currency until that power is challenged during a major global event. While another currency might rise to become the international currency, it will do so slowly, little by little taking over the dollar as the United States economic and political position decline. The dollar will remain the international currency in the current floating exchange system in the future because presently the United States is still the world's predominant economy.

Whatever nation in the world that is the strongest politically and economically should have the exorbitant privilege that characterizes maintaining the global currency, whether that currency is the dollar, the euro, or the renminbi. It should be noted, the world power has to be economically capable of running constant deficit as well. A global international currency, such as the bancor proposed by Keynes or the weak SDR created by the IMF to save Bretton Woods, is not feasible in today's economic climate. Throughout the 20th century the most advanced and strongest global power has affected global economic policy decisions and exercised political pressure against those nations who have not reflected their economic policy decisions. There is no greater example than the United States cementing the dollar's international reserve position during the Bretton Woods Conference. Great Britain bent to the will of the new world economic power in a changing of the guard essentially.[217]

[217] Andreas F. Lowenfeld, " The International Monetary System: A Look Back Over Seven Decades.", *Journal of International Economic Law* 13 No 4. (October 2010): 575-578. Accessed January 23rd 2014, JSTOR Archive.

While an international reserve currency that isn't a nation's currency would be much more stable and fair, the fact is that no powerful nation is going to sacrifice their exorbitant privilege to make way for an independent international currency. The nation would not only be betraying its own best interest but would have to bolster and back up the new currency to give it a guarantee of legitimacy. The United States currently, and any other nation in the future, would almost certainly not be willing to bolster a new currency while giving up an economic advantage. While Keynes' idea for an international currency was brilliant and would probably be the most fair and balanced international reserve currency, no nation would ever agree to willingly give up it its economic power to back such a currency. This very situation came to fruition at the Bretton-Woods conference when America would not agree to an independent international reserve currency and sought successfully to make the dollar the international reserve currency. Keynes was one of the most brilliant economic minds of his time but was naïve when it came to the politics that are so prevalent in international economics.[218]

A created form of international fiat to settle the current accounts balance independent of national money will always take a back seat, even in international finance to established strong national currencies. An international reserve currency must have legitimacy and the confidence of the international community. Creating new money that has the confidence of the people and nations is nearly an impossibility on an international level and cannot happen without the backing of the most powerful central banks of the world. The

[218] Benn Steil, *The Battle of Bretton Woods: John Maynard Keynes, Harry Dexter White, and the Making Of A New World Order,* 2-7.

international reserve currency will remain the tender of the most powerful economy in the world and independent reserve currencies will always be a second line in international finance.

During the recent economic crisis, there has been an ever increasing debate about the need for sovereign bankruptcy rules due to the high amount of debt incurred by some European nations. Currently there is no formal procedure for restructuring the debt of sovereign nations. The IMF have proposed a mechanism and rules to restructure sovereign debt, but the creditor nations of the world have given no support to this new proposed set of rules. The powerful creditor nations don't want to give up any freedoms or economic power to the IMF or any set of world economic rules that might constrain them. Making it easy to restructure sovereign debt might also lead to a reduction in sovereign lending if a restructuring of debt is easier and less costly than the lending process.[219]

Any set of rules that seek to govern and supersede the power of any of the strongest world economies will never be agreed to and would never work unless the set of rules were advantageous to all of the most powerful world economies. Without the consensus of the United States and other strong economies the IMF will never be able to enact a set of strict sovereign bankruptcy rules. Despite costly bailouts, powerful nations will come to the support of foreign nations in danger of default. The modern interdependent world of international finance dictates that creditor nations lend to bailout debtor nations because of the impact of sovereign default would have on all nations of the

[219] Barry Eichengreen, Globalizing Capital: A History of the International Monetary System. Pg. 96-99.

world. When a powerful country knows that the sovereign bankruptcy of another country might jeopardize the stability of their economy, the creditor nation will come to the aid of the defaulting nation. While this may not be the most efficient result, the powerful economies of the world would never allow a set of rules that take away their flexibility and lending power.

