

## The Rise of Hedge Funds: A Story of Inequality

Jan Fichtner

### Abstract

*The rise of hedge funds from the almost unnoticed beginnings in the late 1940s to the pinnacle of global finance seventy years later is one of the most pivotal developments for the international political economy. It is the central thesis of this paper that the rise of hedge funds can only be explained by the notion of inequality: inequality between nearly unregulated hedge funds and the regulated rest of financial market actors; inequality between offshore financial centers that provide minimal regulation and low taxation to hedge funds, and onshore jurisdiction that do not; inequality between very rich private individuals that invest in hedge funds and the „bottom 99 percent“ that do not. Two countries play a central role for the rise of hedge funds, the US and the UK. Both adhere to the paradigm of „indirect regulation“ of hedge funds, and both tolerated a drastically increased income inequality since the 1980s that fueled the rise of hedge funds. It is only in these two countries that the story of inequality that drives the rise of hedge funds could be ended.*

**Keywords:** hedge funds, inequality, regulation, financial crisis

## Der Aufstieg der Hedge-Fonds: Eine Geschichte der Ungleichheit

### Zusammenfassung

*Der Aufstieg der Hedgefonds von den fast unbemerkten Anfängen in den späten 1940ern an die Spitze der globalen Finanzmärkte sieben Jahre später ist eine der bedeutendsten Entwicklungen für die Internationale Politische Ökonomie. Die zentrale These dieses Papers ist, dass der Aufstieg von Hedgefonds nur durch den Begriff der Ungleichheit erklärt werden kann: Ungleichheit zwischen fast unregulierten Hedgefonds und dem regulierten Rest der Finanzmarktakteure; Ungleichheit zwischen Offshore-Finanzzentren, die Hedgefonds minimale Regulierung und niedrige Besteuerung bieten, und Onshore-Jurisdiktionen, die dies nicht tun; Ungleichheit zwischen sehr reichen Individuen, die in Hedgefonds investieren und den „unteren 99 Prozent“, die dies nicht tun. Zwei Staaten spielen eine zentrale Rolle für den Aufstieg von Hedgefonds: die USA und Großbritannien. Beide halten an der „indirekten Regulierung“ von Hedgefonds fest, und beide tolerierten eine drastisch gestiegene Einkommensungleichheit seit den 1980er-Jahren, die den Aufstieg von Hedgefonds befeuerte. Nur in diesen beiden Staaten könnte die Geschichte der Ungleichheit, die den Aufstieg von Hedgefonds antreibt, beendet werden.*

**Schlagwörter:** Hedgefonds, Ungleichheit, Regulierung, Finanzkrise

## 1. Introduction

Hedge funds, in particular their allegedly ingenious managers, were called the new „Masters of the Universe“ in 2008 when the old ones, the large Wall Street investment banks such as Goldman Sachs, Morgan Stanley, Bear Stearns or Lehman Brothers, almost entirely went down (Wolfe 2008). Hedge fund proponent Mallaby (2010: 391) sees them as the worthy successors of investment banks: „Today, hedge funds are the new Goldmans and Morgans of half a century ago.“ Hence, the rise of hedge funds from the almost unnoticed beginnings in the late 1940s to the pinnacle of global finance seventy years later is one of the most pivotal developments for the contemporary international political economy.

Rather than to mystify hedge funds as masters of the universe or as the „new elite“ (Mallaby 2010), this paper seeks to contribute to the demystification of hedge funds. Therefore – in contrast to many studies by mainstream economists –, the rise of hedge funds is analyzed in a broad historical, socio-economic and socio-political context. It is the central thesis of this paper that the rise of hedge funds can only be explained and comprehended by referring to different dimensions of inequality: inequality between nearly unregulated hedge funds and the regulated rest of financial market actors; inequality between offshore financial centers that provide minimal regulation and low taxation to hedge funds, and onshore jurisdiction that do not; and, finally, inequality between very rich private individuals that invest in hedge funds and the „bottom 99 percent“ that do not. Various notions of inequality work to the benefit of hedge funds and provide them with the singularity that distinguishes them.

In order to tell this story of inequality thoroughly and comprehensively this paper is divided into six sections. Subsequent to this introduction section two discusses the history of hedge funds and describes how the story of inequality began. This section argues that we have to separate the rise of hedge funds into two periods, the first one from the late 1940s to the early 1970s when most hedge funds collapsed, and the second one from the early 1980s until today. Section three discusses the regulation, or rather, the non-regulation of hedge funds. Today hedge funds are arguably the least regulated major financial market actor; this unequal regulation vis-à-vis other financial market actors is a distinct advantage to hedge funds. Two single countries make this unequal regulation of hedge funds possible –

the US and the UK; they refrain from any strict direct regulation of the funds' activities and also provide the important offshore legal domiciles. Income inequality and the rise of hedge funds is the topic covered in section four. Income inequality increased drastically since the early 1980s – especially in the two centers of hedge funds, the US and the UK. The fact that the super-rich top 0.1 percent of the US population increased their income more than threefold from the late 1970s to 2010 is crucial for the rise of hedge funds, as these high net worth individuals were the largest source of capital by far. Section five takes up the vital topic of income inequality and discusses whether this stark inequality coupled with hedge fund activities in subprime derivatives represents one of the root causes of the financial crisis. In addition, this section exposes that in the US and the UK hedge funds and their very rich managers increasingly convert their unequal wealth into political influence. Finally, the sixth section concludes.

## 2. The history of hedge funds – how the story of inequality began

Most accounts regarding the history hedge funds begin by mentioning that Alfred Winslow Jones created the first hedge fund in 1949. However, as Lhabitant (2007) reports, indicators of hedge fund-like activity can be traced back to the US in the early 1930s. Karl Karsten, an academic primarily interested in statistical research, published two books which already then described many key principles of hedge funds that are still valid today. Karsten reportedly even created a small fund drawing on savings by himself and his colleagues in order to test the forecasts of his six devised „barometers“ of national economic activity (ibid.: 7). He invested according to his „hedge principle“ that combined buying stocks he believed would rise and short-selling stocks that were deemed to fall. World War II then halted most of financial market activity in the early 1940s, including this proto-hedge fund.

After the war the activity of financial markets picked up again. In 1949 Alfred Winslow Jones created what he called a „hedged fund“ (Mallaby 2007: 16). His fund A.W. Jones & Co, set up as a general partnership, was primarily aimed at outside investors, but Jones also invested much of his personal wealth. Similar to Karsten, Jones combined long positions in supposedly undervalued stocks with short-selling stocks he and his team believed were overvalued. In this way Jones sought to create an investment fund whose perfor-

mance (known as „alpha“) was protected (or hedged) against the general movement of the market (known as „beta“). In addition, he borrowed funds to amplify returns – a method widely practiced today, known as leverage (Eichengreen/Mathieson 1999). The fee structure of Jones' fund was novel for that time; he only charged a performance-based fee of 20 percent of realized profits that should align his incentives with those of his investors (Rappeport 2007). In contrast to most modern hedge funds that also charge an asset-based management fee of around 2 percent, he charged no fixed fee. The crucial difference was (and still is) that if hedge fund managers take a share of the fund's profits they were taxed with the capital gains tax rate, which was 25 percent at the time. In contrast, a management fee was taxed at the personal income tax rate – and the maximum personal income tax rate in the US during the 1940s was over 80 percent, and over 90 percent from 1950 on. Even though Jones told investors that his fee structure was modeled after the ancient practice of Phoenician merchants, it seems more probable that he was inspired by the tax law (Lhabitant 2007); this unequal treatment of capital gains vis-à-vis regular income marks the beginning of the story of inequality that has propelled hedge funds ever since. In 1952 Jones changed his fund from a general partnership to a limited partnership in order to have maximum flexibility with constructing and managing his portfolio (Scaramucci 2012). Another important reason was that this legal structure avoided virtually all of the regulation by the Securities and Exchange Commission (SEC), the financial markets regulator in the US (Lhabitant 2007); the (non-)regulation of hedge funds will be discussed in detail in the next section of this paper.

The personal background of Alfred Winslow Jones was extraordinary. Reportedly, he graduated from Harvard, worked for the State Department, ran secret missions for the anti-Nazi group „Leninist Organization“, attended the Marxist Workers School in Berlin, and spent a honeymoon on the frontlines of the Spanish civil war (Scaramucci 2012; Mallaby 2007). His doctoral thesis, „Life, Liberty and Property“ was a survey among different social classes concerning attitudes towards property and became a standard sociology textbook (Russell 1989). This personal background of Jones is important, because it arguably enabled him to question and defy the established Wall Street practices of his time. Wall Street in the late 1940s saw leverage and short-selling as „too racy for professionals entrusted with other people's savings“ (Mallaby 2007: 23); short-selling

was seen as „un-American“ in 1950 (Scaramucci 2012). Jones combined both techniques in a novel way and this allowed him to achieve remarkable financial returns by beating the market indices for several years during the 1950s and 1960s bull market (Lhabitant 2007). Jones reportedly generated a staggering cumulative return of almost 5,000 percent from 1949 to 1968 (Mallaby 2007). From 1955 to 1965 Jones' partnership returned 670 percent, while the next best fund only achieved about 350 percent (Lhabitant 2007). Even though these rates of return are extremely high, Jones' investment approach was principally concerned with avoiding market risk. He is quoted saying: „Hedging is a speculative tool used to conservative ends“ (Russell 1989). In 1966 an article published in *Fortune* about the success of Jones' fund used the term „hedge fund“ for the first time. And in 1968 a survey by the SEC found that about 140 hedge funds operated in the US. In this period many new hedge funds were created, among them the well-known Quantum Fund by George Soros (Lhabitant 2007).

