

FUNDAMENTAL THEORIES OF CURRENCY VALUATION:

A study testing on relevancy between political economy and the Euro exchange rate variation

Phan Ngoc Quynh Nhi

International Business

Bachelor's Thesis

Supervisor: Marta Zleba

Date of approval: 9 April 2020

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Objectives

The main objectives of this study were to evaluate the valuation system of exchange rate and currency pricing, as well as to study factors that affect the vacillation of foreign exchange rate. Based on the inspected theories of currency valuation, examine on the Euro pricing curve to see how such decisions and manipulations influence the general economic situation in both the EU and worldwide.

Summary

This thesis is a literature about currency regimes and theoretical hypotheses about how currency is valued, mainly focused on the major global currencies, uses the architecting progress of the Euro to examine inspected theories. Currencies under this paper's perspective is not only an economic component but also an ultimate consequence of distinguishable socio-political occurrences. Instead of specifying models and techniques of macroeconomics to weigh exchange rate, it concentrates on the critical of interdisciplinary approaches of a comprehensive mix of economic, socio-political, and environmental perspectives.

The Euro – a new currency tested on the common currency area provision, is examined to check how fundamental architectures affect a currency's

exchange rate.

Conclusions

The thesis comes up with a horizontal base of factual instances that have impacts on the exchange rate of currencies. It is attainable to consider socio-politics, internal managing and trading environment as core factors when speculating the currency's tentative orientation.

Key words: currency, exchange rate, currency valuation, currency theories, the Euro, EU, optimal currency area, G10 currencies.

Language: English

Grade:

ABBREVIATIONS

EU	European Union
EMU	European Monetary Union
IMF	International Monetary Fund
WB	World Bank
WTO	World Trade Organization
ECB	European Central Bank
FED	Federal Reserve
ASEAN	Association of South East Asian Nations
AU	African Union
EUR	Euro
VND	Vietnam Dong
GBP	British Pound
USD	US Dollar
DEM	Deutsche Mark
FRF	French franc
US	the United States
USA	United States of America
UK	United Kingdom
GIPSI	Greece, Ireland, Portugal, Spain, Italy
ROR	Rate of Return
ROI	Return on Investment
GDP	Gross domestic product
PMI	Purchasing Manager Index
BCI	Business Confidence Index
CCI	Consumer Confidence Index
B.C.	Before Calendar
BWO	Bretton Woods Order
OCA	Optimal currency area

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1. INTRODUCTION

1.1. Background and motivation:

Globalization is irreversible. Being part of the global integration, currency has always stood out as exclusionary means of trade. Without proper currency executive, exchange rate might drift uncontrolledly and result in economic disorientation. Governments have learned, since the invention of trading barter, and rectified its righteousness, as well as the practical efficacy of global currency and trading principles. The engagement of a History student into the development of the world in general, and socio-political economy specifically urged me to come up with this research topic as a study of humankind's economic transformational process throughout the 20th century.

Furthermore, being an international, or a non-EU student from a developing country as in Vietnam, doing her Bachelor's degree in Finland, a Eurozone country, I have every right to concern about the exchange rate fluctuation. The value of 01 Vietnam Dong (VND), at the time I write this thesis is equal to 0,000038 Euro (EUR), or the other way, 01 EUR unit is convertible into 26,206 VND. With that much amount of money, a Vietnamese can have a medium size of a bowl of 'Pho', or a Vietnamese 'baguette' stuffed with meat and vegetables and a glass of iced coffee for their breakfast. I am a child of a standard family, and all I get for my daily breakfast expense is 20,000 VND. With that little of comparison and delusion, one might know how much it takes for a general Vietnamese family to sacrifice for their children to go abroad, to earn their desired education and all. All we cared about was exchange rate and how to predict the trend of it.

I have read a book named 'Lords of Finance: Bankers Who Broke the World' of Liaquat Ahamed. It was about how World War I consequences destroyed the Heyday of Gold Standard under executive of Chief Bankers. The book was not successful in describing principles of economics, especially macroeconomics, yet it provoked me to learn about it. And I finally am able to conduct one of the largest

epistemic study and project of my own for my Bachelor's thesis: a study about monetary regimes in the 20th century, and what macroeconomic factors affect the rise and fall of currency valuation, how much weigh a political-social phenomenon has on it, and theories tested on the Euro.

From such factual experience, taking the matter from an economic view, I consider studying the anticipations and probabilities for currency valuation movement is necessary for investing activities and business expansion. Not taking currency investors who has already been acquainted to the study into account, if enterprises from developing countries want to entry European market, they definitely need to evaluate the Euro inconstancy to forecast their conducive enlarging strategy. And in such case, this study will be a useful document for starters.

1.2. Research Problem:

Aside from inflation and employment, currency is also one important factor determining the overall strength of national economy. The higher a nation's exchange rate relative to its counterparts with lower value of currencies is, the better that nation is dealing with its overall economy. The same dictation applies to regional economy. The world is currently having one big common monetary union, which is the European Monetary Union (EMU) where all member states use the Euro as their common currency. The Euro has been through two large recessions since its establishment in 1999, which excessively damage the whole global economy. The cause for those economic breakdown has been studied by several economists, however, how much of effect do trading, social situations, and currency indicators, actually matter to the rise and fall of the Euro has not appeared in any academic researches.

The currency valuation and exchange rate fluctuation critically concern many international business managers as well as policy makers who strive to manipulate the foreign exchange so as to profit their national economy either long term or short

term. In line with that, either managers or authorities need to anticipate the possible directions and fluctuation of other countries' exchange rates to be able to properly plan their future business strategy and govern trading policy. Result from which, being able to understand and apply the theories of currency valuation would definitely benefit the overall operating and monitoring activities of economists and managers.

The paper mainly focuses on investigating into the theories of key drivers of the fluctuation of exchange rate and examining how it is going to be applied to the practical economic environment. The EURO – the common currency used for most European countries, will be studied as a model valuation to consider how each factor contributes to the actual exchange rate valued curve. This examination provides a more feasible look into the applicability of those academic theories onto a particular currency and the weighted influence of each factor in the currency drive. The competition between the two strongest worldwide currency: the Dollar and the Euro will also be mentioned as a minor comparison of how economists and policy makers from two dominant economies exploit the theories to secure their currency position and economic power.

1.3. Research Questions:

In order to clarify the progress of this study, my thesis will mainly focus on two research questions below:

- 1) What are the key factors that will affect the exchange rate – the theories of currency valuation?
- 2) How are those theories examined in the practical valuation of the Euro?

1.4. Research Objectives:

Overall, the whole thesis will mainly focus on the objectives of:

- Evaluating the valuation system of exchange rate and currency pricing. To study factors that affect the fluctuation of foreign exchange rate.
- Based on the inspected theories of currency valuation, examining on the Euro pricing curve to see how such decisions and manipulations in social politics and economic decisions from authorities influence the general economic situation in both the EU and worldwide.
- Comparing the theories application between the Dollar and the Euro to determine which currency base is more powerful and sustainable.

2. LITERATURE REVIEW

2.1. Introduction:

As soon as trading activities became widespread over primitive countries and imprecise territories during B.C years as patterns of an arising global economy, valuable objects were used as barter for merchants to exchange goods and services. Such commercing system has grown up overtime due to human needs of convenience and development of inventions, which nowadays, results in sophisticated fiscal operations and monetary policies under multiple surveillance levels with hyperintercorrelation. Each country has its own currency, each economic area has its own rules and currency regimes to regulate its exchange rate, and there are multiple ways for one currency to influence the overall economic. Especially in the case of the most powerful currencies – the Dollar and the Euro.

This literature review is exploring the movement of monetary regimes from the twentieth century onwards. In other words, Gold Standard, Bretton Woods and multilateral-based systems in line with their actual domination following economy innovation in globalisation are taken into account. Several economists, historians and social professionists have conducted studies regarding the critical importance of monetary issues in international trade from different points of analytical views.

Eichengreen & Flandreau (1997) put Gold Standard in historical comparison between its hypothesis theories and practical actualities, while Eichengreen, Reis & Macedo (1996) turned the focus to the convertibility of gold and its implication to globalisation and exchange rates among currencies, and, from a broader view, Bilson & Marston (1985) started their studies with determinants of exchange rates as well as considerate advantages and disadvantages in monetary policies among nations.

The study of the development of currency valuation regimes including Gold Standard and exchange rate systems in modern era provides definitions and historical information as well as advancing progress of how currencies are valued along the line of globalisation and innovation in modern economy. Furthermore, political economics is also an essential contributor to the transformation of currency regimes from bilateral feature to multilateral as occurrence. As the Euro is the subjected currency applied to test the valuation theories, multiple virtues regarding its typicality as well as the Euro crisis will be evaluated in order to weight appropriate components in identifying the value of the common monetary unit of the European Union (EU).

2.2. The development of currency valuation regimes:

2.2.1. Gold Standard:

According to Eichengreen & Flandreau (1997), envy for wealthiness among nations is something usual and unquestionable. For that reason, nations tend to prohibit free trade of commodities without beneficial bargaining and preserve useful and valuable assets for domestic use. During the primitive ages, the more gold a nation possesses, the wealthier it becomes, such common psychological jealousy and competitiveness leads to hoard of gold or motivations to exchange goods for exquisite prosperities with similar value. This phenomenon is observable, especially during the fifteenth and sixteenth century where hundreds of gold-seeking

adventures happened, also known as Ages of Discoveries, in order to find new lands for more golds and precious goods to trade. Western nations who were in the battle of wealth invested their human and tangible resources for these exploring journeys, aimed to expand their territory and influence as well as to gain new sources from less developed countries.

As the discoveries and evasion of the Empires as well as free trades expanded, demands for a standardized barter became imperative. Silver was initiated as the modeling scale for trading species, However, since the breakthrough of gold as a new feature of prosperity, silver price went down drastically and its bartering role was replaced by gold to be guaranteed as the currency of choice (Amadeo, 2019). The Gold Standard Act (1961) was established in the U.S when the first U.S Dollar paper-currency was printed, set the value of gold at \$20.67 per ounce.

In the article History of the Gold Standard, Amadeo (2019) stated that the establishment helped nations reduce the heavy bullions of gold coins while doing business. However, it took amounts of effort to stabilize the price of gold and currencies due to gold miners' activities. In 1913, Federal Reserve was founded to calculate the value of gold and currencies attached to it. Gold Standard rapidly spread throughout the Western economy as European countries adopted it as a standardized transacting means, which creates dynamic explosions of financial commerces and trading opportunities (Duckenfield, 2004). The increase of activities in capital flows and worldwide free trade were initial signals of decades of globalisation ahead.

During this stage, free market trade was set with loose international norms and legal protection, which provided fundamental base for 'smooth operation of the traditional gold standard' (Duckenfiled, M., 2004). Governmental parties started to regulate and modify national policy towards *laissez faire*¹ economy, which was later identified by Hume, D. (2002) as the price-specie-flow mechanism. The current flow of gold in the

¹ Laissez-faire is French for "let do." In other words, let the market do its own thing. If left alone, the laws of supply and demand will efficiently direct the production of goods and services. (The Balance, 2019)

market decide the amount of note circulation as well as its price level. The decrease of gold in a deficit national bank would result in the reduction of cash circulated, and devalue domestic value of its corresponding currency, which means inflation. As a general consequence, competitiveness of domestic products rise due to cheaper price comparing to imported goods, raise the buy-in rate and gain gold in-flow, create an internal economic equilibrium. Vice versa, in the case of surplus nation, in-flow gold increases the circulation of in-market cash, raise domestic products' price level, which creates dominant advantages for foreign competitors, results in out-flow capital, and thereupon expose the country back to its equilibrium.

However, there are less favorably views towards the application of Gold Standard in world trade. Several reputed economists considered its performance as a short-term resolution which 'subordinate domestic stability to the maintenance of external convertibility' (Keynes, J. M., 1930), as well as an inequal system of trading exchange as core countries receive favorably more advantages in exchange value in comparison to peripheral countries (Cecco, D., 1974). De Cecco (1974) also argued that, back in the nineteenth century, between the two metallic barter, silver was more dominant towards peripheral countries who dominantly exported food to their Western counterparts, because the devaluation of silver made it more beneficial to them in the negative effect of *ad valorem*² tariffs. Gold, in contrast, was more dominant to the center countries with powerful political economy and financial sectors. It is seemingly to be the symbolic characteristic of weathiness, intellect and political-social modernity, according to Eichengreen, B., Reis, J., & Macedo, J. B. (1996), brought about in the nineteenth century of economic development.

Unfortunately, as soon as the Gold Standard began to evolve, World War I commenced. During this era, Western countries suspended Gold Standard to extemporaneously print paper currency so that they can cover their military expenses (Amadeo, 2019). Eventhough the decision was considered to be temporary necessity in times of war, no clear anticipation about the actual extent was

² Duty or other charges levied on an item on the basis of its value and not on the basis of its quantity, size, weight, or other factor. (Businessdictionary.com, n.d.)

forecasted (Duckenfield, 2004). Ultimately, the Heyday of Gold Standard only lasted till 1930s, after World War I, when The Great Depression outburst as a tedious fallout of imbalance punishment and prosperity division amongst the Alliance and the Entente factions. Policymakers as well as central bank leaders in the United States, Britain, France, and Germany attempted to reassure Gold Standard as they belatedly recognize the importance of having a standardized unit in stabilizing exchange rate and monitoring trading activities. As the largest military equipment manufacturer of the world, United States became the largest creditor after war who stored the largest amount of gold at the time beings, so that it had minimized effort to strive back to Gold Standard, which is reversely more beneficial to the nation. Despite the successful return to pre-war Gold Standard operation of the United States, Britain, and France, German was in hyperinflation and bulky national debt that tied the country down to depression.

