

## **RISKS OF DISREGARDING THE INCOMPATIBLE TRINITY RULE: THE SWISS FRANC CRISIS CASE**

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### **Abstract**

*When designing economic policies, governments must take account not only of economic laws but also of certain rules of thumb. The incompatible trinity is such rule, which states that a country cannot simultaneously have a fixed exchange rate regime, mobility of foreign capital and an independent monetary policy. Traditionally, the rule has been generally observed, whether knowingly or not. The recent crisis triggered by the removal of cap on the Swiss franc is an illustrative example of what might happen if the said rule is disregarded.*

**Keywords:** *exchange rate, monetary policy, capital mobility, currency peg*

**JEL classification:** *E5, F3*

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### **1. Exchange rate flexibility: general considerations**

The 1970s are undoubtedly a landmark in the world's monetary history, comparable in importance perhaps only with the enacting of the Bank Charter Act by the Bank of England in the mid 1840s, which marked the official onset of the gold standard. The latter act was of exceptional importance because it eventually settled a century-long dispute, "the relationship between the Bank's reserves and its banknote circulation" (Ferguson, 2009), thereby giving the then fledgling banking industry a strong impetus. Actually, it constituted the birth certificate of an international monetary system which many of today's scholars claim was the most efficient throughout the whole monetary history of the world.

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The collapse of the Bretton Woods (hereafter BW) system in 1971 freed the world's economies from the ostensible straitjacket of fixed exchange rates and a host of other restrictions. Yet this seems somewhat puzzling, even paradoxical given that the gold standard system, which many continue to extol today, was based on fixed parities. If a fixed exchange rates-based system was highly efficient, how come it was discarded and replaced with its opposite? In other words, if the former had worked so well (a fact that illustrious minds like David Hume demonstrated<sup>2</sup>), why did one opt for the latter, whose basic rule requires currencies to be left to float freely? Allegedly, fixed exchange rates regimes and free capital mobility across national boundaries do not get on well together, that is fixed exchange rates are hardly compatible with globalization. Yet interestingly, the collapse of BW showed that fixed exchanges rates had failed to get along well with capital immobility either. Under what conditions do fixed exchange rates regimes work well then?

The explanation resides not in capital's freedom to enter or exit the country but in the attendant economic policy. Put another way, regardless of capital mobility or immobility, the viability of fixed exchange rates regimes depends on the authorities' monetary and fiscal policies. Under capital mobility conditions for instance, the best proof that this type of regime can work well even if exchange rates are fixed is provided by the gold standard system. "When it prevailed, Eichengreen and Flandreau (1997) argue, currencies were successfully pegged against one another despite the presence of open capital markets. International financial transactions were unrestricted and foreign lending and borrowing, as a share of global GNP, reached even higher levels than today. Yet exchange rates were stabilized within 1 percent for extended periods, a record of stability that remains unparalleled even today." On the other hand, with regard to the combination of fixed exchange rates and capital immobility that was characteristic to BW, it did not work basically because of the Keynesian-type economic policies that prevailed at the time. I will discuss this matter more in detail in the fourth chapter.

As a preliminary conclusion, the question whether in principle free floating is a better regime than the one in which exchange rates are fixed is

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<sup>2</sup> David Hume makes a comprehensive description of the automated mechanisms that ensure the macroeconomic equilibrium of national economies under the gold standard in "Of the Balance of Trade" (republished in B. Eichengreen, M. Flandreau, *The Gold Standard in Theory and History*, 2<sup>nd</sup> ed., Routledge, 1997, pp.20-25)

still under hot debate. Reality has shown that neither is perfect nor risk free, that both can work in practice depending on the type of monetary and fiscal policies pursued by governments and/or central banks. The important thing is to ascertain which of the two kinds of systems is more effective as a policy instrument that is which one will ensure a more rapid way of restoring macroeconomic disequilibria when the latter are manifest. A trenchant analysis of this issue was provided by Robert Mundell: “if the prevailing exchange rate regime, fixed or flexible, can maintain external balance without causing unemployment (or, on the other side, demand-induced wage inflation), that regime is optimal.”<sup>3</sup>

## **2. Exchange rate regimes in practice: optimum currency areas**

Following the generalized adoption of floating currency regimes by the countries of the world in the course of the eighth decade of the 20th century, exchange rates became useful instruments by which authorities would fight macroeconomic imbalances. From this viewpoint, flexible exchange rates obviously make up a more convenient background for intervention relative to situations in which currencies are pegged. Thus when recession strikes causing unemployment to soar and incomes to decline, authorities force the home currency depreciation, in order to improve the current account balance, thereby helping the economy to revive. By contrast, under boom conditions, exchange rate policies are mostly aimed at combating inflation, through measures such as raising interest rates, which shrink the money supply and cause the appreciation of the home currency. The matter was synthesized by Robert Mundell (1961): “A system of flexible exchange rates is usually presented, by its proponents, as a device whereby depreciation can take the place of unemployment when the external balance is in deficit, and appreciation can replace inflation when it is in surplus.” But, as the reputed scholar duly remarks, “the question then arises whether all existing national currencies should be flexible”. I shall expand on this last matter in the rest of this chapter, with the aid of three propositions.