Then in 1969-1970 the long bull market ended, which made the situation much more difficult for many hedge funds, as short-selling was used infrequently by most hedge funds at the time and primarily as a means of partially hedging against market risk, rarely as an investment strategy on its own as today (Eichengreen/Mathieson 1999). Finally, the 1973-1974 recession and the ensuing oil crisis caused heavy losses and capital withdrawals for many hedge funds, thus ending the first – yet almost unnoticed – rise of hedge funds that began in the late 1940s (Fung/Hsieh 1999). From 1975 to 1982 the stock market moved sideways and the number of hedge funds increased again, yet very slowly. Even though this period was extremely hard for the still tiny hedge fund industry, it laid the foundation for the phenomenal rise of hedge funds that would prove to be clearly visible to all keen observers of global finance from the 1990s onwards. In the early 1970s the US unilaterally cut the backing of the US dollar by gold and thus disbanded the Bretton-Woods system of international monetary relations, in which the currencies of the participating Western countries were pegged to the US dollar at fixed, yet adjustable rates. The result was a shift from a government-led international monetary system to a market-led international monetary system (Padoa-Schioppa/Saccomanni 1994); in this new system the exchange rates were determined by private profit-motivated actors – such as hedge funds. Subsequently also the price of gold was entirely determined by private market forces. Together with the abolition of

capital controls by the US and Britain in the 1970s and the liberalization and deregulation of their domestic financial systems in the 1980s a whole new universe of investment opportunities opened up for hedge funds and other private investors. And most importantly the initiatives by the US and the UK forced other Western countries to follow them: „The liberalization decisions in the US and Britain, as well as the broader deregulatory trends within their respective financial systems, played a major role in encouraging similar liberalization moves elsewhere. Unless they matched the liberal and deregulated nature of the British and US financial systems, foreign financial authorities could not hope to attract new financial business and capital from abroad or even maintain the financial business and capital of their own multinational corporations or international banks“ (Helleiner 1995: 329). This international trend towards the liberalization and deregulation of financial markets, initiated by the US and the UK, created numerous new investment opportunities for hedge funds in Western Europe and East Asia from the 1980s onwards.<sup>1</sup>

The few hedge funds that operated during the early 1980s mostly had high minimum investment requirements, „access thus being restricted to an exclusive club of high net worth individuals informed by word of mouth“ (Lhabitant 2007: 12); besides unequal tax treatment and the avoidance of regulation this restriction to very wealthy individuals represents another element of the story of inequality that is behind the rise of hedge funds. However, during the 1980s a new breed of hedge funds emerged whose investment approach was radically different from Jones' original risk-averse concept of investing in the stock market. The epitome of this new kind of hedge funds was Julian Robertson's Tiger Fund, which had a compounded annual return of 43 percent from 1980 to 1986 (Fung/Hsieh 1999). Based on macroeconomic analysis Robertson took massive and purely directional bets without implementing any specific hedging strategy.<sup>2</sup> Furthermore, Robertson often

employed financial derivatives, such as options and futures, to enhance returns – financial products that did not exist when Alfred Winslow Jones operated his fund. The strategy pioneered by Robertson and others became known as „global macro“. Global macro hedge funds have occasionally made large bets on the movement of currencies or interest rates. From the 1980s onwards many (though not all) hedge funds ceased to be hedge funds in the Jonesian sense, but should rather be called wager or speculation funds; this period marks the second and this time persistent rise of hedge funds.

In 1990 the private data collection company Hedge Fund Research (HFR) began monitoring the industry. According to HFR the hedge fund industry consisted of about 600 funds and had nearly \$40 billion in assets under management in 1990. One of the largest, best known and most successful bets of a global macro hedge fund took place two years later in 1992 when the Quantum Fund run by George Soros speculated the British pound out of the European Exchange Rate Mechanism (ERM). Reportedly Soros built up a short position in Sterling to the tune of \$10 billion using leverage. Other global macro hedge funds as well as institutional investors joined Soros. Hence, even though the Bank of England spent \$15 billion of its foreign exchange reserves and raised interest rates from 10 to 15 percent, on September 16 (since then known as „Black Wednesday“) Britain quit the ERM. The Quantum fund of George Soros made a profit of approximately \$1 billion with this speculative bet. Essential to the success of Soros was the fact that hedge funds are uniquely able to concentrate their capital in a few investments – this is yet another important dimension of the inequality of hedge funds. According to Harmes (2002) the episode of the ERM crisis clearly demonstrated that global macro hedge funds acted as market leaders that possessed normative authority over many institutional investors that adhered to herd mentality.

The 1990s were an extremely good decade for hedge funds, but also a decade in which it became increasingly evident that hedge funds no longer were „too-small-to-matter“ – a view often expressed by neoclassical economists (ibid: 156). The industry surpassed the threshold of \$250 billion in assets under management for the first time in 1996 with over 2,000 individual hedge funds operating. The next year hedge funds played a significant, though arguably not decisive, role in the Asian financial crisis. This crisis was not entirely caused by „crony capitalism“ in the Southeast Asian countries most affected by the crisis,

1 This period has aptly been described as characterized by financialization: „the increasing role of financial motives, financial markets, financial actors and financial institutions in the operation of the domestic and international economies“ (Epstein 2005: 3). The rapid rise of hedge funds would not have been possible without the trend of financialization that roughly began in the early 1980s.

2 Directional bets are speculative and unhedged trades with whom the investor bets that particular securities or entire markets move in a specific direction.

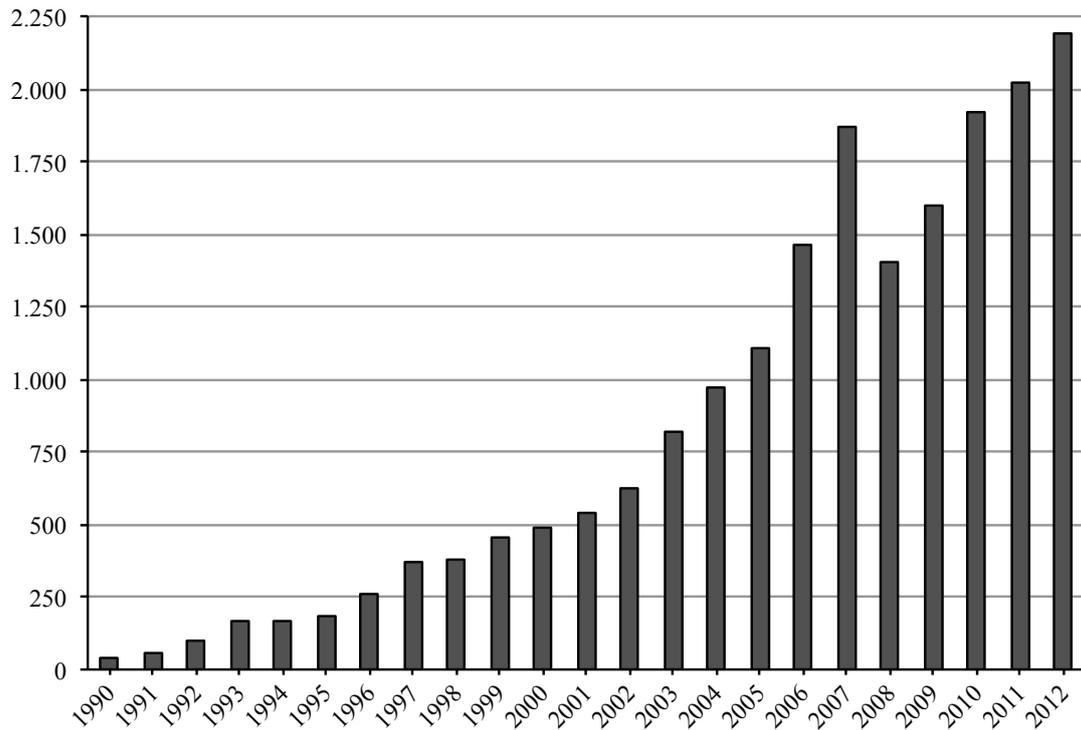
as some Western critics argued, but some problems in these countries were surely created domestically. Hedge funds, mostly global macro, sold Thai baht between \$7 billion and \$15 billion in 1997. Arguably this behavior did not cause the Asian financial crisis but surely exacerbated it (de Brouwer 2001). One year later hedge funds were again discussed widely. In 1998 for the first time in financial history the collapse of a highly leveraged hedge fund made regulators fear for the stability of international financial markets. The hedge fund Long Term Capital Management (LTCM), run by well-known hedge fund managers as well as Nobel laureates in economics, bet on the convergence of low-quality and high-quality bond yields. Due to overconfidence in the (seemingly) sophisticated econometric models the fund excessively leveraged its positions: „They turned \$4 billion equity capital into \$100 billion of assets, which were then used as collateral for more than a trillion dollars of notional over-the-counter derivatives“ (Lhabitant 2007: 16). What LTCM’s models did not (and of course could not) predict was that Russia devalued the Ruble and defaulted on its domestic debt, which caused an international flight to safety and thus a widening of spreads between bond yields – and not a convergence. Due to its high leverage LTCM’s default would have led to an enormous selling wave. Thus, LTCM was deemed „too big to fail“, a term hitherto used exclusively for large banks and entire countries. The Federal Reserve Bank of New York orchestrated a bail out of LTCM purportedly to avoid a systemic crisis. However, „a minority of critics not only questioned the rescue at that time but also suggested that those rescued and those doing the rescuing had close associations, and that this was an instance of crony capitalism on which the Asian financial crisis had precisely been blamed“ (de Brouwer 2001: 17). Shortly before the turn of the century, hedge funds had almost \$500 billion in assets under management. This was the time of the dot-com bubble when many experts said that tech stocks were overvalued but the stock prices of „new economy“ firms just kept rising. Many neoclassical economists proclaimed that „hedge funds are better positioned to act as contrarian investors making markets more liquid and efficient“ (Harmes 2002: 159). Proponents of hedge funds usually ascribed a vital role to them for the operation of financial markets: „By buying irrationally cheap assets and selling irrationally expensive ones, they shift market prices until the irrationalities disappear, thus ultimately facilitating the efficient

allocation of the world’s capital“ (Mallaby 2007: 95). However, reality proved to be different from these neoclassical ideals; Brunnermeier and Nagel (2004) found that hedge funds did not exert a correcting force on stock prices during the dot-com bubble. Instead, they have „ridden“ the bubble because of predictable investor sentiment and limits to arbitrage.

