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Thesis- The failure of the Bretton woods system was due to inherent problems with the system and irresponsible US monetary and Fiscal policy.

After world war two the financial world was up for grabs and the center subsequently transitioned from London to New York. The dollar became the dominant currency for international transactions and was universally held as the reserve asset or store of value. The new financial system that brokered this arrangement was called the Bretton Woods system. The system recognized the dollar's role by making it the principal reserve currency of a new international financial system with the British pound as a second reserve currency. Exchange rates of other currencies were fixed to the dollar but were adjustable under conditions defined by the agreement. Finally, the dollar was backed or fixed to gold at a rate of $35 an ounce. The predominate goals of the Bretton woods system were to go away from the rigidity of the traditional gold standard and create a stable international monetary system to help rebuild war torn nations and foster a new global economy (Hazlitt).

This agreement obligated countries to intervene in order to keep their currencies within 1 percent of their fixed but adjustable rates. As the issuer of the primary reserve currency, the United States was to continuously buy and sell gold for dollars or any predetermined convertible currency at a set price of $35 for an ounce of Gold. When the system started, the United States held about seventy five percent of the world's monetary gold. By the end the US had less than 25% of the worlds gold stock (Meltzer).

In this paper I examine how the system was born with inherent problems. The three primary problems were international confidence, liquidity, and adjustment. I also discuss how the monetary and fiscal policy of the US government, primarily from 1963-1973, greatly deviated from the responsibilities outlined in the system.

Background

Prior to World War Two, London was the financial capital of the world. With the onset of the war, and Great Britain's dire need for our aid, served as the perfect catalyst for the impending transition of financial dominance from London to New York. Franklin Delano Roosevelt saw this coming and was quoted to his son saying, "It's something that's not generally known. But British bankers and the German bankers have had world trade pretty well sewn up in their pockets for a long time… well, now, that's not so good for American trade is it?.. the past excluded us from world trade, kept our merchant shipping closed down, and now Germany and Britain are at war, what should we do?" (Roosevelt). President Roosevelt's answer came about in an ambiguous article in the lend lease act of 1941. The article is as follows:

> In the final determination of the benefits to be provided to the United States of America by the Government of the United Kingdom in return for aid furnished under the Act of Congress of March 11, 1941, the terms and conditions thereof shall be such as not to burden commerce between the two countries, but to promote mutually advantageous economic relations between them and the betterment of world-wide economic relations. To that end, they shall include provision for agreed action by the United States of America and the United Kingdom, open to

> participation by all other countries of like mind, directed to the expansion, by appropriate international and domestic measures, of production, employment, and the exchange and consumption of goods, which are the material foundations of the liberty and welfare of all peoples; to the elimination of all forms of discriminatory treatment in international commerce, and to the reduction of tariffs and other trade barriers; and, in general, to the attainment of all the economic objectives set forth in the Joint Declaration made on August 14, 1941, by the President of the United States of America and the Prime Minister of the United Kingdom (Act).

Britain had no option but to agree.

Three years later, and with the success of the D-day invasion, it was clear the allies were going to win the war. In July of 1944, 730 delegates from all 44 allied countries met in Bretton Woods, New Hampshire to discuss various proposals for a new international monetary system. Three major players arose and represented two distinct proposals. Two Americans by the names of Cordell Hull and Harry Dexter White representing one proposal, and the famous British economist, John Maynard Keynes represented another.

Cordell Hull was the point man for the American proposal. On the subject, he was quoted as saying, “a long step toward the fulfillment, after the war, of the economic principles for which I had been fighting for half a century” (Hazlitt). Beginning as a senator from Tennessee, Hull served as Secretary of State for eleven years under the Roosevelt administration. During his term, he helped pass the Revenue Act of 1913 and 1916, which later implemented federal income tax and estate tax. Hull is remembered for being a progressive thinker. He was aware of the possibility of war on America’s horizon, and long before Bretton Woods developed a plan to generate revenue to fund the war effort. Knowing that the bigger the war became, the more revenue the government would need to sustain it, Hull suggested inflating American taxes to quickly gain the funds.  In addition to the United States, all of the countries that signed onto the lend lease agreement had to accept multilateralism after the war. For his work, Hull was awarded the Nobel Peace Prize in 1945 for "co-initiating the United Nations." Hull was optimistic about the post war international economy and viewed the United States at the helm. Hull was quoted as saying,

"Leadership toward a new system of international relationships in trade and other economic affairs will devolve very largely upon the united states because of our great economic strength. We should assume this leadership, and the responsibility that goes with it, primarily for reasons of pure national self-interest" (Hazlitt).

