

The Role of Speculators in the Market Crash of 1929

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Abstract: 90 years ago – in October 1929 - the crash on Wall Street created chaos in the financial markets. The Great Crash of 1929 led to the Great Depression the longest period of unemployment and contraction in modern history. The market crash of 1929 is considered a unique, five sigma event, occurring only once-in-a-lifetime. Seventy nine years after the Great Crash of 1929 (GC), the financial markets collapsed again in the Global Financial Crisis of 2008 (GFC) and threatened the financial stability of the world like in 1929. Explanations for the causes of a market crash can range from over-indebtedness, asset bubbles, speculation to massive leverage in the system. Crises can have different forms ranging from classic hunger crises to modern forms of demand crises, corporate crises and financial market crises. While the causes of a hunger crisis is often the result of a series of poor harvest, the causes of a financial market crisis can be complex and are not always easy to identify. In this paper I focus on the worst financial market crisis in history the GC in the USA. It was argued that funds and short sellers were the culprits of the crisis, and that they benefited from it. This paper covers the speculators in the GC by analysing their role, their strategies and their returns. I introduce an analysis of the role of speculators in their function as either liquidity providers or liquidity takers. As far as the theory of speculation is concerned I use Minsky's Financial Instability Hypothesis. The analysis shows that in a systematic crisis there are no winners and there is no place to hide.

Keywords: 1929; Wall Street Crash; Global; Finance; Crisis; Bankruptcy.

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I. Introduction

The market crash of 1929 is considered a unique, five sigma event, occurring only once-in-a-lifetime. Seventy nine years after the Great Crash of 1929 (GC), the financial markets collapsed again: the Global Financial Crisis of 2008 (GFC) threatened the financial stability of the world like in 1929. Explanations for the causes of the market crash range from over-indebtedness, asset bubbles, speculation to massive leverage in the system. Crises can have different forms ranging from classic hunger crises to modern forms of demand crises, corporate crises and financial market crises. While the causes of a hunger crisis is often the result of a series of poor harvest, the causes of a financial market crisis can be complex and are not always easy to identify. In this paper I focus on the biggest financial market crisis, the GC in the USA.¹ The market crashes of 1929 and 2008 were different from other major crises in that they threatened the stability of the financial markets and the real economy. Other crises include the stock market crash of 1987, the Mexican Peso crisis of 1994, the Asian credit crisis of 1997, the Russia debt default in 1998, the collapse of the hedge fund Long Term Capital Management (LTCM) in 1998, the bursting of the internet bubble in 2000 and the Enron fraud of 2002. Kindleberger lists ten big financial bubbles ranging from the Dutch Tulip Bubble in 1636 to the internet bubble of 1995-2000.² The collapse in asset prices – e.g. the shares on stock exchange, bonds in the bond market, distortions in currencies etc. – are often the culmination of a speculative bubble. In the GC it led to the deflation in prices and a long depression (The Great Depression). Reinhart and Rogoff define crises by quantitative thresholds (inflation, currency crashes and debasement) and by events (banking and external / internal defaults).³ In many cases I observe the building up of asset bubbles when the cost of borrowing is low and market participants become over-optimistic. This is in line with Hyman Minsky's Financial Instability Hypothesis.⁴ Many analysts and market participants argued that financial markets are self-regulatory and sort themselves out (cf. chapter 4.6, The Role of the Fed), politicians called for more and improved regulation to prevent future crises. This led to the creation of the SEC and a framework of regulations and acts.

When it comes to the causes of the crises, opinions are split regarding the role and influence of speculative investors. An important question often raised is: what is the role of funds, speculators and other leveraged institutions before, during and after such market crashes? Do they cause asset bubbles, do they bring them to burst or do they simply ride the waves and accelerate the trend? After both market crashes the world economy suffered a severe decrease in output and many financial institutions failed and had to be bailed out.

It is also important to note that after the 1929 crash the stock markets bounced a little bit before they started a four-year bear market. Because of the deliberate inactivity of the US central bank the US economy fell into a long recession (the Great Depression). The US stock markets needed 25 years (1929-1954) to reach the pre-crash index levels.

The stakeholders of financial markets are active market participants who transact (e.g. issuers, borrowers, investors, speculators, intermediaries, banks, prime brokers) and passive market participants who observe, regulate or comment on the markets (e.g. regulators and media).

The two main active market participants are the buyers and the sellers of assets. I call the instruments which they trade and have a price "assets": stocks, bonds, foreign exchange (FX), funds, real assets and derivatives. Investors can be divided into traditional and alternative / non-traditional investors, depending on their investment strategy, style or according to their holding period (short-term, mid-term or long-term). Intermediaries are dealer-brokers, acting on behalf of clients, in an agency function

¹ HESSE, Jan-Otmar, KOESTER, Roman, PLUMPE, Werner. 2014. Die grosse Depression. Die Weltwirtschaftskrise 1929-1939. Capmus Verlag: Frankfurt /New York. p. 179

² KINDLEBERGER, Charles P. 2005. *Manias, Panics and Crashes: A History of Financial Crises*. 5th ed. New York: Basic Books

³ REINHART, Carmen M., ROGOFF, Kenneth. 2009. *This Time Is Different: Eight Centuries of Financial Folly*, Princeton and Oxford: Princeton University Press

⁴ MINKSY, Hyman P. 1992. *The Financial Instability Hypothesis*. The Jerome Levy Economics Institute Working Paper No. 74. Available at SSRN: <http://ssrn.com/abstract=161024> visited 20 September 2012

rather than on their own account (as principals). Intermediaries earn a fee (fixed or percentage of assets traded).