The real breakthrough of the hedge fund industry came during and shortly after the dot-com bubble between 2000 and 2002 when hedge funds consistently generated positive returns while most major stock markets slumped. This caused a strong inflow of capital from institutional investors, which believed that hedge fund performance was uncorrelated to the major stock markets. It took the hedge fund industry about ten years (1990 to end-2000) to increase assets under management from \$40 billion to \$500 billion. The next \$500 billion were added in just four and a half years until mid-2005. Then, the next \$500 billion were added in less than two years until early 2007, when about 10,000 hedge funds operated. Thus, hedge funds had been on an exponential growth curve until the outbreak of the financial crisis. The role of hedge funds for the financial crisis will be discussed in section five. It suffices to note here that the losses and outflows that were caused by the crisis were recouped by the hedge fund industry by 2010. In the third quarter of 2012, hedge funds hit a new all-time high of \$2,190 billion assets under management. Figure 1 gives an instructive overview of the rise of the hedge fund industry from the early 1990s until the third quarter of 2012.

Hedge funds have grown tremendously from the tiny beginnings in the late 1940s to become an industry with global importance – although it has to be noted that the assets under management of the hedge fund industry are still only a small fraction of the total global stock of financial assets. However, due to leverage and the fact that hedge funds are uniquely able to concentrate their capital in just a few selected investments they are able to have a significant impact, as most other institutional investors such as mutual or pension funds (have to) diversify their assets (Harmes 2002). Many observers attribute the success of hedge funds to the allegedly superior investment skills of hedge fund managers. However, what is often neglected is the fact that hedge funds are considerably less regulated than virtually all other institutional investors; this gives them a distinct advantage.

Figure 1: Assets under management by the hedge fund industry 1990–Q3/2012 (\$ billions)



Source: Heinz (2011), HFR (2012)

### 3. The (non-)regulation of hedge funds – the first ingredient of inequality

As mentioned before, Alfred Winslow Jones structured his hedge fund as a limited partnership in order to avoid SEC regulation. In fact, the legal structure of the limited partnership is still the dominant model for domestic US hedge funds today. Limited partnerships provide pass-through tax treatment; that means that the hedge fund itself does not pay any taxes on its investment returns, but the returns are passed through so that all individual investors pay tax with their personal income tax bills (Connor/Woo 2004). Since the mid-2000s, however, an increasing number of hedge funds has been structured as limited liability companies, particularly in Delaware as this US state has completely aligned its legal system to business needs (Lhabitant 2007). In order to avoid regulation, US domestic hedge funds traditionally structured themselves in a way that takes into account four central pieces of legislation: First, to be exempt from the Investment Company Act of 1940, which contains disclosure and registration requirements and imposes limits on the use of certain investment techniques, hedge funds need to either have less

than 100 investors or investors must be „qualified purchasers“ – individuals who own at least \$5 million in investments or companies with over \$25 million in investments (Edwards 2004). This exemption is crucial to hedge funds, as it enables them to perform „short-selling“, which is betting on the decrease in value of stocks and other securities (Oesterle 2006). Second, hedge funds typically try to be exempt from the Securities Act of 1933 in order to prevent having to reveal proprietary trading strategies and other information. Therefore, hedge funds have to restrict themselves to private placement, which means that they are not allowed public advertisement and marketing of their funds. In addition, hedge funds may only accept „accredited investors“, which have a net worth that exceeds \$1 million at the time of purchase (Edwards 2004). Third, to be exempt from the Investment Advisors Act of 1940, hedge fund managers (or „investment advisors“) had to restrict themselves to less than 15 clients (i.e. individual hedge funds) per year and do not advertise themselves publicly as an investment advisor (Stulz 2007). This, however, changed with the Dodd-Frank Act of 2011; since March 2012 hedge fund managers have to register with the SEC. Hedge fund managers advising only funds with

less than \$150 million in assets under management in the US, however, are exempt from this rule (SEC 2011). Fourth, in order to avoid being affected by certain parts of the Securities Exchange Act of 1934, which contains strict registration and disclosure requirements, hedge funds must ensure that they have less than 500 investors (Horsfield-Bradbury 2008).

It is this exempt legal status that defines hedge funds and gives them their uniqueness. In fact, strictly legally speaking there is no such thing as a hedge fund. Hedge funds are best characterized by their unparalleled freedom to pursue all investment strategies they suppose are profitable: „A legal structure that avoids certain regulatory constraints remains a common thread that unites all hedge funds“ (Connor/Woo 2004: 9). Edwards (2004: 34) gives a concise, yet also comprehensive definition of hedge funds: „They can buy and sell whatever assets or financial instruments they want to, trade any kind of derivatives instrument, engage in unrestricted short-selling, employ unlimited amounts of leverage, hold concentrated positions in any security without restriction, set redemption policies without restriction, and can employ any fee structure and management compensation structure that is acceptable to their investors. In addition, hedge funds have very limited disclosure and reporting obligations, to regulators, the public, and their own investors.“

During the first decades of the industry practically all hedge funds were legally domiciled in the US. This has changed drastically. In 2010 only 22 percent of assets under management by the global hedge fund industry belonged to funds domiciled in the US – virtually all of them based in Delaware. But the most important global legal domicile of hedge funds by far were the Cayman Islands. The hedge funds registered there managed 52 percent of global hedge fund assets in 2010. The British Virgin Islands (11 percent), Jersey (five percent) and Bermuda (four percent) occupied the third, fourth and fifth place, respectively (Jaecklin et al. 2011). Hence, about 72 percent of all hedge fund assets belonged to funds that were domiciled in these four offshore financial centers. However, these territories are not just random „sunny jurisdictions“ (Lhabitant 2007: 87); they are so-called „British Overseas Territories“ (except for Jersey that is a UK „Crown Dependency“), which means that they have autonomy in areas such as tax legislation, but ultimately remain under British sovereignty. In fact, it is legally correct to still describe these territories as „colonies“ of the

UK (Hendry and Dickinson 2011: 4). These offshore financial centers – also called tax havens – attract hedge funds by offering very low levels of taxation and regulation. For example, the Cayman Islands Monetary Authority tolerates that a small group of „jumbo directors“ sits on the boards of hundreds of hedge funds (Jones 2011). Directors should in theory be independent and protect the interests of investors. It seems extremely difficult to fulfill this duty for four individuals that hold more than 100 directorships each, another individual even held 567 directorships in Cayman Islands-based hedge funds (ibid.). Offshore financial centers that are under the sovereignty of the UK, such as the Cayman Islands, offer political stability and the familiar Anglo-Saxon system of common law – pivotal facts that distinguish them from other sunny jurisdictions such as the Bahamas, Barbados or Belize. In this context, Delaware has to be described as a „de facto“ offshore financial center or as a „domestic tax haven“ of the US (Dyregang et al. 2012); Delaware performs exactly the same role as the UK tax havens by providing low levels of regulation and taxation, as well as a high degree of stability. Including Delaware almost 95 percent of global hedge fund assets are domiciled in offshore jurisdictions that are under the sovereignty of the US and the UK. Of course, hedge fund managers usually do not work in these offshore territories but predominantly in onshore financial centers.

At the end of 2011 roughly 70 percent of all hedge fund managers worked in the US, mainly in New York and Connecticut. Nearly 20 percent worked in the UK – 18 percent in London and nearly two percent in the „Crown Dependencies“ of Jersey and Guernsey (TheCityUK 2012). Hence, approximately 90 percent of all global hedge fund managers worked in just two single countries, the US and the UK. This is an extreme – and arguably sui generis – concentration of one major global financial industry in just two countries. Thus, it seems justified to call hedge funds an exclusively Anglo-American industry. Both countries traditionally adhered to the so-called „indirect regulation“ of hedge funds. „The indirect model“, writes Fioretos (2010: 702), „is based on the principle that unfettered markets impose discipline on hedge funds in whose self-interest it is to adopt responsible trading and leverage strategies. Because counterparties acting as prime brokers (typically investment banks) manage derivatives and lend the money that enable high levels of leveraging, the indirect approach is

based on the principle that regulators can also guard against systemic risks by imposing disclosure requirements and leverage ratios on counterparties rather than directly regulate hedge funds.“ It is important to note that this indirect model of hedge fund regulation does not require a distinct legal status of hedge funds. Therefore, the hedge funds themselves do not have to register in the US and the UK, but only the hedge fund managers. That is also the reason why the managers of hedge funds are the targets of the Alternative Investment Fund Managers (AIFM) directive by the European Union. The AIFM directive will come into force in mid-2013 and introduces some moderate regulations mostly concerning disclosure and transparency of hedge funds. The directive does not, however, bring about a strict international regulation of hedge funds, as there are important exemptions until 2018 and funds that do not actively market themselves within the EU are not affected by the directive at all (Norton Rose 2012). Hence, the AIFM directive does not directly threaten the exempt legal status of hedge funds in the UK and the US.