Another primary player in this event was Harry Dexter White, a senior official of Bretton Woods and rival of Keynes.  White worked as a major architect for the IMF and the World Bank, although he abruptly resigned from IMF on June 19, 1947.  A year after this, he was accused of espionage and died suddenly from a heart attack.

White and Hull proposed two major plans at Bretton Woods.  The first of which called for the countries of the world to join in creating a stabilization fund, totaling about five billion dollars. Together, they would engage in short term loans to developing countries, assisting them in getting out of deficits. In return for the greater liquidity and quick aid, the members had to agree to fix their currency to the dollar, and then fix it to gold at $35.00 an ounce.  The process would involve a large amount of inflation to provide the immediate capital (Hazlitt).

John Maynard Keynes opposed Hull and while and proposed a second plan. The British or Keynes Plan, was even more inflationary than White and Hull's first plan.  Keynes idea was fueled by the pressure to abandon economic and monetary nationalism for Britain.  Keynes' goal was to salvage the most domestic inflation as possible by using as much cheap money for Britain as the United States would allow. Keynes envisioned an International Clearing Union (ICU) which members would agree to a stable exchange rates between currencies, and the abandonment of exchange controls in exchange for a slice of a 26 billion dollar loan fund. In addition, the Keynes Plan called for a new international monetary unit, the “bancor,” which could be issued by the ICU in large quantities in order to provide almost unchecked room for inflation, even for a country with a large deficit in its balance of payments. As part of the agreement, the nations involved would consult each other about correcting balance-of-payments disequilibria, by altering their exchange rates as needed. This process was extremely arbitrary as there was no set definitions or rules on when to adjust exchange rates and by how much one could adjust.

The Keynes Plan, furthermore, provided automatic access to the fund for deficit countries, so high liquidity, with none of the embarrassing requirements, as included in the White Plan. Whereas the White Plan authorized the Stabilization Fund to require deficit countries to cease inflating in return for fund loans, the Keynes Plan envisioned that inflation would proceed unchecked, with all the burden of necessary adjustments to be placed on the creditor countries, who would be expected to inflate themselves, in order to maintain exchange rates with the deficit nations. This plan garnered abundant opposition, with people instead favoring the return to the Gold standard. The belief in there being too much government regulation and control risked the possibility of runaway inflation (Hazlitt).

Come July of 1944, Bretton Woods was formed as a compromise of the two plans and creation of the IMF. White achieved the amount he suggested, and he and Keynes agreed upon an initial fund of 8.8 billion dollars. Keynes also prevailed in how the IMF would be controlled on an international level, rather than by a single, sole domestic leader. Additionally, the fund could require certain domestic economic policies, causing the lack of automatic accessibility. In agreement with White's plan, gold was pegged at $35.00 an ounce. Countries were allowed to make a 10% change in their exchange rates, and that larger changes could be made to correct "fundamental disequilibria" (Drahos). The agreement provided that any country could reduce the par value of its currency whenever was necessary, in order to correct a "fundamental disequilibrium," and that the proposed International Monetary Fund should not reject such a proposal. "Fundamental disequilibrium" was not defined. Also, no limit was placed on the number of these reductions of parity provided they were individually 10 per cent or less. After having had its currency accepted at par by other members, any member country could withdraw from the Fund at any time, provided that it gave a notice in writing. No time period was specified for how long in advance such notice was required.

Furthermore, the U.S. yielded again in allowing creditor countries to suffer by permitting deficit countries to impose exchange controls on "scarce currencies." This meant in effect that the major European countries, whose currencies would be fixed at existing highly overvalued rates in relation to the dollar, could be permitted to enter the IMF with overvalued currencies, and then impose exchange controls on "scarce," undervalued dollars. Much to Keynes dismay there was no "bancor" (Hazlitt). Instead, the dollar was firmly fixed as the key currency. A director from the bank of England was quoted saying, "that if the plan is adopted financial control will leave London and sterling exchange will be replaced by dollar exchange." He was right.