This situation revealed several inconsistencies within the regime, which was immediately proved by The Great Depression 1929-1933. Firstly and foremost, the domestic economy had to bear the brunt of adjusting the fixed exchange value of gold, which is unsustainable, because no active exchange rate policy was designated to fit the national conditions and existing resources. As a result, domestic macro-determinants such as employment ratios, wages, and prices had to adjust to the common standard to keep up with the common equilibrium while subjected nations do not have (or have more than needed) the sufficient sources to adapt to the required status. Exclusively, most Western countries were undergoing such chaotic condition upon the devastation of World War I, simultaneously the raise of interest rate from the Federal Reserve' chronically worsened the situation. In other words, in a trade deficit, the only solution is to lower the price level using wages and employment as means, which eventually deteriorate the trade balance and depression. Secondly, gold was symbolized as prosperity and modernity for the Emperors and capitalism. While from the 1920s onwards, due to the succeed of the October Revolution, establishment of Soviet Union, Marxism – Leninism were broadly transmitted amongst lower class. Multiple liberal movements were conducted worldwide especially in the Third World which encouraged workers and labour class

to fight for their right. For instance, the re-introduction of Gold Standard application in The Great Britain in 1925 triggered the first strike – General Strike, in Britain, it eventually failed, however resulted in domestic political debates in several countries relating to dissatisfaction with the status quo and willingness to take the governing power from the labour union (Duckenfield, 2004). Thirdly, history is the witness of motion, Gold Standard happened on all accounts of advance in international informative financial market and technological innovation. This is an opportunity for quick investment as well as other international short-term financial transactions to take place, whose size and speed makes it inherently break the fixed-rule and price of domestic terms and destabilize specie value.

Since the 1930s, the Gold Standard regime started its anticipated break-down on behalf of mentioned arguments. Market adaptability is an essential contributor to the application of a currency valuation model. During the nineteenth century, Gold Standard was the integral regime application, due to its symbolistic, the devaluation of silver, the superior prime of the Great Britain, and dynamic market of free trade and demand for standardized liquid. The case after the two World Wars had changed, signaling the world needs a new exchange rate regime for its innovative era.

2.2.2. Post – war exchange rate regimes:

2.2.2.1. The Bretton Woods Order (BWO):

In 1936, after several economic and social pitfalls consequencing from Gold Standard era, Western countries attempted to officially suspend gold from the monetary system. The chaotic state remained till the establishment of International Monetary Fund (IMF) and Bretton Woods Agreement – which was determined to be the stable framework for international financial market and innovative globalisation economic. As stated in the study of Duckenfield (2004), Bretton Woods System

abolished the *laissez faire* economy – automatic equilibrium, and promoted the fundamental disequilibrium instead. The currency's par value was altered and no longer adhere to the fixed value of gold. The United States (U.S.)' Dollar became the international currency with a linkage to gold at \$35,00 per troy ounce. To be more precise, the Bretton Woods Order become an embedded liberal international economic order (Ruggie, 1982) where national currency was pegged to the U.S. Dollar, and the U.S. Dollar was binded to gold value – introducing it another name: 'gold exchange standard' or 'gold – Dollar standard' (Helleiner, 2011).

As being formed from Gold Standard's pitfalls, the Bretton Woods Order's underlying objectives were basically same to Gold Standard's: to re-establish and enhance a world of international currency stability' (Helleiner, 2011). However, the regime's main elements were adjusted to revamp its former's latent complications including: capital controls, hegemonic dominance, and free – ride economy.

In Gold Standard time, the international exchange rates of most countries and colonized regions' currencies were pegged to one similar global gold standard, which means that one same global trading set of rules applied to all local reaches, countries do not have the authority to take control over their capital flows. Helleiner wrote in his section (2011) about the Bretton Woods Order that the architects of the new regime encouraged nations to regulate their own financial monetary flows. Governments were able to disrupt transaction convertibility and exchange rate stability via trading activities as import and export policies, monetary autonomy, etc. The new macro-surveillance level of economic control hands states the right to individulize its financial and capital movements in order to maintain domestic monetary stability. The economist of the twentieth century John Maynard Keynes mentioned this as 'What used to be a heresy is now endorsed as orthodox' (Helleiner, 1994).

During the pre-1914 period, the international economy was dominated by the United Kingdom. Its domain role as the economic leader altogether with London as the financial center took over the whole globalisation system as the state to sustain the

stability of standardized specie and finance peripheral countries to enhance their trading circulation. The greater dependency one state possesses, the worsen corollary might happen when it falls to recession. Thus, when the two magnetic economies of United and United Kingdom entered the mid-war Great Depression, foreign countries received compensation in sales decline leading to the Domino effect of a global economic stagnation. The Bretton Woods Order came in with the establishment of the two public institutions: International Monetary Fund (IMF) and World Bank (WB), founded in 1945. These two organisations aimed to subsidy the global sector with short-term public loans for reconstruction and development after wars – which were not trusted to be performed well by private creditors (Helleiner, 2011). The inauguration of the two institutions gradually broke the infrastructure of unilateral realm created by the United States, simultaneously promoted new potential markets and economies such as Germany, Japan, and Saudi Arabia. These young developed nations were handed equal chances by the quotas 'basic votes' system of IMF, which later becomes the fundamental principles for financial market globalisation formation.

The Bretton Woods Order set nations in the whole new automatic era of governmental regulation – which were not the case at the time of Gold Standard, the adjustment for a common exchange rate regime costed states highly dependent economies. Both inflation and employment, critical virtues of domestic industry, had to bear the insufficient modification – especially in inferior countries, where internal sources failed to meet global norms. Since the collapse of the *laissez faire* economy following Gold Standard's breakdowns, states were able to issue policies to modify internal financial situation. When a country endured trading deficits, it could alter the peg value or devalue its currency to boost exports to encourage payment balance. Countries ultimately had the choice to monitor its economies as well as stabilize markets, even though self-regulate implies trade-offs between inflation and employment. Under the Bretton Woods Order, being active in individualizing national trading policies contributed to the collapse of global globalisation, and deliberately replaced it with the local globalisation.

Helleiner mentioned in his chapter of the Global Political Economy (2011) that during the first fifteen years, the new exchange rate regime were not performing efficiently. The role of proposed public creditors IMF and WB were limited and not all countries applied the comprehensive set of rules of the regime. However, improvements and adaptation are under construction and the Bretton Woods Order finally had its Heyday from the late 1950s till 1971. The U.S government had played dominant roles of encouraging international monetary cooperation and promoting 'embedded liberal' ideals since the very beginning as well as contributing to the public loans sector of post-war economies subvention.

2.2.2.2. The role of Dollar:

Being the country possessing three – fourth of the world's gold supplies, the United States hold the dominant vigor towards its counterparts. The United States were the largest creditors of military equipment expenses to the Westerns, as well as the largest center of financial motions and technological innovation with less war debt at the time being. For such arguments, it was credited to be the nation host to manufacture the trading liquidity for business activities. During such decades, gold's anchoring role became less attractive to investors, as it is inflexible and unadaptable, while the liquidity of the Dollar advanced it to be the reserve currency of choice for the Bretton Woods Order, handed the United States the privilege to 'export' the inflatory tendencies to countries who have to use its Dollar as a trading instrument.

Alongside with the governmental efforts to promote the practices of the Bretton Woods Order, the United States as the economic leader was the one nation taking the most advantages out of the regime. After World War II, the United States declared its 'Global Strategy' to establish unilateral world order where the United States hold the supremacy to take control over global affairs. As the United States continuously conducted indirect conflicts with the Soviet Union during the Cold War in all fields including neuroscience, military equipments innovation, cosmic science and exported the currency to import necessary goods and equipments, its in-market

Dollar exceeded the amount of in-hand pegged gold, resulting in the imbalance of currency flows and devalue the Dollar. Also, since 1945, the United States started its interference into Vietnam – France independent war, and officially took in charge of the colonizing process under capacity of fighting against the expansion of Communist. It was an intensive war as Vietnam battle field represented the tension between the United States and the Soviet Union during Cold War underlying aggressive confrontation between Northern and Southern Vietnam governments. Till the late 1960s, the war essence became inhumane, more than 50,0000 young soldiers were killed, civil strikes broke out, families wanted their folks home, domestic situation was displaced, and the whole political economy of the United States was drown. Public expenditures increased. Payments deficits grew imbalance. The Dollar faced confidence crisis. (Helleiner, 2011)

As major trading countries denied to reevaluate their currencies to avoid the reinforcement of American hegemony (Kirshner, 1995), the U.S. Dollar faced the undermining crisis. In 1971, the U.S. President declared the shut down of the 'gold exchange regime' to get rid of the constraints of gold convertibility exposed. (Gowa, 1983)

However, the dominant role of the Dollar remained as the central global currency till nowadays. Most international economic transactions and trading investment across the world takes the Dollar for the currency of choice. With the authority and liquidity possessed, the Dollar is the currency stored the most in governments' central banks' foreign exchange reserves as well as chosen to be the anchor for peripheral countries to peg their currency valuation. Some governments even use the Dollar as its major trading barter and denominate its national currency due to economic and political ties with the United States. Moreover, the U.S. Dollar's use in transactions are increasing due to convenience reasons, the more it is used in common trading activities, the more people feel necessary towards the use of it in common situation as a means of convenience.

2.2.3. Post BWO development – current state:

Due to some early innovation and foundation of multi-national firms, and the outburst of global free trade during the late nineteenth – early twentieth century, the progress of globalisation had already loaded its first steps. Until the 1960s, 1970s, victories of global independent movements in the Third World as well as the development of international financial/ assets exchange, globalisation became official as an inreverse part of human beings' social evolution.

Starts with the encouragement of the British government to abandon the first element of the Bretton Woods Order: capital controls, followed up by the United States and later by multiple inferior nations, globalisation at the early stage support 'neo-liberal' ideology. As stated by Helleiner in 2011, the cross-border flow of investments creates freedom for personal management of capital allocation. The United Kingdom and the United States are the two core rivals for the globalizing race. While the U.K. attempted to support the euromarkets to attract regional credibility as well as international capitals to gain back London's previous financial leading position. The U.S. ran for financial liberalization and used the liquidity and spreadingly deep market to attract foreign investment.

Lately, the autonomy in policy making and domestic modifying responsibility of governments as well appeared to be undermined for current state. The disruption of government abolish the freedom factor of globalisation, it limited the ability to bolster the capital-gain activities, which goes against the inauguration of free capital flow. Moreover, many regulatory policies were not favoured by the majority of traders, for instance high taxation, budget deficits, etc. Nevertheless, there are arguments regarding the 'Impossible Trinity' of Open Macroeconomics that governments always have to face trade-offs among monetary policy autonomy, cross-border capital mobility, and stable exchange rates and the enaction depends on priority of choice.

Despite the outdated of core principles of the Bretton Woods Order, it is in fact possible to remain in active in modern economy due to the enaction of IMF and WB.

Particularly, the world in globalizing steps had obtained neo-exchange rate systems which are adjusted accordingly depending upon national demands. These contemporary regimes implied to the global economy during the 1970s as countries were trying to adjust their national currencies to the breakdown of speedy international financial trade. In Helleiner's study (2011), the adjustable peg system came in practice in 1973 and floating exchange rate was the outcome of IMF's amendment towards the common exchange rate system. All these exchange rate system have been modified and adjusted throughout the time up till modern decades as to support and advance globalisation induction as long as they are able to fix the terms and sufficiently balance the imbalances.

2.3. The Euro:

2.3.1. The history of the Euro:

During the practice of the Bretton Woods Order, European countries have been through several severe economic problems regarding currency devaluation, capital controls, and financial payment deficits. From the beginning of the free trade evolution, most trading activities of European countries happened within internal regional geographical area, and policy makers' most concern was European countries' currency stability, the notion of establishing a common currency unit was initiated. Whenever one country's exchange rate fluctuates, other countries within the region especially its trading partners suffer, devaluation happened, following by inflation, and possibly lower interest rate. Exclusively, since the breakouts of floating exchange rate in the 1970s, the fluctuation of currencies became more vulnerable and less anticipatable than ever before, which rapidly robusted the process of settling a common market among European countries.

After the establishment of several common unities regarding the creation of a common monetary system, in 1992, the Maastricht Treaty was finally signed,

decided on the composition of the Euro. In order for a EU member state to be able to join the common currency league, there are sustained requirements to be fulfilled, for example price stability, sufficient interest rates, tolerant government debt, and exchange rate stability. In 1999, the Euro currency was officially in market as a solution for exchange rate issues in both internal and external trading activities.

