

The Steroid of Forex Leverage-How the PIIGS Propel the German Export Juggernaut

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Abstract

The formation of the Eurozone and adoption of the Euro as a unifying currency has gone a long way in solidifying the economic prowess of the post-world war II continent. The single currency has cut transactions costs and added fluidity to all forms of intra zone trading. The thrust of this research will focus on the impact that Portugal, Italy, Ireland, Greece and Spain (PIIGS) had upon the export strength of the German economy. The Swiss Franc is considered a surrogate for the DM therefore the authors examine how the Swiss Franc reacted once the Swiss government elected to break its linkage to the Euro.

Keywords: Euro, Deutschemark, Germany, PIIGS, European Union, Foreign Exchange, Balance of Trade

1. Introduction

President of Deutsche Bundesbank, Weidmann (2012) noted that macroeconomic imbalances were central to the Euro crisis. Greece runs persistent current account deficits while Germany runs persistent current account surpluses. Commenting on Weidman's speech Bibow (2013) notes that rebalancing of trade balances is unlikely because it requires Germany to become less competitive since foreign exchange rate adjustments are not an available tool to countries within the Eurozone. Weeks (2012) argues that as much as three quarters of Germany's recovery after the 2008 banking crisis was through export growth led by wage growth suppression. Dullien & Fritsche (2009) identified a disparity in growth and inflation between countries such as Ireland and Spain, which had experienced high growth and high inflation whereas Germany had experienced subpar growth and inflation. They also noted that these disparities were reflected in current account deficits in countries like Portugal Spain and Greece and current account surpluses in Germany. However, Huther (2013) warns that Germany's high concentration on manufacturing, close relationships between industry and service sectors and focus on exports is not a model that can be replicated in countries such as the PIIGS. The literature does not specifically denote the direct economic benefits to Germany resulting from the PIIGS economic downturn. As such this research studies the value

of the Euro against other major currencies from 2008 to 2015. Particular attention is given to Germany and PIIGS Balance of Trade. As the Euro provides a common currency for Germany, Portugal Italy, Ireland, Greece and Spain our question is would the German Trade surplus have been different had the Deutsche Mark remained as an independent currency?

2. Background

The Euro was launched on January 1st, 1999, when it became the currency for more than 300 million people in Europe, which is comparable to the size of the population of the United States. For the first three years it was an invisible currency, only used for accounting purposes, i.e. electronic payments. In 1999 national currencies were surrendered and converted at a fixed rate. This move helped to stabilize the monetary zone. At the same time, the fixed conversion rates sowed the seeds of the 21st century economic imbalance, which will be explained in this paper. The institution of the European Union made perfect sense in a hyper connected world. The ability to move freely from one country to another with one passport made travel from one end of the zone to the other a much simpler process. An even bigger advantage was the smoothing of the wheels of commerce as one currency was accepted from the Atlantic to the eastern reaches of Europe.

Prior to the introduction of the Euro, member countries foreign exchange rates acted as the competitive leveling of the field as the stronger economies would normally see their currency rise in value therefore blunting some of the comparative advantage. The greater the export volumes the more demand for the exporters' currency thus driving up the cost of the currency and therefore making the cost in the importer's currency greater. Conversely the weaker economies would normally experience a weakening currency which would in effect make their exports cheaper and thereby preferred by the stronger economies and their currency. By locking the Euro zone countries in at a fixed rate in 1999 that very comparative relationship was frozen in time. Stronger economies with superior products would benefit from a smoothing effect of the weaker economies on the foreign exchange rate of the Euro vs non Euro currencies such as the dollar and the yen. The Deutsche Mark as a stand-alone currency would most likely rise considerably against other countries thereby making German exports more expensive versus other countries with weaker currencies. This research will investigate the appreciation of the yen over the past 40 years and more recently the Swiss Franc when it decoupled itself from the Euro January 15, 2015 and has seen its monetary unit soar in relative value and putting a severe dent in its export market. Weak countries within the Eurozone can no longer devalue their way out of their economic woes, as would be the normal course of events for a pre EU Greece. The paper will cover how exactly the PIIGS do indeed power the German Export machine by impacting the value of the Euro with their inherent economic weakness. A case in point will be the comparison of a VW Passat and a Toyota Camry as an example of the significance of currency weakness/strength as a key component to the competitive superiority of an individual product and economy.

Finally, the investigation will also delve into the investment attractiveness of individual corporations and the countries within which they reside.

The EU and the Eurozone are a significant part of the world's economy rivaling the United States as an economic unit.

