

The Bretton Woods International Monetary System: The Act and Impact of Dissolution

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ABSTRAKT

Tato práce pojednává o identifikaci příčin vzniku a zániku Brettonwoodského mezinárodního měnového systému. Dvacáté století bylo tou nejbouřlivější dobou pro finanční trhy. Po konci Druhé Světové Války bylo hlavní prioritou vytvoření životaschopného systému pro rozvoj mezinárodního obchodu. Brettonwoodská konference takový systém vytvořila v roce 1944 a stanovila tak směr budoucího vývoje finančních trhů. Po více než 20ti letech činnosti byl Brettonwoodský systém v roce 1971, jako následek Nixonova Šoku, rozpuštěn. Tato práce se zabývá skutečnostmi předcházejícími vznik Brettonwoodského systému, následnou činností MMF a hlavními příčinami skonu Brettonwoodského systému.

Klíčová slova: Bretton Woods, Mezinárodní Měnový Fond, Směnný kurz, Monetární politika, Zlatý Standard, Platební Bilance, Devizový trh

ABSTRACT

This thesis concerns with the identification of underlying causes of the Bretton Woods international monetary system formation and dissolution. The twentieth century proved to be the most disruptive era in the history of financial markets. After the events of the World War II, a viable framework for the facilitation of international trade was a major priority. The Bretton Woods conference of 1944 established this framework and marked the future of economic development. After more than 20 years of operation, the Bretton Woods system was dissolved following the events of the 1971 Nixon Shock. This work addresses the events preceding the formation of Bretton Woods, the subsequent operations of the IMF and the key causes of the Bretton Woods demise.

Keywords: Bretton Woods, International Monetary Fund, Exchange Rate, Monetary Policy, Gold Standard, Balance of Payments, Foreign exchange market

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INTRODUCTION

For the most of the twentieth century, the international monetary order relied heavily on the gold standard as a means of international trade facilitation. National currencies were fixed to the price of gold and many international transactions were settled in gold. For this reason, the gold was viewed as a store of value and as a hedge against risk. Stable price levels were often mentioned as a positive attribute of the gold standard. Due to liquidity issues, many countries started abandoning the classical gold standard at the beginning of the World War I. Even though a new "gold-exchange standard" was formed in the mid 1920s, it eventually led to the Great Depression, currency wars of 1930s and World War II.

Post-war discussions led to the Bretton Woods conference in 1944, where the interests of allied countries clashed. Two plans for the new international monetary order were proposed - White's Plan, representing the interests of the U.S., and Keynes's Plan, representing the interests of the UK. The ultimate compromise was closer to the version of Harry Dexter White and the IMF was established as a result.

Among other Bretton Woods institutions, the new monetary order was based around the International Monetary Fund and its activities. The adjustable fixed exchange rates, the free currency convertibility, the gold-dollar convertibility and the IMF lending facilities were the key principles.

The United States and their dominant role in the post-war economic system proved not to be optimal for the development of war-weakened European countries. As the U.S. was experiencing a massive trade surplus immediately after the war, it was necessary to conceive plans that would generate a net outflow of dollars to stimulate trade and thus end the dollar shortage.

The subsequent development in European and U.S. domestic policies along with the rise of capital markets shifted the dollar shortage into the dollar glut. The arising confidence issues along with gold runs proved to be fatal to the Bretton Woods system. As a result, many currencies started to float. This event marked the definitive end of Bretton Woods.

1 THE GOLD STANDARD

A gold standard is a system where a physical gold, in a form of coins or bullions, is used as a unit of accounting for the exchange of goods and services.¹ A gold standard can have various forms, from circulating gold coins to bank notes that can be exchange for gold at a fixed price. The gold standard monetary system, since its inception and evolution, provided an efficient mechanics for international trade.² The modern version of this monetary system came to life during the nineteenth century as many countries started to adopt the classical Gold Standard policies.³ The main reason of introducing such a system was to minimize the potential barriers to international trade and therefore, in general, maximizing utility - a key economic principle. Mechanisms of this monetary system lie upon macroeconomic foundations. The monetary base, interest rates and price levels are the major agents. The aim of the following paragraph is to describe the core mechanics of the Gold Standard monetary system which directly precedes and influences the events after World War 2.⁴

Central banks and other monetary authorities of every country held certain amounts of gold as their reserve assets. The national currency of every state was directly linked to this amount of gold reserves. Every unit of currency historically had its intrinsic value until the birth of fiat money.⁵ Gold and silver coins contained a specific amount of gold or silver in their physical structure. Modern bank notes were convertible for a specific amount of units of national currency, and, in turn, for a specific amount of gold with which every

¹ Adam Smith, *An Inquiry into the Nature and Causes of the Wealth of Nations* (Indianapolis: Hacket Publishing, 1993), 711.

² Tamim Bayoumi and Barry Eichengreen, "The Stability of the Gold Standard and the Evolution of the International Monetary System," *IMF Working Paper Series* 95, no. 98 (1995): 1-3.

³ Christopher M. Meissner, "A New World Order: Explaining the Emergence of the Classical Gold Standard," *NBER Working Paper*, no. 9233 (2002): 4-10.

⁴ Ben Bernanke and Harold James, "The Gold Standard, Deflation, and Financial Crisis in the Great Depression: An International Comparison," in *Financial Markets and Financial Crises* (Chicago: University of Chicago Press, 1991), 51-58.

⁵ N. Gregory Mankiw, *Principles of Economics* (Boston: Cengage Learning, 2008), 659.

nation through the activities of central banks disposed.⁶ Thus, the exchange rate between a unit of gold and a unit of national currency had to be set and maintained. This mechanics is known as a fixed exchange rate system, an opposite of a floating exchange rate system.⁷

1.1 Advantages of the Gold Standard

One of the pivotal aspects of the system was its ability of self-correction. The gold standard limits possibilities of national monetary policy by design. Under the fixed exchange rate regime, the central banks of other countries maintained relatively stable interest rates. Should they not, the amount of gold reserves held would start to decrease over time as various individuals investing in a country with higher interest rates would cause the capital to outflow. This action would of course have an opposite effect in the country receiving this foreign capital. Through the same mechanism, the interest rates would eventually even out and reside at a narrow range of levels.⁸

Excessive inflation is managed through the criterion of currency being pegged to gold. The amount of money supply is effectively determined by the amount of gold present in the economy and the gold reserves coverage ratio of each country. In order to raise the money supply, the government has to increase the amount of gold in the economy, which enables the respective increase in money supply. Therefore, under normal conditions, the change of general level of prices should remain relatively constant and free of significant long-term volatility.⁹ As the control of money supply was dependent upon the amount of gold reserves in every economy, the levels of inflation were at low and stable rates.¹⁰ A

⁶ Craig K. Elwell, "Brief history of the Gold Standard in the United States," *Congressional Research Service*, no. 41887 (2011): 1-4.

⁷ George Selgin, "The Rise and Fall of the Gold Standard in the United States," *Cato institute Policy Analysis*, no. 729 (2013), 10.

⁸ Jacob A. Frenkel and Harry G. Johnson, "The Monetary Approach to the Balance of Payments," *Journal of International Economics*, no. 7 (1977): 258-360.

⁹ Michael D. Bordo et al., "Gold, Fiat Money and Price Stability," *NBER Working Paper*, no. 10171 (2003): 2-5.

¹⁰ Benjamin Remy Chabot and Ron Alquist, "Did Adhering to the Gold Standard Reduce the Cost of Capital?" *FRV of Chicago Working Paper Series 20*, no. 22 (2003): 17.

Monetary system, if maintained properly, provided a self-regulating mechanism, through which it was possible to keep the inflation levels under control.¹¹

If a country, for various economic reasons, attracts foreign capital at a much higher rate than it is able to manage the outflow of domestic capital, a situation known as a trade imbalance occurs. The more gold that is stored in the vaults of a central bank, the more money in circulation, in order for the exchange rate to remain constant. The increase in gold reserves stimulates money supply, which affects the general price level of goods and services - the price level increases. As the price level increases, the price of goods exported also increase and therefore the amount exported gradually decreases until it reaches equilibrium. Two versions of trade imbalance exist. The first version is a deficit of the balance of trade. An economy experiences a capital inflow. The latter version is a surplus of the balance of trade - an economy experiences a capital outflow. Gold was used as a means of international trade settlement.¹²

Exchange rate volatility is greatly reduced under the gold standard. The currency-gold exchange rate of each national currency is fixed - a major fundamental of the gold standard. One of the primary monetary goals of government was to maintain this fixed exchange rate. This aspect is crucial in the function of the gold standard. Leaving this fixed exchange rate would effectively mean abandoning the gold standard system. The reduction of volatility benefits the international trade mainly in the form of stability. Households, firms and governments could participate in the exchange of foreign goods and services as the risk of losing their value through currency appreciation or depreciation was reduced.¹³

1.2 Disadvantages of the Gold Standard

As the scenarios of nineteenth century show, many countries withdrawn from the gold standard in times of war. The UK abandoned the gold standard in the beginnings of

¹¹ Michael D. Bordo and Finn E. Kydland, "The Gold Standard as a Rule," *NBER Working Paper*, no. 3367 (1990): 28-30.

¹² Trevor J. O. Dick and John E. Floyd, *Canada and the Gold Standard: Balance of Payments Adjustment Under Fixed Exchange Rates 1871-1913* (Cambridge: Cambridge University Press, 1992), 170-176.

¹³ Selgin, "The Rise and Fall of the Gold Standard in the United States," 10.

World War 1 because it simply could not finance its war efforts through conventional means (government war bonds). This represented a restriction in government spending.¹⁴

Creation and adoption of the gold standard directly interlinked nations. Due to various policies, the domestic monetary policies were very limited. Since the value of the national currency was based on the fixed exchange rate gold, the interest rates were maintained around stable levels and the amount of money supply was bound to correlate with the amount of gold reserves. This was leaving a limited room for governments to pursue their independent monetary policies. The central banks could not fully pursue the suitable policies suited for their domestic needs because if such actions occurred, the events would destabilize the international monetary system.¹⁵

The main central bank policy instruments were open market operations, discount rates and reserve requirements. During the gold standard regime, the main instrument of domestic monetary policy makers was the discount rate. These instruments were ultimately used to stabilize the domestic economy while the amount of gold reserves stayed intact. The higher the discount rate was, the lesser was the incentive on borrowing money from financial institutions, and hence the money supply would contract. Through the open market operations, central banks buy or sell securities - typically bonds - and in turn affect the amount of money supply in the economy. However, the usage of this instrument was relatively rare during the gold standard, leaving the discount rate the only effectively used option.¹⁶

As historical evidence suggests, the facilitation of the trade was carried out through the use of bills of exchange, negotiable instruments, which were "discounted" by the central bank - the central bank received the amount stated on the bill of exchange along with the interest set by the discount rate. The main reason for the usage of these instruments was to empower gold standard mechanisms when the situation of trade deficit or surplus occurred. Pursuing these policies had become known as pursuing "the rules of the game," a coined term used to describe the policies under the system of the gold standard. Many

¹⁴ Robert J. Barro, "Government Spending, Interest Rates, Prices and Budget Deficits in the United Kingdom, 1701-1918," *NBER Working Paper*, no. 2005 (1986): 17-19.

¹⁵ Bordo and Kydland, "The Gold Standard as a Rule," 12-15.