Currently, the Euro is the single common currency used in 16 member states of Economic and Monetary Union (EMU). EMU and the Euro were established to integrate unity and to break down barriers among nations, create a single European market. Since its publish in 1999, the Euro has now become the second most powerful currency worldwide, leading by the U.S. dollar. It is regulated by the European Central Bank (ECB), whose headquarter located in Frankfurt, Germany and is a well-known financial institution which takes responsibility for open market operations, standing facilities, and minimum reserves. Three of the EMU's member states are in top seven most developed countries in the world consisting of Germany, France, and Italy. During its first ten years, the Eurozone nations rapidly grew with noticeable figures of high GDP, low unemployment rate, and low inflation. However, there are disparities among Eurozone members considered from several aspects of sustaining a common currency union that prevent the initial from smoothly operated. For example, the Southern peripheries were relatively low on their econmic productivity comparing to their Northern peers based on differentiations in industrial focus, fundamental social factors, and educational levels. (Godby, 2013)

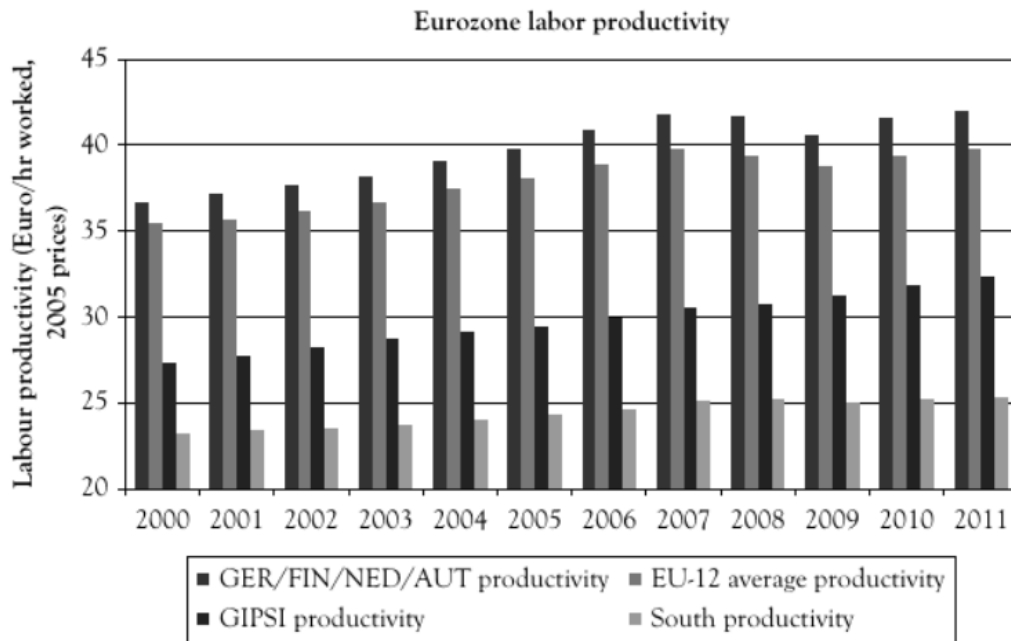


Figure 2a: Eurozone labour productivity (2000 – 2011) (Godby, 2013)

2.3.2. The Euro-zone crisis:

As of existing underlying conflicts among member states' benefits within the EMU, and the reluctance of obeying Maastricht Treaty's regulation, the Eurozone ultimately had to face the consequence of a destructive crisis. Within the area's incomprehensive structure, countries like Greece, Portugal, Spain, Ireland,... already faced downfalls in the insufficiency of the national capacity. An abundance of dissimilarities: the unsustainable rapid growth of the peripheries, the continued growth in wealthy countries, the ageing of the main labour force of the West, all of which have been destroying the parallel construction of the Eurozone prospects. Resulting in a serial of crises and domestic conflicts.

European leaders firstly blamed the United States for ineptitudely bubbling the market. However, till 2010, while the U.S. economy started recovering, the EU's wholly realm plunged as a sign of dysfunctions. In Macdonald's book report about

the Euro crisis in 2018, a number of numerical supportive proofs were given to confirm the pre-crisis imbalances among member states' economic performances. While the trade balance held by German and French financial institutions were abnormally enormous in 2007 with relatively tolerable inflation rate since the adoption of the Euro, those averages of the third-tier nations seem to be respectively inadequate. (Figure 2b)

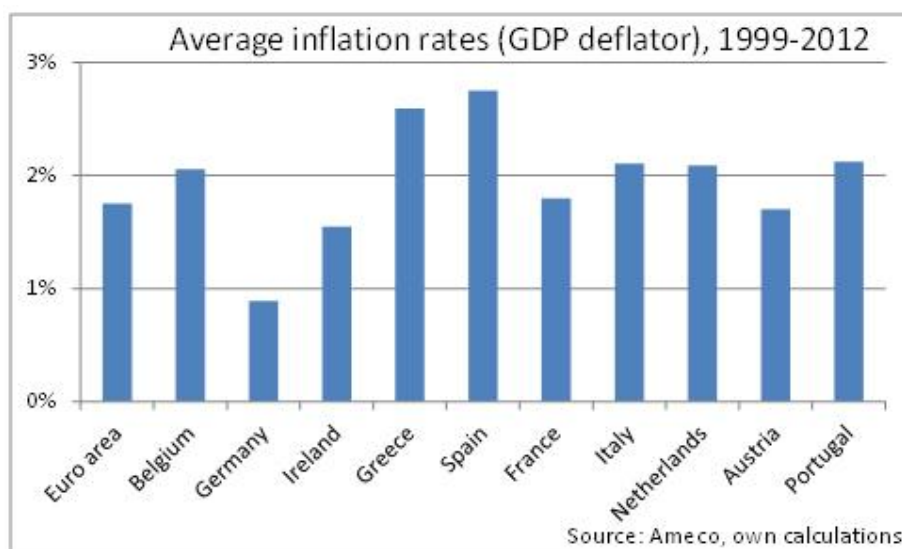


Figure 2b: Average inflation rates of specific Eurozone nations (Bourgeot, 2013)

The destruction of the crisis over the weaker economies was clearly described by Macdonald (2018) and Godby (2013) according to the timeline of the regression. Starting over with Greece's severe damage by the market bubbles, its GDP drops as far as US\$92 billion from US\$341 in 2008 down to US\$249 billion in 2012, which is considered as a 30% loss. Another way to estimate turmoil is by looking at Greek unemployment rate which raised from 8.6% in 2008 to 27.6% by July 2013. All of these were partially caused by political uncertainty during the failed Greek election and disappearance of a national leader.

A similar disposition might as well be told in inferior economies of Ireland, Italy, and Spain. Since the recession burst out in 2008, the percentage of public debt over national GDP of unsustainable countries such as Greece, Ireland, Spain, and Portugal

steeply rose comparing to that of Germany and France. Strikingly, Spain's debt ratio increased from 35.6% in 2007 to 100.4% in 2014, with its unemployment rate raised from 8% in 2008 to 25% in 2013. Default risks, overloaded debts, rising unemployment, all went up contagiously as a domino effect happening within a common economic union. Additionally, Germany and France, despite their economic strength, were not immune to the market crash. Those countries on behalf of being one of the world's largest financial centers and responding for bail-outs for weaker counterparts, as well suffered the effect of the global financial crisis. France's growth rate went negative as -4% in 2009 and its GDP dropped from US\$2832 in 2009 to US\$2548 in 2011. Likewise, German economy underwent losses in its GDP during the crisis with likely similarity in figures comparing to its companions, yet not as severe.

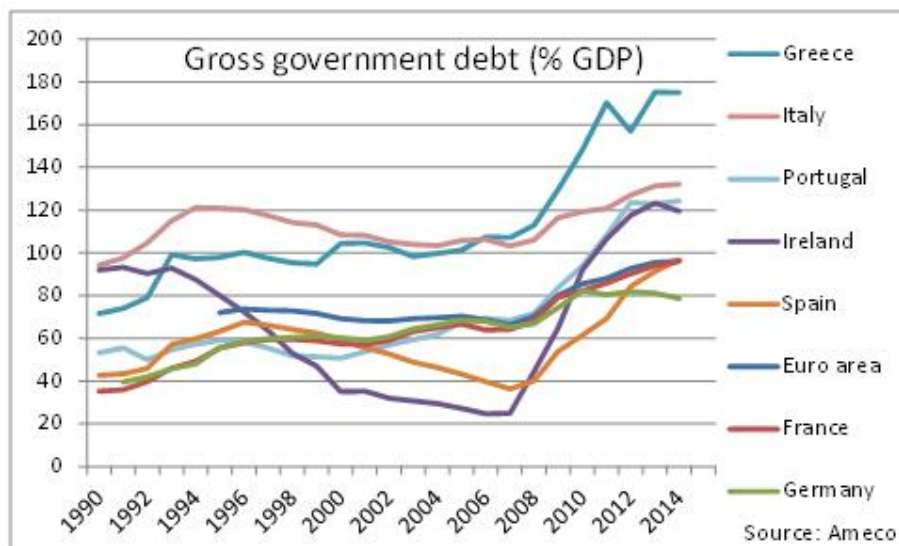


Figure 2c: Specific Eurozone nations' gross government debt (Bourgeot, 2013)

There are figures from Macdonald's book (2018) appointing the effects of the global crisis onto other developed economies such as the USA itself, the UK, Canada, and Singapore, however it were not as acute as within the European Union. It became doubtless that interior defects were part of the acuteness. The Eurozone started off as a potential monetary union to bring up succeed to its members, which proved to be weak and loose during the time of crisis. It did not only disgrace the strength of

nation states, but also pull the whole growing progress down to the losses. The question appeared to be: Whether the Euro an efficient currency for European countries to sacrifice their sovereignty on?

2.3.3. Is Euro an optimal currency area?

2.3.3.1. What is an optimal currency area?

According to Mundell and his theories about an optimal currency area (OCA) developed in 1961, an OCA is defined as a 'geographical region in which it would maximize economic efficiency to have the entire region share a single currency'. In order for a common currency area to achieve the OCA, there are four suggested criterias to be fulfilled: no barriers in labour market, even distribution in supply and demand – openness in capital mobility, common risk sharing system, and lastly is similarity in business cycle among member states.

There are certainly three microeconomic benefits that a regional monetary union can bring up: the reduction of trading transactions among member states, price adjustment towards outside goods, and less economic uncertainty caused by national exchange rate volatility. Along with two other macroeconomic benefits including the reputation of anti-inflation and monetary policy when managing cooperation appears among weak and strong economies. All of those mentioned benefits rooted to the main advantage of participating countries: to foster trade and enforce market positioning.

However, every economic decision contains a trade-off. The application of OCA may prevent nation members from authority and autonomy over national exchange rate, which ultimately as well affects the operation of debt management and inflation precisely applied under specific national feature. Another main cost of adopting a single currency is being called off by economists as asymmetric shocks. Asymmetric shocks is impacts of unexpected changes in demand and supply that affects directly

on the host nations but not its trading partners (Blanchard, 2009). Labor mobility is also part of the economic integration, however, most migrations are stronger economies-oriented. Resultedly, imbalances in internal demand and human resources occurred region-wide, which is known as internal devaluation to peripheral members.

For several countries, high-integrated economy is equal to giving up on national sovereignty in adjusting policy during recessionary times. Even though the commitment on inflatory conditions and strict supervision over government debt help tying up capricious governing approaches, this can be seen as the loss of governmental surveillance for economic issues. Decision on whether the nations should join in the monetary union depends upon internal preferences and calculation of economic advantage dominance to autonomy disadvantages. The ability of a monetary union to secure regional trade, and giving aid to second and third-tier participants amid difficulties would be a strong facilitation for countries within a geographical region to behold.

2.3.3.2. Is Euro an optimal currency area?

The Euro is still a young currency compared to its companions, and there are several underlying issues regarding the efficacy of the currency's performances. However, it is a long way to go and Eurozone nations are likely to be on their track with noticeable achievements with the Euro. The Euro might have attained a few positivities that allow it to be an optimal currency considering the four criterias mentioned in previous section, beside with some of them left to be thrived for in the future perspective.

Considering the first criterion for the Eurozone to be optimal is the free mobility of labour. Even though the European Union has made a great job of abolishing physical barriers for its citizens to freely move among nations, the largest limitation lies in cultural and linguistic discrepancy. According to Eurobarometer (2005), there are approximately 50% of European natives fluent at least one more language distinct

from their mother tongue, which is not edible for them to move around Europe for works. Additionally, there are too much risks when residing outside one's nations. Difficulties in housing, unemployment by foreigner discriminant, lack of native understandings, logistical issues, and especially high unemployment benefits provided by the governments factually demotivate European citizens to migrate for job opportunities.

With the second requirement being capital mobility, it is credible to say that European leaders have done pretty well since the Euro adoption. In line with the implementation of the common currency, a common market among member states was as well spreading and became a great economic playground for enterprises and businesses. Credits to the tariff and border eradication, trading activities breakthroughs and from *Figure 2d*, the whole EU area's real GDP was relatively high since the adoption of the Euro compared to its previous term. Increase in FDI has directly led to capital circulation, which encourages the area's competitiveness and dynamic trading environment.