It was argued that funds and short sellers were the culprits of the crisis, and that they benefited from it. This paper covers the role of speculators in market crises on the basis of the analysis of the GC by comparing the role of speculators, their strategies and their returns. I introduce an analysis of the role of speculators in their function as either liquidity providers or liquidity takers.

2. Hypothesis

The paper covers the role of speculators such as funds, banks, leveraged institutions and other market participants who use leverage. The analysis covers and compares the periods before and after the Great Crash of 1929 (GC), both from a qualitative and a quantitative point of view with a focus on the United States of America.

I investigate to what extent the above institutions, which are often labelled “speculators”, contribute to market crashes, whether they benefit from market dislocations and which trading and investment styles are profitable before, during and after the crash.

Hypothesis: speculators are responsible for market bubbles and their bursting.

Explanation: speculators are professional market participants with superior knowledge and flexible investment mandates which allow them to exploit market opportunities such as arbitrage and relative value. Their role as either liquidity providers or liquidity takers has an impact on asset bubbles.

Sub Hypo 1: certain speculators create bubbles (they tend to be liquidity providers).

Explanation: leveraged institutions are professional market participants with superior knowledge and flexible investment mandates which allow them to exploit market opportunities. Their role as liquidity providers or liquidity takers has an impact on asset bubbles.

Sub Hypo 2: certain speculators benefit from bursting bubbles (they tend to be liquidity takers).

Explanation: liquidity takers can exploit and trigger price actions due to their opportunistic activities.

3. Literature Review

The GC, i.e. the events of 1929 were investigated in much detail and over a period of several years by the Subcommittee on Banking and Currency (71st Congress) as well as the Committee on Banking and Currency (72nd and 73rd Congress). The relevant documents are the Commission Reports from 1931, 1932, 1933 and 1934.

Vast statistical data on banks is found in the 1931 Statistical Data⁵ covering the banks, the branches and the banking system. It shows that the number of incorporated commercial banks fell from 29,000 to 21,000 banks, a reduction of more than 8,000 between 1921 and 1931.⁶ It also shows a consolidation in the banking sector due to systematic suspensions of small banks which were not profitable.

The report of 1934 concludes that more regulation was necessary which had already started being put in place with the SEC Act 1933 and the SE Act of 1934, whereby the SEC got jurisdiction over the source and traffic in securities, and banking received three important principles: the separation of monetary policy, deposit insurance, and the separation of investment banking and commercial banking. In addition investment trusts were regulated in order to protect investments and the investors.

⁵ FEDERAL RESERVE COMMITTEE ON BRANCH, GROUP AND CHAIN BANKING: *Statistical Data*. 6 Nov 1931.

https://fraser.stlouisfed.org/scribd/?title_id=811&filepath=/docs/historical/federal%20reserve%20history/frcom_br_gp_ch_banking/progress_rpt_statdata19311106.pdf#scribd-open visited 18 August 2015

⁶ Ibid.

The Commission Report of 1934 is a key component for the understanding of the details of the GC (technical details as well as actions by the players). It is extremely comprehensive as it covers investment banking, corporate banking, private banking and chain banking, as well as other aspects such as investment trusts, holding companies and tax driven transactions on 400 pages.

In their monumental book “A Monetary History of the United States 1867-1960”⁷ Milton Friedman and Anna Schwarz discuss the monetary institutions, policies and instruments of US Federal Reserve Systems, before and after the 1929 crash. It is an excellent analysis of the development of monetary policy in the United States of America.

In “The Causes of the 1929 Stock Market Crash” Harold Bierman, Jr. offers an alternative analysis of the GC.⁸

Laurence A. Tisch Professor of History at Harvard University Niall Ferguson gives his views on the crisis of 1929 in his book “The Ascent of Money”.⁹ He writes that “*some financial disasters have obvious causes*”¹⁰ and the “*Crash of 1929 is much harder to explain*”¹¹. He mentions Irving Fisher at Yale University who said on the 16th of October 1929 that “US stock prices would stay permanently at a high plateau”. He feels that the depression of 1914 and the developments 10 to 15 years before are a better explanation for the crash. He mentions that in 1929 there was no shortage of pool activity and there were many enhanced technological innovations. Some of the companies that he quotes are DuPont (nylon), Procter & Gamble (soap powder), Revlon (cosmetics), Radio Corporation of America (RCA; electronics), and IBM (accounting machines).

Investors and speculators are often seen as opponents or rivals in the markets. The investment theory which Benjamin Graham and David Dodd developed after the Great Crash of 1929, during the Great Depression of the 1930s was influenced by the negative experience of speculation and speculators.¹² In their book *Securities Analysis*¹³ they formulated a new methodology (today generally called “Value Investing” or “Deep Value”) which acknowledges the irrationality of the market, but also focuses on a company’s fundamental data (in its strong form only focus on the balance sheet data) and ignores any attempts to forecast future cash flows; the objective is to find stocks which are significantly undervalued and hence have a significant margin of safety. In essence this approach is the anti-thesis of speculation. It is interesting to note that from 1936-1957 Benjamin Graham together with his associate Newman ran a successful investment fund (a hedge fund type vehicle) and employed their new approach, long before the generally accepted start of the hedge fund industry, attributed to A.W. Jones in 1948.

In academic literature as well as in practice the discussion regarding the efficiency of markets versus behavioural finance has become a hot topic, in particular since the GFC.

Over the last century many economists have covered or touched on the topic of speculation: Keynes discussed the speculative behaviour of firms¹⁴, Minsky¹⁵ and Friedman¹⁶ also looked at the question and the role of speculators, however this was mainly from a macro-economic point of view.