The plan eventually passed in Congress in July of 1945. To promote it, the United States used a great deal of propaganda, such as advertising that America would have complete control over the program. Most people who supported it had good intentions, including the financial movers and shakers, who believed that the money was going to flow into the American economy because the United

States was the creator of the rules that no other country would cross. Still, despite Keynes requests, the underlying goal of preventing unchecked inflation eventually resulted in big time inflation. In some ways, Bretton Woods used a combination of debt and inflation, two of the three ways a government can earn money. Ultimately, the United States finished as the dominate player, portraying the amount of manipulation and rationalizations that goes into passing such plans. Lamar Fleming Jr. President of the Anderson, Clayton, and Company wrote to his friend that, “the British empire and British international influence is a myth already.” He also prophesied that the United States would soon become the British protector against the emerging Russian land mass, which would mean “the absorption into [the] American empire of the parts of the British Empire which we will be willing to accept.” This would mark the end of the new deal period and the beginning of the United States’ financial dominance. All of the hard work put into these strategies was supposed to pay off, but we will see how unfortunately it did not.

## Conceptual Problems

Regarding Bretton Woods, Hennry Hazlett is quoted as saying, “the agreement provided in advance for a uniform devaluation in the gold value of member currencies. This deliberately sanctioned future world inflation” (Hazlitt). Inflation is the most uncertain and inefficient way for governments to pay for things. Compared to other revenue generating options, it creates the most instability, which seems contrary to the goals of the Bretton Woods Plan to maintain financial stability. A provision for uniform inflation in all major countries would increase the temptation to inflate in each country by removing some immediate penalties. When the currency of a single country begins to drop due to inflationary policies, two negative results follow. One is the quick loss of gold, unless the government prohibits its export. The other result is the country's currency quoted at a discount in other nations (Hazlitt).

More specifically, because under Bretton Woods's rules countries were permitted to devalue up to 10 percent without consultation when faced with "fundamental disequilibrium" and because there was no real definition of fundamental disequilibrium countries could essentially inflate at will which was problematic if the goal is to maintain fixed exchange rates and stability (Drahos). So because of this countries were expected to buy and sell dollars to maintain the set rates. Which meant they had to constantly fluctuate in order to maintain their exchange rate. Nations were supposed to keep a sort of ideal reserve rate in order to maintain the exchange rates. The problem was these "ideal rates" weren't conducive to a rapidly changing, unpredictable, global economy.

In order to examine the problems of a system as a whole I also must examine the main responsibilities of US monetary and Fiscal policy under the Bretton woods system and how it was next to impossible to maintain this goals because of the nature of the system. The pre-determined responsibilities and corresponding problems were as follows:

1. Because foreigners had the option of converting dollars into gold; the United States had responsibility for keeping the gold price fixed by permitting conversions and, at a more basic level, adjusting the production of dollars to maintain confidence in future gold convertibility (Rothbard). This proved to be very difficult because any imbalance of payments or discrepancies with our gold reserves to outstanding liabilities could potentially throw things off. If foreign liabilities rise faster than reserves the US could not keep up with demand and make payments which also would mean a steady decrease in our reserves which would increase the real exchange rate. Or cost more because there is less gold to back it up.
2. On the contrary a steady surplus in the U.S. balance of payments would have transferred gold and dollars to the United States. Making US reserves higher. Since dollar balances were part of

foreign reserves, but not U.S. reserves, total world reserves would fall. Which is the opposite of the intent of the system to stabilize developing countries. So this was seen as undesirable as well.

3. Under a U.S. payments deficit, conversion of dollars into gold left world reserves unchanged but lowered the gold reserves behind the principal reserve currency. With growing foreign trade, and an implicit assumption that imbalances increase with trade, reserves would be inadequate to finance imbalances at fixed exchange rates and a fixed gold price. So it seems there is no real winner.

The system was very sensitive in that the US can't have either a surplus or a deficit so must maintain this ideal balance of reserves to liabilities. This is seemingly impossible because if foreign trade and payment imbalances rise with world incomes there would be an increased demand for reserves at an unsustainable rate. So this inevitability that liabilities would outweigh reserves would only lead to a significant outflow of US reserves which in turn decreases the likely hood foreign banks could liquidate their reserves for our Gold, which was a major component of the system (Meltzer).

To summarize the flaw that leads to the destruction of the system is the moral hazard or temptation for foreign countries to engage in currency manipulation which would lead to major liquidity problems, or the inability for the US to redeem (Rothbard).