Table 1

Data 2015	EU (28 Member states)	Eurozone (19 Member states)	United States (50 states)	Japan	China
Area (Million Sq Km)	4.3	2.6	9.8	0.4	9.6
Population (Millions)	508	339	321	127	1,367
GDP (\$ Trillions)	\$18.6	\$11	\$17.5	\$4.8	\$18.1
Share of World GDP	20.6%	12.2%	15.9%	4.4%	16.6%
GDP/Capita Euro thousand	40.6	29.8	42.1	28.2	9.2

Source: "ECB: Structure of the euro area economy". [The World Factbook - CIA](#) (Data for 2015)

By the time the Eurozone was in full swing the economies of member states had begun to diverge. In looking at country economic indicators for Germany and PIIGS it is evident that the size of the Eurozone economy conceals significant difference within the members of the zone. Germany, benefited from US post war investment under the Marshal plan, developed their manufacturing base, established a reputation for quality goods specialized in high value services like banking and insurance and, despite the economic strains of reunification in 1990 had and still has a strong economy. Northern European countries tended to follow the German model.

By contrast, southern European countries relied more heavily on agriculture and tourism. The economic crisis of 2008 was particularly devastating for the PIIGS. In 2010, German GDP declined by 5% compared to an 8% decline in Greece. However, Germany recovered to a growth rate of 4% in 2011 and has remained positive whereas Greece has yet to achieve a positive GDP growth rate (World Bank Annual GDP Growth %).

Table 2

Data 2015	Germany	Greece	European Union
Agriculture	0.7%	3.9%	1.6%
Industry	30.2%	13.3%	24.3%
Services	69.1%	82.8%	71.2%

Source: [The World Factbook - CIA](#) (Data for 2015)

Since the valuation of the Euro depends on the collective economic health of the Eurozone – the struggles of the PIIGS resulted in a lower valuation for the Euro.

The Euro also suffers from several structural differences from the US dollar, which adds to its instability. The US dollar economy is centrally controlled – the Federal Government is the major taxing authority and has the ability to redistribute wealth from “rich” states to “poor” states. In the EU there is no central taxing authority and states negotiate how much to contribute to the EU. The bailout of Greece by Germany was a tactical measure not part of the regular political process.

In addition, most member states accept responsibility for services such as universal socialized health care, free higher education and generous unemployment and pension payments which are not provided by the United States Government. Such payments are funded from internal taxes within the member states so there is no standard subsidy from “rich” countries – like Germany to “poor” countries – like Greece without IMF-like austerity requirements.

3. Where would the DM be Today?

The Deutsche Mark had a relatively short life. It was the official currency of West Germany from 1948 to 1990 and of the unified Germany from 1990 until the introduction of the Euro in 2000. It became a reserve currency and indeed became the second largest component of reserve currencies after the US Dollar. When currencies join the Euro their exchange rate becomes fixed. The official exchange rate for the Deutsche Mark, fixed on December 31, 1998 was 1.95583 to the Euro.

It is therefore possible to show what the effective exchange rate for the DM has been since the introduction of the Euro by simply applying this exchange rate to the Euro.

From close to parity with the USD in 2000 the Euro rose to close to \$1.60 prior to the financial crisis of 2008. From there it has trended down to approximately \$1.10 in 2015 a loss in value of almost 35%. (FXTOP)

In the same time period the effective value of the DM (based on the fixed exchange rate at date of accession) has gone from \$0.5 in 2000 to above \$0.8 prior to 2008 to \$0.55 today, as a result of the decline in the value of the Euro. (FXTOP)

The 35% drop in value of the DM against the USD from 2000 to 2016 has accompanied a 5-fold increase in the monthly trade balance from under 5 billion Euros in 2000 to 25 billion Euros in July 2015, (Trading Economics). However, this derived valuation of the DM is dependent on the overall valuation of the Euro. We have argued that the value of the Euro has fallen largely as a result of the economic problems of the PIIGS. The boom in German exports, which would likely have increased the value of an independent DM, has instead been assisted by the decline in value of the Euro.

It is not possible to observe directly what the true value of an independent DM would have been post 2000, therefore the authors have established the Swiss Franc as a surrogate currency. Like the DM, the Swiss Franc has long been considered a “safe haven currency” since Switzerland had low inflation and, until it was terminated in 2000, the Swiss Franc was also backed by 40% gold Reserves.