Edwards (2004: 37) argues that the exempt legal status that hedge funds enjoy in the US „is premised on the philosophy that wealthy investors should be free to make their own decisions unhindered by government regulation and its associated costs, and in return should have to bear the full consequences of their investment decisions – good or bad. In effect, this means that wealthy individuals and institutional investors are able to access non-traditional ‚alternative‘ investment strategies that may provide superior returns with possibly greater risk, while less well-off investors are protected by being excluded from participating in these investments.“ While Edwards stresses that ordinary investors are „protected“ by this legislation, one could also say that hedge funds and, by implication, their wealthy investors enjoy a privileged or unequal treatment. This legal inequality of hedge funds and their investors is of central importance for the rise of hedge funds. In addition, the US and the UK enabled another important element of legal inequality that works to the benefit of hedge funds – the development of offshore financial centers that function as legal domiciles of hedge funds. As noted above, offshore financial centers, such as the Cayman Islands but also Delaware, have levels of regulation and taxation that are considerable lower than „onshore“ jurisdictions. This provides hedge funds with an advantage over other institutional

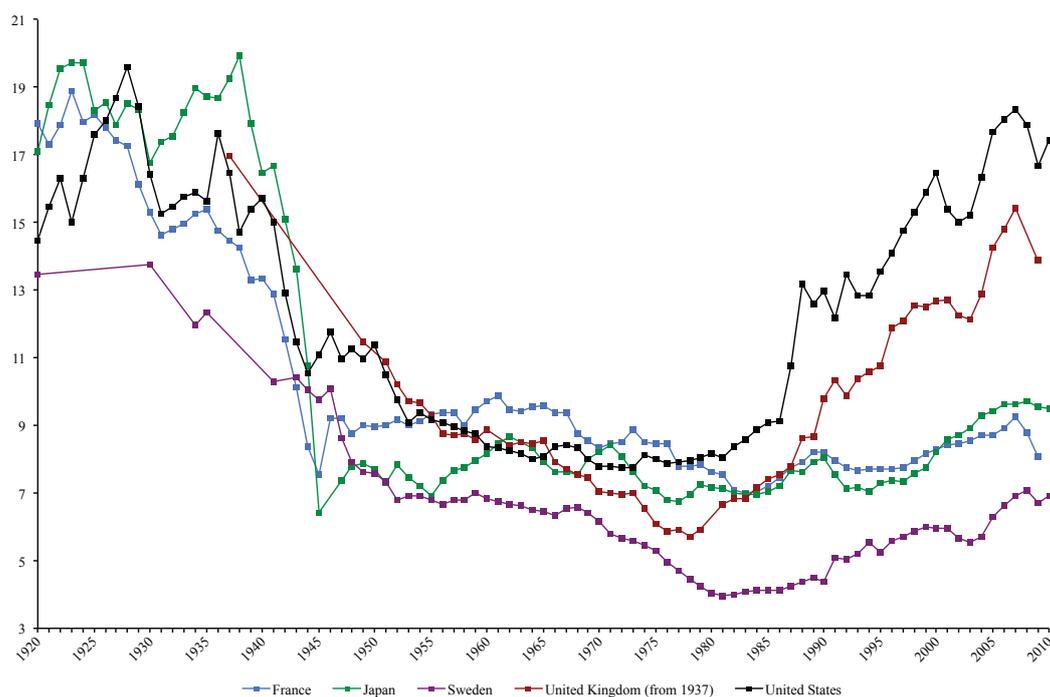
investors but also benefits very rich individuals who transfer their wealth to offshore financial centers in order to save taxes, or even to pay no taxes at all. A recent report by Tax Justice Network estimates that a staggering \$21 to \$32 trillion of wealth deposited offshore is unrecorded. The vast majority of this wealth is very probably enjoyed by the top one percent of the world’s population (Shaxson et al. 2012). Rich private individuals, i.e. mainly the top one percent of the world’s population, were by far the most important group of investors in hedge funds until recently. Hence, the rise of hedge funds is inexplicable without the enormous investments by these high net worth individuals. Thus, when we analyze the rise of hedge funds we necessarily have to study income inequality.

#### 4. Income inequality and the rise of hedge funds – the second ingredient

In order to have a broad overview of the historical development of income inequality in an international perspective, we plot the income share (excluding capital gains) by the top one percent of the population for five selected countries between 1920 and 2010 (Figure 2). The data are taken from the seminal World Top Incomes Database, which for the first time enables cross-country comparisons of income inequality for long periods of time (Alvaredo et al. 2012; Atkinson et al. 2011). The US and the UK have been selected because they form the core of the hedge fund industry, as described above. In addition to providing the legal domiciles for hedge funds and being the two dominant centers for hedge funds managers, both countries are the two largest sources of capital invested in hedge funds today; in 2010 approximately 54 percent of the investors in hedge funds were US-based, while 12 percent came from the UK (Preqin 2011). France, Japan and Sweden have been selected as points of reference to the US and the UK. France to a certain degree represents continental Europe, Japan is one of the few Asian high-income countries, and Sweden is the classical case of a highly egalitarian country. Furthermore, these three countries have a higher availability of data regarding the income of the top one percent for the selected time period than most other countries covered by the World Top Incomes Database.

Figure 2 clearly shows that from 1920 to the early 1940s there was a high level of income inequality in all five countries. Just before the stock market crash of 1929, the top one percent in the US had nearly 20 per-

Figure 2: Top 1% income share excluding capital gains 1920–2010 (%)



Source: Alvaredo et al. (2012)

cent of the national income. The same is true for Japan in 1938. Although Sweden is generally below the other four countries, in 1935 the top one percent had still over 12 percent of the national income. The period from the mid-1940s until the early 1980s can be described as the „Great Convergence“ or „Great Compression“ (Goldin/Margo 1992); the income share of the top one percent of the population dropped significantly in all five countries during the 1940s and 1950s and stayed in a narrow range roughly between six and nine percent of total income (except for France during the 1960s and Sweden where it dropped below five percent in the 1970s). Thus, income inequality decreased significantly in all five countries. This period ended in the early or mid-1980s when the „Great Divergence“ began (Krugman 2007; Noah 2010); income inequality increased again. This trend is particularly pronounced in the US and the UK. In the US the share of the top one percent (i.e. approximately the top 1.56 million families) more than doubled from eight percent in 1981 to well over 18 percent in 2007. During the same period the share of the top one percent increased from over six percent to over 15 percent in the UK. The share of the top one percent also increased in France, Japan and Sweden, but to a much smaller extent. Hence, the development of the share of the top one percent in the US and the UK from 1920 to 2010 has a „U“-shape, whereas in France,

Japan and Sweden the graph rather has an „L“-shape, i.e. income inequality dropped in the 1940s and 1950s and then stayed more or less on this level.

In order to belong to the top one percent income group in the US one had to earn at least roughly \$350,000 per year in 2010 (Saez/Piketty 2012). However, the main target group of hedge funds is high net worth individuals (HNWIs) that have investable wealth over \$1 million. Thus, a better proxy for the group of HNWIs that primarily invest in hedge funds is the share of the top 0.1 percent, i.e. the top decile of the top one percent – or, the top 156,000 families of the US that each earned more than \$1.49 million in 2010. Figure 3 shows the income share of the top 0.1 percent from 1920 to 2010 including and excluding capital gains. In addition, the top marginal income tax rate and the capital gains tax rate are shown.

Both income shares of the top 0.1 percent display the „U“-shape that also characterized the share of the top one percent. However, Figure 3 shows that the top 0.1 percent benefited disproportionately from capital gains. In 1928 the top 0.1 percent had about eight percent of total income, which increases significantly to 11.5 percent when we include capital gains, which are mainly generated in the stock market. The graph including capital gains clearly shows the great stock market booms and crashes of the twentieth century.