To summarize further, if the United States inflates countries would have to respond with inflation to avoid a decrease in value of their reserves. Any US inflation will lead to further international inflation, most likely at higher rates which would lead to increased capital outflow from the United States to foreign markets and a decrease in our reserves which is a failure of our responsibility to maintain the exchange rate. So while capital outflow is required for this system it in turn would lead to an imbalance of payments and a viscous cycle of inflation. In the next section I chronologically examine how that all plays out.

Rise and Fall of Bretton Woods

After World War Two, Bretton Woods and US policy attempted to aid reconstruction of war torn Europe and encouraged foreign governments to rebuild reserves as a step toward convertibility. In order to acquire more dollars foreign nations were encouraged to export to the US. At the same time, "reconstruction countries" were instructed to restrict imports from the US in order to protect local industries from competition. In total, expenditures to military commitments and aid to developing countries maintained an out flow of dollars equal to more than 2 billion a year (Singh). This was initially seen as positive because it helped achieve the first step of the Bretton woods system which was to build up foreign dollar holdings. Despite this outflow Western countries maintained an account surplus by the mid 50s- meaning they had more reserves than liabilities

This trend continued until 1958 when developing countries were allowed to start converting their currency for ours and their dollar holdings for US gold. Between 1958 and 1959 gold and dollar reserves of the principal European countries, Britain and France, increased by $5 billion which was about 25% of total US reserve assets at that time. By 1960 our gold reserves equaled $20 billion (Meltzer).

At first, the problem with Bretton Woods was seen as a temporary balance of payments problem. In other words it was the inability of the United States to balance its trade and payments at the prevailing fixed exchange rates (Rothbard). The end of this historical era is fixed by the decision in March 1971 to abandon fixed exchange rates between principal currencies.

Traditionally in the U.S. system, principal responsibility for international economic policy rests with the Treasury (Rothbard). The Federal Reserve is formally of secondary importance.  But Under Bretton Woods the Federal Reserve's main responsibility increased because of the fact the dollar was the principle reserve currency. So any changes in our monetary policy could impact the real value of the world's primary reserve. To put it simply, the responsibility of the fed was to conduct monetary policy so as to maintain the fixed exchange rate of $35 for an ounce of gold. That was considered the formal role of the Federal Reserve. In reality the Federal Reserve also took on a significant more informal role during the rise and fall of Bretton Woods. Officials and staff participated in international meetings, gave advice and counsel on what were seen to be the ongoing principal problems of the Bretton Wood system, and proposed solutions. Federal Reserve employees participated at the regular meetings of the Bank for International Settlements, where central bankers held discussions and reviews of U.S. policies. What I found was that there is little evidence of any major effort by the Federal Reserve employees to encourage in those meetings monetary and fiscal policy in a manner consistent with the requirements laid out during the Bretton Woods conference. I also found there is no evidence that any of the administrations objected to this neglect (Hazlitt). On the contrary, from the Kennedy to the Nixon administrations, domestic economic policy objectives were of primary interest. For example, financing the war in Vietnam and stimulating domestic growth to combat the slowing economy in the 60s. (Meltzer)Page 55

As previously stated, by 1960, the U.S. held $20 billion or almost half of all monetary gold. As foreign nations started to redeem their dollar holdings for Gold and imbalances rose policy responses were quickly implemented with the goal to slow capital outflow and resolve this liquidity problem. One example was the removal of quantitative restrictions against imports from the United States, and recommendations that foreign governments increase lending to developing countries.

Quantitative restrictions were put in place to limit how much a country would import from the United States. Our government initially recommended it to developing countries as a way to grow and protect their industries from us competition. The goal of removing the restrictions was to increase US exports thus increasing the flow of money back into the US from foreign nations. Since prior to that we were encouraged to import foreign goods to help developing nations rebuild and increase their reserves. But this consequently lead to too much capital outflow. In simpler terms if dollars were flowing out of foreign reserves and back into our economy, foreign governments would be less likely to liquidate their dollar holdings for US gold. To settle the balance, the United States either had to sell gold or accumulate dollar liabilities from foreigners. As the gold reserve declined and liabilities rose, concern continued to increase that the liabilities would become too large relative to the gold reserve to maintain confidence that the gold price would remain fixed at $35 an ounce and to honor our promise to redeem foreign dollar holdings for gold. As our liabilities rose so did foreign countries inabilities to liquidate or redeem dollars for Gold.

