Abstract

Economic crises have struck nations of the world for a long time. Financial panics and shocks have existed since the seventeenth century, and their rate of appearance has increased as time went by. The impact of such crises has also become more detrimental, especially in the past hundred years, as the economic system of the developed countries of the world became very developed. The handling of the crises was very often confused and inefficient. In order to counter this, nations around the globe founded central banks, institutions whose role is to maintain stability and develop strategies to ensure prosperity by concentrating this task under the command of a single institution instead of several. The bank controls the interest rate and the inflation rate of the currency by printing money when needed. The case of Switzerland is particularly interesting for us. Indeed, the country has been well known for being heavily centered towards finance and the banking system. Benefiting from an excellent reputation for the stability of its [...]

Reference
Master’s Thesis

The Swiss Miracle?
Analysis of the actions and monetary policy changes of the Swiss National Bank during and after the Great Financial Crisis of 2007 / 08

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Dedicated to my father Serge and my mother Lysianne, for their unconditional love and support.
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1. **Introduction**

Economic crises have struck nations of the world for a long time. Financial panics and shocks have existed since the seventeenth century, and their rate of appearance has increased as time went by. The impact of such crises has also become more detrimental, especially in the past hundred years, as the economic system of the developed countries of the world became very developed. The handling of the crises was very often confused and inefficient. In order to counter this, nations around the globe founded central banks, institutions whose role is to maintain stability and develop strategies to ensure prosperity by concentrating this task under the command of a single institution instead of several. The bank controls the interest rate and the inflation rate of the currency by printing money when needed. The case of Switzerland is particularly interesting for us. Indeed, the country has been well known for being heavily centered towards finance and the banking system.

Benefiting from an excellent reputation for the stability of its economy, the Swiss franc also enjoys a privileged position as a safe haven currency. Switzerland also hosts two of the biggest banking institutions of the world, UBS and Crédit Suisse, whose combined balance sheet exceeds the GDP of the nation tenfold. The economic position of Switzerland thus increases the importance and the necessity of having an efficient central bank. In 2007 and 2008, the world was struck with one of the biggest financial crises the mankind has ever known. The banking system and finance were severely impacted and a huge amount of nations throughout the world entered a profound economic recession. The central banks of the impacted countries, as the lenders of last resort, began to act by using the different macroeconomic tools at their disposal to come to the rescue of the domestic banks that were struck by the crisis.

On multiple occasions, Switzerland has been presented as a nation that managed to overcome the effects of the crisis (as well as the subsequent Eurozone crisis) much better than their neighboring countries. Since the principal protagonists during a financial crisis are the central banks, it seems logical to believe that the Swiss National Bank has undertaken monetary policies and crucial decisions that the central banks of other nations did not. I am also assuming that the safe haven currency of Switzerland has played a major role in both the impact of the crisis and the decision making of the central bank. My analysis differs from the existing literature as I am exploring the changes in the Swiss National Bank due to the two
consecutives crises. I am also increasing the emphasis on the case of Switzerland’s top banks, as their situation during the crisis has had a considerable impact on the decision making of the Swiss National Bank. Finally, the topic I have chosen is of particular relevance as Switzerland and its embeddedness in the financial world means that the country will very often be struck by large-scale crises. It is essential to analyze the monetary policy decisions by the SNB during the two crises in order to prepare for the future. The aforementioned assumptions and the relevance of the topic encouraged us to write my question research for this paper as follows:

In what measure the impact of the Great Financial Crisis of 2007-2008 and the subsequent Eurozone crisis on Switzerland has pushed the Swiss National Bank to durably change its monetary policy?

In order to answer my research question appropriately, I will divide my paper in four chapters. The first chapter will be focused on the Swiss National Bank: I will discuss its role, its policy prior to the crisis as well as its relationship with the other major central banks of the world and with its two biggest domestic institutions: UBS and Crédit Suisse. The second chapter will rewind the Great Financial Crisis, its contagion in Europe, and how Switzerland’s top two aforementioned banks were affected. The third chapter will talk about the actions undertaken by the Swiss National Bank, notably to bailout UBS after its near-collapse and the unconventional monetary policies adopted after the peak of the crisis in 2008. The fourth chapter will be focused on the conduct of the Swiss National Bank after the Great Financial Crisis and during the Eurozone crisis, and the current monetary policy that is being applied on Switzerland. A conclusion will synthetize the information of the chapters and provide an answer to my research question.
2. **Literature Review**

The topic of the changes in monetary policy in Switzerland consecutive to financial crises has already been discussed in previous articles. Most of the research on the topic comes from specialists appointed by governmental institutions or by economists working directly for the Swiss National Bank or the FINMA. Indeed, there has been a demand by the mentioned Swiss institutions for reports that detail the events that occurred during the two crises that struck Switzerland in 2008 and 2010. The Swiss National Bank has published yearly reports on financial stability since 2003. These reports discuss the conduct of the bank in times of peace as well as times of crises from the perspective of the SNB itself; these documents contain precious information on the monetary policy decisions of the central bank. The Swiss National Bank working papers and articles also tend to discuss the topic of the Swiss monetary policy.

Some of these papers have been written by the chairman of the SNB. Thomas Jordan, chairman since 2012, has published numerous working papers and analyzes on the crises and the strategy of the central bank. The Swiss Federal Banking Commission (nowadays the FINMA) has also published management reports on the Great Financial Crisis of 2007 / 08, and later on the Eurozone crisis. Finally, I am also using the yearly reports published by the two systemic banks of Switzerland (UBS and Crédit Suisse) to enrich my knowledge as well as their perception of the actions undertaken by the Swiss National Bank on their behalf. It is important to underline the fact that this part of the literature is made of primary sources and is written by the very institutions that I am going to study.

The working papers and reports of either the SNB or the FINMA, or even the banks, will be biased in the sense that they will express the view of the institution and lack scientific objectivity. Thankfully, there are several research papers written by scholars that discuss the topic as well. Nevertheless, it appears that the majority of the papers focus quasi-exclusively on one of the two crises that I am going to discuss. On the Great Financial Crisis, the research papers discuss the case of Switzerland on the capital flow waves to and from Switzerland before and during the Great Financial Crisis (Yeşin, 2015), the effect of Swiss monetary policy during the crisis on domestic credit conditions, (Batsaikhan, 2013), and the role of the regulating and monetary authorities in Switzerland during the crisis (Tille, Wyplosz, 2010). For the Eurozone crisis, the research papers focus on the surge in demand for Swiss francs
during the euro debt crisis (Auer, 2015) (Janson, 2015), and a couple ones study the broader impact of the euro crisis on the Switzerland (Simon, Hausner, 2012) (Lleo, Ziemba, 2015). There is surprisingly little literature that encompasses both of the crises and their impact on Switzerland. Raphael Auer and Cédric Tille provide an analysis of the banking sector and the Swiss financial account during the two crises (Auer, Tille, 2016).

3. Overview of the Swiss National Bank

3.1 Historical review of the SNB

Central banks are institutions that are nowadays essential for the proper functioning of a country. Their role consists, among other things, in maintaining the stability of the national economy. They possess the macroeconomic power that allows them to counter crises and gloomy economic conjectures. The democratization of central banks is a half-old phenomenon. The majority of them were founded in the late nineteenth century, although there is one notable exception. The Bank of England was founded in 1694 by the English Parliament in order to support the war effort. It quickly developed itself into a bigger institution that fulfilled the role that I attribute to central banks. Just like the English central bank was founded because of war, the majority of the other Western central banks were founded because of an incident that occurred previously. The German Reichsbank was founded in 1875, two years after the 1873 crash, and the Federal Reserve of the United States in 1913, 6 years after the panic of 1907. It was already widely accepted that the purpose of these central banks was to support the financial system when this one was in danger, and to ensure the safety of the domestic economy of small countries against the uncertainty of international markets.

In the case of Switzerland, its central bank, the SNB, was founded in 1907, even though the idea of a central bank emerged in the 1890s, when the federal government was given the exclusive right to emit bills. Under strict governmental control, the SNB fulfilled its role in a manner similar to today: emission of bills, maintaining the stability around the Gold

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1 Bagehot W., *Lombard Street: A Description of the Money Market*, Henry S. King & Co., 1873, p.46
Standard, and lender of last resort. Starting with World War I, Switzerland consolidated its position as a major financial center by signing multiple financial agreements and by offering credits to all the countries involved in the Great War. Indeed, the neutral position of the nation turned out to be very helpful; the economy had not been entirely focused on the war effort and the country was left unscathed from the destructions of the conflict. The Swiss franc became a safe haven currency and has remained as such ever since. The Great Depression that occurred in 1929 turned out to be the first great challenge for the Swiss National Bank. Swiss banks were heavily involved with Germany, having provided a great number of loans that were now frozen. With the Swiss banks suffering from great losses (up to 7% of their balance sheet), the SNB embraced its role of lender of last resort and provided tens of millions of francs to some of the banks in order to prevent their bankruptcy, an event that would have diminished the confidence in the whole Swiss financial system, thus creating a domino effect that would have also affected the other banks touched by the crisis.

Much like the first one, the Second World War did not particularly affect Switzerland’s economy. On the contrary, the country prospered by using its neutral position to trade with both camps during the conflict. This attitude was heavily criticized by the Allied nations after the war and created tensions between them and Switzerland. Thus, during the Bretton Woods agreements of 1944, Switzerland was not present and disagreed with the idea of a fixed exchange rate and controlling the flows of capital; the abandonment of the Gold Standard in 1936 had already “prepared” the country to floating exchange rates. Although Switzerland did not formally sign the Bretton Woods agreements until 1992, the nation had to follow the fixed exchange rate system due to the overwhelming amount of surrounding countries that did. When the Bretton Woods system collapsed between 1971 and 1973, due to the passing from the fixed to the floating exchange rate, there was a generalized fear of huge fluctuations in the value of the currencies. Switzerland was confronted to the major issue of being a safe haven country. The Swiss franc became heavily overvalued, which proved to be troublesome as Switzerland is a heavy exporting country. In order to regain control of the situation, the SNB adopted several measures to prevent the growing inflation, by increasing the control of loans, forbidding the purchase of Swiss real estate with foreign currency, negative interest rate

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on foreign funds, etc. Knowing that the Swiss franc slowly started to become a standard currency in international loans and transactions, the SNB promptly reacted by encouraging major Swiss banks to decline and / or prevent the circulation of titles emitted in Swiss francs. After disappointing results, the SNB decided in 1973 to stop intervening on the foreign exchange market, thus fully embracing the floating exchange rate that has been applied ever since.\(^8\)

The 1980s and the 1990s was a less successful period for Switzerland, and the SNB had to double down its efforts in order to maintain prosperity. Indeed, the GDP growth of the nation fell substantially compared to its neighboring nations (between 0.8% and 1.5% for the 1980-2005 period). The Swiss National Bank opted for a more restrictive monetary policy, by raising the interest rate, lowering the investments and the exportations up until 1983. The central bank had to juggle during the two decades between the restrictive and open monetary policy. The restrictive policy was necessary in order to fight the higher than average inflation rate of 5%, but its consequences led to the 1990s real estate crisis, which severely crippled the Swiss economy by causing losses up to 42 billion francs.\(^9\)\(^10\) After recovering from this crisis in the late 1990s, Switzerland was on the path to stabilize its economy for the long run. Unfortunately, two events in the beginning of the 21\(^{st}\) century derailed the sought-after stability. The implosion of the dot-com bubble and the terrorist attacks on September 11\(^{th}\), 2001 greatly increased uncertainty and lowered the overall confidence.\(^11\) While these events did not affect Switzerland itself in a durable manner, the fall of the U.S. dollar interest rate to almost 0 by Alan Greenspan in order to stimulate the economy following these catastrophes was one of the starting points of the subsequent crisis.