The best international monetary system would be a free floating exchange system with an instantly adjustable balance of payments capital flow mechanism where government and central banks intervene as little as possible considering both what is good for the world economy as well as their national economy. Unstable capital flows would have to be regulated and tolerated to a certain extent. The most stable international economic system is one without commitments. Unfortunately politics and human tendency make the most desirable options for a comprehensive international system a utopian unreality that has many economists grasping at optimism and inapplicable ideas.

While the inability to control unregulated capital flows is a weakness of the floating exchange system, James Tobin's proposed currency transaction tax known as the "Tobin Tax" offers a solution. The "Tobin Tax" is a small tax that is levied on foreign exchange transactions that was proposed to lessen the severity of exchange rate volatility due to capital flows. Tobin proposed a 0.5 % tax that discourages very short term investments in foreign currency and lessens exchange rate fluctuation.[220] Tobin believed that the only ways offset short term exchange volatility was either through his proposed currency tax or by moving

[220] Bruce G. Resnick and Cheol S. Eun, *International Financial Management*, Pg. 76.

toward a common currency with greater economic interdependence. While Tobin preferred a uniform common currency, he saw this solution as impossible and politically unviable. Tobin's suggested tax would be proportional and take place during spot rate conversions of currency. Each country would levy the uniform tax and be responsible for collecting that tax within its borders. The tax could then be deposited to an IMF fund. This "Tobin Tax" allows governments to temper exchange rate volatility with minimal political cooperation.[221]

In addition to the "Tobin Tax" there have recently been other attempts to regulate the risky unchecked movement of capital. There are many negative risks that come with the increasing capital flows that have come characterize the international float. These dangers include the risk that a country's currency might collapse following investor's decisions to sell their holdings. It also includes the risk that private and public borrowers that are susceptible to internal and external shocks will have the inability to meet their obligations.[222] Another concern of unchecked capital flows is the risk that owners of liquid financial assets will seek to sell of their holdings at the sign of a shock, increasing instability of assets in an economy.[223]

One of the proposed alternatives to the transaction taxes that both Tobin and Keynes proposed are known as "trip wires" and "speed bumps." "Trip wires" are any economic indicators that warn policy makers when an economy is

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[221] James Tobin, " Financial Globalization: Can National Currencies Survive?" Pg. 166-167.
[222] Ilene Grabel, " Regulating Capital II: Capital Account Controls and Currency Transaction Taxes." (paper presented at Alternatives to Neo-Liberalism conference of the coalition New Rules for Global Finance, Washington DC, May 23-24, 2002). Pg. 4-5.
[223] Ibid. Pg. 4-5.

approaching a high level of currency and investor flight risk. “Speed Bumps” are capital control policies or measures that target capital flow risk when an economy demonstrates signs of instability or massive financial movements. A possible economic “trip wire” that might warn policy makes of capital flow risk is the ratio of official reserves to total short term external obligations. Some possible “speed bumps” that economic policy makes could use to slow down capital flows are limiting the convertibility of currency, slowing the pace of foreign imports and borrowing, and slowing the entry and exit of portfolio investment. Governments should be cautious when adopting capital flow regulation policies such as “speed bumps and “trip wires” because of substantial decreases of both domestic and foreign investment that such regulations could bring. It is also impossible for “trip wires” to alert policy makers to economic risk in every situation which makes early warning systems such as “trip wires” ineffective.[224]

The countries of Chile, Columbia, and Brazil have used strict regulation and control to manage exchange rates and capital inflows. What is known as the “Chilean model” was created in the early 1990s as a program of inflow management. Under this model the Chilean government created a foreign loan tax of 1.2 % per year, maintained a banded exchange rate, and only allowed pension funds to invest 12 % of their assets abroad. Under this capital control regime foreign loans also faced a tax of 1.2 % per year and Chilean authorities