The American economist Hyman Minsky focused on the speculative aspects of markets and participants. He developed his “Financial Instability Hypothesis” in order to describe the impact of debt

⁷FRIEDMAN, Milton and SCHWARTZ, Anna. 1993. *A monetary history of the US, 1867-1960*, Princeton University Press, Princeton. p.151

⁸BIERMAN, Harold. 1998. *The Causes of the 1929 Stock Market Crash: A Speculative Orgy Or a New Era?*, London: Greenwood Publishing Group

⁹FERGUSON, Niall. 2008. *The Ascent of Money*, New York: Penguin (2008)

¹⁰Ibid. p. 159

¹¹Ibid. p. 159

¹²GRAHAM, Benjamin. 1949. *The Intelligent Investor*: New York: HarperCollins Books (reprint 2005).

¹³GRAHAM, Benjamin; DODD, David. 1934. *Securities Analysis*. New York: McGraw-Hill Book Company (reprint 2008).

¹⁴KEYNES, John Maynard. 1936. *The General Theory of Employment, Interest and Money*. Basingstoke, Hampshire: Palgrave Macmillan (reprint 2007).

¹⁵MINSKY (1992) op. cit.

¹⁶Friedman, Milton. 1953. "The Case for Flexible Exchange Rates." In Friedman. *Essays in Positive Economics*. Chicago: University of Chicago Press

on system behaviour, different market participants and the change from stable to unstable systems.¹⁷ Kindleberger uses Minsky's model to analyse and interpret the financial crises and crashes of the 20th Century.¹⁸ He differentiates between insiders and outsiders. Insiders are to destabilize, outsiders to stabilize markets.¹⁹ Minsky developed his theory covering financial instability, its causes and players.²⁰ In essence it is a theory of speculation, explaining the role of participants and the consequences of their behaviour for the economy. Minsky's theory is based on his work on Keynes' earlier papers²¹ as well as his main paper of 1992. The beauty of his theory lies in the abstract form, in which he describes the participants, the different stages of the economy and the trend from a stable to an instable state. He didn't use any mathematics or tests to prove his theory. In the last 20 years academics have developed new analytical concepts in order to test Minsky's purely theoretical approach.

Minsky deduces two theorems from the financial instability hypothesis:

- In the first theorem he states that an economy has financing regimes under which it is stable and financing regimes under which it is unstable.
- In the second theorem he states that the economy transits after a period of prolonged stability to an unstable system.
- In the event of inflationary pressures the leverage in speculative units and Ponzi units can lead to forced selling and to a market crisis.

Minsky finishes his paper stressing that "the financial instability hypothesis is a model of the capitalist economy which does not rely upon exogenous shocks to generate business cycles of varying severity."²² Business cycles are a result of internal (endogenous) developments as well as interventions and regulations. In his early work he created the "endogenous money" approach that was revived by Post Keynesians in the 1980s and developed his analysis of the cycles. Through his analysis and own theory he developed an alternative analysis of Keynes's theory.

Minsky's abstract, but very clear financial instability hypothesis with its theorems and three financing units is also useful to analyse, describe and explain the developments of 1929 and 2008, that is the shift from a stable economy to an instable economy. Minsky's pre-analytical vision is called the "Wall Street Paradigm".²³ Minsky puts the emphasis on the network of financial relationships and cash flows. The real economy, i.e. production and distribution follow the financial relationships. Minsky concludes that the "capitalistic market mechanism is coherently instable".²⁴

In 1998 Paul McCulley of PIMCO coined the term "Minsky moment" to describe the Russian debt/LTCM crisis. It was also used in the aftermath of 2008.²⁵

4. Discussion

The 1929 stock market bubble can be characterized by two main phenomena: holding companies as tools to control sectors and companies in a vertical structure and investment trusts as financial securities to give investors access (often leveraged) to a portfolio of stocks.

Holding companies which became popular in the late 19th century usually buy stakes in other companies in order to control them or their underlying companies. Before 1929 holding companies would often

¹⁷ MINSKY (1992) op. cit.

¹⁸ KINDLEBERGER (2005) op. cit.

¹⁹ Ibid. p. 33 & p. 39

²⁰ MINSKY (1992) op. cit.

²¹ MINSKY, Hyman P. 1986. *Stabilising an Unstable Economy*. Yale: Yale University Press.

²² Ibid. p.8

²³ SCHNYDER, MARC. 2002. *Die Hypothese der finanziellen Instabilität*, Dissertation, Universität Freiburg, Schweiz, p. 30

²⁴ Ibid. p. 30

²⁵ MCCULLEY, Paul. 2009. *The Shadow Banking System and Hyman Minsky's Economic Journey* available at: http://media.pimco-global.com/pdfs/pdf/GCB%20Focus%20May%2009.pdf?WT.cg_n=PIMCO-US&WT.ti=GCB%20Focus%20May%2009.pdf visited 12 April 2010

control many companies with very little equity by using a lot of leverage, via preferred shares, but also via debt. The companies of 1929 invested mainly in established, mature industries and enterprises and only to a lesser extent in new areas (such as television).²⁶ Most companies were listed on stock exchanges.

Investment trusts were the second main vehicles of leverage allowing investors to pool their resources in order to buy stocks. They were closed-ended funds, often listed on stock exchanges. While some investment trusts had very concentrated portfolios, many investment trusts had between 500 and 1,000 investments. The main idea of the holding company was control of companies and the main idea of investment trusts diversification and leveraged returns of the underlying portfolio. Before 1921 there was only a small number of investment trusts in the US.