Figure 3: Top 0.1% income share and top tax rates United States 1920–2010 (%)



Source: Alvaredo et al. (2012), Citizens for Tax Justice (2012)

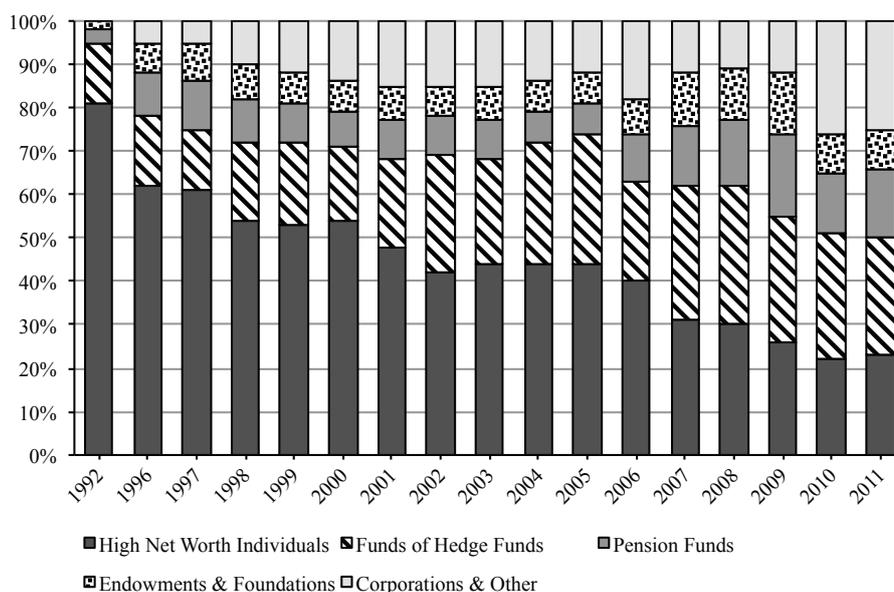
The drop in 1929 was of course particularly steep. The drop in 1969–1970 marked the period when the commencing bear market sent most hedge funds out of business and thus ended the first rise of hedge funds – but has also to do with the increase of the capital gains tax rate at that time, which was raised from 25 percent to eventually over 35 percent. The stock market crashes of 1987, 2000 and 2007 are clearly shown in steep drops of the share of the top 0.1 percent including capital gains. It is remarkable that this share reached a new peak of extraordinarily high 12.3 percent in 2007, thus clearly surpassing the previous maximum of 11.5 percent in 1928. This is in marked contrast to the share of the top one percent, which is still below its peak of 1928. This shows that the super-rich have increased their income share much faster than the rich. In fact, the income of the rich top one percent of the US population more than doubled from 1980 to 2010, but the income of the super-rich top 0.1 percent more than trebled, and the income of the „ultra-rich“ top 0.01 percent (i.e. the top 15,600 families that each earned at least \$7.89 million in 2010) even quadrupled over the same period. On the other hand, the income of the bottom 90 percent dropped by almost five per-

cent from 1980 to 2010 (Shaxson et al. 2012; Piketty/Saez 2012).<sup>3</sup> Hence, during these thirty years income inequality in the US increased extremely with the highest income brackets increasing their incomes at the highest rates.

What we can generally see in Figure 3 is that there seems to be an inverse relation between the top marginal income tax rate and the maximum capital gains tax rate on the one hand, and the income share of the top 0.1 percent on the other. In the mid-1920s both tax rates were drastically lowered; this corresponds with a peak of the income share of the top 0.1 percent of the US population. During the Great Convergence the top marginal income tax rate was above 90 percent from 1950 to 1963 and remained at 70 percent until 1982. The maximum capital gains tax remained at 25 percent from 1942 to 1967, but this had not a large impact as the stock market did not play an important role during that period. Since the late 1970s there is a more or less clear trend towards lowering both cen-

<sup>3</sup> In comparison, P<sub>90-95</sub> increased by more than 25 percent and P<sub>95-99</sub> increased nearly 50 percent from 1980 to 2010 (Piketty/Saez 2012).

Figure 4: Sources of capital of hedge funds 1992, 1996 - 2011 (%)



Source: Alvaredo et al. (2012), Citizens for Tax Justice (2012)

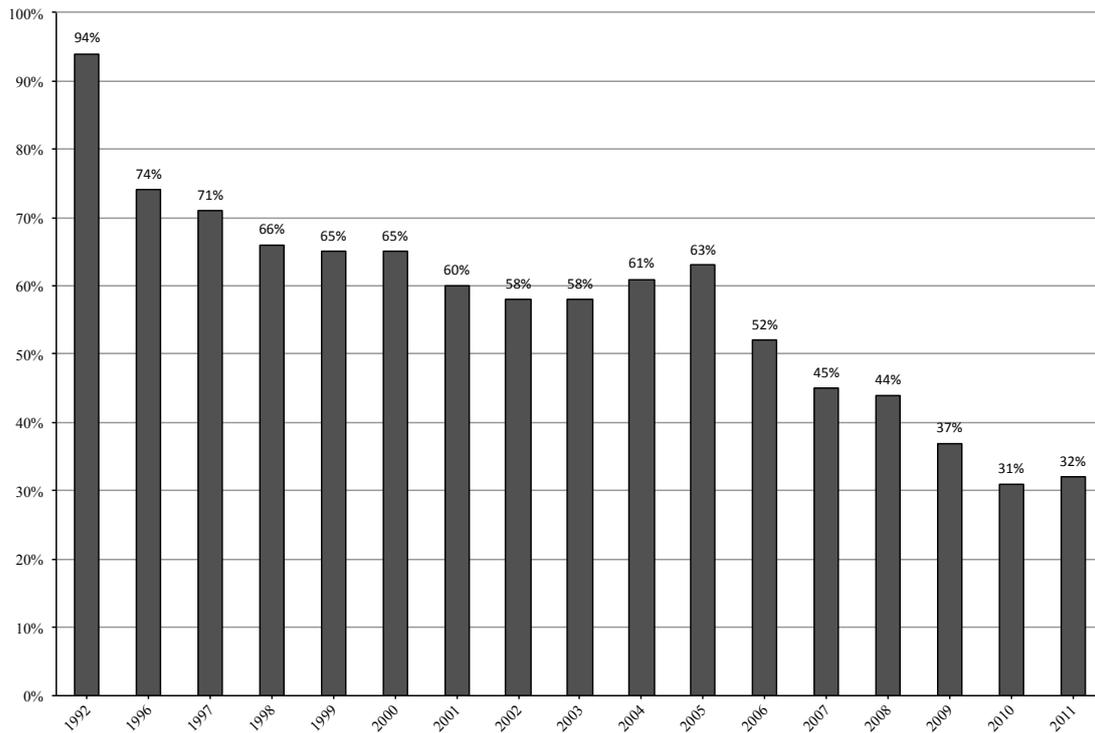
tral tax rates in the US – this is especially true for the period since the mid-1990s, as Figure 3 shows. The top 0.1 percent – the primary group of hedge fund investors – has benefited enormously at the expense of the bottom 90 percent; the share of the top 0.1 percent (including capital gains) more than doubled from about 2.6 percent in 1978 to 5.8 percent in 1990, then it nearly doubled again to almost 11 percent in 2000. This unparalleled surge in the income share of the top 0.1 percent fueled the growth of the hedge fund industry, as very rich individuals have a much higher propensity to save, that is to invest in hedge funds that promise high returns. Most mainstream economists attribute the increased income inequality in the US primarily to technological change and the thereby changed supply and demand of skills (Chicago Booth 2012); or, in the words of Acemoglu (2003), „technical change favors more skilled workers“. However, managing a hedge fund is not principally about cutting-edge technology, but rather about identifying lucrative investment opportunities. In addition, technological change also affected countries such as Japan, France and Sweden that do not show a drastically increased income inequality. Hence, besides tax rates, other factors probably include (lack of) education and welfare transfers. Another plausible explanation is the significantly changed balance of power between workers and employers in the US since the late 1970s (Schmitt 2009). On balance, the rise of hedge funds is

inexplicable without taking into account the income inequality in the US (and the UK) that significantly increased since the early 1980s.

Somewhat surprisingly, however, wealth inequality did not increase from 1989 to 2009. The wealth share of the top one percent stayed at about 37 percent of total US net worth (Wolf 2010); though this figure clearly reveals an even more extreme inequality than regarding income. In the face of drastically increased income inequality this is clearly a paradox: „We have this income data where incomes are quadrupling, and tripling, and doubling, over a period of three decades – and the wealth figures show just a tiny, tiny little blip in that wealth concentration. That fantastic increase in incomes has to go somewhere“ (Shaxson et al. 2012). Undisclosed and unrecorded wealth deposited in offshore financial centers – such as Switzerland, Luxembourg, Ireland, the UK territories Cayman Islands, Bermuda or Jersey, and the domestic tax haven Delaware – seems to be the most plausible missing link in explaining this pivotal paradox. What is clear, however, is that HNWI are the one group that benefits the most from this enormous wealth that is hidden offshore; as Ötsch (2012: 27) has argued: „The offshore economy represents a financial and economic system, which provides a different legal framework for the benefit of elites at the expense of the majority.“

Figure 4 shows that in 1992 at least 81 percent of all the capital invested in hedge funds came from

Figure 5: Approximate share of individuals in hedge fund industry 1992, 1996–2011 (%)



Source: Authors calculations based on TheCityUK (2012)

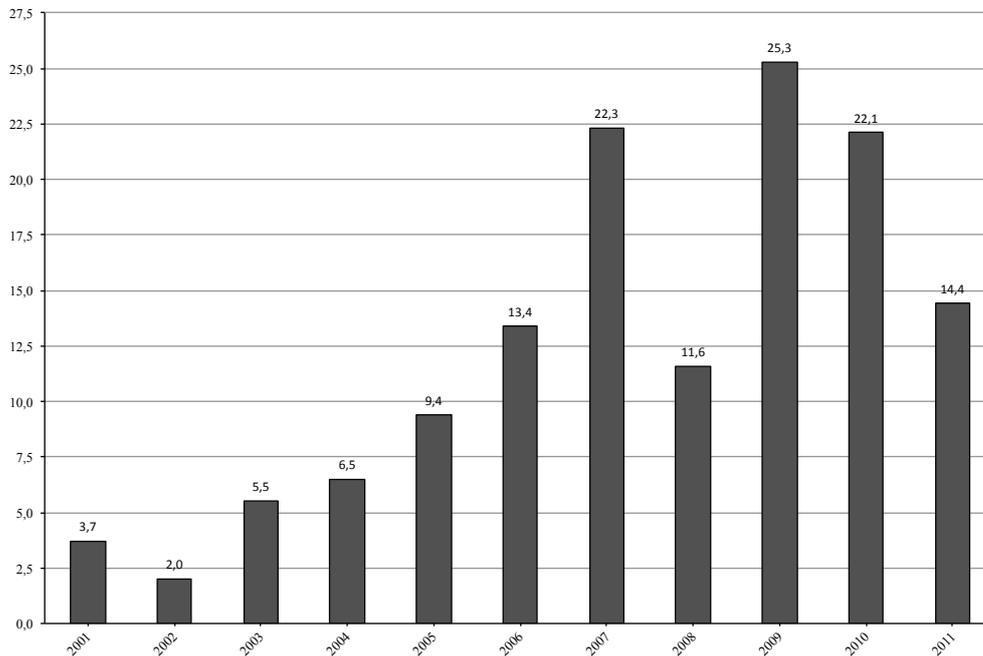
HNWIs. The second largest category of investors was „Funds of Hedge Funds“. A fund of funds adds an additional layer between the investors and the hedge funds; their supposed benefits are better risk diversification, access to closed funds and better transparency through experienced funds of funds managers (Lhabitant 2007). Furthermore, funds of hedge funds have generally lower minimum investment requirements than hedge funds. Due to a lack of data about which types of investors allocate how much capital to funds of funds this category is a „black box“ when we want to know the ultimate sources of capital of hedge funds – and this black box grew from 14 percent to 27 percent in 2002, and even to 32 percent in 2008.