Although the Swiss National Bank fulfills the same role as the other central banks, it has some specificities that I need to address in order to ease the comprehension of the following chapters. Like its counterparts, the SNB “provides liquidity to market participants via open market operations, intraday credits and the liquidity-shortage financing facility”. These loans usually occur when a bank or a financial institution is lacking liquidities for its daily operations: such cases will be discussed later in the paper. The bank ensures financial stability and enforces the monetary policy that is deemed to be the best for the nation. For Switzerland,

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\(^10\) Barnetta I., Gerber S. D., l’évolution du marché immobilier suisse et le rôle de l’État, *La Vie économique*, 2011, p.3
\(^11\) Tooze A. *Crashed : comment une décennie de crise financière a changé le monde*, Edition Les Belles Lettres, p.77
the stability is achieved since 1998 by controlling the inflation rate between 0 and 2%. This rate is very similar to the one pursued by the ECB.\textsuperscript{12,13} The SNB also provides banking services to the Swiss government.\textsuperscript{14} The central bank is an independent institution since 1997 and does not depend on the Swiss federal council; it can exercise its mandate without being accountable to a higher entity. There are two reasons that push for the autonomy of the central bank. First of all, such legal situation prevents any form of state financing, where the government prints money and goes into debt in order to pay for public services, and it gives the central bank a complete budgetary autonomy. In exchange for this autonomy, the central bank is required to be fully transparent: “The SNB holds regular discussions with the Swiss government, participates in consultations with parliamentary committees and publishes an annual accountability report”.\textsuperscript{15} The Swiss National Bank also closely collaborates with a government body named the FINMA (formerly the Federal Banking Commission). While the SNB handles the monetary policy and the financial stability, the FBC is in charge of monitoring the banks and financial markets. These two entities are interdependent, as the FBC provides reports on the financial markets that are used by the SNB when there is a need to intervene, for example in the case of a crisis. The structure of the surveillance authority in Switzerland is such that the FBC (later the FINMA) is the only government body that is in charge; in comparison, some countries like Canada, the United States or France use four or five different organizations. This fragmentation is often viewed as potentially problematic, by decreasing the overall coordination.\textsuperscript{16} The importance of the SNB / FINMA collaboration will be highlighted in the next chapters.

\textsuperscript{12} Tille C, Wyplosz C, \textit{La Suisse face à la crise : une comparaison internationale}, 2010, p.27
\textsuperscript{13} http://ses.ens-lyon.fr/articles/donnees-taux-dinflation
\textsuperscript{14} Committee on Payment and Settlement Systems: \textit{Payment, clearing and settlement systems in Switzerland}, Bank for International Settlements, 2011, p.12+13
\textsuperscript{15} Jordan J. T., \textit{Central bank independence since the financial crisis : the Swiss perspective}, Swiss National Bank, 2017, pp.398-399
\textsuperscript{16} Commissions de gestion des Chambres fédérales, \textit{Les autorités sous la pression de la crise financière et de la transmission de données clients d’UBS aux États-Unis}, 2010, pp.2950+2963
3.2 The monetary policy and behavior of the SNB prior to the Great Financial Crisis

I have previously hinted at the events that kickstarted the 21st century in the previous chapter, and how they did not particularly affect Switzerland. In the wake of the September 11th terrorist attacks, the Swiss National Bank, in collaboration with the European Central Bank and the Federal Reserve of the United States, decided to simultaneously lower their LIBOR rate, a special interest rate aimed at inter-bank loans, in order to reduce the uncertainty that followed the terrorist acts. The rate continued to diminish as time went on, and the previsions for 2003 and after were all quite pessimistic, especially with the beginning of the second Gulf War. The LIBOR rate, between 2.25% and 3.25% back in September 2001, was fluctuating between 0% and 0.75% in March of 2003. This spectacular decrease was also ordered by the SNB to diminish the overevaluation of the franc, which occurred once again during this troubled period. After regaining a semblant of control, the bank chose to raise the LIBOR rate step by step during the entire year of 2004, until interrupting the process due to the outbreak in oil prices consecutive to the intensification of the Iraqi conflict. Despite this event, there was an overall confidence in the recovery of the economy and the SNB re-established a 1.5 to 2.5% LIBOR rate at the end of 2006, with the objective of stimulating growth after a few disappointing years. The principal concern for the central bank was the strict application of their brand new monetary strategy devised eight years before.

The Swiss National Bank was also attentive to the first turmoil in the real estate market in the United States. Indeed, in order to correctly fulfill the task of maintaining financial stability, the central bank must also keep an eye open on the events that occur in the other nations of the world, especially since Switzerland is deeply embedded in the global financial markets through its two notorious big banks, Crédit Suisse and UBS. Ever since 2001, the SNB published a yearly report on financial stability, thoroughly explaining the purpose of the central bank and its actions when needed. Switzerland entered the year 2007 with positive expectations after a successful year 2006, even if the possibility of an economic deterioration was not unimaginable. Indeed, there were already suspicions in early 2007 of a potential big crisis to come; the subprime mortgage markets of the United States were already

19 Commissions de gestion des Chambres fédérales, Les autorités sous la pression de la crise financière et de la transmission de données clients d’UBS aux États-Unis, 2010, p.2956
unstable and the SNB underlined that this domestic crisis had the potential to escalate into a global crisis. However, the central bank was not seriously worried: both its analysis as well as the analysis of the IMF concluded that the big banks of Switzerland were secured and safe against a severe economic shock, even as UBS and Crédit Suisse did not disclose how exposed they were to the subprime crisis. The Swiss National Bank was thus impatient of the implementation of the Basel II Accord in January 2008, whose regulations would force the big banks to provide more accurate information regarding their exposure to different risks.

Indeed, unable to know how hazardous the real situation was, the SNB had to believe the numbers given by the two big banks. The financial stability report related that there were several alarming signs regarding the behavior of the banking institutions and the global financial markets: the quality of the credits had declined, the downgrades of European companies by rating agencies multiplied, and the amount of household insolvencies increased. The volume of lending from banks (either to each other or to individuals) skyrocketed, most likely due to the rise in real estate prices. The SNB and the FBC noticed that the debt ratio of the Swiss big banks was extremely high, especially in comparison to the debt ratio of the other major banks.

The Swiss National Bank regularly organizes stress tests in order to ensure that the banking sector is able to withstand economic shocks and crises, by assuming that those crises will come from an initial event in the United States. The method of the stress test is based on “past experiences of the sensitivity of bank earnings to changes in macroeconomic and financial conditions […] and on the current characteristics of the banks’ activities”, who can tell if the profits generated by the banks will be deeply affected, thus affecting the capacity of resilience of the banks. The simulation in decrease of bank capital is also essential to verify if the bank can take the shock of the stress caused by economic crises, where there often is a liquidity drought. The results of the stress test prior to the Great Financial Crisis were encouraging. The capacity of resilience of the Swiss banking system to panics was on paper high, but the simulations were limited by the data that the SNB has on Crédit Suisse and UBS.


21 Swiss Financial Market Supervisory Authority FINMA, Crise des marchés financiers et surveillance des marchés financiers, 2009, p.27

3.3 The relationship between the SNB and the systemic banks of Switzerland

The banking sector in Switzerland occupies a key position for the economy of the country. Split between private and public institutions, the banking sector’s “total assets exceed CHF 4,500 billion or nearly ten times the size of Swiss GDP”. An enormous part of the Swiss banking sector comes from two banks: UBS and Crédit Suisse. These two giants are equally important domestically as well as on the international level. In Switzerland, they occupy an approximate 34% share of the domestic credit market, followed closely but the multiple cantonal banks. Internationally, the two big banks have been ranked second and nineteenth in terms of total assets at the end of 2006, with UBS being the biggest of the two. The institutions are well-known for providing before the crisis all of the possible services that a bank can offer: wealth management, private banking, investment banking, asset management, etc. Their sheer size, scope of activities and importance both domestically and internationally has been noticed by the SNB.

Well aware that the two big banks were at the same time pillars of the Swiss economy as well as potential time bombs in case of crises, the central bank sought to quickly establish a strong relationship with Crédit Suisse and UBS. In order to do so, the Federal Banking Commission created a big banks division in 1998 and organized reunions with the institutions in charge of monitoring the financial markets of the UK and the USA, the Financial Services authority and the Federal Reserve Bank of New York, with the purpose of discussing the difficulties that these authorities might have regarding their monitoring mission. The Swiss National Bank also sought to obtain regular financial reports from the two major banks, with details on their assets and their equities. Indeed, the financial reports of the central bank itself were reporting alarming signs that showed a degradation of the real estate market of the United States. Combined with the high debt ratio that I mentioned earlier and the increase in

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26 Commissions de gestion des Chambres fédérales, *Les autorités sous la pression de la crise financière et de la transmission de données clients d’UBS aux États-Unis*, 2010, pp.2954 + 2955
exposure of the “investment bank” sector, there were sufficient reasons for the Swiss National Bank to be worried and to be willing to take actions.

Unfortunately, as I have previously foretold, the relationship between the systemic banks of Switzerland and the SNB were strained. The central bank had hired regulators whose job is to monitor the activities of the banks, determine if their behavior is correct, if there is a need for a state intervention, etc. If the amount of regulators monitoring UBS and Crédit Suisse was normal, the individual burden of each of them was enormous. Indeed, it is estimated that each Swiss regulator in charge of the two aforementioned systemic banks was in charge of 75.4 billion dollars (the number being obtained by comparing the balance sheet of the bank with the amount of regulators), compared to 7.1 billion dollars for a United States regulator and 66.7 billion for a United Kingdom regulator.\(^{27,28}\) This situation slightly reduced the efficiency of the monitoring, as the regulators were unlikely to detect potential issues in the two systemic banks. In addition to that, the banks were willingly providing opaque reports regarding their exposure to risks, in particular the risks linked to the subprime mortgage market in the United States.

If the Swiss National Bank had disposed of the necessary information, they would have quickly asked the systemic banks to increase their equity as a safety net in the case of a generalized crisis. However, due to the fact that the central bank could not act based on suspicions alone and also because the Basel II agreements were not applied yet, there wasn’t much that could be done. This dichotomy between the central bank and the systemic banks was not exclusive to Switzerland, though. The Federal Reserve of the United States, although much more fractioned but better equipped with regulators, was also unable to foresee the extent of the crisis to come. The inability to preemptively act was mainly due to the bad will of the systemic banks whose investment banking division was deeply embedded in the subprime mortgage market.\(^{29}\) Finally, in the case of Switzerland, prior to the crisis, UBS and Crédit Suisse held a reputation of being exceedingly careful when it came to risk. The two systemic banks of Switzerland were highly regarded for their already large equity, aversion to

\(^{27}\) Tille C., Wyplosz C., *La Suisse face à la crise : une comparaison internationale*, 2010, p.5

\(^{28}\) Commissions de gestion des Chambres fédérales, *Les autorités sous la pression de la crise financière et de la transmission de données clients d’UBS aux États-Unis*, 2010, p.2965

risks, and apparent “lack” of ambition regarding hazardous banking activities.\textsuperscript{30} This good reputation combined with the positive results in the first half of 2007 for UBS convinced the Swiss National Bank that their systemic banks were only lightly concerned by the downfall of the mortgage market of the United States. I will discuss what truly happened to UBS and Crédit Suisse during the crisis in the subchapter 4.3 and the actions undertaken by the SNB in the subchapter 5.1.

3.4 The relationship between the SNB and the other major international institutions

The Swiss National Bank has maintained ties with international institutions for years before the Great Financial Crisis. Since Switzerland is a safe haven country, it is normal to assume that there is a tight cooperation between nations to ensure that the nation remains stable and deeply embedded in the global markets. For a long time now, Switzerland has been a European nation surrounded by countries in the European Union. This non-belonging is at the origin of the particular position of Switzerland when it comes to the relationship between its major institutions with its neighbors. For a long time, the Swiss National Bank considered the option to anchor the Swiss franc with another European currency, especially when Europe pushed for a bigger monetary integration, by creating the European Monetary System and the Economy and Monetary Union. There was a first attempt in 1978 when the Swiss franc anchored its currency to the German Mark. However, in order to maintain the system, the Swiss National Bank had to considerably increase the money supply, eventually causing inflation. This poorly received experience pushed the SNB to consider other options.