Figure 2d: European Union's GDP 1961 – 2018 (data.worldbank.org)

Nevertheless, the formation and natural structure of the European Union is unsustainable and lack of a common sharing debt system, which might result in 'moral hazard' issue. Being a unification requiring high-integration among economies that come from different business circles with a diverse range of productivity capability, the Eurozone obviously needs a thorough method to manage public debt and credit sectors. Without a decent system and regulations, under Maastricht Treaty's strict principles, there are hardly a way for strong economies to offer help and 'bail-outs' for peripheral nations without violating 'moral hazard'.

Finally, regarding business circle stage correlation, it can clearly be seen from the current stage of European countries that there are at least two different groups of countries differentiating each other by different stage of economic health. Further in this essay will there be a short discussion regarding hegemony in European area. It will discuss how strong economies like France and Germany exploiting their economic strength to gain power and unfair advantages over weaker member states. And the Euro crisis described above is as well a firm instance for disparity in business cycle of different nations in the same currency union: while the peripheries were harshly struggling with their national debt, sinking in the global depression hit and curtailing the whole regional economy, Germany and France did not have to suffer much of economic devastation.

Synthesizingly, though the Eurozone has achieved distinguishing successes within relatively short period, it would need more efforts to turn to well-performed. The theories of OCA however, is merely a set of studies and epistemology concluding from hypotheses and empiricism. There has been no particular practical example for a common currency bloc to modeling, so the OCA design is fundamentally a provisional feature for leaders and policy makers to reference. No winners succeed without a pinch of failure. The Euro might not currently be the optimal currency, it is thriving its way through hardships to earn its true position.

2.4. Conceptual Framework:

The figure above represents the overall concept of the whole literature and its specific study. The main purpose of the study is to figure out how currency price is affected by fundamental social components and how investors can predict the exchange rate direction in a basic foundation of tracking news, policies, and social-political matters. So as to assure the arguments, I use the Euro as the objective currency which belongs to the G10 currencies list³, and as well a controversial political test of the European countries for a common market and economy.

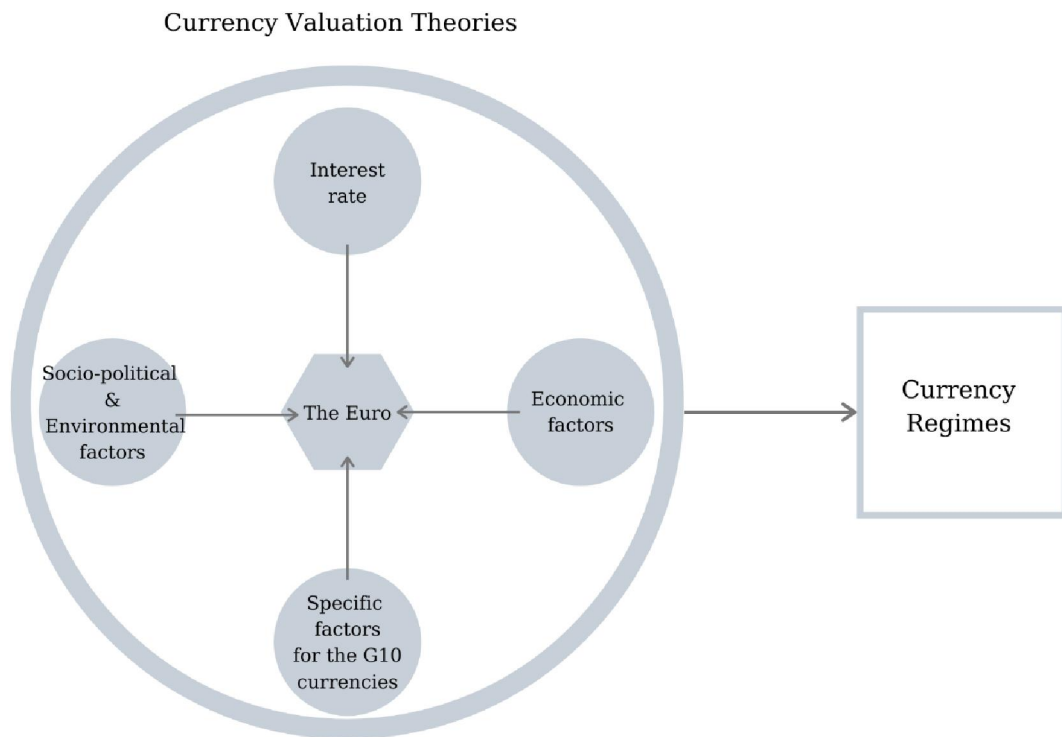


Figure 2e: Conceptual Framework

^{3 3} G10 currencies are the major currencies widely used in global economic transactions whose volatility have crucial impact on global economy. They include U.S. Dollar, The Euro, British pound, Japanese yen, Australian dollar, New Zealand dollar, Canadian dollar, Swiss franc, Norwegian krone, and Swedish krona. (Hoyes, 2019)

Furthermore, in order to establish these unofficial theories about currency weighing, there have been multiple currency regimes inaugurated throughout the twentieth century which has become crucial discipline for economists to study and evaporate. As the historic situations and characteristics of these regimes were briefly explained in preceding sections, an overall picture of the currency world and its relevancy to trading and socio-political activities might have been manifested.

3. METHODOLOGY

Upon my thesis scope, it is insufficient for me to use primary data and conduct experiment for the whole economy, I will mostly use available secondary data for tentative research and analysis. As this paper will study the effects of macroeconomic factors on currency exchange rate, specifically focus on the Euro as a studied object, experiments and first-hand survey would be unfavorable. My second-hand analysis and sources are essentially statistical graphics from informative sites of regional and global authorities such as the World Bank and Eurostat.

Existing analysis from studies and researches that imply determined topic are as well favored as references for my synthesized elaboration and evaluation during the thesis process. These papers are assimilated based on relevancy and key findings that are valuable for qualitative interpretation. For example, studies on effects of socio-political consequences on the valuation and fluctuation of major currencies such as the Dollar, the Euro, and the British Pound are prosperously taken in account. Social and economic architectures' influence in the sustainability of currencies, studies on elaborating, anticipating and calculating currency exchange rate based on macroeconomic factors such as: debt rates, interest rates, inflation, and employment level are as well preciously considered as potential value for my tentative works. And, most of the mentioned studies are sourced from Aalto Finna

(Aalto internal web of academic resources), Aalto Learning Center (Aalto's previous works documentary storage), and Google Scholar.

These statistical and fundamental data will be studied and elaborated carefully upon my tentative direction of studied topic.

4. DISCUSSION AND ANALYSIS

4.1. Currency Valuation Theories:

Alongside with the development of currency regimes and the development of economic unions, money has become more and more important for regular transactions. It is no longer the commodities but more to be the fiat money that is authorized by governments to manipulate their domestic economy as well as global trading environment. As mentioned in chapter 2, there are multiple reasons for bartering trade to be replaced by fiat monetary transactions. According to the IMF's definition of money's overall functions (2012), it is basically anything that can serve as: a store of value for people to save and use it in over-time purchases; unit of account, providing a common base of price; standard for regular conditional exchange. In this thesis, I will mostly study the pricing process of fiat currency, especially the ones in G10 currency including two market leading currencies: the Euro and the Dollar.

Principles of macroeconomics has taught us that the value of anything is determined by the demand and supply for it. Fiat currency is of no difference. I will divide the list of factors affecting currency valuation into four main groups including: interest rate, economic data, external and internal factors, and specific factors classified for the G10 currencies.

4.1.1. Interest rate:

The first fundamental that causes change in currency price is interest rate. Basically, interest rate is what banks pay you for saving money with them. In other words, when investors invest in a Forex currency, the most important thing they expect is the interest rate, the higher the interest rate is, the more likely they will gain big profit from the investment. If one currency has higher interest rate relative to its other counterparts, its rate of return (ROR) or return on investment (ROI) is mostly higher, which attracts foreign capital and once again, cause the interest rate to raise. Concern demand and supply theories macroeconomic principles, as soon as demand for a product increase, in this case the product is a currency type, its price escalates. Hence once the interest rate increases, the exchange rate of the relative currency as well is appreciated. And the government who possesses the right to print paper money is motivated to produce more to supply the currency source, which also raises the money circulation in the market, eventually increase inflation. On the other hand, implementing the same rules to the case of low interest rate, we will have a depreciation in currency value.

There are several implicit factors that actually affect the fluctuation of a country's currency price, monetary policy by Central Banks or national economic conditions for instance. This is the difference of modern monetary prosecution and previous monetary regimes such as Gold Standard and the Bretton Wood Order: autonomy, adaptability, and flexibility. Each country has its control over national economy and currency, and it is responsible for the progress of its own national advancement.

Central Banks who monitors the rise and fall of a currency, usually alter the interest rate to counterbalance the economy and control inflation via their adaptable monetary policy. The Wall Street Journal once mentioned in its article which synthesized all studies and researched of modern economists about inflation and interest rate that the ideal inflation rate is 2% (2018). If the inflation exceeds the desire condition, Central Bank will likely to tighten the currency, reduce money flow

by increase interest rate. And controversially, the currency flow within market will be loosened when the inflation rate is too low and needs an adjustment. However, market is not always in its perfect and simple condition. During the mid-war hyperinflation time which ultimately lead to the Great Recession 1929 - 1933, when the whole global industry was facing the after war economic catastrophe and countries was irrationally printing money to pay national debts and war compensation, National Banks kept raising interest rates while no foreign capital was available as all nations were in the same desperation. Essentially, the inconsistency and unproductive of Gold Standard was spotted as one of the fundamental indicators for the collapse of the large economies such as: Germany, France, Italy. Sequentially, other approaches had been made, which is far more different from what we just came up with interest rate, exchange rate, and inflation, requiring further knowledge and understanding about the operation of macroeconomics.

Strong and stable national economy is an integral component to back-up for a currency's high interest rate. Foreign capitalists who seek for insurance and security in currency investment have more confidence in nation whose economic performance is positive and politics is stable. The stable and strong growth of an economy is usually measured by the national Gross Domestic Product (GDP). High GDP usually comes along with high inflations, however, other economic indicators such as unemployment rate, national income, and purchasing power become healthier and more credible, which eventually leads to a rise in interest rate and ROI. Nevertheless, no economic rule is absolute. For example, during its recession 2007 – 2010, the U.S.'s interest rate stagnated to 0%, public debt sector expanded and money was insanely printed to pay off debt, but the U.S. Dollar value maintained because it was still relatively good compared to other economies' situations (Pettinger, 2017). Therefore, there are several actual factors that affect the interest rate and so, the currency's value, when taking into account of investing calculation and decisions, investors and economists have to analyze and weigh economic components, consider internal and external factors for the speculation of the pricing curve.

In conclusion, interest rate is anticipatable within discreet analysis and consideration as long as economists and analysts are able to observe the economies from both horizontal and vertical views, with the employment of contributive theories and application.

4.1.2. Economic factors:

As already mentioned in previous section about interest rate, inflation, economic growth, and employment are those important economic indicators that are involved in the fluctuation of currency price. Apart from those, debt rate, measurements of spending ratios, trade balance, and account deficit are as well macroeconomic fundamental drivers for the currency's direction.

Inflation happens when the money supply within a market increases. The alternative in the inflation rate and money supply affects interest rate, overall economic condition, and eventually interest rate, as explained in section 4.1.1. When inflation raises, the level of price are higher as per unit of currency can buy fewer good, or in other way, in order to buy the same type of product, consumers have to pay more, the purchasing power of a unit of currency is depreciated. However, Central Banks usually raise inflation rate when they want to encourage exports and limit imports, as domestic goods become cheaper in comparison to international products, the countries gain competitiveness and trade surplus. As an economic sequence, trade surplus leads to foreign capital inflow, national currency is stocked up by foreign investors, which creates a demand for high interest rate, and economic growth, and finally, exchange rate raise due to appreciating exchange rate. This economic circulation repeats as a *laissez faire* principle of the market and nations have the autonomy to modify it depending on the current state. Therefore, inflation rate, in combination with operation and monitor over employment, trading issues and interest rate is considered as a direct fundamental that leads to variation in currency exchange rate.

Being a factor in classifying economy, employment rate is as strong as inflation rate as it shows the direction of an economy via unemployment ratio. However, governments and economists have always faced trade-offs between the two indicators. Unemployment deteriorates income and spending wills, as people no longer pursue sufficient fiscal sources to purchase high-end products and non-essential goods, which is an impediment towards economic growth. When people become reluctant to spending, they tend to save more, and the amount of money circulating in market decreases, inflation rate decreases. According to Forex Source Team (n.d.), governments generally aim to keep their unemployment rate at 1-2%, which is an ideal state to maintain strong economic performance, and keep the inflation rate not too high, constantly high exchange rate for the currency.

Economies and businesses frequently need a sustainable debt amount to operate their finance and capital flow. By investigating into debt contribution in economic ratios, analysts could tell the sufficiency of its performance as well as ability of receivable profit for their investment. However, countries should keep their debt low comparing to the overall economic size, as large debt encourages inflation, which eventually leads to currency depreciation. There are multiple reasons for investors to hesitate to buy-in a nation's currency while its debt rate is high. Not only does it show poor economic performance and low-value currency, but also high probability of defaulting on debts. In fact, the rise of after-war debt was the fundamental cause to hyperinflation and recession of most countries during the 20th century, especially in Imperial and Capital nations such as Germany, France, Italy, etc.