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<sup>3</sup> The statement belongs to Peter Kenen, who so rephrased Mundell’s notion. (Peter B. Kenen: *Exchange Rates and the Monetary System*, Edward Elgar Publishing Limited, 1994, p.41)

The first proposition: the exchange rate is not always and everywhere an effective tool to restore equilibrium. Reality has shown that this truth is more visible in the case of large open economies that are not part of regional blocs. Actually, the exchange rate acts as a valve, maintaining a dynamic equilibrium between the respective economies and the rest of the world. This is all the more important when the economy is in doldrums. In 1992 for instance, the UK let the pound depreciate against the other currencies in the European Monetary System (EMS) beyond the fluctuation margin limits. The result: the UK was forced to leave the EMS but the equilibrium of the British economy was restored<sup>4</sup>. Another example was the recent reaction of the United States' economy to the introduction by the European Central Bank of negative deposit rates in mid 2014 with the aim of fighting deflation: the dollar has appreciated by 20 percent against the euro.<sup>5</sup> A notable exception was the Swiss economy, after the Swiss authorities pegged the franc to the Euro in 2011, thereby breaking a long tradition of free floating regime. I shall expand on this issue in the fourth part.

By way of contrast, for less advanced economies, the free floating regime is not always the most efficacious means to counteract harmful exogenous influences. An interesting case in point was the reaction of Romania's economy to the 2008 financial crisis. The adjustment occurred, not through the exchange rate flexibility (the currency did not depreciate noticeably) but through nominal wage cuts. Yet this instance can hardly be generalized: sometimes pegging the currency might be harmful. In the notorious case of Argentina, the devastating crisis it underwent in 2002 was mostly precipitated by the very currency peg (the peso had been tied to the US dollar at a 1-to-1 rate).

The second proposition: for economies belonging to regional economic blocs that make up integrated markets of goods, services and factors of production, equilibrium is most often reached through the action of specific

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<sup>4</sup> Martin Wolf argues: "...If the authorities let the peg go, the adjustment would be accompanied by a depreciation of the nominal exchange rate. That would obviate debt deflation and the need to cut nominal wages and prices. It is likely, though not certain, that the result would be a swifter and less painful adjustment, without a tidal wave of defaults." (Martin Wolf, *The Shifts and the Shocks: What we've learned – and Have still to learn – from Financial Crises*, Penguin Books, 2014, p.67)

<sup>5</sup> "Free exchange: Worse than nothing", *The Economist*, Feb 21<sup>st</sup> 2015

forces other than the exchange rate. In such conditions, the co-existence of a multitude of national currencies inside the bloc diminishes the relevance of exchange rates as macroeconomic tools but is merely an encumbrance for businesses, institutions as well as the public at large. According to the mainstream theory (e.g. Tavlas, 1995), a regional bloc might become an optimum currency area on condition that the member states agree to: irrevocably fix the parity rates; eliminate the margins of fluctuation between or among the exchange rates; guarantee irreversible convertibility of currencies (i.e. absence of exchange controls); completely liberalize both current and capital transactions. Yet however convincing the theory, it begs the question of whether the respective rules are universally applicable, namely if all regional trading blocs on the earth are potential optimum currency areas. The answer is in the negative; more exactly, it depends on the member countries' structural characteristics: the more open their economies, the more flexible their labor markets, the more integrated their financial markets and fiscal regimes, the more integrated and diversified their goods and services markets, the more mobile their workforce are...the better suited the respective countries are to make up an optimum currency area.

The third proposition: if exchange rates are frozen, the exchange rate policy naturally becomes irrelevant for the countries that are part of the currency union. Under these conditions, what can we say about the monetary policy? Does it still make sense that each individual country has one? The answer is: it depends on capital's freedom to move across national boundaries. Under capital immobility, maintaining independent national monetary policies does make sense, whereas if capital is free to migrate, it does not. In other words, for countries that are part of an optimum currency zone, a combination of fixed exchange rates, international mobility of capital and independent monetary policy is not viable. Brociner (1997) calls it "incompatible trinity". The strongest argument in support of this notion is again history. I will expand on this topic in the third chapter.

