Financial Crises and Sovereign Bankruptcies

Erich W. Streissler

I Forecasting – "built on mathematics and sand"

Here's to the New Economics, built on mathematics and sand / Where Solow speaks only to Arrow – and Arrow speaks only to RAND. In the time-honoured toast to Boston "the Cabots speak only to God" while in this economist's version God has been replaced by an American governmental think tank that has done a lot of forecasting, the RAND Corporation. The toast to the New Economics was proposed sixty years ago by an eminent foreign trade theorist, the "Austrian" professor at Harvard: Gottfried von Haberler[1]. And Kenneth Arrow, singled out in the rhyme, is a sort of honorary Austrian, as he received his first honorary doctorate from the University of Vienna (1971). This was in effect a laudable forecast, as he was soon to become President of the American Economic Association and then the youngest ever Nobel Memorial Prize winner in economics. Like no other, he stands for mathematics and sand: It was Arrow who introduced many different types of mathematics to economics, e.g. topological arguments with fixed point theorems as well as set theory; and he was the first theorist successfully to analyse sand, with another word: uncertainty, in economics.

The prescient toast to the New Economics turns out to have been a sort of forecast in itself. The New Economics has done quite well and has never been more appropriate than in the turmoils of the last decade. Long-term economic forecasting, which by necessity has to be forecasting under uncertainty, is my special field. But from long experience I have learned that mathematic modelling is not enough: Equally important is the identification and analysis of comparable historical situations, the study of historical forerunners so to speak. So tonight I shall let you have some history and a little forecasting, both to do with major bankruptcies or near- bankruptcies.

[1] Actually a citizen and baron of Liechtenstein.

In the 2011 Martin Feldstein Lecture[2], Kenneth S. Rogoff spoke about "Sovereign Debt in the Second Great Contraction: Is This Time Different?" (The First Great Contraction had been that of 1929–1933, also known as the Great Depression or Weltwirtschaftskrise.) In 2011 Rogoff also published a monumental article, together with Carmen Reinhart: "From Financial Crash to Debt Crisis"[3]. It shows that a banking crisis may ultimately lead to government default, although in the case of Greece we can now see the opposite happening: government bankruptcy leading to default of banks. Anyhow, Reinhart and Rogoff show that Greece is an extreme case, having gone into government bankruptcy no less than six times within the last 180 years and not paying its foreign debts in 48 per cent of all years. Had the members and advisers of the European Economic Commission not been devoid of all economic sense and historical knowledge, they might have remembered those facts and not have – foolhardily – admitted Greece into the Euro area in 2001.

The consequences of the New Economics, built on mathematics and sand, touch upon mathematics, law, biology, and history.

Unfortunately, in default situations the mathematics already must build on sand. For typically then the normal probability distribution of price variations of assets over time no longer holds true: In 2008, their variance jumped up to about 15 times the ordinary figure. Over the last hundred years, this happened only twice before, in the "First Great Contraction" 1931–1933, and very briefly once more in 1987. Alas, such variances, so-called fat tails, are outside of simple mathematical probability distributions.

As to law: In defaults existing legal contracts no longer hold; but in major cases it may become an important legal question which among different legal obligations will prove to be strongest and will therefore be honoured. Possibly it is biology that teaches us most about great defaults, which are similar to the extinction of species. Does not the bankruptcy of one half of all US-American banks in 1931 to 1933 remind us of the extinction of the dinosaurs?

[2] This Lecture at the US National Bureau of Economic Research is named for the Harvard economist and long-serving director of NBER, Martin Feldstein, the only foreign honorary member of the Austrian Academy of Sciences in the field of economics.
The Cabots speak only to God perhaps, but occasionally also to science: Kenneth S. Rogoff is Thomas D. Cabot Professor of Public Policy at Harvard.

[3] C. M. Reinhart and K. S. Rogoff, "From Financial Crash to Debt Crisis", Am. Ec. Rev. 101 (Aug. 2001), 1676-1706.