¹⁶ Matthias Morys, "Monetary Policy Under the Classical Gold Standard (1870s-1914)," *University of York, Department of Economics and Related Studies* (2010): 7-14.

countries, however, did not follow "the rules of the game" principle to its full extent. If a country was facing a difficult economic situation, it could have adopted the shielding policy - sterilizing its capital outflow or inflow by monetary policy instruments. This caused a negative impact on international trade, especially during the early 1930s.¹⁷

Short-term interest rate instruments and their inability to accommodate to economic changes played another important role in the gold standard. Under the gold standard, the rates served as a mechanism helping to correct the imbalance but they had limited use outside the gold standard because the mechanism was dependent on a stable level of rates. The downside of this is the limited ability to manipulate short-term interest rates to a greater extent and thus following independent monetary policies. Heavy adjustments of rates could lead to destabilization of the system.¹⁸

Another aspect of the gold standard regime is the possibility of the deflationary effect it might have on the economy. Mining is the main activity through which a country increases its reserves of gold and the money supply. As the economies develop, produce more goods, refine their processes, cut costs and allow for population increase, the GDP should increase. To keep the price level, countries must release more currency into circulation in order to keep the amount of goods and services being produced and money supply in balance, but they cannot effectively increase the money supply without violating the exchange rate. All of this restricts the gold standard economies from theoretical possible growth in the long run.¹⁹

1.3 Abandonment of the Classical Gold Standard

The United Kingdom suspended the gold standard at the beginning of the First World War. As it controlled many colonies around the world, the United Kingdom was one of the most important players in international trade. Its currency, the pound sterling, was

¹⁷ Lars Fredrik Øksendal and Anders Ögren, *The Gold Standard Peripheries: Monetary Policy, Adjustment and Flexibility in a Global Setting* (Basingstoke: Palgrave Macmillan, 2012), 83-88.

¹⁸ Michael D. Bordo and Hugh Rockoff, "The Gold Standard as "A Good House-keeping Seal of Approval", *The Journal of Economic History* 56, no. 2 (1996): 390-396.

¹⁹ Ben Bernanke and Harold James, "The Gold Standard, Deflation, and Financial Crisis in the Great Depression: An International Comparison," in *Financial Markets and Financial Crises* (University of Chicago Press: Chicago, 1991): 34-40.

considered a highly important international currency at the time. In times of war, the main goal is to end the war as quickly as possible with a minimal negative impact on the economy. The UK government needed to raise massive amounts of funds. War efforts require unprecedented amounts of financing. Issuing debt and increasing money supply is limited under gold standard policies. This is the main reason why countries gradually started abandoning the gold standard after the start of World War I. To solve this situation, the United Kingdom abandoned the standard in 1914. This action factually ended the prewar classical gold standard.²⁰

1.4 The Interwar Period

The U.S. and France gold sterilization processes in the interwar period affected the allocation of gold worldwide. This contributed to the rising levels of deflation during the Great Depression in the early 1930s. Unforeseen consequences laid ahead. Competitive currency devaluations, foreign exchange controls, trade tariffs and bilateral agreements effectively eradicated the web of international trade. A massive decrease of trade was imminent.²¹

Entering the 1920s, the United States started amassing inflows of gold due to their role in international exports. The main goal of the time was the protection of exports and the maintenance of domestic price levels. By adopting a gold inflow sterilization policy, the U.S. effectively negated the effect of gold on money supply, hence the term "sterilization." The FED pursued the policy of open market operations by selling securities, thus creating an outflow of liquid currency from the circulation to the central bank's balance sheet. A ceiling in the form of required gold reserves applied for the deficit countries practicing gold outflow sterilization. The surplus countries did not have to deal with this issue as the accumulation of gold lead to an increase in gold reserve accounts.²²

Following the currency crisis, franc devaluation and the gold standard restoration in 1926, France followed the same route by adopting the gold inflow sterilization policy. It

²⁰ Barro, "Government Spending, Interest Rates, Prices and Budget Deficits in the United Kingdom, 1701-1918," 20.

²¹ Leland Crabble, "The International Gold Standard and U.S Monetary Policy from World War I to the New Deal," *Federal Reserve Bulletin*, no. 434 (1989): 434-436.

²² *Ibid.*, 428.

managed to dramatically increase its holdings of world gold from 7 to 27 percent over the course of 6 years, quadrupling reserves. In the early 1930s, France gold reserves rose to U.S. levels, even though some argued that the French economy was significantly less developed.²³

When the UK returned to the gold standard in 1925, it did so by reestablishing the gold-pound sterling parity from the prewar era. While other countries incorporated the effects of war and inflation into their new parity rates, Britain decided not to do so. Keynes argued that the exchange rate position of pound sterling was overvalued. Thus, the overvalued pound affected exports and led the UK into a state of despair in the 1930s. These events then lead to yet another abandonment of the gold standard in 1931, when the currency crisis of pound sterling occurred.²⁴

A cascade of events followed. The invention of the Smoot-Hawley Tariff in 1930 restricted other countries from exporting into the United States, disallowing countries to boost their aggregate demand through exports, thus prolonging the agony of deflation.²⁵ Actions such as these put an incentive on other countries to develop their own exchange controls, tariffs and clearing agreements. In 1931, Britain went off the gold standard because it could not keep the exchange rate of pound sterling to gold, leading to pound devaluation which was thought to help the UK get back on the track with other economies, solve its unemployment issues and boost export. As all gold standard countries were trying to get out of the deflationary spiral, a series of competitive currency devaluations occurred. These events were described as "beggar-thy-neighbor" policies due to the fact that they effectively exported unemployment abroad and therefore worsened economic conditions of neighboring countries.²⁶

Such events lead to a yet another massive abandonment of the new gold exchange standard. Countries were desperately trying to fuel their economic recovery. The U.S.

²³ Douglas A. Irwin, "The French Gold Sink and the Great Deflation of 1929-32," *Cato Institute Papers on Public Policy*, Vol. 2 (2012): 4.

²⁴ Crabble, "The International Gold Standard and U.S Monetary Policy from World War I to the New Deal," 428.

²⁵ *The Tariff Act of 1930, U.S. Code* 19 (1930)

²⁶ Barry Eichengreen and Douglas A. Irwin, "Trade Blocs, Currency Blocs and the Reorientation of World Trade in the 1930s", *Journal of international Economics*, no. 38 (1995): 4-7.

abandoned the gold standard and devalued dollar to 35 per gold ounce in 1934 when the Gold Reserve Act came into force, following the events of Franklin D. Roosevelt's executive order of 1933.²⁷ France discontinued the gold standard two years later in 1936. The Tripartite Agreement of 1936 between the UK, France and the U.S. ended the ongoing currency wars but did not manage to restore the levels of international trade. The stabilization of currencies was short lived because of the economic impact of World War II. The interwar disestablishment of the international trade framework was of major concern after the war.²⁸

²⁷ *Gold Reserve Act of 1934, U.S. Code 31 (1934)*

²⁸ Eichengreen and Irwin, "Trade Blocs, Currency Blocs and the Reorientation of World Trade in the 1930s," 20-22.

2 THE BRETTON WOODS CONFERENCE

The End of World War II marked the beginning of a new monetary system. Allied countries started their discussions on the reconstruction plans of Europe during the closing years of the war. It was necessary to account for all the changes the war had brought. European economies were in a state of disarray and finding an efficient solution to this state was a difficult task to achieve. As the whole international monetary order lied in ruins, discussions on a new monetary system were inevitable.²⁹

The role of the United Kingdom in the international trade was severely weakened. The buying power of the pound sterling decreased significantly. In fact, it had been on decline since the end of World War I. Both World Wars had a serious negative impact on British exports and gold reserves. The United Kingdom had developed a major trade deficit by importing war-related and other supplies from the United States for which it paid in gold and dollar reserves. Commonwealth countries were unable to repay their loans to the United Kingdom, which in turn accumulated loans mainly to the United States - a major creditor of the era. As a result, the foreign exchange and gold reserves reduced significantly over the course of the 1940s. After World War II, the position of the pound sterling as an international means of exchange was at stake. The rising power of the American dollar proved to be a serious competition for the pound sterling. All of this led to a conclusion - Britain no longer had sufficient bargaining power.³⁰

The American dollar rose to become the world's main foreign reserve currency. Since the outbreak of World War I until the finish of World War II, the American dollar slowly began replacing the pound sterling in terms of foreign reserves importance as the UK economy suffered major declines during this period. The Great Depression seriously affected the international trade. The amount of international gold flows into the United States had been on the rise in the interwar period. As a result, the amount of gold held as monetary reserves by U.S. authorities significantly superseded the rest of the world. Roughly 75 percent of these reserves were directly held by the United States.³¹ Due to this

²⁹ Milton Friedman and Anna J. Schwartz, *From New Deal Banking Reform to WW2 Inflation* (Princeton: Princeton University Press, 1980): 130.

³⁰ *Ibid.*, 131-132.

³¹ Selgin, "The Rise and Fall of the Gold Standard in the United States," 17.

reality, the U.S. dollar became the only currency which could still be efficiently interlinked with gold by the end of World War II. All of this strengthened the position of the United States. The U.S. dollar significance in the international trade rose to unprecedented levels. The United States rose, in terms of monetary power, to a level of global significance.³²

2.1 The Conference

The Bretton Woods Conference gave rise to a new international monetary order. The Mount Washington Hotel located in the town of Bretton Woods, New Hampshire played a monumental role in the orchestration of the new international monetary order. In 1944, seven hundred and thirty delegates from all allied nations attended a conference held at this hotel. Allied nations gathered to discuss the future of their international cooperation in terms of financial and monetary policies. Many economists worked on their plans and models of this new order.³³

Interests of the United States differed in many aspects from those of the United Kingdom due to their different economic positions. As previously described, the United Kingdom was not in any shape or form able to compete with the United States. The United States held all the cards with their strong dollar, major trade surplus and more than 3/4ths of world's gold reserves in their vaults.³⁴

Two major plans were proposed by the United States and the United Kingdom. The United States proposal called the "American plan" was created and presented by Harry Dexter White, an economist, a U.S. Treasury Department official and a senior official representing the United States at the Bretton Woods Conference. The United Kingdom delegation proposed their own "British plan" which was created and proposed by one of the most influential economists of the twentieth century - John Maynard Keynes, leader of the British delegation at the Bretton Woods Conference.³⁵

³² Ibid., 17.

³³ Kathryn M. Dominguez, "The Role of International Organizations in the Bretton Woods System", *NBER Working Paper Series*, no. 3951 (1992): 11-14.

³⁴ G. John Ikenberry, "The Political Origins of Bretton Woods" in *A Retrospective on the Bretton Woods System: Lessons for International Monetary Reform* (University of Chicago Press: Chicago, 1993), 155-160.

³⁵ Ibid., 161.

2.2 Keynes Plan

John Maynard Keynes, along with his colleagues, conceived a plan on the post-war international monetary order. Introduced at the conference, this "British plan" significantly differed from the "American Plan." Each plan represented the interests of their respective nations. Keynes' approach proposed, among many other things, the creation of International Currency Union (ICU), along with "bancor" - a unit of account within the ICU designed to eventually replace the role of gold in international settlements. There were several key principles upon which Keynes' proposal stood.³⁶

Following the currency war and speculative flows of capital in the early 1930s, Keynes came to conclusion that a system dealing with harmful capital flows was necessary. According to Keynes' observations of U.S. and French policies of sterilization, the gold standard's self-regulating system of trade imbalance was imperfect. Keynes implied that the system was ultimately allowing surplus countries to build a large amount of gold reserves instead, essentially hoarding gold, as there was no limit for how much gold a country could own. Deficit countries were limited by the reserves left in their vaults. Thus, the deficit countries were obliged to solve their trade disequilibrium but the surplus countries were not forced to follow the same suite. As mentioned, all of this lead to a massive abandonment of the gold standard in 1930s along with the creation of exchange controls, trade tariffs, bilateral agreements and currency devaluations.³⁷

For the purposes of his plan, Keynes differentiated between two types of capital flows. He supported current account capital flows affecting the trade of goods and services and considered restriction of the BOP capital account transactions a necessity, as these were the short-term speculative transactions disrupting international economies.³⁸

³⁶ Claudio Sardonì and L. Randall Wray, "Fixed and Flexible Exchange Rates and Currency Sovereignty," *The Levy Economics Institute Working Paper*, no. 489 (2007): 5.

³⁷ Nadia F. Piffaretti, "Reshaping the International Monetary Architecture - Lessons from Keynes' Plan," *The World Bank Policy Research Working Paper*, no. 5034 (2009): 2-5.