Indeed, besides the results, an anchoring would have meant that the SNB would have lost its monetary autonomy.\textsuperscript{31} Unwilling to lose its independence and also unwilling to lose the ability to control its inflation rate, the central bank chose the option of softening its monetary policy in the case of an overvaluation of the Swiss franc. However, this does not mean that Switzerland cut ties with international financial institutions. Just like I previously said, the Swiss National Bank worked closely with the European Central Bank to maintain a similar inflation rate between 0 and 2%. I have also explained that the SNB and the FINMA worked

\textsuperscript{30} Commissions de gestion des Chambres fédérales, Les autorités sous la pression de la crise financière et de la transmission de données clients d’UBS aux États-Unis, 2010, p.2957

\textsuperscript{31} Swiss National Bank, Banque nationale suisse 1907-2007, Éditions Neue Zürcher Zeitung, 2007, p.294
with the financial monitoring agencies of the United Kingdom and the United States since 1998. The collaboration focused on the exchange of information on the evolution of the situation in times of crisis. The Federal Banking Commission is also a member of the Senior Supervisors Group, which reunites the agencies of seven nations who monitor the systemic banks.\[32\]

This desire for close collaboration between Switzerland’s central bank and the central banks / international financial institutions is mainly due to the presence in Switzerland of its two huge international banks. Their international range and the potential damages in the case of a crisis explain the already pre-existing collaboration, even before the Great Financial Crisis struck the world. Finally, the Swiss National Bank has been an avid user of currency swaps, financial operations between two countries who exchange a certain amount of money in their respective currencies. This tool is often used when banks need to quickly acquire dollars. In order to obtain those dollars, the banks have to rely on the Swiss National Bank, who will swap Swiss francs against the equivalent in dollars, which will be then distributed to the banks in need.\[33\]

The cooperation between the Swiss National Bank and the Federal Banking Commission with the foreign central banks / monitoring institutions has seen an immediate increase after the subprime mortgage market crisis turned into a global crisis. Indeed, as I will develop in the next chapter, UBS and Crédit Suisse’s investment banking divisions were heavily involved in the subprime market. In order to come to the rescue of the banks and to overcome the euro crisis that ensued, the SNB not only had to drastically change its monetary policy, but also tighten and increase its ties with foreign central banks and international financial institutions.


\[33\] Tille C., Wyplosz C., *La Suisse face à la crise : une comparaison internationale*, 2010, p.38
4. How the Great Financial Crisis affected Switzerland

4.1 The subprime crisis

The Great Financial Crisis of 2008 that struck the entire world and is responsible for the near-collapse of several nations is the apotheosis of a domestic crisis that drew its roots from the United States real estate market. It is thus crucial to dedicate this chapter to the explanation of the mechanisms that turned an American crisis into a worldwide crisis. The subprime mortgage market crisis took place in a period of low inflation and continuous economic growth for the majority of western nations. The mindset of the late 90s and the early 2000s was that the overall volatility was very low and very stable. The confidence of the countries in the economic conjecture was high, and thus people were inclined to take more risks than usual. Shortly after the events of September 11 and the dot-com bubble crisis, the Federal Reserve of Alan Greenspan decided to lower the interest rate in the United States, in order to relaunch the economy.\(^{34}\)

This particular economic conjecture allowed banks to extend their offer of loans, particularly in the domain of real estate. A huge wave of low-income citizens borrowed money in order to purchase houses, using the low interest rate at their advantage. The increase in the sale of houses led to an automatic increase in the prices of real estate all around the country, but this did not lower the appetite of citizens for loans. Well aware that most of these people had a (very) low income, the creditors compiled their loans into a category named “subprime”, corresponding to a poor quality and high risk of insolvency.\(^{35}\) Despite the possibility that the borrowers would be unable to refund their loan, the creditors were not particularly worried; there was no sign that the current economic conjecture would turn around. Furthermore, the majority of those subprime mortgages were at first not obtained from banks with strict supervision and regulations, but from brokers whose earnings depended on the amount of subprime loans that they provided.\(^{36}\) In theory, these subprime mortgages

\(^{34}\) Tooze A. *Crashed : comment une décennie de crise financière a changé le monde*, Edition Les Belles Lettres, 2018 p.77

\(^{35}\) Swiss Financial Market Supervisory Authority FINMA, *Crise des marchés financiers et surveillance des marchés financiers*, 2009, pp. 8+10

\(^{36}\) Roth J-P., *Crise des marchés financiers : Quel rôle pour les banques centrales ?*, Swiss National Bank, 2008, p.3
were to be poorly graded by rating agencies due to their hazardous nature. The brokers used a simple strategy to bypass this issue, by grouping subprime loans with higher-quality loans into packages with a brand new title, the Collateralized Debt Obligations.37 These CDOs were given the best grade from the rating agencies, AAA. Such grade was wrongly given because it was assumed that those high-quality loans were untouchable even in the case of a severe crisis.38 39

Even if the brokers were independent from the jurisdiction of the banks, they were closely related nonetheless. Investment banks and hedge funds bought massive amounts of CDOs from those brokers before starting to package them themselves in order to maximize the profits. The volume of loans coming from the systemic banks massively increased, with over 450 billion francs between UBS and Crédit Suisse alone. They also engaged in credit default swaps, a contract between two parties where the detainer of a loan, usually of subprime quality, sells it (and its risk of non-payment) to an interested party, who will purchase the loan and its risk for a regular fee. Using this array of tools, the big banks significantly increased their exposure to the market while falling into more and more debt. This behavior resulted in an ever-increasing complexification of the financial system while weakening it. Indeed, as the volume of loans increased, their quality dropped, mostly due to the omnipresence of subprime mortgage loans in securities and other obligations.40 The multi-packaging of these loans and the swaps between the big banks scattered them everywhere throughout the system. The central banks could only observe the evolution of the American real estate market, but could not know to what extent the big banks of their country were exposed.

The price of real estate in the United States continued to rise with the influx of new buyers using subprime loans until mid – 2006. Alan Greenspan and its Federal Reserve decided to raise the interest rate back bit by bit, after having fallen sharply between 2001 and 2002. Indeed, before the dot-com bubble and the events of 9/11, the U.S interest rate had reached 6% and the Fed aimed to eventually return to such a rate: after all, the reasons for such a downfall were exceptional and did not correspond to the policy of the American central bank.

38 Tooze A. Crashed : comment une décennie de crise financière a changé le monde, Edition Les Belles Lettres, 2018, p.79
Fig 1. Interest rate of the Federal Reserve of the United States between 1997 and 2012 in %

The first figure shows the U.S. interest rate before, during and after the Great Financial Crisis. After being lowered significantly by the Federal Reserve of Alan Greenspan after the dot-com bubble (as explained before), the rate was brought back from just under 1% to 6.25% between 2003 and 2006. This decision ended up having extremely negative consequences for the real estate market.

Fig 2. US House Prices between 2000 and 2016 expressed by the Case-Shiller index

The graph above shows the ever-rising increase in US houses prices between 2000 and 2006. It is using the Case-Shiller Home Price Index that calculates the change in value in the
U.S. housing market by using the buy and sell price of American homes.\textsuperscript{41} The index was placed at 100 on January 1\textsuperscript{st}, 2000 by the rating agency Standard & Poor’s. I observe that the peak of the housing market bubble corresponds to the period where the interest rate was brought back to its highest since the dot-com bubble, although the two are not exactly correlated. The surge for houses was at its highest when the interest rate was at its lowest, and continued while the default rate on loans was rising. The increase in interest rate of the Federal Reserve caused the commercial banks, providers of loans to the citizens, to increase their interest rate as well. Many of these people who took subprime loans were suddenly unable to withstand the new sum to reimburse and went into default. The amount of people who could not refund their loan exploded in a short period.\textsuperscript{42, 43}

\begin{figure}
\centering
\includegraphics[width=\textwidth]{delinquencies.png}
\caption{Percentage of delinquencies on all loans in the U.S between 2001 and 2016}
\end{figure}

These defaults caused the housing prices to drop rapidly at the beginning of 2007. The graph shows that the percentage of delinquencies on all loans (majorly in the real estate) increased dramatically between 2005 and 2008, corresponding to the timeline of the increase of the interest rate in the United States seen in the figure 1 of the paper. The major issue was

\textsuperscript{42} Swiss Financial Market Supervisory Authority FINMA, \textit{Crise des marchés financiers et surveillance des marchés financiers}, 2009, p.10
\textsuperscript{43} Tirole J., \textit{Balancing the Banks : Global lessons from the financial crisis}, Princeton University Press, 2010, p.18
that the losses from the real estate crash hit every actor involved. The price of Mortgage Backed Securities (MBS) and Collateral Debt Obligations (CDOs) dropped due to the two aforementioned issues; due to the complexity of their packaging, it became impossible to evaluate their value. Therefore, the prices of these products dropped substantially because of the uncertainty surrounding them. Most of the big banks had amassed enormous amounts of MBS and CDOs through their investment banking division or through discreetly linked hedge funds called structured investment vehicles, or SIVs. Initially unable to estimate the amount of losses, the confusion around the financial health of the banks provoked a mutual loss of confidence; the banks were unwilling to lend liquidity to each other. A great number of them were from Europe and were heavily involved with the subprime mortgage market.

4.2 The domino effect of the crisis over Europe

European banks and financial institutions have been deeply involved with the American real estate market ever since the early stages of the subprime craze. As I have previously explained, the subprime loans packaged into MBS and CDOs are no longer a product exclusively emitted by individual brokers. In front of the potential gains, a good number of systemic banks sometimes inexperienced in the investment banking domain became issuers of mortgages. Among the biggest banks involved in the market are the Deustche Bank, Crédit Suisse, HSBC, Barclays, and BNP Paribas. HSBC notably announced that they provided in 2005 almost half a million mortgages for a value of 70 billion dollars. Indeed, despite the fact that Asian countries have accumulated a huge trade surplus following the global saving glut and are thus increasing their trade with the United States, the biggest investors remain European.

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44 Roth J-P, Crise des marchés financiers : Quel rôle pour les banques centrales ?, Swiss National Bank, 2008, p.4
45 Tille C, Wyplosz C, La Suisse face à la crise : une comparaison internationale, 2010, p.11
48 Source GRAPH : Borio C, Disyatat P, Global imbalances and the financial crisis : Link or no link ?, Bank for International Settlements, 2011, Graph 6, p.14,
The graph above shows that the biggest capital inflows to the United States were coming from the United Kingdom and the Euro Area. Being expressed in percentage of the GDP of the United States, the inflows more than doubled between 2004 and 2007, reaching several billions of dollars. I observe that the inflows increased by following the same trend than the rise in housing prices in the United States as seen on figure 2. European banks continuously borrow U.S dollars to purchase assets, such as mortgage-backed securities and collateral debt obligations, looking to generate more profits from those products than the cost of the loan they took.\textsuperscript{49} This phenomenon had three essential effects. First, it contributed to the limitless multiplication of emitted CDOs; between 2002 and 2006, it is estimated that the amount of CDOs in circulation multiplied twelvefold, with their value skyrocketing from $250 billion to over $3 trillion.\textsuperscript{50} Second, the repackaging of subprime loans into MBS and CDOs eased their dissemination over the entire planet. The risk surrounding these loans was effectively spread, but it also meant that the impact of an eventual crisis would spread as well. Plus, it also increased uncertainty surrounding the distribution of the risks; it was impossible to determine

\textsuperscript{49} Tooze A. \textit{Crashed : comment une décennie de crise financière a changé le monde}, Edition Les Belles Lettres, 2018, p.100

\textsuperscript{50} Lysandrou P. \textit{The primacy of hedge funds in the subprime crisis}, Journal of Post Keynesian Economics, 2011, p.231
if risks were concentrated in one nation, or in one particular systemic bank. Third, the infatuation of the big banks for CDOs made them very careless, as they massively increased their leverage ratio without adapting their equity.

(Source: Cecchetti S.G., Five years in the tower, Bank for International Settlements, 2013, graph 2, p.4)

**Fig 5. Leverage ratios of the biggest banks in the world 2007-2012**

The enormous indebtedness of the cited banks was considered under control as long as the economic conjecture was good, but this also meant that the vulnerability of European banks to the hazards of the subprime market was similar to the American ones. When the amount of subprime mortgages defaults increased in early 2007, it is a European bank that announced first that it had registered losses related to the American real estate market. The Swiss bank UBS closed its hedge fund Dillon Read Capital Management in May 2007 after it announced $125 million in losses attributed to subprime loans. The defaults and losses pushed the three rating agencies (Moody’s, Standard & Poor’s and Fitch) to downgrade subprime loans, plummeting their value. The major issue is that those subprime loans were packaged in structured products (MBS and CDOs). The complexity of these products made any estimate of their value nearly impossible; it also meant that it was impossible to estimate the losses of

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each bank. This generated a confidence crisis that crippled the interbank market. This crisis was exacerbated by the fact that the losses of the subprime market had been spread throughout the entire world, with an emphasis in Europe.

When average banks unexpectedly announced losses caused by the subprime crisis, the confidence eroded even more. In July 2007, the American bank Bear Stearns announced that its two hedge funds would file for bankruptcy: they experienced enormous losses from the subprime market, since about 60% of the hedge assets were comprised of MBS and CDOs. That same month, the German bank IKB Deutsche Industriebank announced that it was on the brink of bankruptcy. The bank’s SIV Rhineland Funding had invested heavily on the subprime market. On August 9, the French bank BNP Paribas froze $2.2 billion from its hedge funds in order to prevent a complete liquidity drought after observing the downfall of IKB. I observe that the early losses of the subprime crisis were triggered by the aforementioned unregulated hedge funds and SIVs, whose activities impacted the parent company. This observation is reinforced by looking at the case of Italy, whose banks “largely abstained from securitization and the creation of SIVs during the run-up to the credit crisis”. Their reduced exposure to the subprime mortgage market because of that turned out to be advantageous.