And the fact that nearly all big US banks survived 2008–2009 only with government help or even government take-overs may remind us of certain species surviving only in protected areas: zoos or nature reserves.

What has history to do with forecasting? In a way, history is but forecasting of the past. In every major default crisis the historian comes into his own, pointing out (1) parallels with earlier such events and (2) unique features, the fact that “this time is different”. Nonetheless, the economist will argue that in spite of these differences there are similarities that allow us to analyse bankruptcies as rare events, but even rare events can be mass phenomena, as Reinhart and Rogoff have shown.

There is one feature of economic life in which human beings differ from other species: In contrast to the hairy apes the naked apes form expectations over the longer run, expectations for the highly uncertain future – and especially so on financial markets. The ability of humans to form long-term expectations is unique to this species, but its results are often quite deplorable. Would a group of hairy apes have but physically survived, when according to the central banker Alan Greenspan the world had lost about sixty percent of the global economic product in 2008 to 2010
(60 percent amounting to 40 trillion dollars)? Would US-American apes have survived when their economy lost 17 trillion dollars or about 120 percent of an annual product?

Economic forecasting is but analysing expected future prices. Speculation is acting on expected future prices. Both forecasts and speculation are nowhere as important as on financial markets. Bankruptcies – big and small, both private and sovereign defaults – are in most cases[4] the result of having acted on incorrect or mistaken forecasts.

II First attempts at learning about bankruptcy

After these general remarks let me give you historical examples of sovereign defaults. The fascinating point is that every major bankruptcy had quite different results and quite different payers. The first government bankruptcy of the past millennium was that of a powerful King of England, Edward III, around 1350. “In the years of hectic war finance between 1337 and 1340 the Florentine house of Bardi and from 1336 onwards also the great Florentine house of

[4] The rest are cases of gross to criminal negligence, which does not concern us here.

Peruzzi lent the king vast sums. … As soon as their liquid resources began to give out, as they did in 1343, the king inevitably defaulted.” Edward III managed to replace foreign finance by local English finance, but “[b]y 1349 the [local] syndicate suffered the same fate as the Bardi and Peruzzi … [a] royal default”[5].

There are two things to be learned from such English sovereign default. Firstly, the Bardi and Peruzzi loaned out their entire fortune or even more than that to one single debtor, the English king. One should never do that: putting all one’s eggs in one basket maximises the risk. Secondly, and even worse: They had lent to one government no less than nearly seven times its normal revenue, which certainly maximised the risk of non-repayment. Let me point out that recently the creditors of Greece but repeated this very mistake: They have lent Greece seven times or even more of the annual public revenue of that country.

Seven years after his huge foreign default and one year after his domestic default Edward III established the Most Honourable Order of the Garter, the oldest still existing knightly order. Evidently, not paying back one’s creditors, be they foreign or domestic, did not in the least infringe knightly honour: *Honi soit qui mal y pense* is the motto of the order: *Shamed be he who thinks evil of it*.

Thus, bankruptcy was thought irrelevant to knightly honours; and in the most strongly religious period of modern times, the 150 years from 1550 to 1700 ruled by religious “necessity”, mere government bankruptcy counted for nothing. In 1588 King Philip II of Spain (who, by the way, could also consider himself legitimate king of England) tried to invade England with his great fleet, the Armada. England was to be brought back into the fold of the Roman Church in a sort of naval crusade! Religious fervour swept aside rational calculation. Against the express advice of its two commanders, the immensely rich Duke of Medina Sidonia and a descendant of a pope, the Duke of Parma, “the Armada was launched … ‘in the confident hope of a miracle’”[6]. No miracle occurred, quite the contrary: Unusually for July and August, strong gales blew, and only a handful of Philip’s ships would manage to

5 *The Cambridge Economic History of Europe*, vol. II, *Trade and Industry in the Middle Ages*, Cambridge 1952, Ch. IV, The trade in Medieval Europe: The North, M. Postan, 242. (Note the “inevitably” defaulted, written in a period of extreme financial difficulties).