Holding companies and investment trusts which are collective investment schemes played a key role in the GC. After 1921 US investors started to become interested in investment trusts and by 1927 there were over 160 existing plus 140 newly launched investment trusts. In 1928 186 new investment trusts worth \$ 400m were launched. In 1929 there was an even higher number of new launches reaching a market value of \$ 3b.²⁷

Collective investment schemes are portfolios or pools of assets employing different investment styles, e.g. active, speculative or non-speculative styles or passive. It is a generic term for funds and includes open-ended and closed ended funds for private and institutional investors with varying degrees of risk and sophistication. The concept of collective investment schemes (fund investments) can be dated back to the 17th century when the first funds were set up in England. In the 19th century the first mutual funds for retail investors were set up in Scotland. In the beginning of the 20th century closed-ended investment trusts became very popular with investors as they offered diversification and sometimes leverage. In the run up to the Great Crash of 1929 many closed-ended investment trusts were listed on stock exchanges.

Galbraith discusses the structure of a typical investment trust: \$ 150m were issued in Jan 1929, a third came from bonds, a third from preferred stocks, a third from common stocks. When the \$ 150 million invested assets traded at a value of \$ 225 million by summer 1929, the bonds and preferred stocks were still worth only \$ 100 million. The remaining common stocks now had an underlying value of \$ 125 million, hence had increased in value from \$ 50 million to \$ 125 million. He calls this the “magic of leverage”.²⁸

Case Study: Goldman Sachs Trading Corporation Investment Trust

Goldman Sachs was a late comer in the investment trusts business and not active before December 1928. They launched the following vehicles:²⁹

First investment trust: In December 1928 Goldman Sachs launched Goldman Sachs Trading Corporation (GSTC) which issued 100 million shares at \$100 a share and sold them to the public for \$104. GSTC didn't use any leverage (had no bonds, no preferred stocks). In 1929 the price went up from 100 to 225 and GSTC started buying back its own stocks and by March 1929 it had bought 57 million worth of shares. Then it sold them to speculator William Crapo Durant (cf. chapter 4.1) who re-sold them to the public.

Second investment trust: on 25 July 1929 Goldman Sachs launched a new investment trust, Shenandoah Corporation with a combination of common and preferred stocks (a leverage of 7 x). Shenandoah Corporation was oversubscribed as 2 million shares out of the total of 5 million were bought by GSTC

²⁶ GALBRAITH (2009) op. cit. p.72

²⁷ Ibid. p.74

²⁸ Ibid. p. 82ff

²⁹ Ibid. p.85ff

(the first investment trust), 2 million by Central States Electric (another investment trust) and 1 million by the public. The price of Shenandoah Corporation rallied from 17.5 to 30 (trading on a when issued basis - before actual issuance) and later reached a high of 36. At the end of 1929 the price dropped to 8.

Third investment trust: Goldman Sachs launched Blue Ridge Corporation on August 20, 1929, with a capital of \$ 142 million sponsored by Shenandoah. Of the 7,250,000 shares 6,250,000 were subscribed by Shenandoah. Blue Ridge had a special feature as investors could swap existing holdings in individual shares into Blue Ridge stocks. e.g.: AT&T, Allied Chemical, Eastman Kodak, and General Electric et al. There was a lot of interest for this feature.

Other moves: GSTC also acquired Pacific American Associates, a West Coast investment trust, which owned American Trust Company, a large commercial bank. In order to finance this GSTC issued shares to acquire Pacific American Corp via a merger.

Bierman gives a detailed analysis of the structure of Goldman Sachs Trading Corporation.³⁰ He comes to the conclusion that the structure was highly levered and basically a pyramid scheme. The fact that three Goldman Sachs family members and five other senior figures sat on the board of the investment trust made it an interesting and investable opportunity for investors. The market price of GSTC fell from the high of 350 in 1929 to a low of 0.75 in 1933 when it was dissolved. Bierman considers the structure as sound and fair, but noted the investment into volatile stocks, into other investment trusts, conflicts of interest and the high leverage.

It is also interesting to note that the fee structure of GSTC and other investment trusts was similar to modern hedge funds. GSTC charged a management fee (not disclosed) and a 20% performance fee over an 8% minimum return hurdle.

Investment trusts used leverage and invested into other investment trusts, but there were also many cases of abuse. JP Morgan was the sponsor of the United and Alleghany Corporations and also entertained a preferred list, offering shares at discount to business contacts, JP Morgan partners and friends. Galbraith quotes an example from the 1934 Commission Report, where JP Morgan offered the investment trust United Corporation at \$ 75 when it traded at 92.³¹ Investment trusts were also used to control public money with very little equity, e.g. 50,000 shares controlled 250,000 in equity of US and Foreign Securities Company.³² Other cases of abuse include excessive profits to organizers by allocating substantial equity for a minimum of cash as well as a failure to diversify the holdings (e.g. US & FSC). In Goldman Sachs Trading Corporation there were many conflicts of interest. Some investment trusts were formed for ulterior purposes when they were created not to diversify but to conceal the purchasing of securities to enhance somebody else's holdings, without disclosing such a structure. Sometimes it was also used to protect other companies such as Pennroad Corporation. Sometimes investment trusts were also formed to control others and basically work like holding companies. The report also notes conflicts of interest between stock exchange members and investment trusts. Investment trusts only got regulated in 1933 with the Act of 1933.

Some holding companies had very complex structures, for example Alleghany Corporation. The idea of a holding company was the domination of a single field or industry. Holding companies were also designed to circumvent the so called Sherman Antitrust Law. Very often holding structures had pyramid structures, for example Alleghany. Abuses included intercompany accounting, the transfer of cash, securities and physical properties. The purpose was the concentration of wealth at the hands of the holding company. Other abuses included the many directorships in companies for example JP Morgan & Drexel and Co with 126 directorships in 89 companies.

