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### *The Change of a Monetary Policy System: Bretton Woods*

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## *The Change of a Monetary Policy System: Bretton Woods*

*by Pascal Knips\**

**This paper analyzes the causes of the implementation and the abolishment of the Bretton Woods system as a case study for a change of a monetary system. For this analysis, the paper briefly explains the issues monetary policy makers have to face in general and takes a closer look on the monetary systems before World War II. The analysis of the Bretton Woods system shows some evidence that besides an altered political and economic environment, changed objectives of countries and especially of global economic powers play an important role.**

In human history, changes in monetary policies often marked turning points for the whole economic and social system of states. Although many might think of modern central banks announcing interest rate changes when hearing monetary policy, these changes can be of a much higher scale and range back to ancient empires. For many centuries, monetary policy in Europe was limited to the questions of coinage, starting with the Greeks and Romans (Davies 2002). Quantity and quality of coins were in the focus of the decisions. This changed with the implementation of banks and a credit market. A crucial point in the history of monetary policy is the founding of the Bank of England in 1694 (Davies 2002). This was a first independent central bank which was responsible for the monetary system in a state. In mercantilism however, decision makers followed a strategy to hold gold in the country and control for gold outflow. More modern theories of monetary policy were developed by David Hume and Adam Smith, whereupon central banks could base their actions more and more on academic theories. Other developments were the formal implementation and meanwhile abolishment of the Gold Standard and its adaptations within the Bretton Woods system. A more recent change in a monetary system is the creation of the euro area and the use of one currency in great parts of Europe.

We see that there are many changes in monetary policy throughout history. Some of them are just intended calibrations within an existing system. Changes in interest rates or a revaluation of gold are such actions. But there are also changes of a complete monetary system. An important question is why these overhauls took place. It is quite intuitive for us that an altered economic environment may require small changes. However it is interesting to examine the factors that drive policy makers and authorities to reform a whole system. There may be political, economic or social crises that induce these changes. To answer the question why monetary systems were changed, it seems necessary to analyse this monetary revolutions in case studies because they are all unique in the way of historic circumstanc-

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es. This paper takes a closer look on the system of Bretton Woods. First, the general trade-offs of monetary systems are mentioned to show that a perfect monetary system is yet impossible. Then, the two systems before the Bretton Woods system are briefly analysed to understand the initial position of the architects of Bretton Woods. The actual analysis of Bretton Woods is divided into the description and analysis of its implementation, the chronicles of its performance and the reasons of its abolishment.

#### EXCHANGE RATE REGIMES AND THE IMPOSSIBLE TRINITY

As stated before, the intention of this paper is to understand why big changes in monetary systems took place. It is therefore very important to understand how exchange rate regimes work, as they set the boundaries of monetary actions and are themselves part of the considerations of policy makers. We will see that especially in the case of the gold standard and the Bretton Woods system, these considerations of exchange rate regimes played an important role. As a first step it is important to state which trade-offs policy makers in an open economy face if they think of changes in a monetary system. Obstfeld, Shambaugh and Taylor (2005) explain the well-known trilemma of monetary policy which is also known as the impossible trinity. It states that it is impossible to impose all of the following three goals at the same time: a fixed foreign exchange rate, free capital movement and an independent monetary policy. Monetary authorities can pick two of the goals but cannot reach the third goal then. For policy makers, all of these goals are desirable because they have specific benefits. Aizenmann (2010) carefully explains the trilemma and the properties of the different monetary regimes. Free capital movement is obviously a helpful thing if domestic demand and supply of capital is in an inappropriate equilibrium. Domestic capital demand in growing economies may exceed domestic supply. Global financial integration with free capital movement detaches this link of domestic demand and supply so capital can flow into the economy. For countries with exceeding savings, it is beneficial to be able to invest abroad. Independent monetary policy on the other hand is helpful to react on country specific shocks with monetary expansion and low domestic interest rates. With monetary autarky, the government can stabilize the economy without being subject to other countries monetary actions. Finally, fixed exchange rates mitigate uncertainty for economic agents acting across borders. International trade becomes way more risky with floating exchange rates. Also, prices are more stable because prices of imported goods are not subject to exchange rate changes. The three goals of the trilemma are not fully indisputable because they can have negative effects also (Aizenmann 2010). But for most of the policy makers, each of the goals is desirable.