More specifically if we look at us gold reserves and liabilities to foreign central banks and governments we see from 1960 to 1964 dollar liabilities start at about half of US gold reserve. But as the decade progresses reserves and liabilities start to meet in the middle. By 1964 liabilities equal reserves, so we have a brief moment of the ideal balance which was one of the goals of the system. Post 1964 gold reserves and liabilities start to have an inverse relationship. (Meltzer)Page 58

President Kennedy was very committed to maintain the 35$ exchange rate but also ran on the promise of getting the domestic economy moving after the relatively slow growth and recessions of the previous four years. So being committed to a fixed nominal gold price rate Kennedy refused to implement any of the remedies for preserving the fixed exchange rate which were suggested at the time. First of which was the idea to devalue or increase the price of gold in order to reflect its real market value. President Kennedy felt we couldn't devalue the dollar against gold because it would result in a loss of confidence. If we devalued the prevailing belief was it would show we were unable to maintain the system and people will anticipate further devaluations and make a run on dollars and gold which would significantly decrease our reserves, which is the opposite of what they wanted to happen.

The second remedy, deflation, was also off the table. The strategy would be to deflate the dollar until its real value returned to the original exchange rate. Kennedy was against this because he was very focused on domestic growth and deflation is not conducive with plans to artificially spur the economy. Under Kennedy we see conservative fiscal policy (lower taxes, tariffs, etc.) but expansive monetary policy. We then start to see more how this expansive approach directly goes against the responsibilities of the fed in maintaining the exchange rate. President Kennedy's belief was that this fiscal monetary mix would stimulate output while reducing capital outflow by creating a friendlier environment for growth in domestic markets compared to foreign markets. Which, he hoped, would increase capital inflow reducing the demand for our gold and alleviate some of the liquidity problems.

Unfortunately, looking at data we see the opposite happened and a failure of the fed to be responsible. When we look back at the federal fund rate and the annual growth of the monetary base there was absolutely no policy of the "tight money" which was required to maintain the system. Briefly, The Federal fund rate is the rate banks lend each other money overnight. Banks typically engage in this quick lending in order to maintain Federal Reserve requirements. This rate is very important because it is integral in credit expansion or an increase in the monetary base. The lower the fund rate, the cheaper it is to loan, and more loaning equals more credit expansion (Meltzer). From 1961 to 1963 the fund rate was between 2 and 3 percent which, for the day, was low compared to when Kennedy took office in 1961 the rate was 4% (Meltzer). During this three year period the rate was heavily targeted by way of increase in the monetary base and decrease and then steadying of interest rates.

So a decrease in the federal fund rate is related to an increase in the monetary base. From 1961 to 1963 the monetary base was growing at a rate of two-four percent, which was an increase of one and a half percent prior to 1961. By 1963 growth of the base was above the long term growth of output. So our money supply was growing faster than we were. So in real terms the dollar was being devalued at a faster rate than the proceeding 15 years (Singh). All the while exchange rates were still fixed.

During the 1960s inflation was desirable due to the increasing popularity of the Phillips curve which theorizes a trade in higher inflation for lower unemployment. So the lower unemployment and increase in wages was supposed to offset the price increases brought on by inflation.

From 1963 to 1964 inflation did stabilize some at around 4% while the fund rate had increased to around three and a half percent because liabilities continued to rise. Therefore, this strategy was clearly not working.

During this time of decreased domestic inflation, foreign inflation grew in response to the previous two years of high US inflation. Foreign central banks caught on and started redeeming their reserves and inflated at higher rates in order to keep up and liquidate at still cheaper rates.

An unintended consequence of this back and forth inflation lead to a relative decline in prices of US goods compared to abroad prices. Because foreign banks inflated at higher rates than we did consequently their prices grew at faster rates. Data supports this because foreign CPI’s increased more than ours between 1961 and 1966 (Meltzer). So because of the relative price changes brought on by loose monetary policy, us capital investment abroad continued to be considered desirable by investors in order to take advantage of the higher prices and capital outflow continued despite the wishes of Washington.

We then see a second wave of increased balance of payments deficits and a predictable foreign response. As foreign reserves increase with increased foreign investments from US entrepreneurs, foreign governments wanted to cash in. By 1966 gold reserves fall below liabilities. To review, in 1964 gold to liabilities was 15 billion and 15 billion, in 1965 that ratio was 13 billion to 16 billion, by 1966 12 billion to 15 billion (Meltzer).

