

Causes Of The Financial Crisis

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*A weak currency is the sign of a weak economy, which is
the sign of a weak government*

Gordon Brown – 1992



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INTRODUCTION

The current financial crisis is something impossible to dodge. Eventually everyone will be affected by this crisis and share the effects. Of course some will be disadvantaged more than others, as some people took more advantage of the preliminary boom than other people. But what exactly *caused* this catastrophe? It is this question that I want to answer in my bachelor thesis.

Lots of economists are arguing not only about the causes of this crisis, but also about its size and how to get out of this depression¹. In short, these economists can be subdivided into 2 camps: **a)** defenders of the free market and **b)** supporters of government intervention. It must be said that today the latter group is far bigger, but this hasn't been always so. The supporters of government intervention are inspired by Lord Keynes and his book *The General Theory of Employment, Interest and Money* (1936). They see an ample role for government in helping the economy recover and think the government should not hesitate to use every means possible.

On the contrary, the defenders of the free market argue that the government can only make things worse. They declare that the government is the main cause for this crisis and the government trying to 'save' the economy would be equal to let the burglar lead the investigation of the house-breaking².

This paper will observe the current financial crisis from the free market, or *laissez-faire*, perspective. More specifically, for a big part I will make use the business cycle theory of the so called *Austrian School of Economics* to explain how this crisis could happen. My interest goes to this small group of economists mainly because they predicted all the financial crises since their founding, including the Great Depression and the current crisis!

For most other economists this crisis came as a big surprise. Unemployment rates were the lowest in decades, GDP numbers were rising almost everywhere and inflation was, or at least seemed to be, under control. To them nothing appeared to be going wrong. But it surely was escalating. The problem with the above given aggregates is the fact that these do not correctly

¹ For the sake of simplicity I will make no difference between recessions and depressions.

² Analogy is mine.



present the state an economy is in. Declining unemployment rates could be the effect of an increasing (fundamental) demand for the products an economy produces, but it could also mean an overheating economy. GDP has never correctly presented the true state of a country's economy as it does not take account of wealth destruction, but only deals with production. Hurricane Katrina destroyed for millions of dollars and ruined the lives of thousands of people, but only the rebuilding was included in the GDP. It neither tells anything about the utility that the produced goods in an economy offer to the people living in it. We could let half of all the unemployed people in the world dig into the ground and let the other half fill it up again. No wealth will be created, but the GDP will increase enormously.

In other words, most economists did not see this crisis coming, not because they are such bad economists, but because they are looking at the wrong aggregates. Before moving on, one more thing needs to be made clear. When speaking of inflation, the *increase* of the money supply is meant. Deflation would then of course be the *decrease* of the money supply.

METHODOLOGY

To give a proper answer on the question why this crisis happened, it is first necessary to understand why economies move in cycles and every boom will be followed by a bust. The first part will be used to build a theoretical framework; the second part will use this framework to analyze the recent crisis. This paper will be based mainly on qualitative research and I will make use of a mix of existing literature and my own ideas based on observations. The main question I want to answer in this paper is:

*What are the causes of the financial
crisis of 2007 and on?*



PART A: THEORETICAL FRAMEWORK

1) THE BUSINESS CYCLE

When analyzing the business cycle, it is important to take a short look at history. Many different well known economists argued to have the explanation of business cycles. The 19th century economist Karl Marx pointed out that depressions started to occur after late 18th century and that they had to be inherent to capitalism. David Hume and David Ricardo, two influential *classical economists*, argued that another factor was to blame: the rise of professional banking. This is where the origins of the Austrian look on the business cycle lies. Important names that attributed to this theory are Knut Wicksell, Eugen von Böhm-Bawerk, Ludwig von Mises, Friedrich Hayek and Murray N. Rothbard.

Economies of course do fluctuate all the time. For example, when it is a very hot summer, more ice-cream will be sold and therefore produced. But this fluctuation is not seen as a ‘business cycle’ because it is a short term boom in only one industry. When people spend more money on ice-cream, they have less money to spend on for example umbrellas. There would be a boom going on in the ice-cram industry, but the umbrella industry would suffer. The price system would then balance things again. Hayek (2008, p. 51), the most prominent business cycle theorist of the Austrian School, concluded out of this that:

‘(...) the automatic adjustment of supply and demand can only be disturbed when money is introduced into the economic system’

It is therefore necessary to search for an explanation in the monetary field and thus all the non-monetary trade cycle theories cannot give a sufficient explanation. These days the money supply is increased by lowering the short term interest rates under the *natural* interest rate³ or by central banks buying bonds of governments. Later on Hayak concludes in the same essay (2008, p. 98):

³ The term natural interest rate was introduced by the Swedish economist Knut Wicksell. The natural interest rate or equilibrium interest rate would be the price for money based on supply and demand.



‘The determining cause of the cyclical fluctuation is, therefore, the fact that on account of the elasticity of the volume of currency media the rate of interest demanded by the banks is not necessarily always equal to the equilibrium rate⁴, but is, in the short run, determined by considerations of banking liquidity’

In other words, banks can in the short run stimulate an economy by asking a lower interest rate than the natural interest rate would allow. This ‘false’ signal will lead to more investments, more consumption and less saving. Of course banks cannot keep doing this and, when they become overleveraged, they will promptly lend out less or even go bankrupt and will so cause a contraction in the economic growth.

2) A SHORT AND SIMPLE EXAMPLE

So far it has not been shown exactly *how* changes in the money supply can lead to frictions in an economy. For this a short and small example is needed. Suppose a little economy consists of 5 fishermen, 5 horse keepers, 5 lumberjacks and 3 temporarily jobless people. The farmers and horse keepers need the lumberjacks’ wood to build their houses and for woodstoves to keep themselves warm. Of course the horse keepers and lumberjacks need the fishermen’s food to survive and the farmers and lumberjacks need the horse keepers’ horses to support their job. In this hypothetical economy, consumption equals the produced amount, so when one increases his production, he can choose to consume more (buy more food) or invest more (buy more horses or wood).