Trade balance, or account deficits, or balance of payments is likewise to contribute in the weighing process of currency exchange rate. Trade balance is the count of receivable and payable trading value as of imports and exports. An economy with trade surplus is considerably healthier than its grouping counterparts. When a country export more than import, it has to buy less from the outers and be able to sell more, which means if the foreigners want to buy the goods from the country, they have the obligation to save more of the national currency than domestic sellers, which makes the value of the fiat species become more powerful. Whilst in account

deficit condition, countries have to keep foreign money in their saving account to pay for imports, which reduces the circulation of domestic currency along with restrict internal production and economy, hence deteriorates its value. However, there are exceptions. For example, the U.S. hit its highest level of trade deficit in 2018, yet remained to be the strongest currency of the time.

Other market factors also have plentiful impact on the state of currency price. For example, real wages, and retail sales as well play an important role in the welfare of an economy and by so, affect how currencies weigh. If real wages are being paid sustainably (without dispatching corporate finances) and promptly, which means employment is being sufficient and households have more disposable income to purchase luxury needs, the economy has a sign of growing. Others factors such as retail sales, Purchasing Manager's Index⁴ (PMI), Consumer Confidence Index (CCI), and Business Confidence Index (BCI)⁵ are also ways for investors to evaluate economic situations and weigh a nation's currency performance to decide whether they should invest on the currency.

Therefore, in order to conclude the impacts of economic factors on currency weigh, a combined portfolio of all economic factors and specialists' speculation is needed. All data needs to be analyzed, and no analysis can be done properly without professional understanding and academic accomplishment. These fundamental theories are to be assisted with factual numbers and data for further study and accurate anticipation.

4.1.3. Socio-political and environmental factors:

⁴ PMI indicates the economic health of the manufacturing and service sectors. This economic data point provides information about changes in current business conditions to decision makers and purchasing managers. (Forex Source Team)

⁵ CCI and BCI are fundamental indicators for consumers and business. CCI is based on consumers' future prospect of household consumption and savings. BCI is similar to PMI to some extents – used to measure the optimism of the business.

Beside economic data, socio-political cause and natural disaster are counted as factors leading to the variation of fiat money.

Even though politics is not directly related to the operation of economics, it is the crucial part of social formation which is inter-correlated to other social studies such as culture, economics, and psychology. Similar to when a corporate's stock price stagnates by scandals or notoriety regarding high-level officers, a nation's currency as well is possible to be affected by the President's speech dictation, or national election. Especially for global currencies like the U.S. Dollar and the Euro, political certainty plays major role in defining the exchange value. Take the exchange fluctuation of the Euro and the British Pound during Brexit⁶ for example, below is the figure of the currency pair GBPEUR value during the Brexit time. As we can see, the exchange rate of both currencies stagnated right after the declaration of Brexit in March, 2016, which is a sign of trading competition and political instability of the area.



Figure 4a: The GBPEUR exchange rate chart during Brexit (Pound Sterling Forecast)

By the time of the 2008 crisis, the Icelandic krona was a major currency whose value rose up to 900% since 1994, Icelanders were 300% wealthier than they were in 2003, and most excessive income was used for real estate and currency

⁶ The event of the Great Britain leaves the EU (British exit = Brexit) happening from 2016-2019. (Mueller, 2020)

investments (Amadeo, 2019). However, when the global financial crisis unfolded, investors lured away from Icelandic banks for a safe haven, which ultimately depreciated the Iceland krona and piled up public debts. The largest banks who hurt the most attempted to survive by relentlessly raising their interest rate, causing house price bubbles and inflation. By 2009, the krona value declined 30% and national debt piled up to 50 billion euro (Wikipedia.com, n.d.), and the government had no money to rescue the economy. In the end, IMF and other neighbour nations like the UK, Luxembourg, Belgium, had to promote 'bail-out' policy to save the Icelandic economies from total collapse. The three largest banks in Iceland was finally nationalised by the governments in an effort to stabilize the economy and restore faith. Even the economy was quickly regained relative to the European thanks to its sovereign and independent monetary policy, the crisis was a drastical hit to Iceland with a drop of 10% in national GDP between mid-2007 and mid-2010.

Serious natural disaster might disturb and corrupt the development of an economy and cause temporary internal recession for the victim nation. It is likely to as well raise the governmental debt to finance the recovery of the countries and is an unfavorable factor towards currency variation.

From this perspective, all side factors have their ability to affect the rise and fall of currency. When doing analysis and speculation for future investment, professionals should include a comprehensive picture of relative events and numerical components to prevent unnecessary error.

4.1.4. Specific factors classified for the G10 currencies:

As of the major currencies from major leading economies, the G10 currencies have relatively more fundamentals and grounding indicators than common currencies and exotic ones. The change in these currencies' value not only based on their national/regional economies but also by global issues and these changes have considerate impact on minor currencies. Take the Chinese yuan as an infamous example for its

intervention into other currencies by the People's Bank of China's strictly control over the yuan's exchange rate hourly. According to White and Zhou's published article on Reuters (2019), the yuan's major peg is the US Dollar, especially during the Trade war declared by the US President Donald Trump in 2018, the yuan has stumbled 11% against the Dollar. This is an action of opposing from the Chinese government towards Trump's tariffs on Chinese exports as well as a way to gain trading competitive advantage and attract foreign investments.

The first factor that might affect the G10 currencies is commodity money. These commodities are not similar to bartering species such as gold or silver as explained previously, they are the price of essential products or goods that are associated with the economies and as soon as their price change, the currency might as well be affected. Oil price for example – is the modern fundamental factor that has put huge issues on global economy since the evolution of industrial economy, which as soon as its laddering, may cause immediate reflection on currency price from countries whose main income is from energy commodities production such as Canada, Saudi Arabia, and Russia (BBC News, 2016). Or in Canada, Japan and Germany, the major production of cars become attached to the overall economies as the contributed of car industry into national overall GDP is too large that as soon as the car price fluctuates, the whole economy is correlatively impacted.

Another market factor comes from the competitiveness and economic strength of other nations whose currencies might be a safe haven for economic sakes. Safe haven is the currency bought by investors during uncertainty of economies. In other words, investors move their fund to a safer source of assets. During Northern Korean's missile tests in 2018, which caused turmoil sense among investors, who later transfer their capital into a safer commodity to assure their assets. At this stage, while Japan and Southern Korea are in the same geographical area, investors decided to move their investment into the save of Japanese yen, which is considered as stable currency. When safe havens happen, the currency's demand curve rises up and it is profitable and become appreciated.

Above are considerable fundamental contributors of currency valuation theories. These theories and contributors have not been explained and practically mentioned in epistemic study, however, they represent a comprehensive picture of macroeconomics and its currency circulation with hyperinterrelation among economic-socio-political matters. In order to accurately calculate the numerical rise and fall of currencies, econometrics is to be applied, nevertheless, this study will mainly focus on the fundamental and theoretical sides of the issue. In the next section, these theories will be reserved in explaining the architecture flaws of the Euro and how these affect the Euro crisis and the optimization of the Eurozone.

4.2. The Euro valuation:

According to chronological Euro crises described throughout section 2.3.2. and discussion regarding whether the Eurozone is an optimal currency area (OCA) in section 2.3.3., arguments relating to the sustainability of the Euro is being questioned. The Euro is a new born currency, compared to the U.S. Dollar, the British Pound, and it contained pretty much risks than any other authorized fiat money. The Euro crises were proofs for the flaws within the operation of the EU and European Central Bank, as well factual lessons for the Euro authorities to inspect, improve, and advance the application of common currency theories. As of this study, I will mostly focus my arguments on Godby's book (2013) which determined the EU's false in three-pillar based composition including government, economy, and social-politics.

Based on such inspection of the Eurozone architectures, and the pricing curve of the Euro currency since its establishment in 1999 all the way to 2017, we have a fundamental examination on how currency valuation theories mentioned in previous section work with a G10 currency – the Euro.

4.2.1. The Eurozone's flawed architecture:

According to Godby (2013), the current state of the Eurozone is 'much like a house with a shaky foundation becomes unstable over time.' There have been external shakes, the global recession 2007 for example, it is undeniable that the Eurozone suffered destabilization more than the home origin of the depression – the United States. Even though the two components applied basically similar cure to the economy, the reaction from the EU was comparatively slow whilst the destruction has been too vastly majored. This can be traced from a voluminous progress of decision-making in the European authorized institutions where lots of decisions were made bulkily and unaccountably to electorates.

Being a political experiment under economic formula, which absolutely relates to the economic spheres of all involved countries, the Eurozone goes wholly adverse to the theories of an "optimal currency area". From the Greece's public debt bailouts as an early sign of formation chaos, to the destabilization in socio-political norms of other member states whose working culture, institutional governance and sufficient productivity in social norms are far distinct from each other, the Eurozone has demonstrated weaknesses in the chain, and dubious supposition about whether the creation of the Euro is a catalyst to the European regional integration or a tragic irony remained unanswered.

4.2.1.1. The flawed governmental architecture of the Eurozone:

Given the initial scope of creating the European Monetary Union (EMU) – to integrate European countries and advance the regional economy as well as strengthen internal bond among member states to compete against outsiders, the structural government of the EU has proved itself to be adverse. Despite individual member states' interest, the EU does not contain a body that makes decision based on common concern. According to Godby (2013), the Euro is an incomplete project

with deficient vision of its own creators whilst being a supranational institution, the EU failed to set its authority over national sovereignty⁷. Such failures have caused a few critical problems within the operation of the Eurozone. It has not only undermined the creation of an institution to rectify the architectural flaws within economic operation of the EU, but also make it advantageous for hegemony among member states.

Furthermore, several criticisms regarding gradual progress of decision-making within the EU government when coping with crises have been filed, which contributes to worsen the situation and make the whole union incapable to react immediate issues. The structural institution has become very voluminous as of the establishment and political incentive of European countries since after World War II. Throughout a considerate period of chronical meetings and changings till now, the EU progressively moved towards a single governance institution that manages political and economic integration. Currently, the EU is under the regulation of the 2009 Lisbon Treaty with a division of the whole governmental structure into three branches: executive, legislative, and judicial (as presented below in *Figure 03*).

⁷ The issue regarding sovereignty, economic and political integration will be mentioned further in the following section about socio-political flaw within the Eurozone architecture – 4.2.1.3

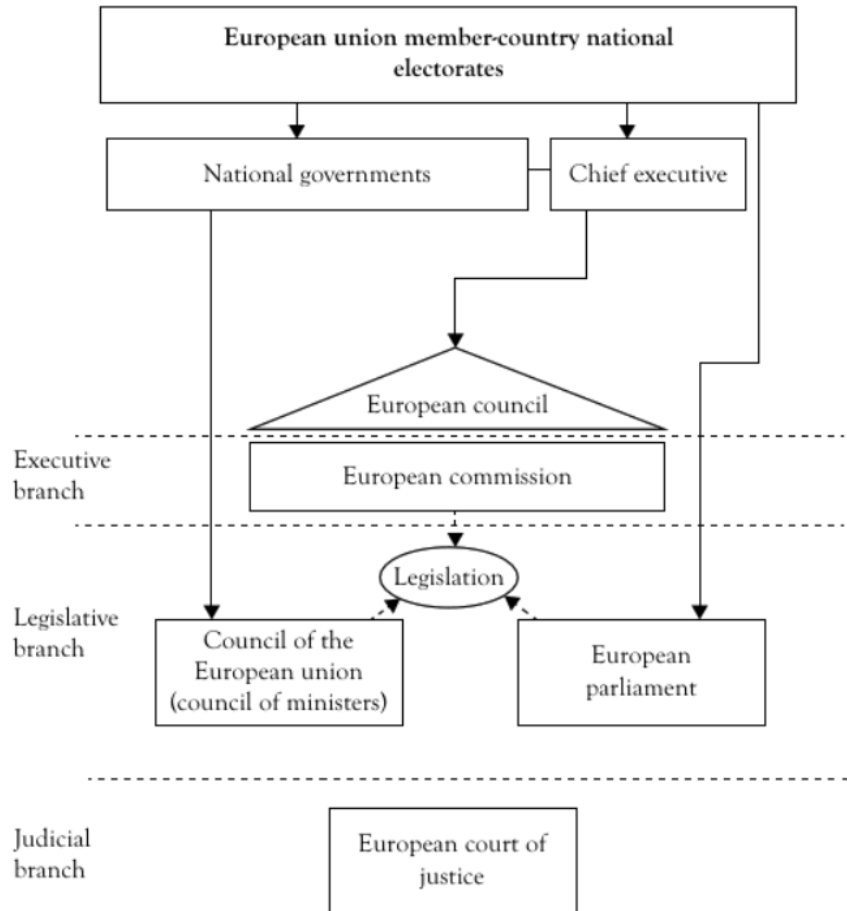


Figure 4b: The EU governance (Godby, 2013)

This modified structure of the EU governance is a hybrid of both federalist and nationalist ideologies. It allows national delegates to have their voice in EU-wide decisions while maintains equivalency among member states' interest. However, considering the operating years of the EU governmental structure, which is relatively short compared to its companion with similar economic base and governing population – the United States, several flaws are being made based on the voting proportions over 'countries that are wealthier and contributes more outweighing the peripheral ones'. The undermining of aids for troubled nations under crises, or the establishing an institution to amend and strengthen the union for instance.