6 F. Fernandez-Arnesto, *The Spanisch Armada* – The Experience of War in 1588, Oxford 1988, p. 42.

reach home again at all. Evidently, as English propaganda said, it was a Protestant Wind that destroyed the famed fleet! Philip went bankrupt, in fact several times; and he ruined his financiers, the house of Fugger[7] [8].

III How to get rid of government debt

As far as finance is concerned, for Britain and the Netherlands modern times already began 300 years ago with free international capital movements and more or less democratic governments. Under such changed conditions, government bankruptcy took on new forms and would mainly be brought about by government policies and ineptitude.

As an example I should like to present to you that of Britain in 1720–21, one of only two cases in which a government avoided bankruptcy by shifting its huge debt unto others, here a private law firm, which firm would duly go bankrupt. The second such case is that of the USA in 1945–55, when the government halved the normally fatal debt level of 120 percent of GDP by means of inflation to a manageable level. Inflation was no option, however, to countries on a solid silver or gold standard, as the leading nations had been in the 18th and most of the 19th centuries. Britain had just such a huge national debt of some 120 per cent of GDP in 1715 or 1719, due to the costly wars of 1689–1697 and of the Spanish Succession in 1702 to 1714; and the question was how government could relinquish that debt load without defaulting on its legal obligations.

Now you can convert financial assets into real assets with a profit by, e.g., buying rapidly appreciating houses or natural resources like gold – though such conversion can easily be overdone. You can find a possibly better use for financial means by investing in common

[7] The Fuggers had a much longer financial career than the Bardi or the Peruzzi. Consequently they were ruined only as financiers, but retained their high social rank – imperial counts since 1530, with their independent territory – and eventually imperial princes in one of their lines.

[8] Now and then historical chances can be so favourable, that the nearly impossible actually happens. In 1688, exactly a century after the "armada", Prince William III., Captain General and Admiral General of the Dutch Republic invaded Britain and became King William III. of England; and that against all probability with a wind favourable for him – once more proclaimed as a Protestand Wind – but also blowing against the defending fleet. "As a good Calvinist, (William) for one had no doubt that he had been predestined to succeed, and as a master of public relations he took care to spread the image of the Protestant saviour (against the catholic king James II.) favoured by the Protestant wind": N. A. M. Rodger, *The Command of the Ocean – A Naval History of Britain, 1649-1815, London 2004, 139.*

stock of innovatory firms, although this conversion, too, may be and has been overdone, particularly in the last decade. Around 1720 John Law, the head of French government finance, had the idea of converting French government loans into shares for the development of a new colony, although in practice once more a huge loss resulted. It is possible profitably to convert the term structure of debt instruments, e.g. from short-term to long-term debt, as the European Central Bank is now trying to do with Greek debt, and as the next but one British Prime Minister after 1720–21, Henry Pelham, did around 1750, when he converted repayable debt instruments into non-repayable ones at a permanently fixed, but lower interest rate of only 3 per cent.

But in 1720 Britain changed nothing at all in the economic conditions of the government debt instruments, apart from the fact that they were no longer the debt of the then most reliable and regularly paying government in existence but were turned into the debt of an untried private firm, the South Sea Company – a firm that could not enjoy the advantages of monopoly power, as there were two other successful financial firms of about equal size, the Bank of England and the East India Company. Thus an unthinkable improvement was actually realized and put to the test. The entire scheme was a complete folly; but that only becomes clear by *ex post* analyses; contemporaries would not see it as that. Remember, even today the general public is inclined to fall for hysterical messages from financial markets.

In 1719 and 1720 peace time normalcy had returned to Britain, the ruling interest rates were starting to fall, savings were ample, but no important new investment opportunities arose. It was like the present, when China has a considerable excess of savings that it desperately tries to invest at all profitably, but can only make mere consumption loans to the USA, loans that generate no base for real returns. In 1720 in Britain the South Sea Company was similarly desperate to find an opportunity for financial investment.