On the other hand, there are also examples of banks who were not particularly exposed to the subprime mortgage market but still collapsed. The most famous case is the English bank Northern Rock. After the announcement of BNP Paribas on August 9, the interbank refinancing market almost completely stopped, as banks refused to lend money to each other. Northern Rock’s activities were extremely dependent on the refinancing market. They faced immediate liquidity issues when that market collapsed. Even worse, the announcement of a financial support by the Bank of England for Northern Rock also eroded the confidence of the public, who was now aware of the poor health of the bank. The announcement triggered a bank run, with many clients withdrawing their savings from the bank.

56 https://www.reuters.com/article/us-BNP-paribas-subprime-funds-idUSWEB61292007070809
The share value of Northern Rock melted and the bank collapsed until its nationalization in February 2008.\textsuperscript{58,59} The contagion effect of the Great Financial Crisis on Switzerland, the country on which I focus my attention, is quite similar to the one of Germany. Crédit Suisse and most importantly UBS announced billions in losses due to their gambling activities on the subprime mortgage market through their hedge funds. I believe it is crucial to elaborate a subchapter on the chronology of the actions of these two banks, in order to understand how the seemingly overcareful big banks got involved in the “American-style” high finance and why their rescue was necessary. Describing their behavior will also be helpful to explain the monetary policy changes caused by the Great Financial Crisis in the chapter 5 and 6.

4.3 The case of Switzerland top banks: UBS and Crédit Suisse

UBS is one of the two major banks in Switzerland, alongside with Crédit Suisse. Founded in 1998 after a merger between the Union Bank of Switzerland and the Swiss Bank Corporation, it is one of the largest banking institutions in the world, being ranked number one in wealth management and holding several top spots in private banking and global asset management. Although the process of the merge was quick and efficient between the two banks, the regulators of both the United States and Switzerland were somewhat reluctant to give their approval.\textsuperscript{60} UBS also detains an investment banking division, who played a major role in the subprime mortgage market crisis of 2007. For a long time, UBS operated as a “one firm “ bank, with all of the mentioned divisions being interconnected and interdependent.\textsuperscript{61} Although the bank operates in a multitude of nations and has offices in the United States and in the United Kingdom, its behavior has been very “Swiss”, characterized by prudent decisions, low ambitions and an adversity to risk.\textsuperscript{62} This policy changed when Marcel Ospel was appointed as CEO of the bank in 1998. He ambitioned to heavily boost the investment

\textsuperscript{58} Brunnermeier M.K., Deciphering the Liquidity and Credit Crunch 2007-2008, Journal of Economic Perspectives, 2009, p.86
\textsuperscript{59} Tooze A. Crashed : comment une décennie de crise financière a changé le monde, Edition Les Belles Lettres, 2018 p.176-177
\textsuperscript{60} UBS, 150 Years of Banking Tradition, 2012, p.33
\textsuperscript{61} UBS, Annual Report 2007, p.8
\textsuperscript{62} Straumann T., Die UBS Krise aus wirtschaftshistorischer Sicht, Universität Zürich, 2010, p.5
banking division of UBS, the most lucrative – and most risky – sector, with the ultimate objective of dethroning Goldman Sachs, the leader in this domain.

In order to do so, several counselors advised UBS’s Investment banking division to gamble on the trending subprime mortgage market. Even before announcing their objective in 2004, UBS secured its spot on Wall Street by acquiring a multitude of banks, namely Dillon, Read & co. and Painewebber, banks specialized in investment banking and asset management.\(^{63}\) UBS also hired and appointed as head of its investment banking division an American financial veteran, John Costas, who himself recruited more than fifty specialists to reinforce the inexperienced *Fixed Income Rates and Currencies* (FIRC) trading division. Marcel Ospel spared no expenses to ensure that its bank would rapidly rise as a top notch investment bank. As soon as 2001, UBS engaged with success in the securitization and transaction of mortgages loans. This extremely prosperous period is characterized by the enormous rise in income of the FIRC subdivision, who overwhelms the Investment banking division of UBS, to the point where it generated 46% of the profits of the entire bank by the end of 2004.\(^{64}\) The profitability of the FIRC subdivision went hand in hand with an enormous increase of salaries for its collaborators: John Costas, the head of the Investment banking division, earned $40 million in 2004, twice the salary of the Marcel Ospel, the CEO of UBS.

Despite the rapid progress of UBS in the ranks of investment banks, Marcel Ospel was not satisfied. The bank was still far from reaching rank one. To keep climbing, John Costas proposed to create a hedge fund attached to the main bank, who can act even more aggressively on the American real estate market. Indeed, hedge funds are much less restricted, especially on their investment strategies. Supervisory authorities cannot impose the same restrictions that they apply on traditional investment banks.\(^{65}\) With the support of Marcel Ospel, Dillon Read Capital Management is founded on June 30th 2005. Despite the approval of the CEO, the move remained controversial; not only a great amount of resources were derived from the FIRC subdivision to the newly created hedge fund, but also two thirds of the 120 traders.\(^{66}\) This move created a disequilibrium between the Investment Bank and DRCM,

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65 Lysandrou P. *The primacy of hedge funds in the subprime crisis*, Journal of Post Keynesian Economics, 2011, p.251
reinforced by the enormous salaries offered to John Costas and its collaborators compared to the earnings of the remaining employees of the FIRC department.

Eager to compete with the fund and resentful of the stripping of its traders, the Investment Bank division of UBS massively increased its exposure in the subprime mortgage market with the hopes of generating great profits that would translate to huge salaries. But in early 2007, the traders of Dillon Read observed the early signs of the impending subprime loans crisis by noting the increase in defaults on such loans. John Costas and its team started the procedures to liquidate the riskiest positions and reduce their exposure. They informed UBS of their observation and advised them to proceed similarly as fast as possible. However, the FIRC subdivision remained convinced that the subprime market was stable and convinced the direction to shut down DRCM in May 2007, a decision facilitated by the CHF 150 million losses registered by the hedge fund. 67 68

The closure of Dillon Read meant that its open positions were transferred back to the Investment Banking Division of UBS, who continued to increase its exposure on the subprime market until the third quarter of 2007. 69 They believed that profit could still be made from the securitization business, unlike Crédit Suisse who already started to reduce its exposure back in late 2006. 70

Thus, in the summer of 2007, UBS was severely impacted by the collapse of the subprime market following the write-downs by the rating agencies and the bankruptcies that I mentioned in the previous subchapter. The value of all the CDOs plummeted at the same time, even those unaffected by the early crisis. At the end of the year 2007, UBS Group announced $4.4 billion in losses; the Investment Bank division losses were estimated to approximate CHF 21.3 billion while the profitability of the other divisions (mainly the Wealth Management Division) managed to limit the overall losses. 71 This negative balance has led the rating agencies to downgrade UBS as a whole, further worsening its situation. Due to the freezing of the interbank loan market enhanced by the loss of confidence of banks with each other, UBS had no choice but to massively increase their equity in the face of the scale of the losses. The Swiss bank managed to raise CHF 13 billion from several investors, while the

68 UBS, Annual Report 2007, p.4
70 Commission de gestion des Chambres Fédérales, les autorités sous la pression de la crise financière et la transmission de données clients d’UBS aux États-Unis, 2010, p.2968
71 UBS, Annual Report 2007, pp.29, 137, 144
Swiss National Bank offered up to $4 billion in liquidity for its banks after concluding a swap line with the Federal Reserve of the United States.\textsuperscript{72, 73}

The economic situation did not improve in 2008. On the contrary, it degraded in a stronger and faster manner. In March of 2008, the American bank Bear Stearns nearly bankrupted and got acquired at the last minute by another major bank, JPMorgan & Chase, with the financial support of the Federal Reserve of the United States. Bear Stearns was a major investment bank that was involved with the subprime market.\textsuperscript{74} The announcement of the fall of Bear Stearns shocked the financial world and further aggravated the fall in value of mortgage-backed securities and collateralized debt obligations. The uncertainty over which bank would be the next to bankrupt fragilized the system. It turned out that Lehman Brothers would be the next casualty of the Great Financial Crisis. After unsuccessful attempts to receive liquidity from the Federal Reserve or be acquired by another financial institution, the bank filed for bankruptcy on September 15\textsuperscript{th} 2008. The fall of Lehman Brothers was considered a turning point, as the financial crisis became a global crisis. Indeed, not only did it affect the other banks, it also deteriorated the credit market to the point where the access to credit became increasingly difficult for individuals or firms.\textsuperscript{75} The interbank loan market almost completely froze; the liquidity drought reached an all-time high.

The events of 2008 worsened the state of UBS. Not only did the Investment Bank division register bigger losses than in 2007, but the other divisions of the UBS group also announced either negative results or at least a diminishment of their revenue. While the bank managed to barely stand on its feet at the end of 2007 due to the limitation of the overall losses, the end of 2008 proved disastrous with over $21.2 billion in losses.\textsuperscript{76} A large part of these losses was again imputable to the Investment Bank Division, in particular the FIRC subdivision who became well-known for its feud with Dillon Read Capital Management a year before. Due to the nature of UBS as a “one firm” bank, the divisions were interdependent: the Wealth Management division had to subsidize the Investment Banking division when the first losses were announced back in 2007.\textsuperscript{77} Therefore, when the subprime market “finished to collapse”

\textsuperscript{72} Swiss National Bank, Financial Stability Report, 2008, p.21
\textsuperscript{73} Swiss National Bank press release, Swiss National Bank provides US dollar funding, 2007, p.1
\textsuperscript{74} Tooze A. Crashed : comment une décennie de crise financière a changé le monde, Edition Les Belles Lettres, 2018, p.204
\textsuperscript{75} Brunnermeier M.K., Deciphering the Liquidity and Credit Crunch 2007-2008, Journal of Economic Perspectives, 2009, p.90
\textsuperscript{76} UBS, Annual Report 2008, p.38
\textsuperscript{77} Zaki M., UBS : Les dessous d’un scandale, éditions Favre, 2008, p.68
after Lehman Brothers’ bankruptcy, the expectations of losses for banks who owned massive amounts of CDOs and MBS were extremely high. This fear has spread the loss of trust in UBS to its other divisions who, despite being uninvolved with the subprime mortgage crisis, got dragged into the now broader global financial crisis. With a limited access to both short and long term funding and withdrawals in deposits from clients, UBS had to resort to use the help of the Swiss National Bank. I will discuss the full extent of the intervention of Switzerland in the next chapter.\footnote{UBS, Annual Report 2008, p.151}

In contrast to UBS, Crédit Suisse weathered the crisis by minimizing the damage. There are several explanatory factors for this dichotomy. During the dot-com bubble between 1999 and 2002, Credit Suisse reported important losses while UBS did not. The strategy of the firm therefore changed to become suspicious of bubbles, unwilling to repeat the mistakes of the past, and more likely to respond early to signs of trouble.\footnote{Straumann T., Die UBS Krise aus wirtschaftshistorischer Sicht, 2010, p.12} While Credit Suisse strongly involved itself in the subprime mortgage market by emitting CDOs through a department created for that purpose in the early 2000s, the group applied a different strategy than the one of UBS. First of all, unlike UBS, Credit Suisse owned a subsidiary company in the United States that was specialized in mortgage services; the bank had thus access to much better information on the quality of CDOs and the overall movements on this market.\footnote{Tooze A. Crashed : comment une décennie de crise financière a changé le monde, Edition Les Belles Lettres, 2018, p.99} The CEO of Credit Suisse during the years of the crisis, Brady Dougan, did not have the same ambition than Marcel Ospel regarding the future of its bank. He opposed the attempts of the general CDO manager of Credit Suisse to expand the activities – and the exposure – of the bank on this market.\footnote{Zaki M., UBS : Les dessous d’un scandale, éditions Favre, 2008, p.121} Finally, and perhaps most importantly, the bank was not torn by an internal conflict between employees believing in an imminent crisis and those who believe in the stability of the subprime market.

When the American mortgage services company alerted Credit Suisse that the default rates of mortgage loans were increasing, the bank did not hesitate and started to reduce its exposure to the subprime market in late 2006.\footnote{Swiss Financial Market Supervisory Authority FINMA, Crise des marchés financiers et surveillance des marchés financiers, 2009, p.15} This preventive action turned out to be quite effective: at the end of 2007, Credit Suisse reported a net income of CHF 7.76 billion. While there was a slight reduction of that income compared to 2006 (CHF 3.567 billion), the
outcome remained positive. Much like UBS, the vast majority of the losses came from the Fixed Income Trading subdivision of the Investment Banking division, in particular the valuation reduction of multiple structured products, such as CDOs, Asset Backed Securities (ABS), and MBS. However, thanks to the significant reduction in exposure initiated in 2006, the extent of the losses was much lower than UBS’ Fixed Income subdivision, who reported a CHF 21.3 billion loss in 2007 compared to 2006. The positive results of Credit Suisse also meant that they benefited from a strong reputation of stability.