³⁸ *Ibid.*, 6.

2.2.1 The International Clearing Union

The International Clearing Union was the key to a successful international monetary cooperation. The most important goal of the ICU was the successful management of balance of trade disequilibria. It was designed to become the mechanism which would effectively solve the issues of surplus and deficit countries. In essence, it would provide a solution to gold standard issues while retaining positive effects of fixed exchange rate regime.³⁹

All international trades affecting surpluses or deficits were to be settled within countries clearing accounts of the ICU itself. Every country, through their respective central banks, would maintain an account with the ICU bank. These accounts would be credited or debited as member countries experienced BOP surpluses or deficits respectively. This account was denominated in bancor - the bank's internal currency. The amount of bancor was based upon an index quota which in turn was derived from the amount of international trade a member country had undertaken over the past 5 years - this would accommodate for the economic differences between countries.⁴⁰

Bancor would eventually permanently phase out gold as means of international settlement. A National currency would be pegged to bancor at an adjustable fixed exchange rate while gold could be exchanged for bancor but not vice versa. Due to this condition, the role of a gold in monetary payments would diminish over time. Every country could sell their own national currency or buy foreign currency with their bancor currency up to half of their index of international trade quota.⁴¹

The quotas themselves served as a monetary base customization tool. The ICU could change the amount of required quota and therefore increase or decrease the overall

³⁹ Sardoni and Wray, "Fixed and Flexible Exchange Rates and Currency Sovereignty," 6-7.

⁴⁰ Piffaretti, "Reshaping the International Monetary Architecture - Lessons from Keynes' Plan," 7-10.

⁴¹ Sardoni and Wray, "Fixed and Flexible Exchange Rates and Currency Sovereignty," 8-10.

amount of bancor present in the system. This would provide a way for adjustments in the event of an upcoming crisis.⁴²

What would, however, force these mainly surplus countries to maintain their account balance close to equilibrium? Interest is the first solution that comes to mind. Not only would the ICU charge every deficit country an interest on their account, but it would charge the surplus countries as well. This prohibited the countries from running a long series of account surpluses or deficits, which was the main concern at the time. Interest was not the only way of convincing long-term deficit or surplus countries to change their actions. Other policies included currency revaluation, increasing interest rates on accounts and allowing foreign investments. Deficit countries faced the prospect of devaluation, capital controls and decrease in gold supplies in exchange for bancor.⁴³

Under this system, member countries could not effectively hoard the reserves anymore. The economy would not suffer from such levels of deflation, because the hoarded reserve resources would be effectively redistributed to other countries. This would eventually lead to a point where it would automatically self-regulate itself and reach equilibrium, where all of the member ICU accounts are cleared.⁴⁴

2.3 Harry Dexter White's Plan

White's version of the plan, while agreeing on many key points, substantially differed from that of Keynes. His ideas on the future of international monetary order were derived from his experiences while working at the Exchange Stabilization Fund. There, White faced various issues regarding bilateral agreements of that time, mainly with the Bank of England in 1933, which was then considering a devaluation of pound sterling. Economic reasons forced the United Kingdom to leave the ongoing gold standard in order

⁴² Piffaretti, "Reshaping the International Monetary Architecture - Lessons from Keynes' Plan, 8.

⁴³ Ibid., 11-14.

⁴⁴ Pietro Alessandrini and Michele Fratianni, "Resurrecting Keynes to Stabilize the International Monetary System," *Money and Finance Research Group Working Paper*, no. 1 (2008): 12-16.

to fight unemployment and export issues. This and other similar situations convinced White that managed multilateral cooperation on the international level is the key.⁴⁵

The role of ESF, established in 1934 to help the Roosevelt administration in execution of the Gold Reserve Act, transformed under White's influence. From a fund designed to maintain the dollar-gold exchange rate ratio into a fund, which would protect the value of U.S. dollar from other currencies in circulation. This was achieved through a series of bilateral repurchase agreements, backed either by silver or gold, between the U.S. and other countries, namely Mexico, Brazil and China.⁴⁶

2.3.1 The Lending Process

Another issue where White's opinion differed from that of Keynes was the process of automatized lending of funds for countries facing balance of trade disequilibria, proposed by the ICU. White was not a supporter of automated lending because of his previous experience at ESF, where this policy proved problematic over time - countries could not fulfill their obligations on time. His view on this matter was very clear - member countries requests for additional funding would be subjected to evaluations. These would take into account the proposed changes in monetary policy and also the overall economic health of such country. If such a country met the criteria, only then would the funds be extended.⁴⁷

2.3.2 Quotas and Subscription Fees

The key difference between the competing plans was the (account) quota creation process. Keynes plan suggested each country would be assigned a certain amount of bancor. This amount would derive from economic indicators of each country (the amount of international trade over the last 5 years). White, however, proposed in his early drafts that every member country would deposit an amount of their own reserves (national currency and gold), which would then represent their quota within the fund. Member countries

⁴⁵ James M. Boughton, "American in the Shadows: Harry Dexter White and the Design of the International Monetary Fund," *IMF Working Paper*, no. 06/6 (2006): 6.

⁴⁶ Michael D. Bordo and Anna J. Schwartz, "From the Exchange Stabilization Fund to the International Monetary Fund," *NBER Working Paper Series*, no. 8100 (2001): 2.

⁴⁷ Boughton, "American in the Shadows: Harry Dexter White and the Design of the International Monetary Fund," 11-14.

would be able to utilize the funds resources through an exchange of their own currency for the desired asset.⁴⁸

2.3.3 Capital Flows

White's view of capital controls was not as orthodox as Keynes'. Where Keynes promoted strict control of speculative capital, White acknowledged the issue but his view on these controls were not as radical. His opinion on this matter developed over the course of 1930s, especially in 1935 when there was a major speculative gold inflow into the U.S. In his final proposal for the IMF, White suggested that all countries should dismantle their policies acting against a free foreign currency exchange along with their trade restrictions. He also acknowledged, however, that there is a room for capital control instruments when necessary. Despite of creating a room for specific capital controls, the removal of international trade restrictions was still the main objective.⁴⁹

In essence, White believed that a supranational monetary entity is a necessity in order for the world to face a long-term prosperity in terms of financial stability. As a senior treasury official, White dealt with a series of events in the 1930s, which eventually culminated in the World War II and formed his opinion on the necessity of pre-war multilateral international trade restoration which suffered a major blow in the 1930s due to protectionist tendencies.⁵⁰

Both White and Keynes agreed on fundamental principles of the new monetary order - the need for a supranational monetary entity, the fixed exchange range allowing for adjustments, the control of harmful capital flows (although they parted on the extent) and control mechanisms accounting for equilibrium-disrupting policies. However, they significantly differed in their implementations and both had taken into account their pursuit of

⁴⁸ Bordo and Schwartz, "From the Exchange Stabilization Fund to the International Monetary Fund," 14.

⁴⁹ Boughton, "American in the Shadows: Harry Dexter White and the Design of the International Monetary Fund," 14-16.

⁵⁰ Bordo and Schwartz, "From the Exchange Stabilization Fund to the International Monetary Fund," 15.

national interests. Due to the economic influence and superiority of the U.S., the accepted final draft, albeit being a compromise of the two, heavily relied on White's plan.⁵¹

⁵¹ Ibid., 15.

3 BRETTON WOODS INSTITUTIONS

The Bretton Woods negotiations ultimately resulted in the creation of a series of articles of agreement, which formed the basis of international finance for the years ahead. The International Monetary Fund and the International Bank for Reconstruction and Development were the products of these agreements. These supranational institutions were to be established in order to execute and enforce their policies. Three pillars were conceived to become a foundation of the new monetary order.⁵²

3.1 General Agreements on Tariff and Trade

General Agreements on Tariffs and Trade was an international organization concerning with the problematic situation of international trade restrictions. Signed by 23 countries at Geneva in 1947, its main goal was to stop the emerging international trade restrictions between countries with the prospect of a free trading in the future. GATT was proposed after the failed International Trade Organization (ITO) negotiations to fill the void. Even though the organization did not dispose with necessary powers, it provided a framework for how countries should behave to deal with the imposed trade restrictions. Through this framework, a series of GATT rounds helped to decrease the overall level of trade barriers. In 1995, the GATT was transformed into the World Trade Organization.⁵³

3.2 The International Bank for Reconstruction and Development

The International Bank For Reconstruction and Development was the second institution to come into existence as a result of Bretton Woods conference. Its main goal, unlike the fund whose primary concern was the management of international monetary balance, was to actively help fund the post war reconstruction of Europe - a goal shared with the Marshall Plan. Resources of the bank were limited in the beginning and after the bank issued a loan of 250 million USD to France in 1947, it became clear that it did not have sufficient resources to fund European countries reconstruction efforts - thus, after the Mar-

⁵² *The Bretton Woods Agreement Act of 1944, U.S. Code 22 (1944).*

⁵³ Dominguez, "The Role of International Organizations in the Bretton Woods System," 17-18.

shall Plan took over the duties, IBRD's orientation shifted towards funding undeveloped countries around the world.⁵⁴

3.3 The International Monetary Fund

The International Monetary Fund was the core institution of the Bretton Woods agreements and for the purposes of this work the most important one. The new international monetary order could not technically come into existence without it. It is the ultimate compromise of White and Keynes' negotiations which culminated in its establishment. This winning plan was, partially because of the U.S. influence at that time, much closer to Harry Dexter White's draft.

The IMF was, following the Bretton Woods Act, legally established on the 27th of December 1945 with its headquarters based in Washington D.C, United States. 29 countries ratified IMF's articles of agreement, thereby becoming member countries. The United States, United Kingdom, France, India and China were the economically most important founding member countries (Russia did participate at the conference but soon withdrew to pursue their national interests). As of today, the IMF consists of 188 member countries.⁵⁵

The IMF, in the most basic sense, was designed to perform like a fund for the member countries. The members paid their quota in gold and national currency - the main source of IMF's currency and gold reserves. The Fund then, under conditions, redistributed these funds to help affected countries with BOP settlements.⁵⁶

⁵⁴ Ibid., 30.

⁵⁵ Jonathan E. Sanford and Martin A. Weiss, "International Monetary Fund: Organization, Functions and Role in the International Economy," *Congressional Research Service*, no. 32364 (2004): 1.

⁵⁶ Ibid., 7.

3.3.1 Articles of Agreement

3.3.1.1 Purposes (Article I)

There were several fundamental principles necessary for the IMF to adopt. These principles were established in section 1 of the articles of agreement where the role of the fund is described in six purposes forming the basic concepts upon which the IMF created its framework for operations. Many of these principles were derived from the established Bretton Woods principles, becoming a sort of extensions of these.⁵⁷

Purpose n. 1 defines the main role of the IMF as an institution whose main purpose is the promotion of international financial collaboration between countries. The Fund would provide its available human and financial resources to help other countries in solving their arising economic difficulties. This key purpose is self-explanatory as the main purpose of Bretton Woods Conference was the rehabilitation of the international relationships after the World War II and the economic crises of 1930s.⁵⁸

Purpose n. 2 follows the premise of a future consecutive development of international trade. Other countries can therefore utilize their resources to their fullest extent by exporting and importing goods, which would not otherwise be economically viable to produce or sell within the domestic economy. A healthy level of employment, a better utilization of factors of production and a positive increase in the GDP are just a few of many positive impacts leading to the increase of wealth in general. This purpose further delves into the post war-reconstruction of economies. It was necessary to avoid the scenario of the post-war 1920s, the results of which many have accredited to the Versailles Treaty and its policies imposed on Germany.⁵⁹

Purpose n. 3 concerns the correct employment of monetary policies focused on the maintenance of exchange rate stability. Successive currency depreciations designed to improve the competitiveness in the international markets was a major issue of the 1930s - countries devalued their currency in order to boost their exports of national goods. In at-

⁵⁷ Ibid., 2.