Besides, signs of hegemony in the regulation and policy establishments in the operation of Eurozone are obvious. Macdonald (2018) believes that intentionally or unintentionally, wealthy nations such as France and Germany with dominance in policy decision have dominated legislative approach to be favorable for these two economies and be adverse to the remaining nations of the EMU. By this strategy, the EMU has become an economic pump for the two economies by favoring exportation and further manufactures thanks to the depreciation of the currency (the Euro value is considerably weaker than the previous Deutsche mark and French franc).

Presented in *Figure 4c* and *Figure 4d* are the exchange rate parities between three currency pairs, in which DEMUSD and FRFUSD being viewed in a 20-year period prior to the Euro establishment and the EURUSD 20 years after. Both these two periods contained a few global recessions (as of the oil-price depression in 1973, the U.S. depression in 1991, financial crisis in 2009, and the Euro crisis in 2017). It can be seen from these figures that the value of both Germany and France's former currency were notably higher than that of the Euro. Whilst one Deutsche mark's highest reached approximately 3.6% of the value of one unit of U.S. Dollar in 1971, and its lowest value is equal to 1.4% in 1995, the Euro's peak value is equal to almost 1.6% the U.S Dollar's

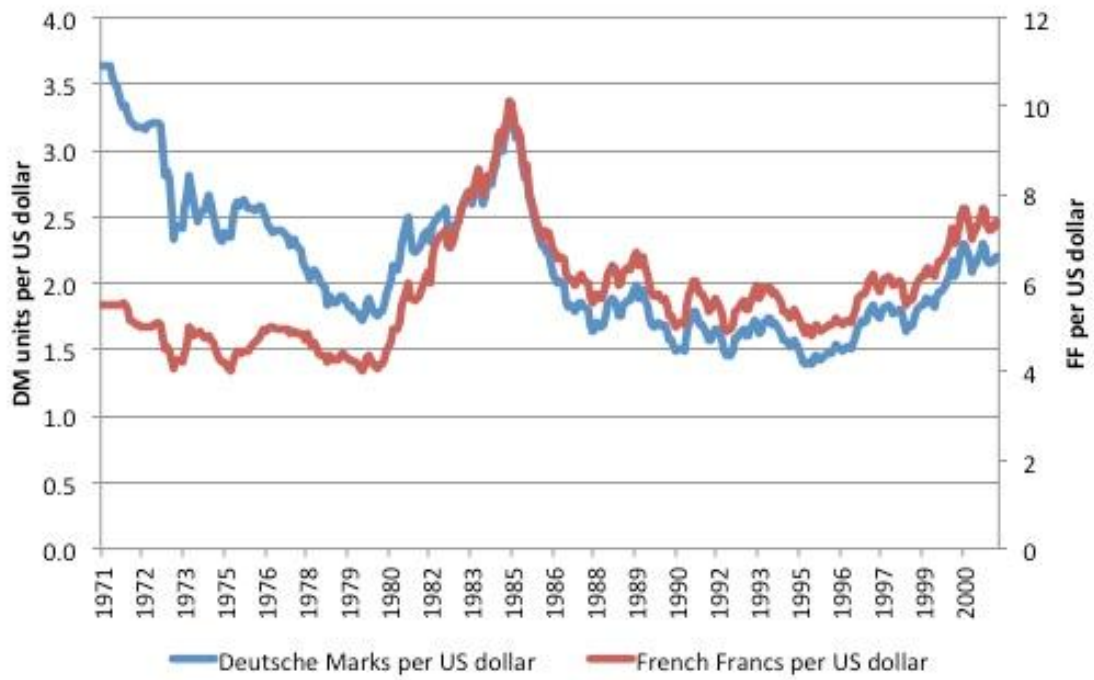


Figure 4c: The DEMUSD and FRFUSD parities 1971 – 2001
 (Federal Reserve Bank of St Louis, FRED Economic data)

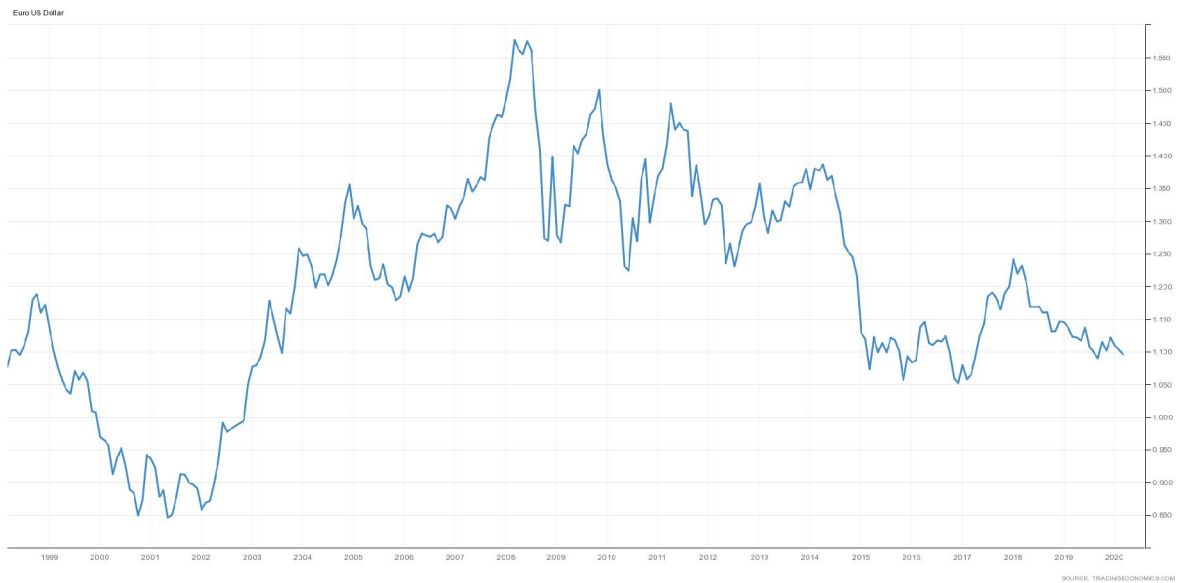


Figure 4d: The EURUSD parity 1999 – 2020 (tradingeconomics.com)

value back in 2008 and it perceived its lowest value during the beginning of the twentieth century when the currency was new and in hectic formation with the EURUSD parity of 0.85% back in 2001.

However, the more one economy is beneficial from a union, the more it has to suffer from stagnation. As soon as the Euro crises started to be visible, the creditors (Germany, France, and Holland) became more concerned about economic hardship than any other European member states.

Expansively, in a different point of view where Strange (2018) considered disparity between French and German economic ideologies as well as the hegemony in Germany's role in the EU and the way it put impacts onto the whole system of Eurozone economic practices as flawed factors within the EU's governance architecture. Firstly, disagreement between the dominant states about the governance of the EMU has become the weakness of the internal monitoring of the political economic union. While Germany believes that incorporation, federalist fiscal policy, and 'ordoliberalism'⁸ are the best way to make 'moral hazard' evitable, French government prefers statism and the retention of fiscal sovereignty to secure its expansive exportation and state autonomy. And the second argument, whilst most member states within the Eurozone consented to the application of neoliberalism⁹, German delegators promoted 'ordoliberalism' as a closer form of efficient liberalist economy. This ultimately affected majored rules of the Maastricht Treaty which embedded restrained fiscal policy, multiple macroeconomic restrictions, and infamous 'no bail out' clause as well as the establishment of a fiscal managing organization to regulate monetary regime within the union and set up a supranational authority.

⁸ German economic liberalism about the efficacy of the free market under the governing of the state. (Wren-Lewis, 2014)

⁹ An economic theory in which all state interference is minimized and the market operates after *laissez faire*/ (Wren-Lewis, 2014)

4.2.1.2. The flawed economic architecture of the Eurozone:

In previous section, we have mentioned the constraints of governing issue within the European Union which eventually cause flawed economic constitution and expected performance of the Euro. Sociology are interlinked. Inner faults of governance structure likely leads to lack of competent economic administration, which is currently occurring inside of the Euro system. There are essential macroeconomic elements that contributes to the efficacy of a common currency area, while some economists believe in the critical path of achieving 'Optimal Currency Area' theory of Mundell, other hypotheses have been developed as side approaches to the matter.

Godby (2013) argued that a successful economic monetary union are historically required to pursue three following characteristics: economic integration while maintaining and balancing ability of member states to react to internal and external shocks; common fiscal policy allowing collective transfers and collective debt assisting packages; and a central bank who plays a role of a creditors as last source of escort from recession. While the first two arguments go consistently with the theory of OCA, central bank act is a distinct consideration of how policy-makers have managed to efficiently circulate capital flows and value the Euro currency. Throw back in section 2.3.3. about the EMU and its OCA characteristic consistency, professionals have argued that the Eurozone is not efficiently optimal, not to mention that it is currently not qualified as an OCA.

There are abundances of flaws within the operation of the Eurozone, and authorities are working against the depreciation of the currency union. However, several articles and unofficial debates surrounding the controversies of the Euro and whether it should be abolished have been conducted with multiple stands of opinions (debate.org, n.d.; Elliott, 2018; Worstall, 2015). Most preferences stand the side of a 'should' to abolishing the Euro. As of in Worstall' s article on Forbes, he compared the similarity of the Euro and the Gold Standard at the lack of national economic autonomy, and the currency value peg, which obscured national ability to deal with shocks and economic accidental incidents.



Figure 4e: Own capture of an unofficial debate run online about whether or not the Euro should be abolished (debate.org)

While most opinions agree with the controversial idea, which is to abandon the Euro, major arguments regarding the inequality in domestic economy of member states, perceptive productivity in cultural perspective, and ‘moral hazard’ in national debt issue. On the other hand, opinions stand for keeping the Euro mentioned the EMU goal to bring the whole region forwards an overall stage of balance, meaning all member states pursue resilient and high-performed economy within a composed highly-integrated political economic society of European countries. Which is against diversity and flexibility characteristics of a global economy, according to Worstall (2018). Synthesizing the comprehensive picture of both experts and regular citizens’ points of view about the Euro, the scale significantly tilts towards the side of rejecting the efficacy of the Euro due to its poor accomplishment since 1999 contemplating structural flaws and fail to adjust differentiation among socio-political-economic standard. And the responsibility for such scenario might as well be traced back from European Central Bank (ECB)’s limited functionality upon the Euro’s inconstancies and the ‘Eurosystem’¹⁰ of monetary policy.

¹⁰ Including the European Central Bank (ECB) and the European System of Central Banks (ESCB) – a consolidation of the ECB and the central banks of all EU members.

In Godby's book about European crisis in 2013, he mentioned that a central bank is expected to accomplish three inter-related functions: maintain the stability of financial system, be an accessible source of credits when needed, and control monetary policy. However, the ECB is restricted and attached to the 1992 Maastricht Treaty about regulations for a common currency area. The Treaty did specified critical fiscal requirements for entry and maintenance of the Eurozone so as to preserve the standardized overall performances of all member states. Purposely, a nation is obliged to reserve no more than 3% annual GDP deficits and debt – GDP ratio must not be over 60%. While countries keep breaking the rules, the ECB individually and the EU generally have not made any sanctions against such violation. Especially in the early 2000s when a few weak punitive actions were actually taken to turn down the debt rate exceeding and over GDP deficits, large states such as Germany and France were all able to lobbied the sanctions while reinterpreting its limits.