Assuming for the moment that the incompatible trinity (hereafter IT) is conceptually correct, the question is: what are the consequences, i.e., what happens if countries forego their capacity to use monetary levers in order to finance budget deficits, raise employment, reduce government debt, absorb exogenous shocks etc.? What do they stand to gain instead? According to Alesina and Barro (2002), "the countries that stand to gain the most from giving up their currencies are those that have a history of high and volatile

inflation”, which, the cited authors consider to be “a symptom of a lack of internal discipline for monetary policy”. Admitting this statement is true, following the same line of reasoning, it begs the question of what do countries with disciplined finances expect to gain from joining an optimum currency area. Obviously, their gain will mostly result from the drop in trading costs and implicitly the increase in the intra-bloc trade flows. This outcome will be all the more pronounced if member countries had not traded much with one another prior to foreign exchange removal. According to the same authors, the low level of mutual trade before the coming into force of the currency area may be due to the arguable predominance of trade in intermediate inputs, which usually command a relatively higher marginal product (high enough to exceed marginal costs). In brief, “the marginal gain from the introduction of a currency union would be greater when the existing volume of international trade is low”, conclude the cited authors. According to *The Economist*, the Euro-zone best illustrates this contradiction between the two types of countries: with sound and frail financial standing respectively. On the one side, the northern member countries, especially Germany, which are most reliable financially are also the most competitive due to “declining real wages and constant rises in productivity, which produced sustained drop in labor costs. Lower wage costs, in turn, have helped boost exports and jobs.” On the other side, the southern countries (Greece, Italy, Spain and Portugal), “where wage discipline has been less strict” did not as well. “A combination of strong wage increases and weak productivity growth has undermined cost competitiveness.” Furthermore, in some countries from the latter group, Spain in particular, high inflation had made things even worse, further eating into their competitiveness.<sup>6</sup>

### **3. The IT rule in history**

In this chapter I investigate whether evidence matches theory, that is, to what extent the monetary systems so far actually complied with the IT rule. Chronologically, three types of systems have been in force in the course of the last two hundred years, namely, since national currencies were born: the Gold Standard, the Gold Exchange Standard (BW) and the free floating system. In addition, the turn of the millennium marked the coming into force of a lofty

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<sup>6</sup> “The Euro area’s economy: beggar thy neighbor”, *The Economist*, Jan. 25<sup>th</sup> 2007

monetary construction in Europe: the economic and monetary unification of the EU member countries.

a. The Gold Standard

Characteristic to this system was the generalized circulation of gold, mainly in specie form, which means that payments were made in gold on both home and external transactions. When merchandise was shipped abroad, the exporter was paid in gold, while those who imported goods would pay for them in gold as well. The unrestricted circulation of gold automatically ensured both internal and external equilibrium of economies that adopted the system, as David Hume noted two and a half centuries ago. Moreover, the great 17th C philosopher sensationally intuited that the free movement of gold fueled an engine, which he dubbed “price-specie-flow mechanism”.<sup>7</sup>

The question is: if countries’ macroeconomic equilibrium would all but automatically be restored through payments in gold as well as unfettered inflows and outflows of gold, what part did central banks play in this scheme then? In other words, was there a need whatsoever for monetary policy in such a context? Complicated though it seems, scholars managed to solve this puzzle. In one of the most insightful descriptions of the way the Gold Standard system worked, Eichengreen (2008) contends that banks did promote monetary policies in order, not to ensure but rather to haste adjustment. In other words, the mechanism did push the economy toward equilibrium but this usually required a period of time; the longer the period the more painful the adjustment. Central banks therefore made use of a number of instruments, most often the discount rate on purchases of securities, in order to inject or drain cash in/from the market, thereby increasing respectively decreasing the money supply.<sup>8</sup>

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<sup>7</sup> Hume’s thesis did not escape criticism by certain scholars. Chacholiades (1972) for example, claims “the price-specie-flow mechanism depends on a mechanical application of the quantity theory of money, i.e., it assumes that the price level of a country is solely determined by that country’s money supply, which is incorrect in an open economy.” Yet in spite of certain limits, Hume’s explanation is still touted by academics all over the world.

<sup>8</sup> This process is a textbook matter: by depressing the quantity of money, banks intended to lower internal prices; this in turn, would stimulate exports and discourage imports, thereby reducing the current account deficit.