South Sea Company – the name already says that it had been formed with the intent to trade with Spanish Middle and South America, a possibly profitable opportunity. But at the peace in 1714 Spain had been able to frustrate all those hopes, apart from the wee right to send one ship now and then to so-called New Spain. So the South Sea Company was desperate to find some profitable business in which to sink its large funds. It hit on the idea of suggesting to the government its willingness to take over a large part of the administration of government finance, basically imitating what was then happening in France. But in contrast to France national debt in Britain had already been successfully consolidated, was most efficiently administrated – without corruption – by the government, and was no longer rising with profitable investment opportunities as had been the case when the South Sea Company was founded at the end of the war. As there was an efficient market, basically an auction market, in government debt instruments it was actually the private holders of longer-term debt who were already making capital gains on the value of their debt instruments. So the South Sea Company simply did not have a chance to make any profit in taking over government debt. To put it in theoretical terms: The most basic economic theory of demand and supply was against the South Sea Company's endeavours. One cannot improve on an equilibrium price.

Unfortunately, neither the general public nor the British parliament realised that. In fact, Parliament felt that it could make a huge profit for the public purse by – swindling both the South Sea Company and most of the public. And with that we come to my central conclusion: In major bankruptcies it is nearly always the <u>government</u> that is at fault – and often it is simply <u>swindling the general public</u> or large parts of it.

British national debt then stood at some £ 40 million and "in addition debts of uncertain amount were [originally] due for arrears of army pay and foreign subsidies".[9] Interest payments on those gobbled up a good third of ordinary government revenue. The South Sea Company offered a little more than £3 million to Parliament to be allowed to acquire the right to fund £31.5 million of government debt, in other words: a nearly worthless company offered a large sum to Parliament in order to be allowed to do something for which Parliament should much rather have paid the South Sea Company. And what did the British parliament do? It grasped the opportunity and extorted even more from the South Sea Company: It got the Bank of England to bid against the Company and thus cleverly pushed up to more than £7.5 million the price the Company was to pay in order to become a party to swindling the public.

7.5 million pounds sterling is nearly one quarter of the 31.5 million of the public debt for which the South Sea Company had bought the right to fund, so it could pay the public at most some three quarters of the nominal debt to be bought up! How could the government creditors be made to agree to such a bad deal and turn over their government debt instruments to the

[9] P. G. M. Dickson, *Financial Revolution in England – A Study in the Development of Public Credit 1688- 1756*, London 1967, p. 79f.

South Sea Company?[10] Easy: They would mainly be paid in South Sea Company stock, which was to be bid up to quite absurd levels in a speculative *hausse* fully aided and abetted by Parliament!

"On 23rd [March 1720] there was a warm debate [in Parliament] on a motion that the company should define in advance the amount of new stock it would give the government creditors … The company's supporters preferred the view that it would make the whole scheme impracticable [!!] … It was finally defeated by 244 votes to 140."[11] Thus, the company that had in effect previously been swindled by Parliament, was allowed to determine by how much it would itself swindle the public creditors. Company stock, which had stood at 128 on January 2nd, had its price pushed up vigorously by speculations, and thus the Company was able to offer its creditors stock at 375 [!!], which was gladly accepted – as the price of stock would eventually reach 950 on July 1st.[12] Stock was also offered for cash and further credit tranches were issued at rising prices up to 800.

In order to limit the amount of stock on the market the bought-out public creditors received only stock credited to their account, but no stock physically, so as to avoid their flooding the market with stock. A big dividend of 10 per cent was offered, but once more in stock, not in cash. All this proved disappointing, however, and in August 1720 the price increase stopped. The price rise was seven and a half times in only seven months, the biggest price increase ever on an organized stock market: In 1929–1933 the price increase on Wall Street was only about four times, but within three and a half years; and from 1995–2000 on the US stock market it was only three times within nearly five years.