When we introduce a bank and paper money in this world, things become a bit more difficult. There will now be an option to save, and someone else can borrow from the bank to use it for investment or consumption. The bank, of course, is not restricted to keep all the money as a reserve and fluctuations in the business cycle make their entry. Let’s say the bank will lend out money at 3%, while the natural interest rate equals 5%. More money will be lent out by the bank and the 5 horse keepers, for instance, can now borrow money relatively

⁴ Equilibrium rate and natural rate are the same, for an explanation see footnote 3.



cheap to eat caviar for breakfast, lunch, and dinner. The horse keepers were having a good time, but the fisherman enjoyed the boom too. They were able to sell more fish, and at higher prices. In fact, business was going so well that the 2 of the temporarily jobless people could find a job as a fisherman. The other temporarily jobless person could find a job as lumberjack because the fishermen needed an extra hut, because of the increased demand for caviar. In total, we now have 7 fishermen, 6 lumberjacks, and 5 idle horse keepers.

This *madness* will stop when the bank recognizes the horse keepers are not producing anymore and are unable to ever pay of their debt. The bank would stop lending out any more money and the horse keepers will be forced to stop their current behavior, pay back as much as they can and start producing again. A dramatic fall in the demand for (and price of) caviar will occur and, for instance, half of the fishermen will become unemployed. The unemployment is needed to reallocate all the resources in the economy. The lumberjacks who turned themselves into fisherman need to become lumberjacks again. But it takes time for the economy to restore itself.

3) ANOTHER FACTOR TO DEAL WITH

In the real world also central banks play a big role. The American Central Bank, the FED or Federal Reserve, was founded in 1913. Its main purpose was to oppose bank runs during crises. Later on the FED was given some more responsibilities, viz. a healthy economy and a sound banking system.

To understand how the Federal Reserve can increase the fluctuations on the business cycle, it is important to see the interest rate as a price for money, like a wage is the price for labor. When you fix a price, problems are bound to arise⁵. Central banks do fix a price when they *set* the short term interest rates. In the small world given in the example a central bank would have made the problem even bigger. It could have set the interest rate at for example 1% to ‘stimulate’ the economy. Even more would be lent out by the bank, more caviar

⁵ Europe has seen this not that long ago when the EU subsidized milk, which has of course the same effect as setting a price higher than the market would allow. This encouraged farmers to produce more milk than needed, with supply overwhelming demand. This policy had two negative consequences. First, consumers were overpaying for a pack of milk, which means they had less money to spend on other products. Also more farmers had work than needed, which means all other industries had to do with less capital and labor available.



would be eaten by the horse keepers etc. etc.

Because the central bank also plays a role as *lender of last resort*, banks do not have to deal as much with liquidity as it would in a system with free banking. The only consequence of this policy can be banks taking more risk. Bankers include in their thinking that there is a higher party, the central bank, available to rescue them when needed and they will therefore be eager to take more risk.

4) FOLLOW THE MONEY

Of course endless variations could be made up for this short and simple example. The money could be floating to the lumberjacks instead of the horse keepers and they could decide to use their money to consume horses and therefore the boom would be in the horse business. Because so many variations are possible, it is impossible to predict beforehand what industry or industries will enjoy the boom. It is possible though to detect (the rise of) booms. It is not an easy task, because it is necessary to compare the interest rate set by the central bank with the natural interest rate. When these 2 differentiate, the money supply will shrink or grow. The problem with the natural interest rate is that it is impossible to measure. Therefore the key for detecting booms is to *follow the money*. In the short example a smart economist would have figured out that the interest rate of 1% was way below the natural interest and a boom was on its way. The only thing he had to do further was looking to whom all the money was being lent out. This key insight will be very important in the second part of the paper, when I will try to give a summary of what exactly went wrong.



PART B: THE FOUNDATIONS OF THE CURRENT CRISIS

1) WHY GREED IS NOT THE MAIN CAUSE

Today, the most heard 'cause' of this depression is *greed*. Bankers were too greedy, looked only at the short term and tried to sell as many mortgages to as many people as possible. The flaw in this argument is that greed is something of all times, not only of the past few years. Business cycles have been occurring for hundreds of years so this cannot be the real cause. In fact, *greed is good*. In the movie 'Wall Street' (1987), Gordon Gekko brought it up this way:

'Greed, in all of its forms, greed for life, for money, for love, knowledge, has marked the upward search of mankind, and greed, you mark my words, will not only save (..) but that other malfunctioning corporation called the USA'

In other words: greed leads to progress or development. 'Blaming greed for the recent crisis is like blaming airplane crashes on gravity' is a much-heard analogy that disproves the statement that greed is the main factor.

There is another factor to take into account. Finance theory tells us that, *under normal circumstances*, a trade-off exists between greed and the fear for (the risk of) losing money. People like to gain, but they are *risk-averse*. Most people will not oppose to earning a million dollar, but not by risking their lives playing Russian roulette. Later on it will be shown how the government allowed people to gain without taking risk and thus fuelled speculation.

2) THE REAL INITIATOR: THE FED

In part A it was made clear how business cycles occur. Now it is the task to analyze the current boom/bust cycle. Of course it is impossible to exactly pick a



date or consider all the factors that made this crisis possible. In the end, it is the goal of this paper to give a *general* view on the development of the recent bubble. This part will put most highlight to the United States of America. Nearly every economist sees the world's biggest economy as the place where all the trouble started. This is the reason why I will put most focus on the US.

At this moment we face the burst of a bubble fuelled by the loose monetary policy of the Federal Reserve. But the burst is not the problem. To demonstrate this I will 'borrow' an analogy from Peter Schiff⁶. In one of his speeches he compares the boom/bust cycle with a drug addict. The problem is of course the need for drugs, the solution is the rehab. The problem is the development of the boom. The solution is the bust. Capital and labor are misallocated during an artificial boom and wealth will be destroyed. During the bust the system will be cleaned out and capital and labor will be reallocated to places where they belong.