³⁰ BIERMAN (1998) op. cit. p.71ff

³¹ Ibid.

³² GALBRAITH (2009) op. cit. p. 76-77

Table I: Major US Investment Trusts: 1929 ^{33 34 35}

Many of these investment trusts were invested into each other. Names of famous investment trusts include:

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- Alleghany
 - American Founders
 - Blue Ridge Corporation
 - Central States Electric
 - Goldman Sachs Trading Corporation
 - Lehman Corporation
 - Shenandoah Corporation
 - TriContinental Corporation
 - United Corporation
 - United Founders
 - US and Foreign Securities Company
-

Bierman compares investment trusts to closed ended mutual funds of the 1990s which were also sold at a premium. He also quotes Warren Buffet's investment vehicle Berkshire Hathaway which often also trades at a premium. He comes to the conclusion that investors are happy to pay a premium for superior money management skills. Bierman calls investment trusts a pyramid scheme because they bought shares of other investment trusts.

Table 2: Book Values Multiples of Major Investment Trust: 1929

³³ GALBRAITH (2009) op. cit.

³⁴ BIERMAN (1998) op. cit.

³⁵ COMMITTEE ON BANKING AND CURRENCY. (1934) op. cit.

The following table shows 1929 book values of major investment trusts with their multiples which indicate overvaluation due to the high numbers.³⁶

Table of IT markets (book value multiples):

Name	Price / Book Value
Goldman Sachs Trading Corp	2.95
Lehman Corp	1.49
Tri-Continental Corp	3.56
United Corp	2.05
United Founder	2.45

The Role of Banks, Investment Banks and Banking Groups

A big concern and problem in 1929 was the relationship between commercial banks and their investment affiliates, investment banks, borrowers and the public. There was a trend toward monopolies, such as N.M. Rothschild getting most of the Brazilian business, while Kuhn Loeb and JP Morgan were getting most of the US railroad businesses. The main investment banking functions were raising capital for industries, loans to governments (domestic) and effecting of cooperate ownership.

Investment banks developed new products such as public (syndication of deals and pegging of prices) and private offerings (investment and private banks used their own preferred lists). JP Morgan, Kuhn Loeb, National City Bank and many others had preferred lists for their own clients offering them allocations often at a discount to the public price. These preferred lists in private offerings created significant conflicts of interests and played a big part in the market abuses. Shares in private offerings were very often given to directors of companies or even the investment bankers or banks. Among the unsound practices in investment banks and abuse of the relationship between commercial banks and investment banks were the excessive compensation paid to investment banks and so called finders' fees. Other unsound practices in investment banking include unsound and unfair financial and corporate structure, perpetual option warrants, voting trusts and substitution of collateral. There was also a direct link between commercial banks and securities speculation. It also shows that commercial banks were involved in securities speculation between 1926 and 1929. In addition commercial banks were involved in credit and commercial banking activities.

Examples of these relationships between commercial banks and their investment affiliates include National City Bank (as the bank) and National City Company (as the investment affiliate). Another example was Chase National Bank (as commercial bank) and Chase Securities (as the investment affiliate). These investment affiliates were conduits to circumvent the law. It allowed or enabled banks to engage in investment banking business deals which were prohibited to banks by law. Abuses here include: operating out of affiliates, trading and pool operations, and trading accounts, in particular the activities of Chase National Bank between 1928 and 1932. The Banking Act of 1933 led to the divorce of commercial banks from all investment affiliates and investment activities.

Commercial banking practices included excessive salaries and bonuses for National City Bank CEO Charles Mitchell and Chase National Bank CEO Wiggin, pensions, preferred lists for bank officers, employment of examiners and loans and payments to clients.

³⁶ Ibid. p.74

In the 1920s a bank was defined as an institution operating on the basis of a governmental authority to engage in the business of banking. A private bank by contrast did not have any special privileges or authority.

Examples of Private Banks:

- JP Morgan
- Kuhn Loeb
- Dillon, Read

Many functions of a private bank were similar to commercial banks. Some private banks also engaged in investment banking activities. Group and Chain Banking are defined as a structure where a number of banks keep their own identity, through a holding company. They were often used to avoid banking rules and circumvent the law.

5. Conclusions

According to Galbraith, Bierman and the Commission report, investment trusts played an important if not the key role in the build-up of the bubble of 1929. They were typical LT, taking outright positions (leveraged longs). Investment trusts were similar to some highly levered, directional and structured hedge fund vehicles of 2008, as they charged a management fee and a performance fee (profit participation) betting on an increase in the market. As takers of liquidity the IT had a stellar performance until the crash and suffered badly in the aftermath of the crash all the way until 1933.

As we saw earlier, many investment trusts were wiped out, losing 99% of their value between 1929 and 1933. By contrast the providers of liquidity were the banks, the brokers and the shadow banking systems (call loans) in the form of corporate lending directly to the brokers. Like in the crash of 2008 these liquidity providers either didn't suffer at all or suffered only very small losses as they withdrew liquidity as soon as they saw that the market was correcting and stayed out. Many investment trusts that were launched before great crash of 1929, were not listed on the main exchange but on the New York curb. Most of these investment trusts lost their value and disappeared in the aftermath of 1929.

Most of the investment trusts morphed from being hedged units to speculators and in the ultimate version Ponzi units.

I identify four types of players in the GC: banks, private banks and brokers; the regulator; the investors; the investment trusts and holding companies. These are the main participants; however there are other participants such as the media, the general public as well as companies that might interact with the market.