Klausinger (2006) sees interdependency between the solution of this trilemma and the question of the ranking of monetary and wage policy. He argues that in a Keynesian view, politicians should not give up autonomy in monetary policy because wages are fixed so monetary policy has the task to react on shocks whereas in a classical view, this burden is on the wage-side. We see that there are many decisions to make for authorities and it cannot be answered in advance if the decision for a specific bundle of opportunities

is right. Looking on the trade-offs in policy decisions, it seems quite intuitive that changes in monetary systems go hand in hand with changes in the objectives of policy makers.

### THE CLASSIC GOLD STANDARD

Before turning to the Bretton Woods system, it is helpful to take a brief look on the Gold standard. In terms of the impossible trinity, independent monetary policy is given up to obtain fixed foreign exchange rates and free capital movement. Klausinger (2006) states that politicians aimed at external rather than internal stability goals by choosing the gold standard monetary system. It is easy to comprehend that external stability was quite important since European and American economies faced a globalized world at about 1900. Trade was a significant source of wealth and the Gold standard with fixed exchange rates and free capital movement was a suitable monetary system to accompany that time's economy. The centre of the world economy and the financial markets was London, and the British Empire the leading economic power. So it is not surprising that the international implementation of the gold standard was promoted by Britain (Bordo 1999, Davies 2002). The gold standard assured moderate money supply growth because authorities promised to change banknotes to gold and the gold stock mostly rose at a low rate because huge gold discoveries were rare. Every country participating in the gold standard linked its currency to gold and thus, the international gold standard implied a system of fixed exchange rates. It also ensured an automatic adjustment of the balance-of-payments. It has to be mentioned that the central banks or the respective monetary authorities had to "follow the rules of the game". The Bank of England as a key player in this game acted in the right way in this period (Bordo 1999). The British dominance is also reflected by the role of the Sterling which acted as a key currency in the system. World War I ended the classical gold standard eventually. Because of additional need for money supply, the countries left the international gold standard.

### THE INTERWAR PERIOD

After the war, the gold standard was once again implemented in most industrial countries. The countries wanted to bring back the golden economic era of the Victorian age (Eichengreen and Temin 2010). But the interwar period was characterised by political and economic crises. The Great Depression exposed the weaknesses of the Gold standard which are stated by Eichengreen and Temin (2010) as follows: Monetary policy within the Gold standard was not able to fight the economic crisis in the 1920s. The imbalances between the economies in Europe and North America were too big for this system. At that time, monetary policy actions were considered only within the gold standard. According to Eichengreen and Temin (2010), policy makers did not seriously think about actions outside the gold standard. But as said before, the Gold standard led countries to make contractionary policy where expansionary policy was strongly indicated. Three main fail-

ures of the gold standard in the interwar period are identified. It had an adjustment problem, a liquidity problem and a confidence problem (Bordo 1993). Countries were not willing to follow the rules of the gold standard with respect to the currency parity to gold for example.

In the early 1930s the monetary system of the gold standard broke down because the countries left the system. They introduced trade barriers and floating exchange rate regimes and started currency wars to protect their domestic industries. These actions are known as a Beggar-thy-neighbour policy. Of course these actions provoked a downwards trend because no country could afford to renounce such protective policies. A conclusion of the gold standard is made by Eichengreen and Temin (2010). They state that it has a “dual personality”. It is good in good times but horrible in bad times. As said before, the gold standard monetary system put emphasize on external stability because exchange rates were fixed and free capital mobility was assured. We will see that in the system of Bretton Woods, the focus of monetary policy moved away from external towards internal stability, but without changing the focus totally. The inducements of implementation of the Bretton Woods system were the lessons policy makers learned from the Great Depression.