In the example of part A it was shown that during a boom capital and labor are misallocated. The money that is created goes to certain industries and those industries of course need employers to meet the increased demand. Graph 2 shows indeed a decreasing unemployment rate from 2003 until early 2007 and a sharp increase after 2007. A big part of those job losses are in the housing sector and financial sector. The example in part A also describes this phenomenon. The sectors that enjoyed the biggest boom, the housing and financial sector as I will explain in paragraph 4, first provided the most jobs and then accounted for the most job losses.

[Insert Graph 1]

The most important aggregate to see what is taking place with the money supply is of course the interest rate set by the central bank; in the US this is the Federal Funds rate, in Europe it's called the main refinancing rate. In general the FED will lower the interest rate during a period of depression (see graph 2) and raise it during good times.

[Insert Graph 2]

⁶ Peter Schiff is a American stock broker who has got a lot of attention, especially on YouTube, because he is one of the few people that forecasted this crisis.



This is known as *countercyclical policy*. The reasoning behind this policy is that lower interest rates strengthen the demand for goods and thus strengthen an economy. This of course is true, but the wealth created by this is artificial. The economy will be stronger only in the short term as interest rates will once reach the 0% platform. When the economy recovers all the money that flooded into the economy can be removed with ease, these countercyclical policy theorists argue. But inflation is addictive as politicians are focused on the short term only and of course embrace possibilities to increase wealth during their period of reigning. The problems that arise from this destructive policy are not theirs but their successor.

Graph 2 also shows 2 other interesting facts. First, it shows an at that point 45 year low rate of 1% in 2003⁷. Even more shocking is the fact that this interest rate percentage was not temporarily but that it was near the 1% rate for around 1 year, as shown in Table 1.

[Insert Table 1]

Never in the history of the Federal Reserve was the interest rate kept so low at such a long time. Therefore, there are good reasons to suspect a massive supply of newly created money. Of course this money has to flood into somewhere and those industries will enjoy a boom. To find out what industries enjoyed a boom, it is only needed to follow the money.

The second remarkable observation one can make is the trend of falling interest rates. This pattern started late 1984 and is emphasized by the two lines in graph 2. These days the end of this pattern seems to have arrived. It is not possible anymore to lower the Federal Funds Rate further and thus the Fed seems to be a predator without anymore bullets. Only one conclusion can be made and that is that the wealth generated the past 25 years was based, at least for a significant part, on credit expansion.

This is what this crisis makes different from other recent crises like the dotcom-crisis and Asian-currency-crisis. This is not just a 'normal' depression; it is the unsustainable outcome of a bubble created in the past 25 years. A bubble that wanted to burst several times but that was re-inflated every time with lower

⁷ At the time written the effective funds rate is at a new historic low of a bizarre 0,15%



interest rates. Now this is not possible anymore and an immense correction will be needed to reallocate resources and labor to reform the economy to become profitable again.

3) MORAL HAZARD AND LOOSE MONETARY POLICY

The main question that should be asked is: *how were banks and insurance companies able to take on so much risk?* The answer is a combination of moral hazard and loose monetary policy. Alan Greenspan, the FED's chairman from October 1987 until early 2006 and therefore primary responsible for the monetary policy of that period, was not only known for eagerly lowering of the funds rate, he was also famous as 'mister bailout'. Antony Mueller already wrote in 2004:

'Since Alan Greenspan took office, financial markets in the US have operated under a quasi official charter, which says that the central bank will protect its major actors from the risk of bankruptcy. Consequently, the reasoning emerged that when you succeed, you will earn high profits and market share, and if you should fail, the authorities will save you anyway. The chairman has lived up to that promise. Greenspan fulfilled his mission in the wake of the 1987 stock market debacle. He made sure that the government could easily finance two wars in the Middle East.

(...)

He did his bailout job by saving the creditors of the LTCM hedge fund; he did it in face of an expected Y2K liquidity squeeze, and he is doing it now by fabricating the housing bubble.'

Mueller showed to be a good prophet. Not only the housing bubble did occur, the FED now under the lead of Bernanke did also bailout the initiators of the crisis. With the free insurance of the FED in mind, all financial institutions could press the gas pedal without minding the break. This free insurance policy is also often referred to as 'the Greenspan put'. It is a common fact in finance theory that (put) options provide limited downside risk, but unlimited upside potential. Therefore



they will always lead to more risk taking and the past 6 years have shown that.

4) THE BIGGEST SECTOR AFFECTED: THE HOUSING MARKET

The extremely loose monetary policy of the FED could only lead to a bubble and unarguably the biggest sector involved was the housing market. I will restate that this money created by irresponsible monetary policy of the FED *had* to go somewhere. It was the housing market that enjoyed the biggest boom, only because it was very attractive for people to ‘invest’ in houses. Equity markets were down after the dotcom crash and therefore not an interesting investment and saving was discouraged because of the low interest rates on saving accounts.

Austrian economists Mayer (2003) and Thornton (2004) already warned in the early stage for a possible housing market boom, while Bernanke (see Henderson 2005) in testimony (!) stated that the rising housing prices ‘largely reflect strong economic fundamentals’. But he was not alone. Alan Greenspan, Bernanke’s predecessor and the man who *caused* this bubble, first said that a nationwide bubble would be quite unlikely (Bloomberg 6 June 2003) and after the burst tried to blame the housing market bubble on external factors (Greenspan 2009)

The truth is that by lowering and keeping the interest rate low in the aftermath of the dotcom bubble, the Federal Reserve created a new even bigger boom. For a good illustration of the bubble see Graph 3⁸.

[Insert Graph 3]

Graph 3 shows an enormous spike that started in 1998 but really took off from 2002-2003. While real building prices topped slightly over 200, real building costs remained relatively stable. Graph 3 also makes clear that the current housing crisis is the biggest the US have known for more than 100 years.