Once stock prices fell, they plummeted. By the end of December 1720 stock had fallen to 155, and in the summer of 1722 new stock was issued in a financial consolidation of the bankrupt South Sea Company at 118. In the complicated financial resolution the public creditors, who had willingly exchanged their claims against the government for South Sea stock, lost nearly

[10] DICKSON 1967, loc. cit., pp. 97-105.

[11] DICKSON 1967, 102f.

[12] See especially DICKSON 1967, table on 139.

50 percent. On the other hand, the original holders of South Sea stock had actually gained from the various debt conversions by more than half, to over £155.[13]

The losses made by so many people enraged the public, which turned against the government. Its head, the Earl of Sunderland was replaced by Robert Walpole who became the first so-called Prime Minister, acting as such for the very long period of 1721–1742. Walpole managed to spare Sunderland a painful punishment, by a vote in Parliament of 233 against 172. But lesser ministers suffered: some died, some fell seriously ill, and the Chancellor of the Exchequer, i.e. the minister of finance, was expelled from Parliament and most of his estate expropriated.[14]

The full fury of Parliament turned, however, on the South Sea Company's directors. But note the inconsistency of Parliament: Originally the deal had been made with its full agreement and to the great advantage of the public, because a good deal of the public debt was relinquished. Furthermore, it was conveniently forgotten that the king, the crown prince, the king's sister and his mistress had received substantial cuts of the price that the Company had paid and that the king himself was actually the Company's CEO, its Governor since 1718. But the Subgovernor, the Deputy Governor and the remaining 29 directors were heavily punished. "On 14 January [1721] six directors who held crown offices were summarily removed from them. On 23 and 28 January the four directors who were MPs were expelled from the House … On 21 February 1721 [Parliament ordered] a Bill to <u>confiscate their estates</u>"[15] – note: confiscation at the very height of the "inviolability" of property! They were expropriated together with the cashiers and the accountant. Wisely, the chief cashier had already fled the country, taking huge sums of money with him, and had bribed the head official of the Austrian Netherlands not to extradite him. Nicely attuned to their respective degrees of guilt only small sums (in the worst cases none) were left to the former directors. In this way, altogether £ 2 million were collected and put into the Treasury. The South Sea Company itself owed "a total of over £14 million". Of that it was only "excused payment of £4.1 million".[16]

[13] DICKSON 1967, 185f.

[14] DICKSON 1967, 172f.

[15] DICKSON 1967, 172, 174.

[16] DICKSON 1967, 175 f.

"There can be little doubt that Walpole was the main architect of these proposals, [applying] harsh common sense to … soaring dreams".[17] I would also say he supplied a prime example how and how much money you can extract for the public coffers without actually ever violating the "sacred" law of contract. You just get a private company to act unwisely and then punish it severely for doing so.

IV Building up to US bankruptcies

High time to jump to the present: Let us compare the financial crash of 2008, or rather of 2007–2009, with previous financial crashes. According to the present Federal Reserve Governor, Ben Bernanke, it was the greatest financial crash ever. He should know, as he is the most prominent historian exactly of the second greatest crash, that of 1929–1933. "As a scholar of the Great Depression I honestly believe that September and October 2008 was the worst financial crisis in global history, including the Great Depression"[18] (FCIR, 354), he stated before the US Senate.

In 1720 the then top bankers were called to public account and expropriated. In the USA of 2008 nothing happened to the guilty bankers. At most they retired. Uniquely in history, exactly the banks were financially protected, probably because, again uniquely, they were too closely connected with the government, in fact with two successive governments.

After the end of the last great investment boom due to innovation, technically speaking: the Fifth Great Kondratieff Boom of 1995–1999, i.e. from the year 2000 on, we have suffered from intended (*ex ante*) world savings outrunning intended world investment. The whole world is one closed economy. For a closed economy realised savings (savings ex post) cannot exceed realised investments, by definition. However: The realised savings of one country, let us say of China, can exceed its investments, as long as another country, let us say the USA, has an exactly corresponding savings deficit relative to investment. In fact, the USA up to recently gobbled up nearly two thirds of all excess world savings over investment, and continue with not much less at present. The United States are the major destroyer of world

[17] DICKSON 1967, 176.