In 2008, the bank suffered from the events that seriously hurt the financial world, the same events that brought UBS to the brink of bankruptcy. The net income at the end of the year reached an all-time low, with CHF 8.21 billion in losses. Once again, the main responsible for this downfall was the Investment Banking Division. Although it was the only division of the Bank to announce net losses, the diminution between 2007 and 2008 was such that it had a lasting impact on the final yearly result. The other divisions of the bank also experienced a decline, although minor, most likely due to the fact that investors and depositors remained confident in Credit Suisse and its capacity to overcome the crisis.

84 Credit Suisse Group, *Annual Report 2008*, p.50
Source: Les autorités sous la pression de la crise financière et de la transmission de données clients d’UBS aux États-Unis, Commission de gestion des Chambre fédérales, 2010.

Fig. 6. Profits (losses) of UBS and Credit Suisse between 2005 and 2010 (expressed in billions of $)

The graph above is revealing of the effects of a difference in behavior towards the subprime crisis between the two major Swiss banks. The results of this graph correspond to what I explained earlier in the chapter; UBS registered extreme quarterly losses starting in the second half of 2007 due to their continuous and careless exposure to the subprime mortgage market craze. On the other hand, Credit Suisse registered inferior initial losses that did not cause an overall drop in ratings and confidence in the whole institution, leaving the other divisions of the “one firm” bank unscathed. The difference of attitude between the two banks had serious consequences. Indeed, the extent of the losses for UBS forced the Swiss National Bank and the Swiss Federal Banking Commission to bail out in order to prevent a total collapse that would have had serious economic consequences for Switzerland, due to the importance of the two institutions. Credit Suisse, despite receiving help from the U.S.

85 BakBasel, L’impact économique du secteur financier suisse, 2016, p.4
Federal Reserve with liquidity injections, managed to “avoid” being saved by the Swiss Central Bank. I will elaborate on the bailout process in the next chapter.

5. The actions of the Swiss National Bank against the crisis

The next subchapters are going to discuss thoroughly what the Swiss National Bank did to limit the damages of the financial crisis and how the country relaunched itself after withstanding the losses of UBS and Credit Suisse. The main argument that I am going to try to address here is how the solutions found by the SNB and the SFBC kickstarted the idea of long-lasting unconventional monetary policies and financial decisions as the conventional monetary policy options were already exhausted, and how the beginning of the Euro area debt crisis cemented the necessity to adopt such unconventional policies.

5.1 The bailout of UBS

The actions of the Swiss authorities during the financial crisis followed the timeline of the different events that occurred between 2007 and 2008. Using the information at their disposal, the SNB, the SFBC and the Federal Department of Finance (FDF) did their best to prevent the crisis to reach enormous proportions in Switzerland. Obviously, it was unimaginable to believe that the situation would deteriorate to the point where a controversial governmental intervention was needed to save UBS, one of the biggest banks of the entire world and an assumed pillar of stability. As I have previously explained, UBS and Credit Suisse were considered role models for banks, unlikely to have thrown themselves in the risky subprime mortgages market. Back in May of 2007, the SFBC and the SNB organized a reunion with the two major Swiss banks, looking to assess the risks and the costs of an eventual financial crisis. The authorities had noticed that UBS and Credit Suisse had increased their leverage ratio (the proportion between the total assets of the bank and its equity) as well as their volume of lending, but could not determine to what extent the situation was potentially hazardous. The banks presented their crisis scenarios who, at worst, could cause losses equal
to a quarterly result. The results of an earlier stress test organized by the IMF were similar; on all aspects, the two Swiss banks were safe from any financial crisis that could happen.86

The timing of those stress tests turned out to be quite unfortunate. Indeed, the subprime mortgage market fell apart very soon after the reunion. While it was still unsure at the time if UBS and Credit Suisse would be particularly affected, the Swiss National Bank – and the majority of the other central banks – promptly reacted to the drying up of the interbank liquidity market. The case of Northern Rock proved the necessity of such action. In addition, the Swiss authorities were well aware of the importance of its two big banks. Starting on August 9 and 10 of 2007, the SNB injected massive amounts of liquidities in the system in order to counter the sudden loss of confidence between the banks. In the meantime, the SFBC ordered UBS and CS to provide immediate accurate weekly reports on their actual financial health.87

It turns out that UBS’s exposure was much higher than expected. While the bank reported a net exposure of $31 billion in march of 2007, as of August that amount had risen up to $53.1 billion.88 This factor combined with the extreme leverage ratio of the banks pushed the SFBC to order both CS and UBS to raise their equity up to 130% of the standard of the Basel II agreement (that had not been implemented yet). Although both banks complied to that new requirement, they were not ready to attain that level immediately. While the SFBC was trying to uncover the reality of the situation of UBS and CS, the Swiss National Bank continued to provide liquidity when needed. During the second half of 2007, the loss of confidence between banks was periodical; the announcement of bad news throughout the months provoked regular temporary liquidity dryings. The SNB provided money each time the market froze. The second wave in November and December 2007 was unique in the sense that Switzerland collaborated with other central banks – most notably the ECB and the Federal Reserve – to provide its banks U.S dollars through currency swaps, much needed after UBS

86 Swiss Financial Market Supervisory Authority FINMA, Crise des marchés financiers et surveillance des marchés financiers, 2009, p.34
87 Commission de gestion des Chambres Fédérales, les autorités sous la pression de la crise financière et la transmission de données clients d’UBS aux États-Unis, 2010, p.2972
88 Swiss Financial Market Supervisory Authority FINMA, Crise des marchés financiers et surveillance des marchés financiers, 2009, p.24
announced its quarterly losses and was thus “excluded” from the interbank lending market.\textsuperscript{89}
\textsuperscript{90} \textsuperscript{91}

The Swiss authorities continued to closely monitor the situation in 2008. UBS had carried out a first CHF 13 billion recapitalization a month earlier due to the amount of their losses and started to provide much better information on their situation. The SFBC asked the bank to separate itself from a lot of the assets linked to the subprime mortgage market: CDOs, MBS, CDO-square, ABS, etc. The purpose of this demand was to diminish the exposure of UBS who was in a very unstable situation, surviving off its recapitalization and the central bank liquidities. Credit Suisse received the same instructions with lesser severity due to their better handling of the ongoing crisis.\textsuperscript{92} The collapse of Bear Stearns in March 2008 did not help: the value of all U.S mortgage-based assets diminished, promptly increasing the losses for all concerned banks and thus worsening the situation. In June of 2008, UBS had to proceed to a second CHF 16 billion recapitalization in order to increase their equity in accordance with the new requirements from the SFBC.\textsuperscript{93} Excluding yet the possibility of a bailout, these equity increases are the only tools available to the authorities: The SNB and the SFBC “do not have the political and economic stature to monitor the risky and ultra-sophisticated activities of its big banks in New York”.\textsuperscript{94} The Swiss authorities had difficulties to perform other actions due to their small size and number of employees dedicated to monitor UBS and Credit Suisse.

The bankruptcy of Lehman Brothers on September 15\textsuperscript{th} 2008 was a game-changer for many nations, including Switzerland. Prior to the collapse of that bank, the Swiss authorities did not alter the 3-month Libor rate, the interest rate for interbank loans, or the national interest rate. The Swiss National Bank concentrated its efforts on ensuring UBS and Credit Suisse would have access to U.S dollars for their daily activities, and the SFBC introduced the new requirements for the banks. Tille and Wyplosz argue that prior to the transition from a financial crisis to a global one, the macroeconomic tools available to the SNB were useless since they would have little to no impact on the single point of contention for Switzerland, UBS. The authors also argue that the authorities did not expect that UBS’s woes would be so

\textsuperscript{89} Swiss National Bank, \textit{Financial Stability Report}, 2008, p.20
\textsuperscript{91} Swiss National Bank press release, \textit{Swiss National Bank provides US dollar funding}, 2007
\textsuperscript{92} Commission de gestion des Chambres Fédérales, \textit{les autorités sous la pression de la crise financière et la transmission de données clients d’UBS aux États-Unis}, 2010, p.2977
\textsuperscript{93} Swiss Federal Banking Commission, \textit{Rapport de gestion 2008}, p.21
\textsuperscript{94} Zaki M., \textit{UBS: Les dessous d’un scandale}, éditions Favre, 2008, p.185
impactful for Switzerland. It is likely that this perception was due to the information asymmetry between UBS and the central bank / SFBC. Through its federal department of finance, the Swiss government made it very clear that a direct government intervention towards the bank was an extremely undesired scenario due to the political downfall that would result. Such action would only occur if the situation offered no other alternative.

The day of the collapse of Lehman Brothers is known as the date of passage from a mostly American-centered financial crisis to a worldwide real economy crisis. The bankruptcy of one of Wall Street’s biggest investment banks was a terrible shock to global finance. If the previous events – Bear Stearns, the nationalization of Freddie Mac and Fannie Mae, Northern Rock to name a few – had the effect of a bomb, September 15th 2008 was in comparison a hydrogen bomb. The panic caused by this announcement drove every other bank to pretty much “pull the plug” and interrupt all transactions on the monetary market, limit their expenses and reduce their international exposures: in the case of Switzerland, the capital of the big banks retreated to the domestic market. Every bank completely lost trusted with its neighbors and all eyes were set on the next casualty. UBS was a good candidate: the bank had already registered severe losses in the first half of 2008, had to undergo two recapitalizations and still detained billions of dollars in subprime mortgage assets. The gravity of the situation thus lifted the previous blockades against government intervention. A bankruptcy of UBS would not only have had devastating effects on global finance but also on the domestic Swiss market due to the importance of the financial sector for the country. I believe that the decision of the Swiss federal government to bail out UBS was also eased by the fact that state interventions were simultaneously occurring in dozens of other nations at the same time.

In Europe alone, 23 countries opted to help their financial institutions starting in October 2008, a couple weeks after the announcement of Lehman Brothers’ bankruptcy. These simultaneous actions were certainly helpful to justify politically the reason why UBS was receiving a bailout. There were three choices of monetary policies undertaken by the central banks of Europe. The United Kingdom and Germany relied massively on capital injection for

95 Tille C., Wyplosz C., La Suisse face à la crise : une comparaison internationale, 2010, p.33
96 Commission de gestion des Chambres Fédérales, les autorités sous la pression de la crise financière et la transmission de données clients d’UBS aux États-Unis, 2010, p.2975
97 Tooze A. Crashed : comment une décennie de crise financière a changé le monde, Edition Les belles lettres, 2018, p.186
98 Auer R.A., Tille C., The banking sector and the Swiss financial account during the financial and European debt crises, 2016, p.79
their banks, while France and Ireland favored liability guarantees. On the other hand, Switzerland was one of the rare countries to choose the method of supporting the assets of its banks.\textsuperscript{99} This method was risky for both the SNB and UBS. Indeed, if the value of the assets acquired by the central bank was low, it would have meant that the bank would have had to register additional losses, which would have weakened the equity of the bank. On the other hand, if the value of the assets was higher at the moment of the acquisition than a couple years after, the central bank would have been the one who registered important losses.\textsuperscript{100}

One month after the bankruptcy of Lehman Brothers, UBS was in a very alarming situation, to the point where the bank had to publicly ask for state intervention on October 14\textsuperscript{th} 2008.\textsuperscript{101} The Swiss National Bank devised a plan and founded between October and November 2008 the SNB StabFund Limited Partnership for Collective Investment, a stabilization fund whose purpose was to alleviate UBS of its risk positions. While transferring UBS’s illiquid assets (mostly from their Fixed Income subdivision in the investment banking division) to the fund, the SNB also proceeded to recapitalize the bank with an additional CHF 6 billion.\textsuperscript{102} While the SNB StabFund was originally meant to acquire up to $60 billion in illiquid assets, the total transfer was valued at $38.7 billion, with $16.4 billion in 2008 and $22.3 billion in the first four months of 2009.\textsuperscript{103} The acquisition proved to be extremely useful for UBS, as it simultaneously “capped future potential losses from these assets, reduced its risk-weighted assets, materially de-risked its balance sheet and was no longer exposed to the funding risk of the assets to be transferred “.\textsuperscript{104} Surprisingly, it turns out that the strategy to take over the illiquid assets of SNB was devised long before it got implemented. As soon as 2007, the financial authorities of Switzerland were discussing ways to support its two big banks, and the SNB sketched the acquisition of UBS’s assets in the spring of 2008, after Bear Stearns bankrupted and was subsequently bailed out by the Federal Reserve. The Lehman Brothers bankruptcy only precipitated the process, as the situation of UBS now “posed a risk to financial stability in Switzerland and globally.”\textsuperscript{105}

\textsuperscript{99} Stolz S., Wedow M., Extraordinary measures in extraordinary Times : public measures in support of the financial sector in the EU and in the United States, Deutsche Bundesbank Series 1, 2010, p.20
\textsuperscript{100} Tille C., Wyplosz C., La Suisse face à la crise : une comparaison internationale, 2010, p.14
\textsuperscript{101} Confédération Suisse, Ordonnance relative à la recapitalisation de l’UBS SA, 2008, pp.1-2
\textsuperscript{102} Swiss National Bank, Financial Stability Report, 2008, p.26
\textsuperscript{103} Swiss National Bank, Informations financières sur SNB StabFund Société en commandite de placements collectifs, p.2+7
\textsuperscript{104} UBS, Annual Report 2008, p.16
\textsuperscript{105} Swiss National Bank, UBS purchases StabFund from the SNB, Press release, 2013, p.9
intervention. The bank managed to privately recapitalize itself alone to the tune of $10 billion, a feat that UBS could not reproduce themselves.\textsuperscript{106} This helped the swiss financial authorities to successfully concentrate their efforts to rescue UBS through the fund and the public recapitalization. However, the efforts of the Swiss National Bank and the SFBC to save UBS in the third quarter of 2008 were only the tip of the iceberg. The most important part of their work came after the peak of the financial crisis, when the authorities realized that numerous changes in the banking sector as well as in the monetary policy of Switzerland were needed.