Before explaining the mechanics of the Bretton Woods system, we can make a first short conclusion why the Gold standard and the floating currency exchange rate regime in its pure forms were abolished and a new system was implemented. The lessons of the Great Depression were seen as a proof that the Gold standard and the floating currency exchange system were not the appropriate monetary systems anymore (Bordo 1993). The Gold standard was considered as too rigid to react on specific domestic shocks with monetary policy and the floating exchange rate regime aside with the nationalist and protective political environment led to a mutual weakening of nearly all economies. One could argue that monetary policy-makers seemed to be able to learn from past mistakes and tried to make it better.

#### THE IMPLEMENTATION OF THE BRETTON WOODS SYSTEM

While World War II still took place but was about to be won by the Allied forces, about 730 policymakers and economists from 44 countries gathered in Bretton Woods in 1944 and discussed a new worldwide financial system (Davies 2002). Of course, the United States had a large impact on the outcome of this conference as they were much less devastated by the war than Europe. The former economic superpower, Great Britain, had become a net debtor, while the USA on the other hand were a net creditor and financed Europe in the war and the years after (Davies 2002, Bordo 1993). The architects of the Bretton Woods system tried to combine the favours of the Gold standard and the favours of a flexible exchange rate system and wanted to avoid the defects of the two systems simultaneously. The most influencing and powerful negotiating countries were the United Kingdom represented by John Maynard Keynes and the United States represented by Harry Dexter White. However, these two players had opposite visions about the new system to be created. White preferred a system that would stimulate

world trade and Keynes preferred a system with more internal adjustment opportunities (Obstfeld and Taylor 1998). That is the United States were in favour of fixed exchange rates whereas the United Kingdom prioritized a flexible exchange rate regime. In fact, the constructors set up a system with adjustable fixed exchange rates with the US-Dollar as an anchor currency. Participating countries pegged their currencies to the US-Dollar and the Dollar itself was pegged to gold at a guaranteed rate of 35 US-Dollar per ounce. Member countries promised to renounce competitive depreciations. A one percent corridor of the exchange rates was introduced. That means each country was responsible to stabilize its currency within this corridor by US-Dollar transactions (Bordo 1993). With respect to the trilemma of monetary policy, free capital movement had to be sacrificed to obtain monetary autonomy and fixed exchange rates (Obstfeld, Shambaugh and Taylor 2005). Indeed, capital controls were intended at the beginning of the system but lost relevance till the mid-1960s.

Also two new institutions were founded: The International Bank for Reconstruction and Development (IBRD), today part of the World Bank Group, and the International Monetary Fund (IMF) (Davies 2002). These institutions were proposed by both of the economists, but Keynes proposed some ideas of a new money creating system organized by the IMF which were finally not realized. The IMF was created as a supervision institution for the global monetary system controlling the countries if they follow the rules of the Bretton Woods system. The fund also acted as an emergency lender for countries with bad current accounts and severe economic problems and as an advisor for policy makers in monetary questions. The new system allowed exchange rate changes if the economic environment changed significantly leading to a fundamental disequilibrium (Williamson 1985). The IBRD was created as an institution for development aid and played a huge role for developing countries but was not that important for the monetary system this paper is interested in.

The implementation of the Bretton Woods system shows some important historical developments. After a first peak of globalisation before the Great War and the following decades of protectionism and nationalism with anti-climaxes in the Great Depression and World War II, countries worked together again and negotiated a new monetary system. Although there were institutions which acted as global supervisors, it relied also on self-commitment. Beside this new collaboration another development became irrevocably: The United States of America were the new uncontested global economic leader and the US-Dollar was the new global anchor currency. This new ranking of nations can also be seen in the negotiations of the Bretton Woods system. White enforced more of the US ideas than Keynes did for the United Kingdom and both new international institutions were settled in Washington. Obviously, all European countries suffered dramatically more in World War II and were highly indebted, so the new position of the United States as a global economic leader was not surprising. Additionally, a vast proportion of worlds gold reserves were owned by the United States so it was the only country that could promise convertibility to gold. Officially, all currencies were intended to be equal, but the Bretton Woods system led to a predominant role of US-Dollar as a kind of gold replacement after the Sterling was passed as the leading reserve currency. In conclusion, the