4. The Swiss Franc as a Surrogate for DM

The Swiss Franc was introduced as the official currency of the Swiss Confederation in 1850. The Swiss Franc is a reserve currency but only represented 0.3% of official foreign exchange reserves in 1998 compared to 13.8% for the DM. Nevertheless, the Swiss Franc has long been considered a “safe haven currency” since Switzerland had low inflation and, until it was terminated in 2000, the Swiss Franc was also backed by 40% gold Reserves.

Switzerland, like Germany, has enjoyed an increasing positive balance of balance of trade, which has grown steadily since 1990. Both are northern European industrial and financial economies vastly different from the PIIGS, which are predominately agrarian and tourism based. Switzerland is landlocked by the EU and has therefore had to manage its exchange rate to make exports to surrounding EU countries competitive, using monetary policy to their advantage, which has resulted in negative interest rates from 2015.

Nevertheless, the Swiss Franc has appreciated substantially against the DM (or the DM component of the Euro) in particular after the financial crisis of 2008. The financial crisis had a severe impact on the PIIGS dragging the Euro down against other major currencies. The parallel decrease in interest rates in the Eurozone has done little to abate the relative strength of the Swiss Franc.

5. Case Study – The Swiss Franc

Perhaps the most elegant way to view a German economy Post–Euro is to purport how that economy would function Pre–Euro. In order to do so we must somehow calibrate how an independent Deutschmark would behave given the current economic environment. In order to attempt this, we will link the German currency with a similar independent currency. In that regard we chose the Swiss Franc. According to the CIA fact book, Germany had an approximate \$ 3.8 Trillion GDP with 1.6% growth as of 2014. The Swiss Economy, by comparison, had a GDP of \$ 473 billions with growth of 1.9 % during that same period. Adjustments must be considered regarding the different economic drivers of both economies. The Germans enjoy near legendary status in the engineering field. Switzerland, of course, is a banking giant. What we found was, that adjusting for size, both economies are parallel. Perhaps that is because of their proximity and cultural resemblance to each other.

To that end, Germany’s GDP is comprised of over 30 % in Industry and 68 % in Services, generating \$1.49 Trillion in exports. The Swiss by comparison is smaller yet closely aligned with 26 % of GDP driven by Industry and 73 % by Services. The greatest difference is Switzerland’s relative size with the Swiss exporting at a rate of \$327 Billion. In many respects both economies seen through this prism seem quite compatible.

In light of this simulation we focused on a seminal moment in the Franc’s history, the dramatic unpegging of the Swiss Franc to the Euro in January of 2015 by the Swiss National Bank (SNB). The Economist noted that the Swiss National Bank introduced an exchange rate control in 2011 capping the Swiss Franc’s appreciation against the Euro. Investors have traditionally looked upon the Swiss Franc as a safe place to invest much like US Governments Bonds. The Swiss Franc is attractive to investors because they trust the Swiss Government, which runs a balanced Budget. However, the attractiveness of the Swiss Franc, particularly after the financial turmoil of 2008, attracted many investors, thus pushing up the value of the Swiss Franc against other currencies but most importantly against the Euro. The appreciation of the Swiss Franc against the Euro threatened Swiss exports by making them more expensive to importing countries. Swiss exports of Goods and Services account for over 70% of GDP. In order to bring down the Swiss Franc’s value the Swiss National Bank created new Francs and by increasing the supply of Francs the Foreign Exchange markets caused the value of the Swiss Franc to fall to the target range of 1 Euro = 1.2 Swiss Francs. As a result of this policy the Swiss National Bank had accumulated about \$480 billion in foreign currency reserves, equivalent to 70% of Swiss GDP.

On January 15, 2015, without warning the Swiss National Bank dropped the policy, which had maintained a cap in value of the Swiss Franc versus the Euro. The Swiss population had become frustrated with the accumulation of foreign currency reserves, and had become apprehensive that increasing the supply of Swiss Francs could lead to hyperinflation. Such fears were possibly exaggerated, because in general the rate of inflation in Switzerland was too low, not too high. However, a referendum the previous November, had it passed would have restricted the ability of the Swiss National Bank to increase reserves. In addition, the European Central Bank was considering “quantitative easing” By increasing the money supply in order to purchase government debt of Eurozone countries it would have the effect of reducing further the value of the Euro and putting even more pressure on Switzerland to maintain the cap. A further consideration was that in

2014 the Euro had declined against other major currencies so that by pegging the Swiss Franc to the Euro the Swiss Franc also fell against other major currencies. In 2014 the Swiss Franc fell by 12% against the US Dollar and 10% against the Rupee. The cheaper Franc booster exports to America and India, which together make up 20% of Swiss exports. This suggested that the Swiss Franc is not overvalued and so it did not make sense to further weaken it. (The Economist explains “Why the Swiss unpegged the franc” The Economist 1/18/2015).