5.2 The relaunch after the Great Financial Crisis

The summum of the financial crisis was without a doubt behind Switzerland during 2009. After a chaotic year of economic turbulences that pushed the governments of the world to intervene massively to save their banks, the biggest preoccupation was to relaunch the economy in order to limit the damages caused by the subprime mortgage madness. The United States citizens were by far the biggest victims of the crisis: the real estate market had been shattered, causing irreversible damages on industrial sectors linked to the real estate. The U.S. Bureau of Labor Statistics reported in its research that the unemployment rate skyrocketed from 4.5\% in early 2007 to 10\% in October 2009. In comparison with other nations such as Japan, Australia or numerous European countries, the surge in unemployment in the United States caused by the crisis was the highest. France was the only country who had a similar rate, although the increase caused by the financial crisis was more moderate, from 8\% in early 2007 to approximately 9.5\% in mid-2009.\textsuperscript{107}

Facing those challenges, those two countries launched recovery plans to stimulate the economy and relaunch the system. The United States enacted in February 2009 the American Recovery and Reinvestment Act, a stimulus package worth over $830 billion that followed Keynesian principles who state that increasing public spending helps countries to save jobs and decrease the severity of financial crises.\textsuperscript{108} \textsuperscript{109} France announced its economic recovery

\textsuperscript{106}https://www.reuters.com/article/us-financial-swiss-banks-idUSTRE49F1J320081016


\textsuperscript{108}Tooze A. \textit{Crashed : comment une décennie de crise financière a changé le monde}, Edition Les Belles Lettres, 2018, p.316-322

plan in December 2008 by unlocking €26 billion that were split between the treasury of several enterprises, public investments, the sectors that were gravely impacted by the crisis and financial support for low-income households.\textsuperscript{110} Obviously, there are many more countries whose governments implemented recovery plans: United Kingdom, Japan, Canada, etc.

The case of Switzerland is thus very interesting because the nation itself did not suffer greatly from the financial crisis, despite the fact that it houses two big banks that were respectively ranked fourth and sixteenth in bank losses for a total of $62.3 billion, more than 11\% of Switzerland’s GDP in 2008.\textsuperscript{111} \textsuperscript{112} While the unemployment rate skyrocketed in numerous countries when the crisis went global after Lehman Brothers’ collapse, Switzerland did not suffer the same fate; its rate went from 3.35\% in 2008 to a maximum of 4.81\% at the end of 2010.\textsuperscript{113} It turns out that the Helvetic economy was relatively unaffected by the Great Financial Crisis itself, despite Switzerland’s prominent position in banking and finance mostly through UBS and Credit Suisse. The pre-existing economic conjecture of each nation played a significant role to explain the differences in the deterioration of the countries’ economy. The United States, Spain and Ireland were all experiencing a housing market bubble when the crisis struck. The public debt of Greece consecutive to the public spending policies of the PASOK, the political party of the government, was already exceedingly high before the financial crisis even struck.\textsuperscript{114}

Switzerland was not facing those challenges when the Great Financial Crisis occurred. On the contrary, the economy was in a great position after a few years of low growth, as explained in the first chapter. The financial crisis did not reveal internal issues that exploded, unlike what happened in multiple European countries. The main preoccupation by the authorities during and right after the crisis was the banking sector; not only financial help but also changes in monetary policy in order to fight the crisis. The banking sector in Switzerland is extremely important, generating by itself up to CHF 60 billion, approximately 10\% of the GDP of the country. The banking institutions have provided each year hundreds of billions of francs in credits to the Swiss economy and employ over two hundred thousand people.\textsuperscript{115}

\textsuperscript{110} Gouvernement français: \textit{Conseil des ministres du 19 décembre – Plan de relance}, 2009, p.1
\textsuperscript{111} Tille C., Wyplosz C., \textit{La Suisse face à la crise : une comparaison internationale}, 2010, p.14
\textsuperscript{112} https://data.worldbank.org/indicator/NY.GDP.MKTP.CD?locations=CH
\textsuperscript{113} https://www.macrotrends.net/countries/CHE/switzerland/unemployment-rate
\textsuperscript{114} Lyrintzis C. \textit{Greek Politics in the Era of Economic Crisis : Reassessing Causes and Effects},\textit{2011}, p.4-9
\textsuperscript{115} BakBasel, \textit{L’impact économique du secteur financier suisse}, 2016, p.3
Thankfully, during the crisis, the banks whose activities were solely focused on the interior market such as cantonal and regional banks were relatively spared from the tremors of the subprime market. They did not expose themselves to these risky markets and, unlike Northern Rock in the United Kingdom, were also not extremely dependent on the daily interbank loan market. While providing specific help to its big banks, the Swiss National Bank also helped the domestic sector by lowering the Libor rate and the interest rate to ease the tensions around the credit market. However, this policy can only work up to a certain point. The interest rate and the Libor rate can be and were progressively lowered during the financial crisis, to the point where the Swiss National Bank had “exhausted” its conventional monetary policy at the very end of 2008 when the two aforementioned rates were down to 0.

Ever since early 2009 the SNB thus had to rely on unconventional monetary policies to maintain the stability of the economy. The main unconventional tool employed was a form of quantitative easing. As I have previously explained in my research paper, the Swiss franc has often been seen as a safe haven currency, particularly in the times of crises where uncertainty reigns, and the new policy of the late 90s was aiming to maintain the inflation rate between 0 and 2%. Assuming a surge in demand for Swiss francs in the future, the Swiss National Bank used quantitative easing to inject liquidities in the system. The central bank purchased great sums of euros with Swiss francs to try to prevent the latter to be overvalued and succeeded in doing so.116

The rescue of UBS by the central bank in late 2008 proved to be detrimental for the relaunch of the Swiss economy in 2009. Although that year saw a general decline in economic growth, this decrease was moderate: the GDP declined by 2.32% between 2008 and 2009 before growing again the next year.117 It is likely that this decrease would have been much greater if UBS or if Credit Suisse had bankrupted. The financial crisis itself and the exhaustion of conventional monetary policies of the Swiss National Bank provoked by the behavior of UBS in particular brought back to light the topic of the too big to fail, a term used to describe financial institutions “whose size, complexity, interconnectedness, and critical functions were such that their unexpected failure was likely to severely damage the financial

116 Jordan T. La politique monétaire en période mouvementée : l’exemple de la Banque nationale suisse, La Vie économique, 2009, pp.1-3
system and the economy”. While facing the upcoming challenges of the place of Switzerland in the middle of the Euro debt Crisis, the SNB and the FINMA (formerly the SFBC) began to initiate measures to prevent such a financial crisis from happening again.

6. The state of Switzerland after the storm

6.1 The lessons of the Great Financial Crisis on Switzerland

Every economic crisis provides copious amounts of lessons to learn, and instructions on what do to and what not to repeat for the future. The financial crisis of 2007/2008 is no exception, and brought to light a multitude of issues to be addressed for each nation. Switzerland, home country of two of the biggest banks in the entire world, worked hard early on during the crisis to put the pieces of the puzzle together and understand how did the situation degenerate without being noticed before by the monitoring authorities. The malpractice of the banks is the biggest explanatory factor for the financial crisis.

UBS, despite being a bank of colossal proportions, did not dispose of a plan in case of a financial crisis. The institution had a set of measures prepared in the case of an oil crisis, a pandemic or eventual wars, but did not work seriously on scenarios of economic crises and thus had a flawed risk analysis. Both Credit Suisse and UBS were also heavily in debt compared to their equity. Their leverage ratio way too high, being already much higher than the international average. In the case of UBS, as I have previously explained, the internal governance of the bank was chaotic during the crisis. Despite being a “one firm” type of bank, the different divisions were in competition with each other and did not look united at all. The Investment Bank division was opposed to UBS’s hedge fund, the other divisions disapproved that they had to subsidize the only division that registered losses, the desire to

119 Swiss Financial Market Supervisory Authority FINMA, Crise des marchés financiers et surveillance des marchés financiers, 2009, p.25
120 Swiss Financial Market Supervisory Authority FINMA, Crise des marchés financiers et surveillance des marchés financiers, 2009, p.27
121 Tille C., Wyplosz C., La Suisse face à la crise : une comparaison internationale, 2010, p.58
raise the Investment Bank division to the world’s leading position was mostly fueled by the CEO while the rest of the executives were more reserved, etc.\textsuperscript{122}

The two Swiss banks substantially increased their appetite for risk in 2007, way beyond reasonable levels. The Value at Risk, a notion used to measure the risk of losses in the case of a fluctuation in the prices of the financial instruments of the bank – in this case packaged mortgages – increased significantly in a record time for both banks: 68\% for UBS and 151\% for Credit Suisse, a rise never seen before by the SNB.\textsuperscript{123} However, these numbers did not disturb the banks. On the contrary, UBS heavily relied on internal stress tests and their 1996 model of VaR to determine if their situation was worrying or not. The problem was that the stress tests organized by the bank were too optimistic and light, and the VaR model was inadequate: it assured the bank that it could hold a much lower capital base than it actually needed.\textsuperscript{124} These flawed results were catastrophic for the bank when the subprime market collapsed in June of 2007.\textsuperscript{125} Credit Suisse and UBS, among other banks, also bypassed the rules of the Basel I agreements regarding the regulatory capital requirements by using juridical loopholes. The pre-crisis regulatory regime was also too lenient and its requirements were insufficient.\textsuperscript{126} Using the advantage of their sheer size compared to the means available to the monitoring authorities and claiming that the market self-discipline would be enough, the banks were able to “remove” the authorities in order to act with impunity.\textsuperscript{127}

Now, all these flaws and misconducts by the banks were revealed during or shortly after the financial crisis, but they largely went unnoticed before. There are several reasons why the central bank and the monitoring authorities of Switzerland were unable and/or unwilling to act against the reckless behavior of the banks. The biggest issue by far was the dependency of the monitoring authorities on the information provided by the big banks. The Swiss Federal Banking Commission was a relatively small authority and was in charge of monitoring two of the biggest banks in the world. The organization disposed of 25 regulators to control both the banks, which meant that each regulator was theoretically in charge of CHF 50+ billion of

\begin{thebibliography}{99}
\bibitem{122} Swiss Federal Banking Commission, \textit{Subprime Crisis : SFBC Investigation into the Causes of the Write-downs of UBS AG}, 2008, p.6
\bibitem{124} Commissions de gestion des Chambres fédérales, \textit{Les autorités sous la pression de la crise financière et de la transmission de données clients d’UBS aux États-Unis}, 2010, p.2958
\bibitem{127} Cecchetti S.G., \textit{Five years in the tower}, Bank for International Settlements, 2013, p.7
\end{thebibliography}
assets; they were both dependent on the VaR models of the banks and the financial information provided by them. Obviously, this generated a lot of controversies because the regulators were unable to proceed to an objective and thorough analysis of the health of the banks. This alarming state did not worry the authorities, who not only had total confidence in the behavior of UBS and Credit Suisse. They did not question the numbers provided or compared the information from the two banks but were also visibly slightly unaware of the dangerous ambitions of UBS’s former CEO, Marcel Ospel.