The main players of the 1920s in the US were the following firms and individuals:

- Banks and Private Banks: Chase, National City, JP Morgan, Goldman Sachs, Loeb Kuhn, Lehman Brothers
- Bankers: Charles E Mitchell (Chairman, National City Bank and director of the NY Fed), Albert Wiggin (Chairman, Chase National Bank)
- Central Bank: NY Fed (George Harrison, Governor of the New York Fed 1928-1940); and Fed (Roy A Young, Governor of the Fed 1927-1930)
- Administration: Presidents: Coolidge (1925-29), Hoover (1929-33); Franklin D Roosevelt (1933-1945); Andrew Mellon (Secretary of Treasury in 1929)
- Other: John J Raskob, director of General Motors, later Democratic National Committee chairman; Irving Fisher (Professor at Yale University and head of the Endowment of Yale), Du Pont, William Crapo Durant (ex-General Motors director, fired by J Raskob, later became a full time speculator), Arthur Cutten (Canadian grain speculator), Jesse Livermore (day trader, speculator and famous short seller).

The 1934 Report shows that there was massive speculation on all fronts, both by liquidity takers (Investment trusts, holding companies, traders) and as well as liquidity providers (broker loans, call loans). There were also serious deficiencies in the system (pool systems, listings, director dealings): the unsound practices and methods of the banks and private banks, their conflicts of interest and abuses of their positions in the markets. Both commercial banks and private banks acted sometimes as liquidity takers and sometimes as liquidity providers. Group banking and chain banking was another major factor in the abuses in 1929 and prior to that, and tax avoidance was another major aspect of Crisis of 1929. Many vehicles were highly levered and largely responsible for the excess in the market.

The analysis of the role of speculators in the GC can be summarized as follows:

I showed that speculators played an important role in the financial market both as liquidity takers and liquidity providers. The hypothesis that speculators are responsible for market bubbles and their bursting because of their market position, superior knowledge and flexible investment mandates which allow them to exploit market opportunities such as arbitrage and relative value is confirmed to some extent. In the GC LP, LT and Variable Bias contributed massively to asset bubbles, mainly via their leverage and their exposure. The sub-hypothesis that certain speculators benefit from bursting bubbles (they tend to be liquidity providers) can be confirmed only to a limited extent. There is some evidence that in the GC pools and other criminal activities allowed participants to enrich themselves, but no evidence of market players benefiting through illegal means. In addition the financial markets were largely unregulated until 1933.

I show that in 1929 the majority of speculators were liquidity takers i.e. investment trusts as well as individual investors and traders, while banks, brokers and corporates, via call loans, acted as liquidity providers. Liquidity providers changed their strategy and their role in the market after the crash and withdrew from their function, as they saw that the crisis would become bigger and bigger and they wanted to protect their positions. In 1929 many liquidity providers such as corporates via their call loans, simply decided to withdraw liquidity and decided to no longer offer liquidity to the markets via broker loans. Broker dealers and market makers reacted similarly. Hence the basic assumption that liquidity providers would benefit in a market correction applies to normal circumstances, but not extreme cases such as 1929 and 2008. There is no place to hide in such scenarios.

There was a gap of 79 years between the GC and the GFC which according to Galbraith, was long enough to forget the repercussions of the disaster.

From a qualitative point of view, the LT / LP classification gives excellent insight into the risk exposure and activities of speculators and other risk takers such.

I conclude that policy makers have to be very careful with the analysis, assessment and actions regarding speculators. While speculators often provide useful and positive functions in the market, their perceived and often boasted superiority in information and skills has to be questioned. Ultimately they are exposed to the same risk factors, in particular liquidity which is difficult to model, trade and hedge. It is often the central bank which has to step in as lender of last resort which the Fed was too slow at.