However, all types of investors allocate capital to funds of hedge funds. Therefore, due to a lack of available data, we assume that their shares in funds of funds are the same as in hedge funds excluding funds of funds. In the absence of available data this method should provide a reasonably good approximation of the ultimate sources of capital of hedge funds. Figure 5 shows the approximate ultimate share of high net worth individuals in the hedge fund industry in 1992 and from 1996 to 2011. In 1992 this share still was at 94 percent; from 1996 to 2003 the share of high net worth individuals dropped from 74 percent to 58 percent.

After a brief rise in 2004 and 2005, the share dropped significantly to a low of 31 percent in 2010.

It is not yet clear why the share of high net worth individuals is more or less continually falling since the early 1990s. One of the most probable explanations is that institutional investors, such as pension funds, and corporations cast off their reluctance towards the perceived risky hedge fund industry over time. However, very recently there was anecdotal evidence that many high net worth individuals feel that the fees charged by most hedge funds are too high – the typical fee structure of hedge funds is known as „2 & 20“: a performance-based fee of 20 percent of profits plus a high management fee of two percent. In addition, „rich private investors are turning their backs on hedge funds because moves to attract more conservative pension fund clients mean managers no longer deliver the big returns they crave“ (Wilkes/Vellacott 2012). Chapman (2012) argues that from 1999 to 2011 the „hedge fund community“ (hedge funds plus their prime brokers) has outperformed „the market“ (the US S&P 500 and the UK FTSE All Share stock indices) in every single year except 2006. However, when accounting for hedge fund fees and prime broker fees, the ultimate returns of hedge fund investors were below market returns in seven out

Figure 6: Income of the top 25 highest-earning hedge fund managers 2001–2011 (\$ billions)



Source: Institutional Investor's Alpha (2012)

of these 13 years (ibid.). A study by Lack (2012) even found that from 1998 to 2010 hedge fund managers have pocketed a staggering 84 percent to 98 percent of all returns generated by the entire hedge fund industry: „What investors have paid compared with what they've received is almost breathtaking. Hedge fund managers and funds of hedge funds have succeeded in generating substantial profits. However, they've also managed to keep most of the gains for themselves, while at the same time successfully propagating the notion that broad, diversified hedge fund allocations are a smart addition to most institutional portfolios. That's quite a trick!“ (Lack 2012: 69)

This arguably means that HNWIs exclusively enjoyed the high (out-)performance of hedge funds during the 1980s and 1990s, but when institutional investors increased their share in the rapidly growing hedge fund industry vis-à-vis HNWIs in the mid-2000s, the outperformance of hedge funds decreased significantly. Although in 2008 hedge funds performed far less badly than the major stock markets, from 2009 until 2012 the hedge fund industry nearly continually underperformed them (Chapman 2012). Hence, as institutional investors such as pension funds or insurance companies (part of Corporations & Other in Figure 5) increased their allocations to

hedge funds, a larger share of the very high (and increasingly undue) fees was indirectly paid by people of the “bottom 90 percent”. Lack (2012) estimates that between 1998 and 2010 the hedge fund industry received fees in the order of between \$324 billion and \$479 billion. It should not be entirely surprising, then, that the top 25 individual hedge fund managers alone earned \$136.2 billion between 2001 and 2011 (Figure 6).

Even 2008, when virtually all financial markets slumped, the top 25 highest-earning hedge fund managers together made \$11.6 billion. In 2010 the top 25 hedge fund managers alone made \$22.1 billion. This enormous income in the hands of very few hedge fund managers represented roughly six percent of the total income share of the „ultra-rich“ top 0.01 percent of the US population – the top 15,600 families that collectively had an income of about \$372 billion (Saez/Piketty 2012). Hence, extraordinarily high income of the top hedge fund managers is further increasing income inequality in the US. Significantly increased income inequality was identified by many heterodox political economists as one of the root causes that led to the financial crisis that began as the „Great Recession“ in 2008.

## 5. The financial crisis – inequality and hedge funds at work

One of the first prominent economists to highlight the link between increased income inequality and the financial crisis since 2008 was Rajan (2010). Rajan argued that the decline in their relative incomes since the 1980 led many of the „bottom 90 percent“ consumers in the US to increase debt in order to keep consumption high. A considerable portion of the debt by the low-income households took the form of subprime mortgages. This behavior has temporarily kept private consumption high, despite stagnating or falling incomes for many households. See van Treeck/Sturn (2012) for a comprehensive survey about this „Rajan controversy“ and the current debates about the role of income inequality as a cause for the Great Recession; they conclude: „Rising income inequality seems to have contributed to the emergence of a credit bubble which eventually burst and triggered the Great Recession“ (ibid: 24). Some scholars, notably Livingston (2009) as well as Kumhof/Ranci re (2010), stressed high income inequality, and thereby induced high household debt-to-income ratios, as similarities between the Great Recession of 2008 and the Great Depression of 1929.

In a recent working paper Stockhammer (2012: 1) argued that „the economic imbalances that caused the present crisis should be thought of as the outcome of the interaction of the effects of financial deregulation with the macroeconomic effects of rising inequality“. Extending Rajan’s analysis, Stockhammer identified the increased income of the rich and super rich as one key channel that contributed to the crisis. Richer households tend to hold riskier financial assets than lower income groups. Hence, according to Stockhammer, particularly the rise of subprime derivatives, but also the rise of hedge funds, can be linked to the rise of the super rich and their appetite for risky assets that promise high returns.

Lysandrou (2012) even argued that there was a „primacy of hedge funds in the subprime crisis“. According to this interpretation of the crisis, hedge funds contributed significantly to the development of a market for subprime derivatives through their close relationship with the prime broker divisions of the large investment banks. Most hedge funds found it increasingly difficult to generate high returns in the years after the dot-com crash, from 2003 to 2006, due to a very low level of interest rates, the tightening of bond yield spreads, and higher competition by the increasing number of other

hedge funds (Lysandrou 2011). Hence, they sought new investment opportunities, such as subprime derivatives. This argument is confirmed by the fact that at the end of 2006 the hedge fund industry held 48 percent of the total stock of Collateral Debt Obligations (CDOs), while its assets under management amounted to only a little over one percent of the world’s total stock of securities (Lysandrou 2012). This is an extreme concentration of hedge fund investments in one arcane asset class – of course, such a concentration was only possible because of the unequal regulation of hedge funds discussed in section three. This alternative interpretation of the financial crisis stresses the fact that hedge funds exerted a strong buy-side pressure to create CDOs. Investment banks (prime brokers) passed this demand pressure on to mortgage brokers, which then increased the amount of subprime loans that could be „sliced and diced“ into CDOs. As we all know today these subprime CDOs acted as the spark that ignited the financial crisis.<sup>4</sup>

Many hedge funds, such as a fund called Magnetar, reportedly realized the toxic nature of many subprime CDOs they held. However, apparently they did not simply sell these arcane financial instruments. On the contrary, Magnetar cooperated with investment banks to design and create even more CDOs. Then, Magnetar and other hedge funds wagered against the very same CDOs they helped to create using another arcane financial instrument – credit default swaps (CDS) (Eisinger and Bernstein 2010). The hedge fund Paulson & Co cooperated with the investment banks Goldman Sachs and Deutsche Bank to create CDOs and then wagered on their collapse – Goldman Sachs later agreed with the SEC to pay a record-breaking \$550 million fine to settle the case (Economist 2011). As Zuckerman (2009: 182) writes, some observers „argued that Mr. Paulson’s actions indirectly led to more dangerous CDO investments, resulting in billions of dollars of additional losses for those who owned the CDO slices“. It is estimated that in 2007 alone Paulson & Co made a staggering \$15 billion with such bets on the crash of the real-estate market in the US. In that year John Paulson himself earned about \$4 billion in performance fees from „the greatest trade ever“ (Zuckerman 2009).

4 At the beginning of the subprime crises in mid-2007 three hedge funds managed by the investment bank Bear Stearns that were heavily invested in CDOs collapsed and had to be rescued by the bank thus foreshadowing its own collapse in 2008.