⁵⁸ International Monetary Fund, *Articles of Agreement of the International Monetary Fund* (Washington D.C: International Monetary Fund, 1944), 2.

⁵⁹ Martin A. Weiss, "International Monetary Fund: Background and Issues for Congress," *Congressional Research Service*, no. 42019 (2014): 1-2.

tempt to pursue their own policies, other countries were forced to devalue their currency as well. The resulting spiral brought the economy down in the long run.⁶⁰

Purpose n. 4 further describes the key principles of cooperation by focusing on the balance of payments and its current account part from which the balance of trade surplus or deficit is calculated. This possible disequilibrium cannot fix itself under the realities of a fixed exchange system. The second part of the paragraph deals with emergence of tariffs, exchange controls and other restrictions which took place throughout the times of currency wars of the 1930s. The ensuing fall in the general level of international trade is very well documented and the IMF's objective was to prevent this scenario from happening again.⁶¹

Purpose n. 5 explains the core mechanism of how the fund would help its member countries to solve their temporary balance of payments issues. The Fund resources amassed from its member's contributions would be available to those in need under defined conditions. This would help to resolve the occurring situation before it might have a far wider impact on the domestic economy, eventually hindering the stability of international cooperation and ending the prospects of future growth. Countries would not be forced to deploy their strictest monetary (currency devaluation) and fiscal policies to resolve their crises this way.⁶²

Purpose n. 6 builds upon the idea of the last two paragraphs by keeping the lifespan of BOP disequilibrium at minimum. This would allow for quick and efficient small adjustments in the member countries policies. Countries would avoid falling into the deficit spiral. This would prevent the expansion of economic crises by stopping them at their roots.⁶³

⁶⁰ Rosa M. Lastra, "The Role of the IMF as a Global Financial Authority," *Queen Mary University of London Legal Studies Research Paper*, no. 55 (2010), 3.

⁶¹ International Monetary Fund, *Articles of Agreement of the International Monetary Fund* (Washington D.C: International Monetary Fund, 1944), 2.

⁶² Lastra, "The Role of the IMF as a Global Financial Authority," 3.

⁶³ International Monetary Fund, *Articles of Agreement of the International Monetary Fund* (Washington D.C: International Monetary Fund, 1944), 2.

3.3.1.2 *Obligations regarding exchange rate arrangements*

The IMF imposed a fixed exchange rate system with a room for situational adjustments. This effectively led to a system of fixed but adjustable exchange rate where members were supposed to interlink their currency by "pegging" it to the U.S. Dollar at a fixed rate. The U.S. Dollar is then pegged to the gold again at a fixed exchange rate. This way, all member countries currencies are essentially pegged to the gold through the U.S. Dollar. Countries would maintain the exchange rates within a band of 1 percent exchange rate fluctuation and would do so by intervening in the open market by buying or selling foreign currencies, altering the exchange rate. Major parity alterations over 10 percent of par value were possible only under specific scenarios of macroeconomic fundamental changes. The Fund would then oversee if the member country executes policies leading to stabilization. Other actions, without approval of the fund, would lead to lending restrictions from the fund.⁶⁴

Article IV states that for the purposes of international cooperation a development, every member country is obliged to cooperate with the fund and other members for the purposes of maintain a stable fixed exchange rate and liquidity of funds. This condition was implemented to enforce either surplus or deficit countries to interact with each other, not freezing their assets.⁶⁵

Member countries had to inform the fund about their domestic policies. General direction of these policies was the promotion of price stability and continuous development so that the exchange rate remains stable, avoiding sudden volatility at all cost. Under no circumstances were they allowed to manipulate their exchange rate for the sole purpose of manipulating the BOP adjustments to create disequilibrium.⁶⁶

All these conditions provided the necessary assurances for members. These obligations made sure that the member countries would follow the new "rules of the game" -

⁶⁴ Dominguez, "The Role of International Organizations in the Bretton Woods System," 13.

⁶⁵ Alberto Giovanni, "Bretton Woods and Its Precursors: Rules Versus Discretion in the History of International Monetary Regimes," *NBER Working Paper Series*, no. 4001 (1992): 19-22.

⁶⁶ Dominguez, "The Role of International Organizations in the Bretton Woods System," 13-14.

maintain a balance between their domestic policies and the international cooperation. Without this a rather strict control, the general belief in the survivability of this system would have been at stake.

3.3.1.3 *Quota*

One of the main duties the IMF had was the successful management of its funds. IMF acquired these funds from all of its member countries. Each country, according to the articles, was obliged to submit a portion of their national currency and gold to the Fund which in turn would manage these assets. A system of quotas and subscriptions was created where each country paid the defined amount. This system of assigned quotas determined countries positions within the IMF along with their discretions and duties.⁶⁷

(1) Subscriptions Based on their economies, every country had its own quotas subscription. These represented the amount of funds a member country has to contribute and also the amount of funds they could lend from the fund. A special formula was designed for these purposes, called the "quota formula". GDP is the main part of this formula. The reason for this formula is self-explanatory - every country faces different economic situation and the amount of subscriptions have to reflect this in order for the system to be at balance. The leading economic superpowers have to pay more and are allowed to borrow more than a small emerging economy country.⁶⁸

(2) Quotas also determine the amount of funds available for each country. These finances are based on the total amount of quota subscriptions - the more sources a country submits, the more sources it may utilize for deficit financing. Once again, a balancing mechanism had to be invented in order to proportionally distribute resources. The parameters of these equations have, however, were subjected to major overhauls over the years, accommodating for the macroeconomic changes in the global market.⁶⁹

(3) Last but not least, the amount of quota directly affects members voting rights. Countries themselves managed the IMF. Every country therefore had a different voting power, because the amount of voting shares comprised of two things. The first part repre-

⁶⁷ Weiss, "International Monetary Fund: Background and Issues for Congress," 5.

⁶⁸ Ibid., 6.

⁶⁹ Ibid., 7.

sented the basic amount of votes, which were equal for all member countries. The second part takes the amount of submitted funds into consideration. In fact, based on the equation, the second part is the most significant one in terms of actual voting power. Thus, an economically advanced country held a major portion of voting shares since the very same country contributes a large amount of funds to the pool of resources.⁷⁰

The original amount of quotas was 8.8 billion U.S. dollars. This number was calculated from the original draft expecting the Soviet Union to join the IMF - this expectation failed to materialize. 75 percent of member's quota was supposed to be settled in their respective national currency while the other 25 percent was to be settled in gold. This way, the fund would accumulate gold and national currencies on its balance sheet. The 3 largest subscriptions were the U.S. (2.75 billion), the UK (1.3 billion), China (0.55 billion), France (0.52 billion) and India (0.4 billion). These numbers also represent their share of voting rights - it is therefore clear that the United States and the United Kingdom had a dominant position. The combined voting power of the U.S. and the UK exceeded 50 percent.⁷¹

3.3.2 Organizational Structure

The main components of the IMF's organizational structure are the Board of Governors, The Executive Board and the Managing Director. This structure had been designed and conceived at the Bretton Woods years before it came to existence. The IMF's organizational structure comprises of the Board of Governors, the Executive Board and the Managing Director. In addition, two committees are also present at the highest levels of the structure - the International Monetary and Financial Committee and the IMF-World Bank Development committee.⁷²

The Board of Governors holds the utmost authority in the decision-making process and is the leading body responsible for the policies of IMF. It is the responsibility of the board to decide on the future policy changes of the IMF. The Board discusses these policy

⁷⁰ International Monetary Fund, *Annual Report of The Executive Directors* (Washington D.C: International Monetary Fund, 1947), 42-45.

⁷¹ Dominguez, "The Role of International Organizations in the Bretton Woods System," 13-14.

⁷² Michael D. Bordo and Harold James, "The International Monetary Fund: Its Present Role in Historical Perspective," *NBER Working Paper Series*, no. 7724 (2000): 5.

changes with the two committees mentioned above - these provide technical, analytical and legal background for their views and recommendations. The board should take these viewpoints into consideration in their future decisions. Each member state is represented through a single state-appointed governor.⁷³

The Executive Board, otherwise known as The Board of Executive Directors, is the second very important institution. Its main objective is the management of funds daily operations - much like in a for profit company. 12 executive director positions were established in its inception but this number has doubled over the decades, effectively appointing 24 directors in present. The original criteria for appointments were heavily influenced once again by the amount quota subscriptions, giving the biggest contributor countries an edge in voting shares. These directors then select the Managing Director, who acts as a Chief Executive Officer for the purposes of the IMF management.⁷⁴

The Managing Director factually is the Chief Executive Officer. His duties consist of day-to-day management of fund activities, of operations including proposals for funding, papers regarding future policies and other important data. The Director appoints other managers oversees staff and reports to the Executive Board.⁷⁵

⁷³ Sanford and Weiss, "International Monetary Fund: Organization, Functions and Role in the International Economy," 4.

⁷⁴ Bordo and James, "The International Monetary Fund: Its Present Role in Historical Perspective," 6.

⁷⁵ Sanford and Weiss, "International Monetary Fund: Organization, Functions and Role in the International Economy," 5.

4 1945-1952

4.1 The Position of the United States

The United States ran a high current account surplus in the 1940s. At the time, the U.S. was the largest supplier of goods and services in the world. The purchasing power of dollar was on the rise. This, however, was not optimal for the post-war situation. For every surplus economy (seller), there has to be a deficit economy (buyer). Obviously, these deficit economies were the war-devastated nations - Germany, France and Japan in particular. Running a trade account deficits throughout the war, the conditions of the United Kingdom were not optimal as well. This situation put pressure on the United States and gave birth to an economic dichotomy.⁷⁶

From one point of view, the position of the U.S. in international trade was extraordinary. As the soil of the states was not directly exposed to the military conflict raging in Europe, its industrial base remained intact. In fact, when compared to the rest of the world, it was highly advanced at the time. Running a trade surplus helps to develop the industrial base, as the factories invest their growing income into technological advancement, production capabilities and human resources - this leads to less unemployment and a growth in GDP. Possible inflation can be dealt with by sterilizing either through open market operations of the central bank or overseas investment.⁷⁷

From the other point of view, this situation was not viable in the long run. The deficit countries were not able to successfully fund their development since they could not kick-start the economy through an increase in exports, leading to a higher aggregate demand. Another issue was the role of the U.S. dollar as the main reserve asset (besides gold). The demand for dollar was high due to U.S. imports to Europe but the amount of dollars in circulation was not sufficient because of the overwhelming U.S. trade surplus which was transferring dollars out of the international economy into the domestic economy. This led to a dollar-shortage crisis in the deficit countries. And since the role of the U.S. was pivotal in the new system, meaning the states had to maintain stable levels of

⁷⁶ Michael D. Bordo, "The Gold Standard, Bretton Woods and Other Monetary Regimes: An Historical Appraisal," *NBER Working Paper Series*, no. 4310 (1993): 29.

⁷⁷ *Ibid.*, 30.

inflation and therefore prices, the states could not impose drastic policies either. The U.S. domestic policies were traditional - a full employment and an economic growth were both accomplished by trade surplus. But this scenario was not maintainable in the long run because of rising prospects of another deflation-induced depression in Europe which was the exact opposite of what the Bretton Woods and the post-war mindset was all about. The United States therefore had to find a solution of how to inject dollars into the European countries in order to help them develop without hurting its domestic economy.⁷⁸

The only way to create a money outflow is via either the current account or the capital account. But the private capital flows were largely undeveloped and technically limited by design of the Bretton Woods agreements. The export reduction was neither possible nor desirable due to the major international demand for U.S. goods. The only solution to this problem was the intergovernmental lending and donations. This was embodied in the Marshall Plan and partially in the IBRD to a lesser extent.⁷⁹

The idea behind these actions was quite simple. The U.S. would maintain their current trade surplus and the price levels would therefore stabilize. Dramatic increases or decreases in the trade were not considered desirable for the economy in the long run as the increases would eventually deplete the deficit countries and sharp decreases would hurt the U.S. domestic economy. Dollars, accumulated through trade the surplus, would be transferred in the form of funds and loans, as conceived by the Marshall Plan and the IBRD, to the deficit countries. At the same, the export of an increasing amount of dollars in the U.S. economy would prevent inflation without the need for sterilization policies. These would therefore be able to rebuild their industrial base while still experiencing a BOP deficit. Under these circumstances, the healing economies would in turn import less and export more, but would also create more relative demand for U.S. goods, increasing the amounts of international trade. In a way, the U.S. were investing into their customers who would build their income and could afford to buy more goods from the U.S., stimulating their domestic

⁷⁸ Bordo, "The Gold Standard, Bretton Woods and Other Monetary Regimes: An Historical Appraisal," 30-31.