The difference between the numbers provided by the banks and the real numbers in terms of exposure and losses did not only reveal that the financial authorities were blinded by their idyllic perception of the behavior of UBS and Credit Suisse who in reality acted irresponsibly, but also that there was an urgent need of changes for more transparency. UBS created and managed their hedge fund Dillon Read in order to be able to increase their exposure without creating suspicion. Indeed, Special Investment Vehicles like hedge funds are not banks and are thus not subject to the same legal regulations; this allowed UBS to escape the constraints of the authorities. The crisis also revealed an important international issue that was particularly relevant for Switzerland. The monitoring of banking groups was always difficult to handle when the activities of those banks are disseminated over multiple nations.

The Swiss Federal Banking Commission had difficulties keeping an eye on the division of the big banks located in New York, lacking the physical means to properly monitor them. The regulators of the home-country of the banks counted on the regulators of the host-country to handle the banks, contrary to the pre-crisis rule that stipulated that the regulators of the country where the bank had its seat were responsible of its surveillance. This very issue was part of a broader topic that unfortunately became popular and worrying, the too big to fail. The excess of the losses registered by Switzerland’s two big banks – most notably UBS – and the weight of these institutions on the economy made the monitoring authorities realize that it was not possible to simply correct their internal problems and “move on”. The unique

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128 Tille C., Wyplosz C., La Suisse face à la crise : une comparaison internationale, 2010, p.12
129 Commissions de gestion des Chambres fédérales, Les autorités sous la pression de la crise financière et de la transmission de données clients d’UBS aux États-Unis, 2010, p.3033
130 Swiss Financial Market Supervisory Authority FINMA, Crise des marchés financiers et surveillance des marchés financiers, 2009, p.40
132 Tille C., Wyplosz C., La Suisse face à la crise : une comparaison internationale, 2010, p.56
133 Tarullo D., Regulating large foreign banking organization, 2014, p.9
status of systemic banks forced the FINMA and the SNB not only to solve the liquidity issues of the banks but also design specific measures for banks qualified as *too big to fail*.

All the causes mentioned above have each in their own way worsened the impact of the financial crisis. The Swiss financial authorities worked to resolve these issues. Evidently, none of these flaws were solely responsible for the economic crisis, but they worsened it. Hence, it remained very important to address all of the problems and provide a solution. The first action taken by the SFBC was to rush the new Basel II equity requirements for its banks, even before the new agreement had officially started. The Swiss monitoring authority was the first in the world to order UBS and Credit Suisse early in the crisis to raise their equity to a higher level than what was required by the Basel II agreement, and to diminish their leverage ratio in accordance to a new debt ceiling.\(^{134}\) As explained in the previous chapters, the SFBC also ordered the banks during the crisis to provide accurate and transparent reports on their activities, contrasting with the previous information given by UBS and Credit Suisse riddled with incorrect numbers and of poor quality.

The Great Financial Crisis reinforced the links and the collaboration between the Swiss National Bank and the SFBC / FINMA. Each one of these institutions has different tools and synchronized them for maximum efficiency, all while providing all necessary information to each other. According to the Federal Chambers Management Commission and the IMF, in comparison with the United Kingdom, the United States and the Eurozone, the coordination between the monitoring authorities and the central bank in Switzerland was clear and much more efficient.\(^{135}\)

There was particular praise for the rescue plan chosen by Switzerland for UBS: the authorities were preventive and devised plans to rescue the banks with the Federal Department of Finances in Spring of 2008, way before the Lehman Brothers collapse. Thus, when the announcement of the bankruptcy of the American bank worsened the crisis, the SNB presented its asset acquisition plan and was able to “activate” it rapidly and efficiently. In comparison, the first version of the Paulson plan in the United States presented right after

\(^{134}\) Swiss Financial Market Supervisory Authority FINMA, *Crise des marchés financiers et surveillance des marchés financiers*, 2009, pp.35+42

\(^{135}\) Tille C., Wyplosz C., *La Suisse face à la crise : une comparaison internationale*, 2010, pp.8+9
Lehman Brothers fell had a “[…] marked degree of improvisation. The plan in question only covered three pages and did not articulate a well-defined strategy”.  

The transfer of toxic assets from UBS to the SNB Stabfund had an immediate positive effect: the balance sheet of the bank was cleared and improved, while the illiquid assets were “safe” by being publicly detained by the central bank. UBS also started the process of quitting the “one firm” type of management, with the different divisions (i.e Investment Banking, Private Banking, Asset Management, Wealth Management) being now separated; the bank also committed on reducing their ambitions in Investment Banking and refocus on the divisions they are known for. Although UBS reported a negative net profit for the year 2009, the bank reduced its losses by $18.8 billion and managed to re-establish some of its credibility.

The financial crisis served as a catalyst to reinforce the international cooperation between the central banks and the monitoring authorities of the world. The extent of the damage caused worldwide by the crisis pushed for international reforms aiming to regulate the financial world and increase its stability. Multiple international organizations such as the IMF, the Financial Stability Board, the Basel Committee, etc. collaborated for that purpose, and were supported by the nations of the world. Switzerland participated through the SNB and the FINMA to those projects and contributed to the elaboration of the reforms. For example, the Basel Committee published in late 2010 the first version of the Basel III agreements. Similar to its predecessor, this “global regulatory framework” mainly aimed to strengthen the existing rules on the level of equity of banks, their transparency, a limit on the leverage ratio and whatnot.

The international agreements have shown the common goal shared by the different nations. Indeed, the organizations mentioned above do not possess the legal power to force the sovereign countries to follow these new rules. The nations agreed to enforce the new propositions on their own accord. For example, there was “[…] wide support for the principle that all systemically important financial institutions (SIFIs) should be subject to

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140 Commissions de gestion des Chambres fédérales, *Les autorités sous la pression de la crise financière et de la transmission de données clients d’UBS aux États-Unis*, 2010, pp.3016 + 3017
capital regulation, regardless of legal status.” In parallel with the ongoing international collaboration regarding the 2007-08 financial crisis, Switzerland and its neighbors had to face the European sovereign debt crisis. With the rapid strengthening of the Swiss franc against the euro, the Swiss National took a very uncommon monetary policy decision: the instauration of a floor rate against the euro.

6.2 The monetary policy of the floor rate

I have previously explained that Switzerland has been for decades a sort of “backup plan” for other countries during times of uncertainty, due to the fact that the Swiss franc has been and remains today a safe haven currency. The Swiss National Bank sort of specialized itself into handling this unique position. The Eurozone crisis of 2010 caused by the Great Financial Crisis a couple years earlier became a new test for the SNB which found quickly that the franc was appreciating sharply against the Euro. In early 2010, the new government of Greece announced that the country’s budget deficit was much higher than the numbers the previous government gave both to their citizen and to the world. The public debt of Greece was so high that the possibility of a complete default could no longer be excluded. At the same time, several other European countries known as the PIIGS (Portugal, Italy, Ireland, Greece, Spain) disclosed huge levels of public debt and thus the same likelihood that they could default. These simultaneous announcements triggered a loss of confidence in the euro; the investors shifted to safer currencies. The Swiss franc quickly imposed itself as the currency of choice during the Eurozone crisis mostly due to the neutrality of the country, its weak inflation (floating between 0 and 2%), and its financial stability.

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143 Janson N., Le cas du franc suisse: quels enseignements pour l’euro ?, Géoéconomie, 2015, p.81
The graph shown above presents how the value of the franc rose sharply against the euro. The time period shows as well that the Great Financial Crisis in itself did not cause the euro to drop. It is precisely in late 2009 and early 2010, at the dawn of the Euro Area debt crisis, that the currency’s value started to fall drastically. The collapse of the euro was troublesome for Switzerland for several reasons. First of all, the nation’s economy is mostly based on exportation of goods and services. It is thus in the interest of the Swiss exporting industries and businesses to maintain a low value of the franc, particularly against the euro. Indeed, in 2010, three of the top five countries that imported Swiss products were European and used the euro currency: Germany, Italy and France. The continuous appreciation of the franc against the euro in mid-2011 caused important losses for the Swiss industries. Second, the massive capital inflows to Switzerland during that same period threatened to cause another issue: the majority of the foreign investments in Switzerland were aimed at real estate, provoking the beginning of a bubble.

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As the Great Financial Crisis had been provoked by the burst of the American real estate bubble, and because Switzerland had experienced a real estate bubble itself in the early 2000s, there was logically an emphasis to prevent that from happening again. Finally, the Swiss franc has also been used historically by Eastern European countries for real estate loans. A near equalization of the value of the franc against the euro quickly became worrying for the borrowers, since the cost of the loans increased, leading to the possibility of bankruptcy.

Facing those challenges, the Swiss National Bank decided to implement an unconventional monetary policy on September 6, 2011, with the instauration of a fixed exchange rate of 1.20chf for one euro. Although rare, this policy had already been tried decades before by the central bank. In October 1978, the value of the Swiss franc rose in an undesirable way against the German mark. The SNB attached the franc to the mark at a fixed rate of 0.80chf for one mark. However, this policy did not last long; in order to maintain that rate, the bank had to print new bills “which led to a strong inflationary surge a few years later”.

The strategy of the SNB to maintain the fixed exchange rate was different in 2011. Instead of “simply” printing money, the bank opted for a form of quantitative easing, by purchasing billions of euros with Swiss francs. This monetary policy partially corrected the overvaluation of the franc but created a myriad of new issues. Although the announcement of the peg stabilized the Swiss currency, it did not stop the influx of foreign investments. According to Raphael Auer, foreign individuals and companies accumulated over CHF 170 billion between the second half of 2011 and 2013, either on banks’ balance sheets or by purchasing Swiss securities. The capital flows to Switzerland increased drastically after the implementation of the SNB’s floor rate since the monetary policy aimed at stabilizing the Swiss finance.

It is also relevant to notice that during that period, the banks in Switzerland who received steady capital inflows were either foreign banks or foreign-owned Swiss banks, while Swiss-owned banks experienced the contrary capital outflows. The instauration of the peg reinforced the position of the Swiss franc a safe haven currency, which in return increased the

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146 Tille C., Wyplosz C., *La Suisse face à la crise : une comparaison internationale*, 2010, p.38
148 Auer R.A., *A safe haven: international demand for Swiss francs during the euro area debt crisis*, SNB, 2015, pp.51+52
149 Auer R.A., Tille C., *The banking sector and the Swiss financial account during the financial and European debt crises*, 2016, pp.82+83
pressure on the Swiss National Bank to maintain it. The SNB was thus forced to purchase hundreds of billions in foreign currency every year, which considerably increased its equity, from CHF 200 billion in 2009 to over CHF 560 billion in 2014. This continuous increase is due to the fact that Switzerland adopted the floor rate monetary policy while simultaneously possessing a safe haven currency. The price of the Swiss currency against the euro imposed by the peg did not match the market price of the franc, forcing the central bank to continue these massive purchases of foreign currencies to artificially maintain it.\(^{150}\)

The massive increase of the equity of the Swiss National Bank was considered potentially very troublesome: the bank held hundreds of billions in euros during a time where that currency was extremely unstable. A quick deterioration of the value of the euro wasn’t unthinkable, and the risk increased each and every year with the additional acquisition of billions of euros to maintain the peg. The monetary policy of the floor rate undermined the credibility of the SNB as it increased the instability and the uncertainty around the health of the bank, particularly if it had to print bills to cover the losses caused by a depreciation of the euro.\(^{151}\) The instauration of the floor rate was overall beneficial for Switzerland, but it did not satisfy everyone. While it mostly helped the export industry, its effects were uneven among different businesses. It can be explained by the fact that “export-oriented companies that do not work in niche markets, do not have a high degree of specialization or do not purchase goods or services from “cheap” foreign countries are having difficulties, as is the case with the paper industry.”\(^{152}\) Switzerland’s biggest exporting industries are focused on chemical products, precious metals, instruments and machines. These four sectors represented 85% of the country’s exports in 2019.\(^{153}\) Considering those numbers, the benefits overcame the costs but it nevertheless increased political and social tensions.