When the Federal Reserve started to raise its Funds rate again in 2004,

⁸ A possible problem with this graph is that is adjusted for price inflation, measured by the CPI. But the Consumer Price Index has some serious flaws that contribute to an underestimation of the real price inflation. More on this can be found in John Williams’ paper called ‘Government Economic Reports: Things You’ve Suspected But Were Afraid To Ask!’. An underestimated CPI because of the use of ‘hedonics’ would mean that the decline of real housing prices as shown in Graph 3 should even be bigger.



things turned around. The money supply started to grow less fast and it became more expensive to borrow, while saving was becoming more attractive (but still not really eye-catching). The bubble started to burst and graph 4 shows this effect in more detail.

[Insert Graph 4]

Although there is a small time-delay as it takes time for money to enter or leave a market, the real housing prices moved in line with the reversed Federal Funds Rate.

The housing sector in the US proved to be extremely suited for a boom. The Community Reinvestment Act, an in 1977 written federal law, contributed for a big part to this. Originally, this law had to fight down so called redlining, the discriminatory credit practices against neighborhoods with low-incomes. Under the Clinton administration this law was rewritten with the idea that also non-white people should be able to own a home. From a New York Times article (Holmes 1999):

‘Fannie Mae, the nation's biggest underwriter of home mortgages, has been under increasing pressure from the Clinton Administration to expand mortgage loans among low and moderate income people and felt pressure from stock holders to maintain its phenomenal growth in profits.’

It was indeed a changed law by the democrats that made the housing market bubble possible. Fannie Mae and also Freddie Mac were two government supported⁹ agencies that bought up mortgages in the secondary market. FM&FM were ordered to loosen their policy and make it possible for people with bad credit ratings to obtain a house. It can be stated that these 2 agencies did their work well, a little bit too well. Under President Bush the idea that everyone should own a home was still alive. A short passage from one of his speeches:

⁹ Fannie Mae's and Freddie Mac's actions were both implicitly guaranteed by the government. The government indeed bailed them out when people began to default on their mortgages and their reckless lending became unsustainable.



'I appreciate your attendance to this very important conference. You see, we want everybody in America to own their own home. That's what we want. This is — an ownership society is a compassionate society.'

More and more people own their homes in America today. Two-thirds of all Americans own their homes, yet we have a problem here in America because few than half of the Hispanics and half the African Americans own the home. That's a homeownership gap. It's a — it's a gap that we've got to work together to close for the good of our country, for the sake of a more hopeful future.'

Banks in accordance were willing to take the risks supporting lower income households with mortgages as the lawsuits made possible by the Community Reinvestment Act would probably cost even more money. The financial sector will be discussed more deeply in the next paragraph.

Another reason why the housing market was attractive for a boom was the fact that if people were not able to pay their interest or, in financial terms, to default on their mortgage, they could literally lose their problems by abandoning their home. People knew this and therefore borrowed irresponsibly. When Clinton also eliminated in 1997 the taxes on residential capital gains up to \$500,000 (Gjerstad S & Smith, V 2009), the foundation for a boom were laid. After several years of rising housing prices some people even started to believe that home prices would rise forever! You can say it was a *self fulfilling prophecy*. The higher the prices were rising, the more people believed this nonsense and prices would rise even higher.

5) THE FINANCIAL MARKET

The problems around the housing market and the financial market are for a big part related. Without the banks supplying as many mortgages as they did, a bubble was impossible to occur. For a short period it was a marriage in heaven. Banks were making huge amounts of money selling mortgages and the real estate sector saw their profits rising and rising. But at the end of 2006 some problems



came to the surface. For the first time in 15 years nominal housing prices started to decline and more people started to default on their mortgage.

The question this paper has to answer is how banks were able to supply all those bad mortgages. In the last paragraph I have already shown that the Community Reinvestment Act played a role. But it is impossible that a law written in 1977 contributed solely to this crisis. To illustrate why banks were able to supply all those mortgages it is important to divide the housing market into 2 parts: the prime market and the subprime market. The main difference is the risk banks face; subprime mortgages are more risky, because the people that borrow money have higher debt to income ratios, if they have any income at all. In 2006, just before the burst of the real estate bubble, subprime accounted for around 80% of the mortgage market, prime mortgages 15% and the other 5% consisted of so called Alt-a mortgages which I will not discuss any further because they are the least risky¹⁰.

The already discussed government agencies Fannie Mae and Freddie Mac (FM&FM) were active in the secondary prime mortgage market. Banks could sell their mortgages to 'Fannie and Freddie' and this way the banks were able to supply the market with even more mortgages. Because all their actions were guaranteed by the American government, moral hazard took control of them. They got free insurance and took willingly advantage of it. At the same moment firms that played under 'fair' rules would be punished with lower returns and probably be forced by their equity holders to take on more risk like their competitors¹¹.

The subprime mortgage market is a little bit more complicated. In this market FM&FM did not play a role. Although banks were forced by the Clinton and Bush administration to supply mortgages to every single person in the US, they of course knew what they were doing. To diversify their risks, the banks started to use *securitization* practices. They repacked the high risk mortgages and sold them to aggressive (hedge) funds and banks. A paper by Hänsel and Krahen (2007) found evidence that

¹⁰ These numbers were provided by the Mortgage Bankers Association

¹¹ A nice story covering this is an article written by Nathan Verdi called 'The Banker Who Said No' of the 3th of April 2009. Andy Beal, owner of Beal Bank, foresaw this crisis and decided not to take part in all the lending madness. Rating agencies started to threaten him with a possible credit downgrade, and the US government refused to support him with bailout money



‘(...) the securitization of debt provokes banks to change their (systematic) risk inversely proportional to their financial performance (...) In other words, financially weak firms increase their systematic risk by more than financially healthier firms, everything else equal.’

This is contrary to the view that securitization leads to less risk because highly leveraged firms would be able to sell credit risk to other less leveraged institutions. This view was among others held by Alan Greenspan and he turned out to be wrong again. This is a passage of his speech of January the 26th:

‘The new instruments of risk dispersal have enabled the largest and most sophisticated banks, in their credit-granting role, to divest themselves of much credit risk by passing it to institutions with far less leverage. Insurance companies, especially those in reinsurance, pension funds, and hedge funds continue to be willing, at a price, to supply credit protection.’