As mentioned before, performance-based fees of US hedge fund managers (and private equity fund managers) – which are also known as „carried interest“ – are taxed only with the capital gains rate. The maximum capital gains tax rate was continually lowered from about 29 percent in 1995 to roughly 15 percent since 2003 (as shown in Figure 3). In contrast, the top marginal income tax rate is much higher at 35 percent since 2003. This unequal treatment of capital gains benefited hedge fund managers enormously; they could earn billions of dollars per year and only pay a comparably low tax rate. In 2010 President Obama proposed to tax carried interest with the normal income tax rate. Stephen Schwarzman, the founder and chairman of the large private equity company Blackstone, fiercely criticized this proposal even saying in private: „It’s war. It’s like when Hitler invaded Poland in 1939“ (Quinn 2010). Although Schwarzman later apologized for this obscene statement it shows the vested interests in this unequal treatment of capital gains.

In the US rich hedge fund managers (and private equity fund managers) started to convert their private wealth into political influence. Whereas in 1990 hedge fund managers contributed just \$125,000, this sum increased to \$1.6 million in 1996, to over \$4 million in 2002 and then to over \$19 million in 2008. In the 2012 election cycle hedge funds contributed over \$32 million – 24 percent to Democrats and 76 percent to Republicans. Private equity and investment firms contributed over \$54 million (Center for Responsive Politics 2012). These are still comparably small shares of total party contributions, but they are rising fast. In 2010 the US Supreme Court allowed unlimited private contributions through opaque „super PACs“ (political action committees) that theoretically operate independent of the campaigns they support, but in reality do not (Potter 2012). Hence, contributions from ultra-rich hedge fund managers are likely to increase further. In the UK, hedge funds and private equity firms even contributed a staggering 27 percent of all donations to the ruling Conservative party in 2011 (Mathiason 2011); this arguably makes sure that the UK remains a staunch supporter of lax hedge fund regulation. Even though hedge fund managers could not prevent the re-election of President Obama in November 2012 with their contributions to the Republicans, it currently seems very probable that their political influence in the US – and also the UK – will further increase in the future, as they have just begun to convert wealth into influence.

## 6. Conclusion

It was the purpose of this paper to show that the rise of hedge funds was indeed a story of inequality. Whereas the first rise of the hedge fund industry – from the late 1940s until the early 1970s when most funds collapsed – had virtually no consequences, the second rise – from the early 1980s until today – impacted the global financial markets significantly. Hedge funds have risen to the very pinnacle of global finance. The rise of hedge funds was made possible by various interdependent dimensions of inequality: The marked inequality between the (non-)regulation of hedge funds and the much stricter regulation of other financial market actors – supplemented by the fact that hedge funds have a distinct advantage by shifting their legal domicile to offshore financial centers that provide lower levels of regulation and taxation; furthermore, the drastically increased income inequality since the early 1980s, primarily in the US and the UK. Both dimensions of inequality are closely connected, because hedge funds may only accept investments by high net worth individuals (HNWIs) that have more than \$1 million in investable wealth (and by institutional investors) in order to be exempt from most US and UK regulation.

The exempt legal status provides hedge funds with a number of distinct advantages over institutional investors such as mutual or pension funds. Hedge funds (at least global macro funds) are able to concentrate their capital in a few selected investments – as in 1992 when Soros was able to „bet everything on one card“ and succeeded in forcing the UK out of the ERM. Hedge funds can build up high leverage to enhance returns – but this also can drastically increase risk as the episode of LTCM showed. In addition, hedge funds face much lower reporting and disclosure standards than other institutional investors. Although both the US and the UK have recently tightened the regulation of hedge funds a little bit, for example by mandatory registration of hedge fund managers, both countries in principle still adhere to the indirect regulation paradigm. The traditional rationale for refraining from strict direct regulation was that hedge funds were too small to matter and that HNWIs should be free from government regulation in their investment decisions. Both rationales have become obsolete in the course of the financial crisis. As Lysandrou showed, hedge funds did play a crucial role in the financial crisis. Hence, they are clearly not too small to matter anymore. Furthermore, the beneficial role ascribed to them by many

mainstream economists has to be doubted after the crisis. Financial regulation should protect the interests of the entire population not just those of HNWIs. Drastically increased income inequality and hedge fund involvement in the expansion of subprime mortgages played a vital part for the financial crisis. Hence, there is good reason to argue that the exempt legal status of hedge funds should be abolished and consequentially that they should be regulated like any other institutional investor. The AIFM directive by the EU is a step in that direction but arguably not a decisive one.

On balance, the rise of hedge funds was significantly driven by surging income inequality in the US (and the UK) since the early 1980s, as HNWIs sought (risky) investments that promised high returns. Hence, HNWIs had the privilege to make use of potentially very lucrative investment opportunities that were not accessible to the rest of the population. From the 1980s onwards many hedge funds ceased to be hedge funds in the risk-averse way characterized by Alfred Winslow Jones, but should rather be called wager or speculation funds. The reemergence of global finance that began in the 1970s – primarily enabled by the US and the UK – paved the way for the rise of hedge funds that began one decade later. It remains to be seen if the hedge fund industry will really more than double to \$5 trillion by 2016 as recently predicted by Citigroup (Businesswire 2012). However, it seems probable to conclude that the rise of hedge funds will continue until the story of inequality, which enables and fuels this rise, will finally come to an end.

## References

- Acemoglu, D. (2003): *Technology and Inequality*, National Bureau of Economic Research. Online: <http://www.nber.org/reporter/winter03/technologyandinequality.html> [20.12.2012]
- Alvaredo, F./Atkinson, A. B./Piketty, T./Saez, E. (2012): *The World Top Incomes Database*. Online: <http://g-mond.parisschoolofeconomics.eu/topincomes> [20.12.2012]
- Atkinson, A. B./Piketty, T./Saez, E. (2011): Top Incomes in the Long Run of History. *Journal of Economic Literature*, 49 (1), 3-71.
- de Brouwer, G. (2001): *Hedge Funds in Emerging Markets*. Cambridge: Cambridge University Press.
- Brunnermeier, M./Nagel, S. (2004): Hedge Funds and the Technology Bubble. *The Journal of Finance*, 59 (5), 2013-2040.
- Center for Responsive Politics (2012): *Hedge Funds: Long-Term Contribution Trends*. Online: <http://www.opensecrets.org/industries/totals.php?cycle=2012&ind=F2700> [20.12.2012]
- Chapman, J. (2012): Hedge fund gains are other funds' losses. *Financial Times*. Online: <http://www.ft.com/cms/s/0/9c8fb776-7e49-11e1-b009-00144feab49a.html> [20.12.2012]
- Chicago Booth (2012): *Inequality and Skills*, IGM Forum. Online: [http://www.igmchicago.org/igm-economic-experts-panel/poll-results?SurveyID=SV\\_oIALhdDH2FoRDrm](http://www.igmchicago.org/igm-economic-experts-panel/poll-results?SurveyID=SV_oIALhdDH2FoRDrm) [20.12.2012]
- Citizens for Tax Justice (2012): *Top Federal Income Tax Rates Since 1913*. Online: <http://www.ctj.org/pdf/regcg.pdf> [20.12.2012]
- Connor, G./Woo, M. (2004): *An Introduction to Hedge Funds*. Online: <http://eprints.lse.ac.uk/24675/1/dp477.pdf> [20.12.2012]
- Dyreg, S./Lindsey, B./Thornock, J. (2012): *Exploring the Role Delaware Plays as a Tax Haven*. Oxford University Centre for Business Taxation Working Paper WP 12/12. Online: <http://www.sbs.ox.ac.uk/centres/tax/papers/Documents/WP1212.pdf> [20.12.2012]
- Economist (2011): *Market-making rules: Abacussed*. Online: <http://www.economist.com/node/21531013> [20.12.2012]
- Edwards, F. (2004): The Regulation of Hedge Funds: Financial Stability and Investor Protection. In: Baums, T./Cahn, A. (eds.): *Hedge Funds: Risks and Regulation*. Berlin: De Gruyter, 30-54.
- Epstein, G. A. (2005): *Financialization And The World Economy*. Cheltenham: Edward Elgar.
- Eichengreen, B./Mathieson, D. (1999): *Hedge Funds: What Do We Really Know?*, IMF Economic Issues No. 19. Online: <http://www.imf.org/external/pubs/ft/issues/issues19/index.htm> [20.12.2012]
- Eisinger, J./Bernstein, J. (2010): *The Magnetar Trade: How One Hedge Fund Helped Keep the Bubble Going*. ProPublica. Online: <http://www.propublica.org/article/all-the-magnetar-trade-how-one-hedge-fund-helped-keep-the-housing-bubble> [20.12.2012]
- Fioretos, O. (2010): Capitalist diversity and the international regulation of hedge funds. *Review of International Political Economy*, 17 (4), 696-723.
- Fung, W./Hsieh, D. A. (1999): A primer on hedge funds. *Journal of Empirical Finance*, 6, 309-331.
- Goldin, C./Margo, R. A. (1992): The Great Compression: The wage structure in the United States at mid-century. *The Quarterly Journal of Economics*, 107 (1), 1-34.
- Harmes, A. (2002): The Trouble with Hedge Funds. *Review of Policy Research*, 19 (1), 156-176.
- Heinz, K. (2011): *Presentation to US Department of Labor Advisory Council on Employee Welfare and Pension Benefit Plans*. Online: <http://www.dol.gov/ebsa/pdf/heinz071911.pdf> [20.12.2012]
- Helleiner, E. (1995): *Explaining the Globalization of Financial Markets: Bringing States Back in*. *Review of International Political Economy*, 2 (2), 315-341.