⁷⁹ Michael D. Bordo and Owen F. Humpage, "Federal Reserve Policy and Bretton Woods," *NBER Working Paper*, no. 20656 (2014): 3.

economy. However, this win-win scenario was solely dependent on economic well being of the major agent - the United States.⁸⁰

4.2 Marshall Plan

Established in 1948 and named after the U.S. Secretary George Marshall, the European Recovery Act, better known as the Marshall Plan, was conceived to provide funds for European countries. The Marshall Plan transferred over 13 billion USD to Europe, financing post-war reconstruction of industries, infrastructures and agricultures.⁸¹ Another key aspect of the plan was its support of multilateral trade by helping those countries that were actively participating in trade. However, the most important role of the plan was to be the solution to the dollar shortages and the current account deficits in Europe. The Marshall Plan ended in 1952, four years after its inception, and was a huge success - it helped the European countries get into trade surplus.⁸²

4.3 IMF Activities in 1940s

The position of the IMF was weak. The Fund itself was beginning its operations, developing frameworks and revaluing concepts. Members had yet to regain confidence in the new monetary system. In order to maintain this new fragile system, the fund was rather reserved in its actions.⁸³

4.3.1 Exchange Rates Management

Central banks concluded open market operations to maintain the official exchange rates. When a dollar currency is depreciating against another one, the U.S. central bank intervenes by selling the desired currency for dollars, stimulating the market demand for dollar, eventually increasing its exchange rate. A reverse operation takes place whenever a central bank wants to decrease the rising exchange rate. This is the main mechanism through which the banks affect the exchange rates. Since a central bank cannot issue other

⁸⁰ Ibid., 3.

⁸¹ Barry Eichengreen and J. Bradford De Long, "The Marshall Plan: History's Most Successful Structural Adjustment Program," *NBER Working Paper Series*, no. 3899 (1991): 14.

⁸² Ibid., 2-3.

⁸³ Pressnell, "What Went Wrong? The Evolution of the IMF 1941-1961," 230-231.

than its domestic currency, it has to maintain a reserve account for other foreign currencies to be able to intervene.⁸⁴

4.3.2 Exchange Rate Parities of 1946

Assessment of initial exchange rate parities was one of the fund's main objectives. A few months before the Fund officially started its operations in December of 1946, the managing director Camille Gutt proposed the IMF members to inform the fund about their initial exchange rate parities. Thus, on December 12th, the parities of 32 (out of 39) countries were announced. Rest of the member countries followed the suite later. The Fund acknowledged the initial parity issues in its 1946 and 1947 annual reports.⁸⁵ The main problem was that these parities were set under extraordinary post-war times and could not effectively account for the turbulent changes in the immediate upcoming years. Countries, as a result of protectionist tendencies of the post-war time, inclined to setting their parities above the realities of their economies because they feared of major trade deficit issues. This cascade effect led many countries to set their official rates higher than what was originally considered. As a result, many economists argued that the initial parities were in fact overvalued which in turn negatively influenced the ongoing dollar shortage in Europe.⁸⁶

4.3.3 Currency Convertibility Issues

Article XIV allowed member countries to maintain the usage of exchange controls indefinitely, until they stabilize their situation and allow for free currency convertibility based on the established exchange rates.⁸⁷ As a matter of fact, all member countries with the exception of the U.S. and Canada used this clause, effectively shielding themselves from dollar shortages. The results were clear. Even with the established exchange rate parities, the currencies remained unconvertible until 1958, when the countries finally managed

⁸⁴ Maurice Obstfeld and Kenneth Rogoff, "The Mirage of Fixed Exchange Rates," *NBER Working Paper Series*, no. 5191 (1995): 5.

⁸⁵ International Monetary Fund, *Annual Report of The Executive Directors* (Washington D.C: International Monetary Fund, 1946), 9.

⁸⁶ Bordo, "The Gold Standard, Bretton Woods and Other Monetary Regimes: An Historical Appraisal," 29.

⁸⁷ International Monetary Fund, *Articles of Agreement of the International Monetary Fund* (Washington D.C: International Monetary Fund, 1944), 38.

to allow free convertibility as stated in article VIII.⁸⁸ This transitional period, however, obstructed the system; the foreign exchange controls were still in place.⁸⁹

4.3.4 Devaluation of Franc in 1948

France devalued the franc by approximately 44 percent in 1948 to support their export. As stated in the IMF annual report of 1948, the fund began discussions with France about the proposed devaluation of franc. The French government wanted a special domestic market where the importers and the exporters would have the option to exchange a portion of their goods for a market-determined floating currency exchange rate in France.⁹⁰

While acknowledging the need of franc devaluation, the Fund did not support the idea of a special domestic market as such actions might lead to a future disequilibrium. The Fund ultimately declined the proposal and suggested that alternative solutions should be considered. France, however, informed the fund that it had decided to go along with the original proposal and devalued franc by nearly 50 percent. As a reaction to this, the fund stripped France of its drawing rights for a period of 4 years. Important to note that this was of little interest to France due to the fact that its main sources of funding were of the Marshall Plan origin - these sources remained available.⁹¹

4.3.5 Devaluation of Pound Sterling in 1949

Following the events of 1947 and successive speculative attacks on pound sterling, the UK devalued pound sterling by 30.5 percent on December 19th of 1949. As stated earlier, Britain was still recuperating from the war, suffering a major trade deficit. As the pound sterling's influence declined, countries started exchanging their pound reserves for dollar reserves, adding to the effect. While the pound was still important in the colonies of the pound sterling trading bloc, the UK economy was still shifted towards producing war

⁸⁸ Ibid., 22.

⁸⁹ Ines Morovic, "Currency Convertibility and Economic Transition in Central and Eastern Europe," *The Hague Institute of Social Studies Working Paper Series*, no.144 (1993): 6.

⁹⁰ International Monetary Fund, *Annual Report of The Executive Directors* (Washington D.C: International Monetary Fund, 1948), 76-78.

⁹¹ Bordo, "The Gold Standard, Bretton Woods and Other Monetary Regimes: An Historical Appraisal," 32.

goods instead of then demanded consumer goods - as a result, many colonies started to purchase essential U.S. goods with dollars. When the British government decided to set the par value of pound sterling, they once again overvalued the pound, possibly trying to artificially "strengthen" its position and increase the confidence. However, in December of 1949, the UK government in reaction to the speculative attacks on the pound informed the IMF about devaluing the pound sterling in the next 24 hours by 30 percent. Several other countries tied to the British pound followed these actions and devalued by approximately the same amount.⁹²

The Fund approved of this decision as it, based on past events, long considered UK's position overvalued. Among other positive outcomes, this devaluation subsequently helped European countries get out of their trade deficits which in turn would increase their holding of dollar reserves - a solution to the dollar shortage which was a key issue. However, the IMF's position was rather weak in this case, as the institution did not actively participate in this matter and was basically given a notice even though it must have been aware of the situation the UK was facing.⁹³

4.3.6 Canadian Floating Regime

Canada abandoned the fixed-rate in 1950. Following the difficult 1945-1950 periods, when the Canadian dollar increased and decreased in value against the U.S. dollar due to high volatility in commodity prices and capital flows, the Canadian government decided to leave the currency peg system in favor of managed float. By doing so, the government tried to achieve two goals. The first goal was to protect themselves against the risk of speculative investors who were expecting another significant changes in the peg rate. The second goal was to protect the domestic policy which was at that time on the rise since the beginning of the Korean War. The United States imported Canadian goods to support themselves in war endeavors. This had a positive impact on the Canadian BOP - increase in imports and also in capital flows (U.S. investments into Canadian national resources) leading to higher USD reserves on their central bank balance sheet. Douglas Abbot, the

⁹² Frank A. Southard, "The Evolution of the International Monetary Fund," *Essays in International Finance*, no. 135 (1979): 25.

⁹³ Roy F. Harrod, "The Pound Sterling," *Essays in International Finance*, no. 13 (1952): 23.

Canadian Minister of Finance, announced the abandonment of the fixed-exchange rate and the transition to a managed floating rate on 30 September 1950.⁹⁴

The IMF considered this departure from the pegged rate system a very problematic move. IMF authorities criticized the Canadian government for adopting the floating rate as a means of successfully dealing with the inflationary capital inflows. IMF authorities suggested, among other solutions, capital inflow sterilization. The Canadian government, however, claimed that this is just a temporary solution and the return to peg was inevitable. In the end, the IMF did not strip the Canadians of their drawing rights and allowed the float.⁹⁵

4.4 European Payments Union

The European Payments Union (EPU), established in September 1950, was another step in the direction of free trade.⁹⁶ Following the dollar shortage crisis, OEEC members founded EPU to solve their liquidity issues. The Union accomplished this by dealing with inter-national transactions at the end of each month, easing of trading difficulties and allowing multiple partners trading transactions - every country committed as much trade with as many countries as it wanted and the process of clearing took place at the end of each month. By decreasing the volume of real movements of dollars between countries, the union provided the necessary framework and tremendously helped solve the liquidity issues. The continuous success of the union, along with the ongoing GATT rounds, eventually allowed countries to fulfill their article VIII obligations and allowed current account convertibility of their currencies in December 1958.⁹⁷

⁹⁴ Michael D. Bordo, Tamara Gomes and Lawrence L. Schembri, "Canada and the IMF: Trailblazer or Prodigal Son," *Open Economies Review* 21, no. 2 (2010): 310-12.

⁹⁵ International Monetary Fund, *Annual Report of The Executive Directors* (Washington D.C: International Monetary Fund, 1951), 44.

⁹⁶ Morovic, "Currency Convertibility and Economic Transition in Central and Eastern Europe," 7-8.

⁹⁷ Robert Hockett, "Three (Potential) Pillars of Transnational Economic Justice: The Bretton Woods Institutions as Guarantors of Global Equal Treatment and Market Completion," *Cornell Law School Research Paper* 34, no. 06 (2005): 106-107.

4.5 GATT Rounds

The GATT Rounds were a series of multilateral negotiations to reduce the amount of trade tariffs and restrictions worldwide. The first three rounds from 1947, 1949 and 1950 helped decrease the trade tariffs of developed countries by a significant amount. The other three rounds from 1954, 1960 and 1964 further reduced the effect of tariffs on the world trade. The average level of tariff rates was around 40 percent in 1947, but by the 1960s, this level decreased to 13 percent on average.⁹⁸

⁹⁸ Dominguez, "The Role of International Organizations in the Bretton Woods System," 30-31.