This second wave of imbalances led to more responses from Washington. Congress slowed down the purchase of abroad military equipment and supplies and reallocated it to domestic firms, despite higher costs. More Interest equalization taxes were put on foreign borrowing to encourage domestic investment. The tax was on the purchase of foreign securities and intended to decentivize spending abroad while increasing government income too and ultimately our reserves.  We see this doesn't have much noticeable effect and was not enough to make any real changes or seriously reverse the problems with capital outflow and increased liabilities as gold reserves and liabilities only slightly stagnated.

Another contributing factor was a short term measure put in place that intended to pay liabilities without reducing gold supply. Reciprocal credit agreements called swaps were implemented with foreign central banks which provided loans of foreign currencies and dollars. So essentially the swaps were supposed to act as insurance for our loans. The fed would typically borrow a number of currencies to then buy dollars abroad then use those dollars to pay back the liabilities without taping into the gold reserve. So essentially they took out a loan to pay back another loan. Then to repay the swaps the treasury began borrowing from central banks at longer terms using bonds denominated in foreign currencies. Then sold the bonds and used that money to pay back the swaps and would deal with the repayment of the bonds later once things were "stabilized" (Hazlitt).

While this policy slowed down outflow and stalled Gold payments it could not ultimately solve the liquidity problem because it just prolonged the problem rather than resolve it. Eventually gold reserves would have to be taped into in order to pay back the bonds and uphold the agreements originally made at Bretton Woods.

In 1968 the gold stock had fallen to approximately 11 billion while liabilities rose to 18 billion. In just four years reserves to liabilities went from being even to -7 billion dollars and the gold stock was almost half of what it started at in 1960 (Meltzer). Confidence in the system had not improved despite government intervention and the liquidity problem had not improved. Essentially the United States was acting like one big bank with foreign currencies being the deposits and gold being the reserves. So people would give us their currencies for dollars knowing the dollars were backed by gold. But when reserves shrink and people's money isn't backed people often panic.

Reminder- under the fixed exchange rate countries were expected to buy and sell dollars in order to maintain their specific exchange rate. Since the dollar was their reserve they were supposed to keep a sort of ideal reserve rate in order to maintain the value of the fixed exchange rates. The primary US solution to maintain this system was to reduce taxes in order to increase domestic spending while holding short term interest rates high to reduce short term capital outflow. Or a combination of tight fiscal policy with loose monetary policy.

In terms of foreign policy, Countries that had account surpluses were encouraged to raise tax rates as well or decrease government spending and expand money growth to lower interest rates. The intent is that this would keep their money in their countries so developing nations would have less of a demand for dollars. The architects of these solutions hoped the inflationary consequences of Bretton Woods would be balanced out by the restrictive fiscal policy (Drahos).

By 1968 all countries apart of Bretton Woods accepted that world trade and incomes had grown faster than the gold stock which is the symptom of the inevitable liquidity problem. By the end of 1968 the fed increased money growth to 6.5% annually, compared to 4.25% in 1967. This major increase in the money stock provides even more evidence that Fed policy was not aligned with the goals of Bretton Woods. This led to a decrease of gold reserves by another billion dollars. In response, in 1969 the fed had a sharp reduction of growth of 2.5%, so from 6.5% back to the 1967 levels of 4%. While this lowering of the growth rate led to a mini recession it closed the gap of reserves to liabilities to -5 billion. The reserve remained at 11 billion but liabilities shrunk to 16 billion. Compared to the previous high of 10 billion/18 billion. (Meltzer) 65.

Because exchange rate adjustments were ruled out the government continued to try alternative ideas to address the treasures inability to redeem. The most peculiar of these solutions was the creation of SDR's or special drawing rights. The proposal was to create another accepted reserve to maintain confidence in fixed exchange rates and redeem ability. The goal was that this new reserve asset would somehow supplement the stock of gold and dollars. Which would result in an increase in confidence and show foreign central banks we do have the reserves to back the fixed rates so there was no need to try and redeem and make runs. The argument centralized around the fear that there would be an inadequate supply of reserve assets to back the fixed gold price and finance future demands. SDR's would be a reserve asset that could be increased with world trade or world demand for reserves faster than workers could mine gold. This in turn would address one of the fundamental problems of Bretton

Woods that world trade and demand for reserves outgrows real reserve growth. If you had a made up reserve that could grow with the world economy you could meet demands without dealing with major account imbalances (Hazlitt).