Thus, apparently the Gold Standard failed to observe the IT rule because exchange rates were fixed, capital mobility was unrestricted and central banks promoted independent monetary policies. Does this mean the IT rule theory is inconsistent with evidence? It is again Eichengreen (2008) who provides an insight into this seeming contradiction. “As long as there was no articulated theory of the relationship between central bank policy and the economy, the cited authors argues, observers could disagree over whether the level of interest rates was aggravating unemployment...The fact that wages and prices were relatively flexible meant that a shock to the balance of payments that required a reduction in domestic spending could be accommodated by a fall in prices and costs rather than a rise in unemployment, further diminishing the pressure on the authorities to respond to unemployment conditions.”

The explanation thus resides in the political pressure central banks were exposed to, which was far and away less intense than today. Governments were mostly concerned about financial stability and less about social peace. Maintaining currency convertibility was therefore a central policy objective, whereas dealing with unemployment was but a secondary preoccupation. In today’s world, things are happening the other way around: fighting joblessness is more often than not the most cherished objective of governments, which they struggle to attain even though this means sacrificing inflation targets or increasing budget deficits.

To summarize, if judged through the prism of today’s rules of the game, i.e. considering how monetary policy is viewed and defined by today’s schools of thought (it is much broader in scope as compared to one hundred years ago), one may conclude that the Gold Standard was perfectly consistent with the IT rule and this is surely a factor that explains why it worked so smoothly.

#### b. The BW

After the 2nd World War, the lessons drawn from the Great Depression made governments shift from idleness to intense involvement in the economic activity. As the influence of Keynesianism was waxing, monetary and fiscal policies were increasingly used to stabilize prices, raise employment and accelerate economic growth. As John Maynard Keynes suggested, in times of slump, governments can prime the economic pump by

stimulating consumption. “The state, Keynes argues, will have to exercise a guiding influence on the propensity to consume partly through its scheme of taxation, partly by fixing the rate of interest, partly perhaps, in other ways.” (Keynes, 1997)

In principle, Keynes’ theory has not been disputed. Yet referring strictly to the monetary policy, the question is how effective can it be if exchange rates are fixed and international capital movement is thwarted, as was the case under the BW system? According to Milton Friedman (1968), pegging exchange rates is not by itself a guarantee of future monetary stability as it had happened under the Gold Standard. “The monetary authority, Friedman contends, could operate as a surrogate for the gold standard, if it pegged exchange rates and did so exclusively by altering the quantity of money in response to balance of payment flows, without "sterilizing" surpluses or deficits and without resorting to open or concealed exchange control or to changes in tariffs and quotas.” Thus, if exchange rates are fixed, balance of payments shocks will be absorbed through changes in the money supply, which will induce changes in prices and wages; the higher the latter’s flexibility, the quicker the adjustment.

In brief, whether looked upon from the Keynesian or the monetarist perspective, the BW was clearly consistent with the IT rule. It is no surprise then that until the early 1970s, national economies experienced economic stability, the trade-off between cutting unemployment and containing inflation generally underlying governments’ policies during that period. The true cause for which BW crumbled lay elsewhere. The marriage of fixed exchange rates and capital immobility was rightfully considered, at the time, as the best solution to do away with currency morass that prevailed in the aftermath of the Great Depression and reinstate order in international monetary relations. Yet after less than two decades, the joints of the system began to crack.

#### **4. Disregarding the IT rule: the Swiss Franc Crisis**

The Swiss economy is small but highly competitive. Because of its long standing stability and immunity from crises, its currency, the Swiss franc (SF) has a special allure to investors. The latter will not hesitate to buy franc-denominated assets, widely considered among the safest of all investments. Yet the 2008 financial crises seriously affected both the competitiveness and stability of the Swiss economy. Competitiveness, to start with, has been eroding since the value of the franc began to rise a few years ago, triggered by

a sudden increase in capital inflows. The appreciation of the franc seriously afflicted the Swiss economy due to the latter's heavy dependence on exports. This worrying situation prompted the Swiss National Bank (SNB) to start printing money and use them to buy foreign currencies, especially Euros in order to prevent the euro/franc exchange rate to drop below a minimum of 1.2 francs/Euro. Obviously, the SNB's commitment implied it would buy foreign currencies in unlimited quantities. The efforts eventually paid off: the franc's upward hike halted.

If the cap on the franc worked that well, why did the Swiss authorities abandon it after three years? A plausible explanation is offered by *The Economist*: the SNB dropped the cap because their primary objective was not to increase protectionism, as some economists believed at the time, "but precisely because they wanted to raise domestic inflation from dangerously low levels."<sup>9</sup> Deflation, according to the cited journal, can be as big a scourge for an economy as high inflation: by raising real interest rates, namely the difference between nominal rates and the inflation rate, it makes saving more convenient, while investment spending is discouraged. Economic development will slump as a result.