From 2011 to 2014 the Swiss Central Bank capped the Swiss Franc with respect to the Euro in effect pegging the Swiss Franc to the Euro. This reduced volatility in the Swiss equity markets. Due to the Swiss Central Bank’s policy of holding gold reserves it also created a situation similar to 1970’s United States when the US dollar was linked to gold reserves. Thus speculators such as hedge funds could speculate on the Swiss Franc secure in the knowledge of Swiss Central Bank policy. The Nixon administration took the US dollar off the gold standard and imposed import tariffs. At the time it was seen as protectionist but was successful in addressing inflation. When the Swiss abandoned the link to the Euro it too became a currency whose valuation was more closely related to the fundamentals of its economy (Federal Reserve).

Ironically Germany’s ties to the Euro achieve the same aim. The German economy enjoys a devalued currency supporting a vast export position while giving nothing up in terms of branding and goodwill that is usually associated with a weak currency. The German Economy is still seen as an industrial power tied to a currency that is being pulled down by its weaker brethren, namely the PIIGS countries. One has to wonder that given the Swiss scenario would the Germans have followed a like devaluation of the Deutschmark? This would be a sound tactic if Germany was independent of the European Union in order to compete in the current global economic malaise.

Lastly one other potential bright spot of a non-EU Germany might have been the better protection of its major banks. Deutsche Bank has suffered massive losses due to the fact that it had turned into more investment bank than bank. As reported in “Foreign Policy,” in regard to its recent financial afflictions:

“For most of its history, Deutsche Bank was the most typical, most representative, and most prestigious German bank. Founded in 1870, before there was even a German state, its very name seemed chosen to signal a highly ambitious program — both political and economic — for the future. Its original mission was largely trade finance, helping to promote the German export machine, and it rapidly required a network of foreign branches.”

But the bank’s focus almost immediately turned to industrial finance. Deutsche Bank developed a unique business model, in which it became the key player, a sort of planning center, in the development of German industry. Germany was quite poor at the time and, as a consequence, lacked functioning capital markets. Rather than attempt to correct that deficit, Deutsche Bank exploited it. The bank lent to industrial customers, and at a propitious moment would convert its short-term lending into long-term securities — bonds or equity shares. Sometimes it would sell those securities to retail customers. But often the bank used them to seek proxy-voting rights, so that the bank’s management could continue to guide the firms to which it had lent. Bankers from Deutsche routinely came to sit on the boards of the companies with which they were engaged. They often restructured these businesses, and arranged mergers and takeovers.

The modern structure of the German automobile industry is, for instance, in large part a result of the efforts of Deutsche Bank, which pushed Daimler and Benz into a merger in the 1920s, and in the 1950s tried a similar exercise with Daimler-Benz and BMW (but failed). In the 1960s, Deutsche managed the privatization of Volkswagen, in a complicated transaction that still maintained a

substantial amount of state control (through the state of Lower Saxony). For large stretches of postwar history, Deutsche Bank owned a substantial stake in Daimler.” (“Deutsche Bank Isn’t Deutsch Anymore” FP 2/24/2016 by Harold James).

Perhaps as an independent Germany, their policy makers would have been more circumspect in regard to the aggressive dealings of one of its major financial institutions. Thus we can conclude that independent of the Euro, and given the current weak economic environment, the Germans would have benefitted from a Swiss currency strategy of a weakened Deutschmark. Furthermore, the banking sector would be less stressed, as German central bankers would have been reluctant to expose its financial institutions to aggressive trading and banking schemes.

Overall we can see that despite monetary policies and an exchange rate ceiling designed to slow the growth of the Swiss Franc against the Euro it was ultimately a futile endeavor. This strongly suggests that were the DM still an independent currency; its value would be higher than that implied by the valuation of the Euro – driven by the German Export juggernaut.

6. Conclusion

From the financial crisis in 2008, the Euro has seen a rapid depreciation, which appears to be primarily due to the weakened economies of the PIIGS. At the same time German exports have surged – something that would likely have been slowed by an appreciation of an independent DM. The 35% drop in value of the DM against the USD from 2000 to 2016 has accompanied a 5-fold increase in the monthly trade balance from under 5 billion Euros in 2000 to 25 billion Euros in July 2015.