[18] The voluminous and comprehensive Financial Crisis Inquiry Report to the US Senate, by 10 senators (6 Democrats, 4 Republicans), published in January 2011, will be quoted here as FCR. The FCIC is the Financial Crisis Inquiry Commission.

savings, destroying them in the form of government and private consumption. In the terminology of national income accounting, saving is defined as national income minus consumption, so that higher savings, all else remaining equal, necessarily mean lower income.

There is a further conceptual problem with national accounts: They are based on the bills written out, not the bills actually paid. As national incomes are calculated for one year (or even less), those bills that eventually are not paid at all are never deducted from the income as calculated earlier. Unpaid bills certainly accumulated in recent years, particularly in the USA. To a large extent, bills for house purchases remained unpaid!

Houses were sold by banks that financed them by means of – quite excessive – mortgage loans. In the hope of house prices picking up still more, banks financed houses at a lethal 110 or 120 per cent of an already inflated value. But in 2007–2008 house prices dropped by one third, on average, while for newly built houses the prices fell even to zero or, in fact, below, when the house was relinquished and had to be torn down.[19] As Alan Greenspan himself calculated those losses amounted to about 120 per cent of one year's US national income. They meant that not only had US GDP not grown mildly over the past decade, i.e. by 0.65 % per annum, as officially calculated, but had in fact shrunk by at least some 5 percent every year! Thus, huge mis-investments into housing made the USA in the last decade an even more questionable debtor than Greece.[20] This has not been generally noticed, because at the same

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[19] The eventual consequences of over-selling houses were drastic; see e. g. FCR and the comprehensive graph 404. "In Ohio, the City of Cleveland and surrounding Cuyahoga county are bulldozing blocks of abandoned houses down to the dirt" (FCR, 403). "In Las Vegas, as of August 2010 home prices were down 55% from their peak" (FCR 215), turning large parts of that gambling center into a virtual ghost town. "Home prices" have been "falling 32% from their peak in 2006 to the spring of 2009" (FCR 403). By the third quarter of 2010 "nationwide, 10,8 million households, or 22,5% of those with mortgages, owe more on their mortgages than the market value of their houses…..In Nevada, 67% of homes with mortgages are under water, the highest rate in the country; in California the rate is 32%....Three states (were) particularly hit by foreclosures – California, Florida and Nevada" (FCR 403). If we put these figures together – a 32% fall in the price of occupied houses plus the 22.5% of houses with "under water" mortgages that have been abandoned, we can estimate that the USA have by the end of 2010 lost more than 40 per cent of their entire private housing capital.

[20] The possible extent of the crisis was much underestimated: Citigroup Risk Manager Bushwell argued: „ Housing prices would go down 30% for our having a problem. And that has never happened since the Great Depression" (FCR, 262). But remember, the crisis was greater than even the Great Depression!

time many nations with unsound currencies still held their assets in US dollars as their store of value, and China has financed so much of US financial (though not real!) investment that it has become a financial captive of the USA, unable to withdraw its money without heavy losses.

The US banks were the immediate cause of the gigantic overinvestment in housing, but not the ultimate cause: The ultimate cause was, as is usual with great financial crashes, the government. Already the Clinton administration had boosted private home ownership.[21] In the very beginning of the Bush II administration, in March 2001, a recession started. This was counteracted at first by starting a few wars, in Afghanistan and Iraq, i.e. counteracted quite traditionally – remember Hitler – by war expenditure. Secondly, luckily for internal demand, the "9/11" attack on the USA happened: This caused President Bush to announce that it was now the patriotic duty of Americans to consume, a request gladly complied with; thereupon the US private savings rate fell to finally minus two per cent – an unheard of figure in a developed economy! Last not least, Greenspan at the Federal Reserve offered central bank credit with a vengeance: in 2001 the bank rate was lowered from 6.5 % to 1.75% and soon after to 1%; and after Greenspan his successor Bernanke has for the fourth year running kept interest at practically zero, i.e. at 0.2 – 0.25 per cent. So the US house-building boom, on the face of it financed by banks, was actually financed by the government; and what proved to be bad debts were once more taken over by government finance agencies, especially Fannie Mae and Freddy Mac.[22]