- Hendry, I./Dickinson, S. (2011): *British Overseas Territories Law*. Oxford: Hart Publishing.
- Hennessee Group (2005), *Hedge Fund Sources of Capital*. Online: <http://www.hennesseegroup.com/information/info/SourcesofCapital2005.pdf> [20.12.2012]
- Horsfield-Bradbury, J. (2008): *Hedge Fund Self-Regulation in the US and the UK*. Online: [http://www.law.harvard.edu/programs/corp\\_gov/papers/Brudney2008\\_Horsfield-Bradbury.pdf](http://www.law.harvard.edu/programs/corp_gov/papers/Brudney2008_Horsfield-Bradbury.pdf) [20.12.2012]
- HFR (2012): *Hedge Fund Assets Surge To Record Level On Strong 1Q Gains*. Online: [https://www.hedgefundresearch.com/pdf/pr\\_20120419.pdf](https://www.hedgefundresearch.com/pdf/pr_20120419.pdf) [20.12.2012]
- Institutional Investor's Alpha (2012): *The Rich List*. Online: <http://www.institutionalinvestorsalpha.com/Hedge-FundRichList.html> [20.12.2012]
- Jaecklin, S./Gamper, F./Shah, A. (2011): *Domiciles of Alternative Investment Funds*. Online: [www.alfi.lu/sites/alfi.lu/files/files/Publications\\_Statements/Press\\_releases/Oliver-Wyman-presentation-written-21-11-11.pdf](http://www.alfi.lu/sites/alfi.lu/files/files/Publications_Statements/Press_releases/Oliver-Wyman-presentation-written-21-11-11.pdf) [20.12.2012]
- Jones, S. (2011): Cayman directors sit on hundreds of boards. *Financial Times*. Online: [www.ft.com/intl/cms/s/o/913e31b6-114a-11e1-a95c-00144feabdco.html](http://www.ft.com/intl/cms/s/o/913e31b6-114a-11e1-a95c-00144feabdco.html) [20.12.2012]
- Kumhof, M./Rancière, R. (2010): *Inequality, Leverage and Crises*. IMF Working Paper WP 10/12/268. Online: [www.imf.org/external/pubs/ft/wp/2010/wp10268.pdf](http://www.imf.org/external/pubs/ft/wp/2010/wp10268.pdf) [20.12.2012]
- Krugman, P. (2007): *The Conscience of a Liberal*. New York: W. W. Norton.
- Livingston, J. (2009): Their Great Depression and Ours. *Challenge*, 52 (3), 34-51.
- Lack, S. (2010): *The Hedge Fund Mirage*. Hoboken: Wiley.
- Lhabitant, F.-S. (2007): *Handbook of Hedge Funds*. Chichester: Wiley.
- Lysandrou, P. (2011): Global inequality as one of the root causes of the financial crisis: a suggested explanation. *Economy and Society*, 40 (3), 323-344.
- Lysandrou, P. (2012): The primacy of hedge funds in the subprime crisis. *Journal of Post Keynesian Economics*, 34 (2), 225-253.
- Mallaby, S. (2007): Hands off Hedge Funds. *Foreign Affairs*, 86 (1), 91-101.
- Mallaby, S. (2010): *More Money than God: Hedge Funds and the Making of a New Elite*. London: Bloomsbury.
- Mathiason, N. (2011): *Hedge funds, financiers and private equity make up 27% of Tory funding*. The Bureau of Investigative Journalism. Online: <http://www.thebureauinvestigates.com/2011/09/30/hedge-funds-financiers-and-private-equity-tycoons-make-up-27-of-tory-funding/> [20.12.2012]
- Noah, T. (2010): *The Great Divergence: America's Growing Inequality Crisis and What We Can Do about It*. New York: Bloomsbury Press.
- Norton Rose (2012): *AIFM Directive*. Online: [www.bdo.com/Publications/Documents/AIFM20directive.pdf](http://www.bdo.com/Publications/Documents/AIFM20directive.pdf) [20.12.2012]
- Oesterle, D. A. (2006): Regulating Hedge Funds. *Entrepreneurial Business Law Journal*, 1 (1), 1-42.
- Ötsch, S. (2012): Die Normalität der Ausnahme: Finanzoasen als Parallelökonomie von Eliten und die ausbleibende Regulierung. *Momentum Quarterly*, 1 (1), 27-44.
- Padoa-Schioppa T./F. Saccomanni (1994): Managing a market-led global financial system. In: Kenen, P. B. (ed.): *Managing the World Economy. Fifty Years After Bretton Woods*. Washington, DC: Institute for International Economics, 235-68.
- Potter, T. (2012): Five myths about super PACs. *The Washington Post*. Online: [http://www.washingtonpost.com/opinions/five-myths-about-super-pacs/2012/04/13/gIQAG-PnEFT\\_story.html](http://www.washingtonpost.com/opinions/five-myths-about-super-pacs/2012/04/13/gIQAG-PnEFT_story.html) [20.12.2012]
- Preqin (2011): *Global Investor Report Hedge Funds*. Online: [www.preqin.com/docs/reports/preqin\\_global\\_investor\\_report\\_hedge\\_funds.pdf](http://www.preqin.com/docs/reports/preqin_global_investor_report_hedge_funds.pdf) [20.11.2012]
- Quinn, J. (2010): Blackstone chief Schwarzman likens Obama to Hitler over tax rises. *The Telegraph*. Online: <http://www.telegraph.co.uk/finance/newsbysector/banksandfinance/7949062/Blackstone-chief-Schwarzman-likens-Obama-to-Hitler-over-tax-rises.html> [20.12.2012]
- Rajan, R. (2010): *Fault Lines: How Hidden Fractures Still Threaten the World Economy*. Princeton: Princeton University Press.
- Rappeport, A. (2007): *A Short History of Hedge Funds*. Online: <http://www.cfo.com/article.cfm/8914091> [20.12.2012]
- Russell, J. (1989): Alfred W. Jones, 88, Sociologist And Investment Fund Innovator. *The New York Times*. Online: <http://www.nytimes.com/1989/06/03/obituaries/alfred-w-jones-88-sociologist-and-investment-fund-innovator.html> [20.12.2012]
- Saez, E./Piketty, T. (2012): *Income Inequality in the United States, 1913-1998* (Tables and Figures Updated to 2010). Online: <http://elsa.berkeley.edu/~saez/TabFig2010.xls> [20.12.2012]
- Scaramucci, A. (2012): *The Little Book of Hedge Funds*. Hoboken: Wiley.
- Schmitt, J. (2009): Inequality as policy: The United States since 1979. *Real-World Economics Review*, 51, 2-9. Online: [www.paecon.net/PAEReview/issue51/Schmitt51.pdf](http://www.paecon.net/PAEReview/issue51/Schmitt51.pdf) [20.12.2012]
- SEC (2011): *SEC Adopts Dodd-Frank Act Amendments to Investment Advisers Act*. Online: <http://www.sec.gov/news/press/2011/2011-133.htm> [20.12.2012]
- Shaxson, N./Christensen, J./Mathiason, N. (2012): *Inequality: You Don't Know the Half of It (Or why inequality is worse than we thought)*. Tax Justice Network. Online: [http://www.taxjustice.net/cms/upload/pdf/Inequality\\_120722\\_You\\_dont\\_know\\_the\\_half\\_of\\_it.pdf](http://www.taxjustice.net/cms/upload/pdf/Inequality_120722_You_dont_know_the_half_of_it.pdf) [20.12.2012]
- Stockhammer, E. (2012): *Rising Inequality as a Root Cause of the Present Crisis*. PERI Workingpaper Series Number 282. Online: [www.peri.umass.edu/fileadmin/pdf/](http://www.peri.umass.edu/fileadmin/pdf/)

- working\_papers/working\_papers\_251-300/WP282.pdf  
[20.12.2012]
- Stulz, R. M. (2007): *Hedge Funds: Past, Present and Future*.  
Online: <http://ssrn.com/abstract=939629> [20.12.2012]
- TheCityUK (2012): *Hedge Funds*. Online: <http://www.thecityuk.com/research/our-work/reports-list/hedge-funds-2012/> [20.12.2012]
- van Treeck, T./Sturn, S. (2012): *Income inequality as a cause of the Great Recession? A survey of current debates*. ILO Conditions of Work and Employment Series No. 39. Online: [http://www.ilo.org/travail/whatwedo/publications/WCMS\\_187497/lang--en/index.htm](http://www.ilo.org/travail/whatwedo/publications/WCMS_187497/lang--en/index.htm) [20.12.2012]
- Wilkes, T./Vellacott, W. (2012): *The rich bail out of changing hedge fund industry*. Reuters. Online: <http://www.reuters.com/article/2012/10/23/uk-hedgefunds-rich-idUSLNE89MooN20121023> [20.12.2012]
- Wolfe, T. (2008): Greenwich Time. *The New York Times*.  
Online: [http://www.nytimes.com/2008/09/28/opinion/28wolfe.html?\\_r=0](http://www.nytimes.com/2008/09/28/opinion/28wolfe.html?_r=0) [20.12.2012]
- Wolff (2010): *Recent Trends in Household Wealth in the United States: Rising Debt and the Middle-Class Squeeze – an Update to 2007*. Levy Economics Institute Working Paper No. 589. Online: [www.levyinstitute.org/publications/?docid=1235](http://www.levyinstitute.org/publications/?docid=1235) [20.12.2012]
- Zuckerman, G. (2009): *The Greatest Trade Ever: The Behind-the-Scenes Story of How John Paulson Defied Wall Street and Made Financial History*. New York: Broadway Books.