These investors were eager to take on more risk because of the low Federal Funds Rate of the moment, the second negative consequence of the loose monetary policy. A lot of European banks were among the investment companies that bought these so called *collateralized debt obligations* (CDOs).

Financial institutions also found another way to make money. In their search for higher yields investors were willing to speculate. *Credit default swaps* (CDSes) were the outcome. A CDS is a type of security where the buyer pays a certain amount at every period to the seller, the counterparty. When the underlying financial instrument goes into default, the seller needs to give a payoff to the buyer of the CDS. These types of derivatives can be used to hedge or insure one against losses, but it can also be used to speculate. The biggest problem with CDSes is the counterparty risk. When Bear Sterns was on the edge of bankruptcy, the financial institutions (for example AIG, but also banks like UBS) that gave out CDSes on the debt of Bear Sterns were facing enormous losses.



6) THE GENERAL US MARKET

The current crisis is different from other crises because the 0% interest rate plafond is reached. Graph 2 shows a 25 year pattern of lowering interest rates. In fact the wealth that the US market generated the past 25 years was for a significant part based on credit expansion. The combination central bank and the reserve currency status of the dollar played a big role in this. Money could be borrowed relatively cheap and consumption was stimulated while saving was seen as a sin. Graph 5 shows indeed a decreasing personal savings rate

[Insert Graph 5]

Because the dollar was at that moment and is still now the main reserve currency of the world, it did not depreciate significantly in value while the dollars were flooding the world. This stimulated the US to borrow money from the rest of the world with the strong dollar and consume it on foreign products. Graph 6 illustrates this. With the exception of a little trade surplus in the early 90's, the US have known a trade deficit for more than 25 years.

[Insert graph 6]

This 'consumption' bubble was a self-reinforcing one. With a relatively strong dollar¹² and therefore relatively weak foreign currencies, foreign countries could produce and export cheaply, while Americans could import cheaply. Best of both worlds it seems, until reality turns in. Americans can of course not keep borrowing from the rest of the world. It is impossible to call the point when foreigners stop lending money to the US, but with the current crisis showing the weak fundamentals the economy of the Unites States is based on it cannot be that long away. Warren Buffett, the well known investor, called the US trade deficit in 2003:

'a bigger threat to the domestic economy than either the federal

¹² The dollar remained (relatively) strong because of its reserve currency status. The combination of a central bank with the ability to print money and a reserve currency status is mortal as the US has shown.



budget deficit or consumer debt and could lead to political turmoil.'

Buffett not only delivered this warning, he also put his money where his mouth was and invested in foreign currencies, 'speculating' that the dollar would plunge.

But this consumption bubble did more than increasing the trade deficit of the United States and increasing the dollars foreign countries hold. It changed the whole structure of the economy. According to the CIA Factbook, 79.2% (2008 est.) of the US economy is based on services and only 19.6% based on industry. This, of course, means that the economy has turned from a manufacturing economy into an immense service based economy. The problem with this is that services are very hard to export, something the US really needs to start doing with such a big trade deficit. Changing this will lead to even more jobless people, with the unemployment rate already approaching 10%.

The trend of lowering interest rates for over more than 25 years has also lead to consumers taking on more debt, most notably credit card debt. Economists Silver-Greenberg (2008) and Dash (2008) stated that this is probably the next bubble to burst leading to even more turmoil in the financial sector. Like the housing bubble, this bubble bursting will have a huge impact on the US economy because most Americans will be affected as they own several credit cards.

7) OTHER SECTORS AND THE REST OF THE WORLD

It was already made clear in the theoretical part that boom/bust cycles differ from ordinary swings in the economy because of the total economy enjoying a boom and not just one industry. This was also the case in the recent boom/bust cycle. Next to the housing market, the automobile industry is a good example of one of the industries that now has to cope with enormous drops of revenues after years of rising turnover. But the commodities sector is affected too, same as the technological sector etc. Working out all these sectors is a time costing and unnecessary job and that is the reason why I only mention these industries.

The rest of the world is also affected by the current crisis. Several countries face a housing market bubble. Among them are the United Kingdom, Spain, the



Netherlands and Australia. Banks in Europe also made enormous losses because of speculating with CDSes. The United Kingdom, the Netherlands, Belgium, France and Switzerland and several more countries decided that it was needed to bail-out banks. The problems of the United Kingdom are even so big that there are rumors they will lose their AAA credit rating (Mnyanda 2009). The reasons these banks are in problems are similar to the causes of the crisis in the US. Governments and central banks *implicitly* guaranteed the actions of the banks and fuelled the crisis by supplying *easy money*¹³. Banks in Europe were also hunting for yields and found them in the CDOs and CDSes the Americans sold to them. Rumors of solvency problems then (could) lead to bank runs and problems would worsen even more.

Asian countries and for the biggest part China face another problem. Because most of them are exporting more goods than importing and the crisis has lead to a plunged demand for goods, they will have to ask lower prices for their goods and gain fewer profits or cut production costs. In my eyes this is more a luxury problem than a real one as this crisis will improve their competitive position. The Chinese know this as the Chinese word for crisis is made up of two characters, one meaning danger and the other meaning opportunity.

¹³ It must be noted that the ECB, the European Central Bank, was less rigorous than the FED