[21] „In 1995 President Bill Clinton announced an initiative to boost home ownership from 65,1% to 67,5% of families by 2000." Between 1993 and 1995, almost 2,8 million households entered the ranks of home owners, nearly twice as many as in the previous years. But we have to do better, Clinton said. "This is the new way home for the American middle class". "The initiative to expand home ownership continued under President George W. Bush, who….. introduced a "Zero down Payment Initiative" that under certain circumstances could remove even the 3% down payment rule (!!) for first time home buyers with FHA (i. e. government) insured mortgages" (FCR, 41).

[22] A government initiated house buying (and building!) boom had to be financed by government agencies as well, in particular by the so-called agencies Fannie Mae and Freddy Mac. "A number of firms told Fannie (Mae) that they would stop making loans if Fannie would not buy then" (FCR, 310) "Fannie Mae and the parallel government-sponsored firm Freddie Mac continued to refinance, buying up soon worthless mortgages. "Unfortunately, the balancing act ultimately failed and both companies were placed into conservatorship (i. e. nationalized), costing the US taxpayer $ 151 billion" – the report significantly added "so far," as of the end of 2010.

After the boom, after 2008, finance in the USA became even simpler. Before the crash the banks had vastly over-financed various types of business, their far too little equity becoming the main cause of the crash. There occurred two of the biggest bankruptcies ever, Northern Rock in Britain and (on Sept.15, 2008) Lehman Brothers in the USA, both of them the largest bankruptcies in their respective countries for over a century. Those bankruptcies showed that risks were now much higher than previously assumed and that higher reserves were required. In the USA in particular many banks were taken over by the government, either fully or just by ample financial assistance. And after the crash this made for an interesting merry-go-round: The US central bank lent money to the commercial and investment banks at ridiculously low interest, and the banks used that additional money to buy up the exploding government debt. So the money never got to the business firms or private individuals who might have invested it. At best the money flowed out to finance foreign countries (to Greece, e.g. secretly) – once more bypassing US private finance. At present, the US public debt stands at a level of 105 per cent of GDP – to compare: that of Portugal stands at 110, Ireland at 115 and Italy at 120 per cent.[23]

What was also unique in the USA was and is the effect on the income distribution.[24]
For at least 25 years the median income had remained unchanged. Incomes in the real sector had remained more or less the same; only incomes in the top fifth of the income distribution increased at all. It was only incomes in the finance sector that rose. The salaries of top managers exploded, especially those of top managers in banking and insurance.

As pointed out, government was the ultimate cause of overinvestment in the USA and it was also the ultimate cause of the redistribution of income and wealth after the crash. Uniquely in history, those who came off best in this crisis of 2008–09 in the USA were the big banks, and

[23] Reinhart&Rogoff (2010) find p. 577: „High debt/GDP levels (90 percent and above) are associated with notable lower growth outcomes." See C. M. REINHART and K. Rogoff, "Growth in a Fine of Debt", Am. Ec. Rev. 100/2 (2010), 573-578. See also Reinhart&Rogoff, "The Aftermath of Financial Crisis", Am. Econ. Rev. 99/2 (2009), 406-472, and the same, *This Time is Different – Eight Centuries of Financial Folly*, Princeton 2009.