[224] Ibid Pg. 6-7.

imposed a non-interest bearing reserve requirement of 30% on all types of external credit and foreign financial investment.[225]

It is believed that by negating the risk of capital flight and the likelihood of a sudden foreign investment that Chile might have avoided currency crisis and other economic shocks that plagued similar developing economics during the time period. By essentially managing and restricting risky and foreign investment, Chile mitigated many of the perceived risks that come with uncontrolled capital flows. Columbia followed a similar strategy during the time period and required that non-interest bearing reserves of 47% be held for one year against short term foreign loans. During this time in Columbia, foreign borrowing related to real estate and the foreign purchase of debt was also restricted.[226]

Brazil adopted a similar strategy as well after the 2008 world financial crisis. The Brazilians adopted of foreign investment tax of 2% in 2009 and then raised that tax to 6% in 2010 to prevent foreign capital outflows after originally facilitating an increase of foreign investment in 2008. These capital controls imposed by three respective emerging economies protected their economies from capital out flows and potential currency crisis leaving them in control of policy. The problem is that in a global economy the restriction of foreign investments leads to a decrease in foreign investment, which eventually resulted in the abandonment of strict capital controls in each country. A rising current account deficit in Chile and a radical reduction in capital in-flows led to the

[225] Ilene Grabel, " Regulating Capital II: Capital Account Controls and Currency Transaction Taxes." Pg. 6-10.
[226] Ibid. Pg.6-10

abandonment of capital controls in that economy. Eventually capital started to poor out of Brazil, leading to a depreciation in its currency and the abandonment of capital controls as well.[227]

While some form of capital control is needed in the floating exchange rate system, such as a "Tobin Tax," harsh restrictions imposed by governments such as Brazil and Chile are just not viable options in a globally dependent world. While harsh restrictions can control capital out-flows, it will also restrict needed foreign investment and capital in-flows. While harsh restrictions are more sustainable in developing economies, in advanced economies, they would act as a hindrance. Unmanageable capital flows that can be a perceived weakness of the floating exchange are best regulated by moderate proportional taxes and not harsh restrictions against any foreign capital movement.

While countries may try to loosely maintain a set of rules or global standard when it comes to a time of crisis or an opportunity for great benefit, a country will defect from the collective whole and act as an independent nation. In the face of crisis, the gold standard could not be maintained by countries who were trying to act in a way to help the people of their country. Today's floating exchange system came into being because of countries acting independently and will remain the dominant financial system for the foreseeable future because it allows for independence during crisis and benefit, especially if the country happens to be a world power.

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[227] Ilene Grabel, " Regulating Capital II: Capital Account Controls and Currency Transaction Taxes." Pg. 10-15.

The current managed floating exchange system is the culmination of the previous international systems and is much more stable and workable then it seems. The floating exchange system may not be the perfect financial system and has its flaws, but these flaws are more easily corrected and recoverable than in the two previous international systems. The current floating exchange system has become more restrictive and managed over time proving its adaptability to change. It is the floating system's ability to adapt that makes it the system best suited to deal with future turmoil and constant political change that characterizes the new truly globally interdependent financial system.[228]

The floating international exchange system has now been the international system longer then the Bretton Woods Systems proving its relative longevity in international finance. While the system has changed over time to adapt with stricter exchange rate bands and new computerized technologies, the free floating system is stronger than most realize. The free floating system gives countries and central bank's independence to determine their own fates whether it negatively or positivity effects the rest of the world and that is what provides this free floating exchange rate system with such flexibility and the ability to remain a viable system.[229] The floating exchange rate system will remain the international monetary system for the foreseeable future until a system that is more adaptable and has fewer flaws is created and implemented. Floating

[228] Alan C. Stockman, " Choosing an Exchange Rate System." Pg. 1492-1494.
[229] Ibid, Pg. 1493-1494.

exchange rates provide the best option in a world where politics has a major influence over economics and interdependence characterizes global economics.

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