6. References

- AREND, Walter, 1936. Die typischen Scenen bei Homer. Vol. 31, No. 4 (Oct., 1936), pp. 357-360
The University of Chicago Press
- AVIATION CROSSING. The Wright Brothers: Aeronautic Inventors | Star,
<http://www.aviationcrossing.com/article/1010010/The-Wright-Brothers-Aeronautic-Inventors/> visited 15 June 2012
- BACHELIER, Louis. 1900. Théorie de la speculation (in French), PhD Thesis. NUMDAM:
http://archive.numdam.org/ARCHIVE/ASENS/ASENS_1900_3_17_/ASENS_1900_3_17__21_0/ASENS_1900_3_17__21_0.pdf visited 6 June 2016
- BERNANKE, Ben S. 1994. The Macroeconomics of the Great Depression: A Comparative Approach. NBER Working Paper No. W4814. Available at SSRN: <http://ssrn.com/abstract=226519> visited 12 April 2013
- BERNANKE, Ben. Essays on the Great Depression. 2004. Princeton: Princeton University Press.
- BIERMAN, Harold. 1998. The Causes of the 1929 Stock Market Crash: A Speculative Orgy Or a New Era?, London: Greenwood Publishing Group
- BLANCHARD, Olivier. 1979. Speculative bubbles, crashes and rational expectations. Economics Letters. Volume 3, Issue 4, 1979, Pages 387-389. Harvard University, Cambridge, MA.
- BRANDES INSTITUTE. 2009. Benjamin Graham and Risk (April 1, 2009). Brandes Institute Research Paper No. 03, 2009. Available at SSRN: <http://ssrn.com/abstract=1898817> visited 28 March 2013
- CHAMBERS, David, DIMSON, Elroy and FOO, Justin. Keynes the Stock Market Investor: A Quantitative Analysis (September 26, 2013). Forthcoming, Journal of Financial and Quantitative Analysis (JFQA). Available at SSRN: <http://ssrn.com/abstract=2023011> visited 18 August 2015
- CHAMBERS, David and DIMSON, Elroy. 2013. "Retrospectives: John Maynard Keynes, Investment Innovator." Journal of Economic Perspectives, 27(3): 213-28.
- COGLEY, Timothy. Monetary Policy and the Great Crash of 1929: A Bursting Bubble or Collapsing Fundamentals? FRBSF Economic Letter. March 26, 1999.
<http://www.frbsf.org/economic-research/publications/economic-letter/1999/march/monetary-policy-and-the-great-crash-of-1929-a-bursting-bubble-or-collapsing-fundamentals/> visited 6 September 2016
- DIMAND, Robert W. and BEN-EL-MECHAIEKH, Hichem. 2005. The Origins of Mathematical Finance and the Efficient Markets Hypothesis: Louis Bachelier's Post-1900 Writings on the Theory of Speculation (March 2005). Available at SSRN: <http://ssrn.com/abstract=687472> visited 6 Aug 2015
- DUPONT. 2015. Company Website. <http://www2.dupont.com/corp/en-us/our-company/index.html> visited 20 August 2015
- EICHENGREEN, Barry. Golden Fetters: The Gold Standard and the Great Depression, 1919–1939. 1992. Oxford: Oxford University Press.
- FAMA, Eugene. 1956. Random Walks in Stock Market Prices. Financial Analysts Journal, September/October 1965 (reprinted January-February 1995)
- FEDERAL RESERVE COMMITTEE ON BRANCH, GROUP AND CHAIN BANKING. 1931. Statistical Data.
https://fraser.stlouisfed.org/scribd/?title_id=811&filepath=/docs/historical/federal%20reserve%20history/frcom_br_gp_ch_banking/progress_rpt_statdata19311106.pdf#scribd-open visited 18 August 2015
- FERGUSON, Niall. 1999. The House of Rothschild: Volume 1: Money's Prophets: 1798-1848, New York: Penguin Books
- _____. 2000. The House of Rothschild: Volume 2: The World's Banker: 1849-1999, New York: Penguin Books
- _____. 2008. The Ascent of Money, New York; Penguin
- FRIEDMAN, Milton and SCHWARTZ, Anna Jacobson. 1963. A Monetary History of the United States, 1867-1960. Princeton: Princeton University Press
- GALBRAITH, John Kenneth. 1955. The Great Crash 1929, London: Penguin (reprint 2009)

- GEORGE WASHINGTON UNIVERSITY, Eleanor Roosevelt Papers Project
<http://www.gwu.edu/~erpapers/teaching/glossary/great-depression.cfm>
 visited 2 August 2013
- GRAHAM, Benjamin and DODD, David. 1951. *Securities Analysis*: New York: McGraw-Hill Book Company (reprint 2009).
- GRAHAM, Benjamin. 1949. *The Intelligent Investor*: New York: HarperCollins Books (reprinted 2005)
- GRAHAM-NEWMAN CORPORATION. *Letters to Partners 1946 – 1958*.
http://www.rbcpa.com/benjamin_graham/Graham-Newman_letters.html
 visited 28 March 2013
- HESSE, Jan-Otmar, KOESTER, Roman, PLUMPE, Werner. 2014. *Die grosse Depression. Die Weltwirtschaftskrise 1929-1939*. Capmus Verlag: Frankfurt /New York
- KAHAN, M. 1992. *Securities Laws and the Social Costs of Inaccurate Stock Prices*, *Duke Law Journal* 41: 977-1044
- KALDOR, Nicholas. 1939. *Speculation and Economic Stability*. *The Review of Economic Studies*, 1939 - Vol. 7, No. 1 (Oct., 1939), pp. 1-27. Oxford University Press.
<http://www.jstor.org/stable/2967593> visited 6 November 2015
- KEYNES, John Maynard. 1936. *The General Theory of Employment, Interest and Money*. Basingstoke, Hampshire: Palgrave Macmillan (reprint 2007).
- _____. *A Career Timeline*,
<http://www.maynardkeynes.org/keynes-career-timeline.html>;
 visited 27 February 2012
- KINDLEBERGER, Charles P. 2005. *Manias, Panics and Crashes: A History of Financial Crises*. 5th ed. New York: Basic Books
- LEFEVRE, Edwin. 1994. *Reminiscences of a Stock Operator*, Hoboken, NJ: Wiley
- MCCULLEY, Paul. 2009. *The Shadow Banking System and Hyman Minsky's Economic Journey*
http://media.pimco-global.com/pdfs/pdf/GCB%20Focus%20May%2009.pdf?WT.cg_n=PIMCO-US&WT.ti=GCB%20Focus%20May%2009.pdf visited 12 November 2010
- MINSKY, Hyman P. 1986. *Stabilising an Unstable Economy*. Yale: Yale University Press.
- _____. 1992. *The Financial Instability Hypothesis*. The Jerome Levy Economics Institute Working Paper No. 74. Available at SSRN: <http://ssrn.com/abstract=161024> or doi:10.2139/ssrn.161024 visited 12 November 2010
- PAPADIMITROU, Dimitri B., WRAY, L. Randall, *The Economic Contributions of Hyman Minsky: varieties of capitalism and institutional reform*. 1998. *Review of Political Economy*. London: Routledge
- THE QUOTATIONS PAGE, Quote Details: John Maynard Keynes: The market can stay...
<http://www.quotationspage.com/quote/38206.html> visited 27 February 2012
- ROBERT, Dennis. 2012. *An Overview of Hedge Funds* available at:
<http://www.publicpensionsonline.com/members/images/Overview%20of%20Hedge%20Funds%20PERAC.pdf>
 visited 5 Jan 2012
- RCA (1925-1929) http://www.gold-eagle.com/editorials/rca_msft.html, visited 15 June 2012
- REINHART, Carmen M. and ROGOFF, Kenneth. 2009. *This Time Is Different: Eight Centuries of Financial Folly*, Princeton University Press, Princeton and Oxford
- ROUBINI, Nouriel. 2010. *Crisis Economics*. Penguin Books. London.
- ROUWENHORST, K. Geert. 2004. *The Origins of Mutual Funds*. Yale ICF Working Paper No. 04-48. Available at SSRN: <http://ssrn.com/abstract=636146>
- SCHMIDT, Jacob. 2000. *Credit Markets and Credit Derivatives*, London: SFP-International Limited
- _____. 2001a. *Hedge Funds of Funds: a panacea for the discerning investor?* London: European Fund Manager. Issue 20. March 2001
- _____. 2001b. *Hedge Fund returns: are the best times over?* London: Risk & Reward, October 2001.
- _____. 2002a. *Fonds de fonds; sont-ils trop chers?* Lausanne: Banque et Finance, (Special Edition 2002)