5 1952-1960

5.1 United States Balance of Payments

By the beginnings of the 1950s, the U.S. started developing a BOP deficit. This shift was the beginning of changes. Even though the U.S. maintained a current account surplus, the capital account transactions consisting of foreign financial aids surpassed the current account surplus - the result was a dollar outflow. There were several major factors which influenced the BOP deficit.⁹⁹

The Korean War lessened the gap between U.S. exports and imports. Even though the U.S. still managed to achieve export surplus over imports, the effects of partial shifting of their industries towards war-related products and the increase demand for raw materials added to this trend. Due to government spending, unusual consumer expenditure and government bond pegging, inflation rose significantly in 1951, though it was stabilized through price freezes and other policies later.¹⁰⁰

A gradual decrease in the demand for gold affected the 1950s. Since the U.S. dollar was the world's defacto reserve currency backed by the U.S.'s vast gold reserves, the demand for gold decreased. During those times, central banks of foreign countries preferred accumulating dollars on their balance sheet to gold. Thus, the annual growth of the world's gold reserves decreased significantly.¹⁰¹

The world trade was rapidly increasing as the foreign countries were swiftly recovering and exporting more than before. The amount of international trade put pressure on the dollar reserves of the foreign countries. This eventually led to an increased demand for dollars and to the dollar outflow. The increased demand for goods and services accompa-

⁹⁹ Federal Reserve Bank of St. Louis, "The United States Balance of Payments 1946-1960," *Federal Reserve Bank of St. Louis Monthly Review* 43, no. 3 (1961): 4.

¹⁰⁰ *Ibid.*, 5-6.

¹⁰¹ Forrest Capie, Terence C. Mills and Geoffrey Wood, "Gold as a Hedge against the Dollar," *Journal of International Financial Markets, Institutions and Money*, no. 15 (2005): 345.

nied with a growing volume of transactions lead to a rise in the rate of inflation worldwide.¹⁰²

Developments in the capital markets started to materialize. The amount of private capital outflows increased in the second half of the 1950s. Even though article VI of the IMF agreements binds countries to maintain speculative capital outflow controls, many countries did not pursue these policies and instead welcomed these growing capital outflows in the 1950s due to reasons described above - the growing need for dollar reserves as a result of growing international trade. All of this gave rise to the Eurodollar market which in turn boosted the volume of transactions.¹⁰³

As a result of these market forces, a growing disequilibrium between the amount of gold reserves and the dollars in circulation began to develop. This was not of big concern in the early 1950s but it developed into one of the main causes of Bretton Woods' ultimate demise.¹⁰⁴

5.2 IMF Activities

The IMF's position as an international financial institution was rather weak. In the period of 1947-1951, the IMF did not provide many essential funds with the exception of initial loans to France and UK. The Fund gradually stopped lending out dollars because of its limited stock within the IMF accounts at that time. Quota subscriptions were being paid gradually over the period of 1946-1952 when the fund reached the desired amount of funds. The Marshall Plan largely took over these obligations but the financial aid was closing to its end in 1952. The Fund needed to take actions in order to become a respected financial institution.¹⁰⁵

The IMF Governors differed in opinions on drawing procedures. While some considered automatic lending a way to pursue, others considered this approach suboptimal and

¹⁰² Bordo and Humpage, "Federal Reserve Policy and Bretton Woods," 3.

¹⁰³ John Eatwell and Lace Taylor, "International Capital Markets and Future of Economic Policy," *CEPA Working Paper Series III*, no. 9 (1998): 4.

¹⁰⁴ Anna J. Schwartz, *Money in Historical Perspective* (University of Chicago Press: Chicago, 1987), 341.

¹⁰⁵ L. S. Pressnell, "What Went Wrong? The Evolution of the IMF 1941-1961," *BNL Quarterly Review*, no. 201 (1997): 232.

advocated stricter policies on how to allocate Fund's resources between countries. No funds were drawn from the fund in 1950.¹⁰⁶

In 1952, Ivar Rooth, the new managing director, changed the fund's direction. By creating "stand-by arrangements" (SBA), every country was allowed to draw up to 25 per cent (the so-called "gold tranche") of its quota yearly without previous negotiations, they could not however exceed their quota by more than 200 percent in total. These arrangements put incentive on countries to utilize these funds and prevent building-up trade deficits. The amount of drawn funds started gradually increasing every subsequent year since the inception, but not by a large amount. This somewhat helped the fund get back on track with the events of international finance. Over the decades, SBAs have developed into the most utilized IMF instrument.¹⁰⁷

The Only exception in the utilization of drawing rights at that time was Japan which, in 1953 when it became a member, draw 125 million USD to finance its imports for reconstruction. The economic recovery of Japan in late 1950s and 1960s was of unprecedented proportions.¹⁰⁸

5.2.1 Suez Crisis of 1952

When the UK, France and Israel faced Egyptians forces in the fight over the Suez Canal, a major international crisis was in the air. British pound was under pressure from speculators who presumed a 2.80-dollar exchange rate would become an overvalued position in the near future, eventually forcing the British to devalue the pound sterling. The UK considered this exchange highly important mainly due to its position in the sterling area and also its position on the balance sheets of other agents because pound sterling was still being actively held as a second reserve currency. The British government also feared that devaluation would disrupt their oil imports. The Bank of England, preparing the pound for current account convertibility (which would happen later in 1958), was determined to

¹⁰⁶ Dominguez, "The Role of International Organizations in the Bretton Woods System," 36.

¹⁰⁷ Pressnell, "What Went Wrong? The Evolution of the IMF 1941-1961," 232-233.

¹⁰⁸ Shinji Takagi, "From Recipient to Donor: Japan's Official Aid Flows, 1945 to 1990 and Beyond," *Essays In International Finance* no. 196 (1995): 4.

guard the exchange rate parity and for this purpose it had set a minimum of 2000 million U.S. dollars in reserve accounts - below this threshold, the pound would have to devalue.¹⁰⁹

The IMF considered this situation of utmost importance. It could not possibly let the second most important currency fall into float or massive devaluation, absolutely not under the conditions of late 1950s, when the currencies of major countries were soon to be finally convertible. To assure the devaluation would not happen, the new managing director Per Jacobson negotiated with other Governors extraordinary drawing conditions for the upcoming crisis. All four countries on both sides of the conflict were to be provided with necessary funds. In case of UK, the amount of funds would become immensely high, to defeat the speculators. The total amount of drawn funds was nearly 2 billion USD, an unprecedented number - higher than the total amount of funds issued over the past years combined.¹¹⁰

5.2.2 Current Account Convertibility of 1958

The long awaited current account convertibility finally arrived in December 1958 when 13 European countries allowed their currencies to be converted with every other member. Before this occurred, the European currencies were exchanged within the EPU area (disbanded in 1958 in favor of unified U.S. dollar convertibility system) following the 1953 agreements concerning currency arbitrage, while the U.S. dollar along with the Canadian dollar respectively were exchanged for other single currencies on a different market. The 1958 essentially joined the split markets together. The UK and Germany abandoned most of their exchange controls while other 11 countries still maintained some of their exchange controls due to the fact that there were still some bilateral agreements ongoing but this was rather a minor dent on this fundamental achievement. After more than a decade, one of the main Bretton Woods objectives was finally accomplished.¹¹¹

¹⁰⁹ Pressnell, "What Went Wrong? The Evolution of the IMF 1941-1961," 233-234.

¹¹⁰ *Ibid.*, 234.

¹¹¹ Morovic, "Currency Convertibility and Economic Transition in Central and Eastern Europe," 8-10.

5.2.2.1 *Remaining exchange controls*

Countries gradually abandoned the remaining current account exchange controls after 1958. It was until 1961, when majority of the countries formally accepted Article VIII of IMF which specifies the fulfillment of necessary terms for achieving current account convertibility. This way, the IMF could accept different currencies for different drawing settlements as it could exchange these freely at will. One more thing worth noting is the fact that the convertibility and pegged rates were introduced to stimulate international trade - non-residents selling products abroad could exchange their foreign currency on markets at will. Residents could utilize their foreign exchange resources by obtaining imported goods.¹¹²

5.2.2.2 *Increase in quotas in 1959*

This dramatic increase in Funds lending activity increased the confidence in the system. Over the next years, countries followed the trend and draw more funds from the fund than before. Eventually, increased amounts of drawings accompanied with high levels of inflation as a result of increasing trade negatively affected funds resources. Countries had not increased their quotas since the funds inception. It was up to the fund then to propose an increase in quotas. This was at first largely met with a negative U.S. response as a reaction to the developments of the late 1950s when the outflow of dollars outside of the U.S. was starting to become a problem. Nevertheless, when the U.S. agreed to terms in 1959 the quotas were increased by 50 percent to 14 billion USD.¹¹³

¹¹² Morovic, "Currency Convertibility and Economic Transition in Central and Eastern Europe," 9.

¹¹³ International Monetary Fund, *Annual Report of The Executive Directors* (Washington D.C: International Monetary Fund, 1949), 13-16.

6 1960-1973

6.1 Triffin Dilemma

Robert Triffin, a Belgian-American economist, proposed his rather pessimistic view on the Bretton Woods system in 1959. This would become later known as the famous "Triffin Dilemma." In his opinion, a country whose domestic currency is used as a global reserve (The United States dollar) currency cannot effectively pursue domestic and international economic policies at the same time. In other words, the U.S. would have to run a BOP deficit to supply the world with reserve currency through which all the trade was being facilitated. At the same time, running a BOP deficit potentially has a negative impact on country's domestic economy.¹¹⁴

On the most basic level, providing liquidity to other countries undermines the confidence of the dollar due to its growing monetary base, yet at the same the confidence can be only reestablished by creating an inflow of dollars, hurting the world economy in the process. These two goals cannot be achieved at the same time under Bretton Woods.¹¹⁵

6.2 Dollar Liabilities and Gold Mining

Due to continuous BOP capital account deficit, the U.S. were essentially bleeding dollars during the final three years of 1950s. Thus, the total dollar liabilities outstanding were on the rise. Even though the government, during the final years of Eisenhower, tried to tighten the capital outflow control and oil import inflow, it was not enough to fundamentally changed the prospect of BOP - the U.S. economy was still experiencing money outflow.¹¹⁶

The growth of real economic output tremendously outmatched the growth of world gold reserves. Basically, countries did not have enough gold reserves to match the amount of international trade. A major deflation would have to occur to close this widening gap.

¹¹⁴ Robert Triffin, "Gold and the Dollar Crisis: Yesterday and Tomorrow," *Essays in International Finance* no.132 (1978): 3-8.

¹¹⁵ Josef T. Yap, "The Political Economy of Reducing the United States Dollar's Role as a Reserve Currency," *ABDI Working Paper* no.302 (2011): 12.

¹¹⁶ Federal Reserve Bank of St. Louis, "The United States Balance of Payments 1946-1960," 5-7.

The prospect of deflation is the last thing a booming economy wants. This is part of the reason why countries replaced gold with dollars - the U.S. FED could influence the money supply to meet market demands. This is how FED dealt with continuous BOP deficits - it sterilized the dollar outflow.¹¹⁷

Even though the mining industry after a decade of decline in both demand and price (due to the position of dollar) experienced a boom in 1959 when new gold sources were found, it was not enough to match the increasing amount of dollar liabilities in the world. The increase in production did not hold for long, eventually plummeting again in 1966. Soon, this gold-dollar disequilibrium started undermining the confidence in dollar.¹¹⁸

6.3 Gold Pool

The U.S. Treasury was, since 1934, responsible for the U.S. gold reserves. For the Bretton Woods system to remain functional, the U.S. Treasury bound itself to purchase an ounce of gold for 35 dollars for the Bretton Woods system to work. By 1958, the confidence in dollar was still strong. The U.S. was still in possession of vast gold reserves - countries preferred accumulating dollars instead of gold. But this situation was soon about to change due to the phenomenon of the "dollar glut" - foreign countries amassed dollars due to their role in world economy as reserve currency.¹¹⁹

When the gold-dollar convertibility officially started in 1958, the U.S. Treasury had to maintain this price by buying or selling gold on the open market to essentially fix the price as close to their buying price of 35USD/ounce as possible. These transactions were usually facilitated on the London gold exchange. The London gold exchange market reopened in 1954. At the time, the exchange played a pivotal role in the world gold trade.¹²⁰

By the 1960s, the official amount of dollar liabilities outstanding exceeded the amount of U.S. gold reserves.¹²¹ On October 1960, speculators triggered a rise in the price of gold on London exchange. If the price of gold exceeded the official 35 dollars per ounce

¹¹⁷ Bordo and Humpage, "Federal Reserve Policy and Bretton Woods," 4.