new monetary system was organized by negotiations between the United States and Britain where the USA dominated the terms of agreement. Both main participants were at least partly aware of the flaws of the previous systems and the responsibility of creating a new stable system (Bordo 1993).

#### THE PERFORMANCE OF THE BRETTON WOODS SYSTEM

However, the whole system was only fully working in 1958, when full convertibility was established (Bordo 1993). European economies were not able to establish the Bretton Woods rules right from the beginning because the current account imbalances would have been too high. Massive aid from the United States in form of the well-known Marshall Plan and competitive supporting exchange rates were needed for Europe before the full system was finally established in 1958. In the first years, the system was more a system of bilateralism (Bordo 1993). Only the US-Dollar was freely exchangeable.

After the first years of implementation and with help of the Marshall Plan, the industrialized countries experienced a rather stable economic period. The economies of Western Europe resurged till the mid-1950s and eventually ran current account surpluses (Bordo 1993). Bordo (1993) compares the performance of the Bretton Woods system with the regimes before and after. The G7 countries, including the United States, Canada, the United Kingdom, France, Germany, Italy and Japan, faced a mean inflation rate of moderate 3.6 percent. This rate is even more impressive if compared to the 7.2 percent mean inflation rate in the floating exchange rate regime after the Bretton Woods system between 1974 and 1989 and to a mean deflation rate of 1.1 percent in the interwar period. In the Gold standard period before World War I, inflation rates were not far away from zero, with the exception of Japan facing a much higher inflation rate. Moreover, also real GDP growth rates were higher in the Bretton Woods period, at least in the mean of all G7 countries. While all seven countries experienced improved real GDP growth in comparison to the interwar period, this is different if compared to the floating exchange rate regime since 1974. The United States had a slightly higher mean growth rate after the Bretton Woods system whereas the other six countries performed better in the Bretton Woods system. Another quite interesting fact is that in this system, most countries faced significantly fewer banking crises than in any other monetary regime. It has to be stated though that the European countries as well as Japan faced a catching up process after the war leading to naturally higher growth rates (Cameron and Wallace 2002).

#### PROBLEMS AND ABOLISHMENT

Although most countries experienced a quite stable period, the Bretton Woods system had some mistakes, most of them discovered very early at the beginning by some economists like John Maynard Keynes. Looking at the impossible trinity of monetary policy, the architects of the new system intended to combine the different goals to a certain extend. In fact, Bretton

Woods worked similar to the Gold Standard. In the 1960s, Robert Triffin pointed out a dilemma of a country which currency is used as a reserve currency because domestic and global goals required different policies (Bordo and McCauley 2018). To provide the global monetary system with liquidity, that is US-Dollar, the United States had to run a current account deficit. On the other hand, a surplus was needed to obtain credibility of the US-Dollar, because otherwise, more US-Dollar could circulate than backed with gold.