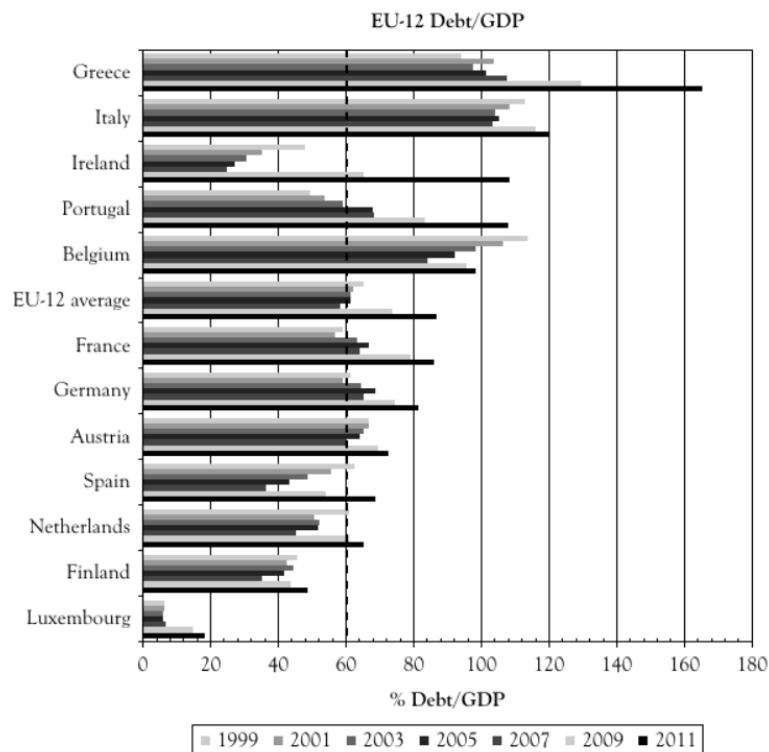


Figure 4f: Debt – GDP levels for the original EU countries. (Godby, 2013)

In order to efficiently manage the European common currency without causing conflicts between political and economic goals, the bank must be utmost politically independent. Many economists stated Federal Reserve¹¹ (Fed) as a successful central bank which was politically independent and able to situationally modify the U.S.'s monetary to sustain national economy throughout mutability. Concurrently, the ECB's actual role in stabilizing and encouraging European economy has been very restricted due to political impact and the union rules. For example, during the 2009 recession, peripheral countries (Portugal, Greece, Italy, Ireland, Spain) whose economic states were already trembling by attempts to catch up with developed countries (Germany, France) in the Eurozone, had their debt worsened by the Maastricht Treaty's strict rule of acceptable inflationary quota. Specifically, if the ECB loosened its monetary policy, these economies could have reduced the damage caused by the recession. As well, under the operation of the Treaty with 'no-bailout policy' to avoid debt defaulting and discourage member states to excessively spend, the ECB can barely subsidy and act as the creditors for recession

In summary, the European Union remains flawed with several inadequacies within its economic architecture. Few recommendations might be to recentralize the economic goals of the union while gradually accommodate and assist nations with lack of solidary and accept the flexibility and diversity as in globalization era. Taken from previous section about the Eurozone as an OCA, economic factor mobility and bilateral shock-dealing capability are as well crucial parts of the plan. Comparing economic performances between the EU and the U.S.A. nevertheless, is staggering regarding the two economies' prolonged experiencing as a united states of economies. Mitchell claimed in his study in 2018 about Stiglitz's opinion about the Eurozone's flawed architectures that it took the United States of America 137 years after independence to create a central bank, and the Eurozone is now 21 year-old, no secure declaim can be made against the potentials for an EMU in the future. Nevertheless, European policy makers, if wishing to retain the application of a common currency area, shall prepare themselves and properly use their time to

¹¹ An institution in charged as the United States of America's Central Bank.

continuously learn from mistakes and encourage reasonable modification of the overall system.

4.2.1.3. The flawed socio-political architecture of the Eurozone:

Implemented under the scope of a highly-integrated political-economic union, the Eurozone however was deemed as lacking of deep political integration as mentioned in the part of flawed governance architecture. The barricade of maintaining national sovereignty over profound economic assimilation was as well discussed in previous episode. In the era where the dominance of a nation is determined by its economy, and cross-border trading defines globalization, it is difficult enough for a successful regional integration without losing national constituents. In the Eurozone's case, the EU was established, first and foremost, is to affiliate European nations into a strong set of member states, escalate regional potentials along with deteriorate outer competitiveness. In order to accomplish such goal, the union have to pursue a strong inter-correlation of politics and economies while maintaining national sovereignty, which is a socio-political impossibility, according to Rodrik (2000).

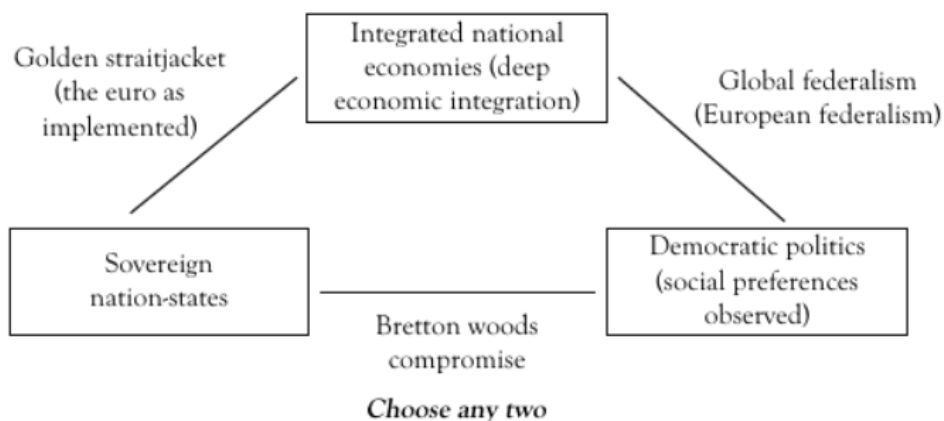


Figure 4g: Rodrik's International Trilemma applied to Europe. (Rodrik, 2000)

Above is the diagram of Rodrik's globalization challenge, his insight was that to design a system that promotes deep economic integration 'simultaneously protecting national sovereignty in economic policy and maintaining direct political democracy over the supranational governance of Europe invokes a socio-political impossibility.' (Godby, 2013)

Trade-off in free flow of capital and economic exchange has been part of principles of economics. Countries wish to remain open and freely trade can hardly uphold national economic policy inconsistently with international norms. Rodrik named the economic achievement of harmonization of national policies and international norms Golden Straitjacket. In which the country succeeds in balancing national independence and internationalization, yet abandon democratic politics. The more international a nation becomes the less democracy it remains. In the EMU circumstance, the original design and set of rules are more Golden Straitjacket-oriented, which limits the competency of political-integrating premise. From multiple examples given about correlation and constraints of political rules over regional economic goal and national flexibility, member states have to give up on their electorate's preferences to cohere with the Maastricht Treaty's principles. Another aspects referring to this outcome is the trade-off between economic integration and shock adjusting costs. Citizens of these member countries have to deal with labor mobility, language shock, and wage differentiation as external issues, while internal startle remains as contrary towards imposed policies for deeper assimilation.

The second alternative for Rodrik's trilemma is contentment of a deep integration taken place simultaneously by both economy and politics, called 'global federalism'. In the Europe, the creation of a supranational governance and implementation of a common currency – the Euro is referred as European Federalism, which ultimately necessitates the eclipse of national interference into electorate economic policy. This outcome, however, has failed itself during earlier period of the European Constitution. Political integration and national sovereignty are conflicting with each other's objectives. While democracy requires citizens' voice to be heard, the integration in politics reduce the priority of one mere nation's preference in a

common picture of the whole European area, not even count for economic unification. Such efforts of counterbalancing all criteria of an effective union have been impossible due to regular skepticism, which was then proved by a series of failure of authorized institution to combine political economic integration while eliminating democratic deficits. Eventually, the combination of European Federalism will result in the elimination of nation states' sovereignty, especially in the power of determining economic policy.

The final puzzle specified the Bretton Woods compromise, which has been now superseded by modern exchange rate system in the global industry: democracy and sovereignty. The BWO period was the beginning of globalization and the midst of Cold War, right after the collapse of Gold Standard under the pressure of the two World War – when most nations are highly aware of national jurisdiction and political supreme. However, during 1970s, the BWO soon became replaced by the World Trade Organization (WTO) due to excessively free mobility of capital flow and liberal trade. As interpreted previously in chapter 2, this outcome is outdated and no longer fit in modern economy and innovation of the international circulation of monetary investment, resulting in the failure of the hybrid of political integration – national sovereignty. In Europe, the manifestation of the Bretton Woods compromise was the pillar of European economy before the breakdown of liberalism in trading activities.

Since the EU is currently attached in the Golden Straitjacket outcome, and according to the argued perception about the trilemma, its objective movement towards an economic-political integration is speculatively a barricade. The implementation of the Euro itself has caused an alienation towards electorate preferences and technocratic role of economic governance, which apparently has worsened the state of peoples' perception towards the adoption of political unification. However, such integrating conduction of the European Union, if executed sufficiently and comprehensively upon all the sidelines of socio-political economics – which requires a huge amount of time and efforts and patience, is necessitated for the stabilization of the common currency value as well as strengthen competitiveness of the unification compared to exterior nations.

4.2.1.4. Summary:

The failure of authorities in establishing an effective Eurozone which is expected to be able to accomplish three elements of a successful common currency area: ability to manage internal and external economic shock; common fiscal framework for common debt policy; and a political independent and strong central bank to act as a last- resort lender. The flawed architecture in governance, economics, and socio-politics of the EMU has not only turn the currency union into a technocratic institution, but also alienate it from the EU citizens, specifically since the Euro crisis.

Altogether, the undermining of nation states' ability to cope with bilateral shocks, lack of consistency in economic regime application among member states, insufficiency in being an optimal currency area, a weak 'Eurosystem', and uncompromised aspiration of being highly integrated while retaining sovereignty have contributed to the union's overall performance reviews and demanded a resolution from the authorities. Otherwise, the Euro crises are going to be a periodical phenomenon which is worsened by the time and unanimously harm the whole European operating system.

In July 2012, Mario Draghi, the President of the European Central Bank, in his speech, acknowledged the shortcomings within the Eurozone architecture. Mario remarked the incapability of the union, yet emphasized impressive endeavors of the whole EU to make the young inexperienced common currency area work, and became the second most powerful global currency. In order for the union to keep growing and escalating, it is required to assess the issue directly, make the Eurozone 'more Euro', which is to be more integrated, yet democratically and less technocratic. The 2008 recession took place as an alarming indication of the 'shaky ground', following by the Euro crisis, which has damaged the Europe concurrently and the continent has been struggling to rescue and remedy its edifice – the common currency. (Godby, 2013)

However, the issues regarding the Eurozone's flawed architecture are just major contributors to the controversy and uncertainties of the Euro currency, which are obviously mere indicators to its exchange rate chaos. The fact that the Euro, despite its market inexperienced and newness, has been a real breakthrough for the European Union since its adoption. The Euro implementation was a sign of high economic and political integration among nations, and the progress of the initiative has partially reached its infant achievements with an expansion of infamous desired EU-citizen benefits, huge credits, bilateral trade encouragement, decrease in unemployment, and inflationary stabilization. The Euro not only successfully strives to be the second most powerful currency worldwide, but also stands as an economic moderator among European nations' economies and an impressive performance of a common united market in the 21st century.

4.2.2. The Euro's exchange rate (1999 – 2012):

Due to technical lack of necessary sources and references for further than 2012 analysis, and in order to maintain thorough analysis of the overall thesis, this chapter would stop at 2012 as the technical end of the first Euro crisis. A few more arguments and noticeable events happening during the 2012 – 2020 term and their impacts on the Euro exchange rate have as well been indicated through out the paper as examples for discussed theories.

4.2.2.1. The Euro in its first ten years (1999 – 2009):

Despite doubts and controversies against the applicability of the European common currency – the Euro, the first ten years of the Euro seemed to be steady with relatively high average national GDP across the region. Even though the United States' economy was unstable and shaky due to long-period stagnation and was

thwarted to recovery, the new-born currency was on its fine route. *Figure 4h* indicates average country group GDP from 1999 - the Euro introduction, to 2012, the ending year of the crisis. There are the average calculations of 5 country groups including the United States, the original 12 members of the Eurozone, the group of northern economies (Germany, Finland, Netherland, and Austria), the GIPSI group (Greece, Italy, Portugal, Spain, and Ireland), and the Southern European nations (Greece, Italy, Spain, Portugal).

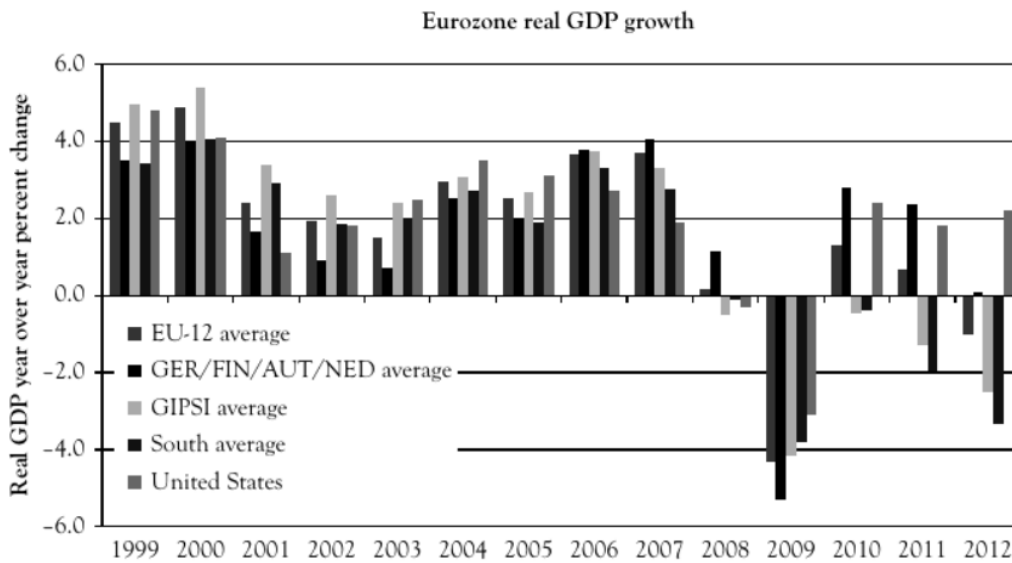


Figure 4h: Eurozone's real GDP (Eurostat, n.d.)