More importantly, with the implementation of SDR's, The United States was no longer required to redeem dollar balances, and the gold price would remain fixed. In order to address fears of SDR inflation, SDRs could be issued only if an 85 percent majority approved and they would be held only by official holders, central banks, and international monetary institutions. In other words, SDR's were supposed to act like a slow growing reserve asset to grow with the economy and complement gold and the dollar to maintain confidence that gold in fact was worth $35 an ounce. The increased confidence was supposed to discourage inflationary manipulation (Hazlitt).

Theoretically this SDR system can't work with the initial requirements of Bretton Woods. If the United States has a payments surplus or more money coming in than going out, that means other countries have deficits because their reserves would go down. Which leaves the problem of finding the ratio to maintain the value of the fixed exchange rate. If another country has an imbalance that means it can't meet the exchange rate so fundamentally the system isn't working since the whole point was to maintain the exchange rates. Eventually SDR's do get issued in 1970 and added the equivalent of 3.1 billion dollars in reserves but we are about to see that was far too late.

Because of the SDR ruling, 1968 onward is when we see the stability of reserves plateau at 10 billion. This is not because of the issuance of SDR's which happened in 70 but because of the decision that the US would stop redeeming dollar balances (Hazlitt). This meant less dollars leaving domestic markets so less dollars to in foreign banks to redeem for Gold as well as foreign countries were highly encouraged to slow down their redeem claims by way of their existing reserves. While SDR's are still used today their relevancy for Bretton Woods per say is minimal compared to the decision made alongside that the US no longer had to redeem certain claims.

By the end of 1969 US reserves still remained at $10 billion but liabilities continued to increase to 18 billion. Because of this there was more push back to devaluing the exchange rate of dollars to gold. The us price level was about 2 and a half times what it was in 29 or right before the stock crash (Rothbard). Economists argued that if the price of gold was not fixed and had been raised proportionally or periodically devalued from its 1929 level of $20.67 the 1968 price would have been about 52$ which would make us gold reserves equal to 17.6 billion dollars or a billion more than the 1968 liabilities level (Meltzer). Many economists argue the system could theoretically have gone on forever if the US government periodically devalued to reflect the real exchange rate.

<u>Collapse</u>

In 1970 confidence was at an all-time low and liabilities skyrocketed with runs on dollar and gold due to the illiquidity of dollars to gold. The steadying of reserves from 1967 to 1969 and slight decrease in liabilities could not offset the negative consequences and peoples lack of faith in the system. In 1970 liabilities jumped up from 18 to 23 billion then more than doubled in the next year in 1971 to 58 billion then onto 60+ billion in 1972. While reserves remained at 10 billion. This then leads to Nixon totally freezing all repayments of gold in 1973. We also see from 1969 to 1970 a decrease in the fund rate from 9% to around 6% and an increase in the growth of the monetary base from 4 to 6% (Meltzer). This final increase in inflation and loose monetary policy was the final straw for foreign central banks. The system was beyond repair and all confidence was lost, people wanted their gold (Singh).

Domestically if you look at real interest rates to an average of major international interest rates during the end of our period also shows the fed did nothing to slow capital outflow. Rates were held relatively low falling into the sirens song of the Phillips curve. Economists of the day argued higher interest rates would have decentivised domestic loans and incentivized foreign investment. With inflation and consumer prices continuing to rise faster than reserves only exacerbated the problems with the system because the demand for gold increased even more. In 1969 Great Britain also decided to devalue the pound at an attempt to increase the value of reserves to mitigate the run on Gold.

Finally, congress eliminated the gold reserve requirement of Federal Reserve notes which, at the time, was 25%. This removed the last link between gold and the dollar from the original Federal Reserve act in 1913 (Rothbard). The intent was, if there was no reserve requirement, more gold would be available to back the 35$ exchange rate as a last ditched effort to increase confidence in the system (Singh). We come to see that nothing was done regarding adjustment (devaluation or deflation), everything done to increase confidence backfired, which in turn increased the illiquidity of US gold reserves. With recession, rising inflation, and a persistent payment deficit, Nixon changed his economic policy. He temporarily suspended the convertibility of the dollar into gold or other reserve assets. So it seems the earlier US policy at the beginning of the period, or steady as you go, was entirely abandoned. What Nixon then did was immediately devalue the dollar and then let fluctuate with market rates. The devaluation led to an increase in the value of the gold stock while a devaluation by other countries reduced their dollar assets (Lewis).

The Bretton woods system was inherently flawed because of its rigid nature and US monetary and fiscal policy did nothing to aid in fixing the system, it only added to the problems.

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