Economists identify three major problems of Bretton Woods picking up the Triffin dilemma (Williamson 1985, Bordo 1993): the adjustment problem, the liquidity problem and the confidence problem. Current Account surplus and deficit countries faced different severe adjustment problems. Also, the United States as a core economy with the reserve currency had different adjustment problems than European countries, which led to tensions between some European countries and the United States. For the adjustment problems, there were several different approaches for the European countries depending on their special economic situation. These approaches included instruments like revaluation of exchange rates, capital controls and various monetary and fiscal policy mixes. The liquidity problem identified by Bordo (1993) is pretty much in line with Triffin's critique. The United States had to run a permanent balance of payments deficit to provide sufficient liquidity for the world's economic growth and global trade. Otherwise, the global economy would suffer from an imminent deflation and growth slow down. To react to this problem, Keynes idea of a new global reserve currency was revived (Davies 2002). An instrument called special drawing rights (SDR) was implemented. The SDR were created by the IMF and its value is determined by a bundle of the most important currencies. Additionally, the IMF was provided with more financial resources to ensure its preparedness in financial crises and imbalances. The confidence problem arises directly from solving the liquidity problem. If the United States provided enough US-Dollars to the global economy, their value exceeded the value of gold held by the United States. Indeed this took place at some point in time. Although European countries promised not to convert their US-Dollar liabilities in gold, the threat of doing so was imminent, causing a credibility problem. Moreover, the Bretton Woods system evolved in a fixed-exchange rate regime, although exchange rate adjustments were intended and really took place in the beginning. In late times of the monetary system, countries hesitated to change the exchange rates out of fear of the consequences.

In conclusion, the system of Bretton Woods faced pretty similar problems as the monetary system in the interwar period despite the fact that architects tried to overcome them. The differences were the absence of a deflation threat but rather an excessive inflation rate threat and the willingness to collaborate internationally (Bordo 1993). However, also in this regard, the system evolved differently than intended. Constructed as parity between economies and currencies with the IMF as monitor and manager, the United States finally had a predominant role. In fact, the system was run by US-authorities in collaboration with the other major industrial countries.

Finally, the Bretton Woods system collapsed and there are different theories of what was the final cause. One explanation is the rising inflation. Out of several reasons like expanding social programs and the Vietnam



War, the United States increased the money supply leading to an increase in inflation. The monetary system with implicit fixed exchange rates led to a transmission of the inflation to other countries within a time lag. The only way of stopping the import of US-inflation was letting the exchange rate float. Another explanation was the pressure on exchange rates to adjust. The US-Dollar was overvalued and European countries were not willing to adjust. Surplus countries did not want to revalue because they feared for their export industry. Finally in 1971, West Germany let its currency float because neither high imported inflation was accepted nor the willingness to reevaluate the Deutsche Mark was present. Other countries followed this step. Furthermore, countries like France and the United Kingdom intended to convert their Dollars into Gold because there was pressure on the US-Dollar to devalue. This led to the Nixon shock. Among other policy instruments, US-president Nixon announces the suspension of the convertibility of Dollars into gold. Although this was initially meant to be temporarily, this not-consulted solo action of US-authorities marked the end of the Bretton Woods system.

Bordo (1993) conclude four main reasons for the breakdown of Bretton Woods. First, the de-facto Gold-Dollar Standard led the United States in a convertibility crisis. Second, free capital movement in the later times of Bretton Woods made exchange rate adjustments too costly, so that the system evolved in a de-facto fixed exchange rate regime. Third, inflationary monetary policy of the United States was not appropriate because monetary policy in the anchor economy also led to an export of this policy. The United States faced a trade-off between global and internal stability. Fourth, surplus countries were unwilling to adjust their currencies. While the USA emerged as the most powerful economy, European countries and Japan rapidly converged and therefore lowered the relative importance of the US economy. These new strengthened economies urged for different policies than intended by the United States.

It appears surprising that despite architectural mistakes and false policies, most economic indicators are most stable in the Bretton Woods system (Bordo 1993, Cameron and Wallace 2002). Bordo (1993) emphasizes the role of the United States in the system to explain this contradiction. For most of the period, they followed appropriate policies for most of the countries in the system. The absence of many shocks also helped to prevail stability and kind of hid the system's flaws. It is indicated that at a specific point of time, when interests of US-policy diverged from global interests, the system had to break down, just because of its flaws.

## CONCLUSIONS

By two case studies, the implementation and the breakdown of the Bretton Woods system, I wanted to examine what causes the change of a monetary policy system. A simple answer would be that the previous system just proved to be inadequate. While the Bretton Woods system was implemented after two of the most severe catastrophes in the 20<sup>th</sup> century, its breakdown was preceded by a finally dysfunctional system. The system more or less emerged smoothly in a floating exchange rate system.