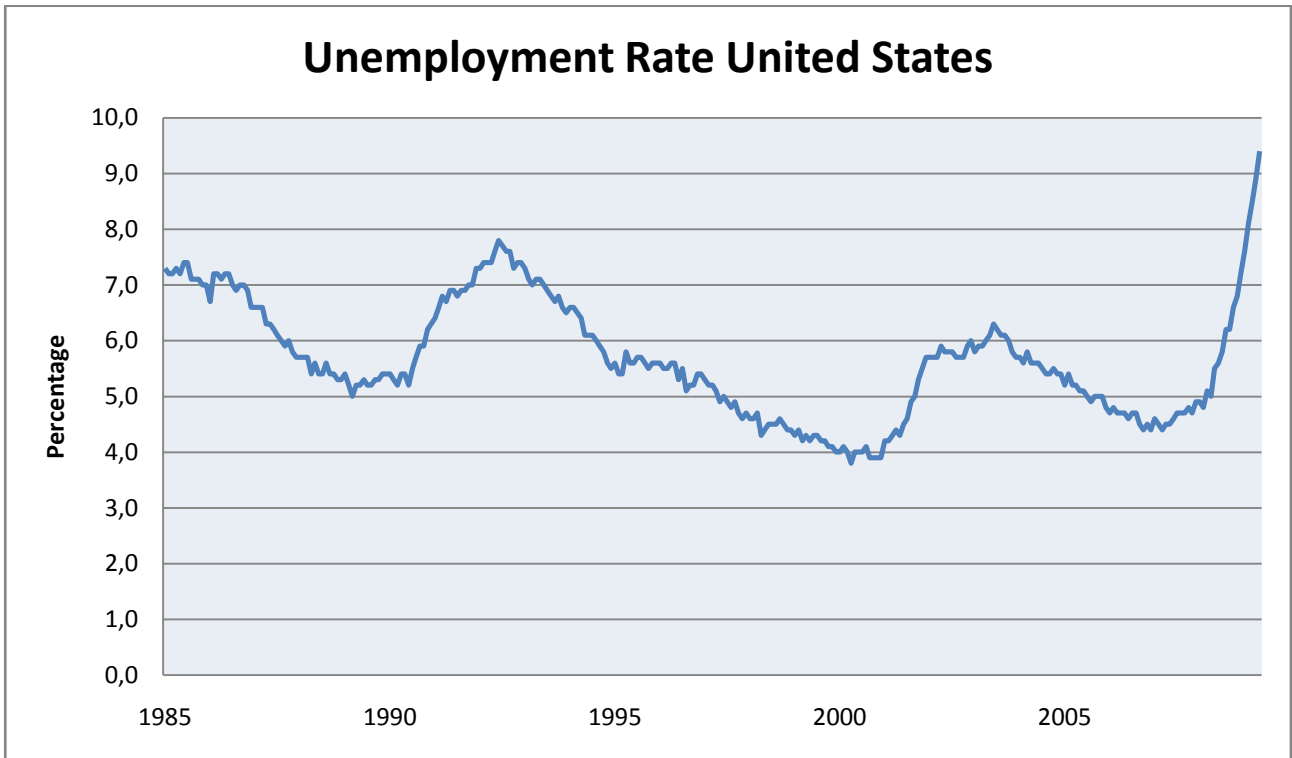
CONCLUSION AND TODAY'S CONDITIONS

Like every financial crisis, the current one can be linked to changes in the money supply. I have shown that the low interest rates from summer 2003 until summer 2004 lead to a massive flood of money and the question was not whether artificial booms would arise but in what industries they would take place. The housing market was the most affected because banks were willing to offer mortgages to every US citizen regardless of income or financial health. They were forced to do this because of the Community Reinvestment Act and motivated by the low interest rates set by the Federal Reserve. This was not the only negative role the FED played in this crisis. Several FED rescues of the past encouraged moral hazard under financial institutions as they profited from free insurance. Financial institutions that decided not to take part in the lending scandals would be punished with lower market share.

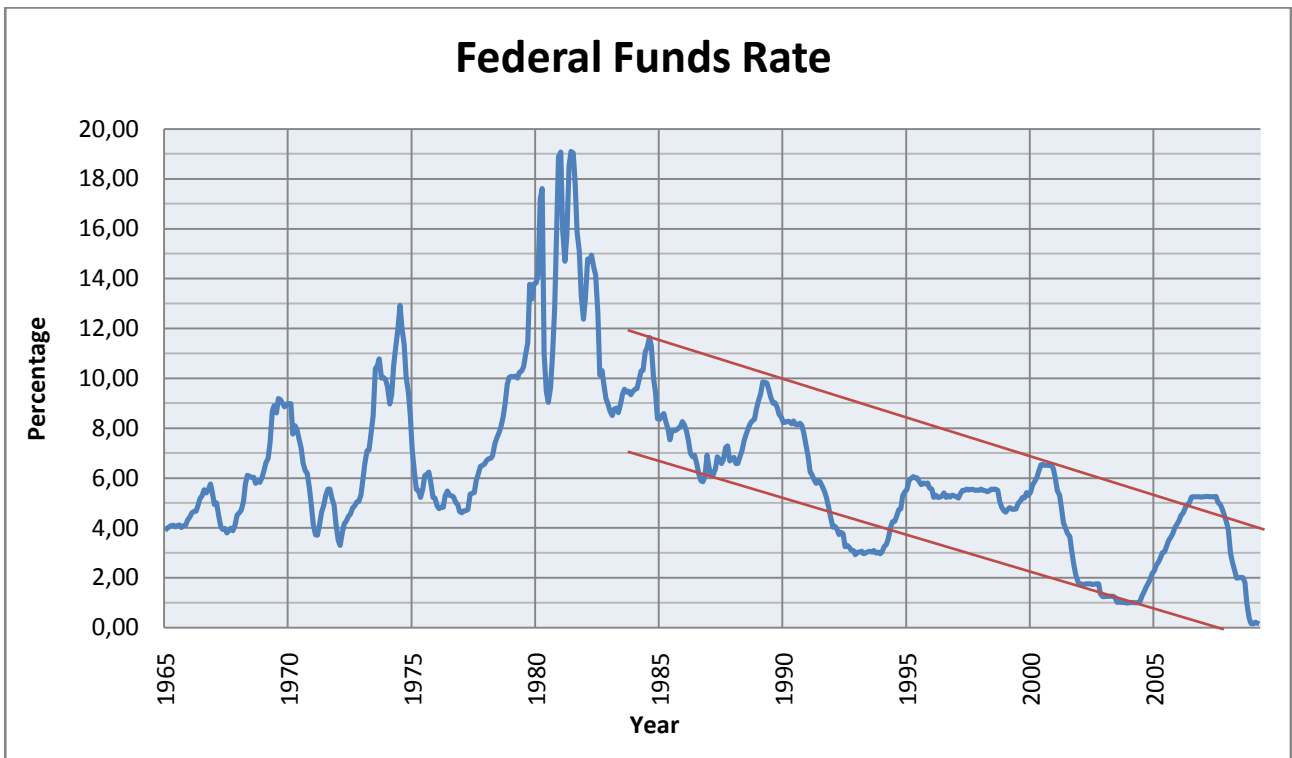
Under President Bush these bailouts really did take place and the institutions that anticipated them were proven right. Bad behavior was rewarded and firms that actually did not participate in the loaning scandals were punished. You can doubt this is a good policy. The next time money is created firms will again expect bailouts and the risks will be taking again. Without knowing it the government is sowing the seeds for the next crisis. The actions of the current FED chairman Bernanke are also highly controversial. In his eyes the current crisis is a crisis of illiquidity or, in other words, when the banks start lending to each other again everything will be fine again. Mister Bernanke's reaction is flooding the economy with money (once again). But the current crisis is not one of illiquidity; it is one of (over)leverage and too much risk taking. Banks do not trust each other anymore and for good reasons. Confidence in the banking sector will not return as long as not all the rotten apples are picked out of the bucket, that means, as long as not every overleveraged financial institution has failed.