¹¹⁸ *Ibid.*, 5.

¹¹⁹ Capie, Mills and Wood, "Gold as a Hedge against the Dollar," 345.

¹²⁰ Barry Eichengreen, "Global Imbalances and the Lesson of Bretton Woods," *NBER Working Paper Series*, no. 10497 (2004): 14.

¹²¹ Fig. 1.

and commission, then the speculators would have the option to commit a risk-free arbitrage - they could buy the U.S. Treasury gold for 35 and sell it on London market for net profit. During the 1960 run, the price of gold surged as high as 40 dollars. This obviously had a negative impact on net gold reserves held by U.S. Treasury. The Treasury then made an agreement with the Bank of England. The Bank would stabilize the gold price at 35USD while the Treasury would transfer the necessary gold for these operations. Other major central banks agreed not to buy gold for a price over 35.20USD (20 cents were the shipping price of gold). This paved the way for the creation of London Gold Pool in 1961.¹²²

The London Gold Pool was an agreement between 8 Central banks of core nations to form a pool of their gold resources in order to maintain the price of gold pegged. The Bank of England would manage these resources and intervene whenever necessary, distributing the assets acquired from selling or buying gold between the members of the pool based on their capital commitment to the pool. The U.S. was a major contributor to the fund nevertheless and therefore its stock of gold was still affected by the fund's activity.¹²³

While the fund performed exceptionally well during the Cuban Missile crisis in 1962, it did not manage to fight off the market pressures of future events. The upsurge of gold mining from 1961-1966 enhanced to world's gold stock but it was not even nearly enough. When The U.S. inflation rose during 1965 in response to the Vietnam War, it proved to be of major concern to the pool. Its current account surplus started shrinking leading to an increase in BOP deficit. By 1966, the pool started experiencing an outflow of gold as a result of economic conditions. After the fall of pound sterling and Bank of France's 1965-1967 policies, when it threatened to start converting more dollars into gold forcing it to appreciate and subsequently leaving the pool in 1967, the worldwide pressure on devaluation shifted from pound sterling to dollar.¹²⁴ The gold pool was dissolved on March 17 1968, when it experienced a gold outflow of over 3 billion USD during the period of one year. The U.S. alone lost more than 2 billion USD in gold reserves over the last year of pool's activity.¹²⁵

¹²² Barry Eichengreen, "Global Imbalances and the Lesson of Bretton Woods," 15.

¹²³ Ibid., 16.

¹²⁴ Ibid., 16.

¹²⁵ Ibid., 17.

The FED gold certificate deposit requirements of 25 percent were discontinued in March 3, 1965 (deposit liabilities) and March 18, 1968 (notes in circulation), stripping them of their liabilities to back the currency with gold - only the gold-dollar convertibility was still at place. A two-level arrangement emerged - the official authorities (central banks) agreed not to participate in outer gold market, instead they would only buy and sell gold within each other. This created two gold markets.¹²⁶

6.4 Vietnam War

The Vietnam War was yet another milestone for the U.S. economy in the 1960s. When the U.S. officially engaged in military conflict in 1964, the inflation surged to high levels. There were a few reasons for this. The increased government expenditures on war-related goods along with import increases led to the first trade deficit of the U.S., although it experienced chronic BOP deficit for decades due to capital outflow. Neither Eisenhower's, nor Kennedy's or Johnson's administration successfully managed to deal with growing capital outflows in the long run even though they tried with different sorts of capital controls and other counter-measures.¹²⁷ The war was financed through war bonds and other instruments. Since Johnson did not increase taxes until 1967, the consumer spending was booming and the business activity as well. When the government spending added its demand to the mix, it inevitably led to inflation.¹²⁸

6.5 The U.S. Export of Inflation

The FED practiced a dollar sterilization policy. Since a net outflow of currency affects a country's monetary base, it might slow down the economy eventually falling into deflation. To circumvent this without having to devalue the currency, the central bank can intervene in the markets to accommodate for the outflow. This eventually led to an export

¹²⁶ Harris Dellas and Goerge S. Tavlas, "The Revived Bretton Woods System, Liquidity Creation, and Asset Price Bubbles," *Cato Journal* 31, vol. 3 (2011): 489-91.

¹²⁷ Bordo and Humpage, "Federal Reserve Policy and Bretton Woods," 7-8.

¹²⁸ Marc Labonte and Mindy Levit, "Financing Issues and Economic Effects of American Wars," *Congressional Research Service*, no. 31176 (2008): 9-11.

of inflation as a result of chronic BOP deficit - the money released into circulation left the U.S. economy in the form of either current account or capital account outflow.¹²⁹

The U.S. exported inflation by either demand shocks or supply shocks. Demand shocks represent a spike in demand for an imported product - the price increases as a result of demand-pull inflation. Supply shocks represent a sudden decrease in supply of an exported product - the price increases as a result of cost-push inflation. Both these led to an increase of dollar outflow. The resource-intensive Vietnam War marked a rising trend in these shocks.¹³⁰

6.6 The UK and the Fall of Pound Sterling

The United Kingdom was forced, after struggling to maintain current account surplus for years due to structural economic changes, to devalue the pound sterling against dollar in 1967. When the government promoted the use of pound sterling as the second reserve currency in 1950s, the foreign institutions accumulated around 4.5 billion sterling as a result. Since 1960s, the UK exports were on decline as a result of worldwide reconstruction and strong economic growth of the Western Germany, Japan and other nations. Another reason for the changes were the proposed Labour Party changes in domestic policy that would further decrease the confidence in pound sterling.¹³¹

All of this resulted into another speculative attack on the pound in 1967. It was soon clear that the bank of England could not save the pound from the attack. Harold Wilson of the Labour Party announced the devaluation of pound from the 2.80 to 2.40 on 18 November in 1967. This of course had cataclysmic effects on the whole Bretton Woods - the second most important reserve currency had fallen. When the Gold Pool dissolved in 1968, the world's attention turned to the U.S. dollar.¹³²

¹²⁹ Bordo and Humpage, "Federal Reserve Policy and Bretton Woods," 20-21.

¹³⁰ Selahattin Dibooglu, "Inflation under the Bretton Woods system: the spillover effects of U.S. expansionary policies," *Atlantic Economic Journal* 27, no. 1 (1999): 74-75.

¹³¹ Scott Newton, "The Sterling Devaluation of 1967, The International Economy and Post-War Social Democracy," *English Historical Review* 125, no. 515 (2010): 912-913.

¹³² *Ibid.*, 914-915.

6.7 IMF Activities in 1960s

Continuous liberalization of trade during the 1960s was rather successful. The GATT Kennedy round of 1964 further decreased the amount of tariffs restricting trade. Developed countries reduced their tariffs significantly since the 1945. Developing countries however still imposed significant amounts restrictions.¹³³

Liquidity issues were of major concern to the IMF. Limited funds of IMF could not keep track with the economic development of the world. The IMF could not issue its own currency to keep up with inflation levels and increased demand for funds. Besides quotas, the IMF did not have any other instruments that would allow them to raise funds. Because of this reality, the fund decided it would employ all of its possible strategies to figure out how to finance the future activities. Thus, the Fund, along with quota increase proposals of 1966 and 1970, gave birth to General Agreements To Borrow in 1961 and Special Drawing Rights in 1969.¹³⁴

6.7.1 General Agreements to Borrow

The General Agreements to Borrow (GAB) were established on 10 November 1962. The Fund established a general framework for lending between the institution and a group of economically strongest countries. This formed the group of ten (G-10) which was later joined by Switzerland. These countries agreed to provide a specific sum of their currency the fund could, under specified conditions, lend and redistribute between other countries. These conditions obliged the Fund to pay interest on the loan, make timely payments and follow the general policies maintained by the fund. Also, the fund could obtain a loan only after the executive board member of such country approves of it. In exchange, the fund would acquire new funds this way to help solve arising disequilibria. The GAB framework is still operational to this day after an update in 1983.¹³⁵

¹³³ Andrew G. Terborgh, "The Post-War rise of World Trade: Does the Bretton Woods System Deserve Credit?" *London School of Economics Working Paper* 78, no. 03 (2003): 4-5.

¹³⁴ Margaret Garritsen de Vries, *The International Monetary Fund 1966-1971: Volume I*, (Washington D.C : International Monetary Fund, 1976), 25-30.

¹³⁵ Bordo and Humpage, "Federal Reserve Policy and Bretton Woods," 33-34.

6.7.2 Increases in Quota

The 1966 marked the increase of quotas.¹³⁶ As agreed in 1965, the countries would rise their quotas by 25 percent on average - a significant decrease from the proposed 50 percent. Countries were reluctant to increase quotas due to economic conditions - the belief in dollar was declining and as designed by the fund's agreements, 25 percent would have to be paid in gold (gold tranche). However, the overall increase in funds reserves was expected to rise from 16 to 21 billion USD in 1967.¹³⁷

Final quota increases took place in 1969.¹³⁸ Following the disputes over SDR facilities, many countries were reluctant to increase quotas. However, an agreement has been finally made - SDR facilities would be activated and countries will have 2 years to increase their quotas. On April 30 1971, the amount of funds rose to 28.5 billion USD.¹³⁹

6.7.3 Special Drawing Rights

Following the 1960s discussions on the Triffin Dilemma, the IMF finally proposed a solution to the problem of international liquidity by creating a facility called Special Drawing Rights (SDR or XDR) in 1969.¹⁴⁰ XDR is a form of a special reserve asset created by the IMF and can be viewed as a financial asset designed to provide additional liquidity without the need for expansion of foreign exchange reserves. It represented a claim on a specific amount of gold (later on a basket of currencies). This "claim" held no physical form - countries expanded their reserves on their accounting books. These were only to be used for official transaction. Each member country was allocated a specific amount of XDRs based on the amount of their quotas. Whenever a country wanted to buy a foreign currency, it would simply transfer the given amount of SDRs to the lender country. Thus, the net amount of SDRs would remain constant. IMF would increase the total amount of SDRs every year based on the development of world economic growth. Countries would

¹³⁶ International Monetary Fund, *Annual Report of The Executive Directors* (Washington D.C: International Monetary Fund, 1966), 125.

¹³⁷ de Vries, *The International Monetary Fund 1966-1971: Volume 1*, 122.

¹³⁸ International Monetary Fund, *Annual Report of The Executive Directors* (Washington D.C: International Monetary Fund, 1969), 34.

¹³⁹ de Vries, *The International Monetary Fund 1966-1971: Volume 1*, 300.

¹⁴⁰ International Monetary Fund, *Annual Report of The Executive Directors* (Washington D.C: International Monetary Fund, 1969), 33.

not have to accumulate dollar reserves to such degree - this would ease off the market pressure on USD and help solve the liquidity problem in the future.¹⁴¹

3.4 billion USD worth of XDR's were allocated in 1970. Another SDR allocations happened in 1971 and 1972. Both allocations were worth 3 billion USD. XDRs effectively increased international liquidity by 10 billion USD. Nevertheless, this help arrived too late. The fate of Bretton Woods was sealed by that time.¹⁴²

6.8 Gold Window Closed

Following the events of 1967 and 1968 when the pound sterling devalued and Gold Pool ceased to exist, the U.S. BOP situation was on a downward trajectory. FED, as a defense of last resort, severely tightened its monetary policy which in turn led to BOP surplus in 1968 and 1969 due to short-term Eurodollar capital inflow. When the interest rates dropped in 1970, this capital returned overseas resulting in inflation and serious U.S. BOP deficits that reached 30 billion in 1971. The amounting inflation proved to be unsustainable for German mark which in turn left the system and started floating. Switzerland, Austria, Belgium and the Netherlands followed. This heating situation convinced France and the UK to consider converting their dollar reserves into U.S. gold.¹⁴³

On August 15 1971, Richard Nixon decided to suspend the dollar-gold convertibility.¹⁴⁴ This action ended the Bretton Woods as it was known. The most important core design feature ceased to exist. The closure of the "Gold Window" marked the beginning of Bretton Woods end. The dollar started slowly depreciating returning to equilibrium. The

¹⁴¹ Peter B. Clark and Jacques J. Polak, "International Liquidity and the Role of the SDR in the International Monetary System," *IMF Working Paper 2*, no. 217 (2002): 5-10.