[24] The degree of income divergence was unique for the USA. See Anthony B, Atkinson, Th. Pickety & E. Saez, "Top Incomes in the Long Run of History", Journ. Econ. Lit. 49/1 (2011), 3-71. Akinson finds: "In all of the Western English speaking countries…..there was a substantional increase in top income shares in recent decades". "The increase has been quite concentrated with most of the gains accruing to the top percentile". He shows that the top 1 percent has lately reached 23% of all incomes in the USA, while 12% accrue to the top 0,1 percent who thus receive 120 times the average income each. See pp. 5,7 (graph) and 8.

as any historian would suspect, it would be the politically most powerful banks that did best of all. So when on September 16, 2008 (when everyone was still shocked by the unexpected failure of Lehman Brothers the day before), the major insurance firm AIG failed, the government, i.e. the Bush II administration, most conveniently – although quite exceptionally – stepped in and fully reimbursed all the creditors of AIG. And the largest debtor, to the tune of more than one billion dollars, was – shall we say by chance? – Goldman Sachs.[25] As it happened, the then Secretary of the US Treasury (minister of finance), Nick Paulson, had come from Goldman Sachs. Under Bush's successor Obama the Secretary of the Treasury has been another Goldman Sachs man: Tim Geithner, who, at the time when AIG failed, had held the influential position of director of the Federal Reserve of New York. And guess where the head of the European Central Bank, the Italian Draghi, comes from? Again, from Goldman Sachs – via the directorate of the Bank of Italy. So it is not really surprising that Goldman Sachs has weathered the Second Great Depression quite nicely – so far. It would be a rhetorical question to ask who gave the secret and illegal[26] credit to Greece's last but one government – the credit that started what most Europeans would consider rather a lot of trouble. You all know the answer: Goldman Sachs. One may wonder if the firm already sees itself as a world power in the sense that, in post-Napoleonic times, the banking house of Baring was considered the sixth world power, equal to the five major political players.

To wind up, let us ask whether financial "markets" would be the right term to use, like in financial market crisis, when we speak of major bankruptcies and of government default. Markets are anonymous, are mass activities. But what happens in a crisis really depends on the decisions of a very few actors, known by name and function: of a king, of a few central parliamentarians, of even fewer ministers in government and, at most, a handful of central bankers – central in more than one sense of the word. This highly individual nature of

[25] Llyoud BLANKFEIN, the CEO of Goldman Sachs, told the government agency FCIC: „ If you ask me what would have happened but for considerable government intervention (!), I would say we were in," FCR, 362.

[26] Calvin TRILLING composed the following satirical verse on Goldman Sachs and L. Blankfein, their chief executive officer (CEO): "They´re doing God´s work, their CEO said – They´re the kings of the Street – They are regal. So now we must ask if God ever knew – That some of his work was ILLEGAL!"

sovereign bankruptcies makes for their extreme historical specificity and for the difficulty of drawing general economic conclusions.[27]

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[27] It is very difficult to forecast the long run future of international government debt – Additional Government debt is in the long run viable only if it finances economically remunerative real investments, which can at present only be seen in investments to create alternative energy and to mitigate climate change. Only a few countries. i. e. Brazil and India, appear to offer opportunities for international credits which are repayable. Other international credits ore in the long run typically destroyed by wars, by inflation or by sovereign bankruptcies. The USA seems to be on the best way towards sovereign bankruptcy, particularly if Obama is re-elected. It is, however, in a particularly happy situation as far as its international loans are denominated in dollars: When the majority of countries wishes financially to invest in the USA, they get little for it, as the dollar appreciates; but when they wish to be repayed they once more get little back, as the dollar sharply depreciates.

If the USA cures its currency deficit, as it has to do in the long run, both China and Japan will be in a desperate situation to find any placement for their international loans. They will have to invest more at home. Europe is at present nearly autarchic in its total investments: Surplus nations give as much credits as debtor nations take up. But if most European nations simultaneously try no longer to create new international debts – as Austria is now trying heroically to do and to a very large extent – it is possible to repay government debt, but the difficult problem then arises for the repaid creditors what to do with their funds. It is already clear from Switzerland and now from Germany that safe international loans will pay at most a zero percent interest! So, perhaps, it is best to use the funds at home, i. e. nationally, even for very little return, than in foreign loans that bring nothing or eventually even losses. A strongly saving world have therefore to become <u>much less financially integrated.</u>