Thus, by tying the franc to the euro, the SNB did not pursue a beggar-thy-neighbor-type policy. As a rule, when countries pursue such mercantilist goals, they usually buy large amounts of hard currency, which allows them to pump more domestic money into the economy. They then sterilize the extra-money through open market operations. By comparison, the SNB did not sterilize its interventions, which proves the latter's non-protectionist nature. Actually, the Swiss authorities had hoped that a cheaper franc would make imported goods more expensive, thereby lifting the internal average price level. Yet this did not happen because prices had been on a falling trend in other countries, including the Euro-zone, too. With a fixed exchange rate, the price fall abroad made internal prices to fall as well. In addition, the currency peg policy led to a sharp increase in the SNB's foreign reserves.<sup>10</sup> But as long as the deflation specter remains threatening, holding bulky reserves does nothing more than further fuel deflation: the Swiss firms will be reluctant to

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<sup>9</sup> "The three misconceptions about the Swiss franc", *The Economist*, Jan 21st 2015

<sup>10</sup> By 2014 the SNB had amassed about \$480 billion-worth of foreign currency, a sum equal to about 70% of Swiss GDP. ("Why the Swiss unpegged the frank", *The Economist*, Jan 18<sup>th</sup> 2015)

borrow and the Swiss banks will be reluctant to lend money for consumption and investment spending.

## **5. Conclusion**

From the monetarist theory perspective, open national economies are mostly exposed to two kinds of pressures from the outside, that is: world prices fluctuations respectively capital inflows and outflows. In the case under consideration, the Swiss economy failed to respond to such pressures in the expected way due to the authorities' intervention aimed at halting the appreciation of the franc. As a rule, world prices fluctuations are transmitted to the economy in two alternative manners, depending on the exchange rate regime: if the exchange rate is flexible, the transmission is achieved through currency appreciation or depreciation; if the exchange rate is fixed, an increase (decrease) in world prices will translate into an increase (decrease) in internal prices in the same proportion.

Since the Swiss authorities put a cap on the exchange rate, the latter form of transmission prevailed: as prices in the Euro-zone and elsewhere edged downward so did internal prices in Switzerland. This induced a fall in the excess demand for money (i.e. the difference between the demand for money and the supply of money) and an increase in the balance of payments deficit. On the other hand, the monetary policy pursued by the SNB actually worsened the situation. As shown earlier, the Swiss central bank created money and used it to buy Euros and dollars, gathering a huge amount of foreign reserves. This further increased the supply of money thereby driving the excess demand for money toward an even lower level with a commensurate increase in the balance of payments deficit.

By pegging the franc to the Euro, the Swiss authorities disregarded the IT rule. Had the SNB not intervene through monetary measures, the economy would have eventually reached equilibrium at the same (lower) price level but with a smaller deficit in the balance of payments. And above all, the turmoil triggered by the removal of the peg, which ravaged Central and Eastern Europe would have been averted. One may argue that the Euro-zone has always been in crisis despite the observance of the IT rule. Actually, the Euro-zone crisis is neither purely financial nor is it due to the monetary unification. It is being fuelled by the chronic imbalances, which emerged after its coming into force and swelled in an uncontrollable way afterwards, only to explode when the credit crunch struck.

## **6. References**

- Alesina, Alberto, Robert J. Barro, Silvana Tenreyro. “Optimal Currency Areas”. NBER Macroeconomics Annual 2002, Volume 17, available at: <http://www.nber.org/chapters/c11077>
- Brociner, Andrew. 1997. *Europe monétaire, Points (Seuil)*
- Chacholiades, Miltiades. 1972. “The Classical Theory of International Adjustment: A Restatement”, *Econometrica*, vol. 40, no. 3, pp. 463-485
- Eichengreen Barry, Marc Flandreau. 1997. *The Gold Standard in Theory and History*, 2nd ed., Routledge
- Eichengreen Barry. 2008. *Globalizing Capital*, Princeton University Press
- Ferguson, Niall. 2009. *The Ascent of Money: A Financial History of the World*, Penguin Books
- Friedman, Milton. 1968. “The Role of Monetary Policy”. *The American Economic Review*, vol. 58, no. 1, pp. 1-17
- Keynes, John Maynard. 1997. *The General Theory of Employment, Interest and Money*, Prometheus Books, pp.372-84
- Mundell, Robert A. 1961. “A theory of optimum currency areas”, *American Economic Review*, vol. 60, nr.4, pp. 657-65
- Tavlas, George S. 1995. “The Theory of Optimum Currency Areas Revised” (in Ph. King, ed., *International Economics and International Economic Policy*, a Reader, 2nd ed., McGraw-Hill)