¹⁴² Michael Mussa, James M. Boughton and Peter Isard, *The Future of the SDR in Light of Changes in the International Monetary System* (Washington D.C: International Monetary Fund, 1996), 36-38.

¹⁴³ Bordo, "The Gold Standard, Bretton Woods and Other Monetary Regimes: An Historical Appraisal," 42.

¹⁴⁴ *Ibid.*, 43-44.

dollar became a fiat currency. Following the 1973 failure of pegged-rates maintenance proposed by the Smithsonian Agreement of 1971, the Bretton Woods officially ended.¹⁴⁵

¹⁴⁵ David Hammes and Douglas Wills, "Black Gold: The End of Bretton Woods and the Oil Price Shocks of the 1970s," *Case and Teaching Paper Series*, no. 22 (2003): 4-6.

CONCLUSION

The United States monetary policy failure to address the inflationary issues can be identified as the main cause of dissolution. As the main source of liquidity was the U.S. dollar, the system became fixed on its development. Over time, dollar became the new "gold" but where the price of gold was fixed, the price of the dollar became increasingly unstable as the U.S. was practicing expansionary monetary policies boosting inflation in times of the Vietnam War and Great Society programs. The dollar eventually became overvalued triggering a potential run on it. If the U.S. had focused on keeping the dollar stable and therefore supporting its international role, the system would not have become as fragile.

The same thing applies in the case of pound sterling. As the second reserve currency, the UK failed to address the implications arising from the international role of pound sterling and focused on their domestic affairs where increased spending on programs such as Welfare State and erratic BOP behavior undermined the confidence in pound sterling and triggered a run.

Bretton Woods did not address the international liquidity problem properly. How would the countries increase their money supply when the only international currency was the U.S. dollar tied to gold? Besides quotas, the fund originally did not have any other facilities that would allocate more capital and even these sources were of finite origin. The SDRs did provide a solution at last but were deployed too late to make a difference. Therefore, Bretton Woods clearly failed to solve the most important problem. As a result, the countries expanded their dollar reserves to meet the liquidity requirements. But dollars were a domestic currency as well. Which leads us to the Triffin Dilemma.

The reserve currency serving as international currency dichotomy was well described by Triffin. If a currency is used as a global trade facilitator, the demand from other trading partners for it increases as the levels of international trade and overall economic growth increase. This way, countries build up their foreign exchange reserves to protect themselves from shortage and possible deflation (also, as a hedge against risk, for the ultimate possibility of exchanging it for gold under Bretton Woods). Thus, they need an inflow of such currency. By providing other countries with liquidity, the U.S. has to run a BOP deficit - either by current account deficit or capital account deficit -government loans such was the Marshall Plan or private capital outflows.

It cannot possibly run a BOP surplus because this would lead to a massive dollar shortage in the international economy, decreasing the economic activity and sending other countries into depression - this essentially happened in the early 1930s when the world's reserve "currency"(gold), were kept on the balance sheets of U.S. and French central banks.

Running a deficit essentially means that the country's monetary base shrinks over time which might in turn lead to deflation, unemployment and depression. Therefore, the country needs to increase its monetary base so that it matches the amount of goods and services traded within the domestic economy and possibly, as the world trade is booming, provide even more credit to boost the potential economic activity even further. This combination of increasing the supply of money in circulation on the worldwide level accompanied with increased demand for goods inevitably leads to high inflation. When this phenomenon is accompanied with shrinking gold reserves directly convertible with the reserve currency, it undermines the confidence in value of such currency and makes it vulnerable to speculative attacks. Bretton Woods did not deal with this issue. In fact, it was dissolved as a direct result of this issue when the confidence in dollar decreased and a gold run was imminent.

The role of gold eventually undermined the system. Since there was a major decrease in demand and therefore in mining for gold in the 1950s, the relative and real difference between the amount of gold reserves and currency in circulation backed by this gold increased steadily. This eventually resulted in the gold runs. The role of gold in this system proved largely destructible. While it may have been a necessary pillar in the historical monetary system, its role in the modern fiat system largely diminished, as it was demonetized with the Bretton Woods collapse. The deflationary attribute of gold combined with exponential development in the twentieth century became a reason for its own demise. It simply could not keep up with the development. The only solution is the decrease in gold reserve ratio requirement ultimately leading to a fiat currency. This leads to a conclusion - gold and its role in a modern monetary system is overvalued and the gold reserve requirement is not sustainable in the long run.

The extraordinary development of private capital and financial markets since the late 1950s boosted the already turbulent times. Even though Bretton Woods was designed around capital controls and countries tried to exercise capital controls whenever they experienced massive outflow, the functionality of these controls was largely diminishing.

When the Eurodollar market was formed, it was out of reach of monetary authorities. It tremendously helped to increase capital mobility. The whole notion of private capital flow being dangerous to economy was formed in the era of a fixed exchange gold standard regime. It again materialized during the Bretton Woods fixed exchange - countries hesitated to adjust pegs because they feared sudden capital outflow or inflow. Private capital is just another flow of liquidity adding to the overall liquidity. The fixed exchange rates held the capital flow at bay, slowly accumulating, and when the adjustment was imminent, a rather massive amount would either flee or enter the country - these disruptive effects may have different outcomes, both positive and negative in the eyes of a monetary authority. What cannot be contested with is the fact that more available liquidity smooths the system and makes it more efficient. Designing the system around an unsustainable was the original sin.

For the most part of Bretton Woods' lifespan, the IMF was not sufficiently flexible to deal with the economic changes. Even though the system was designed around adjustable exchange rates, the reality was that the exchange rates were rarely adjusted with the exception of massive devaluations in 1949 and again in late 1960s. Since changes in adjustment were designed to be possible only under fundamental economic issues as a reaction to competitive devaluations in the past, countries maintained peg for as long as they could. This process inflated the issues even further and when the devaluation was imminent, the situation, partly because of the speculators, was much more severe than it would have been in the case of timely devaluation. This basically made the Bretton Woods a rather fixed exchange regime more or less. This further paralyzed the funds reactions to world events. Had the fund acted more aggressively, the Bretton Woods would not possibly succumb to monetary shocks as fast. Even though there were external factors like current account inconvertibility and liquidity issues which affected its operations, the IMF was slow, inflexible and static for the most part of Bretton Woods.

Every country in the world abides the rules of the game until it does not. The very core problem of designing an international monetary system around rules is the fact that countries would, in the long run, always pursue their domestic policies first. Whenever a system based on gold standard came into existence, it usually ended in an abrupt fashion when members decided to maximize their own utility.

This brings us to the final frontier of fixed exchanges and floating exchanges. While the system of fixed exchanges might have its uses in times of post-war reconstruction of destroyed and developing countries when economic prospects require rather strict

policies, it seems to retard the interaction between developed nations in times of prosperity. As no single monetary authority in the world can peg the exchange rate as efficiently as the whole market itself, a question arises. Does a system of adjustable fixed exchange rates have place in cases of massive developments of the 20th century? Would not, in times of exponentially developing capital markets, a system of managed float regime perform better? The experience of Bretton Woods shows that, while there is a place for fixed exchange rates for weak developing countries, the monetary system inevitably leads to a floating exchange rate as a response to mismanaged adjustments of fixed rates.

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LIST OF ABBREVIATIONS

ESF	Exchange Stabilization Fund
EPU	European Payments Union
FED	Federal Reserve
GAB	General Agreements to Borrow
GATT	General Agreements on Tariffs and Trade
IBRD	International Bank for Reconstruction and Development
ICU	International Clearing Union
IMF	International Monetary Fund
ITO	International Trade Organization
MMF	Mezinárodní Měnový Fond
SBA	Stand-by Arrangements
SDR	Special Drawing Rights
UK	United Kingdom
U.S.	United States
XDR	Special Drawing Rights

LIST OF TABLES

US Monetary gold stock and liquid liabilities to Foreigners (Millions of dollars)		
End of Year	Total Monetary Gold Stock	Total Liquid Liabilities To All Foreigners
1954	21,793	12,454
1955	21,753	13,524
1956	22,058	15,291
1957	22,857	15,825
1958	20,582	16,845
1959	19,507	19,428
1960	17,804	20,994
		21,027
1961	16,947	22,853
		22,936
1962	16,057	24,068
1963	15,596	26,361
		26,322
1964	15,471	28,951
		29,002
1965	13,806	29,115
1966	13,235	29,904
		29,779
1967	12,065	33,271
		33,119
1968	10,892	33,828
		33,614
1969	11,859	41,735
		41,894
1970	11,072	43,291
		43,242
1971	10,206	64,166
		64,223
1972	10,487	78,680
1973	11,652	87,620
1974	11,652	120,325
1975	11,599	127,432
1976	11,598	152,468

Table 1

Schwartz, Anna J. *Money in Historical Perspective*. University of Chicago Press: Chicago, 1987. 341.

U.S. Economy in Vietnam War							
Year	Military Outlays GDP	Tax Revenue GDP	Budget Deficit GDP	Non Military Outlays GDP	Real Growth GDP	Inflation Rate Price Deflator	Real Corporate Bond Yield
1963	8.9%	17.8%	-0.8%	8.4%	4.1%	1.3%	3.6%
1964	8.5%	17.6%	-0.9%	8.7%	5.7%	1.2%	3.5%
1965	7.4%	17%	-0.2%	8.6%	5.4%	1.8%	3.3%
1966	7.7%	17.3%	-0.5%	8.9%	7.3%	2.2%	2.8%
1967	8.8%	18.3%	-1.1%	9.3%	4.5%	3.2%	3.1%
1968	9.4%	17.6%	-2.9%	9.8%	3%	3.6%	2.7%
1969	8.7%	19.7%	0.3%	9.3%	4.6%	4.5%	2.3%
1970	8.1%	19%	-0.3%	9.8%	1.2%	5.5%	4.4%
1971	7.3%	17.3%	-2.1%	10.7%	1.6%	5%	4.2%
1972	6.7%	17.5%	-2%	11.5%	4.4%	4.7%	5%
1973	5.9%	17.6%	-1.1%	11.6%	6%	4.4%	2%
1974	5.5%	18.3%	-0.4%	11,7	2.9%	7.1%	-1.5%
1975	5.5%	17.9%	-3.4%	14,3	-2%	7.5%	1.5%

Table 2

Labonte, Marc, and Mindy Levit. "Financing Issues and Economic Effects of American Wars." *Congressional Research Service*, no. 31176 (2008): 11.

US PAYMENTS ABROAD (EXCLUDING PAYMENTS FOR GOODS AND SERVICES)					
Year	TOTAL	Government Loans	Government Grants	Private Remittances	Private Capital Outflow
		Total Net	Non Military	And Payments	Total
1946	-6013	-2701	-2274	-625	-413
1947	-7506	-3907	-1897	-715	-987
1948	-6441	-1024	-3894	-617	-906
1949	-6832	-652	-4997	-630	-553
1950	-5428	-156	-3484	-523	-1265
1951	-4716	-156	-3035	-457	-1068
1952	-4083	-420	-1960	-545	-1158
1953	-3041	-218	-1837	-617	-369
1954	-3788	93	-1647	-615	-1619
1955	-4007	-310	-1901	-585	-1211
1956	-6017	-629	-1733	-665	-2990
1957	-6451	-958	-1616	-702	-3175
1958	-6153	-971	-1616	-722	-2844
1959	-5061	-358	-1623	-779	-2301
1960	-6,960	-1,050	-1,650	-820	-3440

Table 3

Federal Reserve Bank of St. Louis. "The United States Balance of Payments 1946-1960."

Federal Reserve Bank of St. Louis Monthly Review 43, no. 3 (1961): 7.