Appendix



Graph 1: The unemployment rate of the US (US Department of Labor Monthly Data)

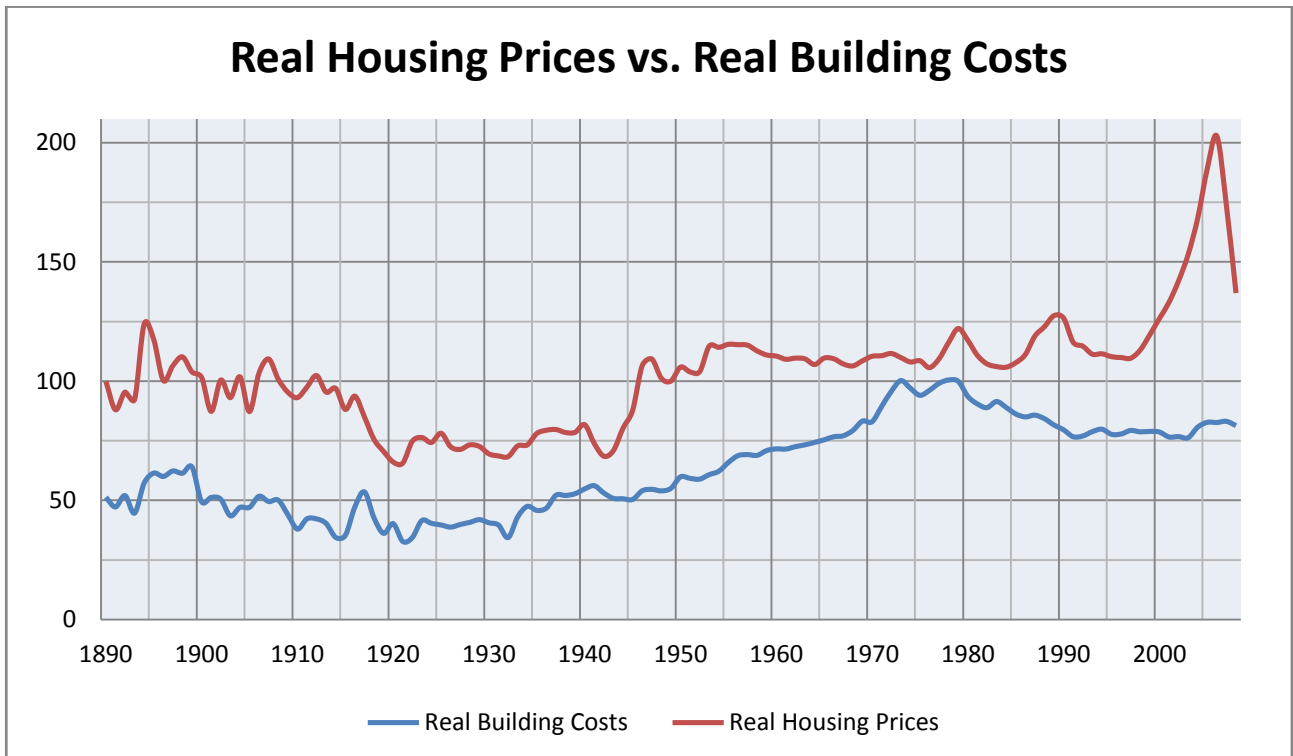


Graph 2: Effective Federal Funds rate history (Federal Reserve Monthly Data)