- _____. 2002b. Benchmarking hedge fund returns: will indices destroy London: Risk & Reward. May 2002.
- _____. 2003a. The return of global macro. Why investors should be wary of irrational expectations. In: SwissHedge, A Review of Developments in the Hedge Fund Industry, 1st Quarter 2003. p.23-27
- _____. 2003b. Due diligence: eternal vigilance. London: Hedge Fund Review, June 2003. p. 36-37.
- _____. 2011. Prime Brokerage and Hedge Funds, London: SFP-International Ltd.
- _____. 2012. Managing Hedge Fund Risk. London: SFP-International Ltd.
- _____. 2012a. Understanding Hedge Fund. London: SFP-International Ltd.
- _____. 2012b. Analysis of Hedge Fund Styles and Strategies. London: SFP-International Ltd.
- _____. 2017. The Role of Speculators in Major Market Crashes - Comparative historical analysis of the role of funds, hedge funds, leveraged institutions and other market participants in the market crashes of 1929 and 2008. Doctoral Thesis (PhD in Finance). University of Graz, Austria.
- SCHNYDER, MARC. 2002. Die Hypothese der finanziellen Instabilität, Dissertation, Universität Freiburg, Schweiz
- TEMIN, Peter. Did monetary forces cause the Great Depression? 1976. New York: W. W. Norton & Company
- UNITED STATES. CONGRESS. SENATE. COMMITTEE ON BANKING AND CURRENCY. 1931. Operation of the National and Federal Reserve Banking Systems. Hearings before a Subcommittee of the Committee on Banking and Currency, Seventy-First Congress, Third Session, Pursuant to S. Res. 71, <https://fraser.stlouisfed.org/title/?id=675> visited 18 August 2015
- UNITED STATES. CONGRESS. SENATE. COMMITTEE ON BANKING AND CURRENCY. 1932-1941. Stock Exchange Practices. Hearings before the Committee on Banking and Currency Pursuant to S.Res. 84 and S.Res. 56 and S.Res. 97 <https://fraser.stlouisfed.org/title/?id=87> visited 18 August 2015
- UNITED STATES. CONGRESS. 2010. Frank Wall Street Reform And Consumer Protection Act. <http://www.gpo.gov/fdsys/pkg/PLAW-111publ203/html/PLAW-111publ203.htm> visited 23 Dec 2012
- UNITED STATES. LIBRARY OF CONGRESS. 2010. Bill Summary & Status - 111th Congress (2009 - 2010) - H.R.4173. <http://thomas.loc.gov/cgi-bin/bdquery/z?d111:HR04173:@@L&summ2=m&#major%20actions> visited 23 December 2012
- U.S. SECURITIES AND EXCHANGE COMMISSION. 2010. The Laws That Govern the Securities Industry. <http://www.sec.gov/about/laws.shtml#df2010> visited 14 February 2013
- U.S. SECURITIES AND EXCHANGE COMMISSION. 2012. Securities Act of 1933. <https://www.sec.gov/about/laws/sa33.pdf> visited 20 August 2015
- U.S. SECURITIES AND EXCHANGE COMMISSION. 2012. Securities Exchange Act of 1934. <https://www.sec.gov/about/laws/sea34.pdf> visited 20 August 2015
- U.S. SECURITIES AND EXCHANGE COMMISSION. 2012. Investment Company Act of 1940. <http://www.sec.gov/about/laws/ica40.pdf> visited 20 August 2015
- U.S SECURITIES AND EXCHANGE COMMISSION. 2013. How the SEC Protects Investors, Maintains Market Integrity, and Facilitates Capital Formation, <http://www.sec.gov/about/whatwedo.shtml#create> visited 20 August 2015
- U.S. SENATE COMMITTEE ON HOMELAND SECURITY & GOVERNMENTAL AFFAIRS. 2013. JPMorgan Chase Whale Trades: A Case History of Derivatives Risks and Abuses. <http://www.hsgac.senate.gov/subcommittees/investigations/hearings/chase-whale-trades-a-case-history-of-derivatives-risks-and-abuses> visited 20 August 2015
- WEST, Kenneth. 1986. A Specification Test for Speculative Bubbles. NBER Working Paper No. 2067. <http://www.nber.org/papers/w2067> visited 6 November 2015
- WIKIPEDIA. Minsky Moment. http://en.wikipedia.org/wiki/Minsky_moment visited 11/08/2013
- _____. Montgomery Ward. http://en.wikipedia.org/wiki/Montgomery_Ward visited 15 June 2012

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<http://www.aviationcrossing.com/article/1010010/The-Wright-Brothers-Aeronautic-Inventors/> visited 15 June 2012