The first ten years after the Euro introduction, the Eurozone experienced higher grown rate than the U.S. However, since the starting years of the crisis – 2008, northern members' development was lagging by the GIPSI, and the whole union encountered negative GDP, which dramatically decreased in 2009. Adding to that, the inflation rate of the Eurozone nations was fluctuating around 2-3% (*Figure 4i*) which is an ideal numeric proportion. The ECB and its conducive monetary policy quickly gained its position and respect among the member states and international economists who previously questioned the capability of a common currency area.

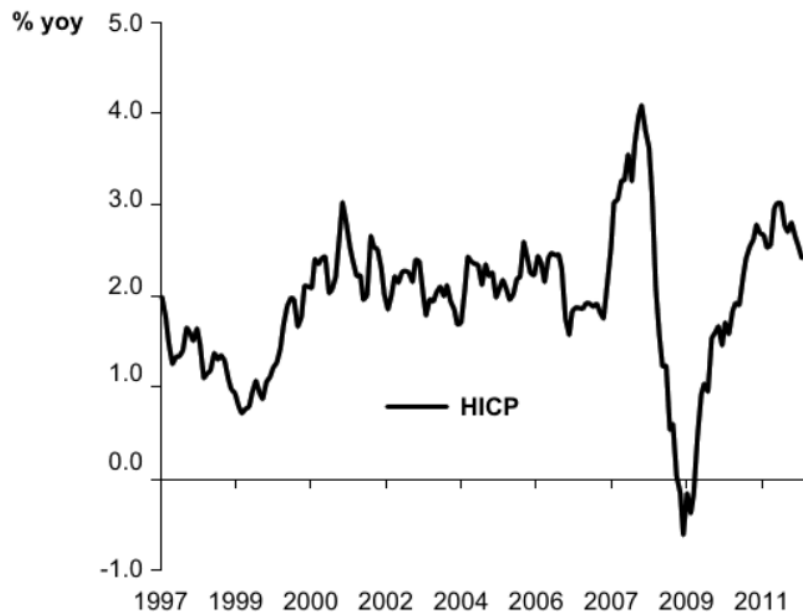


Figure 4i: The Eurozone inflation rate (Mayer, 2012)

During this stage, according to the newness of the currency and strategic fiscal response, the ECB kept the value of the Euro relatively low comparing to the Dollar (*Figure 4d*). Countries like Germany, France, and Italy whose previous national currency value were high and pegged as safe haven during economic instability in the 1990s (the Deutsche mark) vigorously bear the devaluation of exchange rate, while the peripheries like the GIPSI had to strive for a minimal fulfillment to Maastricht Treaty. The euro exchange rate – compared to the U.S. Dollar, was kept low as well as low interest rate (4-5%), in order to stimulate exports, encourage spending, and increase the amount of money circulated in the market. *Figure 4d* represents the overall value of the Euro – Dollar currency parity from 1999 to 2012, as in the first ten years, the Euro's exchange rate is significantly outweighed by the Dollar with the value of 1 Dollar can buy more than solely 1 unit of Euro.

From 2010 onwards, while the United States and the northern-bloc started recovering from the global depression with initial positive inputs, the peripheral club remained downwards for the next 5 years. The financial crisis in 2008 was an alarming hit to the whole underlying defects of the Euro operation. Such disparity in

economic sustainability among member states caused the Eurozone severe suffer and the fabled Eurocrisis where policy makers start recognizing the existence of architectural errors within the 'Eurosystème'. Regards to the previous section about the Eurozone's flawed structure, out of all socio-political-economic pitfalls, trade imbalances and disparate productivity level contributed to the lengthy partially recovery of the Europe aftermath.

4.2.2.2. The Euro in crisis (2008 – 2012):

From what *Figure 4d* shows, the Euro's exchange rate in its parity with the Dollar was flagged during the recession time. There are two possibilities drawn from this interpretation: either the Euro price was raised, or the U.S. dollar depreciated. In Authers's book about the Europe amid financial crisis and the exemplar of it in 2012, he mentioned the 'swap lines' policy of the United States where it lent Dollar to the emerging markets to avoid debt default. The proposition had caused a small lump on the Dollar's rate on the forex market, yet was a crucial movement to stabilize the financial system. During 2009, false report of the Greek government about national public debt – which then worsened the situation in the Eurocrisis, was a drastic hit to the Euro's market credibility as investors lost their truce toward the currency and gradually draw capital out of the forex.

Aside existing fundamental factors within the entity, the strategic methodology used by the ECB, an inexperienced organization with global economic depression, to adequately response to the global depression precisely exacerbated the prime challenge. There are possibly three economic classifications for the cause of the Eurozone's post-crisis delayed readjustment: the incomprehensive resolution of the European Central Bank over underlying problems, the dominos effect of false bail-out policy, and external factor of the Dollar – Chinese yuan currency war.

The economic author Godby argued in his book (2013), that the way European authorities face the first years of the crisis was alike to the five psychological phases

of grief: denial, anger, bargaining, depression, and acceptance. When the crisis first arrived, interest rate started to climb, which explained the immensely raise in the Euro exchange rate, authorities forgot the possibility of debt default in particular countries. As the over optimistic about a rapid recovery and the market confidence got aggravated, denials psychology turned European leaders' overwhelmingly agony to blame the U.S. financial crisis and they soon reached the second phase: anger, as all expectations turned out to be misleading. Governments became angry at each other, residents in creditor countries resentfully accepted the necessity of bail-outs, and people in aided nations became frustrated of their ineptitude leaders. While bargaining for bailouts going on externally, domestic economic productivity had to be upgraded for proficient condition. Crises met crises, economical despair turned to emotional depression. In 2010, policy makers started accepted the situation as realizing real effective alteration rather than merely contemplation for the crises, their attempts to cure the economy firstly began with the root of the issue: Greece and its slump debt. Reformatations and controversial remedies thereupon have been taken against faulty system of the Eurozone, generating positivity about the currency's future as economists started studying to rectify the monetary scheme.

As of the Maastricht Treaty's 'no bail-out' policy, and several strict econometric limitation regarding macroeconomic factors, countries with weak foundation like Greece started hiding their faulty performance to avoid punishment. During the Eurocrisis, national debt inevitably increased whilst objective nation failed to adjust inflation and printing money to pay-off, the ECB refused bailing out, the Euro eventually sunk in the blank of inefficacy. As Greece's situation gradually became worse, the government continuously lifted their rates, bringing about other shaky economies to go diverge from standardized level of performance. Creditors, on the contrary, had their rates flattened down as investors took these nations' circumstances as a sign of safe havens. While the disparity between the GIPSI nations and the northern developed industries escalated, the domino effect of sovereign debt weighed heavily on the bad side of the economic scale. The climax started in the beginning of 2012 when first negotiating results about Greece limitedly bailouts came in practice. A 'not-so-stable' state of finance for GIPSI nations came

afterwards as a consequence of bailouts, which then apparently lessened the severity of the crisis.

During the sequence of events from the contagion of debt rate and economic performances among member states of the same achievement, the ECB had revealed enormous efforts in maintaining the Euro value and effectively adaptation to the changing pace of global economy. It despite despair and initial panic, had shifted its approach to a more adaptable and flexible stage. The organization had replaced its primitive passive system by a more aggressively active player whose wills is to 'do whatever it takes' to maintain the Euro (Godby, 2013). Following by such pledge in organizational decree, a series of adapting changes have been made to the overall markets to modify and adjust both political and economic structural faults, which were impossible to imply during the first ten years of operation. Economists considered the Eurocrisis as a historical occurrence that led EU leaders to a perception of the flawed architectures and was an absolute opportunities underlain confrontation to turn the leaf upwards for those who have not been able to perceive the importance of gradually balancing disparity within an economic union.

China – one crucial player from the Asian market, during the 2008 regression hit, diversified its international currency reserves as investors pushed their capital into this economy as a potential market to run away from the U.S. depression and Eurocrisis. Being a large market, the buying-in the Euro conduction of China critically impacted on the Euro value. This is as well an external factor weighing on the rise of the Euro exchange rate while the whole economy was stagnated and ECB needed its currency devaluated to stimulate exports, and to balance trade in peripheral countries. In the following year, China pegged its currency to the Dollar, pumped up the financial and inflation bubbles into emerging markets such as Brazil, Turkey, Switzerland to reduce their competitiveness and create an economic brake to its trading competitors. Furthermore, the Chinese government declared that it will focus on improving domestic infrastructure to equalize its trading capacity and compete against large international exporters. By this action, China took over European

countries' competitive credibility in exporting, hence reduce Europe's major source of markets.

By interpreting socio-political-economic events in the meantime, the weighed effect of these factors on the Euro are fundamentally predicted. Synthesizing of the whole chapter, a currency's value direction can not be speculated merely via a single event, and a high value compared to others does not always indicate strong economic performance. As if people might refer to declination of the Euro exchange rate as of the Euro woes, yet the currency actually remained relatively strong due to strategies conducted by counterpart nations and internal principles of ruling monetary issues within the union.

5. CONCLUSION

As stated in the research objectives from the Introduction, this study is conducted to interpret these following questions:

- 1) What are the key factors that will affect the exchange rate – the theories of currency valuation?
- 2) How are the theories examined in the practical valuation of the Euro?

This conclusion of the paper will include main findings of the overall process, limitation of the study and future implications for further study.

5.1. Main Findings:

This study is mainly based on secondary data and interpretation, whose topic is in macroeconomic research and mainly focus on the social and theoretical side of the knowledge. Throughout the thesis, I critically investigate in historical, social, political, and theoretical interpretation of the issue rather than econometrics and statistical

analysis. The study contains two symmetrical lines of information, where there is a brief explanation about the world's fundamental ground of monetary regimes in the twentieth century as an entry to the political and economic phenomenon and how these manifestations and progressions genuinely changed the scheme of forex economics. Simultaneously there is the Euro introduction, its crisis, and how the architecture of socio-politics impacts on the currency growth.

With the mentioned structure, I conclude that my study was relatively able to satisfy the initial intentions of studying political economics in currency pricing. My findings regarding currency valuation theories lied in the disparity of exotic and major currencies being valued in disparate conditions and situations. Moreover, beside political economics strategy, factors of society and cultural norms actually have effect on a national economy, especially its monetary exchange rate. Overall, the paper was a fundamental contribution to the study of currency valuation excessive from original numeral methods and economic tools, focusing on exposing the importance of socio-political factors in the valuating process of currencies. So, under my research scope, a hollistic approach including economic, socio-political, and environmental perspective was undertaken to fully analyze currency valuation.

Previously, I personally perceived the Euro as a major currency, and viewed it merely as superior monetary tools for the EU to integrate and reduce outside competitiveness. However, learning about critical shocks, crisis, and internal flaws of the world's second most powerful currency and why it is controversial was factually interesting and astonishing. The remaining flaws of the architecture of a new-born currency is acceptable and understandable, which is yet an unexpected outcome to me because I usually held a perception of perfect market principles. Meaning in order for a currency value to change, there shall be factors of policy makers, social demands, investing purposes, and competitiveness among nations, but not a notion of monetary architecture. As well, this study actually proved the truthfulness of the currency valuation theories as every change in the Euro value is pegged with an according matter, which is if taken from a comprehensive view, is possible to speculate.

5.2. Limitation and future suggestion:

The limit of this study is that it is lack of empirical and self-interpreted data to clarify intended orientation. A few issues need to be more critical and well-supported by sharp logics and evidences. The paper mainly focused on the socio-political signs to predict economic factors, while in order to be precisely perfect in calculating, more empirical and numerical analysis shall be applied.

There are several ways to expand this study, as of it is still mere and lack of diversity in expert opinions. A few suggested topics and further study within this thesis's foundation might be counted as expansion to serve trading business and currency investment.

The first recommended topic to be applied using this thesis topic is 'The impact of virtual currency of the valuation of fiat monetary exchange rate'. This field of study might be exposed by technological and economic interests, using currency valuation macroeconomic theories explanation in this research as well as the fundamental understandings about historical monetary regime to consider the impact of virtual currency trend over modern age. This side of the issue might as well be developed focusing on virtual currency features and investors' orientation to take these as critical deciding characteristics for their investing outputs, as well as the official and unofficial side of both currency and how governments cope with such changes.

Otherwise, we can as well use the thorough information and analysis on the Euro and the Eurozone to form a study about implications for other economic integration and common currency. For example, currently there are two other regional unions: ASEAN and AU, especially ASEAN which is attempting to form a common market modeling the EU. For which reason, a basic study about the EU architecture and its currency development should be taken into account and referenced as fundamentals and analyzing tools to justify the process of adopting common currency.

The currency game has always been a tough and fierce topic for investors. In order for the young Euro to combat against the Dollar in the modern global forex world, the ECB and its leaders have managed splendidly with quick reacts to global and business environmental changes to encounter all possible opportunities. As so, a study about the functionality of ECB and the Fed might as well be desirable based on existing synthesizing knowledge about the ECG and its struggles throughout the first years operating the Euro.

5.3. Implications for International Business:

Using this thesis paper, global businesses working on trading segments as well as non-economic major people who are interested in tracing forex might be able to essentially speculate currency orientation by concurrent socio-political situation. Managers might use it with financing anticipations regarding bilateral trading activities, pricing, and taxations to avoid profit fraudulences.

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