Had the DM remained independent of the Euro the strong trade balance would likely have caused an upward revaluation of the DM, which would have had a negative impact on exports. To take just one example, the 2016 VW Passat had a Manufacturer’s Suggested Retail Price (MSRP) of \$22,440, which made it competitive with the MSRP of the 2016 Toyota Camry of \$23,070. For example, had the DM remained independent and its exchange rate with the dollar increased by 15% compared to an actual decline of 35% the implied MSRP of the Passat in the US would have been 50% higher. A MSRP of \$33,660 for the Passat (at an exchange rate of USD/EUR of 1.65) would make it difficult to compete with the \$23,070 for the Camry leading to reduced exports.

It is therefore our conclusion that the economies of the PIIGS have played a major role in the devaluation of the Euro enabling the German export juggernaut to continue, enhanced by the favorable Euro foreign exchange rates.

7. Practical Implications of the Conclusion

7.1 Performance of Yen versus Deutsch Mark and USD

The foreign exchange rate between a pair of currencies is essentially a zero sum game. The strengthening of one currency against another is the same as the weakening of the second currency against the first.

The rate depends on relative supply and demand for the currency, which in turn is dependent on external drivers i.e. relative trade surplus or deficit as well as internal measures i.e. monetary policy, relative interest rates, money supply and political stability.

However, the US dollar represents 87% of currency trades and as such it is plausible to look at the relative performance of currencies versus the US dollar to estimate their relative performance. Note

that since each currency trade involves two currencies this is 87% out of a total of 200%. Bank for International Settlements (BIS). Triennial Central Bank Survey. Foreign exchange turnover April 2013 preliminary global results Monetary and Economic Department September 2013. (BIS)

Prior 1973 the Yen traded at 360 to the Dollar. Since then the Yen has greatly appreciated hitting highs of approximately 76 to the Dollar in 1995 and 2013. However, by the end of 2015 it had fallen to 120.5. This is a result of the rapid industrialization of Japan following the Second World War and the success of “Japan Inc.” in world trade.

Against the DM, the Yen hit a low of 145 in 1981 but has greatly appreciated since then reaching a high of 45 in 2001 and 49 in 2013. By the end of 2015 it had fallen again to 67. This relative gain in value of the Yen against the DM made Japanese exports relatively more expensive than German exports, meaning that in order to offer comparative pricing on foreign markets, the Japanese would have to cut their prices to stay competitive and thus absorb lower margins. Alternatively, they could maintain their margins but the higher prices would result in fewer sales and therefore less revenue. In general, international companies will prefer to maintain their market share in countries like the US even if it means reduced margins.

7.2 Implications for International Investment

If a US investor wishes to invest in a foreign market he needs to look at his total return. This is composed of the rate of return achieved in the foreign market plus or minus any appreciation or depreciation achieved in foreign currency invested. Thus if the foreign currency depreciates against the USD the investor will be able to buy fewer USD with the proceeds from his investment. The investor can of course hedge his foreign currency exposure by buying a forward foreign currency contract or a foreign currency call option. However, the general downward trend in the Euro since 2008 and the failure to implement structural changes to the Eurozone makes it likely that the investor will look for higher returns from his Eurozone investment making foreign investment harder to obtain. A US investor into Japan would also have to take into account a decline in USD/YEN exchange rate (from 75 in 2012 to 125 in 2015). However, predicting future exchange rates is largely dependent on the economic performance of Japan, which is estimable. The risk of a catastrophic collapse of the Euro due to the debts of the PIIGS makes the future of the Euro much less predictable.

7.3 Future Research Opportunities Post- Brexit

On 23rd June 2016 the UK voted in a referendum to leave the EU (Brexit). In the immediate aftermath of the referendum stock markets around the world crashed as investors moved to perceived less risky investments such as bonds and precious metals. Both the Pound and the Euro dropped precipitously in value as investors moved to the safety of the US Dollar. Uncertainty concerning the ultimate ramifications of Brexit hang over the Eurozone like a dark cloud. Could Brexit lead to changes in how the EU is organized, leading to greater or lesser centralized government? Could Brexit lead to the break-up of the EU or of the UK if Scotland were to secede? For the UK, negotiations could lead to the Norwegian model, which essentially would mean effectively remaining within the EU, retaining free movement of people and capital and financial obligations to Brussels but without any say in how EU policies are decided. At the other end of the spectrum of possible outcomes, total disengagement from the EU might lead to significant trade barriers with the UK’s largest trading partners. The Euro is entering a new phase. The Brexit referendum marks a watershed in European and international relations. Can the German export juggernaut survive Brexit? As Brexit plays out the authors will remain focused on Germany.

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