The monetary policy of the floor rate held out for about three years before several events made it unsustainable. In 2014, the Greek crisis reached its peak and the European Central Bank announced that they were going to implement a quantitative easing monetary policy in order to counter the deflation that was occurring at the time. These events caused an even bigger appreciation of the franc which in turn put additional pressure on the SNB to maintain the fixed exchange rate.\(^{154}\) However, Switzerland had little to no choice but to follow closely

\(^{150}\) Janson N., *Le cas du franc suisse : quels enseignements pour l’euro ?*, Géoéconomie, 2015, p.81

\(^{151}\) Botteron M., Maurer C., *La politique monétaire suisse dans la tourmente de la crise financière*, La Vie Économique, 2013, p.3


\(^{153}\) https://oec.world/en/profile/country/che

\(^{154}\) Janson N., *Le cas du franc suisse : quels enseignements pour l’euro ?*, Géoéconomie, 2015, p.89
the decisions taken by the ECB. Unsurprisingly, Europe is their biggest trade partner: Over 44% of the total exports of Switzerland went to European nations in 2015. The monetary policy of the European Central Bank sort of dictated the monetary policy of the Swiss central bank in a discretionary manner, despite its claims of independence. The ECB did not have to order the SNB to change its policy; the economic ties between the European Union and Switzerland and all that results from them did.

In late 2014, despite the crisis remaining somewhat active in Europe, the situation had improved. The US dollar who had lost its credibility after the Great Financial Crisis years earlier had restored it. The European Central Bank launched its quantitative easing policy that same year, reducing the pressure on the Swiss franc, thus reducing the pressure on the Swiss National Bank. Since the policy of the minimum exchange rate was becoming more and more risky and unsustainable, the good economic conjecture for 2015 was ideal for the Swiss National Bank to announce the discontinuation of the floor rate on January 15 of that year and immediately announce the new monetary policy that the Swiss National Bank would rely on to prevent the overvaluation of the Swiss franc.

6.3 The current monetary policy and position of the SNB

The monetary policy of the minimum exchange rate was never meant to be on the long term. The Swiss National Bank, among others, firmly believed that the Eurozone crisis was not going to last as long as it did and that the situation would improve. However, the setbacks caused by the Greek crisis prolonged the instability and uncertainty surrounding the euro. The costs and the risks of the floor rate became a huge hurdle for the SNB, as it took years for the situation to improve and for the pressure on the franc to diminish.

155 Jordon T.J., The euro and Swiss monetary policy, Swiss National Bank, 2016, p.2
157 Swiss National Bank press release, La Banque nationale abolit le cours plancher et abaisse le taux d’intérêt à -0,75%, 2015
158 Janson N., Le cas du franc suisse : quels enseignements pour l’euro ?, Géoéconomie, 2015, p.86
When the European Central Bank decided to implement a particular monetary policy of negative interest rates in 2014, Switzerland did not follow the trend immediately and waited until January of 2015 and the abandonment of the minimum exchange rate before adopting negative interest rates.

![Central Banks' Policy Interest Rates](image)

**Fig 8.** Central Bank’s interest rates in percentage 2014-2017

Indeed, as I have previously explained, the Swiss National Bank remains heavily dependent on the decisions taken by the ECB due to the major economic relations that Switzerland maintains with Europe. A small, open economy like Switzerland cannot be entirely in charge of its monetary policy: international spillovers will influence either partially or nearly entirely the behavior and conduct of the SNB. Nevertheless, on January 15th 2015, the decision of the Swiss National Bank to abandon the peg came as a huge surprise for the rest of the world, in particular exchange markets. Indeed, just days prior to the announcement, the SNB had reaffirmed its will to maintain the minimum exchange rate. The decision was taken after a huge wave of domestic political pressure: the growth of the

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equity of the central bank worried Swiss conservative politicians, skeptical of the stability of the euro. Adding this factor to the ones I have previously mentioned (the quantitative easing policy of the ECB, the comeback of the U.S. dollar), it is easier to understand why the peg was abandoned, despite the strong critics who denounced the surprise announcement.\textsuperscript{161} While announcing the discontinuation of the exchange rate, the SNB presented their new monetary policy consisting of negative interest rates. This unconventional policy has been used by the Eurozone but also Denmark, Sweden and Japan.\textsuperscript{162} For the mentioned countries as well as for Switzerland, the main objective of such monetary policy is to fight the overvaluation of their respective currencies. As of 2021, all of these nations export more goods than they import.\textsuperscript{163} It is thus in the interest of their economies to stabilize their currency for the sake of their exports.

Indeed, the principle of the negative interest rate policy is to discourage banks to accumulate huge sums of currencies. When the interest rate is positive, there is a financial incentive for banks to deposit their money to the central bank. When the rate is negative, those commercial banks have to pay interest to the central bank, thus losing money when holding huge amounts of capital. In the case of Switzerland, the strategy of this monetary policy is to deter investors to acquire francs, causing an unwanted appreciation of the currency.\textsuperscript{164} This monetary policy was judged convenient for Switzerland. Not only does it follow the footsteps of the policy of the European Central Bank, but it also serves the interest of the Swiss National Bank by correcting the overvaluation of the Swiss franc and the inconveniences that come with it.

The countries that implemented a negative interest rate policy each applied a different percentage. Denmark was the first country to adopt this policy in 2012, with a -0.2\% rate that fluctuated over the years. The Euro area followed in 2014, progressively lowering its rate until it reached -0.50\% in 2019.\textsuperscript{165} In 2015, both Switzerland and Sweden adopted a negative interest rate, while Japan came last in early 2016. Switzerland stood out from its “neighbors” by applying the most severe negative rate out of all, at -0.75\%, while the Swiss National Bank

\textsuperscript{161} Brunnermeier M., James H., Making Sense of the Swiss Shock, Project Syndicate, 2015, p.2
\textsuperscript{162} https://worldpopulationreview.com/country-rankings/countries-with-negative-interest-rates
\textsuperscript{163} https://oec.world/en/profile/country/jpn (replace jpn with dk, swe, che for the other countries)
\textsuperscript{165} Schnabel I., Going negative : the ECB’s experience, European Central Bank, 2020, p.1
kept intervening on the exchange market.\textsuperscript{166} This severe policy is once again caused by the status of the Swiss franc as a safe haven currency, especially after the announcement of the quantitative easing program of the ECB which sharply depreciated the euro, and the discontinuation of the floor rate in early 2015.\textsuperscript{167}

Ever since 2015, this unconventional monetary policy has been applied in Switzerland. As of today, it seems unlikely that this policy will evolve or change. Despite the independence of the Swiss National Bank from the Swiss Government, the central bank remains “forced” to adapt to the policy of the European Central Bank for the reasons that I have previously mentioned. Indeed, both the ECB and the SNB share similar missions: stabilize the financial system, the currency, ensure economic growth, etc. Because of its sought-after currency, Switzerland has to align with the policy that the ECB applies to stabilize the euro, in order to stabilize the Swiss franc. But this new monetary policy also has its costs. Although the SNB only charged deposits that exceeded CHF 10’000’000, the policy has cost commercial banks over CHF 8.3 billion in negative interest between 2016 and 2020.\textsuperscript{168} In order to compensate for these losses, those banks started to charge some of their customers with a similar negative interest rate. In 2015, UBS and Credit Suisse had announced that they would only impose a negative interest rate for clients’ accounts holding over CHF 2 million. In January 2021, UBS lowered that amount to clients holding over CHF 250’000.\textsuperscript{169} Furthermore, a survey of the audit company Ernst & Young in January of 2021 showed that while 70% of the banks had no plans to charge their customers with negative interest rates in 2015, that number fell to 11% in 2021.\textsuperscript{170} The increase in the number of Swiss citizens who end up paying for the maintenance of the negative interest rate policy is likely to generate a political controversy that could affect the Swiss National Bank. However, the recent and current Covid-19 pandemic and the subsequent slowdown of the global economy made the possibility of an interest rate recovery unlikely, whether in Switzerland or elsewhere. As long as the European Central Bank does not take the improbable decision to reinstate positive interest rates, the Swiss National Bank will not either “alleviate” or change its monetary policy.\textsuperscript{171}

\textsuperscript{166} Ziegler-Hasiba E., Turnes E., \textit{Negative Interest Rate Policy in Switzerland}, Entrepreneurial Business and Economics Review, 2018, p.15
\textsuperscript{167} Jordan T.J., \textit{The Euro and Swiss monetary policy}, Swiss National Bank, 2016, p.6
\textsuperscript{168} Swiss National Bank press release, \textit{La Banque nationale introduit un taux d’intérêt négatif}, 2014, p.2
\textsuperscript{170} https://www.ey.com/de_ch/news/2021/01/bank-barometer-2021
7 Conclusion

7.1 The Swiss Miracle, a myth or an example?

The case of Switzerland has been presented as a success story in the face of the Great Financial Crisis of 2007 / 08 and the Euro area debt crisis of the 2010s. Praise was particularly attributed to Switzerland’s financial authorities, notably the Swiss National Bank and the Federal Banking Commission. This research paper aimed to determine to what extent “the Swiss miracle” can be attributed to the actions and monetary policy changes of the SNB and the CFB / FINMA. The arguments presented in the different chapters of the thesis tend to show that the success of Switzerland during the GFC can be split between favorable economic conditions prior to the crisis, a precise limitation of the losses between UBS and Credit Suisse, and an excellent coordination between the different financial authorities of the country.

One of the interesting discoveries of this research paper is the paradox of the independence of the Swiss National Bank. Throughout the Great Financial Crisis, the Swiss central bank, as an independent entity, performed its decisions and monetary policy changes on its own. Although the bank collaborated with the Federal Department of Finances, the Federal Council did not take any decisions themselves. Through the FDF, the SNB presented its plans that were quickly approved without much discussion. During and after the Great Financial Crisis, the Swiss National Bank published multiple papers assessing the importance of the independence of the central bank, arguing that the possibility of acting free from political constraints from the Swiss government was essential for the good functioning of the bank.\(^\text{172}\)\(^\text{173}\)

However, it turns out that the Swiss National Bank’s decisions, especially their monetary policies, depend heavily on the decisions taken by the European Central Bank. As a nation with a small open economy surrounded by countries belonging in the European Union, Switzerland is strongly bound to the policies of the “upper” central bank.

\(^\text{172}\) Roth J-P., *Crise des marchés financiers : Quel rôle pour les banques centrales ?*, Swiss National Bank, 2008, p.18

Nevertheless, credit can be attributed to the SNB and the CFB / FINMA for their work during the Great Financial Crisis. Switzerland handled well the enormous losses generated by UBS and Credit Suisse, particularly when the economic size of the bank is considered. The concentration of the powers between the central bank and the monitoring authority was detrimental for the quick response to the early troubles of the crisis, compared to countries where the bureaucracy was fragmented and less efficient. The GFC also provided copious amounts of information to learn from for the SNB, particularly regarding the problematic of the “too big to fail”. Therefore, I can affirm that the durable monetary policy changes in Switzerland over the past two decades are not only the results of financial crises but also due to the position of the Swiss franc as a safe haven currency and the monetary policy changes of the European Central Bank for the European Union. Although the influence of the ECB was due to the exceptional circumstances of the Euro Area Debt crisis, I believe that the extent of the crisis and its avoided impact on Switzerland served as a powerful warning for the country. It seems likely that this tendency will persevere in the future. Switzerland may be a non-member of the European Union with a highly sought after currency, but its monetary policies will likely follow the same pattern than the policies of the euro due to the lessons of the past.

7.2 What needs to be done when the next crisis strikes the world?

Overall, the Great Financial Crisis and the Euro area debt crisis have shown that one of the biggest issues was the lack of transparency of both the banks and the governments. The big banks in Switzerland exploited the lack of collaborators of the CFB to continue the dangerous game of playing on the derivatives market and used their status of “model student” to deceive the authorities. Despite the reforms and the implementation of the Basel III agreements, it is likely that the big banks have found legal loopholes or others ways to skirt the rules of those agreements.

The names of the derived products have discreetly changed, with the Collateral Debt Obligations becoming Bespoke Tranche Opportunities. Last April, two journalists of the Intercept, an investigative journal founded by Jeremy Scahill, Glenn Greenwald and Laura Poitras (who published the first articles of the whistleblower Edward Snowden), have published an article arguing that Wall Street was once again betting for and against loans that they provided to individuals. The difference this time is that the loans are commercial and
meant for businesses. The Covid pandemic that started in early 2020 fueled the new financial scheme of the big banks. The multiple phases of confinements in the United States posed significant issues for the small businesses, unable to make their payments due to the absence of revenue. The amount of defaults of these businesses skyrocketed. In June of 2020, 3% of the small businesses in the United States were in default, with the percentage varying between the states. One of the majors banks mentioned in the Intercept article on the Commercial Mortgage Backed Securities (CMBS) is none other than UBS. This (un)surprising announcement makes me only hope that the FINMA and the Swiss National Bank are aware of this “new” speculative frenzy and are currently monitoring UBS in order not to prevent a new worldwide economic crisis but to preserve Switzerland from its impact.

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