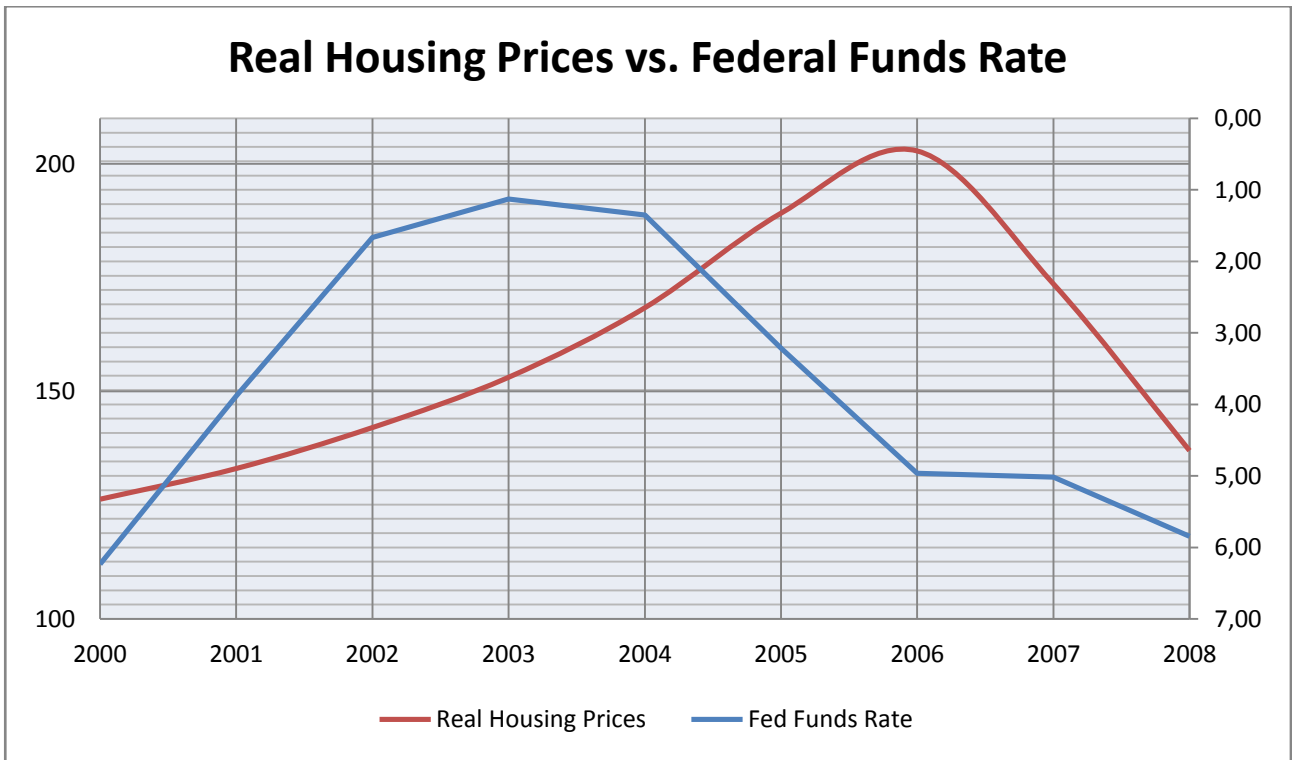


Period	Effective Federal Funds Rate
2003-07-01	1,01
2003-08-01	1,03
2003-09-01	1,01
2003-10-01	1,01
2003-11-01	1,00
2003-12-01	0,98
2004-01-01	1,00
2004-02-01	1,01
2004-03-01	1,00
2004-04-01	1,00
2004-05-01	1,00
2004-06-01	1,03

Table 1: The Federal Funds Rate 1% period



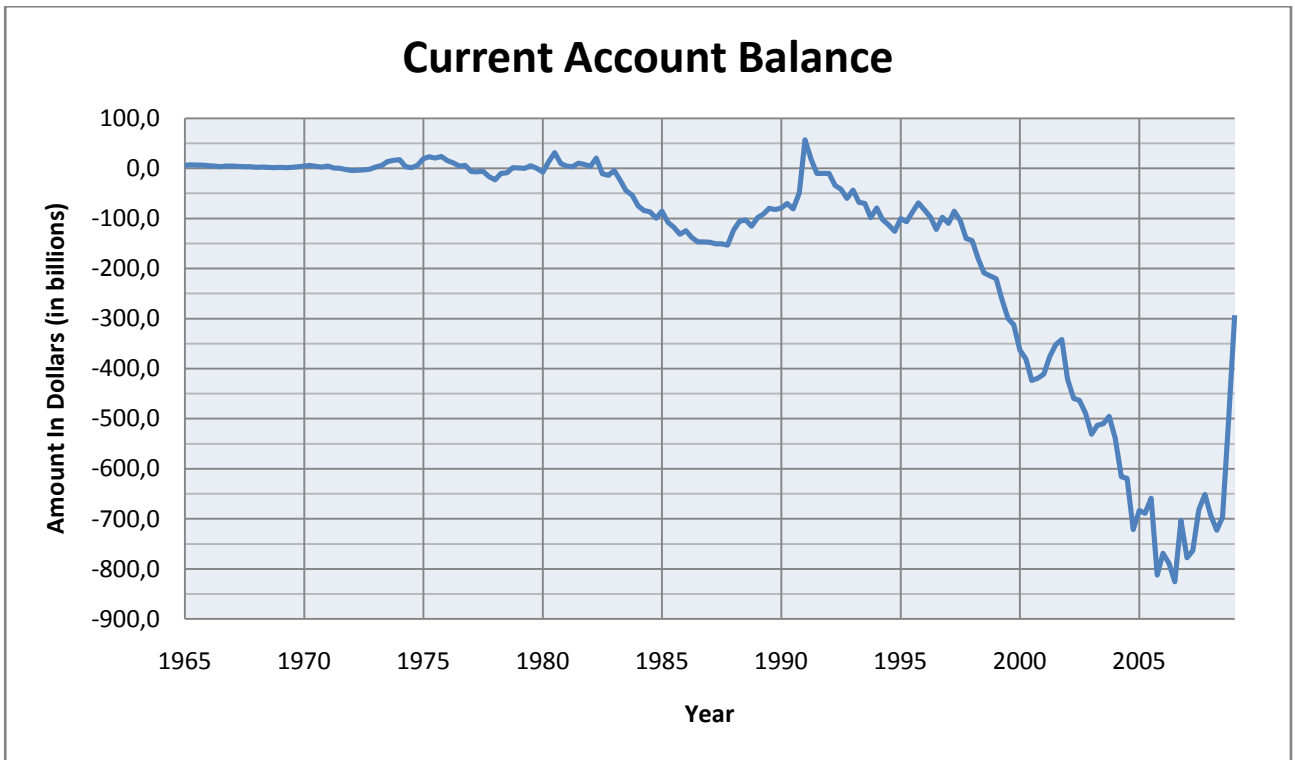
Graph 3: Real Housing Prices versus Real Building Costs (Case-Schiller index adjusted for inflation; Housing Prices 1890 = 100)



Graph 4: Real Housing Prices versus Inversed Average (Yearly) Federal Funds Rate (Case-Schiller index adjusted for inflation; Housing Prices 1890 = 100)



Graph 5: Personal Savings rate US (US Department of Commerce Monthly Data)



Graph 6: The US Trade deficit (Federal Reserve Quarterly Data)



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