A more sophisticated answer put emphasize on the countries objectives and the trade-offs they face. Objectives just may change through economic development or altered circumstances. The Bretton Woods system seemed to be adequate as long as the USA acted for external stability. Once they turned to internal stability, the flaws of the system were unmasked rather fast. At that point, a new monetary system had to be established.

A huge takeaway of this analysis is also the importance of influence of the leading world power on the monetary system. Before World War I as well as after World War II there was one undisputable supreme economic world leader: The British Empire and the United States of America. The monetary system reflects this hierarchy in some points. The Gold Standard was heavily promoted by Great Britain and its currency, the Sterling, had the role of a worldwide reserve currency. The creation of the Bretton Woods system was mostly influenced by the United States the US-Dollar became more and more important. So at least in the case of the international Gold Standard and probably even more for the Bretton Woods system, the favours of the leading economic power seemed to be very important for the architecture of an international financial and monetary system. A change in the hierarchy as well as a change in objectives of the leading power may lead to an overhaul of such systems.

As a key conclusion I would suggest to take a closer look on the changed objectives of countries and the subsequent different choices in trade-off situations. The objective changes of leading countries may be most important here. Also the rise of new economic powers and their goals seems to be important. This may explain other changes in monetary policy systems in history but is to be tested in other case studies.

## REFERENCES

- Aizenman, Joshua. "The impossible trinity (aka the policy Trilemma)." In *The Evidence and Impact of Financial Globalization*, edited by Gerard Caprio, 381-90. Boston, MA: Elsevier, 2010.
- Bordo, Michael D. "The Classical Gold Standard: Some Lessons for Today." In *The Gold Standard and Related Regimes: Collected Essays*, edited by Michael D. Bordo, 148-79. Cambridge University Press, 1999.
- Bordo, Michael D. "The Bretton Woods International Monetary System: A Historical Overview." In *A Retrospective on the Bretton Woods System: Lessons for International Monetary Reform*, edited by Michael D. Bordo and Barry Eichengreen, 3-108. University of Chicago Press, 1993.
- Bordo, Michael D. and Robert McCauley. "Triffin: dilemma or myth?" NBER Working Paper Series No. 24195, Cambridge, MA, January 2018.
- Cameron, Gavin and Chris Wallace. "Macroeconomic Performance in the Bretton Woods Era and After." *Oxford Review of Economic Policy*, Vol. 18, Iss. 4 (2002): 479-94.
- Davies, Glyn. *A History of Money. From Ancient Times to the Present Day*. Cardiff: University of Wales, 2002.
- Eichengreen, Barry and Peter Temin. "Fetters of gold and paper" *Oxford Review of Economic Policy*, Vol. 26, Iss. 3 (2010): 370-84.
- Klausinger, Hansjörg. "Von Bretton Woods zum Euro – Ideengeschichtliche Perspektiven". In *From Bretton Woods to the Euro - Austria on the Road to European Integration*, edited by Peter Mooslechner and Ernest Gnan, Wien: Oesterreichische Nationalbank, 2006.

- Obstfeld, Maurice and Alan M. Taylor. "The Great Depression as a Watershed: International Capital Mobility over the Long Run". In *The Defining Moment: The Great Depression and the American Economy in the Twentieth Century*, edited by Michael D. Bordo, Claudia Goldin and Eugene N. White, 353-402. University of Chicago Press, 1998.
- Obstfeld, Maurice, Jay C. Shambaugh and Alan M. Taylor. "The Trilemma in History: Tradeoffs among Exchange Rates, Monetary Policies, and Capital Mobility." *The Review of Economics and Statistics*, Vol. 87, Iss. 3 (2005): 423-38.
- Williamson, John. "On the System in Bretton Woods." *The American Economic Review*, Vol. 75, Iss. 2 (1985): 74-79.